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PRIZE PLENARY PAPERS

Session 09.00 – 10.30
Thomas Paine Lecture Theatre

10.00 Prize Plenary 1

Assessing the effectiveness of an IT-based pharmacist-led intervention aimed at reducing proportions of patients at risk of medication errors in family practice: the PINCER Trial.

Presenter: Sarah Rodgers
Coauthors AJ Avery, JA Cantrill, S Armstrong, M Eden, D Kendrick and A Sheikh

Introduction

Medication errors are an important source of preventable morbidity and mortality in family practice. Although pharmacists have potentially important roles in the prevention of medication errors, evidence for the effectiveness of pharmacist interventions is conflicting. The aim of this study was to determine whether a pharmacist-led IT-based intervention using educational outreach and dedicated support is more effective than simple feedback in reducing the proportions of patients at risk from specific medication errors in family practice.

Methods

Two-arm cluster randomised controlled trial of 72 English family practices. Thirty-six practices received simple computerised feedback on specific medication errors and 36 received simple computerised feedback plus a complex pharmacist-led intervention. Proportions of adult patients at risk of specific medication errors were compared between arms post-intervention using random effects logistic regression adjusted for baseline medication-error rate and other potential confounding factors. Over 30,000 patients were at risk in each arm at baseline. Secular trends in the outcome measures of interest were examined using the QRESEARCH database.

Results

Analysis of six-month post-intervention data showed significant differences between treatment arms for the three primary outcome measures. Patients in the pharmacist intervention arm were significantly less likely to have been prescribed a non-selective NSAID without a proton pump inhibitor if they had a history of peptic ulcer (OR 0.58, 95%CI 0.38, 0.89), to have been prescribed a beta-blocker if they had asthma (OR 0.73, 95% CI 0.58, 0.91) or (in those aged 75 years and older) to have been prescribed an ACE inhibitor or diuretic without a measurement of urea and electrolytes in the previous 15 months (OR 0.51, 95% CI 0.34, 0.78). Informal comparison with changes in QRESEARCH practices indicated that reductions achieved in the simple feedback arm were likely to have been related to secular trends rather than the intervention.

Conclusions

This trial has shown that a pharmacist-led IT-based complex intervention is more effective than simple feedback in reducing the proportions of patients at risk from specific prescribing and monitoring errors in family practice. Given the high risk of serious iatrogenic harm associated with these errors, reductions of the magnitude observed in this trial are likely to be clinically important.

10.15 Prize Plenary 2

The impact of the seven-valent pneumococcal conjugate vaccination (PCV7) programme on childhood hospital admissions for bacterial pneumonia and empyema in England: national time-trends study, 1997-2008

Presenter: Joanna Murray
Coauthors E Koshy, J Murray, A Bottle, M Sharland, S Saxena

Introduction

Childhood bacterial pneumonia and empyema rates have reportedly increased in recent years in Europe. In September 2006, the seven-valent pneumococcal conjugate vaccination (PCV7) was introduced to the childhood national immunisation programme in England, following a successful PCV7 campaign in the United States. The aim of this study was to

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investigate the national impact of this programme by examining hospital admissions for childhood bacterial pneumonia and empyema in England, before and after the introduction of PCV7.

Methods

We examined Hospital Episode Statistics data of children aged <15 years admitted to all NHS hospitals in England, with a primary diagnosis of bacterial pneumonia and empyema from 1997 to 2008. We calculated annual crude and age-sex adjusted hospital admission rates for bacterial pneumonia and empyema.

Results

Admission rates for bacterial pneumonia and empyema increased from 1997 to 2006, then declined to 2008. The relative risk (RR) for bacterial pneumonia admissions between 2004 and 2006 was 1.19 (95% CI 1.16-1.22) and 0.81 (95% CI 0.79-0.83) between 2006 and 2008. For empyema, the corresponding RR was 1.77 (95%CI 1.38-2.28) between 2004 and 2006, and 0.78 (95%CI 0.62-0.98) for admissions between 2006 and 2008.

Conclusions

Childhood bacterial pneumonia and empyema admission rates were increasing prior to 2006 and decreased by about 20% between 2006 and 2008, following the introduction of the PCV7 pneumococcal conjugate vaccination to the national childhood immunisation programme.

FRIDAY
Closing Session 12.30 – 13.30
Thomas Paine Lecture Theatre

Brisbane Initiative Prize Paper

Realising the potential of the family history in coronary heart disease risk assessment: matched-pair cluster randomised controlled trial

Nadeem Qureshi, Sarah Armstrong, Paula Saukko, Paula Dhiman, Jo Middlemass, Phil Evans, Joe Kai for ADDFAM study group

INTRODUCTION

In England all individuals in the age-range 40 to 74 years will be offered a cardiovascular risk assessment over the next 7 years. Some of the risk factors, such as, blood pressure and cholesterol level are reasonably accurately recorded. More recently, the family history has been incorporated. The traditional approach to identifying familial risk is a simple enquiry during the consultation but is this information adequate? The study will evaluate the additional value of systematically collating family history into Cardiovascular Disease (CVD) risk assessment in primary care.

METHODS

Exploratory cluster randomised trial with 24 general practices paired according to deprivation levels and ethnicity. One of each pair assigned to control and intervention group. Participants in the control group received standard CVD risk assessment alone, whilst those in the intervention group also had their family history of CHD systematically collected using a structured self-administered questionnaire. All participants at high CVD risk (> 20% risk over next 10 years) were invited for lifestyle advice; with participants in the intervention group also informed about their familial risk. The primary outcome measure was the difference in CVD risk with and without taking account of family history. Secondary measures included self-reported risk reducing behaviour for lifestyle change and anxiety levels (Spielberger State-Trait Anxiety Inventory).

RESULTS

The proportion of patients that fell into the high CVD risk category in the intervention group increased from 13% (49) with standard CVD risk assessment to 18% (69) when assessment took account of the family history. Six months post-assessment, in both study groups, there was no significant change in anxiety scores from baseline (intervention group: mean difference in score 0.49 95% CI -0.88 to1.85) Using simple logistic regression to compare intervention to control group, proportion of participants who reduced/quit smoking was of borderline significance (OR 6.55; 95% CI 2.04 to 21.04) whilst uptake of exercise was

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not significantly different (OR 0.96; 95% CI 0.62 to 1.50).

CONCLUSION

Systematically collecting family history led to a 5% increase in patients at high CVD risk (that is, at greater than 20% risk of CVD over next 10 years) with the process leading to no increase in anxiety. Under current recommendations such patients should be offered intensive lifestyle advise and considered for lipid-reducing medication. However, in the study, few individuals had actually adopted risk-reducing behavior. More important than self-reported behavior change is actually improvement in health. A study over a longer period is merited to explore such clinical outcomes.

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ORAL PARALLEL SESSIONS

001

The prevalence of transient neurological symptoms in the older population: a report of the Medical Research Council Cognitive Function and Ageing Study

Presenter: Nahal Mavaddat
Coauthors N Mavaddat, D Lasserson, G Savva, C Brayne, J Mant

Introduction

Transient ischaemic attack (TIA) is a well recognised risk factor for stroke. The National Stroke Strategy recommends patients presenting with transient neurological symptoms suggestive of TIA be seen urgently and receive immediate treatment if the diagnosis is confirmed. The prevalence of 'known' TIA within the older UK population is available, but it is not clear how many people with TIA symptoms do not present to services. Therefore, it is relevant to determine the prevalence of transient neurological symptoms.

Methods

The MRC Cognitive Function and Ageing Study (MRC CFAS) is a longitudinal population-based study of people in their 65th year and above sampled from Family Health Service Authority lists from six centres around England and Wales. All participants were interviewed at baseline in 1991, including being asked if they had ever experienced any sudden onset of speech or sight disturbance or limb weakness which had lasted less than a day.

Results

13,004 elderly individuals from five centres were included in the analysis, of which 11903 had never suffered a stroke. Of these, 271 (2.3%) reported sudden problems with speech, 872 (7.4%) with sight, and 596 (5.1%) weakness in a limb better after a day. 1456 (12.2%) reported at least one symptom. There was no significant difference between genders, but an increased reporting of weakness and visual symptoms in those in lower social classes ($p<.0001$). Cardiovascular co-morbidity was associated with increased reporting of symptoms.

Conclusions

This study suggests a high prevalence of transient neurological symptoms in the elderly, with over 10% reporting having experienced at least one symptom. This is about 10 times the prevalence of established TIA (around 1.3% in the older population). It is uncertain what proportion of these symptom reports represent genuine past TIA. Further analysis of the incidence of subsequent strokes in this population using follow-up data from the MRC CFAS will clarify this and help determine whether there might be value in identifying those with transient neurological symptoms, given that a past TIA is associated with a long-term increase in the risk of stroke.

002

Development of an interactive patient self-management web-based intervention: Regul-8: A self-management programme for Irritable Bowel Syndrome (IBS).

Presenter: Hazel Everitt
Coauthors R Moss-Morris, L Tapp, A Sibelli, N Coleman, L Yardley, P Little

Introduction

IBS affects 10–22% of the UK population, with NHS costs over £200 million a year. Abdominal pain, bloating and altered bowel habit affect quality of life, social functioning and time off work. GP treatment relies on a positive diagnosis, reassurance, lifestyle advice and drug therapies, but many patients suffer ongoing symptoms. CBT and self-management have been shown to be helpful for patients with IBS, but poor availability in the NHS restricts its use. Development of a web-based self-management programme based on CBT principles has the potential to increase access to CBT with minimal costs.

Methods

A paper-based and therapist supported self-management programme was adapted to a self-management web-based format using the LifeGuide software tool. Input from health psychologists, GPs, a gastroenterologist and patients with IBS informed the development. Four patients with IBS identified through GP practices in the South of England worked through the

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sessions and provided feedback on the programme using the 'Think Aloud' method.

Results

An eight session self-management programme has been developed including sessions on: Understanding your IBS, Assessing your symptoms, Managing Symptoms and Eating, Exercise and Activity, Identifying your thought patterns, Alternative thoughts, Managing Stress and Sleep, Flare-ups and maintaining improvement. Interactive components were developed to maintain interest and increase therapeutic benefits: including creating a personal model, symptom diaries, goal sheets, and thought records to help users to remember advice and reflect during the programme. The interaction with the intervention provides a "substitute" for the therapist, personalises programme to the user and enables users to focus on personally relevant aspects of the programme.

Conclusions

The Regul-8 self-management programme is currently being trialled in a pilot RCT with participants randomised to the web-based intervention, the web-based intervention with additional CBT telephone support or no web-based intervention to assess its efficacy.

003

Medical Management of Heavy Menstrual Bleeding: Understanding women's experiences

Presenter: Gail Prileszky
Coauthors D Fraser, J Kai

Introduction

Heavy menstrual bleeding is known to impact on health, wellbeing and social functioning. To date there has been little research examining women's experiences of treatment for this complex condition. This longitudinal qualitative study seeks to explore women's experiences of medical treatment for heavy menstrual bleeding with particular reference to treatment preferences, quality of life and possible cultural variation amongst women.

Methods

Data were generated by a series of two semi-structured interviews conducted with women who had either consented to participate in a randomised controlled trial (the ECLIPSE Trial investigating effectivness of current medical treatments), or had declined due to an expressed treatment preference. The study sample was purposefully selected to include a wide range of demographic characteristics and medical treatment options. Interviews were audiotaped and transcribed verbatum before being coded. A grounded approach to analysis was used with concepts emerging from coded data. Data generation and analysis were iterative and continued until theoretical saturation was reached.

Results

Ultimately twenty-seven women were purposefully selected and participated in the interview series, ten of whom expressed a treatment preference, and included a broad range of demographic characteristics and treatment options. Expectations of positive treatment outcomes were high but in the experience of most, these were not met, particularly in the initial stages of treatment. Treatment preferences appeared to be influenced by knowledge gained from peers, with communication with health professional being affected by gender. For many women impact on quality of life was determined by their perceived ability to continue with their roles and responsibilities, both at home and in the workplace.

Conclusions

This study adds to understanding of women's experiences of medical treatment for heavy menstrual bleeding, particularly relating to treatment preferences and how quality of life changes over time. The data provides insights that can inform shared decision making concerning heavy menstrual bleeding in health encounters between women and health professionals.

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004

Dealing with uncertainty: Promoting collaborative working between care homes and primary care to provide end of life care for people with dementia

Presenter: Steve Iliffe
Coauthors C Goodman, I Machen
E Stevenson

Introduction

Approximately, a third of all people with dementia live in a care home (Knapp et al., 2007). The difficulties surrounding recognition of when people with dementia are approaching end-of-life is well documented and this can lead to sub-optimal end-of-life care, unnecessary interventions and unplanned hospital admissions (Mitchell et al. 2004; Goodman et al. 2009). Evidem End-of-life is part of the wider NIHR funded Evidem programme (www.evidem.org.uk). The study is informed by national initiatives that support end-of-life care for people living in care homes, and helps to address objectives eleven and twelve of the National Dementia Strategy (Department of Health, 2009). The overall aim of the study is to inform how primary health care services can work with care homes to ensure that older people dying with dementia have continuity of care and care home staff are supported.

Methods

The study is in two phases. Phase one tracked over two years the care needs and service use of older people with dementia living in six care homes. This involved case note review, post-death analyses and interviews with NHS and care home staff as well as with people with dementia resident in the care homes. Phase two is informed by these findings and is using a case study approach to develop with care home staff and primary health care services strategies for end of life care for people with dementia that are embedded in the everyday encounters and working of primary health care staff in care homes.

Results

133 (62.1 %) people with dementia were recruited to the study. Over two-thirds of the participants were female, the median age was 85 years, and the mean number of long term conditions, as recorded in the care note documentation, was 2.41 (SD 1.44). 43.4% (56) had no documentation of discussions surrounding end-of-life and their preferred priorities of care. To date (March 2010) twenty-six older people with dementia have died. Preliminary post-death analyses show that the majority had been admitted to hospital in the past year, although eight of these had returned and died in their care home. Interview findings demonstrated that there were frequent opportunities for care home and NHS staff to work together and review the needs and care of residents with dementia, however this was shaped by how dying was defined, how NHS and care home staff interpreted their responsibilities, and the difficulties of making decisions when there was uncertainty around prognosis.

Conclusions

There is an increasing interest in and use of frameworks and assessment tools that can support end-of-life care for people with dementia. This presentation will argue that to embed these practices in care homes there is a need to develop strategies that optimise care home staff's involvement in working with primary care professionals, and sustain patterns of collaborative working that can address the complexities and uncertainties that arise when providing end of life care for this population.

005

Resources for Effective Sleep Treatment (REST): case study of engaging general practice teams to improve the quality of care for patients presenting with sleep problems

Presenter: A Niroshan Siriwardena
Coauthors M Tilling, F Togher, K Ward, Dr R Orner, Prof M Dewey

Introduction

Sleep problems are common with perceptions that management should be improved in general practice. There is considerable evidence of underuse of sleep assessment tools and psychological treatments such as cognitive behavioural therapy for insomnia (CBTi), continuing evidence of inappropriate long term prescribing of hypnotics and a perception of

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poor practice among patients and practitioners. The Resources for Effective Sleep Treatment (REST) project aimed to study new approaches and models for implementing sleep assessment methods and CBTi into routine practice in a large rural county as part of a wider quality improvement programme.

Method

We used a multiple case study approach and logic model to describe how we approached the problem of engaging general practitioners in improving sleep management in one rural county. Using practices as the units of analysis we describe how we (re)framed the problem, developed solutions and saw the impact of these on changing practice. We used qualitative and time series analysis of prescribing to show changes in care over time.

Results

Within two years of starting, over one third of practices (36/102) in the county had participated in the quality improvement project with evidence of change in routines in some practices. We gathered evidence on what care patients currently received and what they needed, how practitioners responded and how they could change practice, how practice teams redesigned processes of care and the impact of these changes on quality of care and prescribing for sleep problems.

Discussion

We used a range of approaches to understand the need for and receptiveness to change in management of sleep problems, how change could be introduced and how these changes could be spread more widely. Potential problems of generalisability were addressed through triangulating evidence. An approach using multiple methods sequentially and concurrently, to understand the problem of sleep management and how to improve it, has helped inform development of a multidisciplinary model for management of sleep problems in primary care. 'Problem focused therapy' uses careful assessment and modified CBTi for insomnia, which if adopted more widely will potentially improve the quality of patient care in the primary care treatment of insomnia.

006

Qualitative study of the effect of a quality improvement collaborative for better management of sleep problems presenting to primary care

Presenter: Roderick Orner
Coauthors Prof A N Siriwardena, K Ward, Dr R Orner

Introduction

Sleep problems are common with scope for improving sleep management in general practice. There is considerable evidence of inappropriate long term prescribing of hypnotics and underuse of psychological treatments such as cognitive behavioural therapy for insomnia (CBTi). We aimed to investigate practitioners' experience of the feasibility and practicability of implementing sleep assessment tools and non-pharmacological interventions for sleep management in primary care.

Methods

We set up a Quality Improvement Collaborative (QIC) with eight general practices in Lincolnshire, East Midlands, UK as part of the Resources for Effective Sleep Treatment (REST) project to study potential new approaches for implementing sleep assessment methods and CBTi in practice. The project team met monthly with practice teams to share learning about sleep management and data were collected using audiotapes to understand the facilitators, barriers and changes that practices were making as a result of the QIC. Audiotapes were transcribed verbatim and thematic analysis was carried out with the aid of MAXQDA.

Results

Meetings with each practice team (2 each) and the collaborative group (4) during the QIC were analysed. Nine themes emerged: engagement of staff, practitioner views of different tools, barriers to implementing the sleep tools and techniques, practitioner and patient preconceptions and expectations of treatment, educational and support needs of patients and staff, changes initiated/to be

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initiated by practices and the importance of a tailored approach.

Conclusions

Practitioners' preconceptions, attitudes, beliefs and educational needs needed to be addressed for successful implementation of sleep tools and techniques.

Qualitative methods for collecting and analysing data were invaluable in understanding the factors which helped bring about change, how change happened and the effect of the change on process of care.

A collaborative approach utilising quality improvement techniques informed development of an interdisciplinary model for management of sleep problems in primary care: 'problem focused therapy'. This uses a consultation approach comprising careful assessment and use of modified CBTi for insomnia in the consultation, which is being investigated in an exploratory randomised controlled trial. If 'problem focused therapy' is successful then we expect a substantial improvement in the quality of patient care in the primary care treatment of insomnia.

007

The occurrence of patellofemoral disorders across the adult lifespan: what can GP consultation data tell us?

Presenter: Laurence Wood
Coauthors S Muller; GM Peat.

Introduction

Patellofemoral (PF) disorders are thought to account for a significant proportion of knee problems throughout adulthood, from non-specific anterior knee pain (AKP) in adolescence to patellofemoral osteoarthritis in later life. However, our understanding of these disorders comes largely from referred populations in sports medicine and orthopaedic settings, dealing with specific disorders, such as chondromalacia or bursitis, etc. Our aim was to use routinely collected general practice morbidity records to provide population estimates of the occurrence of all PF disorders across the adult lifespan.

Methods

Cross-sectional analysis of consultation records from eight, fully computerised, audited general practices in North Staffordshire from 2006 (part of the CiPCA database). From a list of all knee-related Read codes we identified 77 as specifically relating to PF disorders. These were grouped into the following categories: patellofemoral osteoarthritis, AKP, osteochondritis, maltracking/subluxation/dislocation, patellofemoral disorder, traction enthesopathies, chondromalacia, fractures/fracture-dislocations, tendonitis, bursitis, patellar tendon rupture, other patella. All knee-related and PF consultations were then extracted. Annual person-consulting prevalence rates for any knee-related consultation and then for each category of PF disorder were calculated, stratified by age (15-29, 30-44, 45-59 75+ years), and expressed as rates per 10,000 persons. For comparison, we calculated prevalence estimates for consultations coded as knee osteoarthritis.

Results

Of the 57,555 individuals aged 15 years and over registered with the eight general practices in 2006, 1782 made a knee-related consultation, of whom 303 were consulting for a PF disorder (prevalence rate 310 and 53 per 10,000 persons per year respectively). The categories of 'anterior knee pain' and 'bursitis' were found across all age strata (37 and 8 per 10,000 persons per year). Numbers specifically diagnosed with patellofemoral osteoarthritis were small (2 per 10,000 persons, compared with 89 per 10,000 persons for knee OA) and most appeared in 60+ year olds). The remaining PF diagnoses were made rarely or not at all.

Conclusions

GP consultation data provides limited information on the occurrence of PF disorders. GPs do not make specific patellofemoral diagnoses, preferring non-specific symptom codes. AKP was seen equally commonly by GPs across all age-strata, contradicting the received wisdom

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that AKP problems are most common amongst younger adults.

008

Aherence, resistance, and the dilemmas of ageing: early findings from the ATOM study into bisphosphonate uptake in older women

Presenter: Charlotte Salter
Coauthors E Lenaghan, J Blacklock, A Howe on behalf of the ATOM project team

Introduction

osteoporotic fractures are costly and distressing, but new clinical and radiological diagnostic approaches may detect early risks and allow women to take prophylactic medication. The MRC SCOOP study is based on identifying effective screening approaches for risk of osteoporosis, on the assumption that older women will then take up and be adherent to bisphosphonates if recommended by their doctors. This study looks at the factors influencing adherence and whether there are hidden barriers to adherence that may undermine the public health gains of osteoporosis screening.

Methods

women recruited into the SCOOP study were also invited to take part in the ATOM study-a sample identified from uptake of prescriptions at three months were then invited to be interviewed in their homes. The prompts for the interviews focused on issues around how they perceived the risks conveyed to them by initial screening (DEXA and clinical), how they evaluated this, the choice to take medication or not, and factors influencing ongoing adherence. Purposive sampling led to interviews with 26 women, 17 of whom were found to be wholly or partially non-adherent within the first 3 months of therapy.

Results

In a sample of women aged 70 or older who had been recommended to take bisphosphonates and calcium, a substantive number were not using these at full potential clinical value. Factual knowledge appeared less important to their choices than narratives about the experience of others and dimensions of their own health beliefs – for example, knowing others who had suffered from complications of fractures appeared to be a stronger influence towards medication than the results of scans. The uncertainty of significance of scan findings, often perceived as compounded by discussions with clinical staff, may also contribute to ambivalence about medication. Many participants had endeavoured to actively understand the problem and take up treatments, but had experienced significant side effects, which when coupled with other more immediate health concerns acted as a deterrent to adherence. Women whose interviews suggested a strong internal locus of control and ability to self-actualize were often concerned to hear that their efforts to keep themselves fit and healthy were not proving successful, and the impacts of further medicalization of life was a clear reason for some to resist treatment. The dominant discourse around structural weakness (‘crumbling’, ‘brittle bones’ ‘risk of breaks’) seemed to be derived from the ways in which health professionals portrayed the problem to women. Feelings about ageing strongly influenced the choices made.

Conclusions

Many older women may not accept preventive therapy for potential osteoporosis risk, which has clear implications for clinical outcomes. A model is emerging from the data of a cohort who are keen to preserve their health and are responsive to investigations and advice, but who balance this advice against the inconvenience and side effects of current therapies, and against the further medicalisation of their lives. Health professionals need to understand that the diagnosis of a new risk factor in its pre-symptomatic stage has significant psychological impacts on patients who are endeavouring to ‘do the right things’ for their health, and that the negative discourse around osteoporosis can be demotivating for women. Further research is being planned to understand why some women remain adherent in the long term in spite of co-morbidities and adverse psychological responses.

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009

The long-term course of back pain in primary care: a 7-year follow-up study

Presenter: Kate Dunn
Coauthors P Campbell, KP Jordan

Introduction

People with low back pain (LBP) commonly consult primary care. Many people experience LBP over several years, but most longitudinal studies follow people for a year or less. Characterising outcome with single follow-up points is also problematic, as more complex patterns of change are missed. Our objective was to describe the long-term course of LBP.

Methods

In 2001-2, patients consulting primary care with LBP completed monthly questionnaires for six months. Trajectories (recovering, persistent mild, fluctuating, severe chronic) of LBP for these six months were identified using longitudinal latent class analysis. In 2009, further questionnaires were sent to participants who consented to follow-up (n=228). Pain intensity and disability (Roland-Morris Disability Questionnaire) were collected, plus self-reported patterns of LBP since the original study.

Results

180 (79%) returned 7-year follow-up questionnaires. Among patients originally classified as 'recovering', 74% reported being mostly pain-free since the original study, with infrequent episodes of LBP, and they had low current mean pain (1.5) and disability (3.0) scores. Among those originally classified with 'persistent mild' trajectories, 71% reported being pain-free or having mild pain and occasional episodes for the 7-years, and had mean current pain and disability scores of 2.2 and 4.3. In the group originally having 'fluctuating' pain, mean current pain and disability scores were 4.8 and 7.8, and 65% recalled constant mild or moderate pain, with occasional or frequent intense pain episodes over the 7-years. Among patients originally classified with 'severe chronic' pain, 97% reported constant pain, frequently severe and often with repeated exacerbations, over the 7-years; current pain and disability scores were high (mean 6.3 and 13.0). Differences in 7-year pain and disability between trajectory groups defined in the original study were statistically significant ($p<0.001$).

Conclusions

Trajectories of LBP defined during the 6-months following primary care consultation predict the course of LBP over the subsequent 7-years. Patients originally characterised with trajectories indicating mild or occasional pain had no or low pain and disability years later. Few patients with fluctuating or severe LBP went on to report being pain-free. These results indicate that LBP status in the majority of primary care consulters remains static over long periods of time.

010

Activity Increase Despite Arthritis (AÏDA): results of a Phase II randomised controlled trial evaluating an active management booklet for hip and knee osteoarthritis (ISRCTN24554946)

Presenter: Nefyn Williams
Coauthors E Amoakwa, K Burton, M Hendry, J Belcher, R Lewis, K Hood, J Jones, P Bennett, RT Edwards, RD Neal, G Andrew, C Wilkinson

Introduction

'The Hip and knee Book' has been developed for patients with hip or knee osteoarthritis (OA) to address disadvantageous beliefs and encourage increased physical activity. The aims of this randomised controlled trial (RCT) were to test the effectiveness of this new booklet for patients with hip and knee osteoarthritis in influencing illness and treatment beliefs, and to assess the feasibility of conducting a larger definitive RCT in terms of health status and exercise behaviour.

Methods

One hundred and nineteen patients with OA hip or knee were recruited to a phase II pilot RCT comparing 'The Hip and Knee Book' with a control booklet. This trial assessed the feasibility of recruitment and randomisation, the suitability of the control intervention and outcome measurement tools, and an estimate of effect size.

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Outcomes included beliefs about hip and knee pain, beliefs about exercise, fear avoidance, level of physical activity, health status and health service costs.

Results

All outcomes improved in both groups with a small relative improvement in favour of the 'Hip and Knee Book' group. With the exception of fear-avoidance beliefs at one month these relative improvements were not statistically significant. Differences in adjusted mean change scores were as follows: illness beliefs -1.1 at one and three months; exercise beliefs -1.4 at one month, -2.6 at three months; fear avoidance beliefs -2.8 at one month (p=0.07), -0.1 at three months; WOMAC total score -0.7 at one month, -8.4 at three months; physical activity 871 METs minutes per week at one month, 1,263 METs minutes per week at three months; SF-12 physical score -1.7 at one month, 0.9 at three months; SF-12 mental score 1.9 at one month, 0.63 at three months; EuroQol EQ-5D 0.02 at one month, 0.04 at three months. Cost data and health economic results will be presented.

Conclusions

Recruitment and randomisation was feasible for a definitive phase III RCT. The implications for a future definitive trial will be discussed.

011

Consulting for Osteoarthritis: general practitioners' and patients' priorities

Presenter: Mark Porcheret
Coauthors Grime J, Main C, Dziedzic K, Croft P

Introduction

Research on the determinants of chronicity in long-term painful conditions, such as osteoarthritis (OA), suggest that the traditional biomedical model of OA should be replaced with a bio-psycho-social model. To what extent this is reflected in GPs' and patients' views on its management is less clear. Although older adults frequently consult their general practitioner (GP) with peripheral joint pain (in the main attributable to OA), surveys suggest the problem is often not adequately addressed in the consultation. It may not be a priority for the GP, or the patient, with the competing demands of other morbidities. This may affect attitudes of GPs and patients about the assessment and management of OA. The aim of this study is to describe the priorities of GPs and patients about the content of a 'model' OA consultation.

Methods

Two round Delphi consensus exercise with two expert groups: GPs with an interest in OA (n=32 invited) and lay participants with OA (n=23). Former members of the NICE OA guideline development group and members of the Arthritis Research Campaign National Primary Care Centre developed consultation tasks for the consensus exercise. The two expert groups were asked to consider, for a patient with knee pain, what should be included if "time was no object" (round 1) and in a ten-minute consultation (round 2). Tasks given the highest priority by the two groups were identified and compared with those not given priority.

Results

Sixty-one possible tasks were generated for consideration and 13 GP, and 14 lay, participants completed the consensus exercise. In round 2 all the GPs included eleven of the tasks and 80% or more of the lay group included eleven tasks, with six overlapping. Both groups prioritised tasks concerned with understanding the level of physical symptoms and functioning but not those assessing psychological distress or social circumstances. When planning treatment both groups prioritised the use of analgesia rather than tasks addressing lifestyle, such as weight loss and exercise.

Conclusions

The consensus exercise has identified which tasks GPs and patients prioritised. The results suggest that both groups perceive the consultation from a bio-medical perspective when prioritising tasks for that setting.

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012

How to better manage osteoarthritis: the development of a trial intervention.

Presenter: Mark Porcheret
Coauthors Main C
Grime J, Dziedzic K

Introduction

The MRC guidance on complex interventions promotes the use of theory in the development of the intervention. Implementation research uses a range of theory-based techniques to change practitioner behaviour. In developing a pilot cluster randomised controlled trial (RCT) to investigate the feasibility of implementing the NICE Osteoarthritis (OA) Guideline we needed to identify methods to enhance general practitioner (GP) consulting for OA. A framework for implementing an innovation was identified from the literature and has four initial stages: i) defining the innovation, ii) analysis of target group, iii) selection of techniques to change behaviour, and iv) selection of methods to evaluate change. We applied this framework to the development of a training package to change GPs' practice for OA.

Methods

i. Defining the innovation: a model OA consultation (for older adults consulting with joint pain - MOAC) was developed: based on the Calgary-Cambridgeframework,definedby a Delphi consensus exercise and refined by conceptual work.

ii. Analysis of target group: three advisory groups were used to analyse current practice,attitudes of the GPs to MOAC, and identify the targets for change.

iii. & iv. Behaviour change techniques and the evaluation of change: systematic reviews informed the techniques selected to change clinical practice and the methods to evaluate this change.

Results

The model OA consultation defined the key tasks for assessment, diagnosis, information giving and support for self-management. The findings from the advisory groups identified a number of targets for change including: awareness and understanding of the NICE OA Guideline, making a clinical diagnosis of OA and use of language when explaining OA. Several techniques were identified as appropriate for effecting change for these targets: demonstration of behaviour by others; rehearsal of, and feedback on, consulting skills; persuasive communication and prompts. Selected evaluation methods included: vignette questionnaires, audio-recorded simulated patient consultations and patient-report interviews.

Conclusions

The use of the framework provided a useful map for the development of a training package to implement a trial intervention. The success of this package in changing GP behaviour when consulting for OA will be evaluated as part of a pilot RCT.

013

'It didn't feel like my leg …': a qualitative study of patients' accounts of deciding how to respond to TIA or stroke symptoms.

Presenter: Kate Windridge
Coauthors K Windridge, A Wilson, J Willars, D Coleby, N Taub, C Weston, T Robinson

Introduction

There is consensus that stroke and TIA should be treated as medical emergencies. However failures to recognise or act quickly upon symptoms remain barriers to obtaining effective treatment. A recent national campaign (FAST) aimed to address delay by giving information about the nature of symptoms and their urgency. This report details preliminary findings from the qualitative part of a larger, mixed methods study of barriers to early assessment of TIA and stroke, recruiting over a period that included the FAST campaign. We explore how patients interpreted their symptoms, how they decided what action to take, and whether the FAST campaign contributed.

Methods

We conducted semi-structured interviews with 28 patients (and/or carers) sampled from a larger retrospective cohort study of patients presenting with TIA and stroke before, during and after the FAST campaign.

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They were purposively sampled to represent a range of characteristics (high vs low risk TIA & mild vs moderate/severe stroke diagnoses; long, medium & short delays in presentation / referral; ethnicity; social class; whether or not they lived alone; and mode of referral (e.g. via GP, walk-in centre or A&E)). Interviews were audio-recorded and transcribed verbatim. We used a systematic iterative method of analysis based on constant comparison.

Results

The FAST campaign highlights weakness of face, arms or legs; or speech problems. Participants who had had speech problems could relate to this. Others described not realising its relevance because they had experienced puzzling loss of control, strange sensations or inexplicable behaviour of affected body parts, rather than weakness. Visual problems were also unlikely to be recognised. Deciding what to do was particularly difficult for patients whose symptoms changed or disappeared.

Conclusions

Patients described difficulty interpreting TIA/mild stroke symptoms. This may be particularly true where symptoms are not the relatively unambiguous stroke symptoms described in the FAST campaign: the qualitative phase can suggest the existence but not the extent of this link. A common thread running through accounts of TIA/mild stroke symptoms, apart from visual ones, was that of loss of control over the affected body region; this, and transience (for TIA), are characteristics which could feature in future campaigns.

014

How well do hypertensive patients who have suffered a recent stroke or TIA monitor their blood pressure at home?

Presenter: Sally Kerry
Coauthors Cloud G, Ibison J, Oakeshott P, Bryan S, Kyei G, Tulloch J,

Introduction

Background: High blood pressure (BP) increases the risk of recurrent stroke. Home BP monitors are now widely available but evidence of benefit is unclear. We are conducting a trial in 381 hypertensive stroke patients to see if home BP monitoring with nurse support leads to lower BP after 12 months.

Objective: To describe stroke patients' use of home BP monitors one month after training.

Methods

187 patients, mean age 70 years (range 30 to 95), 59% male, who were randomised to the intervention, were visited at home by a research nurse and given a validated electronic BP monitor. They were shown how to use it and asked to record their BP three times daily for a week, and then weekly. They were advised to see their GP should the readings be consistently over the target of <130/80 mmHg. After one month patients were revisited at home.

Results

Of the 187 participants, 122 (65%) had a full set of readings, and 92% (157/171) were observed to have the correct technique in resting, cuff positioning and posture. Only 31 (17%) participants reported that home monitoring made them more worried about their BP of whom 12 reported high anxiety levels. Overall 111 (59%) of participants were monitoring according to protocol and without greatly increased anxiety. Patients with minor disability (Rankin score 0-1) or who were not anxious at baseline (FEAR questionnaire) were more likely than the remainder to be monitoring successfully (65% v 51%;p=0.035: 63% v 42%;p=0.031). Age and sex did not affect successful monitoring.

120 (64%) participants had more than half their readings over target at one month. Of these 86 (72%) recognised they had high readings, 62 (52%) contacted their GP and 45 (38%) either had their medication changed or were referred to a specialist.

Conclusions

Nearly two thirds of this group of stroke patients monitored their BP according to protocol, and half of those with BP consistently over target contacted their GP. More problems were experienced by patients with greater disability and anxiety at baseline, but older patients were as successful as younger ones.

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015

A Randomised Controlled Trial Of Telemonitoring And Self-Management In The Control Of Hypertension: Telemonitoring And Self-Management In Hypertension (TASMINH2)

Presenter: Richard McManus
Coauthors J Mant, EP Bray, R Holder, M Jones, S Greenfield, S Bryan, P Little, B Williams, FDR Hobbs.

Introduction

Controlling blood pressure is a key aspect of cardiovascular disease prevention, but current levels of blood pressure control are sub-optimal. Self-management of hypertension might lead to better control but is under researched. This study aimed to evaluate whether self-management of hypertension in a primary care setting results in better control of blood pressure.

Methods

Inclusion criteria were age 35-85, treated hypertension (2 or fewer antihypertensives) but not controlled below 140/90 mmHg at baseline. Participants were randomised to usual care or self-management. Self-management comprised home blood pressure monitoring with telemonitoring and self-titration of anti hypertensive medication following a plan predetermined by their general practitioner. The primary end point was change in mean systolic blood pressure (mmHg) between baseline and follow up at six and twelve months. Analysis was by intention to treat without imputation.

Results

527 patients were recruited from 24 UK general practices and 480(92%) were available for follow up after one year. Reduction in systolic blood pressure was significantly greater in the self-management group compared to usual care after both six months (3.7 mmHg, 95% CI 0.8-6.6, p=0.013) and 12 months (5.4 mmHg, 2.4-8.5, p<0.001). Reduction in diastolic blood pressure was also significantly greater for self-management after 12 months (2.7mmHg 1.1-4.2, p=0.001) but not six months (1.3mmHg, -0.3-2.6, p = 0.108). Results were similar regardless of age, sex, baseline blood pressure or the presence of a co-morbidity. Patients who self managed increased their antihypertensive medication more than those following usual care 2.1(1.9-2.3) vs 1.7(1.5-1.9) medications. Patients who self-managed were no more anxious and had no more side effects than those that did not.

Conclusions

Self-management of hypertension results in significant and worthwhile reductions in blood pressure which are maintained for at least twelve months. This reduction appears to be due to the increase in the number of anti-hypertensive drugs. Whilst not all patients will wish to self manage, it represents an important new option when blood pressure is not well controlled.

016

The difference between home blood pressure readings taken by a nurse or the patient is greater in those with higher blood pressure

Presenter: Sally Kerry
Coauthors Obeng-Tudah D, Khong T, Tulloch J,Ibison J,Oakeshott P

Introduction

Many patients have their own blood pressure monitors but GPs may be uncertain how to interpret their readings. The British Hypertension Society guidelines suggest that home blood pressures taken by patients may be 10/5mmHg lower than clinician taken blood pressures. But the evidence for true equivalence is limited. We are conducting a trial of home blood pressure monitoring (HBPM) in 381 hypertensive stroke patients. Objective: To compare BP readings taken by a research nurse at a home visit with those taken by stroke patients during the following four weeks.

Methods

187 patients who were randomised to the intervention were visited at home by a research nurse and given a validated electronic BP monitor. They were shown how to use it and asked to record their BP three times daily for a week, and then weekly. We calculated the difference between the average of the second and third

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readings taken by the nurse and those done by the patients over the first 4 weeks. The relationship between the difference and age, sex and average BP (average of nurse and home readings) was explored using regression.

Results

A total of 115 participants, mean age 70 year, 60% male, provided complete sets of home readings. Average BP was 133/75 mmHg (SD 15/11). BP taken by patients was lower than that taken by the nurse: difference, systolic 8.5 mmHg (95% CI 5.3 to 11.8), diastolic 4.4 (2.8 to 6.0). Regression analysis showed the difference increased with increasing average BP but there was no relationship with age or sex. In patients with BP below 130/80 mmHg the difference was 3.3/2.0 compared with 10.9/5.5 for patient with higher BP (p=0.023 SBP, p=0.043 DBP)

Conclusions

While the overall difference between patient and nurse home readings were similar to BHS recommendation of 10/5 mmHg, there was a strong relationship with average blood pressure. At lower levels of blood pressure, near the targets for patients with kidney disease and diabetes, the difference was much less. GPs should be aware that clinician readings of 130/80 mmHg are probably not equivalent to patient's home readings of 120/75 mmHg.

017

Inequalities in blood pressure control in patients with hypertension in Wandsworth, south London (2005 and 2007)

Presenter: Lena Barrera
Coauthors Azeem Majeed, Christopher Millett

Introduction

High blood pressure is the main risk factor for stroke and ischemic heart disease. Evidence from longitudinal studies show there is no specific threshold in this relationship. National Guidelines for cardiovascular disease recommend more stringent treatment targets than those set in the Quality and Outcomes Framework (QOF). We compared overall achievement and inequalities in blood pressure control using the treatment target in the British Hypertension Society (BHS) guidelines with those in QOF among patients with hypertension registered with general practices in south west London.

Methods

We identified hypertensive patients aged 17 years and over from electronic registers of 29 general practices in Wandsworth, south London. We calculated the percentage achieving BHS (140/90 mmHg) and QOF targets (150/90 mmHg) in 2005 and 2007. We compared achievement between age, gender, ethnic and deprivation groups. Factors associated with blood pressure control were evaluated by using logistic regression models.

Results

13,162 patients with hypertension were identified in 2005 rising to 15,761 in 2007. In 2007, the mean age was 64 years and 44% were male. 53% were from white, 23% were from black and 9% were from south Asian ethnic groups. 40% suffered from at least one other cardiovascular co-morbidity in both periods. 86% of patients achieved the QOF target in 2005 and 85% achieved this in 2007. The percentage of patients achieving the BHS target increased from 54% to 63% ($p < 0.001$) between 2005 and 2007. Increasing age, male sex and black ethnicity were associated with worse blood pressure control for both targets in 2005 (all $p<0.01$). In 2007, black ethnicity was no longer associated with worse blood pressure control but increasing age and male sex continued to be so.

Conclusions

The percentage of patients with hypertension achieving the BHS blood pressure target increased between 2005 and 2007 but remained the same for the QOF target. Inequalities in blood pressure control between age and gender groups have persisted but were no longer evident between black and white groups in 2007. The management of hypertension remains suboptimal in many patients.

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018

How quickly can we titrate antihypertensive medication? Systematic review modelling blood pressure response from randomised controlled trials

Presenter: Daniel Lasserson
Coauthors T Buclin
P Glasziou

Introduction

Control of blood pressure (BP) to targets reduces the risk of cardiovascular events yet the optimal interval for titrating antihypertensive medication is unknown. Rapid titration to reduce BP may be important after transient ischaemic attack but we do not know how quickly we can assess response. We set out to model the early blood pressure response using data from trials identified in a systematic review and to investigate how speed of effect is influenced by drug class.

Methods

MEDLINE, EMBASE and The Cochrane Library were searched for trials that reported data on initial change in systolic and diastolic BP after starting antihypertensives. Mean changes from baseline in successive weeks of treatment were used in non-linear mixed effects modeling with R software. BP response was modeled with an asymptotic equation, defined by the parameters of maximal reduction in blood pressure (Rmax) and time to reach 50% of maximal reduction (dynamic t1/2). Subgroups of trials were analysed to investigate drug class effects.

Results

Sixteen trials that randomised 2939 patients presented data sufficient for modelling. Drug half-lives varied from 2 to 24 hours. Based on a modelling of all trials, the time to reach 50% of maximal change for systolic and diastolic BP was six days (0.87 weeks [95% CI 0.70-1.04] and 0.87 weeks [95%CI 0.69-1.05] respectively). By 30 days medication had achieved 96.9% of maximal BP reduction. Differences between agents was modest. Calcium channel blockers showed a dynamic t1/2 for systolic and diastolic BP of 6 days (0.91 wks [95% CI 0.89-0.92] and 1 wk [95% CI 0.76 – 1.23] respectively). Angiotensin receptor blockers had a shorter systolic and diastolic dynamic t1/2 of 4 days (0.63 weeks [95% CI 0.46 – 8.00] and 0.47 weeks [95% CI 0.37 – 0.57] respectively).

Conclusions

Estimates of maximal reduction could be made quickly after starting antihypertensives, enabling clinicians to alter therapy if necessary. Steady drug levels would be reached in the first week so further reductions in BP beyond this are due to pharmacodynamic rather than pharmacokinetic processes. Differences may exist between drug classes in speed of effect which may affect drug choice after acute vascular events.

019

Incidence of type 2 diabetes using proposed HbA1c diagnostic criteria in the EPIC-Norfolk cohort: implications for preventive strategies

Presenter: Parinya Chamnan
Coauthors RK Simmons, NG Forouhi, RR Luben, KT Khaw, NJ Wareham, SJ Griffin

Introduction

Diabetes risk assessment has been proposed as part of the NHS health check programme, in spite of uncertainty about optimal strategies to identify individuals at high risk. HbA1c has recently been recommended as a diagnostic test for diabetes, at a threshold of 6.5%. Little evidence exists concerning the impact of using such diagnostic criteria on the prevalence and incidence of type 2 diabetes. We estimated the incidence and relative risk of type 2 diabetes defined by the newly proposed HbA1c diagnostic criteria in groups categorised by different baseline HbA1c levels.

Methods

Using data from participants in the EPIC-Norfolk cohort with repeat HbA1c measurements, we estimated the prevalence of known and previously undiagnosed diabetes at baseline (baseline HbA1c ¡Ý 6.5%) and the incidence of diabetes over 3 years. We also examined the incidence and corresponding odds ratios (OR) by different levels of baseline HbA1c. Incident diabetes was defined clinically (self-report at follow-up, prescribed diabetes medication or

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inclusion on a diabetes register) and/or biochemically (HbA1c >6.5% at follow-up).

Results

The overall prevalence of diabetes was 4.7%; 41% of prevalent cases were previously undiagnosed. Among 5,735 participants without diabetes at baseline (identified clinically and/or using HbA1c criteria), 72 developed diabetes over 3 years (1.3%; 95%CI 1.0 ¨C 1.5), of which half (49%) were identified via HbA1c result. Six percent of the total population had a baseline HbA1c in the range 6.0-6.4% but one-third of incident cases arose in this group. The cumulative incidence of diabetes in this group over 3 years was 7.0% (95%CI 4.8 ¨C 10.1), 15 times higher than in those with a baseline HbA1c of <5.0% (OR 15.5; 95%CI 7.2 ¨C 33.3).

Conclusions

The cumulative incidence of diabetes defined using a newly proposed HbA1c threshold in this middle-aged British cohort was 0.4% per year. Targeting interventions to individuals with an HbA1c of 6.0-6.4% might represent a feasible preventive strategy. However, such an approach would overlook two-thirds of incident cases, suggesting that complementary population-based strategies are also needed to reduce the growing burden of diabetes.

020

Peer support in Type 2 Diabetes: a cluster randomized controlled trial

Presenter: Susan M Smith
Coauthors G Paul, D Whitford, E O'Shea, T O'Dowd

Introduction

The prevalence of type 2 diabetes continues to rise and places pressures on healthcare systems worldwide. There is increasing focus on self-management and the WHO have highlighted the potential for peer support programmes to improve outcomes. This study aimed to evaluate the effectiveness of a face to face group peer support intervention for people with type 2 diabetes in a genera practice setting.

Methods

A cluster randomised trial was conducted between April 2007 and May 2009 in 20 general practices in the east of Ireland with 395 participants and 29 peer supporters. Each practice implemented a standardised structured diabetes care system. In the intervention practices peer supporters were identified by the practice staff and were trained and supported to deliver the intervention of nine peer group meetings over two years held in the general practice. Primary outcomes were HBA1c, total cholesterol, blood pressure and wellbeing. Secondary outcomes were BMI, healthcare utilization, medication adherence, diabetes self-care activities, self-efficacy and smoking. A cost effectiveness analysis and process evaluation was also carried out.

Results

At baseline participants in the control and intervention groups and the peer supporters were similar in terms of demographic, biophysical and psychosocial outcomes. All practices (100%) and 336/395 (85%) of participants were followed up. At follow-up there was no statistically significant difference between the intervention and control groups in all primary and secondary outcomes.

Twenty eight (97%) peer supporters were followed up. Due to the small numbers only descriptive analysis were conducted on this group and indicated improvements in peer supporter's outcomes. The process evaluation indicated that the intervention was delivered as intended but a significant minority of intervention patients (18%) failed to attend any of the peer support meetings.

Conclusions

This study successfully implemented a system of face to face group peer support for patients with type 2 diabetes in primary care. The intervention, though acceptable to participants and peer supporters, did not improve participant's biophysical, psychosocial or process of care outcomes. There is a need for further evaluation of peer support interventions before their widespread implementation, perhaps with a

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focus on targeting and supporting those with poor glycaemic control.

021

Exploring GPs' perspectives of providing and improving diabetes care

Presenter: Sheena Mc Hugh
Coauthors M O'Mullane (PhD), IJ Perry (Prof), C Bradley (Prof) on behalf of the National Diabetes Register Project.

Introduction

Health professionals are key players in the success or failure of quality improvement depending on their willingness to accept and adapt to changes in practice. The aim of this study was to explore GPs' experiences of providing diabetes care and their thoughts on the factors affecting its development.

Methods

Semi-structured qualitative interviews were conducted with 30 GPs to explore their experience of care provision in Ireland, opinions on the factors influencing the development of care and their attitude to registration and audit. The topic guide was informed by the findings of a preceding national survey on the organisation of diabetes care. Purposive sampling was used to satisfy 3 sets of inclusion criteria; (a) location (rural/urban), (b) computerised/non-computerised practice, (c) single-handed/group practice. Analysis was conducted using a pragmatic approach drawing on the Framework method.

Results

There were varying attitudes as to how diabetes care should be integrated between primary and secondary care settings. The locus of care varied across participant experiences from primary care based management to supplementing hospital-led care. Lack of access to auxiliary services and resources were among the common barriers to an effective community-based service. Those GPs who have developed a structured approach to diabetes care tended to do so as a 'labour of love'; most doing so without direct recompense. There were mixed attitudes towards the development of a national register. A number of GPs felt it should to be tailored to meet the needs of health professionals and patients, and not solely used as a research tool. There was ambivalence towards efforts to improve care based on previous experience in the Irish health setting.

Conclusions

Preliminary findings suggest there is a typology of care models in existence in Ireland with varying levels of involvement by GPs and diverse access to services. There were tentative attitudes towards quality improvement initiatives including the establishment of a register suggesting a sense of inertia towards organisational change. Extending high quality care to all patients with diabetes can no longer rely solely on the interest of care providers and may require commitment systems-level change.

022

Missed opportunites for diabetes prevention -short-term and long term monitoring of glycaemic status in women who have had Gestational Diabetes Mellitus in England

Presenter: Mary Pierce
Coauthors Jo Modder, Iman Mortagy, Heather Hughes, Anna Springett, Stephanie baldeweg

Introduction

Gestational Diabetes mellitus (GDM) identifies women at high risk of developing impaired glucose tolerance (IGT) and type 2 diabetes mellitus. In England women with GDM are managed by GPs (primary care) and specialists (secondary care). The English National Institute for Clinical Excellence (NICE) recommends these women have a fasting blood glucose (FPG) 6-weeks postnatally (short-term follow-up), and annually thereafter (long-term follow-up). There are no national data reporting whether doctors follow this guidance.

Aim

To describe the reported practice of consultant obstetricians and diabetologists, and general practitioners (GPs) caring for women with GDM.

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Methods
A national postal survey.
Postal questionnaires were sent to one obstetrician and one diabetologist in all obstetric units, and to a random 1/5 GPs in England, in 2008.
Results
Response rates- 60% (915/1532) GPs; 93% (342/368) consultants.
Most doctors thought that women with GDM should have short term follow-up for diabetes (80% GPs and 98% consultants).
There were significant differences between primary and secondary care. Significantly more specialists than GPs thought women should have short term follow-up, more specialists than GPs thought this should be done using a GTT (in contrast to the NICE recommendations), and more specialists than GPs thought that the hospital was responsible for that test.
As regards long term follow up, nearly a quarter of specialists do not recommend that GPs do this, and only 40 % of GPs systematically recall women for long term follow up.
There were significant differences between the practice of obstetricians and diabetologists even those working in the same unit, with more diabetologists than obstetricians thinking that GPs not hospitals were responsible for short term follow-up, asking GPs to recall women, and recommending a FBG rather than a GTT for long term follow up.
Conclusions
Reported practices do not follow the NICE guidelines, and in this condition which is managed across the primary secondary divide there are significant differences both between primary and secondary care and within secondary care about what tests should be done and by whom. These differences should be addressed and protocols agreed if women are to be properly followed up for diabetes after GDM, so avoiding missing opportunities for diabetes prevention and early detection. Consultants and GPs need education about the importance of long term follow-up and incentives to carry out long term follow-up may assist.

023

A randomised controlled trial of physical activity and dietary interventions for treatment of newly diagnosed type 2 diabetes: The Early ACTID Study

Presenter: Rob Andrews
Coauthors A Montgomery, A Cooper, D Sharp, T Peters, C Dayan

Introduction
Little evidence exists to guide use of behavioural interventions to treat newly diagnosed type 2 diabetes. An ideal treatment would improve glycaemic control, other cardiovascular risk factors and general well-being without side effects such as weight gain. Our aim was to investigate the effects on these outcomes of increased physical activity and intense dietary intervention.
Methods
The design was an individually-randomised, three-arm parallel trial. Recruitment was from 100 general practices in five centres in south west England. Participants were randomly allocated to Usual Care (UC), Intensive Dietary Advice (D), or Intensive Dietary Advice plus Increased Physical Activity (DE) in a 2:5:5 ratio, with DE v D as the primary comparison. Interventions lasted 12 months, with outcome assessment at 6 (primary) and 12 (secondary) months. Primary outcomes were HbA1c and blood pressure. Secondary outcomes included BMI, lipids, insulin resistance, physical activity and diabetes and hypertension medication.
Results
A total of 593 participants were randomised. The sample was predominantly male (65%), caucasian (96%), and non-smoking (92%), with 38% and 62% on diabetes and hypertension medication respectively. Baseline HbA1c, SBP and DBP means were 6.7%, 134mmHg and 79mmHg. Mean time since diagnosis was 28 weeks. For the primary comparison DE v D at 6 months, there was no evidence of differences for any of the primary outcomes. There was strong evidence that both intervention groups had lower HbA1c than usual care (D v UC,

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adjusted difference = -0.28, 95%CI -0.46 to -0.10; DE v UC, -0.33, -0.51 to -0.14), and there were corresponding effects on anthropometric outcomes, glucose, insulin and HOMA. The DE group were more active than both D and UC. Differences were largely maintained at 12 months. Medications did not differ at 6 months, but participants in UC were more likely to be on diabetes medication at 12 months.

Conclusions

This trial demonstrates that interventions aimed at producing sustained lifestyle changes among patients with newly diagnosed type 2 diabetes can improve glycaemic control, weight and insulin resistance compared with usual care.

024

Primary Care Staff Perceptions of a Diabetes Screening and Prevention Programme: the UEA-IFG Feasibility Study

Presenter: Nikki Murray
Coauthors T Scarpello, A Howe, N Murray, L Irvine, S Podmore, M Sampson on behalf of the UEA-IFG Study

Introduction

There are more than two million people in the UK with type 2 diabetes mellitus (T2DM). T2DM is preceded by a period of glucose intolerance (impaired fasting glucose-IFG, or impaired glucose intolerance-IGT). Screening programmes, such as the UEA-IFG study and the recently introduced national vascular screening programme, can detect IFG subjects for lifestyle intervention and diabetes prevention. As part of the UEA-IFG study, general practices were required to identify IFG participants. The research question for this qualitative sub-study is: Can we develop a programme that identifies IFG subjects, without substantial impact on GP practices, and how do practice staff perceive the programme value?

Methods

From 36 practices recruited for the study, ten were invited to participate in semi-structured qualitative tape recorded interviews. Selection was purposive, to ensure a wide demographic cross-section of surgeries, based on comments entered on questionnaires completed before and after programme screening by practice staff. Interviews took place between July and September 2009 within GP surgeries in Norfolk. Structured prompts were derived from framework of the programme and its outcomes, exploring specific issues around feasibility and implications for NHS and patients. Interviews were transcribed verbatim and framework analysis was applied and discussed amongst the four leading authors.

Results

Five managers were interviewed, plus 2 GPs, 1 practice nurse and 2 I.T. leads. Common factors in recruitment included an interest in diabetes and/or a commitment to host research. The research process made the workload of the screening greater than it would be if incorporated into routine practice, but interviewees accepted this, gave useful feedback for efficiency gains, and appreciated support given in implementation. Other recommendations related to improved patient information and practice data, decreasing time involvement and to more specific study feedback. Overall practices were strongly supportive of the project aims and public health principles of early intervention.

Conclusions

Key factors which can minimise impact of additional screening for IFG include: i) accurate electronic patient data on risk factors; ii) a public understanding of risk factors for diabetes; and iii) pre-existing expertise and competency in diabetes screening and care.

025

Intractable breathlessness in COPD - a suitable case for palliation

Presenter: Patrick White
Coauthors Ms Cathy Shipman and Ms Helen Booth

Introduction

We have previously reported that breathlessness was a priority in patients with advanced COPD and that end of life care

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needs were infrequently reported in these patients. We have reported observed that the need for palliation of breathlessness was under-recognised and that the true prevalence of intractable breathlessness in primary care could only be assessed where the treatment of COPD had been optimised. In this presentation findings from a new study of breathlessness in advanced COPD patients in primary care are compared with the earlier study to define the true prevalence of intractable breathlessness and the potential for intervening in its palliation.

Methods

Cross-sectional interview study in patients' homes using structured questionnaires. 44 practices in the earlier study, 60 in the current study. Participants have a diagnosis of COPD and at least two of: FEV1 <40% predicted, hospital admissions or acute severe exacerbations with COPD, long term oxygen therapy, cor pulmonale, use of oral steroids, and being housebound. Patients with advanced cancer, severe alcohol or mental health problems, or learning difficulties, were excluded. In the current study optimisation of treatment is based on the international GOLD COPD guidelines. Optimisation assesses drugs used, inhaler technique, and access to smoking cessation and pulmonary rehabilitation

Results

Practice participation rate was 80% in the first study with patient response at 61%. Participation rates are running at the same level now. 88% participants reported shortness of breath most days/everyday, 45% were housebound, 75% had a carer. Participants were at least as severe as non-participants from medical records. 57% had severe breathlessness. 92% said breathlessness was their most important problem. > 20% were on sub-optimal treatment. The prevalence of intractable breathlessness due to COPD before optimisation of treatment was about 0.05%, equivalent to about five patients in a practice list of 10,000 patients. Optimisation is currently being carried out. Its impact on the prevalence of intractable breathlessness will be reported.

Conclusions

The prevalence of intractable breathlessness in advanced COPD is substantial amounting to at least 125 patients in the catchment area of an average district general hospital in the UK, or 2.25 new patients a week. Palliation of breathlessness is a priority for these patients but general practitioners may not know that the problem exists and specialist respiratory or palliative care services for breathlessness are rare.

026

Assessing the feasibility, acceptability and potential effectiveness of Dignity therapy for older people in care homes: A Phase II RCT

Presenter: Sue Hall
Coauthors Cassie Goddard, Diana Opio, Peter Speck, Irene J Higginson

Introduction

Dignity Therapy has been developed to help promote dignity and reduce distress at the end of life. It comprises a recorded interview, which is transcribed, edited then returned to the patient, who can bequeath it to people of their choosing. The aim of this study is to assess the feasibility, acceptability and potential effectiveness of Dignity Therapy for older people in care homes.

Methods

Sixty residents of care homes for older people were randomly allocated to either: (i) Dignity Therapy or (ii) Control group. Quantitative and qualitative outcomes were assessed in face-to-face interviews with the intervention group at one and eight weeks post-intervention and the equivalent in the control group. The primary outcome was residents' sense of dignity assessed by the Patient Dignity Inventory. Rating scales were used to assess acceptability of therapy and taking part in the study

Results

Residents were generally satisfied with the therapy and taking part in the study. 86% found dignity therapy helpful, 86% felt it made their lives more meaningful and 80% felt it gave them a heightened sense of purpose. However, residents in the control

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group also seemed to benefit from their participation in the study and the two groups did not differ on these measures. More residents in the intervention group felt that the therapy/study had increased their will to live (60% compared with 28%; P=0.05) and thought that it would help their families (80% compared with 36%; P=0.008). The groups did not differ on the primary outcome at either follow-up.

Conclusions

Residents found dignity therapy acceptable and feel that it has helped them and their families. However, residents in the control group also felt that taking part in the study had helped them. Qualitative analysis of interviews with residents and their families is currently underway to explore these findings in more depth. The suitability of the main outcome, Patient Dignity Inventory, is discussed.

027

Advance care planning: lessons from three research projects in different health care settings.

Presenter: Scott Murray
Coauthors Dr Kirsty Boyd, Dr Marilyn Kendall, Dr Bruce Mason, Dr David Chinn, Professor Aziz Sheikh, Dr Keri Thomas, Dr Stephen Barclay, Dr Jo Hockley, Ms Julie Watson, Dr Deirdra Sives and Dr Mike Cornbleet.

Introduction

There has been a succession of policy developments in Advance Care Planning (ACP) throughout the UK but research evidence as to when, how and by whom ACP should be carried out is underdeveloped. We have recently implemented ACP in three different settings: by primary care teams, by specialist palliative care nurses in the community, and by staff in care homes (nursing).

Methods

We used longitudinal qualitative methods to ascertain the experience of implementing ACP among the staff, patients and carers involved. Semi-structured interviews with participants were supplemented by interventions and the effect of the intervention assessed through follow-up interviews. In the primary care project, members of each practice received a training workshop and document tool-kit. The specialist palliative care nurses attended focus groups, received an orientation about ACP and an aide-memoire to structure conversations. The care home study staff were trained to initiate ACP routinely on client admission. Interviews were recorded, transcribed and thematically analysed.

Results

The primary care and specialist nurse team projects highlighted substantial barriers to ACP. Participants were concerned about diminishing hope, performing ACP too early and the risk of end-of-life care becoming a "tick-box" exercise. The care homes study demonstrated that integrating ACP discussions into routine working practices led to a significant increase in its uptake (from 10% to 60%) and a 45% reduction in hospital admissions.

Conclusions

Professionals were enthusiastic about the principle of ACP. The research demonstrated that implementing it requires careful attention to the setting, current working practices and patient's condition. ACP isn't a "one size fits all" process; further developments will need to be informed by a wider understanding of the challenges professionals face in implementing it as well as the responses of patients and their carers to the process.

028

Palliative care making a difference in rural Uganda, Kenya and Malawi: using rapid evaluation field methods to assess impact on patients, families and local communities

Presenter: Liz Grant
Coauthors Dr Mhoira Leng, Dr Judith Brown and Professor Scott Murray

Introduction

The aim of this study was to evaluate the impact of three community based palliative care interventions in sub-Saharan Africa on the lives of patients, their families and the local communities.

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Methods
Rapid evaluation field techniques were used in each country triangulating data from three sources and those are interviews with key informants, observations of clinical encounters and the local health and social care context and local reports and statistics relevant to end of life care. We used photography as visual ethnography. The participants were patients with advanced illness, family members, health care professionals and community leaders. Three rural regions in Uganda, Kenya and Malawi particularly affected by AIDS.
Results
A total of 33 patients, 27 family carers, 36 staff, 25 volunteers, and 29 community leaders were interviewed in the three countries. Clinical care encounters were observed in 12 cases, and we gained much graphic information through photography.

In each country patients appreciated being treated with courtesy, dignity and respect. Being cared for at home, rather than health centres or hospitals reduced the physical, emotional and financial burden of travel. Physical suffering was frequently and dramatically relieved by oral morphine. Patients valued spiritual, emotional and practical support with staff taking time to listen.

Family carers particularly appreciated receiving social, financial and practical support, such as food and soap, as well as instruction in feeding and bathing patients, and administering morphine. Carers valued the practical advice about terminal care and preparing the body for burial (in Kenya) resulted in facilitating good deaths at home.

While members of the communities around these programmes were sensitised and educated about HIV and AIDS, they were not as knowledgeable about cancer or palliative care services. Volunteers played a vital role, embedding palliative care principles and practice into the community. Though emotional and social support was given to volunteers, many also wished for monetary help, as time spent with patients was time away from their own family and farms. Such work in the face of poverty is demanding and stressful for all staff, but they report it as rewarding, with resilience fostered by having effective medication which changes the lives of patients.
Conclusions
These interventions make a genuine difference to a limited number of patients and carers. However, the vast majority of people in Sub-Saharan Africa are unable to access such care. Practical, emotional, and spiritual needs were as important as physical needs, and require to be addressed. Holistic palliative care can be delivered effectively in the face of poverty, but a public health approach is needed to ensure equitable provision.

029

Systematic review of validation studes of the Alvarado Clinical Prediction Rule for Appendicitis

Presenter: Anthony Cummins
Coauthors Robert Ohle, F O'Reilly, K O'Brien, B Dimitrov, T Fahey

Introduction
The Alvarado score is a clinical prediction rule (CPR) used to stratify patients with symptoms of suspected appendicitis. Depending on the Alvarado score, patients can be stratified into those who do not require referral to hospital, those who need to be admitted and observed in hospital and those who should proceed to diagnostic testing and/or laparotomy. We performed a systematic review and meta-analysis of validation studies of the Alvarado score in order to asses its accuracy in predicting appendicitis.
Methods
Systematic search of Medline (1966 to November 2009), Embase, DARE and Cochrane library with validated CPR methodology filter combined with subject-specific terms for appendicitis. The derived (index) rule was used as a predictive model and applied to all validation studies, with observed and predicted number of cases of appendicitis stratified by risk group (1-4 low, 5-6 intermediate, 7-10 high). Pooled

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results are presented as risk ratios (RRs) with 95% confidence interval. RR>1 indicates over-prediction and an RR<1, under-prediction. Validation studies are stratified across men, women and children. Diagnostic accuracy of the Alvarado score is assessed at two different cut points; 5-10 and 7-10, as criteria for admission and criteria for surgery respectively.

Results

We obtained 37 validation studies of Alvarado. In men the Alvarado performs well in all risk groups, low risk, RR 1.06 (0.87,1.28); intermediate risk, RR, 1.09 (0.86, 1.37); High risk RR 1.02 (0.97, 1.08), and also in children classified as low risk, RR 2.45 (0.38, 15.79) or high risk, RR 1.12 (0.97, 1.29). In women Alvarado systematically over-predicts the probability of appendicitis in all risk strata. As a decision criterion for admission the Alvarado score achieved a high sensitivity of 98% and a specificity of 41%. As a decision criteria for surgery the score achieved a sensitivity of 82% and specificity of 81% overall.

Conclusions

The Alvarado score is a useful diagnostic CPR for men and children. Application in women systematically over-predicts the probability of appendicitis. Alvarado is useful as a criterion to “rule out” appendicitis in all patient groups. Further diagnostic testing is needed prior to proceeding to laparotomy in high risk patients.

030

Predicting risk of stroke following TIA: systematic review of validation studies of the ABCD2 CPR

Presenter: Rose Galvin
Coauthors C Geraghty C, B Dimitrov B, T Fahey

Introduction

Stroke is a leading cause of death and acquired disability. Stroke and transient ischaemic attack (TIA) arise from identical aetiologies and a number of studies have demonstrated that TIAs carry a significant risk of stroke. Several variables have been validated as predictors of stroke and have been incorporated into models such as the ABCD2 clinical prediction rule, which is used to predict risk of stroke following TIA. This systematic review assessed the 7 and 90 day predictive accuracy of the ABCD2.

Methods

A systematic search was performed on Science Direct, Medline, EMBASE, PubMed and the Cochrane library to retrieve articles that validated ABCD2. The original derivation study was used as a predictive model and applied to all validation studies, with observed and predicted number of strokes at 7 and 90 days stratified by risk group (0-3 low, 4 moderate, 5-7 high). Results from the studies were pooled and risk ratios (RR) with 95% confidence intervals were produced. Forest plots were used to graphically display the data. A RR score of 1 represents accurate prediction by the ABCD2 rule, <1 represents under-prediction and >1 over-prediction.

Results

Seven validation studies (n=4794) predicted 7 day risk of stroke after TIA. The ABCD2 score under-predicted occurrence of stroke across all three risk strata (low risk - RR 0.77, 95% CI 0.31-1.91; moderate risk - RR 0.84, 95% CI 0.45-1.54; high risk RR 0.73, 95% CI 0.47-1.13). Data on three studies with 5 separate validation cohorts (n=3943) were pooled to predict 90 day risk of stroke. The ABCD2 score correctly predicted risk of stroke in all three groups (low risk - RR 0.94, 95% CI 0.58-1.54; moderate risk - RR 1.10, 95% CI 0.76-1.60; high risk RR 1.01, 95% CI 0.479-1.29).

Conclusions

The ABCD2 score under-predicted 7 day risk of stroke across all risk strata but correctly predicted 90 day risk of stroke in all groups. The variation in the study setting and design limits the wider interpretation of these findings. However, the results serve to highlight the significance of stroke risk following TIA.

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031

Predicting stroke in adults with non-rheumatic atrial fibrillation: validating the CHADS2 CPR

Presenter: Claire Keogh
Coauthors E Wallace, C Dillon, B Dimitrov, T Fahey

Introduction

The risk of thrombotic stroke in patients with non-rheumatic atrial fibrillation (NRAF) is increased by the presence of several risk factors. These have been included in a clinical predication rule (CPR) that quantifies the annual risk of stroke in NRAF patients-CHADS2 . Depending on the CHADS2 score, patients can be classified into low, medium or high risk of stroke and antithrombotic treatment can be initiated as a result. This systematic review assessed the predictive accuracy of CHADS2.

Methods

A systematic search of PUBMED, EMBASE, Cochrane Collaboration and MEDION databases (from 2001 to October 2009) was performed to retrieve articles that validated CHADS2. The predicted score for each risk strata was calculated from the original CHADS2 rule and stratified according to risk of stroke (CHADS2 :0 low; 1-2 medium; ¡Ý 3 high). These were compared to the observed number of strokes in each of the validation studies. Analysis was performed and forest plots produced of observed: predicted risk (risk ratio, RR). An RR score of 1 represents accurate prediction of the CHADS2 rule, <1 represents under-prediction and >1 over-prediction.

Results

Data was obtained from four studies for patients (n = 28, 693) receiving oral anticoagulation (OAC) treatment. As such, the predicted accuracy of the CHADS2 score was calculated (1) for patients receiving OAC and (2) adjusted for the net benefit of OAC. There was systematic over-prediction across all risk strata (score 0 RR 5.82 (2.82-12.03); 1-2 RR 3.86 (3.3-4.52); ¡Ý3 RR 3.43 (2.94-3.99). This effect decreases when RRs are adjusted for OAC treatment (score 0 RR 1.94 (0.85-4.43), score 1-2 RR 1.25 (1.04-1.51), score ¡Ý 3 RR 1.2 (1.00-1.44).

Conclusions

The CHADS2 score systematically over-predicts the risk of stroke in patients with NRAF who are receiving OAC treatment. Adjusting for the net benefit of OAC treatment, the CHADS2 correctly predicts the risk of stroke for those in the medium and high risk categories, however still over predicts for those in the low risk category.

032

Cochrane Primary Healthcare Field, Register of Clinical Prediction Rules (CPRs) and implementation strategies

Presenter: Emma Wallace
Coauthors HRB Centre for Primary Care Research

Introduction

The potential of improving patient care by using clinical prediction rules (CPRs) is not yet realised. The challenges relate to finding, understanding and applying CPRs in clinical practice. It is difficult to identify relevant CPRs from electronic database resources such as MEDLINE, due to the absence of indexing terms for both CPRs and primary care. We aim to develop an international register of CPRs relevant to primary care to be distributed through the Cochrane Primary Health Care Field.

Methods

The register is being developed by identifying relevant articles from (1) an electronic search string generated and tested in-house and (2) the personal libraries of clinical researchers. Each of the relevant CPR articles is stored in a single EndNote file and classified according to: ICPC-2 coding; the level of evidence achieved by the article (derivation, validation or impact analysis); and the methodological quality of the article.

Results

The register currently comprises of 235 CPRs relevant to primary care. These articles incorporate 21 broad clinical areas, with the largest number of articles identified for respiratory conditions (n = 56) and the least identified for infectious diseases (n =

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2). These broad clinical areas are further classified according to specific conditions. For example, neurology (n = 19) comprises of: meningitis (n = 11); stroke (n = 5); dementia (n = 2); and Parkinson's disease (n= 1). Many of the articles present results for one or more levels of evidence (e.g. derivation and validation of the same rule). At present the register contains of 146 derivation, 243 validation, and 3 impact analysis articles.

Conclusions

Though the register will need to be maintained and updated on a regular basis, it offers many potential benefits for primary care practice. The addition of individual ratings of articles in terms of condition specific codes, level of evidence and quality of the research allows the clinician to objectively assess the utility of the CPR for use with patients. The classification of rules according to diagnostic area and level of evidence also highlights areas for further research efforts.

033

Enhancing diagnosis and management of Dementia Syndrome in primary care: a narrative review

Presenter: Tamar Koch
Coauthors S Iliffe

Introduction

The early detection and subsequent management of dementia in primary care are difficult problems for practitioners. England's National Dementia Strategy 2009 seeks to improve detection and management but there is limited evidence on how to achieve this. This narrative review identifies and appraises empirical studies of educational interventions or service modifications designed to improve Primary Care's performance in these areas. It also aims to ascertain which interventions are beneficial, and examines whether these interventions were effective because they targeted specific barriers, or for other reasons.

Methods

A systematic search for articles was made using electronic databases MEDLINE, EMBASE, and psycINFO, using terms dementia/cognitive* impair*/Alzheimer's Disease AND Primary care/general or family practi* AND diagnos* OR manage*. Exclusion criteria included non-English language, studies about pharmacological interventions or screening instruments, and settings without primary care. Quality of studies was assessed using the PEDro methodology. A rapid appraisal approach was adopted in order that the results could inform the implementation of the National Dementia Strategy. Because of the heterogeneity of the studies, a narrative approach was used.

Results

Thirteen studies were identified, of which ten were randomized controlled trials. Seven reported educational interventions, including seminars, facilitated small-group learning, and decision-support software, the latter two being the only educational interventions found to improve GPs' detection rate. The remaining six studied service redesign, either by changing the service pathway, or by introducing case management. Trials of service pathway modification generally improved detection of dementia, and some of the case management trials showed improved patient and carer satisfaction, decreased behavioural symptoms, and care more concordant with guidelines.

Conclusions

All trials had design weaknesses, and there was considerable variety in quality. Educational interventions are effective when learners are able to set their own educational agenda. Although modifying the service pathway can improve detection, and using case-managers can assist in several aspects of dementia care, these would require the provision of extra resources, and their value is yet to be tested in different health systems. By employing additional case-managers rather than addressing established barriers to provision by existing primary care practitioners, the role of the GP in dementia care could be reduced.

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034

Systematic assessment of professional behaviour and attitudes in medical students.

Presenter: Judith Ibison
Coauthors Professor Sean Hilton,Dr Kathy Boursicot, Professor Ania Korskun.

Introduction

Poor professional behaviour in medical students is associated with an increased risk of poor professional behaviour after qualification. The General Medical Council has introduced guidance about appropriate professional behaviour for medical students. In order to detect students who may exhibit problematic behaviour at an early stage and offer remediation to such students, a formative longitudinal assessment of professional behaviour (LPA) has been devised, which has three key features: behaviour is assessed at multiple time points, in different domains, by different assessors. Students with multiple flags of unprofessional behavior are initially seen by academic staff, and then by a Professional Behaviour Committee. The aim of this study is to report the results of the assessment for the first two years of the first two student cohorts.

Methods

Data on around ten different behaviours related to professionalism were collected in four sequential semesters for each student. These included attendance, timely completion of written work, assessment of professional behaviour in clinical placements and performance in Case Based Learning. Data on sporadic reports of unprofessional behavior were also captured. The prevalence of assessed 'unprofessional' behaviour is reported by semester and cohort.

Results

Each semester, 7-10% of 195 students were seen by senior academic staff and letters suggesting improved performance was required were sent to a further 7-39%. Of students on short clinical attachments in the first two years, 0-4% were assessed by clinicians to be 'cause for concern' or 'unacceptable'. Sporadic reports of unprofessional behaviour outside the systematic assessment were reported for 0-8% of students per Semester. The proportion of students needing to be seen declined within cohorts (12% to 8% for the first cohort, and 10% to 6% for the second cohort in sequential semesters, and between cohorts (10% to 6% for Semester 3).

Conclusions

The prevalence of assessed poor professional behaviour and attitude on clinical placements was low, but higher for other aspects of professional behaviour in students such as attendance. The assessment is resource intensive, relies on robust data systems and training for clinicians and educators involved in the assessment of professional behaviour.

035

"I'm worried about what I missed": GP Registrars' views on their learning needs to deliver effective health care to ethnically and culturally diverse patient populations. A qualitative study.

Presenter: Hans-Olaf Pieper
Coauthors MacFarlane, Anne

Introduction

It is widely accepted that medical undergraduate and postgraduate education should address issues related to human diversity. Despite the growth of guidelines and training resources, surprisingly little empirical research has been published about how primary healthcare professionals perceive their work with patients from diverse communities. Research of this kind represents learning needs assessment, which has a fundamental role in education and training. The aim of this research is to explore GP Registrars' views on their learning needs in relation to delivering effective healthcare to ethnically and culturally diverse patient populations.

Methods

This study is based on a naturalistic inquiry design and involves qualitative methods. Following the principles of purposeful sampling current GP Registrars of the postgraduate GP Western Training Programme, Galway, were invited. 31 GP Registrars participated in 3 focus group

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interviews. A thematic analysis following the principles of framework analysis was applied. Reflexivity, member checking and peer debriefing were applied to enhance the accuracy or truth value of the interpretation.

Results

GP Registrars described considerable professional uncertainty and occupational stress with predominantly negative emotions when consulting with patients from diverse communities. They perceived their training in relation to healthcare to patients from ethnically and culturally diverse backgrounds as inadequate and they desired more training. Their main learning in this area had happened outside the taught curriculum. They identified concrete learning needs, which were mainly related to factual knowledge. There was less emphasis on communication skills and attitude awareness.

Conclusions

Educators should take GP Registrars' views into account in the development of diversity training in medical education. Nonetheless GP Registrars' focus on the concept of specific knowledge related to human diversity may be too narrow. While specific knowledge may be a good starting point, training should also encourage acknowledgment of the doctor's professional uncertainty, awareness of the doctor's own culture and attitudes, and development of generic skills such as a patient centred approach.

036

Primary care Identification and Referral to Improve Safety of women experiencing domestic violence (IRIS): a cluster randomised controlled trial

Presenter: Gene Feder
Coauthors D Dunne Davies, A Gregory, A Howell, M Johnson, J Ramsay, D Sharp

Introduction

Domestic violence is a breach of human rights, a major public health problem and a challenge to clinical practice. It has a high prevalence among women accessing primary care. Abused women identify doctors as potential sources of support, yet clinicians usually do not inquire about abuse and have seldom had training about domestic violence. They often fail to address the needs of these women. Once a woman discloses, advocacy delivered by specialist DV agencies can reduce further abuse, improve mental health and quality of life

Aim

To evaluate a general practice-based training and support programme to improve identification of women experiencing DV and subsequent referrals to specialist DV services

Methods

Design: cluster randomised controlled trial. Sample: 48 general practices. IRIS programme: 2x2 hour practice-based multi-disciplinary training + reinforcement over a year, based on adult learning/peer influence models, designed to address barriers to clinicians becoming "DV competent" and to improve quality of care for survivors. Other components: identification by practices of an IRIS 'champion', a decision-support aid prompting questions about DV in the electronic medical record, and a referral pathway to a named DV advocate. Outcomes: identification of women experiencing DV and referral to specialist DV agencies. Data sources: electronic medical records; specialist agency referral data. Analysis: comparison of change scores of primary outcomes with adjustment for baseline differences in a Poisson regression model.

Results

Comparing intervention vs. control practices, odds ratio for identification was 3.4 (95% c.i. 2.1 to 5.4) and for referral was 21 (95% c.i.10.7 to 14.1). We will also present the result of sensitivity analyses.

Conclusions

This is the first randomised controlled trial in Europe testing an intervention to improve the health care response to domestic violence. We found a substantial improvement in the identification and referral of survivors of domestic violence. The IRIS model integrates general practice into a coordinated community response and is now being configured into a form that can

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be commissioned by PCTs and implemented by specialist domestic violence agencies in partnership with general practices.

037

Lack of confidence in the management of high risk patients with chronic kidney disease (CKD) in primary care: a questionnaire study

Presenter: Olga Dmitrieva
Coauthors A Tahir, S de Lusignan, J van Vlymen, K Harris, H Gallagher, C Tomson

Introduction

Strict blood pressure (BP) control in patients with chronic kidney disease (CKD) should reduce cardiovascular morbidity and mortality. Despite National guidelines for BP control there remains scope for further improvement in primary care. This study aims to assess the confidence of management of raised BP in people with CKD in primary care.

Methods

We developed and validated a questionnaire of 24 confidence questions, as part of the process evaluation of a two year three-armed cluster randomized study of quality improvement in CKD (QICKD, ISRCTN5631023731). Confidence was rated 1 to 5 (5 represent most confident) and six knowledge questions. The response rate was 73.6% (148/201).

Results

Most participants (86.50% n=128/148) feel confident to manage BP (mean score=4.18) in hypertension; however confidence fell if CKD (mean score 3.64) or DM were added as co-morbidities 40% (61/148), and with CKD and DM (mean 3.58).

Younger (<35 years) and older (>/equal to 55 years) are more confident in BP management than the middle-aged (35-54 years old); results are: (100.0% vs 80.6%, p = 0.023) and (69.6%, 77.4% vs 50.0%, p = 0.014), respectively.

The younger group are also more confident in interpreting and monitoring of eGFR (87% vs 61.7%, p = 0.02 and 87% vs 61.7%, p = 0.033 respectively). Only 17.4% in the younger group doubt the necessity of using angiotensin modulating drugs in CKD while among 35 to 44 year olds 41.5% have doubts (p = 0.030).

Male salaried GPs have a higher overall confidence score (mean 95 vs. 90) and generally males are more confident in the management of BP in CKD or DM (75.8% vs.45.1% p< 0.0001) and in CKD and DM (72.7% vs. 51.2% p=0.008). Salaried GPs also have better knowledge concerning GFR decline than partners (75.7% vs. 53.2% p=0.011). As do GPs in training practices (69.2% vs 37.5% p = 0.008).

Conclusions

Primary care clinicians are less confident in managing BP in patients with CKD and DM. Younger and older staff, males and training practice status were all associated with increased confidence. Interventions are needed to improve confidence and knowledge in management of CKD in primary care.

038

I don't necessarily use that term:Australian GPs' attitudes to breaking the news of dementia

Presenter: Constance Dimity Pond
Coauthors N Paterson, A Shell, C Howell, N Stocks, J Phillips and the Ageing in General Practice team

Introduction

The literature identifies limitations of General Practitioners (GPs) in identification and management of dementia, with many GPs reportedly failing to meet guideline recommendations for early diagnosis and active management. In Australia and internationally there has been a focus on assisting GPs to make the diagnosis by encouraging screening and providing memory clinics. However, there is some evidence that GPs do not always communicate the diagnosis, once made, to the patient or carer. This report focuses on the issue of communicating the diagnosis from the Australian GP's perspective.

Methods

A 5 site randomised controlled trial of an educational intervention to improve GPs' identification and management of dementia

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reached over 170 GPs and over 2000 patients. GPs in the intervention group received two visits from a peer educator and screened all their participating patients for dementia. At the second detailing visit they were told which of these patients have dementia based on research interviews using the CAMCOG. The issue of communicating the diagnosis was discussed and this data collected using a semi-structured interview. Interviews were tape recorded and transcribed verbatim. Thematic analysis was conducted on 23 interviews, using a constant comparative process. Related codes were grouped into major and sub-themes and negative cases identified. The researchers met and reviewed the coding process and the dominant themes. This enabled agreement or differences in researcher perspectives to enrich the analysis and overall interpretation of the data.

Results

GPs reported reluctance to discuss the diagnosis explicitly with patients and their carers. A number of words other than dementia were used. Reasons for this include concerns about the certainty of the diagnosis, lack of explicit diagnosis from the memory clinic, unpredictability of the course of the disease, patients' and carers' responses to the stigma of the diagnosis and limitations of treatments and access to services.

Conclusions

Use of screening and provision of a memory clinic may not overcome barriers to dementia management in general practice. Health planners and educators concerned to align GP management with guidelines should address other issues which prevent GPs from conveying the diagnosis to patients and their carers.

039

Exploring solutions to problematic experiences of informational continuity of care in an out-of-hours general practice co-operative: a qualitative case study

Presenter: Niamh Gallagher
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Introduction

The availability of patient information to practitioners is the basis of good informational continuity of care. The introduction of new arrangements for out-of-hours primary care disrupts informational continuity of care between regular and out-of- hours care settings. Recent research highlights that this is particularly problematic for patients with complex healthcare needs. This paper explores potential solutions to this health service problem with attention to service user and provider perspectives.

Methods

This is a qualitative study. Semi-structured interviews were completed with 35 patients with chronic illness who had used an out-of-hours GP co-operative in rural Ireland. Service providers working in the co-operative (call handlers, triage nurses and general practitioners) were also interviewed (n=26) to contextualise users' accounts. Our iterative approach to data collection and analysis was informed by principles of grounded theory and key concepts of a medical sociological model, Chronic Illness Trajectory Framework (CITF). Deviant case analysis, independent coding and member checking were used to enhance reliability and validity of findings.

Results

Service users with complex healthcare needs suggested the use of shared databases between the co-operative service and their regular GPs containing essential details about their chronic condition(s), relevant therapies, medication regimes, known allergies etc. Service providers agreed that the use of shared databases would be helpful

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but identified 4 main barriers to their implementation (i) mixed views among providers about the relevance of continuity of care for out-of-hours co-operatives (ii) perceived problems with integrating existing information technologies in regular and out-of-hours primary care contexts (iii) a lack of funding for new information technologies and (iv) patient confidentiality issues.

Conclusions

Service providers see several barriers to the proposed use of shared databases between out-of-hours and regular GP services to improve continuity of care for service users. Arguably, service providers' mixed views about the relevance of continuity of care for out-of-hours co-operatives is the most significant barrier because it will (negatively) impact on their enrolment or participation in relevant implementation projects. These findings raise important questions about continuity of care – is this (still) a core value of general practice? For whom and during what hours?

039

Holistic primary care for depression; mismatch between patients expressed needs, treatments offered and the NICE guideline: qualitative interview study

Presenter: Caroline Mitchell
Coauthors Dwyer R , Mathers N, Hagan T

Introduction

The QOF (2006) introduced structured depression severity assessment at diagnosis and depression screening questions for people with chronic disease. The expectation was improved adherence to the NICE guideline (2004) for depression, which recommends a holistic approach and 'stepped care' linking illness severity to drug and non-drug treatments.

Research Question: What are patients' views on the experience of diagnosis, including the PHQ-9 questionnaire, access to and acceptability of NICE recommended treatments and factors influencing outcomes of depression in primary care?

Methods

Qualitative, semi-structured, face-to-face interviews with patients.

Eligible patients were identified by a QOF database search for a new episode of depression 6-8 months prior, at four socioeconomically diverse practices in South Yorkshire. Following a postal invitation, a diverse sample(socio-demographic questionnaire) of 19 patients consented. Transcribed taped interview data were organised, labelled and then independently and thematically analysed (iterative). Team analysis meetings, literature appraisal and independent verification were used to verify the credibility and dependability of the thematic analysis and consistency of theme allocation to data.

Results

Themes identified related to social triggers for GP care (often in 'crisis'), experiences of GP consultation style, continuity of care, lack of recall of PHQ-9, importance of family / social support, and views about medication, psychological and other non-drug therapies. We mapped and summarised care pathways in order to illustrate mismatch between individuals needs/wants, treatment offered and the NICE guideline, for example, although exercise was viewed positively, just one patient was referred to a structured programme. Self-help psychological exercises can be burdensome for patients with depression-related fatigue. Some patients reported concerns that GPs had neither the time, nor the resources, nor the expertise to manage severe recurrent depression and favoured specialist care.

Conclusions

Consistency in timely GP access, a holistic and empathetic GP approach, continuity of care, better information about drug and other treatments, earlier access to psychological therapies and, in some cases, specialist input, would improve the patient experience. Whilst previous research reported positive patient feedback about the PHQ-9, GPs had concerns about the utility of the tool(i). The lack of recall of PHQ-9 at our interviews may reflect recall bias or the GP may not

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have used PHQ-9 for feedback/shared decision making.

(i) Dowrick C, Leydon GM, McBride A, Howe A, Burgess H, Clarke P et al. Patients' and doctors' views on depression severity questionnaires incentivised in UK quality and outcomes framework: qualitative study. British Medical Journal 2009; 338(mar19_1):b663

040

The effectiveness and cost effectiveness of telephone triage of patients requesting same day consultations in general practice: a cluster randomised controlled trial comparing nurse-led and GP-led management systems. (The ESTEEM trial)

Presenter: Emily Walshaw
Coauthors J Campbell, C Salisbury, E Walshaw

Introduction

Research evidence exists regarding telephone triage in primary care in terms of workload implications, cost and patient experience of care, safety and health status following telephone triage. Most evidence derives from models involving nurse triage; less research has been carried out addressing the value of GP telephone triage. There have been no large scale multi-practice studies examining the potential value of nurse or GP-led telephone triage of patients requesting same day consultations. The aim of this pragmatic cluster randomised controlled trial is to assess the clinical and cost effectiveness of nurse-led computer-supported telephone triage and GP-led telephone triage, compared to usual care for patients requesting same day consultations in general practice, with nested health economic and process evaluations.

Methods

A 12-month (phase II) pilot and feasibility phase will be undertaken in six practices prior to the main trial, involving 42 practices in four geographical locations. After a period of training, practice systems will operate for a four-week stabilisation period prior to a five-week intervention and patient recruitment period. The primary outcome measure is the number of healthcare contacts during in the 4 weeks following the index same day consultation request, collected by note review. Secondary outcomes include patient self-reported satisfaction and health status, collected by postal survey; a descriptive study of the management and disposition of patients in the day same-day consultation request; and primary care NHS resource use.

Results

Baseline differences in patient or practice demographics will be assessed between groups. Count data and continuous outcomes will be expressed as mean differences and binary data. In the primary analysis three between-group comparisons will be undertaken. In a secondary analysis, interaction terms will be included to investigate possible differences in treatment effect between subgroups of patients. Exploratory analyses will be undertaken to examine the relationship between practice level variables and the impact of the triage interventions.

Conclusions

There is an urgent need to provide evidence on the utility and safety of telephone triage as a means of providing enhanced access to primary care for patients seeking same-day consultations. ESTEEM, a major nationally funded trial, will provide such evidence.

041

Access to healthcare for revolving door offenders.

Presenter: Richard Byng
Coauthors C Weyer Brown, C Samele, C Warrington, J Campbell

Introduction

Epidemiological studies provide evidence for the poor mental and physical health of offenders in prison and the community. Anecdotal accounts give evidence for poor access to healthcare for offenders in the community, however there are no systematic studies to substantiate this. The completion of the integration of Prison healthcare into the NHS (2007) has led to the new challenge of joining up prison and community based care for offenders . This

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project aims to quantify offenders' contact with healthcare according to their location within the criminal justice system and by medical condition.

Methods

This is a longitudinal study of 142 offenders sampled on entering prison, leaving prison and at the start of community (probation) sentences. Offenders agreeing to participate (84%) in face to face, researcher delivered, interviewes were ask to describe their medical problems and criminal justice contact and to measure their health contact during the previous six months using a pictorial diary technique.

Results

The rate of contact with healthcare varies according to criminal justice setting (rates of 12.0 contacts per annum for prison, 18.1 contacts per p.a. for probation and 8.4 contacts per p.a. for those arrested or seen in the courts). Mean rates of contact for different medical conditions varied, with rates reported for drug problems (5.9 p.a.) and alcohol problems (2.8 p.a.) and relatively low rates for those with mental health (2.0 p.a.), and other physical conditions (4.5 p.a.). A more detailed break down of location, professionals and quality ratings will be presented.

Conclusions

This research demonstrates high levels of health service contact for people in contact with criminal justice services, with drug services rather than general practice being the primary health contact in the community. Ongoing drug treatment presents an opportunity for other health problems to be recognised and sign posted to other services. The results support the need for an integrated primary care based service for tackling physical health, drug and alcohol and mental health problems bringing together prison and community primary care services and planning – possibly servicing other marginalised groups such as the homeless.

042

QOF depression indicators in a national sample of older primary care patients from community and care home settings

Presenter: Tess Harris
Coauthors I Carey, S Shah, S DeWilde, D Cook

Introduction

The QOF rewards GPs for depression screening in patients with diabetes or ischaemic heart disease and for using a depression severity measure in patients with a new depression episode. Depression is common, but under-recognised and under-treated in older people, particularly care home patients. We compared QOF depression indicators in a national sample of older community and care home residents.

Methods

Cross-sectional analysis of an established primary care database (THIN) including 326 English and Welsh general practices between March 2008 and February 2009. Care home residents were identified by either a Read code or multiple care home markers (postcode linkage, household size, consultation location). 403,259 community and 10,387 care home residents aged 65-104 were included. The main outcome measures were QOF depression indicators: the proportion of diabetes or ischaemic heart disease patients with a record of depression screening in the last 15 months; and the proportion of subjects with recorded use of a standardized depression severity measure within 28 days of a new depression episode in the last 15 months.

Results

81.1%(83,555/102,994) of community and 63.9%(1674/2619) of care home residents with diabetes or ischaemic heart disease had depression screening recorded in the last 15 months. After excluding those with recorded dementia the figures were 81.5%(95% C.I. 81.3%-81.7%) and 67.1%(95% C.I. 64.6%-69.6%) respectively. Increasing age was associated with decreased screening in both settings. 58.6%(1,644/2,807) of community and 23.0%(31/135) of care home residents with a new episode of depression, had a depression severity assessment recorded. After excluding those with recorded

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dementia these figures were 59.1%(95% C.I. 57.3%-60.9%)and 26.1%(95% C.I. 17.1%-35.1%)respectively.

Conclusions

Older care home patients with diabetes or ischaemic heart disease are less likely to have depression screening than community patients and the oldest age groups are less likely to be screened in both settings. Those in care homes with new depression episodes are less likely to have a depression severity measure recorded than those in the community. These differences are not explained by greater dementia prevalence in care homes. GPs need to consider improving their attainment of these depression indicators in older people generally, but particularly for those living in care homes.

043

The impact of multimorbidity on exception reporting in the Quality and Outcomes Framework

Presenter: Jose M Valderas
Coauthors E Kontopantelis, T Doran, D Reeves, C Salisbury, M Sutton, M Roland, H Lester, S Campbell

Introduction

Primary Care practices in the UK can exception report (exclude) patients from the Quality and Outcomes Framework (QOF) if an indicator is not expected to be an appropriate measurement of quality of care for those patients. All clinical indicators in QOF are disease specific and it is not clear how applicable they can be to multi-morbid patients. We aimed to measure the impact of QOF specific multi-morbidity (the simultaneous presence of several QOF conditions in an individual) on exception reporting.

Methods

We used data from the General Practice Research Database (GPRD) for the financial year 2006/7. We included 132,944 patients who were registered with a representative sample of 150 English practices and at least one of 16 QOF conditions (including asthma, coronary heart disease, chronic kidney disease, COPD, dementia, depression, diabetes mellitus, epilepsy, heart failure, hypertension, hypothyroidism, left ventricular dysfunction, severe mental health problems and stroke). A patient was considered as exception reported if they had a corresponding Read code listed in the QOF business rules.

Results

About 50.0% of all these patients with at least one QOF condition had some degree of multi-morbidity. The vast majority of patients with multi-morbidity were not exception reported (92.1%, compared with 96.4 for patients without multi-morbidity). Patients with multi-morbidity were more likely to be exception reported than non multi-morbid patients (OR=1.54, 95%CI 1.47-1.61), with increasing exception rates for patients with increasing number of QOF conditions (Spearman correlation: 0.95). 18.1% of patients with more than 6 conditions were exception reported.

Conclusions

Most patients with more than one QOF condition are included and reported in the framework. These findings are robust across different multi-morbidity counts, but for a fraction of patients with very high multi-morbidity alternative methods for the measurement of condition specific quality of care may be needed.

044

The impact of removing financial incentives from clinical quality indicators.

Presenter: Helen Lester
Coauthors S Campbell, J Schmittdiel, J Selby, B Fireman, J Lee, A Whippy, P Madvig

Introduction

The aim of this study was to evaluate the effect of financial incentives directed toward the 35 medical facilities of Kaiser Permanente Northern California from 1997 to 2007 on four clinical quality indicators common to pay-for-performance plans in the United Kingdom: the Quality and Outcomes Framework (QOF) and at Kaiser Permanente (KP) in California. The hypothesis was that removing the financial incentive would lead to a decrease in performance. This has particular relevance

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to the UK since QOF negotiators have agreed to remove 8 indicators worth 28 points (30 million pounds from QOF in April 2011. US data were used since there is no equivalent UK dataset to address this hypothesis in depth.

Methods

Longitudinal analysis of four quality indicators at 35 Kaiser facilities over nine years. Participants were adult members of Kaiser Permanente Northern California (population 3.1 million). Automated clinical data were used for yearly assessment of patient-level diabetes glycaemic control (HbA1c < 8.0%), diabetes retinopathy screening, hypertension control (systolic blood pressure < 140), and cervical cancer screening. These 4 out of a possible 20 indicators used by KP are shared with the UK QOF.

Results

For two indicators, incentives were removed during the study period- diabetic retinopathy screening and cervical screening. During the five consecutive years where financial incentives were attached to the retinopathy screening rate (1999-2003), it rose from 84.9% to 88.1%. This was followed by four years without incentives when it fell year on year to 80.5%. In cervical screening, during the two initial years with financial incentives attached (1999-2000), the screening rate rose very slightly from 77.4% to 78.0%. During the following five years when financial incentives were removed, cervical screening fell year on year to 74.3%. Incentives were then reattached for two years (2006-7) and screening rates began to climb once more. Across the 35 facilities, the removal of incentives was associated with a decrease in performance of about 3% per year on average for retinopathy screening and about 1.6% per year for cervical screening.

Conclusions

Policy makers and clinicians should be aware that removing facility-directed financial incentives from clinical indicators may mean that performance levels decline.

045

Pilot Audit of General Practitioner Management of Patients in whom a Read Code had been entered that has a 5% or more Positive Predictive Value for Cancer

Presenter: Gemma Mansell
Coauthors M Shapley

Introduction

Our previous systematic review of symptoms, signs and non-diagnostic tests for cancer identified 8 that had a positive predictive value (PPV) of 5% or more for cancer in specific age and sex groups in patients routinely consulting a general practitioner (GP). These mandate the exclusion of malignancy except for individual patient centred reasons. One conclusion of the review was that GPs be audited to ensure appropriate management of these patients. This is a pilot of the audit tool.

Methods

The audit tool was constructed for a single urban practice with a population of 10,000 patients. The practice records all clinical information using Read codes in a ViSion computerised database. The criterion was that a patient in whom a Read code with a 5% or more predictive value for cancer should have been referred to a relevant specialist or had a histological diagnosis within 3 months of the Read code entry. The standard was 100% with a target of 90%. The computerised records were searched for the relevant Read codes and the medical records of the identified patients analysed for referral and histology.

Results

Overall, between 53% and 94% of patients were referred to secondary care within 3 months of presenting to their GP with one of the identified symptoms, signs or non-diagnostic test results. The audit target of 90% was only met for female patients with haematuria, and for several other groups rates of non-referral were high. Discussion took place amongst the clinicians involved concerning appropriate and inappropriate reasons for non-referral. Consensus was not acheived for all reasons for non-referral.

Conclusions

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Referral rates were not as high as they could be for high-risk patients, which could potentially lead to higher morbidity and mortality rates as cancer diagnoses may be missed or delayed. The tool is currently under development and the results of audits and discussions with these and other clinicians will be presented. It is proposed that this audit be developed into a tool to be used for personal reflection, significant event audit and appraisal.

046

Would you take life long antihypertensive treatment on the basis of clinic measured blood pressure?: a systematic review of three different methods of blood pressure monitoring in the diagnosis of hypertension

Presenter: James Hodgkinson
Coauthors J Mant, U Martin, B Guo, R McManus

Introduction

Hypertension is traditionally diagnosed using clinic measurements but ambulatory measurements are better correlated with outcome. We therefore conducted a systematic review regarding the relative effectiveness and performance characteristics of clinic measurements and home blood pressure monitoring (HBPM) compared to ambulatory blood pressure monitoring (ABPM) for the diagnosis of hypertension.

Methods

We used a search strategy designed to capture all studies evaluating the test performance characteristics of different methods of diagnosing hypertension in primary care. Medline,
Embase and the Cochrane Library databases were searched. No language or publication date limits were applied. Data were extracted from each included study by two independent reviewers. Estimates of test sensitivity and specificity were calculated for each study and the results plotted on summary ROC (receiver-operating characteristic) plots, exploring the effect of different diagnostic thresholds, study population, number of measurements, validation of test and unexplained heterogeneity.

Results

From 2,642 studies in the overall search, 17 met our initial inclusion criteria but used a variety of different thresholds for the diagnosis of hypertension meaning that only four studies (clinic) and three studies (home) could be directly compared with ABPM. Compared to ambulatory monitoring, clinic measurement had an average sensitivity and specificity of 86.3% (95% CI 82.5-89.5) and 44.3% (CI 34.8-54.2) respectively, whereas home measurement had an average sensitivity of 85.7% (CI 78.0-90.1) and specificity of 62.4% (CI 48.0-75.0), using a threshold of 140/90mmHg for office measurement and 135/85mmHg for home and ambulatory measurement. Further results including ROC curves will be presented.

Conclusions

Few studies used directly comparable blood pressure thresholds. For those that did, neither clinic nor home measurement had sufficient specificity compared to ABPM to be fully recommended as a diagnostic test and clinic measurement performed particularly badly. These results suggest that clinic or home blood pressure measurement can reasonably be used to rule out hypertension but should be supplemented by ambulatory monitoring before life long treatment is instituted.

047

Patient-centred assessment of the burden of multiple chronic conditions in primary care: a study of self rated health in the EPIC-Norfolk cohort

Presenter: Nahal Mavaddat
Coauthors N Mavaddat, J Valderas, R van der Linde, AL Kinmonth, KT Khaw

Introduction

The impact of suffering a chronic condition, and in particular more than one condition, on health has implications for health policy. However, little is known about this impact in the UK population. Self-rated health (SRH), a simple robust measure of subjective health has been shown to predict

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independently health outcomes. This study examined the impact of the number and pattern of common chronic conditions on subjective health.

Methods

25 268 men and women aged 39 to 79 years recruited from general practice registers as part of the European Prospective Investigation of Cancer (EPIC-Norfolk) who had completed a health questionnaire including SRH and self-reports of prevalent chronic conditions, were included in the analysis. Logistic regression models adjusting for age, sex, social class and psychological measures were used to determine odds of "poor" compared to "good" SRH for each condition and for the number of morbidities calculated as a simple count of conditions. Odds of "poor" SRH for combinations of conditions were also determined since the simple count of morbidities does not take account of the differential impact of individual disease combinations.

Results

The odds of reporting "poor" SRH were highest in those with a history of heart attack (OR=3.8(3.2,4.4)), stroke (OR=3.1(2.5,3.9)) and diabetes (OR= 2.6(2.2,3.1)). Odds of reporting "poor" SRH across conditions increased with the number of morbidities, in particular in those with three or more (OR=3.5(2.4,5.3)) compared to those with two (OR=1.8(1.6,2.0)) or one condition (OR=1.3(1.2,1.4)), in relation to those with no morbidities. Greater odds of "poor" SRH were seen in those with combinations including stroke, heart attack and diabetes.

Conclusions

Those with certain chronic conditions such as heart attack, stroke, and diabetes and those with multimorbidities reported poorer SRH than the remainder of the population. SRH may provide a useful integrative patient-centred assessment of the burden of disease in those with more than one medical condition. Patients registering in general practice with a history of three or more chronic diseases may warrant careful assessment of the personal burden of disease on health and require special efforts to ameliorate it.

048

Effect of screening for type 2 diabetes on health related behaviours at the population level

Presenter: Justin B Echouffo Tcheugui
Coauthors R K Simmons
A T Prevost, K W Williams, A L Kinmonth, N J Wareham, S J Griffin

Introduction

Testing for type 2 diabetes is proposed as part of the NHS health check. Such screening may lead to false reassurance among those who are tested negative leading to adoption of unhealthy behaviours. We assessed whether a population-based screening for type 2 diabetes was associated with changes in health behaviours

Methods

In the ADDITION-Cambridge randomised controlled trial of screening, practices were allocated to screening (n=27) or no-screening/control (n=5) groups. A total of 23% (18,875) of patients aged 40-69 without diabetes from both groups were classified as high risk based on a validated risk score. Six years after screening, a random sample of patients from each trial group was sent a postal questionnaire (15% from the screening group and 30% from the no-screening group) assessing self-reported helath behaviours. We compared self-reported physical activity, dietary habits, smoking and alcohol consumption between groups using a linear mixed effect model, controlling for clustering. We also compared self-reported health behaviours between individuals who screened negative and the no-screening group.

Results

1,995 of the 3,286 questionnaires were returned (61% response rate). 1,945 were included in the analysis (screening group: 1,372; control group: 573). Characteristics of practices and patients were well matched at baseline, as were characteristics of responders and non responders. There were no significant differences between the screening and control groups for self-reported physical activity (mean difference in total physical activity: 0.14 MET-

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hours/week, 95%CI: -4.88 to 5.16), smoking status (mean difference in percentage of current smokers: 0.005, 95%CI: -0.029 to 0.039), and alcohol consumption (mean difference: 0.21 units/week, 95%CI: -1.15 to 1.56). There were no differences in dietary habits apart form the proportion of people consuming one or more portions of green leafy vegetables per day which was higher in the screening group (mean difference: 0.044, 95% CI: 0.003 to 0.086). There were no differences between those screening negative (n=794) and the control group for any outcome

Conclusions

Screening for diabetes appears to have little impact on health behaviours after six years. We found no evidence that negative screening tests are associates with false reassurance.

049

Effect of screening for type 2 diabetes on cardiovascular morbidity and self-rated health at the population level

Presenter: Justin B Echouffo Tcheugui
Coauthors R K Simmons, A T Prevost, K M Williams, AL Kinmonth, NJ Wareham, SJ Griffin

Introduction

Testing for type 2 diabetes is proposed as part of the NHS health check in spite of limited data on long term effects of screening on population morbidity. We assessed the impact of a population-based screening programme for type 2 diabetes on cardiovascular (CVD) morbidity and self-rated health.

Methods

In the ADDITION-Cambridge randomised controlled trial of screening, practices were allocated to screening (n=27) or no-screening/control (n=5) groups. A total of 23% (18,875) of patients aged 40-69 without diabetes from both groups were classified as high risk based on a validated score. Six years after screening, a random sample of patients from each trial group was sent a postal questionnaire (15% from the screening group and 30% from the no-screening group), assessing CVD and self-rated health. We compared self-reported history of angina, stroke and heart attack, and measures of self-rated health (SF-8 and EuroQol) using a linear mixed effects model, controlling for clustering.

Results

1,995 of the 3,286 questionnaires were returned (61% response rate). 1,945 were included in the analysis (screening group: 1,372; control group: 573). Characteristics of practices and patients were well matched at baseline, as were characteristics of responders and non-responders. There were no significant differences in the proportion of participants reporting angina, heart attack and stroke (proportions with cardiovascular events: screening group: 12.5%; no-screening group: 13.5%; mean difference: -0.010, 95%CI: -0.05 to 0.03). Similarly, there were no differences between groups in SF-8 physical (mean difference: -0.23 95%CI: -1.69 to 1.22) and mental (mean difference: -0.37, 95%CI: -1.25 to 0.51) health summary scores, SF-8 domain scores and health utility (mean difference in EuroQol-5D score: 0.005, 95%CI: -0.027 to 0.037 and in EuroQol Visual Acuity Scale: 0.89, 95%CI: -1.42 to 3.19). There were no differences between those screening negative (n=794) and the control group for any outcome.

Conclusions

Population-based screening for type 2 diabetes appears to have limited impact on CVD morbidity, functional health status and health utility after six years. Potential benefits of screening among those who have diabetes are unlikely to be outweighed by adverse consequences to the majority testing negative.

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050

Current and alternative programmes for monitoring renal function in type 1 diabetes: modelling study based on the Oxford Regional Prospective Study

Presenter: Jason Oke
Coauthors R Stevens, R.Perera, D.Dunger, N.Dalton, A.Neil, A.Farmer

Introduction

Current guidelines for people with diabetes includes annual monitoring for microalbuminuria, so that preventive treatments such as Angiotensin-Converting Enzyme inhibitors can be given to those showing early signs of diabetic nephropathy. Because albumin creatinine ratio (ACR) has high day-to-day variability, NICE guidelines recommend that an ACR value above threshold (>2.5 or >3.5 for men/women) be confirmed with up to two further tests before microalbuminuria is diagnosed, whereas an ACR value below threshold requires no further tests. We used statistical modelling to compare the guideline approach, with one to three tests per person, with approaches in which all patients are tested three times regardless of initial test value.

Methods

We used data on 483 individuals with type 1 diabetes aged 5-25 years from the Oxford Regional Prospective Study (ORPS) to fit a statistical model for trends and variation in albumin creatinine ratio (ACR), with log transformations and t-distributions to account for the skewness and high variability of individual ACR values. Based on our fitted statistical model, we calculated rates of false positive and false negative diagnoses by computer simulation.

Results

In a cohort of children similar to those in ORPS we estimate that an average of 125 tests would be carried out per 100 patients per year under the NICE guidelines, and that the resulting microalbuminuria diagnoses would have 60% sensitivity and 96% specificity. If all patients had three tests, we estimate 83% sensitivity and 90% specificity if diagnoses were based on the average (arithmetic mean) ACR or 75% sensitivity and 94% specificity if diagnoses were based on the median ACR.

Conclusions

Renal monitoring in type 1 diabetes based on the median of three ACR values would have similar specificity to the current recommended monitoring programme (methodological research is needed to provide confidence intervals). Monitoring based on median of three would have much higher sensitivity to the current recommended monitoring programme, but at the cost of more than twice as many ACR tests overall.

051

Measuring psychological change during brief CBT in primary care: the validation of a new 'during-therapy' version of PSYCHLOPS ('Psychological Outcome Profiles')

Presenter: Mark Ashworth
Coauthors P Schofield, M Kordowicz, S Czachowski

Introduction

Eliciting patient opinion has assumed growing importance with the adoption of Patient Reported Outcome Measures (PROMS) and the contribution of patient survey responses to QOF performance. Although outcome measures are commonly used in primary care mental health, none allow patients to describe and score their own problems (patient generated measures).

We have devised and validated a patient generated measure, PSYCHLOPS ('Psychological Outcome Profiles'), which is administered before and after talking therapy. However, it has one drawback. Usually, over half the patients starting therapy fail to complete a post-therapy questionnaire, thus preventing the calculation of a change score. We have overcome this limitation by devising a 'during-therapy' version of PSYCHLOPS, enabling change scores to be calculated throughout the duration of talking therapy.

Repeated measures have not previously been reported for patient-generated mental health outcome instruments in primary care. We

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aimed to validate PSYCHLOPS as a measure of change over time.

Methods

Patients were recruited from primary care in Poland where brief CBT is routinely offered by GPs trained in this technique. Responses to PSYCHLOPS pre-, during- and post-therapy were compared. Change scores were calculated using Effect Sizes (change divided by SD of baseline score).

Results

238 patients completed the pre-therapy questionnaire, 194 (81.5%) completed the during-therapy questionnaire and 135 completed the post-therapy questionnaire (56.7%). Based on the sample completing all three measures, the mean score fell from 15.82 pre-therapy to 11.31 during therapy and 6.44 post-therapy (score range: 0-20). The mean Effect Sizes for change pre- to during-therapy and during- to post-therapy were 1.41 (95% CIs, 1.23, 1.59) and 1.53 (1.36, 1.69), respectively; overall Effect Size, 2.94 (2.71, 3.17). Although the majority of patients reported new problems arising during therapy, (n = 100; 74.1%), their mean change scores were similar to those not reporting new problems: 9.62 vs 8.69; t = -1.09, P = 0.23.

Conclusions

A large proportion of outcome data is lost when outcome measures depend upon completed end of therapy questionnaires. Using repeated measures, we found that improvement during therapy (over three time points) was broadly linear and that the appearance of new problems during therapy did not hamper overall recovery.

052

QResearch evaluation of PINCER trial: analysis of secular trends in outcome measures

Presenter: Yana Vinogradova
Coauthors Yana Vinogradova, Julia Hippisley-Cox, Tony Avery, Denise Kendrick, Sarah Rodgers, Sarah Armstrong, Martin Eden

Introduction

Problems associated with the use of medicines are a recognised important cause of injury and death in health care. The PINCER trial is a cluster randomised controlled trial comparing the effectiveness of a pharmacist-led IT-based intervention in reducing rates of clinically important errors in medicines management in general practices. For ethical reasons "simple feedback" of medication errors (rather than a true control group) was included for the trial alongside the main intervention. The trial practices were, however, compared informally with QRESEARCH practices without known intervention.

Methods

Data from 438 UK general practices selected from QResearch and covering 3.4 million patients were summarised at practice level on the basis of the following primary outcome measures from the PINCER trial: (1)proportion of patients on NSAIDs among patients with Peptic ulcer without proton-pump inhibitors, (2) proportion of patients on beta-blockers among patients with Asthma, and (3)proportion of patients aged 75 years or older on angiotensin converting enzyme inhibitors or loop diuretics without laboratory test.

Data from the QRESEARCH practices were compared with findings from the PINCER trial intervention groups at baseline and six and 12 months following the interventions.

Results

QResearch and 72 PINCER practices were comparable in several key characteristics (practice size, age-sex distribution, prevalence of asthma and peptic ulcer, and baseline medication error rates). In the QRESEARCH practices we found overall improvement for monitoring problems in outcome 3: from median proportion 9.2% (interquartile range (IQR) 5.2 to 14.3) to 6.5% (IQR 3.8 to 10.6). For prescribing problems there was a slight increase of proportion of errors for outcome 2: from median 2.4% (IQR 1.8 to 3.1) to 2.6% (IQR 1.9 to 3.5) and no change for outcome 1. Comparisons with the PINCER trial "simple feedback" intervention group indicated that apparent improvements mirrored those in the QRESEARCH practices and were, therefore, probably not due to the intervention.

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Conclusions
The study demonstrated a successful innovative approach in collecting outcome data alongside a randomised trial. The findings provide information on hazardous prescribing in a large number of UK general practices, and have been helpful in interpreting some of the results from the trial.

053

Embedding Research Within Whole Practice Culture - An Evaluation of the Northumberland Tyne and Wear Comprehensive Local Research Network (CLRN) Primary Care Research Practices Initiative

Presenter: Karen Smith
Coauthors Professor Ann Crosland
Dr Shona Haining
Dr Scott Wilkes

Introduction
Following consultation within Primary Care which identified barriers to research participation the Northumberland Tyne and Wear Comprehensive Local Research Network (CLRN) developed the Primary Care Research Practices Initiative to support Practices to secure and develop their research capacity. Specific objectives being to:

- increase Primary Care participation in and recruitment to NIHR portfolio studies
- create a quality and performance driven environment for developing Primary Care clinical research sites
- increase the recognition of the contribution of Primary Care to national and local NHS research agendas.

The aim of this study was to evaluate the Primary Care Research Practices Initiative from the perspectives of all key stakeholders. Evaluation plays a critical role in the translation of knowledge into good practice; this evaluation has informed future roll out of the Primary Care Research Practices Initiative.

Methods
A mixed methods approach was used:

- Semi structured interviews with a sample of staff developed an understanding of the context and acceptability of this initiative, identifying areas for improvement

- Questionnaires developed from interview data explored the extent of any consensus or deviation regarding interview themes among remaining staff.

- Semi structured interviews with patients developed an understanding of the context and acceptability of this initiative.

- Routinely collected quantitative data was presented to show impact upon patient recruitment.

Results
Practices have become more research active and research confidence has grown. Specific operational benefits include having dedicated research time, training, locally provided support and regular Forum meetings. Areas highlighted for improvement include communication, the provision of feedback regarding expectations and achievement of recruitment targets and greater organisational and role clarity across the infrastructure within which this initiative is cited.

Conclusions
Key overarching achievements of the Primary Care Research Practices Initiative are:

- the embedding of research within whole Practice culture
- the desire to share developed expertise through participating Practices' involvement in the design of future NIHR Portfolio Trials and by mentoring newly recruited practices
- the drive to develop and take forward locally pertinent research questions
- the view that being a Research Practice is a quality mark, adding value to patient experience and care

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054

Public attitudes to the use in research of personal health information from general practitionersâ€™ records: a survey of the general public

Presenter: Brian Buckley
Coauthors Murphy AW, MacFarlane A

Introduction

General practice patient records are of particular value to research, containing data spanning lifetimes relating to morbidity and process of care. Understanding the views of the public is essential if generally acceptable policies are to be devised that balance controlled, legitimate research access to these data with protection of patientsâ€™ rights to privacy. Yet relatively few large national studies have been conducted about public attitudes to research access to personal health information (PHI).

Methods

A mixed methods study. Focus groups were used to investigate attitudes towards research access to PHI. Informed by the focus groups and a literature review, a questionnaire was designed which sought data relating to attitudes to research access to PHI and factors that influence these. Subsequently a postal survey was conducted of an electoral role based sample of the adult population of Ireland.

Results

Completed questionnaires were returned by 1575 (40.6%). Amongst respondents, 67.5% were unwilling to allow GPs to decide when researchers could access identifiable PHI. However, 89.5% of responders said they would agree to an ongoing consent arrangement that would allow for the sharing by GPs of anonymous PHI with researchers without the need to be asked for consent on a study-by-study basis. Increasing age (by each ten year increment), being retired and primary level education only were significantly associated with an increased likelihood of agreeing that any PHI could be shared on an ongoing basis: Odds Ratio 1.39 (95% confidence interval 1.18 â€“ 1.63), 2.00 (1.22 â€“ 3.29) and 3.91 (1.95 â€“ 7.85) respectively. Amongst the most reluctant age group (36-45 year olds), more than 80% were willing to allow ongoing sharing of at least anonymous data with researchers.

Conclusions

In this study a large majority of a large and comparatively representative national sample supported the sharing of anonymous PHI without the need for consent. Prior consent agreements that would allow the supply by GPs of anonymous PHI to researchers may be widely supported. However a not insignificant minority wanted to be asked before anonymous PHI is shared. The health care and research communities must remain cautious when designing protocols for accessing patient records.

055

Using qualitative data to design, evaluate and remodel complex interventions: the example of a Breathlessness Intervention Service for advanced disease

Presenter: Morag Farquhar
Coauthors IJ Higginson, S Booth

Introduction

Despite some increase, the integration of qualitative methods with randomised controlled trials (mixed method randomised controlled trials), remains uncommon, even where relatively complex interventions are being evaluated. Yet qualitative methods can contribute much to the design, evaluation and remodelling of complex interventions. They can be used as a stand alone method, sequentially with quantitative methods (either before or after) or concurrently.

Methods

Qualitative observational studies and mixed methods randomised controlled trials (pilot and full powered; concurrent) of a Breathlessness Intervention Service (BIS) for advanced disease used within the MRC's framework for complex interventions. Qualitative data were analysed using a framework approach.

Results

Qualitative methodology has been used throughout the development and evaluation of BIS. The Pre-Clinical phase, which contributed to the evidence-base for the initial service model, consisted of a

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qualitative study of patients with breathlessness due to advanced disease and their carers. Phase I, a qualitative study of the users of the pilot service, informed the service's re-development. These early phases therefore used stand alone qualitative methods. The Phase II pilot RCT collected mixed methods outcomes, but importantly used qualitative methods to examine the feasibility and acceptability of outcome measures. In addition, qualitative findings at Phase II further refined the service model and RCT protocol. The current Phase III is a fully powered mixed methods multiple-perspective RCT. These later phases therefore used qualitative methods concurrently with quantitative.

Conclusions

Qualitative methodology is intrinsic to MRC framework (and therefore complex interventions): it can justifying the need for complex interventions and is fundamental to their design, evaluation and subsequent remodelling. In the development and evaluation of BIS, qualitative methods were used at every phase, either as a stand alone method or concurrently. Further, by embedding qualitative methods in feasibility studies of RCTs, they can play a key role in testing evaluation methods.

056

Making the Most of Policy Evaluations: lessons from evaluations of initiatives arising from the White Paper 'Our health, our care, our say'

Presenter: Chris Salisbury
Coauthors K Stewart, A Cameron, S Peckham, M Calnan, R Lart, S Purdy, H Thorp

Introduction

The White Paper 'Our Health, our care, our say' set out policy goals to make health care more responsive to people's needs, with better prevention of ill-health, better access to care, and more support for people with long-term needs. The White Paper included a strong commitment to evaluate initiatives intended to achieve these aims. We were commissioned by the Department of Health to synthesise findings from these evaluations, in order to:

- assess the strengths and limitations of evidence collected;
- explore common lessons about whether these initiatives supported policy goals;
- increase understanding about how the commissioning, conduct and dissemination of evaluation could be improved.

Methods

We undertook a mapping exercise to identify relevant local and national evaluations and conducted a survey of those identified. We selected a purposive sample of 21 evaluations to reflect different types of initiative and different methodological approaches. Using a case study approach we interviewed key informants at the DH about what they hoped to learn from evaluation, leaders of each initiative about what is was intended to achieve, principal investigators for each evaluation about the methods they chose, and staff in the services being evaluated about whether their work was being appropriately assessed. We also reviewed progress and final reports.

Results

There was widespread commitment to the importance of evaluation of health initiatives, but much less clarity about why evaluation was needed or how the findings would be used. There was considerable variation between evaluations in terms of their scale, methods, funding and commissioning route which did not appear to have strategic justification.

Evidence was stronger in relation to the feasibility and acceptability of the initiatives than it was in terms of costs or health benefits. Some evaluations were intended to assess the impact of initiatives, but did not use methods which could provide robust evidence about this. Many evaluations were limited by compromises which were related to not planning evaluation before the initiative was implemented, insufficient resources or expecting findings too quickly.

Conclusions

We make 10 key recommendations to improve the quality of evaluations and the

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confidence which can be placed in their reported findings.

057

A Systematic Review- The Association between Inappropriate Prescribing in Care Homes and Adverse Patient Outcomes

Presenter: Mathumalar Loganathan
Coauthors A Bottle; B D Franklin; A Majeed

Introduction

There is a growing interest in older persons' medication safety in care homes. As there is little research into prescribing quality in care homes in the UK, there is a limited evidence base to inform policy making. The little data available on care homes have mostly focussed on the prevalence of inappropriate prescribing and the assessment methods were largely adopted from the USA. Whilst the USA had incorporated the assessment method in its Omnibus Budget Reconciliation Act of 1990 (OBRA '90) to ensure quality care , findings and current policy in the UK suggest that there is no great evidence base to work from of tested solutions.

Some studies had examined the association for community residing elderly in which positive associations were reported for adverse drug reactions, healthcare costs, inpatient and accident and emergency department visits. However, very few studies have been conducted in the care home setting to look at such an association and its health outcomes at a population level. Hence, the aim of this systematic review is to examine the relationship between inappropriate prescribing in care homes and (1) hospitalisation and/ or (2) mortality with the hypothesis that inappropriate prescribing causes adverse drug reactions which can result in adverse patient outcomes.

Methods

We searched published literature from 1980 to November 2009 on Medline, Embase, Cochrane and International Pharmaceutical Abstracts using keywords aged, nursing home, care home, residential home, quality indicators, inappropriate prescribing and adverse patient outcomes. We then conducted a manual search of reference and citation lists to attain a greater scope of pertinent literature. 1849 articles were obtained.

Articles in English, research on elderly people aged 65 and above living within care homes, identified prevalence of inappropriate prescribing and evaluated relationship between inappropriate prescribing and the likelihood of hospitalisation and/or mortality. 5 articles matched the inclusion and exclusion criteria. The 5 articles were reviewed independently by two authors and any discrepancies were resolved by a third author. The Critical Appraisal Skills Programme 2004 Checklist was used.

All available information from the studies were placed in tables in terms of characteristics of participants, exposure data and outcome measures. All studies had inappropriate prescribing assessed at baseline using a set of criteria. The criteria were based on Beers 2002 and measured inappropriate prescribing in terms of 1) drugs to be generally avoided in elderly 2) incorrect dosage 3) drug-disease interaction 4) drug-drug interaction 5) duplication and 6) acute drugs used for chronic conditions. During the follow up period, data on hospitalisation and mortality are collected. At the end of the study, data were subjected to statistical analysis.

Results

Gupta did not study hospitalisation as an outcome. Gupta found no significant association between the number of inappropriate drugs and mortality. Klarin found no association between inappropriate prescribing and hospitalisation or mortality. Lau found that inappropriate prescribing increased the likelihood of being hospitalised and mortality regardless of the period of inappropriate prescribing exposure. Perri found that the odd of having at least one adverse patient outcome is doubled in the presence of inappropriate prescribing. Raivio found that there is no association between inappropriate

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prescribing and hospital admissions; in both patients without dementia and with dementia. As a summary, Gupta, Klarin and Raivio found no significant associations for any of the outcomes whilst Lau and Perri found significant associations for both the outcomes.
There is Insufficient data for meta-analyses due to different methodologies and reporting as such different outcome measures and combination of covariates.

Conclusions

Based on the findings of the five studies, the prevalence of inappropriate prescribing ranges from 36.2%-50.3%. On average, each patient took 4.4 to 10.5 medications. There is mixed evidence to support the association of inappropriate prescribing in care homes with adverse patient outcomes. With two studies of high standard showing a positive association, this demonstrates that there is a possibility of an association. In addition, a lack of evidence does not mean that there is no association. There is probably a lack of research within this field.Whilst there are various adverse outcomes an older patient will experience (for example, falls and adverse drug reactions) due to inappropriate prescribing, we had obviously set the benchmark very high by measuring death and hospitalisation as outcomes. None of the studies were conducted in the UK which imply that these findings cannot be extrapolated to the local settings. As such, there is an urgent need for more substantial research in this field pertaining to the impact of inappropriate prescribing to health care quality of older people. These, in turn, can then be utilised to inform policy makers.

058

Antidepressant use and the risk of stroke in older people

Presenter: Carol Coupland
Coauthors P Dhiman, T Arthur, R Morriss, G Barton, J Hippisley-Cox

Introduction

Antidepressant drugs are among the most commonly prescribed drugs in primary care; 36 million prescriptions were issued in the community for antidepressants in England in 2008. Although depression is common in older people clinical trials for antidepressants often under represent the elderly population so little is known about risks of adverse advents in this population.

The objective of this study was to establish the relative safety and balance of risks for classes of antidepressant drugs and individual antidepressants in older people. The results presented here are for stroke.

Methods

The study used data from a large primary care database (QRESEARCH). A cohort of patients was identified with a recorded diagnosis of depression made at the age of 65 and over between 1/1/1996 and 31/1/2007.

The cohort study used Cox survival analysis to estimate the hazard ratios associated with antidepressant use, treating antidepressant use as timevarying and adjusting for confounding variables.

Results

The cohort consisted of 54,298 patients without a previous stroke. During follow-up 5369 patients had an incident stroke, giving an incidence rate of 202 per 10,000 person-years.

The rate of stroke during follow-up was significantly increased for Selective Serotonin Reuptake Inhibitors (SSRIs) and the class of other antidepressant drugs but not for Tricyclic Antidepressants; the highest increase was for the class of other antidepressants where there was a 37% increase in stroke rate (95% CI 22% to 55%). The highest hazard ratios among the most commonly prescribed drugs were for Venlafaxine Hydrochloride where the stroke rate was increased by 51% compared with no antidepressant use (adjusted hazard ratio 1.51, 95% CI 1.28 to 1.78), and Mirtazapine where the stroke rate was increased by 38% (adjusted hazard ratio 1.38, 95% CI 1.15 to 1.65).

It was estimated that for each 10,000 patients treated with the class of other antidepressants 81 additional people would

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have a stroke in one year compared with no treatment, compared with 38 for SSRIs.

Conclusions

Stroke risk is significantly increased for Selective Serotonin Reuptake Inhibitors and the class of other antidepressant drugs, in older people. These risks need to be weighed against the potential benefits of these drugs. Limitations of this study include possible indication bias, and residual confounding.

059

Strategies to optimise prescribing quality in care homes

Presenter: Shonella Singh
Coauthors S Singh, A Bottle, BD Franklin, A Majeed

Introduction

Prescribing in the elderly population is a complex process and the prevalence of inappropriate prescribing is high, with potentially severe consequences. Care home residents are particularly vulnerable to inappropriate prescribing. With a growing ageing population, strategies to improve prescribing are essential. The aim of this systematic review was to collect and interpret the results of controlled trials of interventions to reduce inappropriate prescribing in care homes, to determine the most effective strategies.

Methods

Databases searched were MEDLINE, EMBASE, International pharmaceutical abstracts and the Cochrane library. Search items included 'nursing home', 'residential home', 'inappropriate prescribing', 'education', 'staff education', 'MDT', 'pharmacist', 'computer'. The search strategy retrieved 16 articles that met the inclusion criteria. Three independent reviewers undertook screening and methodological quality assessment, using the Downs and Black rating scale. A meta-analysis could not be done due to heterogeneity of the outcome measures used in the different studies.

Results

Four intervention strategies were indentified: education, multidisciplinary team (MDT) meetings, clinical pharmacist reviews and computerised clinical support systems. Educations interventions was the most studied area, with six studies showing an improvement in inappropriate prescribing. Mixed results were found for the pharmacist interventions, possibly due to the inappropriate choice of outcome measures used for assessing prescribing quality. Computerised decision support system (CDSS) were evaluated in two studies, with one showing a significant increase in the final appropriate drug orders. Two of the three studies examining MDT meetings found an overall improvement in quality of prescribing.

Conclusions

Results from various interventional strategies are mixed; a multi-faceted approach, clearer policy guidelines and standardised measurements for measuring inappropriate prescribing are required to improve prescribing practices for these vulnerable patients.

060

Stemming the tide of antibiotic resistance: A trial of a theory based intervention addressing appropriate antibiotic prescribing in primary care (the STAR Programme).

Presenter: Sharon Simpson
Coauthors C Butler, K Hood, S Rollnick, D Cohen, M Hare, M Bekkers, J Evans, D Gillespie, F Dunstan and the STAR study team.

Introduction

Considerable further gains could still be made in reducing inappropriate antibiotic prescribing, but complex interventions are required. We have developed a Social Cognitive Theory based, blended learning intervention called the STAR Educational Program. The intervention involves use of practices' own prescribing and resistance data and novel consulting strategies which aims to enhance antibiotic prescribing in primary care. The primary objective of the study is to assess whether exposing prescribers in General Practices to the STAR programme results in fewer antibiotics being dispensed in those practices over one year.

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We also examined hospital admission rates for possible complications of common infections and potential intervention effects on reconsultations.

Methods

The study is a randomized controlled trial with general practice as the unit of randomization and analysis. Sixty-eight general practices across Wales were randomised in a way that balances for practice size, previous antibiotic prescribing, and proportion of clinicians who signed up for the study. The study compared practices trained via the STAR programme with those not trained. The main analysis was intention to treat and compared the two groups for annual total antibiotics dispensed per 1000 practice patients within practices in the year following the intervention, using analysis of covariance with the average of the previous years' prescribing as a covariate.

Results

We found a significant reduction in antibiotic dispensing in the intervention group, after controlling for the baseline dispensing rate ($p = 0.010$). The intervention group had a 4.1% reduction in antibiotic dispensing compared to the control group. There was no significant difference between the complication rate at follow-up between groups, after adjusting for the baseline complication rate ($p = 0.720$). There were no significant differences between intervention and control groups for reconsultation rates at 7,14 and 31 days ($p = 0.446$, 0.411 and 0.503).

Conclusions

The Star Educational Program resulted in a statistically significant and clinically important reduction in total antibiotic dispensing at the level of general practices over the year following intervention delivery. This was achieved despite not all GPs in the participating intervention practices signing up and receiving the training. This approach has the potential to improve communication between clinicians and patients, as well as reducing unnecessary antibiotic prescribing.

061

Managing self-limiting respiratory tract infections in primary care: How useful is the delayed prescribing strategy?

Presenter: Sarah Peters
Coauthors A Chisholm, S Moschogianis, A Wearden, L Cordingley, D Baker, C Hyde, C Chew-Graham

Introduction

Around a quarter of the population attend primary care annually with a cough or cold. Although antibiotics are ineffective for treating viral self-limiting respiratory tract infections, most of these consultations end with an antibiotic prescription, resulting in wasted resources, increased bacterial resistance and iatrogenic side-effects. NICE guidelines recommend that doctors use 'delayed prescribing' (DP), where a prescription is given but patients are asked not to use it unless symptoms persist. Whilst this approach can reduce short-term antibiotic use, it fails to address patient and doctors' illness and treatment beliefs and reduce re-consulting rates. This study aims to explore how DP is used within primary care.

Methods

Semi-structured interviews were conducted with a purposive sample of 30 GPs with varying experience in general practice. An iterative approach was used to develop conceptual categories from the dataset. Initial emergent themes were explored in subsequent interviews and data generation continued until thematic saturation was achieved.

Results

GPs thought DP was a complex and contradictory message to communicate and undermined messages about the efficacy of antibiotics for coughs/colds, although it did serve the purpose of demonstrating care and "giving something" to the patient. Other factors that contributed to DP being used as a strategy were GPs feeling pressurised by time, clinical uncertainty and patient assertion. GPs' current communication strategies and skills seemed insufficient to demonstrate empathy and educate patients about the course of the illness without recourse to antibiotics. DP provided an

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inadequate compromise within the consultation.

Conclusions

DP could be used to negotiate with patients when a doctor feels antibiotics are unnecessary yet want to communicate concern. Alternative approaches, without the use of a prescription, might be more appropriate. Development of skills for use within the consultation, and confidence in their execution, are key so that unnecessary prescriptions for respiratory tract infections are avoided but the consultation ends satisfactorily for both doctors and patients.

062

Patient experiences of a quality improvement initiative to reduce inappropriate long-term hypnotic prescribing in a rural practice

Presenter: Fiona Togher
Coauthors M Tilling, Dr D Bee, Prof A N Siriwardena

Introduction

Insomnia is common affecting up to 40% of adults. About a half of sufferers seek help from primary care, usually receiving sleep hygiene advice or hypnotic medication. Hypnotics are licensed short term, have limited therapeutic value and significant potential adverse effects, but many patients continue to receive them long term inappropriately. An innovative sleep management programme to reduce inappropriate prescribing of hypnotics was implemented by a single general practice in rural Lincolnshire as part of a quality improvement collaborative. This involved gradual withdrawal of hypnotic drugs supported by sleep assessment and treatment using cognitive behavioural therapy for insomnia. Little is known about patients' experience of this type of withdrawal programme. We aimed to investigate patients' experiences.

Methods

We used a focus group interview to investigate patients' experiences of the programme, inviting patients who had undergone the programme by letter. The focus group was moderated by two independent non-clinical researchers using a topic guide. Data were recorded, transcribed and analysed using a constant comparative approach using MAXQDA 2007.

Results

A single focus group was held with four patients. Key themes that emerged included current feelings about sleeping tablets, attitudes towards the process, access to GP support, perceived usefulness of sleep management, (re)attribution of sleep difficulty and current quality of patients' sleep. Although patients were initially ambivalent they followed the programme because of trust in their doctor and a clear and consistent approach from the practice. Patients expressed a need for more face-to-face sleep advice during the process and greater recognition afterwards. They were generally positive about the benefits of hypnotic withdrawal despite variable effects on sleep

Conclusions

Patients were positive about the benefits of withdrawing from long term hypnotic drugs. They made recommendations about future programmes. Sleep education should be delivered during a consultation and a formal end to the process, recognising the patients' success, should be incorporated. The main limitation was that the focus group was conducted over a year after the sleep management programme was conducted which may have affected participation. Focus groups can provide a useful method of evaluating patients' experience which is an important aspect of quality of care.

063

Can we use electronic medical records to assess the quality of primary care? Some methodological challenges.

Presenter: Amanda Nicholson
Coauthors Professor Jackie Cassell

Introduction

Following the Darzi review, quality of outcome is a renewed focus for the NHS. The vast majority of patient contact with the NHS takes place in primary care yet routinely available data to describe and evaluate this care is limited. Electronic

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health records are a potential resource to describe health care delivery but it is not yet clear whether they can be used to accurately describe and evaluate primary care. Using epididymitis as exemplar condition, we examined electronic medical records from a primary care research database to develop a methodology to describe care pathways.

Methods

Using data from 460 UK general practices contributing to the General Practice Research Database (GPRD) we identified men, aged 15-60 years, consulting with a first episode of epididymitis between 2003 and 2008. The coded records within 28 days either side of the diagnosis date were analysed to establish the location of management and to describe treatment and investigation.

Results

12,270 cases were identified. 57% of these men (6,943) were managed entirely within the GP practice and 26% (3141) had evidence of receiving care elsewhere. Of the 6,943 men managed within primary care, 92% received an antibiotic prescription, of which 56% received an antibiotic recommended for epididymitis and 18% received doxycycline. The majority of men had no test or result coded. Fewer than 3% of men had a Chlamydia test recorded and only 12% had evidence of any microbial investigation for urethritis.

Using coded data, aggregation of evidence for having received care elsewhere was the major methodological problem identified. The system developed for locating all relevant codes will be described. 18% cases (2186) had a diagnostic code only, with no evidence either of management within practice or care elsewhere. Important information may be held in free text in these cases.

Conclusions

These results indicate low rates of specific testing and treatment for Chlamydia in men who attend general practice with symptoms of epididymitis. Further work, including access to free text and linkage to hospital statistics, is needed to validate our methods identifying cases crossing the primary/ secondary care boundary.

064

Missing data imputation in clinical databases: development of a longitudinal model for cardiovascular risk factors

Presenter: Irene Petersen
Coauthors J Carpenter, C Welch, N Kohler, R Morris, L Marston, K Walters, I White, I Nazareth

Introduction

Various approaches have been used to deal with missing data in clinical databases. These include complete case analysis (including only patients with complete records in the analysis), exclusion of variables with incomplete data from the analysis, and including patients with missing information but creating a separate category for missing values. The issue of (selection) bias and potential incorrect conclusions using these methods is well recognised. Complete case analysis may also substantially reduce the power of the studies if a large proportion of patients are missing the relevant data. In recent years multiple imputation (MI) of missing data, has emerged as a potential alternative to deal with missing data in large clinical databases and recently, a number of tools have become available for applied research. However, there is an urgent need for further development of these methods to allow for the dynamic and longitudinal structure of many clinical databases.

Methods

Using data from The Health Improvement Network (THIN) primary care database from 1995 - 2009 we developed a 'forward-backward' multiple imputation algorithm which take into account of the longitudinal structure of such data.

Results

: First, we demonstrate how the 'forward-backward' algorithm works in practice when imputing missing health indicator data including weight, height, blood pressure, smoking and alcohol. Second, we discuss some of the obstacles involved with multiple imputations of missing data in clinical

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databases. This includes issues about differential recording (of smoking status) and data recording errors. We will demonstrate how ignoring such issues can lead to serious bias in the imputation models.

Conclusions

Multiple imputation is an effective way to deal with missing data in longitudinal clinical databases, but it is important to take account of the longitudinal structure of such databases.

065

Natural Language Processing for extracting information from medical text; Uncovering concealed data from GP records

Presenter: Rob Koeling
Coauthors Dr J Carroll, Dr R Tate

Introduction

Primary care databases are used extensively for health service research but most studies use only coded information and ignore the information stored in the less accessible free text GP notes. We are developing methods for making available, for research and audit purpose, medical information that is "concealed" in GPs' free text notes. We aim to determine how much information is hidden in the free text and how much of this information can be extracted using either simple keyword matching techniques or more sophisticated techniques using automated natural language processing for extracting harder to access information. This is particularly challenging, since the language data is very `noisy' and the language context of a symptom might indicate uncertainty, negation or might even refer to someone other than the patient.

Methods

General Practice Research Database records of 344 ovarian cancer patients were used to investigate the percentage of patients experiencing commonly presenting symptoms in the year preceding a diagnosis. We used automated methods to extract information from the free text and compared estimates based on the coded records alone with enhanced estimates using information extracted from the free text.

Results

Many records contain information on symptoms in the free text that is absent from the Read codes. Even simplistic automated key word matching methods can extract many such occurrences. For example, the recorded percentage of patients with abdominal pain increased from 38% to 48% and with abdominal distension/bloating from 24% to 40% when free text information was used.

Conclusions

In medical notes a substantial proportion of symptoms are "concealed" in the text, but our early results suggest it is feasible to extract symptom information automatically. We are currently adapting our language models to the language of these notes. The noisy character of the data presents challenges for automated methods. However adaptation of standard methods from Natural Language Processing seems to be feasible and to produce good baseline results. With further adaptation these techniques will have substantial potential to enhance records based research.

066

Enhancing primary care data with linked Hospital Episode Statistics: issues of diagnostic concordance

Presenter: Tim Williams
Coauthors S Eaton, A Gallagher, E Setakis

Introduction

The General Practice Research Database (GPRD) is a valuable tool in health care research but has limited data relating to activities and diagnosis in secondary care. To address this issue in GPRD, primary care patient data was linked on an individual basis to hospital episode statistics (HES). This abstract describes an investigation into the level of concordance between linked primary care data and HES.

Methods

HES data from April 1997 to March 2008 were linked to GPRD data for 210 practices from England. Hip fractures and Stroke episodes were identified using 5-byte Read

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codes in GPRD and ICD-10 codes in HES. The analysis was restricted to common follow up time. A match was defined as a HES event with a corresponding GPRD event within ± 180 days relative to date of admission or discharge. The most proximal event was selected where multiple records were recorded for a given hospitalization. Exploratory analysis was undertaken on the GPRD record where no corresponding event to a HES event was found.

Results

For Hip Fracture, 24,982 GPRD events were found (66% Female, mean age 71 years), as were 21,953 HES events (73% Female, mean age 78 years). Of 21,953 HES events 14,696 (67%) had a corresponding GPRD event.

Conclusions

HES and GPRD are both observational data sets, and as such neither represents a Gold standard. There are obvious benefits however in utilising these data together but the process of matching events in the two resources is non-trivial. The concordant state may often in itself provide information, as the reasons for mismatches between events may be of clinical or logistical origin as well as being directly related to recording practices for the two data sets.

067

Alcohol and Liver Disease Detection Study
ALDDeS: results and implications.

Presenter: Michael Moore
Coauthors P Roderick G Leydon W O'Brien C Bowerman S Harris N Sheron

Introduction

Liver deaths have increased 8 fold in 30 years and nearly all these deaths appear to be alcohol related. Cirrhosis develops silently and presents late; up to 50% of subjects die before they have a chance to stop drinking. Blood tests in routine use do not detect cirrhosis and diagnosis requires a liver biopsy – impractical for the 2 million UK residents drinking at levels that may result in cirrhosis. Newer blood tests detect fibrosis or cirrhosis at an early stage and, combined with alcohol screening, could greatly improve detection and management of these patients, reducing morbidity and mortality.

Aims: Aims

Assess feasibility of screening a primary care population for hazardous drinking using the AUDIT questionnaire.

Assess practicality of screening heavy alcohol users for liver disease using a simple new blood test.

Assess the resource implications of assessment and follow-up

Methods

We offered postal screening to 10 000 adults age 25-55 randomly selected from general practice lists using the AUDIT questionnaire. An offer of liver fibrosis tests was made to those screening positive. Those with marked elevation of fibrosis markers are referred on for liver health checks markers. Participants were followed up after one year.

Results

All 10 000 AUDITs have been despatched from 9 primary care sites. Response rate to the initial screening was 3677/8703 (42%) Of these reponders 906 25% screen AUDIT positive. 830 AUDIT postitive were invited to attend recruitment clinics. 289 (35%) attended and consented to participate in the study. 137/264 (52%) have some elevation of serum markers of whom 26/264 (10%) are strongly positive with a high probability of liver fibrosis or cirrhosis.

Conclusions

One quarter of respondents to a postal screening survey were drinking hazardously, of whom 10% had robust evidence of progressive liver fibrosis. Further details and one year follow-up results will be available.

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068

Cutting down?: A qualitative study of the experiences of participants in a screening programme for alcohol related liver fibrosis: The ALDDE study

Presenter: Gerry Leydon
Coauthors C Eyles M Moore P Roderick W O'Brien C Bowerman N Sheron

Introduction

Alcohol liver disease (ALD) develops slowly with few signs or symptoms at an early stage and liver function tests have poor diagnostic accuracy for detecting significant liver disease. The Alcohol Liver Disease Detection Study (ALDDES) was a feasibility study which screened for ALD using both self report questionnaires and newer serum markers of fibrosis which have a greater accuracy for detecting fibrosis or cirrhosis. A nested qualitative study was conducted with the aim of exploring patients' experiences, beliefs and understanding about the delivery and process of this type of screening intervention.

Methods

A semi structured interview design was used. A sample of patients who tested as drinking at harmful or hazardous levels were invited to participate in an interview. Patients were selected using purposive maximum variation sampling which continued until saturation was reached. Thirty interviews were conducted and held at the participants' surgery, they lasted up to 60 minutes and were audio recorded and transcribed verbatim. Using coding and constant comparison a thematic analysis was performed so that major themes were identified and relationships between the themes developed.

Results

Some participants were sceptical and suspicious about being selected and about questionnaires in general. However, most participants were positive about the screening process as it increased their knowledge and understanding of safe drinking guidelines and ALD. This knowledge was in most cases scant and tended to be grounded in the participant's beliefs. The combination of increased knowledge and a positive blood test appeared to be a catalyst for participants to modify their drinking. Although those who drank at harmful levels and yet tested negative for ALD did not express a desire to modify their drinking even thought they may still have been at risk

Conclusions

This has implications for the design of future studies as the information that is conveyed to patients about their result is key to their understanding. The educational and training needs of the GPs must be taken into account so that GPs understand these newer fibrosis blood tests and so that patients are informed about the risks incurred of continuing to drink at the same levels.

069

Under the radar: Hidden chronic pain in the community

Presenter: Fiona MacKichan
Coauthors J Adamson, R Gooberman-Hill

Introduction

The experience of persistent pain brings about a 'mobilisation of resources', which may include seeking help from primary care. Older adults are more likely to experience chronic pain but may be less likely to seek help than their younger counterparts. There is little understanding of how older adults not engaged with services manage pain, if at all. Increased insight into why some older adults do not consult can potentially highlight areas of unmet need and improve care in this 'hidden' population.

Methods

This paper reports on findings from the qualitative element of a mixed methods study that utilised a cross-sectional postal survey and in-depth interviews to investigate how people manage chronic pain. Participants were recruited through 11 GP practices in the South West of England. For the survey, two-thirds of the sample were recruited on the basis that they had consulted or received a prescription for persistent pain in the preceding three months, while one third of the sample comprised those not recorded as consulting or having received prescription for persistent

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pain in the same timeframe. In the subsequent qualitative study, interviewees (n=31) were older adults (age 65-92, 15 male and 16 female) purposively sampled from survey respondents.

Results

Interviewees described a range of persistent pain conditions and consulting patterns. Although many were engaged with primary care services, for the majority this was limited to accessing prescription medications for pain relief. Those who did not consult gave candid accounts to explain their non-help seeking. Some expressed a desire for help and described barriers (for example continuity of care); others felt that help seeking in primary care would be futile. This perception was often based on negative past experiences and age and pain-related beliefs. All of these views impacted on help seeking behaviour, preventing requests for additional help.

Conclusions

The belief that nothing can be done in part reflects the known challenge in providing adequate management of persistent pain, but also highlights normative views of ageing. Older adults have a desire to prevent deterioration and manage pain, but may need tailored additional assistance or encouragement to engage with non-pharmacological and non-surgical approaches.

070

The effect of breach of confidentiality on patients' perception of doctors and their willingness to seek further health are

Presenter: Chris Jones
Coauthors Prof Amanda Howe

Introduction

Confidentiality is a central feature of professional practice but is limited, in particular when patients' behaviour may represent a risk to other. There is little empirical evidence as to the effect of breach of confidentiality on the doctor-patient relationship, and whether it would deter patients from seeking health care. If this were the case, then breach of confidentiality with the intention of reducing risk might paradoxically increase risks in the longer term, with significant implications for public policy.

Methods

A qualitative interview-based study of 40 outpatients, 20 with a diagnosis of epilpesy and 20 with mental health problems, utilising brief clinical vignettes of 4 situations in which confidentiality might be breached with the intention of reducing risk. Semi-structured interviews allow exploration of complex attitudes, variables which influence patients' attitudes towards reporting, and the likelihood of patients being deterred from seeking future treatment.

Results

Preliminary results reveal complex beliefs about confidentiality, with significant variation between subjects and across the different scenarios. Despite recognition of potential deterrence from future treatment, and the possibility of risk increasing in consequence, there is general support for breach of confidentiality when others are at risk. Trust within the doctor-patient relationship is a common concern, and while breach of confidentiality is generally seen as damaging to this, pre-existing trust is also a strong factor in preserving an ongoing therapeutic relationship. Further results are emerging, and a theoretical understanding based on Cultural Theories of Risk (Douglas, Wildavsky, Kahan, etc) is being developed, and will be available by 31/5/10

Conclusions

COnfidentiality is shown to be a complex concept, closely linked to trust within the doctor-patient relationship. There is wide variation in approach to the vignettes between individuals, and no single strategy or pollicy would be acceptable to all. The threat of deterenece from future treatment is widely recognised, but does not in itself determine patients' attitudes to disclosure practice. A culturally-based appraoch to risk perception offers a way of understanding individual's beliefs, and of negotiating an approach that would promote public safety without unduly damaging therapeutic relationships.

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071

What do patients want when they bring internet information to their GP? (A qualitative study)

Presenter: Parvathy Bowes
Coauthors S Ahluwalia, F Stevenson, E Murray

Introduction

Almost 70% of UK households have internet access with an increasing number of people using this for health information. Many patients research their symptoms online with some presenting this information within a GP consultation. Our aim was to better understand patients' motivation in doing this, their perception of the GP's response and what they wanted from their doctor.

Methods

This was a qualitative study using semi-structured face-to-face and telephone interviews with a critical incident technique. We recruited 26 adults who discuss internet information with their GP, using a maximum diversity sample. The interviews were transcribed and thematic analysis was performed by a multi-disciplinary team of researchers.

Results

The majority of participants used the internet to 'become more informed' and in doing so hoped that their complaint would be viewed more seriously by the GP. A recurring theme was that GPs had limited time and that prior research would therefore facilitate the consultation. Positive consultations involved an acknowlegement of the internet information, further discussion or explanation, contextualization of this information and their GP's professional opinion. Negative responses were those in which the GP was perceived to be disinterested, dismissive or patronizing and where no discussion was offered. Following a negative experience, participants were more likely to seek a second opinion, change practitioner or withhold their internet knowledge in future.

Most participants wanted GPs to be honest about their own knowledge and limitations. Interestingly, where a GPs opinion contradicted that of the internet source, a positive outcome was still achieved if the information was taken seriously.

Conclusions

GPs should be aware that their patients are extremely likely to have access to internet based healthcare information. GPs need not feel threatened by internet informed patients as it represents engagement in self-care. Positive responses to patients using internet information may therefore benefit the GP-patient relationship. Fundamentally, the GPs professional opinion was actively sought and valued.

072

To See or Not to See: How Patients Experience Diagnostic Radiography

Presenter: Helen Smith
Coauthors H Smith

Introduction

There is a dearth of information available about how sharing x-ray and other radiologic images with patients affects the clinical consultation. With the advent of PACS and filmless technology, the roll-out of PACS to primary care settings is in process. Once this is in place, it is envisioned that both report and image will be transmitted to the primary care physician. How will this affect the consultation? In what situations is the visual imagery useful, or perhaps detrimental? In our previous research, we explored the attitudes and beliefs of GPs and of consultant radiologists toward this 'sharing of images with patients'; the current research addresses the patient perspective.

Methods

Semi-structured interviews were conducted with adult patients who recently underwent an X-ray, CT, or MRI. Patients were recruited from primary care with the cooperation of their general practitioners in PCTs within East and West Sussex. The interviews explored patients' experiences of and attitudes toward the viewing of radiographic images of their own bodies and their beliefs and opinions about the place of such images in a clinical consultation. Interviews were transcribed and analysed

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using NVivo qualitative data analysis software.

Results

Preliminary results show a range of experiences (from never having seen such an image to having viewed a large number and variety of them) and of reactions, from distaste and dismay to satisfaction and enlightenment. Patients in our sample demonstrate ambivalence toward viewing images of themselves or loved ones, many wishing to see an image if it a) reassures them, e.g. 'it is not cancer', b) shows something that makes clear anatomical sense, such as a broken bone, or c) explains, interprets, or even justifies pain (or other sensation). In some an opposing view prevails: that seeing creates an undesirable form of knowing , leading to (unnecessary) fear and anxiety. The trope of 'trust' figures largely in the interviews, with patients asserting that trust in the doctor is paramount while being given information is less so. Some patients deemed themselves, or felt themselves deemed by their doctor, as 'not intelligent enough' to understand the x-ray or other image; a belief echoing opinions expressed by some physicians in our previous study. Further analysis may help to devise a protocol by which doctors and patients jointly settle on a level of information-sharing that suits both with regard to viewing medical images.

Conclusions

The creation of the informed and 'expert' patient is upheld as a laudable goal for primary care practitioners. The characteristics of such a patient, however, are unclear. Our research suggests that with regard to diagnostic radiography, protocols for sharing of information need to be both clarified and formalized.

073

The effect of watchful waiting instructions on GPs'blood test ordering behaviour for patients with unexplained complaints; a randomised clinical trial

Presenter: Marloes van Bokhoven
Coauthors M van Bokhoven, H Koch, T van der Weijden, A weekers-Muyres, P Bindels, R Grol, GJ Dinant

Introduction

Immediate blood test ordering for patients presenting with unexplained complaints in general practice is superfluous from a diagnostic point of view. However, many GPs order tests immediately to satisfy and reassure their ptients and themselves. One strategy to reduce test ordering is to apply a watchful waiting approach, as this reduces the number of patients to be tested and the number of false-positive results. The first objective of this study is to determine the feasibility of watchful waiting, compared to immediate test ordering. The second objective is to determine if a systematically developed quality improvement strategy can improve this feasibility. The third objective is to determine if watchful waiting leads to testing at a later moment.

Methods

Cluster-randomised clinical trial with three groups on blood test ordering strategies in patients with unexplained complaints. GPs in group 1 were instructed to order tests immediately. Groups 2 and 3 were instructed to apply a watchful waiting aproach. Group 3 was supported by the quality improvement strategy.
Measurements: the percentage of patients for whom tests were ordered and number of tests ordered at first consultation; the GPs' performance on the strategy's performance objectives; the number of tests ordered after 4 weeks; GP and patient characteristics.

Results

498 patients from 63 GPs participated. Immediate test ordering proved feasible in 92% of patients; watchful waiting in 84 and 86%, respectively, for the groups with and without support. The two watchful waiting groups did not differ significantly in the achievement of any of the performance objectives. Of the patients who returned

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after four weeks, none from the immediate test ordering group and six from the two watchful waiting groups had tests ordered for them.

Conclusions

watchful waiting is a feasible approach in patients presenting with unexplained complaints. The quality improvement strategy does not improve its feasibility. Watchful waiting does not lead to testing at a later moment.

074

An intervention to promote patient participation and self-management in long term conditions: development and feasibility testing

Presenter: Joanne Protheroe
Coauthors T Blakeman, C Chew-Graham, A Kennedy

Introduction

Current health policy places emphasis on self-management and supporting patient participation as ways of improving patient outcomes and reducing costs in the management of long term conditions. However, achieving genuine patient participation is difficult. We describe the development of an intervention (PRISMS-Patient Report Informing Self Management Support) intended to promote participation by focusing the consultation on the patients agenda and support needs. PRISMS is a patient completed questionnaire that the patient shares with the health professional. It was developed to be used as part of a whole system approach to improving self-management (the WISE approach) and is a tool introduced as part of the WISE training package

Methods

The development of PRISMS was informed by the literature and piloted and evaluated using a range of qualitative methods, including focus groups of stakeholders (5 patients and 3 clinicians); individual 'think aloud' and qualitative interviews (n=10) and observation of training, and transcripts of consultations in WISE pilot. Uptake and use is being monitored during the roll out of the WISE training.

Results

The formative evaluation informed the further development of PRISMS and its use as part of an intervention in an RCT. The main themes that emerged from the data related to content, process, operationalising and outcomes A number of different functions of PRISMS were identified by patients including its use as an aide-memoire, providing a focus to consultations, giving permission to discuss certain issues, and providing greater tailoring for the patient. During the WISE training, clinicians identified how PRISMS could help them provide appropriate self care support and developed innovative ways to incorporate the tool in consultations.

Conclusions

There was evidence that patients and professionals found the PRISMS form acceptable and potentially useful. Tools like PRISMS may function as a platform for patients and practitioners to engage in exploration of the patients priorities within the consultation, complementing the more 'task focussed' aspects of consultations resulting from introduction of clinical guidelines and financial incentives.

075

Development and roll out of an innovative approach to supporting self care in primary care

Presenter: Anne Kennedy
Coauthors C Chew-Graham
T Blakeman, A Bowen, C Gardner, L Gask, V Lee, J Protheroe, D Reeves, A Rogers

Introduction

The WISE (Whole Systems Informing Self-management Engagement) approach aims to make self care support part of everyday routine in primary care. Development focused on a training package aimed to improve patient outcomes. Key WISE principles are the need to: 1) work for patients and professionals and fit with NHS organisation; 2) link patients' self care needs, abilities and values to their condition management; 3) build on existing skills of patients and professionals; and 4) ensure people from harder to reach backgrounds are

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included. The training package comprises a training manual, interactive sessions, DVD and role play and includes tools developed to support the approach.

Methods

The WISE approach draws on theories of normalisation, behaviour change and learning; knowledge of current practice and research evidence; and current policy. We worked closely with a primary care trust to ensure viability and sustainability of the training. The training is being rolled out as part of a cluster RCT involving 40 practices in this trust and delivered to all practice members (GPs, nurses and administrative staff) by a team of dedicated trainers. Trial outcomes are at the patient level (not reported here); evaluation of the training and roll out used process evaluation methodology, including: interviews; field notes; training sessions recordings; reflective notes from trainers; minutes from meetings and output from training sessions.

Results

Evaluation helped inform effective ways to engage practices with the WISE approach and refine the training to encourage team-building. Patients do not expect self-care support from the NHS and this cultural change had to be legitimised for patients. Links between practices and locally available resources needed to be further strengthened via the trainers. Training content reflects many challenges: practice nurses give most chronic care and focus on guidelines and accommodating QoF leaves little room for self care support; professional responsibility and potential role conflicts; and the ability to meet psychosocial needs within a short consultation.

Conclusions

A training package based on key principles of a whole systems approach to self care support has been developed and is currently being successfully rolled out as part of a pragmatic randomised controlled trial.

076

CACTUS Study:Classical ACupuncture for Treating Unexplained Symptoms: a randomised trial

Presenter: Charlotte Paterson
Coauthors N Britten, S Rugg, R Taylor, B McCallum, G Kite

Introduction

Medically Unexplained Physical Symptoms (MUPS) constitute 11-19% of UK general practitioner consultations and up to 50% of new referrals to outpatient clinics. Current treatment options are limited. We investigated the effect of adding acupuncture to usual care.

Methods

We recruited our calculated sample size of 80 patients with MUPS from four general practices in London. They were randomised to receive 12 sessions of classical (five element) acupuncture starting either immediately or after waiting 6 months. Primary outcome was change in the individualised health status questionnaire Measure Yourself Medical Outcome Profile (MYMOP) at 6 months. Secondary outcomes included wellbeing (W-BQ12), generic health status (EQ5D), medication usage and GP consultation rate. The intention to treat analysis used ANCOVA to adjust for baseline outcome values. We interviewed twenty participants twice

Results

Eighty participants were treated by eight acupuncturists in the GP surgeries. High attendance and low attrition rates indicated that acupuncture was acceptable. Questionnaire response rate at 6 months was 89%. The groups were similar in baseline characteristics (age 25-81; 80% female; mixed ethnicity and social class; mean GP consultation rates 16/yr) and self-reported health was very poor. At 26 weeks, the mean (95% CI) scores, adjusted for between group differences, were: MYMOP -0.6 (0 to -1.1) p=0.05; W-BQ12 4.4 (1.6 to 7.2)p=0.002; EQ-5D index 0.03 (-0.11 to 0.16) p=0.70; consultation rate ratio 0.90 (0.70 to 1.15) p=0.4. All differences or trends were in favour of the acupuncture group and were maintained at 52 weeks. The patient interviews indicated that participants

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appreciated the time, attention, kindness and respect afforded them by their acupuncture practitioner. Over time, for most interviewees, participation and engagement increased, both within the treatment sessions and by making lifestyle or cognitive changes in everyday life. A wide range of physical, emotional and social changes were described.

Conclusions

The addition of classical acupuncture to usual care was feasible and acceptable and resulted in improved wellbeing that was sustained for twelve months. There was a strong trend of improvement in their individualised MYMOP scores but no change in consultation rate or generic EQ-5D status. A cost effectiveness study is now required.

077

Population, health care and individual risk factors for emergency cardiovascular hospital admission: a systematic review of the literature

Presenter: Sarah Purdy
Coauthors S Sherlock, D Huws, S Paranjothy, M Mann, G Elwyn

Introduction

Cardiovascular conditions are the most common reason for emergency hospital admission in England. Our objective was to determine the individual and area based risk factors associated with unplanned hospital admissions for cardiovascular conditions.

Methods

Systematic review of the literature with narrative synthesis. Two independent reviewers screened titles and abstracts for eligibility, followed by data extraction and assessment of quality.

Data sources

Studies were identified by systematically searching electronic databases and websites, supplemented by hand searching and 'snowballing' techniques. Two independent reviewers screened titles and abstracts for eligibility, followed by data extraction.

Eligibility criteria for selecting studies

Inclusion criteria: Population based studies examining individual, area level, meteorological, organisational or professional behavioural risk factors for unplanned admission to a secondary care acute hospital for cardiovascular conditions.

Results

A total of 7817 papers were identified, of these 152 met the eligibility criteria. Fourteen papers related to cardiovascular admissions, a further five papers were identified by hand searching. Of the nineteen papers, most are based on routine data with only five cohort studies. Apart from the association between lower socioeconomic status and cardiovascular admissions, which was demonstrated in three studies, other findings were only identified in single studies or showed inconsistent associations across studies. Age, anaemia and higher prevalence of CHD in a community were shown to be associated with increased risk of admission for CHD in single studies. Age, more complex disease and lack of private medical insurance were independently associated with higher risk of admission for congenital heart disease. An association was found between sulphur dioxide and cardiovascular but not ischaemic heart disease admissions.

Conclusions

A systematic review of the literature did not identify consistent evidence about important risk factors for cardiovascular admission that may be amenable to clinical intervention or service provision. This evidence is required in order to improve the planning of preventative programmes and interventions to reduce emergency admission.

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078

Association of population and primary healthcare factors with hospital admission rates for cardiovascular disease in England: national cross-sectional study

Presenter: Michael Soljak
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Introduction

Cardiovascular disease (CVD) such as coronary heart disease (CHD) and stroke are ambulatory or primary care sensitive conditions, for which it is hypothesised that risk of hospital admission will be reduced by effective primary care management. However for most common long term conditions, evidence supporting this hypothesis is weak, and in addition model-based estimated prevalence exceeds cases known to primary care.

Methods

The objective of this national study was to determine the associations between primary healthcare factors and CHD and stroke hospital admission rates after adjusting for population characteristics at primary care trust and general practice level in England. We used an ecological cross-sectional study design, combining datasets from Hospital Episode Statistics (HES), primary healthcare supply, Quality & Outcomes Framework (QOF) clinical and access indicators and Census-derived sources. The main outcome measures were indirectly-standardised hospital admission rates for CHD and stroke for 7,969 practices in England. Multivariate associations were analysed by means of Poisson regression models.

Results

For both CHD and stroke admission rates, the strongest correlations were with population factors such as deprivation and estimated smoking prevalence (CHD: $R=0.49$ and $R=0.47$ respectively, stroke: $R=0.30$ and $R=0.29$ respectively, $p<0.001$). When adjusting for available population factors– also including ethnicity and disease prevalence- primary healthcare factors such as access to GP consultations, GP supply (only for CHD) and practice list size (only for stroke) appeared to be protective ($p<0.05$). There were weaker associations between stroke and QOF clinical indicator scores, with only the recording of total cholesterol in patients with stroke reaching significance ($p<0.05$). For CHD, attaining <5mmol/l measured total cholesterol and prescribing anti-platelet therapy or an ACE inhibitor/angiotensin II antagonist were negatively and significantly associated with hospital admission rates ($p<0.05$). Surprisingly, there was a positive association between CHD admissions and beta blocker coverage ($p<0.001$).

Conclusions

Associations of CVD admission rates with deprivation and primary healthcare access and supply highlight the need for adequate provision of health services in deprived areas. There was no clear pattern in associations with QOF clinical indicators, e.g. between between process and outcome measures. We are undertaking further analyses to investigate any spatial effects on these associations.

079

NHS Health Checks: Why not treat those we know about first?

Presenter: James Sheppard
Coauthors K Fletcher, A Shroufi, J Betts, S Milner, R McManus, J Mant on behalf of the Polypill Investigators

Introduction

NHS health checks are a new screening programme for vascular risk targeting 40-74 year olds without existing cardiovascular disease (CVD). Patients eligible for assessment are currently identified by age and the absence of known CVD. Screening in this way does not account for people who already have risk factor measurements.

This study aimed to assess the proportion of the eligible population for whom data on CVD risk factors already exists and evaluate whether these patients are receiving appropriate treatment relative to their CVD risk.

Methods

Data from eligible patients was collected from 19 GP practices across Birmingham. 10-year CVD risk was calculated using the

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Framingham equation in patients for whom all necessary risk factors had been measured in the past 12 months. In patients with a >20% CVD risk, all prescribed medications for CVD were identified and compared to NICE guidelines.

Results

32,425 patients were identified as being eligible for an NHS health check. Complete CVD risk factor measurements existed in the records of 4,476 (14%) patients, of whom 1,289 (29%) had a >20% 10-year CVD risk (high risk population).

623 (48%) patients in the high risk population were receiving a statin prescription, however, only 347 (27%) were receiving Simvastatin 40mg (NICE recommendation). 1,110 (86%) patients had a blood pressure of >140/90mmHg or were receiving antihypertensive medication. 794 (72%) of these were receiving antihypertensive treatment (only 495 [45%] were receiving correct antihypertensive treatment according to NICE guidelines). Overall, just 542 (42%) patients at high CVD risk were judged to be receiving appropriate cholesterol and blood pressure lowering management.

Conclusions

Screening patients identified by demographic data alone is not an effective way to conduct the NHS health check programme. GPs already have sufficient data to calculate CVD risk in 1/7 patients eligible for screening, however, many of these do not receive optimum risk management.

Therefore, before instituting recall systems for NHS health checks, primary care physicians should first identify and treat those for whom relevant CVD risk factors are already known. Previous modelling studies suggest that calculating CVD risk from known risk factors, prior to screening would be cost effective and reduce unnecessary screening.

080

Evaluation of the correlation between oral swab results and management of H1N1 in a large Birmingham practice.

Presenter: Duncan Shrewsbury
Coauthors Dr B King

Introduction

In 2009 a pandemic of H1N1 virus spread through the British population, affecting and hospitalising many people. The Department of Health (DH) initiated a system whereby patients could receive antiviral therapy. The medicines were dispensed from special centres and could be acquired by satisfying a pre-determined set of criteria. Patients were advised not to attend GP surgeries in order to minimise spread of the infection (DH, 2009a,b,c; CDC, 2009). Despite this advice, the number of patients consulting GPs width 'flu like symptoms dramatically increased (HPA, 2009). A large practice in South Birmingham routinely swabbed, as part of the RCGP surveillance programme, suspected cases of Swine 'flu throughout the pandemic. This service evaluation compares the rate of positive swab results with the prescription of antivirals.

Methods

The practice database was searched for all entries coded as "Flu Like Illness" or "Influenza" between 1/3/09 and 30/12/09. Notes were reviewed and a protocol was used to collect demographic data as well as the following information: month of diagnosis; swab activity and results; salient clinical features recorded in notes; prescription of oseltamivir.

Results

Approximately 50% of the patients studied were swabbed. Out of this, 17% of the swabs were lost. 44% of swabs tested positive for H1N1. Results suggest that the most commonly complained of symptoms were cough and raised temperature. Oseltamivir was prescribed in 41% of the patients, out of which only 27.9% had a positive swab result.

Conclusions

Guidance suggests that diagnoses should be made solely on the presentation of symptoms, rather than swab results (DH, 2009b). Diagnosis of H1N1 on symptoms

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alone is very difficult. Key markers would appear to be cough and fever, with headache as a less strong marker. As antivirals are most effective only if delivered in the first 48 hours (NICE, 2008), there will be significant numbers of patients treated at no benefit but possible side effects and expense. This raises questions of the efficacy of introducing a service distributing antiviral medications for this mild condition (Lurie, 2009). The development of a rapid test result service for future pandemics should therefore be a priority.

081

TXT2STOP: A qualitative study on the use of mobile phone text messaging to support smokers to quit

Presenter: Nicolas Douglas
Coauthors C Free

Introduction

Reducing smoking remains a government health policy priority (Department of Health, 2010). Although a high proportion of smokers will attempt to quit, only around 2-3% will be successful each year (Aveyard and West, 2007). Novel and effective ways of supporting quitters are needed. TXT2STOP (funded by the Medical Research Council) is a randomised controlled trial of an intervention using mobile phone text messages to encourage and support quitting. We conducted a small qualitative study to explore participants' experiences of the intervention and perceived efficacy.

Methods

Qualitative study including analysis of responses to 'open' questions from one hundred feedback forms and 25 telephone interviews. Thematic content analysis was used to generate significant themes (Braun and Clarke, 2006).

Results

Text messaging was an acceptable way to support smokers to quit and some attributed it to their giving up. Participants liked the 'push' factor (messages came to them), that it was 'low-threshold' (requiring little commitment and easy to use), convenient (delivered wherever they were throughout the day) and chemical free (in contrast to NRT). Feelings of being constantly emotionally supported and encouraged were especially important. Message content about physical changes brought about by quitting delivered at the time that changes could be expected to occur were especially valued. Interviewees also reported saving messages and benefitted from being able to refer back to them. However, it was not effective for all; receiving texts about smoking could stimulate craving and message content, timing, frequency and duration were inappropriate for some participants. Some also found that texting alone was insufficient to manage physical withdrawal.

Conclusions

Supporting quitters via mobile phone text message is a feasible and acceptable intervention with the potential to work well for some who wish to give up smoking. However, it may be insufficient in isolation for others. The intervention would benefit from greater sophistication to allow enhanced personalisation and interactivity to accommodate individual needs and preferences.

082

Randomised controlled on-line trial of an interactive web-based behavioural intervention to reduce alcohol consumption amongst hazardous drinkers.

Presenter: Paul Wallace
Coauthors Elizabeth Murray1, Jim McCambridge2, Zarnie Khadjesari1, Ian White3, Simon G. Thompson3, Eleftheria Kalaitzaki4, Christine Godfrey5, Stuart Linke1

Introduction

Interventions delivered via the Internet have the potential to address the problem of hazardous alcohol consumption at minimal incremental cost, with major public health implications.

Methods

A two-arm randomised controlled trial compared a psychologically enhanced Internet based intervention with an information only website for people with

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hazardous alcohol consumption, with follow-up at 1, 3 and 12 months. It was conducted entirely on-line through the Down Your Drink (DYD) website.

Results

A total of 7935 individuals who screened positive for hazardous alcohol consumption were recruited and randomized. At entry to the trial, the geometric mean reported past week's alcohol consumption was 46.0 (SD 31.2) units. Consumption levels reduced substantially in both groups at the principal 3 month assessment point to an average of 26.0 (SD 22.3) units. Similar changes were reported at 1 month and 12 months. There were no significant differences between the groups for either alcohol consumption at 3 months (intervention: control ratio of geometric means 1.03, 95% CI 0.97 to 1.10) or for this outcome and the main secondary outcomes at any of the assessments. The results were not materially changed following imputation of missing outcomes, nor was there any evidence that the impact of the intervention varied with baseline measures or level of exposure to the intervention.

Conclusions

The trial demonstrates a widespread and potentially sustainable demand for Internet based interventions for people with hazardous alcohol consumption, which could be delivered internationally. Our findings did not provide support for the hypothesis that psychological enhancement confers additional benefit.

Funding

National Prevention Research Initiative, Alcohol Education and Research Council.

083

How do we intervene to increase adults' fruit & vegetable intake in primary care?

Presenter: Silvia Devina
Coauthors L Hooper

Introduction

There is good evidence that increased fruit and vegetable intake is associated with reduced levels of chronic disease (Dauchet 2006, Journal of Nutrition, WCRF/AICR Expert Report 2010, www.dietandcancerreport.org/, Ammerman 2002, Preventive Medicine) but UK adults consume only 4.4 portions per day (Food Standards Agency 2010, www.food.gov.uk/science/dietarysurveys/ndnsdocuments/ndns0809year1/). There is evidence that we can alter fruit and vegetable intakes (Pomerleau 2005, Journal of Nutrition).

Methods

We aimed to assess which elements of an intervention work best to support and encourage healthy adults to increase their fruit and vegetable intake. Specifically, do interventions tailored to individuals work better than generalised non-tailored interventions? Other aspects of interventions explored included duration, use of social marketing, theory based and/or psychosocial interventions.

We have systematically reviewed randomized controlled trials that increased fruit and vegetable intakes of healthy adults, compared with no intervention, over at least 3 months. The Cochrane Library, Medline, EMBASE, Lilacs, PsychInfo, and Eric databases, as well as existing reviews, have been searched. Inclusion, data extraction and validity assessment were carried out independently in duplicate.

Results

56 RCTs, including 115,256 participants, have been included. Of these, eight studies compared a tailored to a non-tailored intervention. Preliminary analysis suggests that a tailored intervention increases fruit and vegetable intakes by 0.6 servings/day (95% CI 0.08-1.10, $p<0.05$) more than a non-tailored intervention.

Conclusions

The preliminary results suggest that an intervention tailored to the individual patient rather than a generic intervention such as standard advice or a diet sheet may have significantly better success in helping to increase fruit and vegetable intakes. We will present and discuss further data on ways to improve interventions to increase fruit and vegetables in healthy adults.

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084

Patient and Practice views on Preventive Health Checks: Evidence from the National Evaluation of Keep Well

Presenter: Julia Clark
Coauthors C O'Donnell, M Mackenzie, M Reid, F Turner, Y Wang, S Sridharan, S Platt

Introduction

Keep Well, a health improvement programme targeting 45-64 years old patients in deprived areas of Scotland, aims to reduce health inequalities in cardiovascular disease through identification and treatment of modifiable risk factors. Here, we describe the experience of delivering and engaging in Keep Well from the perspective of both practice staff and patients across the five wave one pilot sites.

Methods

A two-stage approach was adopted. First, a telephone survey of all 79 pilot practices delivering Keep Well was undertaken. Second, in four case-study sites, semi-structured interviews were conducted with key staff whilst patients were surveyed by questionnaire with a smaller subsample taking part in qualitative interviews. Analysis is informed by the Normalization Process Theory (NPT).

Results

Preliminary results show practices have used a variety of contact methods including letters, telephone invitation by the practice or other services and opportunistic invitation to patients attending the surgery for another reason. However, one third of patients remain to engage with the programme despite each practice reporting to have sent up to 6 invitation letters to this remaining patient cohort. Questionnaires conducted with patients who had not attended for a health check found some patients had no recollection of receiving an invitation letter but they would like to attend for a health check if they were invited. These patients had also identified themselves to the researcher as having low or limited literacy.

Practices that increased the hours of their existing staff thus allowing Keep Well appointments to be offered as part of the routine daily surgeries had more success in completing Keep Well assessments with patients. Practices running a stand alone Keep Well clinics using an external Keep Well nurse were less likely to rate Keep Well as an important initiative to their practice.

Conclusions

Despite multiple and protracted attempts at contact, up to one third of patients don't respond to an invitation for a health check. One reason may be literacy levels within this population. Other non-written forms of invitation may be required, and may have to be conducted outside surgery hours. The availability of Keep Well appointments as part of the practice nurses' routine clinic makes the health check more accessible to patients and more likely to become normalised by practices. For those patients who have attended a Keep Well appointment their satisfaction ratings for both the method of invitation and the health check are high.

085

Quality of Chronic Obstructive Pulmonary Disorder prescribing: exploring health inequalities by ethnicity, sex and age

Presenter: Alice Martin
Coauthors S Hull, E Badrick, S Shajahan, J Robson

Introduction

Equity of healthcare access and provision is a key aim for the NHS, however routinely collected primary care data such as QOF does not make comparison by ethnicity, sex or age. Evidence suggests that some ethnic minority groups may fail to recognise COPD as a serious progressive disorder, this may result in under-treatment. The study examines if COPD's prevalence and severity varies by ethnicity, and compares the rates of drug and non drug management for three main ethnic groups (White, South Asian and Black).

Methods

We used data collected by an audit of chronic disease management in general practices in the 3 PCTs of Hackney, Newham and Tower Hamlets, from January

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2008 to March 2009. The population size was 843,710 and 51% of people belong to an ethnic minority group. We preformed logistic regression to compare the severity of COPD, and adjusted rates of COPD drug prescribing and other non-pharmacology treatments, by ethnicity, sex and age.

Results

GPs had registered 7930 individuals with a Read Coded diagnosis of COPD, the crude COPD prevalence was 0.94%. Ethnicity was recorded in 95.04% of cases. In adjusted analysis South Asian and Black patients were less likely to be smokers (OR 0.53[0.44-0.63], 0.44[0.34-0.56] respectively) than White patients. Preliminary results show differences in prescribing by ethnicity, sex and age for salmeterol, and sex inhaled corticosteroids. In adjusted analysis Black patients were less likely to be prescribed salmeterol (OR 0.68[0.55-0.83]), compared to the White group, adjusted for age, sex and clustered by practice. No significant differences were observed for prescribing of inhaled corticosteroids by ethnicity, adjusted for age sex and clustered by practice. Women were more likely to be prescribed both classes of drugs (OR salmeterol 1.12 [1.00-1.25] inhaled corticosteroids 1.17 [1.05-1.31]) adjusted for ethnic group, age and clustered by practice. We will do further analysis adjusted for disease severity.

Conclusions

This study highlights the importance of comprehensive ethnicity recording in general practice data audits. We discuss our findings, including under prescribing in ethnic minority groups, and consider explanations for differences and strategies to reduce inequalities identified, including using practice equity reports to encourage change

086

Ethnic differences in blood pressure monitoring and control in Lambeth

Presenter: Peter Schofield
Coauthors P Schofield, M Ashworth, O Saka, R Jones

Introduction

High blood pressure (BP) is the single most important risk factor worldwide for the development of cardiovascular disease and has been shown to disproportionally affect some ethnic minority groups. We set out to explore possible ethnic inequalities in BP monitoring and control.

Methods

We used the Lambeth DataNet, based on case records from GP practices located in one inner city London Borough. We compared BP monitoring and control based on Quality and Outcomes Framework targets for patients with any of the following conditions: diabetes, coronary heart disease, stroke, hypertension and chronic kidney disease. The analysis also controlled for age, sex, social deprivation and clustering of outcomes within GP practices.

Results

Overall BP monitoring was similar across ethnic groups for patients with chronic conditions and as good, if not better, for Black patients compared to White. However, we found marked ethnic inequalities in BP control with Black patients significantly less likely to achieve Quality and Outcomes Framework target outcomes compared to their White British counterparts (OR 0.73; 95% CI 0.64 - 0.83). Further inequalities were revealed on exploring BP control within disease groups and ethnic sub-groups. In particular, BP control was poor in African patients with diabetes (OR 0.61; 95% CI 0.49 - 0.77) and Afro-Caribbeans with CHD (OR 0.54; 95% CI 0.37 - 0.78) when compared with White British patients.

Conclusions

While Black patients with chronic conditions are as likely to have their BP monitored their BP control is consistently poorer than that of their White counterparts. This may have important implications for

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cardiovascular risk management in Black patients.

087

Prevalence of genital human papillomavirus (HPV) infection in multiethnic, sexually active young women: community based cross-sectional study

Presenter: Pippa Oakeshott
Coauthors A Aghaizu, K Soldan, S Beddows,I Simms, R Howell-Jones, C Lacey, P Hay, F Reid, S Kerry

Introduction

Human papillomavirus (HPV) causes 98% of cervical cancers, but there is a dearth of UK baseline HPV prevalence data, especially in young, multiethnic, inner city populations who may have a lower uptake of preventive healthcare. These data are essential to monitor the impact of the HPV vaccination programme which was introduced into UK schools in Autumn 2008. Our objective was to find the prevalence and predictors of type-specific HPV in 2276 young, sexually active female students recruited to a chlamydia screening trial in 2004-6.

Methods

Design
Prevalence study using stored vaginal samples
Setting (unique, non-healthcare)
20 London universities and Further Education colleges.
Participants
2276 women mean age 20.9 years (range 16-27) who provided duplicate self-taken vaginal swabs and completed questionnaires. Their mean age at sexual debut was 16 years, 43% reported two or more sexual partners in the previous 12 months, 38% were from ethnic minorities and 31% were smokers. In 2009-10, stored samples were tested for HPV.

Results

Of 2276 samples, 28% (629) were positive for high risk, oncogenic HPV. Infection was commoner in women reporting two or more partners in the previous year (43%, 204/479 versus 31%, 382/1254, p<0.01) and women who smoked (36% 224/628 versus 30%, 483/1638, p<0.001). HPV infection was not related to age, age at first sexual intercourse or ethnicity. The overall prevalence of chlamydial infection was 5.9% (133/2273), bacterial vaginosis 21% (441/2157), gonorrhoea 0.3% (7/2247) and Mycoplasma genitalium 3.3% (74/2247). Chlamydial infection, Mycoplasma genitalium and bacterial vaginosis were all commoner in women with HPV infection.

Conclusions

The main limitation is that this was not a population based study. However, it showed that nearly a third of a group of young, multiethnic female students had oncogenic HPV. Infection was commoner in those reporting more sexual partners, smokers and those with concurrent sexually transmitted infections or bacterial vaginosis. These women may also have higher rates of cervical cancer, but lower uptake of cervical screening and immunization. It is crucial that the HPV immunization campaign includes those most at risk. Primary care could have an important role in catch up vaccination for those who miss out.

088

Provision, Use and Outcome of Interpreting in Health Care: a systematic review

Presenter: Jackie Beavan
Coauthors J Beavan, A Khalade, O Aziz, A Fry-Smith, P Gill

Introduction

The challenges of delivering healthcare when there is a language barrier are well-documented, but strategies used to address this issue are varied and sometimes controversial. This review aimed to establish how language barriers are negotiated by health professionals and to identify outcomes of using different strategies in terms of impact on consultations, provision of healthcare, the therapeutic relationship, patient understanding and patient satisfaction

Methods

Standard procedures were used to systematically search the databases. In total,

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2698 papers were identified and 61 papers were deemed to meet the inclusion criteria. The studies were of variable quality.

Results

Findings showed that a range of strategies was used to address language barriers, with varying impacts on the use and provision of healthcare and on patient satisfaction. The use of professional interpreters was low in comparison with the extent of perceived need. However, their use was associated with more effective use of healthcare and higher patient satisfaction ratings than for those who either needed but did not receive an interpreter or used ad hoc interpreters.

Conclusions

Professional interpreters are often under-used in healthcare, despite evidence that they have a positive impact on healthcare use and patient satisfaction. Health professionals over-rely on ad hoc interpreters such as family members and bilingual staff members. As the vast majority of the studies were observational / qualitative, rigorous evaluation studies are needed.

089

Control of cardiovascular multimorbidity in East London: Intra-ethnic differences in burden and control of multimorbidity between South Asian patients.

Presenter: Rohini Mathur
Coauthors SA Hull M Rohini J Robson E Badrick

Introduction

The prevalence of multimorbidity, the presence of two of more chronic diseases, is increasing. Previous work exploring the population burden of cardiovascular multimorbidity found that South Asian patients had better control of cardiovascular risk factors than White patients despite higher rates of multimorbidity. The heterogeneity of south Asian populations has not been examined in the context of cardiovascular multimorbidity. This research examines whether the advantage found in South Asian compared to White patients persists when Indian, Pakistani, and Bangladeshi groups are considered separately.

Methods

MIQUEST was used to extract data from five disease registers (hypertension, ischaemic heart disease, heart failure, CVA and TIA and diabetes) from 139 practices in three contiguous east London PCTs. Patients with self reported ethnicity of White, Indian, Pakistani or Bangladeshi, were retained for the final sample (Total population 829,700, sample size 66,755).

Results

The crude prevalence of cardiovascular multimorbidity in the South Asian population was 40% compared to 34% in the White population ($p<0.001$). Using logistic regression we found all South Asian groups to be significantly more likely to be multimorbid than White groups with adjusted odds ratios of 1.86 (95CI 1.73-1.99) for Indian, 2.03 (1.89-2.17) for Bangladeshi and 2.07 (1.90-2.26) for Pakistani groups.

All South Asian groups were more likely than White patients to reach cholesterol and BMI targets at all levels of multimorbidity. Statin prescribing and blood pressure control were significantly better for South Asian groups, but only for unimorbid patients. Across all areas of improvement, Bangladeshi patients performed best. Pakistani and Bangladeshi patients with multiple conditions were significantly less likely to reach HbA1C targets than White patients; no difference between Indian and White groups was found.

Conclusions

This study examines whether high level grouping of ethnicity masks intra-ethnic differences between Indian, Pakistani and Bangladeshi patients. We show the advantages found previously for South Asian patients as a whole are present in all three sub-groups, though this lies primarily within the Bangladeshi population. This difference may be due to the targeted implementation of disease management guidelines within the east London Bangladeshi population, resulting in

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heightened awareness of cardiovascular risk and need for adherence to treatment.

090

Ethnic disparities in management of intermediate outcome indicators among diabetes patients with and without comorbidities

Presenter: Riyadh Alshamsan
Coauthors A Majeed, V Curcin, K Khunti, C Millett

Introduction

To examine ethnic disparities in diabetes care among patients with and without comorbidities in the third year after the implementation of a pay for performance scheme in the primary care setting in United Kingdom.

Methods

We used a cross sectional design to determine the management of HbA1c, Cholesterol and Blood pressure in 5,949 patients from 28 practices in south west London. For each outcome variable we examined the association between ethnicity, number of concordant and discordant conditions adjusting for age, sex, BMI, socioeconomic status and practice clustering.

Results

Compared to the White group, Black and South Asian patients were less likely to have optimal Glycemic control (Adjusted odds ratio [AOR], 0.73; 95% CI, 0.62-0.87; AOR, 0.65; 95% CI, 0.53-0.79, respectively). Black patients had higher systolic and diastolic levels than the White group (1.52/1.04 mm Hg, $p<0.05$). Achievement of the cholesterol target was similar between White and Black patients however South Asians were more likely than the white to achieve the cholesterol target of ¡Ü5 mmol/L (AOR: 1.5; 95% CI, 1.18-1.86). Patients suffering from more than one concordant conditions were more likely to have controlled HbA1c (AOR: 1.27; 95% CI, 1.02-1.57) than patients without any comorbid conditions. Patients with one concordant condition and patients with more than one concordant condition were more likely than patients with no comorbid conditions (AOR: 1.48; 95% CI, 1.22-1.76; AOR: 2.06; 95% CI, 1.58-2.71, respectively). Little or no variations were found in the management of the three outcomes between patients with one or more discordant conditions and patients without any comorbid conditions.

Conclusions

Despite major reforms, including performance related pay; disparities still exist between ethnic groups particularly in glycemic control among patients from Black and South Asian groups. Conversely, patients with concordant comorbid conditions were more likely than patient without any coexisting conditions to have optimum management of HbA1c and cholesterol outcomes.

091

Recovery from psychosis in primary care: GPs' views.

Presenter: Séamus Ryan
Coauthors H Lester, A Rogers

Introduction

Psychosis affects three percent of the population of the UK, and may cause intense distress for individuals who experience it, as well as their family and friends. The promotion of recovery from psychosis in primary care is justified considering that service users have previously reported a preference for seeking care from GPs rather than psychiatrists. Between thirty to fifty percent of service users who experience psychosis are seen solely in primary care. However, there is a dearth of research on recovery from psychosis in primary care. In this presentation I will describe how GPs conceptualise recovery from psychosis, what GPs believe promotes and hinders recovery in primary care, and what changes could be implemented in the future to further increase the positive effects primary care may have in promoting recovery from psychosis.

Methods

Twenty four GPs from across England, including seventeen GPs with a special interest in mental health, participated in semi-structured interviews conducted by SR in 2009. Interview transcripts were coded

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and analysed using a modified grounded theory approach.

Results

GPs tended to conceptualise recovery from psychosis as the ability to function socially in everyday life, as opposed to symptom eradication. The availability of social support to the service user was seen as key to promoting recovery. Anti-psychotic medication was also perceived to be helpful, although there was an awareness of the severe side-effects sometimes associated with such medications. Most GPs believed that the continuity of contact established between GPs and service users was a positive factor which contributed to recovery from psychosis. GPs promoted recovery by supporting families and carers of those experiencing psychosis. There was a desire for better communication and collaboration between GPs and psychiatrists, as well as a desire to see enhanced provision of mental health training and peer support for GPs.

Conclusions

The findings provide the foundation for a future pilot intervention aimed at enhancing the provision of mental health training and peer support for GPs. It is envisaged that this training might include the establishment of GP mental health forums where GPs can discuss their experiences of promoting recovery from psychosis.

092

Early Intervention Services for First Episode Psychosis in England: Bridging the divide between services for young people with first episode psychosis

Presenter: Elizabeth England
Coauthors H Lester, M Birchwood

Introduction

Transition working, for example, between child and adolescent mental health services and early intervention services is a key area of concern in United Kingdom mental health policy, yet policy and guidance addressing transition working in the health services do not address this issue for young people with mental health problems. This qualitative study aims to explore factors influencing early intervention services for young people experiencing a first episode psychosis development, from a commissioning and implementation perspective and to explore the different types of relationship between early intervention services and child and adolescent mental health services. Policy and guidelines suggest that good practice will evolve from the development of early intervention services for young people with psychosis.

Methods

147 semi-structured interviews and six focus groups involving 31 people were undertaken between February 2004 and September 2007. A broad range of individuals were interviewed from different strategic, managerial and operational levels of the health service including those responsible for children's mental health services.

Results

The majority of managers and commissioners interviewed in this study had variable knowledge and involvement in transitions between early intervention services and child and adolescent mental health services. Knowledge appeared to be related to local organisational commitment, level and quality of communication and support and awareness of national targets, policy and guidelines which appeared to be related to local organisational commitment, communication and support and to local and national targets, policy and guidelines. EIS and CAMHS team leaders and members showed greater awareness of transitional working than managers. Elements that led to more successful transition working included senior level champions and organisational commitment to the implementation of new ways of working.

Conclusions

This study suggests that there are a number of challenges to transition working at the CAMHS-EIS interface. However, there are a number of potential behaviours and characteristics at different organisational levels which promote more successful transition working. This more complex approach to the development of successful transitions from CAMHS to EIS, which incorporates multiple possible behavioural

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and organisational changes, has implications for policy and guideline development and workforce training and development both locally and nationally.

093

A randomised controlled trial of supervised consumption in patients managed with opiate maintenance treatment.

Presenter: Richard Holland
Coauthors V Maskrey, A Robinson, L Swift, C Notley, I Harvey, T Gale, J Nagar, C Kouimtsidis

Introduction

Over 100,000 opiate dependent patients are currently managed with methadone or buprenorphine. Government guidance has promoted supervised consumption to ensure patients prescribed these medications take them and to prevent drug diversion. However, others believe that supervision interferes with patients' lives by imposing a need to attend a pharmacy or drug centre daily and implies lack of trust. This may cause patients to leave drug treatment early or prevent them engaging altogether.

Aim: to determine whether there is a clinically significant difference in the proportion of patients retained in treatment over three months between supervised maintenance therapy (intervention) versus those managed with unsupervised maintenance therapy (control).

Methods

A pragmatic RCT.

Setting: Community drug treatment services in Hertfordshire, Norfolk and London

Intervention: three months daily (6 days per week) supervised consumption of opiate maintenance therapy

Control: supervision for between 7 and 28 days for dose titration and stabilisation followed by unsupervised, daily consumption of opiate maintenance therapy.

Outcome data were collected at 3 months and 6 months (primary outcome only). Primary outcome: retention in treatment Secondary outcomes include: Maudsley Addiction Profile; quality of life (SF-12), and satisfaction.

Sample size: recruiting 256 patients will give 90% power to detect a 20% difference in retention, at 5% significance, assuming 55% are retained if unsupervised. To account for an approximate 15% loss to follow-up it was our intention to recruit 300 patients in total.

Results

A total of 671 patients were assessed for eligibility over an 18 month recruitment period. 326 (49%) did not meet inclusion criteria, 47 (7%) refused to participate, and 298 (44%) entered the study. Three-month follow-up has recently concluded, and six month follow-up will be concluded by early May. Full analysis of results will be presented in this presentation.

Conclusions

This trial is the first randomised controlled trial of supervised consumption to be conducted in England. As such it will provide high quality evidence as to the effect of supervised consumption on a wide variety of relevant outcomes.

094

Risk of overdose mortality during the first two weeks after entering or re-entering methadone treatment in Scotland: retrospective cohort study

Presenter: Gráinne Cousins
Coauthors C Teljeur, N Motterlini, C McCowan, T Fahey and B D Dimitrov

Introduction

Heroin users are at high risk of premature mortality. Despite the evidence supporting methadone maintenance programmes (MMT), methadone itself has been associated with drug-related deaths. This study aims to determine whether people prescribed methadone have an elevated risk of overdose mortality during periods of treatment transition, particularly during treatment initiation and cessation.

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Methods
Retrospective cohort study of 3,162 Scottish people prescribed and dispensed liquid methadone between January 1993 and February 2004. Observation time was defined as a period during methadone treatment or a period of maximum 6 months after leaving treatment. Individual observation time was censored after 6 months off treatment. A person's observation time started again if they re-entered treatment after a period off treatment. The main outcome measure was drug-related mortality by means of Cox-proportional hazards models during the 12 years of follow-up. Drug-related deaths occuring during treatment or within 3 days after last methadone prescription were considered as cases "on treatment". Fatalities occuring four days or more after leaving treatment were considered to be drug-related deaths "off treatment".
Results
Overall 130 people died, with 51 deaths identified as drug-related deaths (20 off treatment and 31 in treatment). Risk of drug-related mortality is higher during the inital two weeks of treatment, (adjusted hazard ratio 16.93, 95% CI 5.17-55.46) compared to the risk of mortality off treatment. Furthermore, being in treatment for 3-10 weeks (adjusted hazard ratio 0.36, 95% CI 0.15 – 0.85) or greater than 10 weeks (adjusted hazard ratio 0.13, 95% CI 0.04 – 0.39) is associated with a reduced risk of mortality compared to the initial two weeks on treatment.
Conclusions
Excess mortality risk in the initial two weeks of methadone treatment indicates the need for more care in prescribing and monitoring of methadone when starting or restarting a patient on methadone maintenance therapy.

095

Early life risk factors for injection drug use: results of a population based case-control study conducted in primary care
Presenter: John Macleod
Coauthors L Copeland, M Hickman, J McKenzie, H Jones, J Kimber, D De Angelis, R Robertson
Introduction
Injection drug use (IDU) is an important and common health problem with treatment predominantly delivered in primary care. Prevention efforts are hampered by an inadequate understanding of causes. We studied possible risk factors for IDU in a sample of injectors recruited from the general population. We attempted to avoid problems of selection bias and socioeconomic confounding by comparing early life experience amongst these cases with that of a sample of non-injecting age and sex matched controls recruited from the same practice.
Methods
All IDU cases presenting at a single practice between 1980 and 2006 were recruited to the study and flagged with the General Registry Office. From October 2005 – October 2007, these cases were traced and those still alive invited to undergo interview assessment. One control was recruited for each case (alive and dead) between 2008 and 2009 amongst individuals presenting for routine care. Controls for living cases completed the same interview schedule. Data were also collected on cases and controls through linkage to routine care records and other administrative sources. Odds ratios and their confidence intervals for case status associated with possible early life risk factors were calculated using conditional logistic regression.
Results
432 living cases were interviewed and information was available on 228 dead cases. 432 "live" controls were interviewed and 228 "dead" controls provided data through record linkage. The strongest risk factors for IDU were school exclusion (adjusted OR 4.49 95% CI 2.55-7.88) and experience of the statutory care system (adjusted OR 3.89 95% CI 1.79- 8.43)

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Sexual victimisation was also associated with increased risk of drug injection though the magnitude of this risk was less than that reported in some previous studies (adjusted OR 1.79 95% CI 1.04- 3.06).

Conclusions

Compared to their peers from a similarly deprived area young people who become drug injectors are considerably more likely to have been excluded from school, to have been received into care and to have been victims of abuse. Interventions aimed at these multiple adversities in childhood may reduce risk of drug injection amongst adults.

096

Pilot study of an RCT of brief (3 months) supervised consumption vs. twice weekly supervised consumption vs. standard supervised consumption (6 months) of methadone in patients receiving opiate maintenance treatment.

Presenter: Richard Holland
Coauthors C Matheson, J K Roberts, S Priyadarshi, A MacRae, B Anthony, E Whitelaw, C Bond

Introduction

Methadone maintenance remains the mainstay of treatment for opiate dependence in Scotland. Current guidelines recommend supervision for at least 3 months. However, there is a strong treatment culture in Scotland for 6-12 months supervision, or longer. There is currently no evidence base for deciding the optimal period of supervision. This pilot project tested the feasibility of conducting a randomised controlled trial (RCT) of different models of methadone supervision. We aimed to test feasibility of recruitment and whether clinicians would follow the study protocol when patients were assigned to a treatment arm differing from routine practice.

Methods

Design: RCT

Location: Glasgow, Highland and Grampian.

Subjects: opiate dependent patients retained in treatment for three months

Interventions: Following 3 months daily supervision, randomised to: (1) no supervision, (2) twice weekly supervision, or (3) daily supervision.

Primary outcomes after 3 months follow-up: treatment retention, illicit heroin use and treatment fidelity. Secondary outcomes included: illicit drug use, alcohol use, psychological health, quality of life, adverse events (overdose/death), and satisfaction with randomisation group.

Sample size: as a pilot this study aimed to recruit 60 participants (20 per group)

Results

102 patients were identified, of these 60 participated (59%). 46 of these were followed up (77%). Of the 14 not followed up, 10 dropped out of treatment, four were not able /available. Study fidelity was good with only two patients swapping from unsupervised to supervised treatment. Those randomised to no supervision were significantly happier with their group allocation than other groups. Data collection tools were appropriate. The study was not powered to detect statistically significant differences in outcome and indeed, no significant differences were found in the primary outcomes, treatment retention or illicit heroin use. There were some statistically significant differences in secondary outcomes: a reduction in severe alcohol use in group 3 (supervision) and improvement in psychological health in group 2 (reduced supervision).

Conclusions

This pilot demonstrated undertaking an RCT to determine the most appropriate form of supervised consumption after three months opiate maintenance treatment is feasible to address this important question, although several recruitment centres would be required to ensure sufficient patient numbers.

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097

An analysis of peer researchers' involvement in primary care research: Motivations and experiences

Presenter: Mary O'Reilly-de Brún
Coauthors E Okonkwo, A MacFarlane, T de Brún, K Ahmed, JS Bonsenge-Bokanga, M Manuela De Almeida Silva, A Mierzejewska, L Nnadi and F Ogbebor

Introduction

Peer research methods are advocated for use with ethnic minority communities for ethical reasons - they are likely to promote meaningful (rather than tokenistic) user involvement and minimize research fatigue. There are important questions in the literature about what motivates peer researchers to become involved in projects and how they experience that role. This paper is based on two participatory action research projects: CARe (2002-2005) and SUPERS (2009-2011). Both projects concern migrant service users' experiences of communication in cross-cultural general practice consultations in the west of Ireland.

Methods

Members of migrant communities in Galway city, Ireland (CARe n=5; SUPERS n=7) were provided with training in participatory action research, research materials and financial acknowledgement to support their role as peer researchers in these projects. A retrospective qualitative participatory evaluation of CARe generated data about peer researchers' motivations for, and experiences of, involvement in the project. In SUPERS, a questionnaire and a qualitative participatory timeline technique were used to generate quantitative and qualitative data about peer researchers' motivations for, and experiences of, involvement in the project. The data from both projects were analysed by the peer researchers and the academic primary care researchers, following principles of participatory co-analysis.

Results

Motivation: Peer researchers described how English-language competence and educational attainment, coupled with personal catalyzing events, crystallised for them the importance of effective cross-cultural communication and prompted altruistic behaviour, e.g., assisting community members as informal interpreters or advocates. Experiences: Peer researchers described alterations to their sense of identity during the course of their work. They became conduits between the 'worlds' of the Irish health service and their local networks and were also perceived as role models by their communities. This 'altered identity' was a positive experience for the peer researchers and motivated them to become involved in further health related projects.

Conclusions

Our findings reveal details of peer researchers' motivations and experiences that are often hidden but, when revealed, contribute significantly to our understanding of peer research as a holistic person-centred process. The participatory mode of engagement was central to these findings and could be used in other projects with similar positive effects.

098

COCOA RICH: Well worth blending

Presenter: Cath Weyer Brown
Coauthors Dean Harrison, Richard Byng, COCOA RICH.

Introduction

The Care for Offenders, Continuity of Access (COCOA) project aims to improve policy and practice by examining how healthcare for offenders can enhance health and reduce recidivism. Offenders are a marginalised group, who struggle to access healthcare and distrust authority. The aims of involving this group were i) To access people and topics that the academic research team may not reach, ii) To make data gathering materials understandable to participants, iii) To ensure that the findings were disseminated in appropriate formats .

Methods

COCOA RICH (Research Into Change Highlighted) was established to address these challenges. The majority of the group also had experience of drugs, alcohol and/or mental health services. To avoid the work of COCOA RICH becoming an adjunct, or

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footnote to the main project, the main challenge was to develop a process which allowed the results to be fully integrated within the a complex multi-methods study, whilst preventing them from becoming swallowed by it.

Results

COCOA RICH shaped the language, style and topics of the structured offender interview and contributed to the analysis and interpretation of the academic researcher generated data. They developed their own research interviews aimed at those whose transient lifestyles, or levels of distrust, made them inaccessible to the academic research team; this included interviews with the BME community, people in homeless hostels and at residential and drop in drug projects. Examples will be presented of peer researcher generated data, the analytical approach and process, and how the results were integrated into main findings.

Conclusions

Peer researchers not only provided additional information but informed the direction of the central project and joint working was interwoven through out. The main limitation is the time and resource required and in future we would invest more of both. Building joint working on personal relationships was more important than following external 'how-to' guides to patient involvement.

099

Public Involvement in Research on a Study on Approaching the End of Life in Care Homes

Presenter: Elspeth Mathie
Coauthors A Mendoza M Cowe D Westwood E Mathie M Core D Munday C Goodman M Handley D Thompsom K Frogatt S Barclay S Lliffe J Manthorpe H Gage P Fermer R Garlick

Introduction

This NIHR Research for Patient Benefit programme two year study examines the experiences and expectations of older people living in six residential care homes, their care workers and health professionals of end of life care. The strongest rationale for involving patients in research is to ensure that people with lived experience have a voice in shaping the research. While this project elicits the views of people with significant disabilities living in care homes, for pragmatic reasons peer researchers were chosen whom the research participants would be able to identify with, even if they did not themselves live in care homes.

Methods

Informed by work that established the value of older people as peer facilitators and demonstrated how participants found it easier to talk about sensitive subjects such as death and dying with people of a similar age and life experience, the study included four older members of a Public Involvement in Research Group. Three of the four PIR members were involved in the research process, including the introductory meetings with the care homes, the consent process and facilitating focus groups with residents.

The study recruited 121 older people living in the 6 care homes and their care notes were reviewed every 3 months to record any changes in health status and frequency of contact with health professionals. A sample of the residents (n=63) were interviewed three times over a 12 month period to explore their experience of life in the care home and views of the future.

Results

The PIR members will discuss the advantages and disadvantages of being involved in a sensitive research project, the training and support received and how their involvement affected recruitment, governance, data collection and analysis. Specifically we will explore if our experiences confirm the evidence that research undertaken between perceived peers can produce more open and honest responses from participants.

Conclusions

We will assess what was learnt during the research study, the advantages and disadvantages of matching peer researchers with participants according to the identity of how the participants see themselves, and the implications for researchers, lay members, resources and funders.

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PIPS: Top to bottom and bottom to top, service users, service development and research.

Simon Love and Richard Byng
Coauthors S Forber L Newbold

Introduction

Patient and Public Involvement is now a standard process within healthcare and research in the NHS. Impact on local service changes is an additional marker of quality for research. These strands can be brought together with researchers, patient researchers and commissioners working together.

The Improving Access to Psychological Therapies (IAPT) programme is designed to train CBT therapists and redesign primary care mental health. There is scope for variation in the delivery of these services, and the South West IAPT evaluation (2009 to 2012) aims to determine the optimum service design as well as reveal gaps in provision. Patient involvement is seen as critical to improving services.

Methods

The patient involvement component contributes to this mixed method project, is given scope to select the specific sub-questions, and has its own budget. One of three 'experts by experience' for the programme sits on the research steering group and study group.

We will recruit the three PCTs with the best proposals; they will be offered £2k and the support of researchers; they will be asked to contribute resources to this local enquiry. A central group will meet twice a year to co-ordinate. Patients will be recruited from the IAPT service to work as peer researchers.

Results

This project is in the early stages and further progress will be reported at the conference. Having 'experts by experience' working as part of the main programme team as well as the evaluation has been key to early successes. They have contributed to the taxonomy of service 'design factors', the 'enhanced' set of PCT by PCT patient level performance measures, and we are collaborating with a range of local IAPT patient involvement activities to ensure they contribute not only to local redesign but also to the wider research endeavour.

Analysis and interpretation of the data will be carried out jointly by the research team and the patient researchers. Dissemination will include feedback to local service leads and commissioners to ensure that the findings contribute to service redesign. They will also contribute to regional service change and will be integrated into the main research report.

Conclusions

While this project is in the early stages the proposals argue for a model of patient involvement in research which contributes equally to service development. At a strategic level this has now been implemented with one individual participating in strategic decisions for both research and service design.

101

Women who experience domestic violence: a survey of the attitudes and clinical practice of primary healthcare professionals

Presenter: Jean Ramsay
Coauthors C Rutterford, A Gregory, D Dunne, S Eldridge, D Sharp, G Feder

Introduction

Domestic violence (DV) has a high prevalence in clinical populations and is particularly important for general practice because of the extensive contact between women and clinicians. Women experiencing DV identify doctors as potential sources of support, yet clinicians usually do not inquire about abuse, failing to address their needs. DV is virtually absent from undergraduate and postgraduate medical education in the UK. As part of a cluster randomised controlled trial (investigating whether a training and support programme targeted at general practice teams increases the identification of women experiencing DV and subsequent referral to specialist agencies), we surveyed primary care clinicians to gauge their knowledge and

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opinions, as well as their clinical management of women presenting with domestic violence.

Methods

The Physician Readiness to Manage Intimate Partner Violence Survey (PREMIS) is a tool developed and validated in the USA. We adapted this scale for use with primary care clinicians in a UK setting. It comprises five sections: respondent profile, background (perceived preparedness and perceived knowledge), knowledge, opinions, and practice issues. We asked all general practitioners and practice nurses from the 48 general practices recruited into the trial to complete the survey (either online or a paper copy) at baseline.

Results

A total of 463 primary care clinicians were asked to complete PREMIS.
The overall response rate was 59%. Most clinicians had only received one hour?s training on DV. Scores for DV knowledge and perceived preparedness to manage women presenting with abuse were low-to-mid range across both geographical sites, although GPs reported feeling slightly better prepared than nurses. The numbers of abused women being identified was low (42% had not identified any women in last 6 months). Enquiry was generally limited to women presenting with obvious signs and symptoms, or at well-woman and antenatal checks (51%). Women identified as abused were usually provided with resource materials (59%), but only 18% of respondents were aware of the local community DV services. Most (84%) were either not aware of a practice DV protocol or knew they did not have one, and 85% were not familiar with the PCT guidelines.

Conclusions

We will discuss the results in terms of current preparedness by UK general practice teams to care for women experiencing domestic violence.

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Adverse events in English general practice

Presenter: Carmen Tsang
Coauthors P Aylin, A Majeed

Introduction

Reliable and validate instruments to measure and monitor patient safety in primary care are required. The feasibility of developing a safety indicator set for use in English general practice was assessed through a small scale study. This study will help to determine the volume and nature of patient injuries incurred in this care setting and that are recorded in administrative data.

Methods

Data from the Clinical Information Management Systems at Brent Teaching Primary Care Trust in London was obtained by the Department of Primary Care and Public Health, Imperial College London, through the West London Research Network. The dataset contained records for patients registered in 2007. Adverse events potentially attributable to medical care were identified through Clinical Terms, mapped to Read Code 5-byte (version 2) chapters of Injury and Poisoning, Causes of injury and poisoning, and External causes of morbidity and mortality. Descriptive analyses were performed by age and sex, with calculations of the prevalence of adverse events.

Results

Data was available for 69,683 registered patients (808,132 consultations) from 25 out of 79 practices. A number of adverse events were detected, including 492 cases of complications due to surgical and medical care (0.61 cases of per 1,000 consultations). Over 57% of cases of adverse drug reactions were recorded for female patients, with an overall rate of 1.06 reactions per 1,000 consultations in the study population (n=855). Systemic antibiotics, drugs primarily affecting the autonomic nervous system, and those that affect the cardiovascular system were among the medications most commonly recorded as causing adverse reactions.

Conclusions

This study demonstrates that adverse events can be detected from administrative data

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collected in primary care, with potential to reduce future occurrences. This data source may also identify adverse events incurred in other care settings. Not all types of adverse events will have been detected due to the limited clinical detail and coding hierarchy structure specific to the Read Code system. Assessments of the preventability of detected events and processes of care involved are not possible using this type of data. Better mechanisms for safety surveillance in general practice are needed.

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Selective Serotonin Reuptake Inhibitors exposure in pregnancy and risk of congenital cardiac abnormalities

Presenter: Irene Petersen
Coauthors R Gilbert, S Evans, L Marston, I Nazareth

Introduction

Some studies suggest there is an association between certain SSRIs taken in 1st trimester of pregnancy with congenital abnormalities, but most comparisons have not been made to depressed pregnant women. Therefore, it is difficult to separate the effects of drugs and underlying illness.

Methods

We linked maternal and child records were The Health Improvement Network (THIN) primary care database. Our objective was to examine the risk of congenital cardiac abnormalities (CCA) in children born to women receiving SSRIs during 1st trimester of pregnancy (N=1,828) against women i) receiving other antidepressants (N=668), ii) who were depressed but without antidepressant treatment (N=546), iii) who stopped SSRI before pregnancy (N=1,886) and iv) who were unexposed (N=145,441).The cohorts include women giving birth in 1993-2008. The main outcome was CCA recorded up to age 5. Logistic regression was used to estimate odds ratios for CCA. Analyses were adjusted for maternal age, diabetes, calendar period, smoking and alcohol consumption.

Results

In the unexposed cohort (iv) 8% were smokers compared to 15-20% of the exposed cohorts. Illicit drug use was recorded for 14 (1%) of women on SSRI, 13 (2%) of women on other antidepressants and 120 (0.1%) of unexposed women.
In each cohort, 0.6 0.7% of the women gave birth to a child with CCA. There was no strong evidence of a difference in the odds of giving birth to a child with CCA between women who received SSRI compared with women who were i) on other antidepressants OR: 1.10 (0.35 to 3.42), ii) depressed but not on antidepressants OR: 1.11 (0.31 to 3.99) iii) SSRI before pregnancy OR: 1.10 (0.50 to 2.44)) iv) unexposed OR: 1.10 (0.63 to 1.90). However, we found associations between diabetes and increasing maternal age with CCA.

Conclusions

There was no strong evidence of an increased risk of CCA in women on SSRIs in 1st trimester compared to women exposed at different time periods, on other antidepressants during pregnancy or unexposed

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Antidepressant use and the risk of falls and fracture in older people

Presenter: Paula Dhiman
Coauthors CAC Coupland, R Morriss, T Arthur, G Barton, J Hippisley-Cox

Introduction

Depression is a common condition in older people, which is usually treated with antidepressant drugs. Clinical trials for antidepressants often under represent the elderly population making it difficult to obtain incidence estimates for adverse advents in this population.

The objective of this study was to establish the relative safety and balance of risks for classes of antidepressant drugs and individual antidepressants in older people. The results presented here are for falls and fracture.

Methods

The study used data from a large primary care database (QRESEARCH). A cohort of patients was identified with a recorded diagnosis of depression made at the age of

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65 and over between 1/1/1996 and 31/12/2007.

The cohort study used Cox survival analysis to estimate the hazard ratios associated with antidepressant use, adjusting for confounding variables.

Results

The cohort included 55,767 patients in the analysis for first recorded falls and 52,907 patients for first recorded fractures. During follow-up 11,251 patients had one or more falls and 5330 sustained a fracture.

The falls rate was significantly increased for all classes of antidepressants with the highest increase for Serotonin Reuptake Inhibitors (SSRIs) (adjusted hazard ratio 1.66, 95% CI 1.58 to 1.73). The highest hazard ratios among the most commonly prescribed drugs were for Citalopram Hydrobromide (76% increase), Venlafaxine Hydrochloride (68% increase), Escitalopram (66% increase), Fluoxetine Hydrochloride (64% increase) and Sertraline Hydrochloride (63% increase).

The fracture rate was also significantly increased for all classes of antidepressants (adjusted hazard ratios (95%CI): Tricyclic Antidepressants 1.26 (1.16 to 1.37), SSRIs 1.58 (1.48 to 1.68) and Other Antidepressants 1.64 (1.46 to 1.84)). The highest hazard ratios were for Venlafaxine Hydrochloride (87% increase), Citalopram Hydrobromide (62% increase) and Sertraline Hydrochloride (60% increase).

It was estimated that for each 10,000 patients treated with SSRIs compared with no treatment 220 additional people would fall in one year and 98 would have a fracture, compared with 103 and 42 respectively for TCAs and 133 and 109 for other antidepressants.

Conclusions

All classes of antidepressant drug are associated with an increased rate of falls and fractures in older people. These risks need to be weighed against the potential benefits of these drugs. Limitations of this study include possible indication bias, and residual confounding.

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Interventions for improving outcomes in patients with multimorbidity in primary care and community settings: a Cochrane systematic review

Presenter: Susan Smith
Coauthors H Soubhi, M Fortin, C Hudon, T O'Dowd

Introduction

Many people with long-term conditions have more than one condition, which is referred to as multimorbidity. Published research has focused on descriptive epidemiology and impact assessment. This systematic review aimed to provide a comprehensive assessment of current interventions for patients with multimorbidity.

Methods

We searched MEDLINE, EMBASE, CINAHL, CAB Health, CENTRAL, DARE, and the EPOC Register in February 2009. We included a range of designs (RCTs, controlled before and after studies, and interrupted time series) reporting on interventions for patients with multimorbidity in primary care and community settings. Outcomes included physical and mental health, psychosocial status, measures of patient and provider behaviour (medication adherence, utilization of health services), acceptability of services and costs. Two reviewers independently assessed studies for eligibility, extracted data and assessed study quality.

Results

Eight studies examining a range of complex interventions for patients with multimorbidity were identified. All were RCTs with minimal risk of bias. Three of the eight studies focused on specific co-morbidities, and the remaining studies focused on multimorbidity but tended to include older participants. The interventions were all multifaceted, the majority based around an integrated care manager who coordinated the intervention and usually interacted directly with patients. These

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interventions involved multiple components but could be described as being provider-oriented. Two patient oriented studies focused more on behaviour change and improving self-care. The results for physical and mental health and psychosocial outcomes were mixed. There was a trend towards reductions in hospital admissions and improved prescribing and medication adherence. Cost data were limited, though the reduction in admissions provided potentially significant cost savings.

Conclusions

This review highlights the paucity of research into interventions to improve outcomes for multimorbidity. The limited results suggest that interventions have had mixed effects on physical health but have shown a tendency to reduce hospital admissions and improve prescribing and medication adherence. Studies would be improved by clear definitions of participants and consideration of appropriate outcomes. The prevalence of multimorbidity and the paucity of evaluations highlights the need for a programme of research to develop and assess a range of complex interventions for multimorbidity.

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Tiotropium prescribing for COPD in primary care: a marker of severity or predictor of admission?

Presenter: Hannah Thornton
Coauthors G Thakur, Davidson C, Booth H, Georgopoulou S, White P.

Introduction

COPD is the largest cause of emergency hospital admissions in London. Primary care management has benefited from pharmacological advances, demonstrated in trials of inhaled long-acting tiotropium and inhaled combination long-acting beta-agonists and corticosteroids (LABA+ICS). This study examines the relationship between primary care prescribing and COPD admission rate.

Methods

Prescribing data were obtained from 114 general practices in south London from April 2006–March 2009, along with practice COPD admission data, COPD prevalence and socio-economic status. Tiotropium prescribing cost was expressed per patient aged 45 or over on practice lists. Correlation was sought between admission rates and drug costs. Regression analysis was used to seek admission predictors.

Results

5.6 COPD patients were admitted annually per 1000 patients 45 and over in participating practices. Mean practice COPD prevalence was 0.89% (SD 0.52; range 0.06–2.3). Mean annual tiotropium cost per patient aged 45 and over was £3.62 (£2.06; £0–£8.77). Tiotropium cost and COPD prevalence were strongly correlated ($r=0.61$; $p<0.0001$). Tiotropium cost per patient aged 45 and over was an independent predictor of COPD admissions when controlling for practice COPD prevalence and socio-economic status (Beta = 0.296; $p=0.012$). No correlation was found between COPD admissions and LABA+ICS.

Conclusions

The correlation between primary care tiotropium prescribing and admission due to COPD when controlling for disease prevalence and socio-economic deprivation raises important questions. It seems unlikely that practice rates of prescribing of tiotropium reflect practice disease severity alone as participating practices served a similar population.

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Bridging the gap in COPD care: a new community-based clinic model

Presenter: Thornton Hannah
Coauthors Baxter N, Davidson C, Booth H, Georgopoulou S, White P.

Introduction

There is wide variation in prescribing of respiratory drugs, hospital admission rates and use of pulmonary rehabilitation (PR) in patients with COPD in London. Within a system-wide COPD initiative across two London boroughs, STAR (Specialist Treatment, Assessment & Referral) clinics were established as community-based intermediate care COPD clinics. Clinics were staffed by specialist general

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practitioners, respiratory nurses and pharmacists, and hosted by general practices. Patients who might benefit from review were identified using practice electronic records and invited to attend. Referrals were also encouraged from local practices. Optimisation of treatment and appropriate onward referral were recommended, and patients were returned to routine care. We report here on the impact of this new service in uptake and interventions in its first three months.

Methods

Patient age, gender, MRC score, lung information needs questionnaire (LINQ) score and treatment interventions were routinely collected for patients who attended STAR clinics between 1st December 2009 and 1 March 2010. Patient satisfaction with communication was assessed using question 10 of the General Practice Assessment Questionnaire. Outcome, assessed using respiratory specific quality of life questionnaires, is not reported here.

Results

Routinely collected data was available for 106 first appointments. Spirometry confirmed COPD in 62 (58.5%). Of these, mean age was 65.8 years, 55% were male. Mean MRC score was 3.1. Medication was changed in 79%, referral to PR was made in 48%, access to 24/7 acute phone helpline was given in 13%. 69% of primary care COPD patients seen were receiving drug treatment not considered optimal by international guidelines. Mean satisfaction with communication in consultations was 85% (benchmark 83%). Evaluation including 3-month follow-up continues - full results will be presented.

Conclusions

This approach bridges primary and secondary care to bring high quality COPD management to patients who were otherwise likely to remain on suboptimal therapy. It provides support to practices without undermining practice-based care. It highlights unmet need in a context of primary care co-operation and support.

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Food for thought: Lay Health Trainers (LHT), an exploratory randomised control trial

Presenter: Mark Goodall
Coauthors MB Gabbay MB, G Barton, P Bower, P Byrne, S Capewell, C Cleghorn, L Kennedy,F Lloyd-Williams, AM Martindale, C Roberts, S Woolf

Introduction

Despite a paucity of robust evidence on their cost-effectiveness, LHTs are working with people to address health-related lifestyle issues. This feasibility trial explores the impact of the work of LHTs amongst adults, in deprived inner-city populations.

To undertake an pilot exploratory feasibility RCT to test the methodology and collect data on the treatment effect, of LHT support on diet, and impact on stakeholders.

Objectives include testing trial design; collecting robust data to inform costs and sample sizes for a fully powered trial; and to identify key factors associated with the potential effectiveness of LHT intervention. In this trail, the specific objective is to report on the impact on 5/day dietary intake at follow-up.

Methods

Adults with at least one key CVD risk factor (obesity, raised lipids, smoking, diabetes, hypertension) from inner-city practices serving deprived populations were recruited. They were randomised in a ratio of 2 (intervention arm - LHT supported):1 (control arm - advice leaflets). Data collected at baseline and 6 months included food frequency questionnaire (FFQ), costs, smoking, alcohol, exercise, self-efficacy, plus trial process measures. The intervention group received LHT support over a 3-month period during the trial.

Results

We recruited 114 adults (46 male; 61 female), mean age 52.9 (SD=13.6, 21-79 years old), with 72 were randomised to intervention arm and 38 to control. At 6-month follow-up 60% (68/114) completed the assessments. The FFQ self-reported fruit and vegetable (portions/day) intake at baseline were for intervention arm (M=3.0, SD=2.2, 0.3-12.8) and control (M=3.0,

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SD=2.0, 0.5-9.4). At follow-up, both arms had increased their intake: intervention (M=5.8, SD=2.6, 0.8-11.2); and control (M=5.0, SD=2.6, 1.7-11.3), but there is no evidence of benefit from seeing a LHT (p=0.33). However, a paired samples t-test of combined data for self-reported fruit and vegetable (portions/day) intake showed a significant difference (baseline M=3.1, SD 2.3, 0.6-12.8: follow-up M=5.6, SD=2.6, 0.8-11.3) t(60)=6.9, p>0.05 overall (controls + intervention).

Conclusions

Our results showed the LHT support had no added impact on diet, but being in the trial appeared to have an impact. We will present the lessons learnt from the trial, including recruitment and participant characteristics, data collection issues, drop-outs and follow-ups.

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Putting theory into practice: Piloting the MESH asthma self-care intervention in a primary care setting.

Presenter: Colin Greaves
Coauthors Colin J Greaves, Sarah Denford, John L Campbell, Chris Griffiths, Samantha Walker

Introduction

Systematic reviews show that self-care interventions improve asthma outcomes. However, few interventions have a strong theoretical basis. The MESH asthma self-care intervention derives from a grounded theory of asthma self-care and comprises three nurse-led face-to-face consultation sessions delivered in primary care over a 3 month period. The aim of this study was to assess the feasibility and acceptability of recruitment methods and measures for a planned randomised controlled trial of the MESH intervention.

Methods

We conducted an uncontrolled observational pilot study with nested qualitative research. Eleven asthma nurses from nine practices delivered the MESH intervention to 29 asthma patients aged 18-65, with a history of poor asthma control (defined as high emergency service use or high bronchodilator use). Outcome and process questionnaires were given before and 3 months post intervention.

Results

Of 3758 people with active asthma in 8 practices, 14.2% were identified by practice database searches as meeting the inclusion criteria. After nurses applied the exclusion criteria, only 4.2% were eligible (which was lower than expected). Of those invited, 31% took part and 95% of these attended two or more intervention sessions. At 3 months 91% of measures were completed. Significant pre-post changes favouring the intervention were found in asthma symptoms (p<0.001), asthma control confidence (p<0.005) and quality of life (p<0.05). Qualitative data confirmed the acceptability of the intervention to patients and most (but not all) of the nurses and provided recommendations for improving the intervention training materials. Contacting patients by phone increased recruitment, although this was reported by the nurses to be time consuming and frustrating as it often required several attempts.

Conclusions

The MESH intervention is feasible for nurse-led delivery and acceptable to patients. The recruitment methods are deliverable and the measures sensitive to change. However, some nurses had negative perceptions about the intervention or were not confident about delivering it. Problems with the initial engagement of patients and potentially with application of the exclusion criteria need to be overcome prior to implementing a full-scale trial.

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The Impact of Employment Advice in Primary Care

Presenter: Fiona Ford
Coauthors P Stuttard

Introduction

The Pathways Advisory Service (PAS) provides Jobcentre plus employment advisors in primary care to tackle worklessness and improve health (Waddell & Burton 2006) as part of the government's

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Health, Work and Wellbeing strategy. Evaluation of employment advice provided by Tomorrow's People in a London practice showed reduction in GP consultations and antidepressant prescribing following referral to the advisor (Rawson 2005). This study explores the impact of a Jobcentre plus advisor working in a deprived, largely ethnic minority population where health is poor, the skills base is low, and jobs are scarce.

Methods

Similar methodology was used to collect GP consultation data retrospectively for the 18 months prior to referral to the PAS, and a subsequent time of 14-23 months (adjusted to 18), including anti-depressant, analgesic and anxiolytic prescribing, from approximately 66 consecutive PAS referrals. Background and follow up employment outcome data on a total sample of 659 were submitted by Jobcentre plus.

Results

Out of the overall PAS sample, 23% returned to work, 17% were referred to Condition Management Programme, 7% were signposted into education, and 11% for welfare/debt counselling. Men were 30% more likely and those with a job 5 times more likely to go back to work. The advisor referred 54% of those in employment to occupational health, and contacted 31% of employers.

In the practice dataset, 57% of PAS referrals were men, 77% were South Asian, usually with either mental health problems (48%, with a predominance of men), or musculoskeletal problems (39%). Mean GP consultation rate increased significantly following PAS referral (6.01:8.33, P=0.004), while antidepressant, pain relief and anxiolytic prescribing fell (P=0.007). There was evidence of GPs and PAS working together to tackle complex combinations of health and social problems. Reasons for these findings will be explored further in service user focus groups.

Conclusions

In a socio-economically deprived largely BME population referral to the Pathways Advisory service is associated savings in prescribing costs offset by increased consultation frequency. This may indicate reduced medicalisation of psychosocial problems. Findings are likely to be population specific, limiting generalisability.

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A qualitative study of health professionals' views of patient self-management of hypertension (TASMINH2 trial)

Presenter: Miren Jones
Coauthors SM Greenfield, RJ McManus, J Mant, EP Bray, R Holder, S Bryan, P Little, B Williams, FDR Hobbs

Introduction

Population surveys suggest that around one third of the adult population have hypertension and many people are not controlled below recommended blood pressure (BP) targets. The TASMINH2 trial was designed to evaluate home monitoring of BP and self-titration of medication by patients with poorly controlled blood pressure. This integral interview study aimed to explore the views and experiences of health professionals about patient self-management.

Methods

527 patients (263 self-management, 264 usual care) were recruited from 24 practices into the TASMINH2 trial. Intervention patients were trained to self-monitor their blood pressure, interpret the readings and to adjust their medication, where home readings remained above target, according to a plan agreed in advance with their general practitioner. 13 GPs, two practice nurses and one health care assistant from participating practices were interviewed about their views on home monitoring of BP and their experiences of patient self-titration of medication.

Results

GPs were very positive about home BP monitoring. Prior to the trial, many had encouraged patients to buy home monitors, but procedures for ensuring patients measured their BP correctly were haphazard and how GPs used home readings was variable, with many making an adjustment to medication without taking into account the lower blood pressure at home. Practice

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nurses and the health care assistant were involved in hypertension monitoring but did not generally encourage home monitoring. In the trial, GPs were satisfied with patient training and arrangements for BP monitoring and self-titration of medication. GPs were comfortable with self-titration of medication as used in the trial but were less sure about implementation into routine care in the future.

Conclusions

GPs wanted more involvement by patients in their hypertension care but needed a framework within which to work. Although GPs wanted to promote self-monitoring in the future, there needs to be more consideration of how patients are trained to measure their BP and how home readings are incorporated into their care. Practice nurses and health care assistants involved in hypertension care also need guidance on home monitoring. The results of the trial may impact on GPs' willingness to consider self-titration.

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Barriers and facilitators to the integration of telehealth and telecare interventions: a qualitative investigation within a UK randomised controlled trial

Presenter: Caroline Sanders
Coauthors A Bowen, A Rogers, H Cording

Introduction

Telehealth (TH) and telecare (TC) interventions are considered to hold considerable promise for supporting self-care in the NHS. This paper reports a qualitative research component within a large RCT of these interventions: the Whole System Demonstrator (WSD) project. In the study, we used multiple qualitative methods to evaluate these interventions, tracing their implementation within whole systems of health and social care. We aimed to investigate barriers and facilitators to integration of TH and TC into routine care.

Methods

A longitudinal case study approach combined qualitative interviews with observation for 51 people taking part in the trial who were purposively sampled from across 3 trial sites (East London, Kent and Cornwall); including people with all conditions included in the trial (diabetes, heart failure, COPD, telecare needs). Semi-structured interviews were also conducted with 19 people who declined to take part in the trial. Interviews were recorded and transcribed, and data organised with aid of Atlas.ti. Observational field notes were made and explored alongside interview data to elicit key themes within narrative and situational contexts.

Results

The majority of participants described positive experiences of TH and readily integrated it into their routine activities. Interviews with those who declined to join the trial and a small number (5) who withdrew reveal barriers to integration of interventions. Social and organisational contexts, as well as personal histories and variations in equipment for the 3 sites were all found to be important contributors to integration or rejection of TH/TC. Results are described within key themes including: motivation for self-management, technology and operational factors, changes in service provision and use.

Conclusions

The findings indicate a number of factors important for integration of TH and TC including: provision of suitable information and preparation prior to installation; workability of equipment and easily accessible technological support; good social support; and easily accessible health and social care support. Findings from those who declined or withdrew from the trial indicate these interventions are not suitable for everyone and it is likely that some limitations for rolling out these interventions within the NHS will remain.

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Acceptability of screening to reduce osteoporotic fractures in older women: a qualitative study with women and GPs

Presenter: Clare Emmett
Coauthors NM Redmond, TJ Peters, L Shepstone, E Lenaghan and ARG Heawood

Introduction

Osteoporotic fractures have a substantial impact on the health and quality of life of older people and are costly to the NHS. There is currently no systematic process in primary care to identify those with reduced bone density prior to a fracture occurring. The SCOOP study is a multi-centre randomised controlled trial exploring the effectiveness and cost-effectiveness of screening for women aged 70-85 years with the aim of reducing the incidence of osteoporotic fractures. The screening has two phases; questionnaire-based assessment of risk factors, and bone density (DEXA) scanning. The current study aims to explore the views of women and GPs about the acceptability of this screening process and potential barriers and facilitators to its implementation in routine care.

Methods

A qualitative study nested within the SCOOP study. 15 GPs and 30 women from the Bristol and Norwich study centres took part. GPs were recruited from practices participating in the SCOOP study. Women were sampled from those randomised to the screening arm of the study, and included those identified as low or high risk of osteoporotic fracture. All women and 11 GPs participated in face-to-face semi-structured interviews. Four GPs participated in a focus group. Data was analysed thematically using a framework approach.

Results

Participating women and GPs viewed screening positively, recognising the benefits of early detection and opportunities for prevention. Women's emotional response to high risk status was generally gratitude rather than anxiety. Many felt the age range of participants should be extended downwards, although the consequences for NHS resources were acknowledged. The findings suggest that should screening be implemented then administration, location and access to DEXA, and issues of preventative medication adherence, would need to be considered.

Conclusions

The views expressed by older women and GPs suggest that an effective and cost-effective community-based screening programme to reduce osteoporotic fractures would be well received and could be feasibly implemented in routine care.

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Colonocyte DNA in the diagnosis of colorectal cancer: a cohort study in patients at moderate risk.

Presenter: Willie Hamilton
Coauthors L Mahadavan, A Loktionov I Daniels A Shore D Cotter A Llewellyn

Introduction

Despite the existence of rapid investigation clinics, time to diagnosis in colorectal cancer has not fallen, and survival benefits have not been seen. Over 1000 extra colorectal cancer deaths occur in the UK annually when compared with average EU countries (and over 1700 when compared with the best). Half of colorectal cancers do not have symptoms that qualify for a NICE Guideline referral. Pilot studies suggest that free DNA may be present in the rectum of patients with colorectal cancer. This could be collected by an adapted proctoscope - the Colonix® system.

The objective of this study was to see if this system identified cancer in patients referred for investigation.

Methods

Eligible patients were those referred by their GP to a single UK hospital for investigation for colorectal cancer. Symptom, haemoglobin, ferritin, carcinoembryonic antigen and faecal occult bloods data were collected, and a rectal sample was taken. The main outcome was the presence of colorectal cancer, determined by conventional clinical investigation, generally colonoscopy. The amount of free rectal DNA was measured by investigators blinded to the outcome. Sample size calculations

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suggested 650 participants were required, with 54 having cancer.

Results

717 patients agreed to take part and had rectal sampling, though one was lost to follow up, and two had inadequate samples, leaving 714 for analysis. Of these, 72 (10%) had a colorectal cancer. The DNA value was significantly higher in those with cancer; median score in those with cancer 5.4μg/ml (inter-quartile range 1.8, 12), and in those without cancer 2.0μg/ml (0.78, 5.5), $p<0.001$, Mann-Whitney test. The mean (standard deviation) values were 7.5 (7.3) and 4.4μg/ml (5.6) respectively. Using the DNA score alone, the area under the ROC curve was 0.63. In multivariable analysis, the following variables had independent associations with colorectal cancer: DNA score, age, sex, MCV, carcinoembryonic antigen, positive faecal occult bloods, and rectal bleeding. No other blood test or symptom was significant. The area under a ROC curve using these seven variables was 0.88.

Conclusions

Rectal DNA scores, obtained by an adapted proctoscope, have considerable ability to identify colorectal cancer in the high-risk referred population, especially when simple additional investigation results are added. Further study in the lower risk population of primary care is warranted.

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The CARE Measure predicts better outcomes in general practice consultations

Presenter: Stewart Mercer
Coauthors AP Bikker, M Higgins, P Little, GCM Watt

Introduction

The Consultation and Relational Empathy (CARE) Measure is a valid and reliable measure patient-rated experience measure of the process of general practice consultations in terms of GPs empathic interpersonal skills. CARE Measure scores are known to be significantly associated with patient satisfaction and enablement but links to health outcomes are not known

Methods

650 patients attending 47 GPs in high deprivation areas or low deprivation areas of Greater Glasgow and Clyde participated. Patient questionnaires were used to assess perceived GP's empathy (CARE Measure), the patient enablement instrument (PEI) and other baseline measures including MYMOP (Measure Your Medical Outcome Profile). All consultations were videoed and analysed for verbal and non-verbal communication of the GP. MYMOPS was repeated at a 1 month post-consultation by postal questionnaire. GP characteristics were also gathered including burn-out and job satisfaction. Statistical analysis included multilevel modelling to account for possible cluster effects.

Results

CARE Measure score predicted better MYMOP outcomes (symptom change and well being) in both high and low deprivation areas. Neither PEI nor verbal communication predicted outcomes. The GP looking at the computer rather than the patient generally had a significant negative effect on outcome, whereas smiling had a positive effect in deprived areas. GPs job satisfaction, morale, and burn-out were unrelated to most of the measures, but GPs who valued empathy had significantly lower burn-out scores and empathy was positively related to job satisfaction.

Conclusions

Patients' perception of GP empathy as captured by the CARE Measure, as well as some non-verbal behaviours, predicts better outcomes in both deprived and less deprived settings. Certain non-verbal behaviours also predict outcomes. Empathic GPs appear to suffer less burn-out and more job satisfaction

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Self-reported attitudes to and experience of weight loss as predictors of mortality: 20-year follow-up of a general practice cohort of middle-aged men and women.

Presenter: Andrew Moscrop
Coauthors A Moscrop, D Mant, R Stevens, A Fuller, A Ward, A Farmer

Introduction

There is limited data available about the impact of personal experience and attitudes towards weight gain. We have used data from a general practice population followed up over 20 years to investigate associations between mortality, body mass index (BMI), and self-reported attitudes and experiences relating to weight and weight loss, as well as objective BMI measurements.

Methods

Using a prospective cohort design we analysed data obtained from 11,090 men and women, aged 35 to 64 years at cohort inception in 1989. Participants in five general practices in Bedfordshire, England initially responded to a postal questionnaire assessing health behaviour and attitudes, before being invited to attend a practice-based health check. Death notifications for participants to date were obtained from the Office for National Statistics. Odds ratios for all cause mortalities were calculated for differing BMIs and attitudes toward weight and diet using binary logistic regression.

Results

Complete data baseline data for this analysis was available for 10768 participants. The mean age of the cohort was 48.7 (sd 8.6) years and 47.0% (5027) were male. 1938 deaths had occurred. Being under or overweight was associated with greater mortality. Significant increases in mortality were also associated with: having made no attempt to lose weight in the past year (OR 1.431, 95%CI 1.285-1.593); having been advised by a doctor to lose weight (OR 1.500, 95%CI 1.292-1.741); not perceiving that the amount of food consumed could be harmful to health (OR 1.399, 95%CI 1.197-1.636) ; and having no desire to change weight or diet (OR 1.488, 95%CI 1.343-1.648) . Smoking was associated with increased mortality (OR 2.776, 95% CI2.461-3.132).

Conclusions

Self-reported attitudes and experiences relating to body weight, as well as actual BMI, are associated with risk of mortality. Subsequent adjusted analysis will present the variation in attitudes and mortality between persons in different BMI categories with the aim of furthering understanding of the associations between attitude toward weight, BMI and mortality.

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Developing a complex intervention to improve management of new onset stable chest pain: synthesising an ethnographic analysis with a theoretical framework

Presenter: Rachel Johnson
Coauthors S Michie, H Cramer, M Evans, J Zaman, H Hemingway, A Timmis, G Feder

Introduction

Complex interventions in health care settings are increasingly theoretically grounded. However, factors influencing successful implementation of these interventions are not well understood. OMA (Optimising Management of Angina) is a cluster randomized controlled trial of a complex intervention in rapid access chest pain clinics including a decision support tool for clinicians. Here we describe how a theoretical framework was used in combination with ethnography to develop a robust complex intervention.

Methods

The Michie framework comprises 12 psychological domains that are potentially relevant for implementing clinician behaviour change. We used this framework to configure the intervention, identifying barriers and facilitators to implementation. The framework informed analysis of clinician interviews and focus group data. Additional data from observation at chest pain clinics, clinician interviews, patients and GPs was collected and analysed from an ethnographic perspective. The %26%238216;top down%26%238217; (theoretical framework) and %26%238216;bottom up%26%238217;

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(ethnographic) data were synthesized in a continuous critical dialogue between the members of the OMA multidisciplinary team. Through this process the intervention was adapted into a form fit for piloting.

Results

We will describe the benefits and the challenges of combining a theoretical framework with ethnography to develop our intervention. The theoretical framework allowed identification of domains that appeared particularly relevant to our participants, for example social / professional role and identity. In turn these insights allowed us to hone our intervention. For example, the credibility of the research team was clearly important to some clinicians (domain: social / professional role and identity), and we were able to reinforce this in our interactions. However, the framework was sometimes difficult to use, for example the structure not reflecting an intuitive conversation between clinicians. In addition there were sometimes tensions between important factors identified from the clinicians, and the capacity of the pilot intervention to address these factors. The ethnographic observations allowed us to explore the validity and limitations of the theoretical framework.

Conclusions

When designing a complex intervention we found that combining a theoretical framework with an ethnographic analysis helped us to improve the model and to understand the context into which the intervention would be introduced.

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Influence of chronic disease and comorbidity on long-term change in physical health: a consultation-survey linkage study in general practice.

Presenter: James Prior
Coauthors KP Jordan, UT Kadam

Introduction

The role of disease severity and comorbidity on health change is little understood. Previous cross-sectional analyses showed disease severity based on routine consultation was associated with worse physical health. The objectives of this study were to examine, for cardiovascular disease and musculoskeletal disorders, whether severity of disease and comorbidity were associated with physical health change over a 3-year period.

Methods

4672 consulters aged 50 years and over from six general practices had completed a baseline and follow-up health survey at 3 years. Morbidity data for these consulters was linked to their self-reported physical health, as measured by the Short-Form 12 (SF-12) questionnaire in the survey. Six cardiovascular and nine musculoskeletal disorders from consultation-coded data were categorised by severity based on a previous classification. Associations between these categories and change in physical health were analysed using linear regression methods adjusting for age, gender, deprivation and baseline physical health score. Dichotomised morbidity counts (low or high) were used to analyse the influence of comorbidity on physical health change over 3 years.

Results

There were 1371 (29.3%) cardiovascular disease consulters and 1972 (42.2%) musculoskeletal disorder consulters. Health change worsened with increased disease severity within each chronic disease spectrum but trends were not significant. Compared to the change in the reference category (hypertension), the extra decrease in physical health scores ranged from -0.63 (95% confidence interval -2.7, 1.5) for atrial fibrillation to -2.55 (95% CI -4.7, -0.4) for heart failure. Compared with the change in the reference category (soft tissue disorder), the extra decrease in physical health scores ranged from -0.77 (95% CI -3.2, 1.7) for soft tissue pain to -1.53 (95% CI -4.6, 1.6) for inflammatory polyarthropathy. There were specific patterns of health change by comorbidity levels.

Conclusions

Long-term physical health change over 3-years was worse across diagnostic categories within two chronic disease spectrums and the role of comorbidity in health change may vary. Potential implication for health

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professionals is to consider severity based on diagnosis and comorbidity together in the deterioration of health over the long-term. Further study is required to consider the potential of physical health measurement in routine clinical care.

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The role of primary care for young people with first episode psychosis

Presenter: Nagina Khan
Coauthors H E Lester

Introduction

Psychosis affects 3.4% of the population over a lifetime. Eighty per cent of first episodes of psychosis (FEP) occur in people between 16 and 30. Development of early intervention services (EIS) that provide comprehensive, community based care for up to three years to young people experiencing FEP is now a priority in England. We have previously interviewed 36 service users about their experiences of secondary health care on two occasions in four geographical sites: the North West, Cambridge and Norfolk, Birmingham and Cornwall. However there has been relatively little work exploring the views of young people recovering from psychosis as they are discharged back to primary care.

Methods

Study aims:

1. To understand the changing perspectives over time of a cohort of young people with FEP.
2. To explore the role of primary care in providing quality health care for people with FEP.

A longitudinal qualitative interview study following a cohort of 36 young people recovering from FEP as they are discharged to primary care. Analysis proceeds in parallel with the interviews and is inductive, using components of thematic analysis and grounded theory.

Results

78 qualitative interviews have been undertaken and analysed, 36 baseline interviews and 36 interviews at 12 months and now 6 interviews at the point of discharge to primary care. We expect this latter number to be closer to 20 by the time of the conference. Analysis suggests rapidly evolving views on illness, treatment, recovery, relapse, personal identity and relationships with others. For example, families are seen as critical in support and recovery terms; the notion of surveillance can be both a distressing presenting symptom and function of the EIS; relationships with medication are complex and aligned to ongoing feelings of stigma (for example around weight gain) and illness identity and whilst symptomatic recovery is clear by year 2, social recovery is still a distant goal for many. Contact with primary care is valued, particularly for physical health, but often perceived as insufficient.

Conclusions

Primary care may need to be more proactive in engaging young people with FEP particularly around the risks and side effects of medication and in helping to facilitate social recovery and family engagement.

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Childhood chronic illness and its association with psychological and social development

Presenter: Udo Reulbach
Coauthors T O'Dowd, C McCrory, R Layte

Introduction

Childhood chronic illness can have a high impact on the child's quality of life. The foundations of health are established in early life, and are shaped by biological, psychosocial, spiritual and environmental processes and influences. The objectives of this presentation are twofold: firstly to describe the prevalence of chronic illness in 9-year-olds in Ireland, secondly to illustrate how chronic illness influences the pscycological and social development of the children.

Methods

Analysis was based on data of 8,570 nine-year old children, and their families who participated in Growing Up in Ireland – the National Longitudinal Study of Children. The sample was generated through the primary school system. A representative

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sample of 910 schools participated; the sample of children and their families was randomly selected from within the schools. Questionnaires were administered in schools; and after completion of this phase, the project interviewers visited the families of the nine-year olds in their homes and administered core questionnaires to the Study Child and his/her caregivers.

Results

The overall prevalence of chronic illness reported by mothers among the nine-year old cohort was 11% (gender-specific prevalence for boys: 13%, and significantly lower for girls: 10%). Respiratory illnesses accounted for almost half (46%) of all chronic illnesses, followed by mental and behavioural conditions with 19% (high gender dysbalance: reported for boys in 24%, for girls in 12%). Children with a reported chronic illness had significantly more emotional, conduct, hyperactivity, peer-based and prosocial difficulties when compared with children without a reported chronic illness. Abnormal scores, based on the Strengths & Difficulties Questionnaire (SDQ) were found in 20% in children with a chronic disease, and in 5.5 % in children without a chronic disease. Primary care givers' views and perceptions regarding the chronic illness of the child, were found to be a significant factor on child strengths and difficulties in a multivariate model.

Conclusions

The majority of nine-year old children can be assessed as healthy. The most common chronic illness in this large cohort was respiratory disease and overall, chronic conditions were found to have a negative impact on the child's emotional and social state.

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Factors associated with the presence of diabetic ketoacidosis at diagnosis of type 1 diabetes mellitus in children

Presenter: Juliet Usher-Smith
Coauthors M Thompson
F Walter

Introduction

Diabetes Mellitus (DM) is the most frequent endocrine disease in children with approximately 19000 children in the UK developing Type 1 DM (T1DM) each year. Unfortunately, up to 70% of newly diagnosed children present in diabetic ketoacidosis (DKA). This carries a significant risk of immediate life-threatening complications and also influences the longer-term clinical course of T1DM. Understanding why some children present in DKA is important to enable us to plan interventions to reduce this excess morbidity and mortality. Here, we systematically review the factors associated with DKA at the diagnosis of T1DM in children.

Methods

We searched PubMed, EMBASE, Web of Science, Scopus and Cinahl to identify primary research studies of children presenting with new onset T1DM which distinguished between children presenting with and without DKA. Screening of studies for inclusion, data extraction and quality assessment were completed independently by at least two researchers.

Results

1245 articles were identified from the literature search. 1149 were excluded at title and abstract level and a further 58 after full-text assessment. 6 articles were identified through additional citation searching, giving 44 articles including 17,084 children in 30 countries.

Preliminary results show there is a small increased risk of DKA when diagnosis is missed or delayed by doctors (OR 1.33 [1.06-1.68]) but the mean duration of symptoms did not differ between children presenting with or without DKA (16.5±6.2 and 17.1±6.0 days respectively) and there was no difference in the number of primary care visits. Younger age, being of an ethnic

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minority group, low parental education, lower social status, lack of medical insurance, and low background T1DM incidence were all associated with an increased risk of DKA.

Conclusions

This review provides the first synthesis of the factors associated with DKA at the onset of T1DM in children. It identifies those children at greatest risk and the contribution of individual, family, physician and disease factors to that risk. The duration of symptoms before diagnosis and relatively small additional risk associated with physician factors suggests that future interventions should be targeted at families to help them recognise the early signs of T1DM and seek medical attention before progression to DKA.

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What heart rate is normal in children of different ages? New cut-offs obtained by systematic review and meta-analysis

Presenter: Richard Stevens
Coauthors Susannah Fleming
Matthew Thompson
Carl Heneghan

Introduction

Heart rate is a key vital sign widely used in the diagnosis of children who may be seriously ill. It is therefore important to know the normal range of heart rate in a child of any given age, but the reference ranges in current use have no clear evidence base.

Methods

We searched MEDLINE, EMBASE and CINAHL for all cross-sectional, case series and cohort studies that objectively measured heart rate in 20+ children aged 0-18 years. We extracted data on age, and median and centiles of heart rate from each relevant paper found. We used nonparametric regression to create charts of the 1st, 10th, 25th, 50th (median), 75th, 90th and 99th centiles of heart rate at each age based on all the studies allowing for the precision, size and age range of each study. We used graphical methods to compare our new centile charts with existing charts from the UK Advance Paediatric Life Support (APLS) guidelines.

Results

Of 2,028 articles identified, 263 were duplicates and 1,605 were excluded based on title or abstract. Of 160 full text papers retrieved, 59 provided heart rate data from 152,057 children. In new centile charts based on these 59 studies, the median (and 10th, 90th) centiles of heart rate were 126 (107, 144) at age 1, 98 (81, 117) at age 5 and 84 (67, 103) at age 10 years and varied smoothly between and beyond these ages. In the APLS guidelines the lower and upper limits are 100, 150 at age 1, 95, 140 at age 5 and 80, 120 at age 10 and do not vary smoothly between ages.

Conclusions

New centile charts based on 152,057 children predict the variation in age with greater detail, greater realism and greater evidence than existing guidelines, which should now be reviewed.

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Prescribing of nicotine replacement therapy in adolescents in England

Presenter: Tessa Langley
Coauthors Y Huang, T Coleman, A McNeill, J Gibson, L Szatkowski, S Lewis

Introduction

Nicotine replacement therapies (NRT) are licensed for the relief of nicotine withdrawal during smoking cessation, and became available on prescription from the NHS in April 2001. Until 2005 there were inconsistencies in the advice regarding the use of NRT by young people. In December 2005, based on evidence that nicotine products seemed safe in adolescents, the licensing arrangements were changed such that all forms of NRT can now be used by smokers aged 12 to 17 years, though evidence for its effectiveness in young people remains limited. We have used data from The Health Improvement Network (THIN), a database of UK electronic primary care records, to explore patterns in NRT prescribing for adolescents in England between April 2001 and December 2008.

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Methods
From the THIN database we extracted data on all patients aged between 12 and 17 and contributing data each month during the study period. We calculated monthly and annual rates of prescribing for NRT for adolescents aged 12-13, 14-15 and 16-17, and in males and females and in different socioeconomic groups. We examined trends in prescribing in adolescents and compared rates between males and females and between socioeconomic groups.
Results
Prescribing of NRT for adolescents increased steadily until 2006 before levelling off. There was no increase in the rate of prescribing over and above the existing trend after the changes in the licensing agreements in 2005, when there were 652 NRT prescriptions per 100,000 14-15 year olds. Females obtained more NRT prescriptions than males. Adolescents residing in the most socioeconomically deprived areas obtained more NRT prescriptions than those from less deprived ones.
Conclusions
NRT prescribing to adolescents within primary care remains much less frequent than prescribing to adults, but is more prevalent to young women and socioeconomic groups with the highest prevalence of adolescent smoking. Recent changes in licensing arrangements do not appear to have influenced prescribing rates, suggesting that other factors, such as, perhaps, the limited evidence base for the use of NRT in young people may have greater impact on its use in adolescents.

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A qualitative study to explore the motivators and barriers to achieving a smoke-free home for new parents
Presenter: Olesya Atkinson
Coauthors L Jones, S Lewis, A McNeill, T Coleman, J Longman
Introduction
Five million children in UK are exposed to environmental tobacco smoke (ETS), predominantly in the home. ETS causes significant short-term and long-term health morbidity. A recent Department of Health report "A smoke free future" identified increasing the number of smoke-free homes (SFH) with young children as one of the top three tobacco control priorities for the UK. However, there is currently limited robust evidence to recommend one particular strategy over another. Therefore, this qualitative study aimed to explore a range of views about how we might best help disadvantaged caregivers to protect their children from ETS exposure
Methods
Twenty-two smoking caregivers, with children under five, were recruited via randomly selected Nottingham City Children's Centres. Data, collected via semi-structured one-to-one interviews, were audio recorded and transcribed verbatim and analysed systematically using grounded theory to identify emergent themes.
Results
Most caregivers had some knowledge about the effects of smoking on their own health but fewer were aware of the links between ETS exposure and childhood illnesses. Many smokers listed their children's health as a motivator for making their home smoke-free. However, many also cited protection of house décor and avoidance of cigarette odours as significant explanations for restricting their smoking. The most commonly reported barriers to have a SFH included a conflict between coping and caring, space restrictions and a lack of autonomy to impose smoking rules. Many smokers perceived current stop smoking campaigns as unrealistic, too extreme and lacking in meaningful information about the effects of ETS on children's health. Smokers who aspired to make their homes smoke-free often preferred gradual reduction of smoking, as opposed to the most frequently used method of setting a quit date for complete abstinence.
Conclusions
Healthcare professionals who actively engage with smoking caregivers should provide meaningful information about effects of ETS on children. Advice on ETS reduction needs to be tailored towards

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families' circumstances, including the specific motivators and barriers to making SFH and smokers' preferred methods for reducing their smoking within the home. Further research is to be carried out involving families from wider range of socio-economic backgrounds and key healthcare professionals who are involved in promoting SFH.

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Assessing the validity of depression severity measures in a sample of primary care patients with a diagnosis of depression

Presenter: Isobel Cameron
Coauthors JR Crawford, A Cardy, S Du Toit, S Hay, K Lawton, K Mitchell, S Sharma, S Shivaprasad, S Winning, IC Reid

Introduction

The Quality and Outcomes Framework (QOF) emphasises the importance of measuring depression severity in primary care to target the condition with an appropriate intervention; however there is an absence of psychometric comparison of the endorsed measures (Patient Health Questionnaire (PHQ-9), Hospital Anxiety and Depression Scale (HADS) and Beck Depression Inventory (BDI-II)). This study assessed the psychometric properties of PHQ-9, HADS and BDI-II, relative to the clinician administered Hamilton Rating Scale for Depression (HRSD-17) in a sample of primary care patients with a depression diagnosis.

Methods

Adult patients were recruited from nine general practices across Grampian (selected to yield participants with a mix of socio-economic and urban / rural status). Consenting participants completed the severity measures, demographic questions and were assessed by a psychiatrist with the HRSD-17 (GRID-HAMD). Psychiatrists (n=6) were blind to the questionnaire responses. Inter-rater reliability was assessed. A concurrent psychometric analysis was made of the scales to assess: reliability, homogeneity, convergent and discriminant validity and responsiveness to change over time. Established severity cut-off scores for each scale were assessed for convergence with HRSD-17 thresholds. Receiver Operating Characteristic (ROC) curves were plotted to assess optimal severity thresholds. Analyses were conducted using SPSS 17 and Clinimetrics Toolkit.

Results

286 (25%) of 1134 invited patients participated: mean age=49.8 (s.d.=13.8), 69% female, mean HRSD-17=12.9 (sd=7.6). The scales showed: adequate internal consistency (Cronbach¡¯s alpha 0.87-0.94); homogeneity (variance measured by 1st factor 46.3%-60.7%); and convergent validity (r=0.68-0.78) however the BDI-II did not demonstrate discriminant validity (William¡¯s test p=0.11). All displayed inadequate category agreement with HRSD-17 (Wilcoxon p<0.05). Reasonable sensitivity and specificity was reached for detecting moderate severity of depressive symptoms (HRSD¡Ý14) where HAD-D¡Ý9 (72%/75%), PHQ-9¡Ý12 (74%/79%) and BDI-II¡Ý23 (73%/75%). All three questionnaires exhibited a similar measurement of magnitude of change over time (effect size=0.12-0.26). Inter-rater reliability of assessors was demonstrated (intraclass correlation=0.95 (CI=0.90,0.98).

Conclusions

Established thresholds of commonly used depression severity scales in UK primary care do not align adequately with the HRSD-17 (from which the evidence base with regard to severity is based). The present study provides empirically derived thresholds which can be used with these measures to facilitate the assessment of severity of depressive symptoms.

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Antidepressant prescribing in a national sample of older primary care patients in community and care home settings

Presenter: Tess Harris
Coauthors I Carey, S Shah, S DeWilde, D Cook

Introduction

Depression has been under-treated in older people in community and care home settings, but there is recent concern about antidepressant overuse in care homes. Comparative prescribing data is lacking. We describe antidepressant prescribing and its predictors in a national sample of older community and care home residents.

Methods

Cross-sectional analysis of an established primary care database (THIN) including 326 English and Welsh general practices between March 2008 and February 2009. Care home residents were identified by either a Read code or multiple care home residence markers (postcode linkage, household size identifier and consultation location). 403,259 community and 10,387 care home residents aged 65-104 were included. The main outcomes were antidepressant prescriptions and depression diagnoses in the last 3 and 12 months.

Results

10.3% of older community and 37.5% of older care home residents were prescribed an antidepressant in the last 3 months. After excluding low dose tricyclics (used for other indications) prevalences were 7.3%(n=29,367) and 33.6%(n=3,491) respectively. Differences between settings were present at all ages and in both sexes. Most prescriptions were for recommended selective serotonin reuptake inhibitors (SSRIs) in 56.9% of community and 61.4% of care home patients, but 21.7% and 4.8% respectively were for non-recommended antidepressants. 85.4% of community and 94.9% of care home antidepressants were repeat prescriptions. Only 9.1%(2614/28,762) of community and 4.0%(117/2955) of care home residents registered for >12 months and prescribed antidepressants had a depression diagnosis recorded in the same period and only 63.6%(18,281) and 48.0%(1416) respectively had a depression diagnosis recorded ever. In both settings, antidepressant prescribing was commoner in women and in those with chronic diseases, particularly dementia, stroke and Parkinson¡¯s disease in the community and stroke in care homes.

Conclusions

This national sample confirms the high prevalence of antidepressant prescribing to older people, particularly in care homes, the strong association with chronic disease and the lack of recorded depression diagnoses. Most prescriptions are for recommended SSRIs, but non-recommended drugs are still being prescribed. Before prescribing antidepressants in older people, general practitioners need to ensure they are indicated and record a diagnosis, as well as paying attention to antidepressant type.

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Duration of Treatment for new episodes of depression, a description of changes over time using the GPRD

Presenter: Michael Moore
Coauthors H M Yuen, J Maskell, N Dunn M Mullee, T Kendrick

Introduction

Early cessation of depression treatment is associated with a greater risk of relapse. The NICE guidelines on depression recommend initial treatment with an SSRI and a duration of six months after remission. However only 20-30% of those initiated on antidepressants remain on them up to six months

Aims

To describe changes in the duration of treatment for the first treatment episode of depression over time

To determine whether specific drug classes are associated with longer treatment episodes

Methods

Data was extracted from the General Practice Research Database (GPRD). We identified a cohort of incident cases of new depression arising in the GPRD between

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1993 and 2005. The first treatment episode was defined as a prescription code occurring within 6 months of the first depression code and treatment duration recorded for 12 months following the first prescription

Results

Less than one third (28%) of prescription episodes were for a duration of six months as recommended in treatment guidelines. There was however a trend for increased duration in prescribing over time; prescription episodes of longer than six months increasing from 19.7% in 1993 to 33.9% in 2004. There was a corresponding fall in very short term prescriptions; those for less than two months falling from 51.5% in 1993 to 37.5% in 2004. Those in the age group 18-30 were more likely to have very short treatment episodes compared to older age bands (18-30yrs 52.0%; 31-65yrs 40.2%; and age>65yrs 41.5%). Over the same time period there were dramatic changes in antidepressant class being prescribed. Between 1993 and 2004 the initial drug choice changed; TCA fell from 58% to 8%; SSRI increased from 39% to 79% and other classes increased from 3% to 13%. The initial drug class prescribed did appear related to apparent duration of treatment. Treatment episodes of more than six months occurring in 20% when first treatment was a TCA, 29% SSRI and 49% other antidepressant drugs.

Conclusions

There is evidence of an increase in initial antidepressant prescribing duration in line with guidelines. Initial drug choice has changed dramatically and does appear related to treatment duration with non TCA non SSRI drugs most likely leading to treatment beyond 6 months.

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Group psychological therapies for depression in primary care: a systematic review.

Presenter: Alyson Huntley
Coauthors R Araya, C Salisbury

Introduction

Although NICE recommends psychological therapies for depression including group based therapy, there is a paucity of evidence about groups. Our aim was to conduct a systematic review of the current evidence from randomised controlled trials (RCTs) of group based psychological therapies for depression, with a particular focus on treatment in primary care and the community.

Methods

Using a custom designed search strategy we searched MEDLINE, EMBASE, PsychINFO, The Cochrane Central Register of Controlled Trials and the CCDAN database from inception to July 2009.

Results

The searches found 9651 references which were screened by title, then abstract, resulting in selection of 80 full text articles from which 25 articles were finally included. These described 23 RCTs (with 25 comparisons) and two cost effectiveness papers.

Twelve RCTs investigated group cognitive behavioral therapy (CBT) versus usual care (n=1333), seven RCTs compared group versus individual CBT therapy (total n=211), two RCTs compared group problem solving versus usual care and there was one RCT each describing group reminiscence, dialectical behavioral therapy, interpersonal therapy and self-control therapy versus usual care.

Risk of bias assessment of the included studies highlighted many issues such as lack of information about study procedures, absence of blinding and small numbers of participants in many studies.

Preliminary analysis suggests that group CBT confers additional benefit to usual care in the short term (post treatment –three months follow up) but this effect diminished in the medium-long term (six months plus). The data available for the comparison of group versus individual CBT for depression were derived from very small studies. These data suggest a small effect in favour of individual therapy in the short term.

The two cost-effectiveness papers were conducted in non-European health systems but both showed that whilst group CBT is marginally more expensive, it confers significant benefit.

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Conclusions
There is evidence that group CBT is of benefit to depressed primary care patients although the studies show considerable risk of bias. There is a lack of evidence for other group psychological therapies, and inadequate cost effectiveness data.

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Effectiveness of a stepped care intervention offer among older subjects who screened positive for depressive symptoms in general practice; the PROMODE randomized controlled trial

Presenter: Gerda van der Weele
Coauthors MWM de Waal, WB van den Hout, RC van der Mast, AJM de Craen, Ph Spinhoven, WJJ Assendelft
J Gussekloo

Introduction
Depressive symptoms have a negative impact on well being and functioning at old age. Screening for depressive symptoms, followed by an intervention offer has been advocated. It is however unknown, whether this strategy is effective in older subjects. Our aim was to study the effectiveness of a stepped care intervention among screen-positive subjects with depressive symptoms in general practice in two age groups (75-79 years and 80 years and over).

Methods
Design: Pragmatic cluster randomized controlled trial.
Setting: 67 general practices in the Leiden region, the Netherlands.
Participants: 239 subjects 75 years and over who screened positive for untreated depressive symptoms (15-item Geriatric Depression Scale-score greater than or equal to 5 points).
Intervention: According to random treatment allocation screen-positive subjects received usual care (34 practices with 118 subjects) or were offered stepped care intervention (33 practices with 121 subjects), consisting of: an individual counseling by a community psychiatric nurse (step 1), psycho-education by a 'Coping with depression course' or a similar therapy on individual basis (step 2) and, if indicated, pharmacological treatment and/or referral back to the GP for further treatment (step 3).
Main outcome measures: Severity of depressive symptoms as assessed with the Montgomery-Åsberg Depression Rating Scale (MADRS) after 6 and 12 months. Costs of intervention, medical care and informal care during the study period were estimated.

Results
In both study groups mean MADRS-scores decreased during follow-up, but no differences were found between intervention and control groups after 6 months (75-79 years: -1.2 versus -3.0 points, p=0.15; 80 years and over: -0.9 versus -2.7 points, p=0.13) and 12 months (75-79 years: -4.3 versus -4.6 points, p=0.78; 80 years and over: -2.0 versus -4.6 points, p=0.055).

Conclusions
Compared to usual care, stepped care intervention for screen-positive depressed subjects 75 years and over in general practice did not result in better clinical outcomes. Therefore, screening for depressive symptoms among all older subjects in general practice is not a useful strategy.

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Understanding longer term prescribing for depression a study using the GPRD

Presenter: Michael Moore
Coauthors H M Yuen, J Maskell, N Dunn M Mullee, T Kendrick

Introduction
Depression is common. Guidelines recommend longer term treatment (up to 2 years) in those with recurrent depression or multiple recent episodes. Observational data from the GPRD reveals that longer term prescribing has steadily increased between 1993 and 2001 and those in the continuous and intermittent treatment groups account for 90% of antidepressant prescriptions. Small changes in longer term prescribing explain the doubling in antidepressant prescriptions over the same time.
Aims For those contributing 10 years of data to the cohort.

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What proportion received antidepressants in the 10th year after first diagnosis
Of those receiving antidepressants how long was their treatment duration

Methods

Data extracted from the General Practice Research Database (GPRD)
We identified a cohort of incident cases of new depression arising in the GPRD between 1993 and 2005. We were able to examine 10 year treatment data in three cohorts, 1993-2003 1994-2004 and 1995-2005. Antidepressant prescriptions were identified for each year in the cohort.

Results

In the 10th year following the index diagnosis 26% (6126/234050) were in receipt of an antidepressant. Of these .47% (2896/6126) had received at least 3 years of prescriptions and 27% (1647/6126) had received a prescription every year for the full 10 years of observation. Further details of treatment duration and gender will be available.

Conclusions

Ten years after the first diagnosis of depression there is a 26% chance of receiving a prescription for an antidepressant. Of those being treated over one quarter had received a prescription in every year for the full ten years of observation.
Very long term treatment of depression is common in a primary care population

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Do structural elements of our health care systems influence care-seeking?

Presenter: Rikke Andersen
Coauthors P Vedsted, F Olesen

Introduction

It has been hypothesised that the absence of a more significant improvement in cancer survival in countries such as the UK and Denmark may be attributable to delayed care-seeking among cancer patients. Past research on patient delay has mainly focused on patient characteristics (e.g. socio-demographic and psychological factors and symptom recognition) while few studies have focused on the relation between health care decisions and the structure of our health care systems. We know from disciplines such as anthropology and sociology that institutional structures influence how relations unfold (here the doctor-patient relationship) and influence social practices and cultural assumptions ('what can be said and done'). We would like to raise a series of hypotheses on the relation between structural elements in our health care system and care-seeking decisions in a Danish context.

Methods

We conducted semi-structured interviews with 32 cancer patients and their families on care-seeking decisions. The analysis presented and the hypotheses raised are supported by organisational theory and literature studies.

Results

1) Patients report that it is important to preserve good and trustful relations with their doctors. These relations are potentially compromised by different forms of inappropriate behaviour, for instance seeking care 'too often' or presenting with minor complaints. Thus, continuity in the doctor-patient relationship as established through the registered list system has potential side effects, as the focus shifts from the medical issues of the consultation to issues of maintaining relations.

2) Patients reported that prior experiences with doctors where the doctor was either too busy or had not taken their worries seriously made them hesitate to seek care.
Functioning as gatekeepers in the wider diagnostic system, doctors are met with the challenge of referring only the potentially ill. Also, to be situated in a professional hierarchy where their work is judged by other doctors as well as the risk of being met with financial restraints may potentially place doctors in a dilemma that influences the way they interact with patients and respond to patient needs.

Conclusions

Structural features of our health care systems, here exemplified by the list system and by the GP's gatekeeper role provide a

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certain context for interaction and behaviour. Such factors potentially explain why some patients report reluctance to 'bother' their GP.

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Influence of the annual pay-for-performance cycle on the initiation and content of the consultation: a video study

Presenter: Simon de Lusignan
Coauthors B Xavier, E Crecan, P Kumarapeli

Introduction

Pay-for-performance targets were introduced into UK general practice in 2004 and extended in 2006. Practices are paid on the basis of computer record data, about their management of chronic disease; these data are collected annually in late March. Whilst much has been written about the unexpected consequences of pay-for-performance targets, there is a dearth of publications asking whether there is any noticeable difference in the personal nature of care given in the quarters before and after the pay-for-performance annual census date. The ALFA (aggregation of log files for analysis) toolkit is an open-source system for precisely recording the impact of the computer on the consultation. The toolkit can be downloaded from: www.biomedicalinformatics.info/alfa/ We have collected a series of 150 consultations which have been filmed in the three months before and the three months after the pay-for-performance payment date. The sample was purposive aiming to include male and female doctors of varying ages using all of the four principal computer systems; it was not purposive around the pay-for-performance year end.

Objective:

To explore the extent to which pay-for-performance influenced the start of the consultation, computer use, responding to prompts and coding data.

Methods

We filmed and created multichannel video records; captured what was displayed on the computer screen and combined them into multi-channel video.

We divided who initiated the consultation into three different types, using Pearce's classification (doctor led, patient led and computer led). We looked at responses to prompts, total computer use and coded entry items recorded.

We analysed these quantitative data in SPSS.

Results

We found a marked difference in who led the consultation in the three months before compared with the three months after. Patient led consultations were much less frequent in the pre-payment quarter. The ratio of doctor led to patient led was 4 to 1 in the pre-pay-for-performance quarter. This ratio fell to 1.15:1 in post census data consultations (Chi square p=0.032). Coding and pay-for-performance prompts were used more in pre- quarter, and less in the post quarter. There was no significant difference in overall computer use.

Conclusions

Pay-for-performance appears to lead clinicians to take charge of the consultation in order to record more target related codes in the pre- quarter compared with the post quarter. Freed of the constraints of pay for performance in the quarter after data collection the patient's agenda can be heard. The unexpected consequence of pay-for-performance targets may include blanking out of the patient's agenda.

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Facilitating the understanding of mental health problems in GP consultations: a qualitative study using taped-assisted recall

Presenter: Marta Buszewicz
Coauthors J Cape, C Geyer, C Barker, N Pistrang, C Dowrick, P Salmon

Introduction

Mental health problems are common in primary care and most are managed solely by the general practitioner (GP). Patients strive to understand their mental health problems and facilitating this may be very valuable, yet little is known about this process in GP consultations. The aim of this qualitative study was to explore how

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patients' understanding of their mental health problems develops during routine GP consultations, drawing on the multiple perspectives of the patients, their GPs and the audio record of the consultation.

Methods

Fourteen patients and their 11 GPs from 10 practices in North Central London were interviewed; the GPs had volunteered to participate. Each index consultation which fulfilled the study eligibility criteria was accompanied by a GP and a patient interview using the tape-assisted-recall (TAR) method. In these in-depth interviews, audio recordings of the consultation were used to prompt patient and doctor memories of what had been said and how they had reacted. GP interviews focused on how they thought the patient had understood his/her problems and what explanations or understanding the GP had been trying to communicate in the consultation, whereas patient interviews concentrated on whether and how the patient's thinking had changed after seeing the doctor and where in the consultation things had been said that may have helped the patient think about their problems differently. The 42 transcripts of the consultations, GP and patient TAR interviews were analysed using qualitative thematic and process analytic methods.

Results

Patients considered understanding their mental health problems to be important and seven reported their consultations as having been helpful in this regard. The process of coming to an understanding was predominantly patient-led. Patients suggested their own explanations, and these were facilitated and focused by the doctors questioning, listening, validating and elaborating aspects they considered important. Both doctors and patients experienced constraints to the extent to which developing an understanding of these problems was possible in GP consultations.

Conclusions

GPs mainly help patients understand their mental health problems by recognising patients' own attempts at explanation and helping to shape and develop these. GP-led explanations were the exception in this study.

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Are serious challenges in cancer survival partly rooted in the gatekeeper principle?

Presenter: Peter Vedsted
Coauthors F Olesen

Introduction

We have been puzzled to note that Danish and British citizens have a poorer cancer prognosis than citizens from other countries. The two countries are believed to have strong general practice sectors; this is known to increase the number of cancers diagnosed at earlier stages. During recent years, we have hypothesised that their low cancer survival could be partly rooted in the gatekeeper function undertaken by general practice in these two countries.

Methods

We tested this hypothesis in an ecological study. We analysed the association between the one-year cancer survival in 19 European countries and each of the following variables: general practice as a gatekeeper in the respective countries, the use of patient list systems in general practice and general practice being the first point of contact with the health care system. Data originated from the second half of the 1990s.

Results

We found a statistically significant association between a lower one-year relative cancer survival rate and health care systems with a gatekeeper, listed patients and general practice as first point of contact. The difference in median survival rate was between 5% and 7%, meaning that we could explain more than 60% of the variation in survival by including the extent to which general practice is the first point of contact in a linear regression model.

Conclusions

Based on an ecological study, we were able to support the hypothesis that the use of general practice as the first point of contact, and thus as gatekeeper, may have serious adverse effects on cancer survival. However, the possible mechanisms behind this are complex and may be rooted in factors such

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as lack of support for general practice in diagnosing cancer (e.g. bottlenecks for investigations), GPs being reluctant to refer patients if it is too difficult, or side effects of continuity of care with the personal GP who knows the patient and is responsible for coordinating their care. While we recognise all the advantages of gatekeeping, we strongly recommend that further research be conducted to confirm or reject our hypothesis on this possible, serious adverse effect.

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POSTERS

P001

RCGP/SAPC ELECTIVE

Understanding Rural Practice in Scotland and Canada

Presenter: Sarah Gates

Introduction

Rural practice is a specialized area within general practice, with unique challenges and strengths. As two of the world's leading national health systems, I undertook a comparative study in rural general practice, comparing rural practices in British Columbia, Canada with rural practice in Argyll, Scotland.

Methods

A postal questionnaire was given to each General Practitioner (GP) at both practices. The questionnaire comprised structured answers and free-text sections. Semi-structured interviews on set questions were carried out throughout the project, involving medical staff and other allied health professionals. Interviews focused on interviewees' perceptions of the challenges facing rural practice.

Results

Though both practices were demographically similar, the two practices had a wide variety of challenges they faced. Management of emergencies, out-of-hours-care, mental health, preventative medicine and chronic conditions were given as prime concerns in Scotland. In Canada, drug-addiction, elderly medicine, community care and chronic conditions were given as the biggest challenges. GPs in both countries were overall pleased with the quality of care that they provided, and felt that groups with particular health care needs (e.g. children and persons with disability) were well provided for. GPs in Canada felt that the government had a 'good understanding' of the needs of rural practice, but needed to target more funding towards it. Conversely, GPs in Scotland felt that more resources were not necessarily needed for rural practice, but that the RCGP did not have a 'good understanding' of the particular needs of rural practice.

Conclusions

The knowledge, skills and attitudes necessary to engage in rural practice are unique, and deserving of proper recognition from both government and professional organizations. Being able to provide high-quality care in a rural setting is a constant challenge, and, though each has its own particular strengths and weaknesses, it is one that is being well-met in both the UK and Canada.

Acknowledgements:

This research was partially funded through the 2009 RCGP/SAPC Elective Prize, for which I am most grateful.

P002

Learning to think like a GP - Evaluation of a medical student clinical skills session to promote iterative assessment and focused, integrated examination

Presenter: Kerry Boardman

Coauthors S Patel

Introduction

General Practitioners (GPs) use iterative diagnostic approaches, yet students traditionally learn a sequential systems-based approach to history-taking and examination (Heneghan et al, 2009; Norman et al, 2009). Feedback from GPs working with students at St. George's, University of London has been that their systems-based examination style is excessively time-consuming, limiting opportunities for them to examine patients within a surgery session.

Students also tell us that the examinations they learn are not what doctors do. By only teaching a systems-based sequential approach, whilst expecting students to make the transition to an iterative approach, are we doing them a disservice?

Methods

We have introduced a GP clinical skills session within a new "Transitional Year", designed to bridge the gap between classroom and clinical practice. Our main aims are: to make GP clinical reasoning skills explicit; and for students to start to develop similar skills.

Students undertake a simulated "mini-surgery" of typical GP cases. A GP-tutor facilitates small group discussion of clinical reasoning to guide focused integrated examination.

The session repeats 6 times per year. Evaluation is via 5-point Likert ratings and free-text comments.

Results

The session has run 3 times so far. 125 students have evaluated the session to date. 100% rated the session as good or excellent; 98% stated they now have a better understanding of focused examinations; and 84% stated they feel more confident to examine GP patients. In the presentation, we will provide data from all 6 sessions, along with themes and examples from qualitative analysis.

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Informal GP feedback has been that students seem stronger at clinical reasoning and integrated examination than previous cohorts. However, the session was introduced along with several other changes to the Primary Care and Clinical Skills curricula. One limitation is the difficulty in determining the impact of one intervention amid multiple changes. In our presentation we will discuss how this might be further explored.

Conclusions

We will present a new, well-received session, introduced with the aim of making explicit a GP-style iterative approach to examination and diagnosis. We hope it will be of interest to others involved in undergraduate primary care education or clinical skills training.

P003

The UK Clinical Aptitude Test database - what is it, what is in it and how can it be used for medical educational research?

Presenter: Jon Dowell
Coauthors On behalf of the UKCAT Board

Introduction

The UKCAT is an aptitude test introduced in 2006 which 26 of the 32 UK medical schools require their applicants to sit. It was introduced with the aim of improving fairness and widening participation and is now sat by around 23 000 candidates each year, of which nearly 8 000 enter medical school. From the outset the UKCAT consortium has recognised the need to facilitate research on the validity and impact of the test. The research panel are in the final stages of creating a database linking UCAS, UKCAT and medical school performance data. The intention is that researchers can submit specific study proposals to the Board of UKCAT. Those approved as 'legitimate' within the terms of the Data Protection Act being given access to the relevant data. This therefore represents a powerful new instrument for analysing the selection and performance of medical students.

Methods

This presentation will describe the format and content of the database as it stands in summer 2010. The process and guidelines for proposing studies to be performed on the data will also be outlined. It is hoped that the UKCAT research panel will be ready to receive such proposals by or shortly after SAPC 2010.

Results

To be presented.

Conclusions

This presentation is intended to inform those interested in accessing UKCAT data how it can be done and what data is available. Although not a specifically primary care topic the interest in educational research amongst primary care teachers is such that many are likely to be interested in considering the opportunities the UKCAT database will offer.

P004

GP registrars taking on teaching roles: a postal survey of GP trainers and GP programme directors

Presenter: Jane Kirby
Coauthors B J Rushforth
D J Pearson

Introduction

In the UK, undergraduate medical students at various stages of their training are now learning about the practice of medicine and primary healthcare within community settings (primarily general practice). In addition, a significant proportion of doctors in their second year of general postgraduate training are working in general practice, as part of their two year Foundation Programme.

As a result of all of the above there has been, and continues to be, a need to expand the capacity for teaching and learning within primary care, and within general practice in particular. We undertook a literature review looking at GP registrars as teachers which identified a lack of research into the feasibility and acceptability for, and barriers to, UK GP registrars taking on more formal teaching roles (in press: Education for Primary Care) Consequently we are conducting a postal survey to answer the following research questions:

- What is the prevalence of vertical integration of teaching and learning, where more senior GP speciality trainees take on teaching roles and responsibilities for more junior trainees, Foundation Year 2 doctors and medical students, in GP training practices across the Yorkshire and Humber Deanery?

- What are GP trainers and programme directors attitudes towards vertical integration of teaching and learning in general practice?

Methods

We are conducting a postal questionnaire survey of GP trainers and GP programme directors in the Yorkshire and Humber Deanery. This has received ethical approval and the questionnaire has been piloted in one vocational training scheme and is being distributed via the Yorkshire and Humber Deanery on the 1st of April 2010.

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We intend to complete a second mailing of non responders on the 1st May.

Results

We will collate our results during May and intend to submit the results by the 31st May 2010 in line with the published late breaking date.

Conclusions

We will present the results of our postal questionnaire survey which will identify the extent to which this method of delivery of teaching and learning is in place across the Yorkshire and Humber deanery, together with attitudes of GP trainers and GP programme directors towards GP registrars taking on teaching roles.

P005

Teaching Paediatrics in primary care – an evaluation of a pilot programme for 4th year medical students in Leeds, UK

Presenter: Bruno Rushforth
Coauthors D Pearson, R Bardgett, J Darling

Introduction

Traditionally, undergraduate medical education has taken place primarily in hospital settings. Over recent years there has been a move to expand community and primary care placements for UK medical students, with on average 13% of curriculum teaching occurring within primary care and general practice (range 2–30%). Drivers for this include capacity issues within secondary care, together with curriculum guidance documents such as the various iterations of Tomorrow's Doctors from the General Medical Council, which have emphasized the importance of holistic care and an understanding of the wider societal context of health and illness. In Leeds, fourth year medical students have taken part in a pilot programme this academic year, being placed in primary care for one day as part of their six-week specialty Paediatric and Child Health module. The aim is for students to explore common, undifferentiated paediatric problems presenting to general practice, to allow them to identify early presentation of illness and integrate this with their experience in secondary care. In addition, the day is intended for students to learn first hand about other community-based primary care services for children, such as spending time at Sure Start centres or accompanying health visitors. Finally, it is hoped that students will have an opportunity to explore psychosocial aspects to common paediatric problems presenting in primary care, for example through home visits to parents/carers of children who presented the previous week.

Methods

Evaluation data from a number of sources including: feedback forms from students; face-to-face meetings with students; face-to-face and telephone meetings with GP tutors from the three pilot sites; discussions with administrators and Paediatric module leads; and examination of reflective log entries of students.

Results

We will submit the results of the evaluation through the 'late breaking' route by 31st May 2010.

Conclusions

We will present the outcome of the evaluation of this pilot programme together with suggestions for future developments, if indicated, for integrating primary and secondary care student specialty placements.

Competing interests: BR has been involved helping deliver some of the teaching at one pilot site.

P006

Using the concepts of Graphical Approach to Teaching Evidence based practice (GATE) (Jackson, Ameratunga et al. 2006) frame intervention when teaching critical appraisal skills to undergraduate doctors in training.

Presenter: Hina Kanabar
Coauthors L Fazlanie

Introduction

Teaching of evidence based medicine (EBM) has been identified as a difficult task and requires an approach that can break the learning into manageable parts. One part of EBM practice is the appraisal of research papers. (Del Mar, Glasziou et al. 2004) The Graphical Appraisal Tool for Epidemiological Studies (GATE) frame is a conceptual framework tool developed to help understanding of quantitative research(Jackson, Ameratunga et al. 2006). Aims - To explore the medical student experience and views of critical appraisal teaching and to see if the use of a GATE (Graphical Appraisal Tool for Epidemiological Studies) frame would be effective in improving the medical student experience of their critical appraisal teaching.

Methods

Funding award - Sheffield University Research Experience (SURE) £2000 (2009).
Ethical review –School of Medicine Ethical approval granted (July 2009).
Recruitment – "Snowballing recruitment" of 2nd year medical students at University of Sheffield. 2 control groups and 1 intervention group were conducted.

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Focus group design and analysis - All groups critically appraised 2 quantitative research papers using the Critical Appraisal Skills Programme (CASP) for randomised controlled trials (RCT) used in previous teaching sessions for this year group. The intervention group critically appraised the 1st paper, were given a teaching on the GATE frame concepts, and then appraised the 2nd paper. The control groups appraised both research papers without the teaching intervention. LF (L.Fazlanie) student researcher) led the focus group discussions. All focus groups were audio recorded and transcribed. NVIVO 8 data management software (3) was used.

Results

Students decribed their opinions, experiences and confidence in critical appraisal of research papers. There was indication of clearer and more specific understanding of the 2nd research paper quantitative data following the GATE frame teaching compared to longer and confused discussions of the papers within the control groups. The students gave feedback on the GATE frame intervention and past experiences of small group teaching. One specific outcome indicates caution with peer group led learning without tutor input.

Conclusions

The results may provide transferable knowledge of student views, behaviour and experience in small group critical appraisal learning and in situations where conceptual tools are used to aid the learning process.

P007

Feasibility of general practitioners collecting supporting information for a revalidation ePortfolio: RCGP Revalidation Pilots in England and Wales.

Presenter: Jane Coomber
Coauthors J Coomber
J Thistlethwaite

Introduction

Revalidation for UK doctors is to be introduced in April 2011. For general practitioners (GPs), this entails collecting supporting information to be submitted and assessed in a revalidation ePortfolio every five years following five annual strengthened appraisals. The aim of this project was to explore the feasibility of GPs collecting supporting information for the Royal College of General Practitioners' (RCGP) proposed revalidation ePortfolio.

Methods

We invited 517 GPs registered on two English and one Welsh primary care organisations' performers' lists in May 2009 to submit supporting information collected during the past year using criteria and standards required for a RCGP's proposed revalidation ePortfolio. A follow-up online survey and focus groups/individual interviews were held to explore GPs' views of this process and suggestions for improvement. Quantitative and qualitative data are to be analysed using descriptive statistics and identifying and allocating themes respectively.

Results

There were 121 GPs who expressed an interest in participating in the project (23% response rate). Preliminary analysis of the GPs' portfolios submitted suggests these practitioners already possess a significant proportion of the work based supporting information in a written format. Sessional GPs reported difficulty in accessing data needed for supporting information. In relation to specific supporting information areas, the participants requested more explicit guidance on self-assessment of their Learning Credits and obtaining supporting information for areas of Extended Practice. They found administration of their colleague multi-source feedback (MSF) and patient satisfaction (PSQs) surveys had time implications for themselves, their staff and patients. Further data will be available shortly following the data analysis and provision of a report to the RCGP.

Conclusions

The feasibility of collecting supporting information varies according to GP work role and clarity of supporting information guidance for GPs and their colleagues. This process will benefit from the proposed gradual phasing in of the amount of supporting information required for a revalidation ePortfolio tailored to a specific GP work role. In addition, GPs' colleagues and employers for GP extended roles should receive guidance for their essential role in the medical revalidation process.

P008

Going Underground: the travel costs of UCL and Barts & The London medical students to GP placements

Presenter: Elizabeth Nuttall
Coauthors Clare Commodore-Francis, Ann Griffin, Will Coppola

Introduction

Medical students now spend more time in community-based placements. Travel to these

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attachments requires time, incurs costs and has been a source of student dissatisfaction. This problem has been exacerbated by the loss of many travel bursaries. Aware of these issues and a lack of empirical data in this area both these medical schools made a strategic plan to capture travel data.

Methods

This retrospective, longitudinal study analysed two databases Opino at UCL and BOS© at Barts and The London, normally used for gathering online student feedback. Both had routinely collected student travel data over the last 3-5years to the vast majority of their GP placements. Data on travelling times, cost and overall satisfaction was exported into SPSS and analysed.

Results

Mean travelling time and cost for both medical schools will be presented, as well as the temporal trend in time and student outlay. In addition the non-parametric correlation of overall satisfaction with time and cost will be presented. We will predict a 'medical student lifetime cost' for community-based teaching at these two London medical schools.

Conclusions

Data has yet to be analysed but it is common knowledge that students face increasing debt. A recent pan-London medical school enquiry demonstrated a lack of financial assistance for this type of travel. However, there are significant gains of going to general practices; patient contact, small group teaching and dedicated teachers often are reported by students as outweighing these other issues. In this 'credit crunch' environment that impacts on our student body too should we bring back fiscal support for travel to off-site locations?

P009

Do action plans work as a tool for implementing practice change?

Presenter: Aimee Lettis
Coauthors M Haley (2nd presenting author), P Rose, P Glasziou

Introduction

Action plans are often used in medical education to facilitate the introduction of knowledge learnt into practice. However, there is very little research in the medical literature on the effectiveness of action plans. This research aims to address this.

Methods

Delegates attending the nine GP Update courses held in spring 2009 throughout England were invited to record a maximum of six actions to implement in their practice. The one-day course is designed to help GPs get recent evidence into practice. Those delegates choosing to participate completed an online questionnaire six months later. This explored the extent to which they had implemented the actions and which key factors assisted and hindered the implementation of planned actions.

Results

Of 1696 delegates attending the course, 306 (18%) provided their action plan and 139 (99% were GPs) responded to the questionnaire (response rate 45.4%). Actions were deemed to be either 'successful' if completed or on track to be completed, or 'unsuccessful' if overdue or off track for completion at the time of the survey. In terms of the individual's approach to implementation, delegates were more likely to succeed if they had given the action high priority (65% versus 17%), allocated specific time for completion (35% versus 17%) or were able to get in the right frame of mind to tackle the action (62% versus 30%). Involvement of others was important; actions were more successful if the GP had consulted others for input or support (30% versus 12%), received support from others (30% versus 11%) or if others could see the benefit of the action for themselves or their patients (33% versus 11%). Being realistic in terms of necessary resources also increased the chance of success (83% versus 69%).

Conclusions

Initial results show clear differences in the way that actions are tackled and outcomes. GPs adopting accepted management change principles were more likely to succeed in implementing their action plans. Courses using action plans should make these findings known to delegates and future research could test which are the most important in a primary care setting.

P010

'Talking Lifestyles': behaviour change in primary care.

Presenter: Sharon Simpson
Coauthors K Kaur-Mann, L Randell, F Wood, C Spanou, K Hood, C Butler

Introduction

Smoking; excessive drinking: lack of exercise and an unhealthy diet are the key factors contributing to premature morbidity and mortality in the developed world. We are conducting a trial evaluating a training intervention which will enable clinicians in primary care to routinely use Behaviour Change Counselling (BCC) during consultations for these four behaviours. As part of the process

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evaluation of the trial we interviewed clinicians in the study. The aim of the interviews is to examine current practice and the impact of screening patients in practices. For the intervention group, we explored the implementation and acceptability of the training programme, as well as the use of the BCC skills during routine care.

Methods

We aimed to interview one GP or nurse from each practice. Twenty seven GPs and nurses were interviewed about the study. Interviews were audio recorded and transcribed. The data were analysed using a thematic content analysis approach supported by NVIVO software.

Results

Interviews were conducted with 13 intervention and 14 control clinicians, which included 13 GPs and 14 nurses. A number of themes have emerged from the analyses which include issues around the training programme itself as well as using BCC in routine practice. Clinicians in the control group felt that taking part in the study had not changed what they do but made them reflect more on their current practice. Intervention clinicians found the blended learning approach which included both face to face and online learning acceptable and flexible. They enjoyed the mix of different media as well as the content. They also described the barriers and facilitators to using the BCC skills in practice. They described a number of barriers which included both patient and clinician factors as well as wider contextual issues. Overall, they felt that the BCC had helped improve their consultations with patients around behaviour change and they particularly valued the different techniques used within BCC.

Conclusions

This study explores the implementation of a complex intervention in a primary care setting. The blended learning aspect of the intervention was well received by participants and they described a number of barriers and facilitators to completing the training and using the BCC skills in practice.

P011

Sciatica: Evidence based management strategies

Presenter: Nefyn Williams

Coauthors R Lewis, H Matar, J Belcher, N Din, C Wilkinson, C Phillips, D Fitzsimmons, A Sutton, K Burton

Introduction

Previous systematic reviews of sciatica treatments have not undertaken indirect comparisons across separate trials. We aim: to undertake a systematic review of the effectiveness and cost-effectiveness of different management strategies for sciatica; synthesise the results using meta-analyses and a mixed treatment comparison (MTC) method; construct a decision analytic model to estimate costs per quality adjusted life year (QALY) gained for each treatment strategy; make recommendations for clinical practice and commissioning in the UK NHS

Methods

Nineteen databases were searched and standardised systematic review methods were used. Studies included randomised and non-randomised controlled trials, controlled observational studies and economic evaluations of adults with sciatica or lumbar nerve root pain diagnosed clinically or by imaging. Effectiveness and cost-effectiveness were reviewed separately. Conventional pair wise meta-analyses is in progress followed by a Mixed Treatment Comparison (MTC) of all studies which form a closed network. An appropriate probabilistic decision analytic model is being developed to estimate costs from the perspective of the UK NHS and QALYs gained for the range of relevant treatment strategies.

Results

Interventions which were significantly different from inactive control are presented below with estimates of their effect size from the MTC analyses.

Median odds ratio for significantly improved global effects (95% credible intervals): Intra-operative intervention 4.7 (1.6, 14.0); epidural injection 3.1 (1.8, 5.5); disc surgery 2.8 (1.4, 5.6); non-opioids 2.6 (1.4, 4.7); chemonucleolysis 2.0 (1.1, 3.8).

Significant median reduction in pain intensity (95% credible intervals): alternative -25.2 (-36.3, -14.6); biological -21.5 (-26.9, -16.1); intra-operative -13.0 (-20.7, -5.2); epidural injection -11.6 (-14.5, -8.9); chemonucleolysis -11.2 (-19.4, -3.0); disc surgery -8.0 (-15.1, -1.1).

Significant median increase in pain intensity (95% credible intervals): opioids 14.1 (5.5, 22.6); radiofrequency lesioning 12.8 (1.3, 24.7).

Significant median improvement in standardised condition specific outcome (95% credible intervals): biological -0.7 (-1.3, -0.1).

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Conclusions
Preliminary results from the MTC analysis will be presented.

P012
Understanding treatment burden in chronic heart failure patients
Presenter: Katie Gallacher
Coauthors Prof C R May
Prof V M Montori
Prof F S Mair
Introduction
Chronic heart failure (CHF) admissions are rising. Readmissions are often due to preventable causes, such as poor adherence to treatments. We propose that one reason for poor adherence is the high level of 'work' involved for patients when managing CHF. 'Treatment burden' is the 'work' undertaken by patients managing a chronic condition, and includes understanding treatments, engaging with others, taking complicated medication regimes, enacting lifestyle advice and attending hospital appointments. Our aim is develop an understanding of treatment burden in CHF patients, enabling us to inform future measures and interventions.
Methods
Secondary qualitative analysis of 47 CHF patient interviews: 29 male; 18 female; age range 45 - 88 years (mean age 73 yrs). Data analysed using normalization process theory (NPT) as a coding framework. NPT has 4 domains: coherence; cognitive participation; collective action; reflexive monitoring. Each domain has 4 subcategories. Two researchers analyzed all the transcripts and discussed any disagreements. Any dispute was resolved by a third party. Any data that fell outside of the NPT was noted. A taxonomy of 'work' was then created.
Results
Workload or burden of treatment was described by patients across all 4 NPT domains. Very little data fell outside the NPT framework, and any that did was emotional work, not included in NPT. The most frequent category of work mentioned was enacting work such as taking multiple medications or attending multiple hospital appointments. The least mentioned was keeping up to date with current treatments. A taxonomy of 'work' and a conceptual model of treatment burden was constructed.
Conclusions
One of the main limitations of this study was the use of archived CHF transcripts from interviews undertaken without the explicit goal of assessing treatment burden. We are currently undertaking interviews with CHF patients that are focusing on the subject of treatment burden, these are being analysed in a similar fashion. This study is contributing to a larger programme of work to inform the development of a scale for the measurement of treatment burden. This will enable the identification of points and types of intervention to reduce non-adherence and potentially improve outcomes.

P013
When 'Yes' is not enough. Comparison of the simple form of the Royal College of Physicians 3 questions (RCP 3-Q's) for asthma with an expanded scoring system.
Presenter: Gaylor Hoskins
Coauthors P Donnan
B Williams
C Jackson
Introduction
Monitoring control is central to effective asthma management; however, there is no current consensus or evidence base to suggest the most appropriate method of assessment. The RCP-3Q's elicit yes/no answers to three symptom based questions and the tool compares favourably with single and composite control models. This study aimed to establish the most effective way to use the tool.
Methods
Multiple logistic and linear regression multi-level modelling was used to compare the simple yes/no model to an expanded scoring model where each question was allocated a score of 0 (no symptoms) to 3(daily symptoms), giving a score range of 0 to 9. Outcome was related to individual and practice level asthma-related predictive factors. The results were assessed for fit and performance using pseudo R2/R2 and Akaike's Information Criterion(AIC).
Results
1205 UK practices provided information on 64,929 patients aged 13+ years (mean 46.9; SD 19.5). 84% reported symptoms: 22% answering yes to one question, 47% to three questions. Day symptoms were the commonest problem. Symptom frequency increased as number of affirmative answers increased. Predictors of poor control included practice deprivation, age, BMI, smoking, compliance and inhaler technique. Compared with the binary model the expanded score model provided the best fit with a lower AIC, and an R2 of 33% compared with a pseudo R2 of 18% for the binary outcome.
Conclusions
The levels within the 3 questions contributed to a more robust assessment tool. Providing an

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expanded RCP-3Q scoring system is a more sensitive method for assessing control than a simple binary assessment.

P014

Rapid Primary Care Initiation of Drug Treatment for Transient Ischaemic Attack (RAPID-TIA): Protocol for a Randomised Controlled Trial

Presenter: Duncan Edwards
Coauthors J Mant, R McManus, D Lasserson, M Giles, D Sims, C Weir, K Fletcher

Introduction

People who have a transient ischaemic attack (TIA) are at high risk of a recurrent stroke, particularly in the first week after the event. Recent data suggest very early initiation of secondary prevention drugs leads to an 80% reduction in risk of stroke recurrence. This raises the question as to whether these drugs, in addition to aspirin, should be given in primary care before the patient is seen by a specialist.

Methods

A pilot trial will recruit patients with symptoms suggestive of TIA in practices from the catchment of three hospital TIA clinics (Birmingham, Cambridge and Oxford). The GP will record whether TIA is probable or possible. All will be referred to a TIA clinic. Probable cases will be invited by the GP to enter the trial, possible cases to enter a study of accuracy of GP diagnosis. Patients will be randomised by telephone to additional pre-TIA clinic drug treatment (which will include treatment of cholesterol, intensive blood pressure lowering and additional anti-platelet treatment as well as aspirin) and usual care, or usual care alone. The TIA clinic will record final diagnosis and adjust treatment accordingly. The primary outcome will be stroke at 90 days.

Results

Recruitment will begin in late 2010.

Conclusions

Results of the main trial will examine whether the potential advantages of earlier treatment by general practitioner outweigh potential disadvantages, such as drug side effects, unnecessary treatment, introduction of delay and misdiagnosis. Current national strategy is that general practitioners introduce aspirin alone in cases of suspected TIA, and this trial will test whether more intensive treatment in primary care is a more effective strategy.

P015

Bell's Palsy: an overview of recent treatment reviews

Presenter: Pauline Lockhart
Coauthors Mr Ian Swan, Mr Julian Holland, Dr Lazaro Texiera, Dr C kallis

Introduction

Bell's palsy affects around 30 people per 100 000 per annum. In around 30% of cases, there are long term sequelae which may include pain and facial disfigurement.

In the past 2 years, several large scale randomised controlled trials have reported outcomes on the use of antivirals and corticosteroids for the treatment of this condition, resulting in substantial updates of the corresponding Cochrane meta-analyses. Four further Cochrane reviews have also been published, examining treatment with physical therapy, acupuncture, hyperbaric oxygen and surgery.

This overview, using a new Cochrane methodology, was undertaken produce a comprehensive review of the relative benefits of treatments for this potentially disfiguring condition. The aim was to synthesise all available evidence and provide direct treatment comparisons which could usefully inform clinical practice.

Methods

The Cochrane Database of Systematic Reviews has been used as the primary source of information for this overview.

Included reviews assess the treatment of Bell's palsy in immuno-competent adults.

Primary outcome for investigation is number of patients with incomplete recovery at the end of the trial. Secondary outcomes include number with complete paralysis, number with motor synkinesis or crocodile tears and number with adverse events.

The methodology and evidence quality has been assessed using standard Cochrane methods including the PRISMA method for assessing the quality of systemtatic reviews and and the GRADE method for assessing evidence quality. (97)

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Results

Six systematic reviews have been identified, with data from 26 trials and 3463 participants. The systematic reviews conducted were of moderate to good quality.

Meta-data evidence on incomplete recovery at end of trial was available for four treatments. There is a significant improvement in recovery with corticosteroids compared to placebo (RR 0.71 95% CI 0.61 – 0.83) and with hyperbaric oxygen compared to prednisolone (RR 0.2 95% CI 0.05, 0.85), although the evidence quality was variable. There is no significant difference in recovery with antivirals compared to placebo: the evidence quality is moderate – low. There is no relevant meta-data for acupuncture, surgery or physical therapy.

Conclusions

Moderate evidence supports the use of corticosteroid use in Bell's palsy, evidence against antiviral use remains clear. Limited evidence is available on other treatments options.

P016

What factors influence GP management of elderly patients with sub-clinical hypothyroidism: a descriptive study.

Presenter: Jack Allport
Coauthors D McCahon, FDR Hobbs, L Roberts

Introduction

Subclinical hypothyroidism (SCHo) is a common biochemical diagnosis, affecting approximately 3% of the elderly UK population. With increasing numbers of thyroid function tests (TFTs) performed in primary care, along with improved assays, GPs increasingly have to make management decisions regarding this diagnosis. Current evidence regarding impact of SCHo, and its management is inconclusive and guidelines are vague. Treatment with L-thyroxine is associated with few adverse effects but unnecessary treatment carries significant cost burden and poly-pharmacy in elderly patients is associated with increased mortality and morbidity. This study aimed to describe current practice to guide and inform the production of future guidelines.

Methods

Descriptive study using retrospective case note review and questionnaires to GPs. This study is a follow up to the Birmingham Elderly Thyroid Study (BETS) commenced in 2003. Follow-up screening (n=3005) in 2008-9 was used to identify individuals who had commenced treatment with Levothyroxine based on a subclinical TFT result. Data were collated from the BETS dataset and supplemented with data from in depth review of these patient's primary care notes. Patient characteristics were described and consultations where a TFT was requested and therapy initiated were reviewed to identify trigger factors. Additional data on practice policy on management of SCHo, factors the GP takes into account and usual management was collected from the lead GP at each practice (n=19) via a questionnaire.

Results

Late Breaking research – results available before May 31st. 42 individuals were identified as having had treatment initiated on the basis of a subclinical TFT result and few presented factors suggested in guidelines as favouring therapy e.g. TSH >10mlU/L, family history. Results will describe the population for whom L-thyroxine treatment was commenced on the basis of a subclinical result and report demographic, medical or consultation related to this decision. Data from questionnaires will be presented to explore the factors that GPs consider important when determining whether to treat SCHo in elderly patients.

Conclusions

Factors likely to be affecting GP decision making in subclinical hypothyroidism will be identified. Differences identified between currently available guidelines, actual current practice and GP reported practice will be discussed.

P017

Evaluation of Computerised Decision Support Software in Improving the Management of Gastrointestinal problems in primary care (IMAGE)

Presenter: Jo Josson
Coauthors Frances Baawuah, Claire Hunt and Roger Jones

Introduction

As part of the national IMAGE project, we have designed computerised decision support software (CDSS) to improve the management of gastrointestinal problems in primary care. These were installed in 39 practices in England to support the management of four common gastrointestinal disorders: inflammatory bowel disease, coeliac disease, gastro-oesophageal reflux disease, and irritable bowel syndrome.

Methods

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In the first part of this study, a sample of general practitioners (GPs) who had used the IMAGE CDSS protocols, took part in a pilot qualitative interview. 12 semi-structured interviews lasting 20-30 minutes were conducted by telephone. Themes have been derived from the transcribed data using constant comparison and inductive methods of analysis. These results will be used in part two of the study.

In the second part of this study, we will formulate a survey derived from the themes suggested by the pilot qualitative interviews. The resulting evaluation survey, upon validation, will be sent to all GPs in the IMAGE study. We will score survey responses to evaluate GPs' views concerning the use of CDSS protocols for gastrointestinal conditions in primary care.

Results

Part one of the study is complete. Themes that have emerged from the data include:
CDSS protocols – use and format, patient perspectives, impact on patient care and gastrointestinal conditions as a future Quality and Outcomes Framework (QOF) indicator.
In part two of the evaluation, over half of the GPs involved in the IMAGE study responded to the questionnaire. The majority of GPs disliked the look of the template and at times found it distracting to use in the consultation. The nature of the gastroenterology condition had an impact on how well it was received; the coeliac disease protocol was found to be favourable amongst GPs as it prompted altered practice in some of those who responded. General practitioners were undecided as to whether gastrointestinal conditions should be included in the QOF but there was support for structured care for inflammatory bowel disease and coeliac disease.

Conclusions

This evaluation may influence how future computer decision support software protocols are constructed. This study may also help to incorporate GP's views on the management of gastrointestinal disease in the wider primary care setting.

P018

Quality of blood pressure control in people with cerebrovascular disease in primary care: insights from the Prevention After Stroke – Blood Pressure (PAST-BP) randomised controlled trial

Presenter: Jonathan Mant
Coauthors R McManus, K Fletcher, S Milner, L Andrews, F Kinney, S Campbell on behalf of the PAST-BP Investigators

Introduction

National guidelines recommend an optimum target blood pressure (BP) of 130/80 mmHg for people with established cerebrovascular disease, but there are limitations in the evidence on which this is based. Adverse effects from intensive BP lowering might outweigh potential benefits, particularly in older patients. The PAST-BP trial was set up to explore the potential impact of intensive BP lowering in this population. We report interim findings on observed BPs in this ongoing trial.

Methods

Patients were potentially eligible if they were on a practice TIA/stroke register and were taking <3 classes of antihypertensive agent. At the baseline clinic, eligibility was confirmed if measured systolic BP was higher than 124mmHg and if there was corroborative evidence that the patient had had a stroke/TIA. BP was measured by a research nurse using automated validated electronic monitors (BP-TRU) using a standardised method. The average of the second and third research BP readings was then compared to the latest BP recorded on the GP computer system.

Results

Analysis is of the first 88 patients. This will be updated. Mean age of participants was 75 (SD 10); 48% were male. Mean BP from the GP record was 135/76mmHg (n=85), and from the baseline clinic 128/73mmHg (n=88). Paired sample t-test: mean difference: 7.0/2.9 mmHg, 95% CI: 3.3-10.6mmHg/0.5-5.2mmHg. Correlation between the two measurements was 0.4 (Pearson's). 50 (57%) of the clinic readings were below 130mmHg systolic. Six out of twenty (30%) people whose BP was <125mmHg on the GP record had BPs >124mmHg in the baseline clinic.

Conclusions

In this cross section of people with cerebrovascular disease in primary care, the quality of blood pressure control was significantly better when BP was measured in accordance with guidelines by a research nurse than was apparent from the practice record. Correlation between recorded and clinic BP was moderate. These data suggest many patients with cerebrovascular disease already have excellent BP control in primary care, but that assessing control through the last practice BP can be misleading. This has implications for the methodology used to assess blood pressure control in the Quality and Outcomes Framework.

P019

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Recording patient preferences for end of life care - what do practice staff think?

Presenter: Kerin Hannon
Coauthors S Campbell, H Lester

Introduction

Palliative care is the active care of patients with a life-limiting disease and their families, by a multi-professional team. 1% of the population die each year, representing an average of 20 deaths per GP per year. Choosing one's own place of death leads to improvements in the quality of end of life care. The Gold Standards Framework (2003) encourages GPs to seek out patient preferences for their place of death. However, GPs are only aware of the preferred place of death for patients with non-sudden deaths in 46% of cases.

The Quality and Outcome Framework (QOF) currently includes indicators relating to a register of all patients in need of palliative care/support (PC3) and multidisciplinary case review meetings (PC2). In 2009 a new way of developing and piloting clinical indicators for QOF was introduced, led by the NICE in collaboration with an external contractor led by the authors. The new process prioritized the piloting of a potential new QOF indicator focused on recording patients' preferred place of end of life care.

However, are quality indicators an appropriate way of recording this sensitive decision that often varies as circumstances change. Moreover, there is often a lack of direct questioning and uncertainty around who should broach the subject.

The aim of the present study is to interview primary care staff to obtain their opinions and experiences of recording patient preferences for end of life care and the role of financially incentivised quality indicators within this sensitive area.

Methods

Practice staff have been recruited from a representative sample of 30 English general practices that have taken part in the first pilot of indicators between October 2009- March 2010. Semi structured interviews have asked participants about their experiences and views of a piloted palliative care indicator on the recording of preferred place to receive end of life care. Analysis will proceed in parallel with the interviews and will be inductive, using components of thematic analysis.

Results

This indicator was not acceptable to the majority of practices because
the palliative care register is perceived to be quite subjective and
the timing of raising the issue of preferred place of death is not a
one-size-fits all issue relevant to all patients on the register at
the same time. Anxiety over the rigidity of the stipulated time frames
which are too prescriptive further indicate that this is not a topic
that fits easily into QOF.

P021

Research learning from the UK Quality and Outcomes Framework: a review of existing research.

Presenter: Nick Steel
Coauthors S Willems

Introduction

A new contract between UK primary care practices and government was implemented in April 2004, with substantial financial rewards to general practice for achievement of standards set out in the 'quality and outcomes framework'.

Methods

Relevant papers were identified by searching Medline database, and from the reference lists of published reviews and papers. A separate systematic literature review was conducted to identify papers with information on the impact of the framework on inequalities.

Results

All studies were observational, and so it cannot be assumed that any changes were caused by the framework. The results both for individual indicators and from different studies vary substantially. The diverse nature of the research precluded formal synthesis of data from different studies. Achievement of quality standards was high when the contract was introduced, and has risen each year roughly in line with the pre-existing trend. Inequalities in achievement of standards were generally small when the framework was implemented, and most have reduced further since. There is weak evidence that achievement for conditions outside the framework was lower initially, and neither worsened nor improved since. Some interventions in the framework may be cost-effective. Professionals feel consultations and continuity have suffered to some extent. There is very little research about patients' views, or about the aspects of general practice not measured, such as caring, context, and complexity.

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Conclusions
The evidence base about the impact of the quality and outcomes framework is growing, but remains patchy and inconclusive. More high quality research is needed to inform decisions about how the framework should change to maximise improvements in health and equity.

P022
Global Primary Health Care Renewal: Critical Policy and Leadership Directions
Presenter: Charmaine McPherson
Coauthors J Shamian, M Ellen
Introduction
Primary health care (PHC) renewal is recognized as a key strategy in widespread health system reform. Major initiatives have been undertaken globally to strengthen PHC since its debut under the Alma-Ata in 1978. Many innovative collaborative models take advantage of relatively unexplored nursing and midwifery roles, particularly with underserved and vulnerable populations identified within the Millennium Development Goals (MDGs). However, there are key structural impediments that must be overcome to realize PHC renewal. This presentation provides an overview of an advisory report initiated in 2009 by the World Health Organization, Office of Nursing and Midwifery that focuses on actions to redress these major impediments.
Methods
An innovative and engaging methodology was developed to identify, analyze and synthesize the evidence to inform the WHO advisory report. A guided policy discussion with representatives from the WHO Global Advisory Group for Nursing & Midwifery was held. A far-reaching online consultation was undertaken with four key stakeholder groups: WHO Collaborating Centres, WHO Regional Nurse Advisors, global PHC nurse experts, and the Global Alliance for Nursing and Midwifery listserv. Documents, including peer reviewed papers, government reports, and other significant reports and papers, were reviewed and synthesized. The findings were analyzed through the MDGs and the four key reform areas identified in the 2008 World Health Report, with the addition of a fifth reform area, citizen engagement and participation, recently adopted by WHO.
Results
Three key priority areas for PHC action were identified: (1) PHC knowledge management and mobilization; (2) System, practitioner, and citizen preparedness for PHC change; and (3) PHC policy commitment and leadership. The various types of evidence supporting each priority area were detailed and presented through the five reform areas and the MDGs.
Conclusions
There are distinctive and innovative exemplars of nursing and midwifery involvement in interprofessional teams that contribute to PHC renewal. However, there are several key structural impediments that must be addressed at the country level to effectively move the PHC agenda forward. Acting on these barriers through the identified three priority areas would demonstrate commitment to building the global partnership embodied in the Alma-Ata and the Millennium Declaration.

P023
Engagement and opportunity: a new model of clinical learning
Presenter: David Pearson
Coauthors B Lucas
Introduction
Social cultural theories of learning including "communities of practice"1,2 suggest that learning occurs by meaningful engagement through legitimate participation, normally in the context of belonging in a workplace setting and within a trajectory of career or professional development. The authors explored the nature of clinical learning within a primary care setting using a qualitative case study approach. A theoretical model of learning through engagement and opportunity was developed, which appeared to valid across a variety of learner groups including junior learners (medical students), vocational learners (GP registrars) and established learners (General Practitioners, Nurse Practitioners, Practice Nurses).
Methods
The presentation will report findings from a single descriptive case study of a purposefully selected multi-professional teaching practice. Data was collected over a twelve month period using qualitative methods including interviews, observation and documentary evidence. Data was analysed using modified grounded theory procedures of open and axial coding3 assisted by CAQDAS (computer-assisted qualitative data analysis). Rigour was enhanced through transcription of all interviews, dual coding, and respondent validation.
Results
Clinical learning occurs through a rich mixture of informal and formal engagement across a variety of clinical learners (including undergraduate and postgraduate medical learners, nurses, nurse practitioners and

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established GPs). An exploration of how clinical learning occurs across all these groups showed a remarkable consistency of findings. Clinical learning occurs through engagement; with engagement being established through a variety of factors including recognition, respect, relevance and emotion. The presentation will explore these four facets of engagement. Equally learning in the clinical setting requires appropriate opportunity to interact with suitable patients (essential features being availability, authenticity and immediacy of patient encounters). In addition it is enhanced by the opportunity to share ideas with peers and professional colleagues, within a community of practice.

Conclusions

The presentation will introduce this new model of how learning occurs in clinical practice and the evidence behind it. It is hoped the presentation will stimulate a discussion of its relevance in healthcare education.

P024

Opening the Black Box of Implementing Evidence: Use of a Guideline to Assess and Manage Cardiovascular Risk

Presenter: Ann McKillop
Coauthors Nil

Introduction

The implementation of evidence-based clinical practice guidelines in primary health care can substantially improve health promotion, early disease detection and reduce the burden of chronic disease. However, the implementation of evidence into clinical practice is a highly complex endeavour that has been said to occur in a 'black box', defying easily reached explanations of how it happens in practice. The aim of this study was to explore the 'black box' of guideline implementation associated with primary health care nurses' use of a guideline that targets high health need populations in a region of New Zealand. The potential for improvement of cardiovascular health overall and the reduction of the marked disparities between Maori (indigenous people of New Zealand) and non-Maori drives the imperative to enact the recommendations of the Assessment and Management of Cardiovascular Risk guideline. The New Zealand Guidelines Group has developed a guideline for the Assessment and Management of Cardiovascular Risk (AMCVR) that, if fully implemented, has the potential to prevent 55% of future cardiovascular disease events and reduce marked inequity in cardiovascular health between Maori and non-Maori, especially evident in rural areas. Primary health care nurses are well positioned at the frontline of healthcare to act on the recommendations of the AMCVR guideline and an effective implementation strategy is required.

Methods

Primary health care nurses, doctors, health planners and managers participated in focus groups and interviews to discuss the implementation of the guideline. Data were analysed using a general inductive approach to generate themes that represented the perceptions and experiences of implementing the guideline.

Results

A rich description of implementing the guideline reduced to four themes: 1) enhancing client self management, 2) evidence in everyday practice, 3) communication and ways of working within the health team and 4) healthcare system factors that impact on guideline implementation.

Conclusions

Successful guideline implementation in rural primary health care demands multidisciplinary, transformational practice development to develop an effective workplace culture and systems that optimise primary health care nurses' uptake of evidence into practice in order to reduce high levels of cardiovascular risk, chronic illness and health inequity.

P025

General Practice perceptions of health inequalities: A qualitative study.

Presenter: Michael Norbury
Coauthors M Norbury

Introduction

Recent health policy publications have alluded to the potential role of primary medical care in tackling health inequalities, but little, if any work, has assessed what frontline UK practitioners, working in areas of deprivation, perceive their role to be in this complex area.

The aim of this study was to determine practitioner perceptions of the aetiology of health inequalities, potential primary medical care based solutions and their perceived role in addressing health inequalities.

Methods

Three practices within one health centre in an area of high deprivation in the West of Scotland were invited to participate in practice based focus groups which were recorded, transcribed and analysed thematically.

Results

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Twenty one frontline practitioners participated. Practitioners readily identified a wide range of social determinants that they perceived to affect their patients' health. However, all three groups were unclear about the specific role of primary medical care in offering solutions, and felt that this role was being 'dumped' upon them. Current under-resourcing and a need to address inequitable resource allocation within primary medical care were highlighted, but practitioners gave few examples of how additional resource could be used to produce a reduction in health inequalities.

Conclusions

There is an apparent mismatch between the views of frontline practitioners in an area of deprivation, and current health policy aimed at tackling health inequalities. Practitioners felt most factors lay beyond their control and beyond the remit of primary medical care. There was some cynicism regarding the short-term nature of previously funded projects, and this will take time to overcome.

P026

Does quality of care for hypertension in primary care vary with deprivation? An observational study assessing the quality of care via incentivised and non-incentivised quality indicators.

Presenter: Salah Hammouche
Coauthors R Holland,
N Steel

Introduction

The prevalence of hypertension is higher in populations with lower socio-economic status, yet little is known about how achievement of incentivised and non-incentivised indicators of quality of care varies with deprivation, or about the effect of financial incentives on health inequalities in hypertension. General practices in the UK have received financial incentives for high quality care since 2004.

Aim:

To assess socio-economic inequalities in the achievement of incentivised and non-incentivised quality indicators for hypertension and to compare inequalities before and after financial incentives were introduced.

Setting:

Eighteen general practices in Norfolk, England, stratified by national deprivation rank.

Methods

We recorded achievement of 14 quality indicators for hypertension by hand searching both the electronic and paper patient records for 304 participants, one year before and one year after the introduction of financial incentives.

Four indicators were incentivised and ten were non-incentivised.

Associations between indicator achievement and patient and practice characteristics (including patient's and practice's deprivation) were evaluated using logistic regression models.

Results

Overall achievement of incentivised quality indicators did not vary by deprivation score.

Achievement of three out of ten of the non-incentivised indicators increased with greater deprivation: providing lifestyle advice (odds ratio 1.34, 95% confidence interval 1.00-1.79), assessment of peripheral vascular disease (1.54, 1.02-2.35) and electrocardiography (1.38, 1.04-1.82).

The achievement of incentivised quality indicators ranged from 65% to 94% in the least deprived third of participants, compared to 77% to 94% in the most deprived third. Achievement of non-incentivised indicators ranged from 7% to 85% in the least deprived, compared to 24%-93% in the most deprived third.

There were few changes in inequalities before and after the introduction of financial incentives.

Strengths & Limitation:

This is the first study to assess the relationship between deprivation and non-incentivised quality indicators of care for hypertension. All the indicators are evidence-based.

Limitations include that we assessed recorded care, and it is possible that the care was delivered without being recorded. The study was also based on a small number of practices and patients, due to the practical constraints of collecting data manually from patient records.

Conclusions

Participants from more deprived areas received at least the same, and sometimes better, quality of care than those from less deprived areas. It would seem that quality of care for hypertension in general practice does not show the inequitable distribution that has been a concern for other conditions.

P027

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Socioeconomic inequity in the use of hysterectomy and the limitations of subsequent vaginal vault cytology: a data linkage study

Presenter: Helen Stokes-Lampard
Coauthors S Wilson
J Macleod
R Holder

Introduction

Hysterectomy is a commonly performed major operation but there is little gold standard evidence concerning follow-up by use of vault cytology. Guidelines suggest that certain women should be routinely followed-up but this recommendation is not based on robust evidence, recent research suggests that the majority of vault cytology is being undertaken on the 'wrong' women.

This study linked women's entire cytology screening records with hospital admission data to establish: Which women have hysterectomy operations, why, which are followed-up by vault cytology and how appropriate is this?

Methods

A novel database linkage study, including all women (West Midlands) having a hysterectomy, 1.4.2002–31.3.2003. Data from Hospital Episode Statistics was linked with women's entire cytology screening histories up to July 2007, from Open Exeter.

Results

6,141 women underwent hysterectomy: age adjusted incidence 23/10,000 women/pa. Subtotal hysterectomy was undertaken in 436 (7.1%). Mean age=51.12, range 17-94 years. Different ethnicity from background, ÷2=404.4(14df, P<0.001). Deprivation profile (IMD07) was significantly different from England with incidence of 20 per 10,000 in the least deprived and 25 per 10,000 in the most deprived quintiles (trend =-0.991, p=0.001).

Indication for surgery was: malignancy 11.61%, intraepithelial neoplasia 3% and benign disease 82.9%. In-patient death rate was 1 per 1,000 for benign disease but 7 per 1,000 for malignancy.

Vault cytology was not recorded for 37% with CIN who should have had testing (according to guidelines), 9.35% of those with benign disease had vault testing which was completely inappropriate. Women having vault smears tended to be younger, less deprived and non-White than those who were not tested.

Conclusions

Subtotal hysterectomy is increasing compared with total hysterectomy, despite lack of evidence of efficacy. Hysterectomy is still being undertaken more frequently on women from more deprived areas and death during hospital admission is more common than previous studies suggest.

Vault cytology post hysterectomy is of uncertain benefit; 50% of testing takes place in primary care, much of it inappropriate. It is recommended that vault cytology should no longer be routinely undertaken in Primary Care; instead specialists responsible for hysterectomy should acknowledge the limitations of testing and retain clinical responsibility for any ongoing surveillance.

P028

The nature and the extent of socio-economic deprivation in CHD

Presenter: YingYing Wang
Coauthors O'DONNELL C ; MACKENZIE M; REID M; TURN F;CLARK J; PLATT S; SRIDHANRAN S

Introduction

Cardiovascular disease represents a huge public health challenge across the UK with Scotland having the highest CHD mortality and morbidity rates. This regional inequality is largely explained by socio-economic variables. Keep Well was launched in 2006 to reduce inequalities in heart health outcomes and targeted a preventive approach in areas of multiple deprivation across Scotland. This paper is to examine the nature and extent of socio-economic deprivation inequality in CHD among target populations.

Methods

Data were obtained from two pilot areas including individual socio-demographic variables (age, gender and deprivation), service utilisation (attendance at health checks) and clinical risk factors (e.g. blodd pressure) In addition, routine practice level data on deprivation and CHD prevalence were obtained from Information Services Division, NHS Scotland. Practice and patient-level deprivation was calculated based on SIMD datazones and divided into quintiles of deprivation.

Results

At a practice level, there was an expected gradient in CHD prevalence among the target population: practices with a higher concentration of deprivation had a higher CHD prevalence. While practices were located in areas of high

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deprivation, their patient populations were more heterogenous. Individual attenders of the programme were spread across all deprivation quintiles: the highest attendance (76.9%) at health checks were from patients who lived in the most affluent quintile, and the lowest attendance (70.0%) were people from the 4th and 5th quintile (the most deprived quintile). Prevalence of CHD risk factors in those who attended for a health check confirmed the expected link between socio-economic status and clinical risk; the risks of developping CVD were greater among those living in the most deprived areas.

Conclusions

Keep Well was specifically designed to target those living in the most deprived areas of Scotland in order to most effectively tackle inequalities in heart disease. Nonetheless, individual recipients of the programme were from a wider socio-economic spectrum, and this is reflected in differential presentation of clinical risk factors.

P029

Evaluation of a practice based intervention to reduce health inequalities in chronic disease management.

Presenter: Ellena Badrick
Coauthors S Hull E Badrick S Shajahin R Mathur K Boomla J Robson

Introduction

Establishing equitable service provision by ethnicity, age and gender is an important aim of UK Government health policy. The Health Equity project aims to reduce health inequalities in chronic disease management in east London by working with GP practices.

We developed health equity reports for practices, comparing key indicators in chronic disease by ethnicity, age and sex with the average for the PCT. Two annual facilitation visits were made, enabling practices to compare performance with peers and with national standards, with further in-practice education as requested.

Methods

This project is based in three east London PCTs, where 51% of the population is from ethnic minorities. Routinely collected data from annual chronic disease audits was available for coronary heart disease, diabetes and chronic obstructive pulmonary disease registers in 39 Tower Hamlets practices (population 240,000) and two neighbouring PCTs (population 560,000) which acted as a comparison. Appropriate indicators in these registers were analysed by age, sex and ethnicity.

Progress in indicator achievement was examined across all three PCTS.

We plan to examine achievement by age, gender and ethnicity using a time series plot, to explore whether inequalities identified between groups at baseline have diminished.

Results

In East London ethnicity recording increased from 74% to 98% in the chronic disease registers (2004-2010).

Individualized chronic disease reports were created and facilitated for all practices our intervention PCT of Tower Hamlets. Our investigation into chronic disease management over time showed that chronic disease management in both Tower Hamlets and our control PCTs of Newham and Hackney improved over the three years, but that reductions in inequity were greatest in Tower Hamlets.

For example in CHD patients there was a significant improvement in cholesterol attainment (<=5 mmol/l) and statin prescribing in the White and South Asian patients in Tower Hamlets (adjusted for age and sex), but only in the White patients in our control populations.

Conclusions

Health inequalities can only be addressed when there is robust data collection, including ethnicity recording, to support monitoring and intervention.

Our results suggest continuing improvement in the key indicators for each of these chronic conditions. Changes based on the analysis still to be completed will also be discussed.

Health inequalities are often hidden, and are difficult to address by standard educational interventions. Practice and PCT equity reports provide evidence of health inequalities by age and ethnicity. They also provide insight into practice performance in the major chronic diseases which goes beyond QOF and other current performance metrics.

P030

Cost of treating contaminated blood cultures and reducing the incidence of contamination

Presenter: Anita Kumari

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Coauthors V Vaynshteyn, O Burzyantseva, S Jayawardena

Introduction

The use of blood cultures has been the gold standard for diagnosing infection for some time. It is also noted that the most important aspect of performing blood cultures is to collect the blood under aseptic techniques. Contaminated blood cultures can lead to unnecessary and costly laboratory studies, extra length of hospital stay and unnecessary antibiotic treatment.

The Objective of the study was to find out the common areas in the hospital that blood culture contamination occurs and the hospital staff that is responsible for the in appropriate blood culture collection with a view of educating the staff and reducing the cost of blood culture contamination.

Methods

A retrospective study was done reviewing the medical records for a period of two years and the data available from the micro biology department regarding contaminated blood cultures. The data regarding the staff that collected the blood cultures, the area of the hospital where the blood was collected and the organism that grew in the contaminated sample was included in the study.

Results

: Two thousand one hundred blood cultures were collected during the period of these two years. Out of these blood cultures ninety two (4.3%) were contaminated. 40% of these blood cultures were collected in the emergency room by the nursing staff. 58% of the blood cultures were collected in the medical floors by the house staff and the phlebotomist. The most common organism responsible was gram positive bacteria from the skin flora. Due to the contaminated blood cultures the patient's average length of stay was prolonged by three days and an extra 5230.00 dollars was spent on each patient.

Conclusions

The medical staff responsible for collecting blood cultures should be properly trained in aseptic techniques to avoid blood culture contamination and to reduce the costly hospital over stay.

P031

The incidence of Non Ischemic heart failure based on race gender and risk factors in a community hospital

Presenter: Anita Kumari
Coauthors B Roy, R Akhtar, O Burzyantseva, S Jayawardena, A Khanna

Introduction

The prevalence of non ischemic heart failure is not well known. Studies have shown it varies from community to community depending on ethnic division in that community, gender, use of recreational drugs, hypertension, renal failure etc.

The Objective was to study the prevalence of non ischemic heart failure in south Brooklyn community hospital based on race, gender, drug use, hypertension, renal failure etc with the hope of primary prevention and to monitor the clinical out come of these patients.

Methods

Retrospective study was done in a south Brooklyn community hospital with an established cardiac unit and a catheterization laboratory. Medical records of all patients presented to the emergency room and as out patients with heart failure were reviewed. Patients with normal coronary angiograms ware included in the study. The patients' age, sex, race, risk factors, initial ejection fraction and ejection fraction after one year of optimal treatment was included in the study.

Results

Out of two thousand four hundred patients presenting with heart failure in a period of four years 177 patients had non ischemic cardiomyopathy diagnosed by coronary angiogram.58% were males. The average age of clinical presentation was 61 years and was not statistically significant between the genders but patients with coronary artery disease presented a decade later with heart failure. When you compare the race, black were 52%, whites 28%, Hispanics 16% and Asian 4% which was statistically significant for black having a higher prevalence of heart failure. The leading course for heart failure was hypertension 72%, followed by idiopathic 16, alcohol 10% and drugs 2%. After optimal medications with diuretic, beta blockers, ACE inhibitors, ARBs only 19% showed improvement of their ejection fraction after one year. 40% showed no change and in 41% the ejection fraction decreased.

Conclusions

Non ischemic heart failure presents at an earlier age than ischemic heart failure. American blacks were more prone and hypertension was the leading cause for heart failure. Though the patient was on optimal medication only minority of the patients showed any improvement, this could be due to non compliance.

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P032

The use of sedative among the in hospital elderly patients, indications and complication

Presenter: Anita Kumari
Coauthors V Vaynshteyn, O Burzyantseva, S Jayawardena

Introduction

As the population ages more and more elderly patient are being treated in hospitals. Due to the age and multiple co-morbid factors these patients tend to stay in hospital for a longer time leading to anxiety, agitation and confusion because of the unfamiliar surroundings.

The Objective of the study was to understand the use of sedatives in an in hospital setting among the elderly with the hope of reducing the use of sedation and its related complications by educating the physicians treating the elderly.

Methods

Retrospective study was done using medical records from a community hospital for a period of two years. Patients age, gender, sedation used, indication for sedation and complications associated with sedation was documented for a period of two years.

Results

A total of 1771 patients were included in this study and the average age of the patient was 75 years. 59 % of the patients were female and the rest were males. The most common sedatives used were lorazepam which accounted for 52%, followed by haloperidol 34%, Morphine 10%. The most common indication was Agitation/anxiety 78% followed by insomnia 13% and pain in 7%. The most common complication associated was altered mental status/over sedation in 68%; fall in 30% and dizziness in 2% of the patients.

Conclusions

It was noted that longer the patients stayed in hospital more frequent was the use of sedation. There was only a minimal adjustment of the dose or the change of the type of sedative used, based on the age and weight of the patient. The physicians prescribing sedatives to the elderly should be aware of the side effects, complications as well as the use of alternative methods in treating patients with anxiety/agitation.

P033

Effectiveness of counselling, graded exercise and a booklet plus usual care for people with chronic fatigue in primary care: a randomised trial

Presenter: Leone Ridsdale
Coauthors M King, M Hurley, N Donaldson

Introduction

The research aimed to evaluate the effectiveness of Graded Exercise Therapy (GET), Counselling (COUNS) and a Booklet on CBT plus usual care (BUC) for people presenting with chronic fatigue.

Methods

A randomized controlled trial in South East England recruited patients who presented to the GP for fatigue of at least 3 months, and evaluated fatigue as a main outcome using the Chalder scale at baseline, 6 months and 1 year. Outcomes included anxiety, depression and satisfaction measures.

Results

222 people were recruited. Reduction in the mean Fatigue scale at six months was 8.6 (95% c.i. 6.6 to 10.5) for BUC, 10.1 (95% c.i. 7.5 to 12.9) for GET and 8.6 (95% c.i. 6.4 to 10.8) for COUNS, and at one year was 10.2 (95% c.i. 8.3 to 12) for BUC, 10.7 (95% c.i. 8.6 to 12.8) for GET and 9.2 (95% c.i. 7.2 to 11.2) for COUNS. There were no significant difference between the groups for main fatigue and other outcomes including anxiety and depression. Patient satisfaction was greater in GET and COUNS groups.

Conclusions

Fatigue symptoms tend to remit over time. One year after presentation, a CBT booklet plus usual care is associated with similarly reduced symptoms as active therapies, but the latter satisfies patients more.

P034

Statins after myocardial infarction; who starts and who continues treatment?

Presenter: Stephen DeWilde
Coauthors S De Wilde, I M Carey, S M Shah, T Harris, P H Whincup, D G Cook

Introduction

To examine trends in initiation and continuation of statin treatment after myocardial infarction (MI) and their determinants in the UK.

Methods

9,367 patients aged 30-84 having a first Myocardial Infarction (MI), between 1997 and 2006 were identified in DIN-LINK, an anonymised, UK primary care database. We assessed statin initiation (prescription within 6 months of MI) and continuing therapy (% of those prescribed a statin within 6 months who were covered by a prescription for any statin on a

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given year end). The influences of co-morbidities and socio-economic deprivation (Index of Multiple Deprivation) were examined using logistic regression.

Results

: Statin initiation increased from 37% for MIs in 1997 to 92% in 2006. Continued therapy at 1 year remained stable over successive cohorts at approximately 80%, settling to about 76% in patients with 5-10 years follow up. Older age, deprivation, no revascularisation in 6 months after MI, and congestive heart failure all predicted lower initiation and continuation of therapy; a diagnosis of hypertension or diabetes predicted higher initiation, whilst smoking was associated with lower continuation rates. Women had lower initiation and continuation rates, but the initiation effect was largely explained by their older age. For all the commonly used statins, the type of statin initially prescribed did not influence continuation of therapy.

Conclusions

Statin use after MI increased markedly between 1997 and 2006, whilst continuation with treatment remained high and stable. Importantly, first choice of statin had no major effect on continuation of therapy. Whilst the high current levels of initiation may have reached a ceiling, sub-groups with lower levels of continuation such as smokers, the elderly or those from lower socio-economic groups, remain targets for increasing continued use.

P035

Predictors of Chronic Kidney Disease recording on disease registers in primary care: a cross-sectional survey of GP practices and their performance in the Quality Outcome Framework (QOF)

Presenter: Nicola Walker
Coauthors Dr John Bankart
Professor Nigel Brunskill
Professor Richard Baker

Introduction

Focus on chronic kidney disease (CKD) has increased since its inclusion in the Quality Outcomes Framework (QOF) of the GP contract and publication of NICE guidelines. Despite a large UK epidemiological study estimating CKD stage 3-5 prevalence to be 8.5%, QOF data from 2007/8 for the UK reports the recording of CKD stage 3-5 on disease registers to be 2.9%. A substantial inter-practice variation in reporting is also apparent.

The aim of the study was to determine whether practice or patient characteristics predict recorded rates of CKD on disease registers in primary care.

Methods

We performed a cross sectional analysis of demographic and QOF data from 230 general practices in three Primary Care Trusts in the East Midlands.

Practice recorded rates of CKD on disease registers were obtained from QOF reports for 2007/8. We obtained data on practice and patient characteristics including practice list size, recorded rates of other chronic diseases, training status, deprivation, ethnicity and age of practice population. Univariate and regression analyses were performed to confirm which variables predicted CKD recording.

Results

Mean recording rate of CKD was 2.9% (range 0-7.3%). High deprivation, location in a city and low recorded rates of hypertension and stroke were significant predictors of a low recording of CKD.

Conclusions

Recorded rates of CKD in primary care are lower than predicted from large systematic population studies. Practices in deprived or inner city areas had even lower recording of CKD. Low recording of CKD is associated with low recording of other chronic diseases.

Improved recording of CKD is needed if the health consequences of kidney disease are to be reduced. Further research exploring the reasons why CKD is under recorded compared to predicted prevalence rates is necessary.

P036

The management of hypertension in the white and black populations of Lambeth

Presenter: Frances Baawuah
Coauthors M Ashworth, P Schofield, R Jones

Introduction

Hypertension is the single most important risk factor for the development of cardiovascular disease, and is almost entirely managed in primary care. Uniquely, NICE guidelines for hypertension management make ethnic specific treatment recommendations (for patients aged <55 years), based on differences in the renin-angiotensin system.

The aim of this study was to compare blood pressure control achieved in black and white patients treated with different classes of hypotensive medication ('A, B, C or D'). We also hope to explore how treatment regimes impact on overall CVD risk.

Methods

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We conducted a population based cross-sectional survey of patients with a diagnosis of hypertension. Data were obtained from Lambeth DataNet, a database of 192,423 computerised general practice case records derived from practices in Lambeth, an inner city London Borough. Lambeth has the second highest proportion of Black or Black British residents in the UK at 25.8%.

We compared the mean arterial pressure (MAP) in black and white patients, according to class of hypotensive agent, adjusted for ethnicity, age, gender and social deprivation. Patients >55 years were excluded.

Results

A total of 1263 patients were identified who were prescribed a single class of hypotensive. 203 (23%) black hypertensive patients were prescribed treatment NOT recommended by NICE as were 110 (29%) white hypertensives ('C or D').

The MAP for black patients taking NICE recommended treatment compared to non-recommended treatment was 103.3 and 104.9 respectively (t= 1.7; p= 0.096) and for white patients was 102 and 103.7 respectively (t= 1.5; p= 0.15). The MAP for all black patients and all white patients was 103.6 and 101.9 respectively (t=2.8; p= 0.005).

Data on overall CVD risk: to be presented.

Conclusions

Almost a quarter of black hypertensive patients were prescribed ACE inhibitors as monotherapy, even though they are not recommended by NICE. Nevertheless, blood pressure control was not related to treatment class in either black or white patients. Instead, we found that ethnicity was the major determinant of BP control with black hypertensive patients having higher MAP. We will present further data on how these findings impact on overall CVD risk in both ethnic groups.

P037

Missing Kawasaki disease in primary care

Presenter: Olga Kostopoulou
Coauthors E Wright
B C Delaney

Introduction

Kawasaki disease is a rare but potentially dangerous vasculitis of children. It can have long-term cardiac sequelae, if it is not treated within the first 10 days. We aimed to identify possible reasons for missing Kawasaki disease in primary care.

Methods

We constructed a scenario about a 2-year old boy with persistent fever, presenting on three consecutive occasions (days 4, 8 and 12 of illness). The consensus diagnostic criteria for Kawasaki were included. A brief patient description was presented on computer to 84 GPs, who could request further information in order to diagnose. Following diagnosis and prior to any feedback, we interviewed 24 GPs who had missed Kawasaki on second presentation, when appropriate treatment can still help avoid complications. A stimulated-recall methodology was followed, whereby GPs were presented with a record of their questions in sequence and were asked to recall the reasons for asking each question, and how they interpreted the answers. Transcripts were examined to identify how Kawasaki features were explained.

Results

One GP diagnosed Kawasaki on first presentation. On second presentation, 25% of the GPs diagnosed it and 52% admitted to hospital, increasing to 44% and 76% respectively on 3rd presentation. There were no differences in the number of questions asked and time taken between correct and incorrect diagnoses and no differences in diagnostic accuracy or management according to GP experience. Kawasaki features such as the maculopapular rash and strawberry tongue were attributed mainly to scarlet fever, and the bilateral conjunctivitis to a viral infection. The peeling fingers present on day 12 were attributed to scarlet fever or a side effect of the antibiotics or the infection.

Conclusions

Scenario-based studies look at snapshots of the diagnostic process, often lacking face validity. We simulated the demands of diagnosing a serious and rare childhood illness in primary care by presenting a scenario of the developing illness three consecutive times to GPs. Although the classical features of Kawasaki disease were present, the disease was often missed. GPs attributed its features to more common diseases, and were prepared to give a second diagnosis for features that did not fit with the main diagnosis.

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P038

Primary care management of prostate cancer in the UK: findings from analysis of a large dataset, detailed analysis of primary care records, and a national questionnaire survey.

Presenter: Richard Neal
Coauthors John Belcher, Christine Campbell, Hossein Hassani, Marketa Keller, Peter Rose, Vaskar Siddique, Eila Watson, David Weller, Clare Wilkinson

Introduction

After initial assessment and treatment, current UK guidance states that men with prostate cancer should be discharged from hospital follow-up if having 'watchful waiting', or if stable 2 years after radical treatment. We aimed to determine the current level and extent of prostate cancer care provided by UK primary care and to assess clinicians' views about current and future prostate cancer care.

Methods

1. Analysis of a dataset from GPRD that comprised 5695 men with prostate cancer with mean of 3.3 years follow-up; 3543 of these were then matched to 14166 controls by age, practice and follow-up duration.
2. Detailed analysis of primary care records of 240 men with prostate cancer from 18 general practices in England, Wales and Scotland.
3. National questionnaire survey of randomly sampled GPs and urologists in England, Wales and Scotland, asking about current and future management of four different clinical vignettes, and agreement with a number of statements.

Results

1. Men with prostate cancer, per year, had a median of 12.5 total consultations, a median of 2.7 prostate cancer related consultations, a mean of 1.2 PSAs, and a median of 46.8 prescriptions. Full analysis of the case-control data will be presented (comparisons of numbers of consultations, prescriptions, referrals and health service activity).
2.. Mean duration of follow-up was 2.4 years. 141 patients had two or more co-morbidities. A total of 25 different treatment pathways were identified. There was evidence of greater number of patients being managed in primary rather than secondary care for four specific conditions: psychosocial factors, incontinence, bowel disorder, sexual function
3. We received replies from 250/567 (44%) GPs and 74/155 (49%) urologists. GPs and urologists disagreed about how patients were currently managed, but agreed about more primary care management in the future. The agreement with various statements demonstrated serious potential problems in management.
Full results will be presented at the conference.

Conclusions

These data demonstrate the burden that prostate cancer has for primary care, and the potential to improve this care. These findings will inform the development and evaluation of a complex intervention for men with prostate cancer in primary care.

P039

A simple strategy for diagnosing COPD in patients presenting with persistent cough

Presenter: Robert Verheij
Coauthors Alfred P.E. Sachs, Kristel J.M. Janssen, Theo J.M. Verheij, Jan-W.J. Lammers, R. Hage, E. Lammers, Arno W. Hoes, Karel G.M. Moons

Introduction

Patients with complaints of cough in primary care frequently have undiagnosed underlying Chronic Obstructive Pulmonary Disease (COPD). Because adequate treatment improves the quality of life, early diagnosis of COPD is highly recommended. However, knowledge on the diagnostic accuracy of each part of the diagnostic work up is limited. We aimed to quantify the diagnostic value of history taking and physical examination for COPD, and the added value of spirometry and C-reactive Protein (CRP).

Methods

A diagnostic study was performed in the Netherlands, in 400 participants, older than 50, without known COPD, consulting their primary care physician because of persistent cough. All participants underwent extensive diagnostic work up, including standardised history taking, physical examination, spirometry, and body plethysmography. The diagnostic outcome was presence or absence of COPD, determined by a consensus panel of experts. Diagnostic models for COPD were developed by multivariable logistic regression analysis, and internally validated by bootstrapping. Simplified scoring rules were derived.

Results

118 participants had COPD (30%). The ROC area of the model including items of history and physical examination (model one) was 0.79 (0.74-0.83). Adding the FEV1/FVC ratio increased the ROC area to 0.86 (0.83-0.90) and improved diagnostic risk classification. Adding CRP did not improve ROC area or diagnostic risk classification. The estimated probability by the derived scoring rule including history,

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physical examination and the FEV1/FVC ratio (model 2) was low (< 20 %) in 52 % (NPV 95 %), and high (> 80 %) in 18 % of participants (PPV 85 %).

Conclusions

Short history taking and physical examination alone allow for safely excluding COPD in patients with persistent cough. The FEV1/FVC ratio improves diagnostic risk assessment, but CRP does not add diagnostic information.

P040

Time and Dynamics in the Experience of People with Type 2 diabetes

Presenter: Antje Lindenmeyer
Coauthors F Griffiths, J Sturt, J Palmer

Introduction

Experience of type 2 diabetes is subject to fluctuation and change. We conceptualise individuals' current dynamics as 'emergent present' (Adam 2005) where patterns of change remain similar. We aim to develop categories of these dynamic states that may be helpful in developing individually tailored interventions.

Methods

Qualitative comparative analysis of semi-structured interviews with 22 adults living with type 2 diabetes. These interviews were undertaken with participants in a clinical trial of a behavioural intervention.

Results

We developed four categories of current dynamics:

a) Stuck and struggling (3 participants): A feeling of struggling/floundering without progress; individuals felt that they were not 'getting to grips' with diabetes or were powerless to avoid erratic blood sugar levels.

b) Becalmed (11 participants): A stage of calm, with no expectation of major change in the near future; some worried about possible future complications or felt they had 'good and bad days'.

c) Past reminders (6 participants): The present is relatively calm but overshadowed by memories of distress or erratic blood sugars; this motivated some to improve self-management but led others to accept a less than ideal current state.

d) Submerged (2 participants): Held in a distressed state, with no change and no expectation of change

Conclusions

These categories, while representing an 'ideal type', aimed to capture the different qualities of individuals' experience. We suggest that it may be important for health care professionals to give patients with chronic illness the opportunity to explore their experience of time and change.

P041

Managing chronic oro-facial pain in primary care: a qualitative study of patients', doctors' and dentists' experiences

Presenter: Sarah Peters
Coauthors V Aggarwal, J Goldthorpe, C McElroy, E King, J Durham, M Tickle

Introduction

Persistent unexplained pain in the face and surrounding tissues are common presentations to primary care dental and medical services. Routine dental treatment of oro-facial pain (OFP) primarily involves using splints to correct malocclusion or teeth-clenching/grinding. However this mechanistic approach is ineffective. Moreover, such treatments can result in physical and psychological iatrogenesis. In contrast, a growing evidence-base recognises the effectiveness of psychological interventions for OFP, and the similarity of OFP and other medically unexplained symptoms. Appropriate management within primary care may reduce unnecessary and harmful treatment. This study aims to understand patients', dentists' and GPs' current experience of OFP and its management.

Methods

Semi-structured interviews were conducted with a purposive sample of 25 patients and 35 clinicians (comprising medical and dental practitioners from a range of primary and secondary care services). Audiotaped interviews were transcribed verbatim and analysed thematically using principles of constant comparison to categorise emergent and recurring themes within and between transcripts. Thematic categories arising in initial interviews were explored subsequently and disconfirmatory evidence was sought until thematic saturation arose.

Results

Similar themes emerged from both patients and physicians. Whilst both sets of participants recognised the role that psychological factors could play in the development and maintenance of OFP, management and self-management strategies were largely limited to biomedical interventions. Achieving a diagnosis proved problematic but functional for both parties. Frustration at the current inadequacy of OFP management often led to conflict with (or disengagement from) the clinician-patient relationship.

Conclusions

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Current management of OFP is ineffective and unsatisfactory for both patients and practitioners and impacts on their relationship. Fundamental barriers to implementing psychological interventions for OFP arise from ineffective communication between physicians and patients, and between medical and dental practitioners.

P042

Blood pressure as a predictor of mortality in old age: the Rotterdam Study

Presenter: Jeanet Blom
Coauthors W. de Ruijter 1, J.C.M. Witteman 2, W.J.J. Assendelft 1, R.G.J. Westendorp 3,4, M.M.B. Breteler 2, A. Hofman 2, J. Gussekloo 1

1 Department of Public Health and Primary Care, Leiden University Medical Center
2 Department of Epidemiology, Erasmus M

Introduction

Systolic blood pressure is a key risk factor used to predict cardiovascular risk in people without a history of cardiovascular disease. Observational findings show that high systolic blood pressure is related to decreased mortality in the oldest old. It is yet unknown at which age the predictive value of high systolic blood pressure fades away.

Objective

To determine age-specific all-cause and cause-specific mortality risks related to systolic blood pressure in persons aged 55 years and older without a history of cardiovascular disease.

Methods

The study was conducted in the Rotterdam Study, a population-based prospective cohort study, among 4612 participants (2858 women, 1754 men) aged 55 years and over, without a history of cardiovascular disease. The median duration of follow-up was14.9 (IQR 11.1-15.8) years. Within four age groups (55-64, 65-74, 75-84 and ¡Ý85 years) associations between baseline systolic blood pressure and all-cause mortality, as well as cardiovascular and non-cardiovascular mortality, were investigated (reference group systolic blood pressure <140 mmHg).

Results

At baseline, 42.9% of participants had systolic blood pressure ¡Ý140 mmHg and 15.0% had systolic blood pressure ¡Ý160 mmHg. In participants aged 55-64 years, high systolic blood pressure was related to increased all-cause mortality (HR140-159 1.2, 95% CI 0.9-1.5; HR¡Ý160 1.7, 95% CI 1.2-2.2, p for trend <0.001), adjusted for age and sex. From age 85 years onwards, systolic blood pressure ¡Ý140 mmHg was related to decreased all-cause mortality (HR140-159 0.7, 95% CI 0.5-1.1; HR¡Ý160 0.7, 95% CI 0.4-1.1, p for trend = 0.286). Similar results were observed for cardiovascular and non-cardiovascular mortality.

Conclusions

From age 75 years onwards, systolic blood pressure levels ¡Ý140 mmHg are no longer related to an increased mortality risk in people without a history of cardiovascular disease, and from age 85 years onwards this risk reverses. Since systolic blood pressure does not predict all-cause mortality or cardiovascular mortality from age 75 years onwards, it apparently should not be used as a risk predictor in older populations without a history of cardiovascular disease.

P043

Development and evaluation of a patient-centred tool to measure diagnostic delays (DELAYS2): final results

Presenter: Richard Neal
Coauthors Sadia Nafees, Di Pasterfield, Maggie Hendry, Maria Haines, Mike Robling, Kerry Hood, Matthew Makin, Nick Stuart, Hossein Hassani, Clare Wilkinson

Introduction

The duration between first symptom and a cancer diagnosis is important because, if shortened, it may lead to earlier stage diagnosis and improved cancer outcomes. Measurement is difficult because some symptoms are either simply present or absent, whilst others have a gradual onset. Most studies reporting symptom duration have used atheoretical and non-validated tools that are open to bias. We aimed to further develop a valid tool to measure symptom duration in patients newly-diagnosed with one of eleven different cancers, and to compare a researcher-administered tool with self-completion.

Methods

Phase 1. Ten patients completed the tool comprising: cancer site specific symptom questions; generic symptom questions; demographic data; and an anxiety scale. Response options for symptom onset and presentation to primary care were either an exact date when symptoms were first noticed, or a free text estimate. Cognitive debrief interviews were conducted and the tool circulated to patient groups for comments. After analysis, changes were made to improve the tool.

Phase 2. We conducted a randomised trial in three hospitals across North Wales comparing self-complete with researcher-administered questionnaires, and determined validity by

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comparison of a sub-sample with general practice records. Adult patients with a new primary cancer diagnosis were identified through multi-disciplinary teams. Patients with one of eleven cancers were eligible (lung, colorectal, breast, gastric/oesophageal, pancreatic, renal/bladder, endometrial/cervical, haematological, ovarian, prostate and testicular cancers).

Results

201 patients were randomised and recruited. The primary outcome measure is the difference in anxiety and the secondary outcome measure is completeness of data entry. Symptom durations will be presented descriptively. Kappa for agreement between data from patients and data from primary care records will be reported. Data relating to process of completion will also be presented. We are now in the analysis phase and results will be presented in full at the conference.

Conclusions

We anticipate that we will have a tool that can be used in descriptive and epidemiological studies of cancer delays, providing a valid and robust measure of time from first symptom to diagnosis, and that we will have a thorough understanding of its psychometrics and best methods of delivery.

P044

Recruitment and retention within a pragmatic primary care trial: the PANDAs experience

Presenter: Rachel Dwyer
Coauthors I Brown, A Bradley, B Colwell, C Ng, N Mathers

Introduction

PANDAs (Patients ANd Decision Aids) is a cluster randomised controlled trial (RCT) being conducted across three primary care trusts in South Yorkshire. The aim is to find out whether the use of a patient decision aid improves the decision quality and health outcomes of type 2 diabetic patients who are considering insulin therapy.

Recruiting and retaining practices to primary care research is not without difficulties, as documented in the literature; but there are examples of successful recruitment strategies and resources to assist researchers (Bower et al 2007, Campbell et al 2007, Dyas et al 2009, Sarre 2009). Treeweek et al (2010) recommended that researchers include evaluations of their recruitment strategies to add to the body of knowledge about what works in real-life research settings.

Methods

The PANDAs study is a pragmatic trial that has successfully recruited over 45 GP practices and 140 patients in its first year. To achieve this, the research team have used a number of strategies to engage with practices and support them in participating in the trial. The study is ongoing with almost half the required number of patients recruited so far.

Results

In this presentation, the research team will report and evaluate the strategies used and explore their theoretical basis (e.g. links to social marketing techniques). Examples of the methods used to recruit and retain practices will include:

• project branding
• viral marketing
• new media podcasts and websites
• project newsletters
• collaborations with local stakeholders
• adapting methodologies (with ethics approval) when necessary
• incentives, including personal development opportunities and academic detailing.

Conclusions

This presentation will discuss recruitment to primary care research using the existing literature and the PANDAs project as illustrations to reflect and explore the theoretical basis underpinning recruitment strategies. The aim is to share experiences that will be of use to other researchers in primary care.

P045

Quality in general practice in England: a meta-synthesis of the qualitative literature

Presenter: Maria Kordowicz
Coauthors M Ashworth

Introduction

The impact of the Quality and Outcomes Framework (QOF) on general practice in England has largely been evaluated in the literature in quantitative terms. However, there has been an emergence of qualitative research exploring this subject. The meta-synthesis, or amalgamation, of qualitative studies remains relatively uncommon.

Aims

To consider the types of qualitative methods used in the literature to study the impact of QOF on general practice and to synthesise findings from qualitative research on this subject.

Methods

Electronic databases acted as data sources. The search identified studies containing qualitative findings relating to the impact of QOF on general practice in England. Mixed-methods

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papers and opinion pieces were excluded. The studies not meeting the Critical Appraisal Skills Programme (CASP) quality criteria for qualitative research were excluded. Data were extracted and a meta-synthesis utilising interpretive thematic analysis was conducted by two independent researchers using NVivo software.

Results

Nine studies met the inclusion criteria. The semi-structured interview was the dominant qualitative method for exploring the effect of QOF on general practice. However, ethnographically-informed methods were utilised in some of the studies, allowing for an exploration of the impact of QOF on an organisational level. The key themes identified were: QOF versus holism, indicator manipulation, effects on motivation and organisational restructuring.

Conclusions

Whilst there are some limitations to the meta-synthesis approach, this study has shed light on the non-quantifiable impact of QOF. The effect of QOF in general practice is largely discussed in an organisational context and the implications of this for pay-for-performance quality improvement initiatives presented.

P046

Banning smoking in vehicles with children: A realist review

Presenter: Geoff Wong
Coauthors Professor Ray Pawson, Dr Lesley Owen

Introduction

Smoking is significant health problem that GPs deal with on a day to day basis. Whilst research grows on what works in smoking cessation in the primary care setting little is known about the effects of wider social interventions, for example legislation. The UK already has laws banning smoking in public places and attention in the UK is now turning to private spaces such as vehicles. Some countries and jurisdictions already ban smoking in vehicles with children. If policy makers are to make decisions on where smoking cessation efforts should be best focused, evidence is needed on whether such legislation would be acceptable to the public or even work. In this study we aim to review the effects of legislation as a tool in smoking cessation using the example of smoking ban in vehicles with children.

Methods

Realist review

Results

As a legislative 'intervention', banning smoking in vehicles with children appears to have a number of threats to its implementation and enforcement - these include; Problem misidentification, Criminalisation, Displaced behaviour, Lack of public support, Opposition, Obfuscation and Enforcement problems. Within these arenas, we have been able to identify theoretical explanations and predictors of 'successful' contexts and some of these will be reported in this presentation. For example, in the arena of public support, the most persuasive theoretical argument for a ban appears to be the protection of the incompetent. Evidence indicates that this approach has been successfully deployed in jurisdictions where banning legislation has been enacted.

Conclusions

This review is in progress and will be completed in the autumn of 2010. So far we have been able to map out the journey such a piece of legislation has to negotiate in order to be 'successful'. Our preliminary findings to date indicate that there are several theories that are able to explain and to an extent 'predict' what public reaction would be to such legislation as well as how 'barriers' might be overcome.

P047

Can medical students identify a doctor's poor performance?

Presenter: Melvyn Jones
Coauthors Anne Stevenson, Joe Rosenthal, Will Coppola, Surinder Singh, Richard Meakin, Mary Howman, Sophie Park.

Introduction

Poor performance in a doctor often follows a slow but relentless trajectory before action is taken, warning signs are not responded to or diffuse signals are not linked together. One piece of information that is key is what actually happens in the consultation room, but this knowledge is often hard to obtain as patients are reluctant to complain and clinical notes and peer comments are a poor substitute. However, medical students often sit in consultations and directly observe doctors. Can students identify poorly performing doctors?

Methods

We have collected anonymised cases where GP tutors have gone on to have questions raised about their performance by the GMC or PCT, linking tutors to their student feedback. We have undertaken textual analysis of student feedback, (information with privileged access) before concerns were raised, whose GMC or PCT

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performer registration has subsequently been questioned (public domain information).

Results

One practice had variable feedback but comments such as "The practice was not very well organized" and the "gp was ill prepared for students, did not plan sessions just palmed us off onto his partners" kept appearing among positive comments. The PCT shortly afterwards (but unaware of these comments) closed the practice amid concerns about clinical standards. The GMC placed restrictions on this doctor which included that they "must not undertake any teaching of medical students". Other examples include identification by a student of serious misconduct reported to the GMC.

Conclusions

Adverse student feedback about tutors is not uncommon, but potential identification of poor performance is rare, particularly as tutors that teach are likely to be performing at a high level. However, an over inflated sense of ability or lack of insight may draw some clinicians to teaching. Many well performing clinicians can be put through the review process too and positive student feedback might be used as supportive evidence in such procedures. We will explore the legislative, professional and ethical considerations relating to the use of this data and consider the impact on students and tutors if we potentially subvert the educational role of student feedback.

P048

Perceptions and Health Expectations of Child Body Shape of Chinese Caregivers with Different Weight Status of Children under 5 Years Old

Presenter: Mei Sheung, Christine Chan
Coauthors Prof. WANG Wen Chung

Introduction

Childhood obesity is the world's fastest growing epidemic, especially in South East Asia, an area of rapid social and economic transition. Although the prevalence of obesity in Hong Kong has been rapidly increasing for over three decades, there are relatively few studies focusing on the obesity issue of preschool children (Chan et al, 2010 a and b). Inaccurate recognition of weight status is without a doubt a threat to healthy weight control (Johnson et al, 2008). Recently, a few studies pointed out that if a parent can recognize the body weight problem of his/her child, changes more likely happens. This study is the first attempt to explore Chinese caregivers¡¦ perceptions of body image of preschool children in Hong Kong.

Methods

508 caregivers who (mean age=37.2, 86% of mothers) were from different socio-economic status of kindergartens (n=18), had different weight status children (mean age = 4.8), 62 obese, 76 overweight, 46 underweight and 324 normal weights (BMI percentile ranged from 0.88 - 98.30). The child Body Questionnaire consisted of 21 short questions connecting with two sets of 9-silhouette drawings of young child and young man (Chan, 2008) and (Stunkard et al, 1983). Descriptive statistics, Spearman¡¦s correction coefficient, Chi-square and ANOVA tests were used to examine the relationship or groups differences among the caregivers whose child had different weight status. Stanine Transformation had been applied to the 9-child-silhouette for statistical comparison.

Results

The caregivers with abnormal weight status (obese, overweight and underweight) of young children tended to have a wider range of Stanine of BMI measures than the caregivers who had a normal weight child. Nearly all caregivers, regardless of their child with different weight status, generally admitted that a medium child and adolescent body size which was an ideal figure. The normal weight child and adult figures associated with good nutrition, appetite, suffering less sickness and long life; but the overweight future adult body shape related to suffer from more illness.

Conclusions

The Chinese child caregivers of abnormal weight status of young children embrace a perceptual cognitive-distortion. Interventions for childhood obesity and further related study may need to reframe educational dialogues with caregivers rooted in their body image orientations.

P049

Are the Benefits of Written Emotional Disclosure in Patients with Asthma Sustained at 12-months? A Randomised Controlled Trial

Presenter: Christina Jones
Coauthors H Smith, A Theadom, M Hankins, R Bowskill, R Horne, A Frew

Introduction

Written emotional disclosure (WED) aims to alleviate the physiological stress caused by inhibiting life events. The exacerbation of asthma symptoms is commonly associated with stress. Previous trials show mid-term improvements in lung function and asthma control. Reported here are the results of a more

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rigorous trial which followed patients for 12-months.

Methods

146 adults (18-45 years) with a diagnosis of asthma requiring regular inhaled corticosteroids were recruited from 29 General Practices in the South East of England. In this double blind RCT participants were allocated to receive either WED or non-emotional writing instructions and asked to write for 20 minutes over 3 consecutive days. Spirometry (FEV©û% predicted), quality of life (JAQLQ), asthma symptoms (SSQ), subjective asthma control (ACT) and medication use (inhaled corticosteroids and beta-agonist) were recorded at baseline, 1, 3, 6 and 12-months.

Results

Intention to treat analysis revealed no significant changes in FEV©û% predicted, JAQLQ or SSQ. After 3-months, participants in the intervention condition reported significantly better subjective control: OR=2.86, 95%CL (1.27, 6.41) and reported significantly better objective control (¥â-agonist used less than once a day): OR=2.63, 95%CL (1.25, 5.50). At 6 and 12 months these differences were no longer significant.

Conclusions

Similarly to other studies of WED, this trial observed significant mid-term improvements in outcomes. Our design for 12-month follow up suggests that WED does not lead to long term improvements in asthma. Further work is needed to determine whether repeated exposure to WED can maintain or enhance over an extended period the gains observed at 3 months.

P050

Modelling the possible need for and provision of interpreting services in primary care

Presenter: Jackie Beavan
Coauthors P Gill, J Beavan, M Calvert, N Freemantle

Introduction

With increasing globalisation, the challenges of providing accessible and safe healthcare to all are great. Studies show that there are substantial numbers of people who are not fluent in English to a level where they can make best use of health services. This study examines how language issues are addressed in an inner-city primary care trust where 71 per cent of the patients come from Black or minority ethnic backgrounds. It documents the number of general practitioner consultations occurring in a language other than English and the use of interpreting services and goes on to model the need for interpreting

Methods

All primary care centres in one health authority were invited to take part in the study and practitioners completed data forms for a random session. Descriptive analyses were undertaken in SAS (version 9.1).

Results

77 practitioners took part in the study (63% response), from 41 out of a possible 70 practices. Out of a total of 1008 consultations, 555 involved patients who did not have English as a first language; Consultations took place in English in 717 cases, leaving 290 consultations in other languages. Patients' first languages numbered 39 (apart from English), in contrast to health practitioners, who declared at least a basic level of proficiency in 23 languages other than English. 41 (4.1%) consultations were conducted in a language in which the practitioner reported having no or only basic skills and where there was no additional person present to interpret. In 57 consultations, a relative or friend interpreted and in 6 cases a professional interpreter was booked.

Conclusions

It would appear that professional interpreters are under-used in relation to the need for them, with bilingual staff and family and friends being used in many cases. In a substantial number of cases where the patient spoke little or no English, the practitioner consulted in the patient's language but this approach was also used where reported practitioner proficiency was low.

P051

DiPPS: Diarrhoea in Primary Health Care Pilot Study

A study to assess the feasibility of recruiting and determining the cause and duration of acute diarrhoea in children and adults presenting to primary care

Presenter: Veronica Cox
Coauthors K Juttner, C Probert, M Williams, A Hay

Introduction

Diarrhoea is a common presentation to General Practitioners and frequently leads to hospital ward closures. Further studies are needed to determine current causes of diarrhoea in primary care as well as to identify where transmission could be interrupted. Clostridium Difficile(C.diff) infection is thought to be increasing in the community. Risk factors include antibiotic use and a recent stay in hospital, but new evidence suggests that C.diff may cause disease in patients without these risk

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factors. The natural history of diarrhoeal illness is uncertain. More knowledge about duration of symptoms would enable doctors to give patients better advice and may prevent unnecessary re-consultation.

The aim of this study is to assess the feasibility of recruiting and determining the cause and duration of acute diarrhoea in children and adults presenting to primary care.

Methods

Setting: Four general practices in South Bristol
Participants: 50 patients over 1 year old requesting primary healthcare advice for diarrhoea less than 14 days.

Data was collected using questionnaires and medical records. Patients baseline characteristics, personal history, recent medical treatment and the nature and duration of symptoms was recorded.

Participants were asked to provide a stool specimen, which was tested for common bacterial and viral pathogens.

Data collected during the course of the analysis and subsequent data interpretation will allow us to make projections for a future full scale study.

Results

Recruitment took place from December to March 2010. We will present results on recruitment rates, bacterial and viral causes of diarrhoea and symptom duration. Initial data interpretation has shown that out of 245 cases who presented with diarrhoea over the recruitment period, 183 (74%) were deemed potentially eligible. 61 (33%) of eligible patients were referred by clinicians of whom 46 (75%) agreed to participate. Outcomes were obtained for 41 (89%) for the natural history and 23 (50%) for stool samples.

Conclusions

We have demonstrated the feasibility of recruiting to a study of acute diarrhoea in the community, and where the recruitment 'pinch' points lie. Effects on the external and internal generalisability will be discussed, along with the solutions that will be included in a grant application for the definitive study.

P052

Rural Interprofessional Primary Health Care Team Development and Sustainability: Establishing a Research Agenda

Presenter: Charmaine McPherson
Coauthors E McGibbon

Introduction

Systemic change is required as we strive towards equitable access to primary health care (PHC) services in rural communities. Interprofessional PHC (IPHC) team collaboration, as a specific strategy, is integral to successful PHC renewal. There are a range of known contextual factors influencing PHC initiatives, including sociopolitical, health system, economic and community factors. However, how best to develop and sustain IPHC teams, especially in less resource-intensive rural contexts, has yet to be investigated. We present the results of a literature review for part of Phase 3 of a national program of research. The main study objective is to enhance a locally-driven partnership between researchers and PHC system decision-makers to understand the contexts and factors affecting rural IPHC team development and sustainability.

Methods

Operational definitions for IPHC team development, sustainability, collaboration, and teamwork were established. A standard literature review using multiple databases was completed focusing on conceptual and empirical evidence regarding known contextual factors affecting rural IPHC team development and sustainability. Since very little literature addressed these topics directly, the review was expanded to include issues such as PHC team collaboration and effectiveness. Peer reviewed literature as well as significant policy documents were used in the review.

Results

Categories of interpersonal, organizational, and systemic factors (barriers and facilitators) were used heuristically to present the factors arising from the review. Possible IPHC team development and sustainability contextual issues were recurring throughout this literature, such as respect for team members and communication (individual factors), role and responsibility clarification (organizational factors), and interprofessional education and power hierarchies (systemic factors). Major conceptual and empirical research gaps associated with IPHC team development and sustainability were identified.

Conclusions

Many PHC leaders contend that we have yet to create a culture and a system that supports IPHC

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team development. IPHC team implementation methodologies remain elusive, and as PHC evolves through reformed delivery models, it is important to examine its structural and organizational features, because these are likely to have a significant impact on performance. Increasing our understanding of how to best develop and sustain IPHC teams is fundamental to solid service and policy development, and ultimately to equitable health access and outcome improvement.

P053

Systematic Reviews Of Case Studies Can Inform Primary Care Questions: The Example Of The Piriformis Syndrome.

Presenter: Kevork Hopayian
Coauthors Fujian Song

Introduction

Advances in epidemiology have demoted the contribution case studies make to medical knowledge. Yet the large bank of data accumulated within them may be the only evidence pertaining to questions not appearing on the mainstream research agenda.

One such question is what to do for the patient suffering sciatica but without disc herniation or spinal stenosis on imaging. Nerve impingement by the piriformis muscle (piriformis syndrome) has been proposed as a cause that it is greatly under-diagnosed. An understanding of the importance of the syndrome has stalled because the literature is largely in the form of case studies.

Methods

Systematic reviews of case studies are rare and even rarer for questions about diagnosis. In undertaking a systematic review of the piriformis syndrome to define its diagnostic features, guidance was found to be scarce. Guidelines for systematic reviews give few recommendations for case studies and none for case studies of diagnosis. Therefore, a methodology was developed for the review. The main sources were existing guidance on case series reporting, diagnostic case reporting and general systematic review principles. Experts in case reporting and research synthesis were consulted.

Results

The results demonstrate that the essential components of a systematic review can be applied to a synthesis of case studies: a clear question; a comprehensive search; explicit inclusion criteria; and pre-specified, appropriate analysis. A quality assessment tool included key features in pain history, general and specific physical findings, case definition and the minimization of selection bias. It was possible to combine data to produce frequencies for clinical features, with plausible alternatives for confidence intervals to address the limitations of case studies. Research questions, previously overlooked by traditional reviews, were identified.

Conclusions

Evidence contained in case studies may be pertinent to questions relevant to primary care but ignored by mainstream research, either because of prevailing opinion or lack of industry interest. Reviews of case studies can be produced to the standards of the PRISMA statement. The results can inform current practice and future research relevant to primary care.

P054

Creating a register of research interested patients linked to the GP electronic record

Presenter: Aileen Grant
Coauthors M Pitkethly
F Sullivan

Introduction

Clinical research can only be undertaken with the support of volunteers. Recruiting clinicians and patients to healthcare studies is widely reported as extremely difficult. Reports suggest that only one third of studies reach their target recruitment with consequences for the validity and cost of studies. Currently used methods of recruiting into studies are not efficient, so diluting the potential returns on investment in research. Usual practice is to make the initial approach to potential “subjects” of healthcare research through the clinician responsible for their care. Increasingly, this is being questioned as overly paternalistic, and the trend for people to take responsibility for their own health reinforces the view that patients should be allowed decide for themselves whether they want to take part in research.

Methods

Two focus groups were held in Tayside, Scotland to ascertain patient and GP views towards holding a register of patients interested in being contacted for research. One focus group was held with 5 GPs and another focus group was held with 9 member of the public. These lasted approximately 1.5 hours and were transcribed verbatim. Transcripts were imported to Nvivo 8 and analysed thematically.

Results

Members of the public and GPs were in favour of a register of people interested in taking part in research. The public preferred a model where a

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database of patients interested in taking part in research was linked to various existing databases. These were GP records, the information and statistics division of NHS National Services Scotland and the Health Informatics Centre (University of Dundee and NHS collaboration). The external databases would be searched for eligible patients through their CHI number and this anonymised data would be linked to the patient consent database. Patients were against GPs being contacted prior to eligible patients. The GPs had greater concerns over patient confidentiality and wanted to ensure the proposed scheme would be approved by the relevant Caldicott Guardian.

Conclusions

GPs and members of the public are in favour of a database of patients interested in research. Due to the small sample size further research and pilot work is required.

P055

Simulation of forwards-backwards multiple imputation technique in longitudinal clinical dataset

Presenter: Catherine Welch
Coauthors I Petersen, K Walters, R Morris, I Nazareth, I White, L Marston, J Carpenter

Introduction

Primary care data collected in routine practice is increasingly used for research. As the data is collected for clinical reasons it is common for some data to be missing. Multiple imputation has been recognised as a method for handling missing data in such data. However, existing imputation models does not account for the longitudinal and dynamic structure of the data.

Methods

To impute missing values in longitudinal primary care databases we developed a multiple imputation algorithm which account for longitudinal data and applied this to The Health Improvement Network (THIN) primary care database for health indicators associated with cardiovascular disease (CVD).

To test the algorithm a sample of patients were extracted. Patients were selected from THIN with complete data for age, sex, deprivation and height and measurements for weight, systolic blood pressure and the ratio of total serum cholesterol to high density lipoprotein (HDL) cholesterol for each year from 75 to 80 years (n=108). CVD was identified if the patient was diagnosed with one of a predefined list of conditions.

Weight, systolic blood pressure and cholesterol measurements were randomly replaced with missing values so that the level of missing data was equivalent to that in THIN.

The "forwards-backwards" algorithm imputes values at each time point by using measurements before and after the one of interest and updates values sequentially.

Results

In total, 34% of weight, 30% of systolic blood pressure and 60% of cholesterol measurements were replaced with missing values.

Following imputation, the hazard ratios for weight and systolic blood pressure recovered to the hazard ratios before the data was removed. However, the hazard ratio for the ratio of total to HDL cholesterol increased from 0.69 in the complete data to 0.80 in the imputed data with a bias of 0.15862.

Conclusions

This imputation method worked well in a simulated longitudinal clinical database for levels of missing data of approximately 30%, but not where there was a high level of missing data. The method has potential for the imputation of missing data in primary care databases, reducing biases in research in areas such as cardio-vascular risk estimation.

P056

Impact of study design on recruitment of Patients to a primary care trial: an Observational Time Series analysis of the Birmingham Atrial Fibrillation Treatment of the Aged (BAFTA) Study.

Presenter: Kate Fletcher
Coauthors Mant J, Hobbs FDR

Introduction

Recruitment targets to randomised controlled trials (RCTs) are often not met. Many interventions are used to improve recruitment but there is little empirical evidence on whether these approaches work.Here we aim to examine whether changes to the design and conduct of a primary care based RCT were associated with changes in patient recruitment.

Methods

An observational time series analysis of recruitment to a primary care based multi-centre RCT of aspirin versus warfarin for stroke prevention which involved 330 practices. Several changes to the trial protocol and procedures were made over the four years of patient recruitment. For each quarter throughout the recruitment period, the recruitment rate per 1,000 total population in active practices was calculated.

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Results
The recruitment target of 930 patients was exceeded. Fluctuations in recruitment rates occurred during the recruitment period. Following protocol changes aimed to reduce clinical workload, there was a significant increase in recruitment during the final 6 months of the study, during a period when there was not a similarly large increase in the total population available.
Conclusions
These findings suggest that the conduct of a trial is an important consideration if studies are to recruit successfully. Expanding the number of centres may not be the most effective way to improve recruitment.

P057
GPs experiences of recruiting patients to the Birmingham Atrial Fibrillation Treatment of the Aged (BAFTA) Study: a qualitative study.
Presenter: Kate Fletcher
Coauthors J Mant, FDR Hobbs
Introduction
Recruitment targets to randomised controlled trials (RCTs) are often not met. A critical step in the pathway is whether an eligible patient will give consent. Analysis of recruitment patterns to the Birmingham Atrial Fibrillation Treatment of the Aged study (BAFTA), a primary care based RCT of aspirin versus warfarin for stroke prevention in patients with atrial fibrillation, demonstrated that patient and practice factors were associated with an increased likelihood of consent. This study aims to understand the GP experience of recruiting to this trial.
Methods
19 GPs throughout England who recruited patients to the BAFTA study took part in semi-structured interviews carried out by a researcher. GPs were sampled purposively to ensure a wide range of characteristics. Interviews were tape recorded and transcribed verbatim and Framework software is used for the analysis.
Results
Data is still being analysed so full results are not yet available. Initial findings show that the ethics of trials, description of uncertainty and attitude towards the study question were important factors in their overall experience.
Conclusions
Conclusions cannot be drawn until the analysis is complete but will be presented at the conference.

P058
Communication of individual cardiovascular risk: perspectives of primary care nurses.
Presenter: Sue Boase
Coauthors D Mason, S Sutton
Introduction
With the shift towards primary prevention and health promotion primary care nurses are becoming increasingly involved in discussing cardiovascular risk with patients (DOH 2002). Little is known about how they approach such discussions.
This study explores the attitudes and perspectives of primary care nurses towards communicating cardiovascular risk to patients.
Methods
Two focus groups and 16 semi-structured interviews were conducted with nurses working in GP practices. Qualitative analysis using field notes and transcribed audiotapes was undertaken using the "Framework approach" (Ritchie and Spencer 1994) and NVIVO 8 software.
Results
The nurses perceived communicating cardiovascular risk to be an important part of the their role. Opportunistic discussion of a patient's cardiovascular risk appeared common, although limited by time constraints caused by workload. There appeared to be an uncertainty and selectivity in the process. This was influenced by a judgement of the balance between seizing the opportunity when it arose against the need to know the patient beforehand. There was an awareness that there was little training on how to approach cardiovascular risk with patients. There was variation in the use of cardiovascular risk assessment tools such as graphical representations, with a perceived advantage in being able to demonstrate change in risk level visually.
Conclusions
This study raises two important questions:
Should cardiovascular risk be addressed opportunistically outside the context of the patient's expectations and consent to discuss?
Should more consideration and focus be given to relevant training to support health professionals who discuss cardiovascular risk with patients in the clinical setting?
Since carrying out this work the introduction of the vascular health checks (DOH 2009) reinforces the need for further consideration within this area of primary healthcare.

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P059

The influence of a clinical information system on the clinical problem solving of year 4 medical students in primary care- using the hypothetico-deductive model

Presenter: Alison Lea
Coauthors R Foy

Introduction

Clinical information systems (CIS) are now routinely used in UK primary care. Current medical students need to be prepared for their working environments and be supported in their development.

Medical problem solving and decision making is the cornerstone of patient care. There has been little work on the CIS and its influence on the decision making of doctors and medical students. Of that work most has centred upon on discrete decision tools in health professionals.

The expert and the novice have been shown to exhibit different reasoning strategies. Medical students, as novices have been shown to use the hypothetico-deductive approach.

Previous research indicates that doctors using CIS's change their information gathering and reasoning strategies. To date no work has been done with medical students problem solving. This study explored the influence of the CIS on the clinical problem solving of year 4 medical students.

Methods

The problem solving of medical students was explored using a technique previously described. The students consulted with a simulated patient with a scenario typical to primary care and this was video recorded. A process tracing technique was used using stimulated recall and think aloud. This interview was audio recorded and transcribed verbatim. A coding frame was constructed using the hypothetico-deductive model as a framework to analyse the data.

Results

11 students participated in the study (8 female). Preliminary results suggest that students do use a hypothetico-deductive approach. Most concentrate on information gathering and limit hypothesis generation and hypothesis testing. Visual cues from the CIS may remind students' of questions to ask but can also disrupt students' lines of questioning. Finding information in the CIS during the consultation is often avoided. The CIS aids hypothesis generation by offering students "breathing space" to think by turning their attention to the screen rather than to the patient. Many contextual factors are described including students feeling that they should use and know the contents of the medical record and that patients expect this. Using the record during consultations generates stress in many.

Conclusions

The CIS is here to stay in clinical practice and we must ensure the doctors of the future are aware of the associated benefits and potential (mal)adaptive behaviours early on. Reminders and prompts are useful but can influence the decision making processes. Despite the students being of the "techy" generation using the CIS generates stress and is used to varying success in the consultation. This study adds to the debate concerning the importance of integrating the CIS into undergraduate medical education. The main limitations are due to the generalisability of the results due to small numbers, context and methodological considerations.

P060

SCALPEL – Students Changing Attitudes to Learning about and Promoting Energetic Lifestyles: Preliminary Focus Group Findings

Presenter: Philip Cooke
Coauthors PA Cooke, G Gormley, M Tully, A Gilliland, ME Cupples

Introduction

Physical inactivity contributes to many diseases. Research has shown that doctors who themselves are physically active are more likely to promote exercise to patients. This study aims to develop an undergraduate program of experiential learning of health behaviour change and to assess if this alters medical student attitudes towards physical activity and its promotion to patients.

Methods

The study uses mixed methods, a randomised control trial and focus group research.

Fourth year medical students (160 enrolled over two academic years) are asked to complete a questionnaire which assesses their attitudes towards physical activity and its promotion. The students are randomised to either receive an

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intervention during which they are encouraged to develop individual strategies to increase their physical activity, or no intervention. All are asked to record pedometer-based step counts over a two week period. At the end of this period and again at 10 weeks attitudes are reassessed with the questionnaire.
Five focus groups of 6-8 participants each are planned to explore the students' attitudes to health promotion and the effect of their personal experience of health behaviour change.

Results

We present the themes and selected comments identified from two focus groups.

Conclusions

Further focus groups are planned and analysis will continue until data saturation achieved. Objective assessment of attitudes with the questionnaires will be carried out when all data is collected. The results will inform the development of a teaching programme to encourage students to promote energetic lifestyles in the future.

P061

Parental attitudes and lifestyle factors associated with HPV vaccination uptake

Presenter: Tara Jain
Coauthors Dr A Gavin, Dr ME Cupples

Introduction

Cervical cancer causes 270,000 deaths worldwide and 2,800 cases are diagnosed in the UK annually. The human papilloma virus (HPV) vaccine is effective in prevention. Parents' attitudes are important in successful school based vaccination programmes: information about attitudes in Northern Ireland (NI) is scant. We aimed to explore attitudes towards HPV vaccination in NI and their possible associations with vaccine uptake.

Methods

A questionnaire was designed to assess attitudes amongst parents whose daughters were eligible for HPV vaccination in the previous year. Free text comments were invited about decisions. Other questions related to marital status, free school meal entitlement, religion, smoking, alcohol, physical activity and cervical screening. In selected schools teachers gave questionnaires to girls in relevant year-groups, asking them to invite parents to complete and return these in a freepost envelope to the researcher. Schools (7) were chosen to include different socioeconomic and cultural backgrounds. A sample of 211 was estimated to allow 5% of variation in uptake being attributed to differences in attitudes, with 90% power and 0.05 alpha: anticipating 30% response, over 700 questionnaires were distributed.

Results

From 750 questionnaires, 178 responded (24%). Most respondents (96%) were female, white (96%), married/living with partner (73%); 19% reported free school meal entitlement. Since 99% accepted vaccination (NI uptake 92%), comparison of attitudes between those who accepted and declined was not meaningful. Respondents were relatively health-aware: 83% non-smokers, 77% physically active, 74% consumed <14 units alcohol/week, 79% had regular cervical smears.
Overall, 76% reported having enough information about the vaccine, 62% considered it safe and 64% that it is effective. Schools and the media were the most frequently cited sources of information. Free text comments indicated that vaccine uptake was strongly influenced by social pressures and parents' attitudes may adversely affect acceptance for younger daughters.
Overall, 13% considered that vaccination would encourage future sexual behavior: this perception was associated with marital status, age and free school meal entitlement. However, 55% did not associate sexual activity with cervical cancer.

Conclusions

There are gaps in parents' knowledge about HPV vaccination and cervical cancer: disease prevention needs effective communication of relevant information.

P062

Early Prediction and Prevention of Obesity during Childhood (EPPOC)

Presenter: Sarah Redsell
Coauthors Atkinson P, Nathan D, Siriwardena AN, Swift J, Glazebrook C

Introduction

Childhood obesity prevalence has increased significantly, however, the main risk factors are known and early prevention is possible. This study a) explored parents' beliefs concerning their infant's size, growth and feeding and their receptiveness to intervention for those identified as at risk and b) examined UK primary care practitioners' views and practice in relation to the identification and management of infants at risk of obesity.

Methods

Informed consent was provided by parents (n=38) attending focus groups in six localities in the East Midlands, UK, selected for advantage/disadvantage. Practitioners working in these areas completed a brief survey, which included a validated measure (Obesity Risk

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Knowledge (ORK-10) scale) (n=118), and participated in telephone interviews (n=48). Qualitative data were audio-recorded, transcribed verbatim and subjected to thematic analysis. Survey data were analysed using non-parametric statistics.

Results

Infant feeding and the prevention of obesity were the main qualitative themes. Parents described obesogenic infant feeding practices and reported inconsistencies in practitioners' advice. GPs (n=12) and Practice Nurses (n=6) believed infant feeding advice was health visitors' work, relied on experiential knowledge rather than evidence to support advice and valued the practitioner-patient relationship over best practice. Health Visitors (n=20) and their team (n=10) supported best practice but identified barriers to implementation. Obesity prevention was seen as important by all professional groups but practitioners wanted more guidance and training. All survey participants had been consulted for advice about infant feeding. Knowledge about health risks associated with obesity differed significantly between practitioner groups ($X2=26.7$, $df=3$, $p<0.001$). GPs (n=52) were significantly more knowledgeable about the risks of obesity than the other groups. In the group as a whole, knowledge was unrelated to confidence in relation to giving advice about feeding and those with better knowledge were consulted less frequently about infant feeding ($r=-0.34$, $n=114$, $p<0.001$).

Conclusions

This study revealed potentially modifiable barriers to intervention with parents of infants identified as at risk of obesity. The priorities of supporting parents to improve infant feeding practices, improving practitioners' knowledge and better team working will inform the development of a complex intervention to address this area of practice.

P063

Reaching out: Novel approaches to reaching and engaging with patients in deprived areas

Presenter: Fiona Turner
Coauthors M Mackenzie, K O'Donnell, S Platt, M Reid, Y Wang, J Clark

Introduction

Reaching those deemed "hard-to-reach" is a major challenge for any health prevention programme. Here, we report on the impact of using outreach workers to target those who had not responded to more traditional means of invitation within a national programme of anticipatory care to address health inequalities in cardiovascular morbidity (Keep Well).

Methods

Semi-structured interviews with key staff involved in outreach work (n=21) were carried out between October 2009 and January 2010. Interview data were analysed using Framework. Quantitative data on outreach, where accessible, was also obtained from the four pilot areas.

Results

(Final results to follow)Preliminary findings suggest that different models of outreach are operating across the four Wave 1 pilot sites, but span three broad spheres of activity in varying degrees: 1) Initial engagement of the target group into a health check; for example, doorstep encouragement or a health check in the home, 2) Ongoing engagement, including 'buddying' work to encourage attendance at lifestyle intervention, 3) A bridging role for outreach in bringing together practices and local services. These novel approaches to engagement have important impacts on the delivery of Keep Well in primary care.

Conclusions

(Final conclusions to follow)The impact of such approaches has important implications for the wider health inequalities agenda. Based on this fieldwork we will propose a typology of outreach approaches and presents an overview of findings in relation to impact, normalisation, and sustainability in primary care.

P065

A systematic review of the relationship between blood pressure variability and cardiovascular outcomes

Presenter: Emily Adams
Coauthors A Ward, R Stevens, R Perera, D Nunan, C Heneghan

Introduction

There is a lack of clarity regarding the effect of short term blood pressure variability and alterations in circadian blood pressure patterns on cardiovascular risk. Data from several prospective cohort studies in different sub-groups of patients exists, but to date this information has not been combined in a systematic way. Therefore, this systematic review is an important step towards quantifying how blood pressure variability contributes to cardiovascular risk and ultimately in establishing how this information can be used to reduce risk.

Methods

We searched the Cochrane library, Embase and Medline using the terms 'blood pressure variability', 'cardiovascular disease' and

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'prognosis' from the beginning of each database up until January 2010, retrieving 1240 records. We filtered these according to our study protocol providing 28 full texts for inclusion. Two reviewers independently assessed study quality and obtained methodological data, participant demographic, method and timing of blood pressure measurements and objective cardiovascular outcomes using our data extraction sheet. We collected the hazard ratios for blood pressure variability adjusted for baseline blood pressure and also for additional cardiovascular risk factors such as age, smoking and co-morbidities.

Results

Of the 28 included studies, 17 measured short term blood pressure variability using 24 hour ambulatory blood pressure monitoring, 8 measured the effect of alterations of circadian blood pressure patterns and 3 used serial clinic measurements. The study populations varied; 13 collected data from hypertensive participants, 3 from participants with type 2 diabetes mellitus and the remaining 12 from healthy populations. Results on the relationship between daytime blood pressure variability, night time variability, day to night blood pressure ratios and night time dipping trends on cardiovascular morbidity and mortality will be presented.

Conclusions

Blood pressure variability is thought to be an important component which is currently overlooked in the assessment of cardiovascular risk and consequent blood pressure management. The results of our systematic review will ascertain for the first time the prognostic value of the various forms of blood pressure variability and their potential role in clinical practice.

P066

Rectal bleeding and colorectal cancer in primary care: a systematic review

Presenter: William Hamilton
Coauthors MP Astin, T Griffin, RD Neal, PW Rose

Introduction

Colorectal cancer has several associated symptoms including rectal bleeding. The decision to refer is based upon an estimated risk that the symptoms bring. We performed a systematic review of the risk of colorectal cancer in symptomatic patients consulting in primary care. The findings for rectal bleeding are presented.

Methods

We searched MEDLINE, EMBASE, MEDLINE in process, the Cochrane Library and CINAHL in April 2009 for studies of any design in symptomatic adult patients in primary care. We excluded studies of asymptomatic, screening, or the referred populations, or with recurrence of colorectal cancer or <100 participants. The target condition was carcinoma of colon or rectum. We extracted data for 2x2 tables to estimate performance characteristics for each symptom. Data were pooled in a meta-analysis. Quality of studies was assessed with the QUADAS tool.

Results

The searches identified 1896 papers; 50 were appraised, and 23 met inclusion criteria. Studies reported rectal bleeding as either a single symptom, or sub-classified by appearance. We grouped all data on rectal bleeding together. Positive predictive values (PPVs) from fourteen studies of 18,634 participants ranged from 2.2% to 15.8%. A subgroup analysis of five studies with 887 patients aged over 50 found a pooled estimate of 7.6% (95% confidence interval 6.0%, 9.4%). Another three studies of 46,164 patients gave a sensitivity of 17.4% (95% CI 16.4, 18.4), specificity of 98.4% (95% CI 98.3, 98.6), and positive likelihood ratio of 5.31 (95% CI 1.65, 17.07). Much inconsistency (I^2 >96.0%, $p<0.001$) was present across the studies.

Conclusions

The findings support the view that investigation of rectal bleeding is warranted, though inconsistency between studies infers caution in interpretation.

P067

Developing an intervention for primary care patients with coronary heart disease and co-morbid depression: meta-synthesis and qualitative interview studies

Presenter: Andre Tylee
Coauthors P Walters, E Barley

Introduction

By 2020 the two most disabling conditions globally will be coronary heart disease and depression. The presence of depression increases the prevalence of acute coronary syndromes and associated mortality. Both conditions have been prioritized in the GP Contract and are the subject of recent national guidelines. The NIHR has funded a programme of research to develop an intervention for primary care patients with co-morbid depression and coronary heart disease, involving a cohort study, qualitative research and a pilot RCT. In line with the MRC guidelines, intervention development was guided by qualitative research, and this presentation will discuss the qualitative studies and their role in the development process.

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Methods
A meta-synthesis was conducted of research concerning the views and experiences of primary care professionals in the management of depression. Papers were identified and assessed for methodological quality. First order constructs (reported views and experiences of the professionals) and second order constructs (themes derived from the study authors) were tabulated. Reciprocal and refutational syntheses were used to identify shared and contested constructs across studies. Additional semi-structured qualitative interviews about the management of depression and coronary heart disease were conducted with 22 professionals from South London practices and 30 patients from the cohort study.
Results
Seventeen papers were included in the meta-synthesis. Constructs included professionals' understanding of depression, recognition of depression, management strategies, perceptions of shame and stigma, inter-professional relationships and training needs. Qualitative interviews with professionals identified uncertainty concerning the management of psychosocial issues associated with this co-morbidity, as well as limitations of time and training. Patient interviews identified a variety of needs, and highlighted that coronary heart disease was not the main or only cause of depression. Patient interviews were underpinned by a theme of 'loss', including interpersonal and health/control factors.
Conclusions
The qualitative studies suggested a role for a flexible, individualized, case management approach. Evidence suggested that practice nurses may lack the confidence, skills and time to deliver the intervention. Lessons derived from the development process and its utility in developing interventions for other co-morbid conditions in primary care will also be discussed.

P068
Barriers to the recognition of and response to Dementia Syndrome in primary care: a rapid appraisal of the literature
Presenter: Tamar Koch
Coauthors S Iliffe
Introduction
With a prevalence of 700,000 people living with dementia in the UK, the numbers are predicted to double within thirty years. Improving its early detection is an area identified for development in the National Dementia Strategy 2009; and there are thought to be multiple benefits to the patient, family, and wealth of resources by doing this. However, it is difficult to achieve, and has been shown to be lacking amongst primary care practitioners the world over. The purpose of this narrative review was to investigate current knowledge and evidence about the barriers to dementia diagnosis and care, in order to target initiatives and education in the future.
Methods
A rapid appraisal approach was adopted in order that the results could inform the implementation of the National Dementia Strategy. A systematic search for articles was made using electronic databases MEDLINE, EMBASE, and psycINFO, using terms dementia/cognitive* impair*/Alzheimer's Disease AND Primary care/general or family practi* AND diagnos* OR manage*. Exclusion criteria included non-English language, studies about pharmacological interventions or screening instruments, and settings without primary care.
Results
11 empirical studies were found (out of 4311): 3 quantitative, 6 qualitative, and 2 with mixed methodologies. The main barriers identified were time or financial constraints, lack of support (for patient, carer, or General Practitioner), diagnostic uncertainty, stigma, therapeutic nihilism, and disclosing the diagnosis. The most difficult aspect of dementia care varied according to differing studies but was cited as being the early detection of the disease, organising support services, or managing behavioural symptoms.
Conclusions
The main weaknesses of this review include the possibility that relevant articles were not captured by the applied search strategy and filters, the sample sizes were at times small, and the fact that studies conducted in differing countries with different health systems and roles for GPs might make the results less generaliseable. Nevertheless, the literature gives clear indicators about service development and provision, GP training and education, and public awareness campaigns aimed at eradicating the stigma attached to dementia. Research into how to best achieve these changes is warranted.

P069
Email as a method of consultation: Cochrane review
Presenter: Helen Atherton
Coauthors Atherton, H. Sheikh, A. Car, J
Introduction
Email is a popular way to communicate and is in widespread use across several sectors, for

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instance finance and entertainment. Despite this, its use in healthcare is not routine and it has been proposed that healthcare lags behind other sectors in this regard. At present there is no standardised system in place for email consultation in the UK and the evidence base to date concerning such systems is fragmented and mostly US based.

Methods

To assess the effects of healthcare professionals communicating with patients via email. A secondary aim for the purpose of this presentation is to identify issues arising when carrying out a Cochrane review of a complex intervention.

Results

A search of the main medical databases and the grey literature is currently underway, using pre-specified search strategies. Randomised trials, quasi-randomised trials, controlled before and after studies and interrupted time series studies will be considered. If possible results will be pooled in a meta-analysis.

Conclusions

The implications of the state of the evidence base on the future of email as a consultation method will be discussed. The methodological issues surrounding Cochrane reviews of complex interventions will be considered.

P070

Anticipating mental incapacity: the case for advance care planning in primary care.

Presenter: Benedict Hayhoe
Coauthors None

Introduction

Advance care planning is a process of formal decision making that allows capable patients to make known healthcare preferences in advance of a potential state of mental incapacity. Intended to increase patient choice and preserve autonomy, such decisions are now described in statute in the Mental Capacity Act 2005, and may take the form of: an advance statement of wishes, an advance decision to refuse treatment, or the appointment of a Lasting Power of Attorney for Healthcare Decisions.

This presentation examines the concept of advance care planning in primary care, following recent Royal College of Physicians guidance advocating its widespread use in this setting.

Methods

Narrative literature review of previous research investigating the use of advance care planning and its application in primary care, also of current UK legislation, policy, and important case law in this area. Recent professional guidance was also examined, and the impact of this guidance on advance care planning and its translation into primary care practice evaluated.

Results

Current evidence suggests that increased advance care planning in primary care can provide substantial benefits for both patients and clinicians, in the form of enhanced patient autonomy and emotional reconciliation, as well as possible reduced out of hours service use and hospital admissions. Nevertheless, major causes for concern include practical and psychological barriers to initiation of advance care planning, which have resulted in low uptake in other countries despite substantial investment in legislation and training. There is also evidence of significant potential ethical problems, in particular the possibility of health inequalities related to advance care planning, as well as economic drivers for its use.

Conclusions

A relatively new concept in the UK, advance care planning is now strongly promoted in healthcare policy. Although previous research refers to primary care as the ideal setting for advance care planning, evidence for this and for success in its application is less clear. Further research is leading from these findings to investigate current practice in advance care planning in UK primary care, aiming to identify existing experience in this area, and the extent to which professional guidance has been translated into practice.

P071

Is there an association between symptom duration and clinical outcomes in gynaecological and upper gastrointestinal cancers and melanoma? Systematic review and meta-analysis.

Presenter: Richard Neal
Coauthors Puvan Tharmanathan, Barbara France, Stephen Cotton, Nafees Din, Tim Peters, William Hamilton, John Belcher, Nick Stuart, Una MacLeod, Elizabeth Mitchell, Clare Wilkinson

Introduction

The time from first symptoms to diagnosis ('symptom duration') can be long in some cancers. If a positive association exists, it would suggest that interventions reducing this duration should improve cancer outcomes. We aimed to determine this association in gynaecological and upper gastrointestinal cancers and melanoma.

Methods

A systematic review of the literature was conducted, including studies with both symptom

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duration and outcome data (stage, survival or HRQOL). In this paper we report the findings for gynaecological and upper gastrointestinal cancers and melanoma; this is part of a wider review of all cancers.

Results

1. Gynaecological. For cervical, 5 studies were included; 3 reported no association, and 2 reported a positive association between 'patient delay' and advanced stage. For ovarian, 6 studies were included; no evidence of associations were reported. For endometrial, 7 studies were included; 2 showed longer symptom duration was associated with advanced disease, and one population-based study suggested an inverse association between post-presentation interval and survival. No meta-analyses were possible.
2. Upper gastrointestinal cancers. 21 studies were included. There was some evidence in gastric cancer that longer symptom duration was associated with better survival, although overall the findings were ambiguous; there were no convincing data that shorter symptom durations were associated with better outcomes. No meta-analyses were possible.
3. Melanoma. 14 studies were included, of which 5 studies reported the effect of symptom duration on tumour thickness; the findings from these were ambiguous. 4 of these were entered into a meta-analysis; the pooled estimate showed no evidence of a meaningful association.

For all three cancer groups, many of the included studies were of poor quality.

Conclusions

The design and analyses of the included studies did not account for the minority of patients with aggressive disease who present quickly, yet do badly. This, along with other methodological issues means that the findings do not provide a clear result, despite 'biological' reasons why this should be so. Until we have well-designed and well-analysed studies to answer this question, it is impossible to determine the likely effect of interventions to reduce symptom duration.

P072

A systematic review of women's and health professionals' views on human papillomavirus (HPV) testing in the context of cervical screening

Presenter: Maggie Hendry
Coauthors M Hendry, D Pasterfield, R Lewis, R Adke, C Wilkinson on behalf of the HPV core messages team

Introduction

Cervical cancer is related to infection with high-risk HPV for which there is no treatment. HPV testing within the screening context may benefit women with mild abnormalities. The issues surrounding HPV testing within screening programmes are complex, and the best management of women testing HPV positive are currently being debated. However, testing is an effective means of distinguishing women who have a higher risk of developing cervical cancer from those at very low risk, possibly reducing referral to colposcopy and repeat tests, reducing anxiety for some women, and be cost effective for the NHS. Women's response to HPV testing and triage is likely to be influenced by their views, perceptions and understanding of HPV infection.

Methods

We searched 12 databases, supplemented by hand-searching, for relevant qualitative studies and surveys. Two reviewers independently screened titles and abstracts, considered papers for inclusion and resolved disagreements by consensus. Study quality was assessed similarly using predefined checklists.. Studies were data-extracted into pre-defined tables. For qualitative studies, data synthesis was conducted using the framework approach: familiarisation with the data, identifying a thematic framework, indexing, charting, mapping and interpretation. Survey results were described in a narrative synthesis.

Results

Eleven qualitative studies and eight surveys met our inclusion criteria. Preliminary analysis indicates that women's knowledge and understanding of HPV was poor and that they wished to be better informed. Many over-estimated their cervical cancer risk or were unaware that HPV is a sexually transmitted infection. Anxiety was related to feelings of stigma, shame and blame and the implications for relationships as well as concerns about health and fertility.

Conclusions

This review identifies women's misconceptions, knowledge gaps and information needs. These will need to be addressed, if HPV testing and triage are to be extended beyond the sentinel sites, in order to improve women's understanding of HPV, reduce anxiety and increase confidence in the screening programme.

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P073

Making condom use interventions effective for STI prevention: A systematic review and content analysis of randomised controlled trials of interventions promoting effective condom use

Presenter: Cari Free
Coauthors K Devries

Introduction

Unsafe sex is believed to be the second most important risk factor for disease, disability or death in non- industrialised countries, and the ninth most important factor in industrialised countries. Our published systematic review of randomised controlled trials of interventions promoting effective condom use found that many trials with objective STI outcomes reported beneficial effects, but were highly heterogeneous in their effects. Differences in the content of behaviour change interventions may explain differences in effects.

We aimed to:

Modify Abraham and Michies typology of behaviour change techniques for sexual health

Describe the content of behaviour change interventions to increase effective condom use

Test whether interventions containing all of the following components would be more effective than those that did not: Personalised information about risk, identification of barriers to condom use and problem-solving strategies, explicit instructions and/or demonstration on how to use condoms, and explicit instructions and/or demonstration of condom communication techniques.

Methods

Drawing on qualitative and qualitative research regarding sexual behaviour we modified Abraham and Michies typology of behaviour change techniques for sexual health interventions.

Inclusion criteria: trials with biologically validated STI outcome measures included in our published systematic review.

Data extraction. KD and CF independently scored interventions for the presence of 50 components.

Data analysis. We calculated inter-rater reliability for scoring (Cohen's Kappa, % agreement). We performed a random effects meta-analysis. Heterogeneity was assessed using a chi-squared test and I2 test. All analyses were conducted using STATA 10.0.

Results

Ten trials with 17357 participants met our inclusion criteria. Inter-rater agreement was high (100% for 45 components, kappa = 0.74 for 5 components). Nine techniques had not been employed by any intervention. The pooled relative risk (RR) for interventions containing all the components specified in our hypothesis was 0.82, 95%CI 0.74=0.91, I squared 28.2 p=0.209. The pooled RR for trials of other interventions was =0.91, 95%CI 0.70-1.18, I squared 60.3, p=0.039).

Conclusions

Pooled analysis of interventions with all the pre specified components show beneficial effects in reducing STI. Some behaviour change techniques have not to date been utilised in interventions promoting effective condom use, their role should be explored in future interventions.

P074

Higher-dose versus lower-dose renin angiotensin system inhibition for the treatment of type 2 diabetes and microalbuminuria: a systematic review

Presenter: Claire Blacklock
Coauthors J Hirst, R Stevens, N Roberts, A Farmer

Introduction

Microalbuminuria in type 2 diabetes increases cardiovascular and renal risk. Inhibitors of the renin-angiotensin system reduce urinary albumin excretion and cardiovascular (CV) events. This systematic review aims to identify the extent of dose related benefits found in randomised trials, to inform decisions surrounding titration and monitoring.

Methods

Medline, Embase and Cochrane databases were searched from Jan 2006 to Sep 2009, reference-lists were searched, and results from a Cochrane review to 2006 were included. Inclusion criteria were: randomised controlled trial of at least 6 months, angiotensin-receptor blocker (ARB) or angiotensin-converting enzyme inhibitor (ACE), compared with alternate dose, or placebo/no treatment. Trials were pooled comparing alternate-dose ARB, and indirect comparisons reviewed of single-dose ACE or ARB compared with placebo/no treatment.

Results

Alternate doses of ARB (1051 participants) were compared in 4 trials. We also looked at 6 trials comparing single-dose ARB with placebo (1668 participants) and 12 trials comparing single-dose ACE with placebo or no treatment (6634 participants). No studies compared alternate doses of ACE. Reduction in urinary albumin excretion rate (UAER) was significantly greater with higher-dose ARB, than lower-dose (-

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14.07% difference, 95% confidence interval -19.98 to -8.17), with greater regression to normoalbuminuria (odds ratio, OR 1.66) and protection from macroalbuminuria (OR 0.62). Adverse event profile favoured lower-dose ARB, however was not significant (OR 1.77, p 0.12). Two large studies comparing ACE vs placebo suggested fewer CV events with ramipril 10mg (OR 0.67) than ramipril 1.25mg (OR 0.89).

Conclusions

Higher doses of ARB reduce UAER in type 2 diabetes with microalbuminuria to a greater extent than lower dose ARB. Studies in high risk populations suggest UAER is associated with CV and renal risk, and that there is a subsequent benefit in reduction. Higher-dose ACE significantly reduced CV events, but low-dose did not improve outcomes, in two large studies. The effect of ACE dose on UAER in this population is not established. Our findings support current guidance to titrate RAS inhibitior to maximum dose. Clinicians should be aware of potential adverse events with higher doses, and consider titration to the maximum dose tolerated.

P075

Exploring the potential of email as a method of consultation in UK primary care – a qualitative study.

Presenter: Helen Atherton
Coauthors Atherton, H. Pappas, Y. Murray, E. Car, J.

Introduction

Email is a popular way to communicate and is in widespread use across several sectors, for instance finance and entertainment. Despite this, its use in healthcare is not routine and it has been proposed that healthcare lags behind other sectors in this regard. At present there is no standardised system in place for email consultation and there has not been any exploration of its potential. Email consultation can be thought of as a complex intervention, comprising both the email and the associated processes surrounding it. Consideration needs to be made for this complexity investigating its potential.

Methods

To explore the potential of email as a method of consultation in UK primary care and describe the key factors that may influence its normalisation in practice.

Results

To date, one patient, two GPs, one CBT practitioner/GP and one practice manager have been interviewed. Coding and analysis is still at an early stage, however amongst these participants preliminary themes arising concern workload, level of confidence with technology, concerns about the 'digital divide', the asynchronous nature of email and anxieties about response, as well as the convenience, context and content of email. Several experts have also been interviewed (policymakers, medical ethicist, chief information officer for three London PCTs) and these have presented conflicting views on the progress of technology in healthcare and the effect of this on patients.

Conclusions

The key themes will be discussed along with the implications for the potential normalisation of this technology. Any issues or points of interest arising from interviews will be discussed.

P076

'Living well with multiple morbidity': The development of a primary care-based complex intervention to support patients in deprived communities with multimorbidity

Presenter: Stewart Mercer
Coauthors S Wyke, G Watt, B Guthrie, L Fenwick, K Lawson, A McConnachie, R O'Brien, M Johnson

Introduction

Multimorbidity is becoming the norm rather than the exception in primary care patients and will become more prevalent as the population ages. Multimorbidity cuts across the vertical paradigm of single conditions underpinning most policy and health services research, and presents challenges to patients and health care professionals alike. 'Living Well With Multiple Morbidity' is a four year primary care-based research programme funded by the Chief Scientist Office of the Scottish Government to develop and test a complex intervention to enhance support for patients living with multimorbidity in deprived communities.

Methods

Our overall aim is to develop and evaluate a primary care-led whole-system intervention that helps people to live well with multimorbidity. The research involves five inter-linked workstreams. Workstream 1 will determine how common multimorbidity is in deprived areas of Scotland (compared with less deprived areas) and establish how to 'target' multimorbidity for maximum benefit. Workstream 2 will develop the background for the complex intervention through literature and website review, expert opinion and input from professional, patient and voluntary sector groups. Workstream 3 will evaluate the feasibility of the delivery of the intervention. Workstream 4 will evaluate the

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likely economic impact of the programme. Workstream 5 will be an exploratory RCT with GP practices, to assess the feasibility and likely benefit of the intervention, including cost-effectiveness.

Results

The expected outcomes and benefits for health services, patients, and the public are; a thorough understanding of the healthcare (including self-care) needs of patients with multimorbidity in Scotland, including the scale of the problem, how best to identify and target those likely to benefit from an intervention, and what the individual parts of a whole system intervention should be. The feasibility and likely impact of the intervention will be established, leading the way to a future definitive evaluation

Conclusions

The 'Living well with multiple morbidity' project is at an early stage, and the presentation will outline progress to date in terms of the first two workstreams, compare these early findings with the results of the other presentations in the panel, and consider the particular challenges associated with multimorbidity and deprivation

P077

Developing a pharmacist intervention to improve adherence to hypertensive medications in TIA/stroke patients

Presenter: Anna De Simoni
Coauthors A De Simoni, I Kellar, S Sutton, A Deary, A Farmer, A Blenkinsopp, AL Kinmonth, J Mant

Introduction

Blood pressure (BP) lowering in people who have had a stroke or transient ischaemic attack (TIA) leads to reduced risk of further stroke. National Clinical Guidelines for Stroke recommend a systolic target of 130 mmHg, but many patients do not achieve this. Greater involvement of community pharmacists might facilitate BP control through better medication adherence, in line with their recommended greater role in the care of people with long term conditions (White Paper 2008).

The study aims to develop a behavioral intervention, delivered by community pharmacists, to encourage people with stroke or TIA to take antihypertensive medications.

Methods

The intervention draws on theoretically based motivational and action-planning techniques delivered by practice nurses and positively evaluated in the Supported Adherence to Medication Study (SAMS) in people with diabetes.

The intervention was adapted through discussion with academic and service pharmacists and people with stroke/TIA in a multi-disciplinary meeting, and a survey of attitudes to medication. The intervention will be piloted for feasibility in practice prior to evaluation in a randomized control trial.

Results

Compared with practice nurses, pharmacists have had little training in communication and people with stroke have difficulties with reading, writing, speaking and assertiveness. Patients appear strongly motivated to take their medication.

The intervention addresses these needs and is modeled on three components: 1. oral action-planning, 2. focused medicines use reviews and 3. motivational intervention. Patients with uncontrolled hypertension entering the trial will get a new antihypertensive therapy and will be given a shared care card.

Pharmacists will be prompted by the card to do a review of the patients' current antihypertensive medications and to make an action plan to increase compliance. Therapy and action plan will be reviewed at every new collection of prescriptions. Uncontrolled BP due to poor adherence will trigger a motivational component.

Conclusions

The patient population has currently been broadened to include all hypertensive patients with BP >150 mm Hg, type 2 diabetes and cardiovascular disease patients with BP >140 mm Hg. Patient involvement is central to the development of this complex behavioral intervention. Pharmacist Training, in particular in relation to communication skills, will be key.

P078

Developing a model to identify those at risk of positive AUDIT score from routine data

Presenter: Lucy Craven
Coauthors M Moore, S Harris, P Roderick, G Leydon, W O'Brien, C Bowerman, N Sheron

Introduction

Deaths from Alcoholic Liver Disease (ALD) have risen by a factor of ten in the last thirty years and this is set to rise again. Of these, at least half of all deaths occur within a few months of presentation. Cirrhosis develops silently and presents late; up to 50% of subjects die before they have a chance to stop drinking. New screening tests mean it may be possible to detect early fibrosis but an efficient way of identifying those at risk is needed.

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Aims:To develop an electronic search tool that will identify those at high risk of excess alcohol consumption (AUDIT positive).

Methods

Postal screening of 10,000 randomly selected adults aged 25-55 was conducted for a study on liver fibrosis markers. Response rate to the initial screening was 3677/8703 (42%) Of these responders 906 25% screened AUDIT positive. Potential markers of alcohol use were determined by combining a notes search on study participants and a literature review Candidate READ codes were used in an anonymised electronic search in those with known AUDIT status at 4 sites in a training set to produce a potential model. This model is currently being validated at a further 5 sites.

Results

1261 patients were in the training set. The ideal model produced used; accident and emergency attendances, injury episodes and units of alcohol consumed over a 10 year period. This produced a sensitivity of 79% and a specificity of 77%. A 'missing' model was also produced as alcohol history was not able to be determined at some sites. This used depression, accident and emergency attendances, injury episodes and stress, also over a ten year period. A sensitivity of 68% and specificity of 66% was produced.

Conclusions

It seems feasible to identify those at higher risk of AUDIT positive status from routine data. The addition of prior alcohol history improves the performance of the model.

P080

Multimorbidity in older British men: which conditions carry greatest burden?

Presenter: Richard Morris
Coauthors K Walters, SG Wannamethee, P Whincup

Introduction

The co-occurrence of several chronic conditions, known as multimorbidity, has been seen as a threat to quality of clinical management and resulting in worse patient outcomes and increased health care costs. The prevalence of multimorbidity increases with age, but the most common combinations of chronic conditions and their impact, have still to be elucidated.

Methods

A socially representative cohort of British men, born between 1918 and 1939 were recruited through 24 general practices across Great Britain in 1978-80. 3540 surviving participants responded to a postal questionnaire in 2005 when aged 65 to 87. A series of questions on doctor diagnoses of 22 different common medical conditions were asked, as well as a four category self-rating of health (excellent/good/fair/poor). Prevalence of each condition was calculated, together with the number of other conditions suffered and the estimated effects of each on self-rated health. The independent relative risk of each condition for poor or fair health, combined with its prevalence, was combined into a series of population attributable risk fractions (PARFs), to assess conditions with the greatest population burden in older men.

Results

The most prevalent conditions were arthritis (33%) and prostate problems (26%). Levels of co-morbidity were high, ranging from a mean of 2.4 other conditions for prostate problems to 4.1 other conditions for heart failure. Emphysema was associated with the greatest adjusted odds ratio of poor or fair health (4.1), followed by heart failure (3.0) and Parkinson's disease (2.7). The PARF was however greatest for arthritis (22%), bronchitis (15%) and angina (13%). No interaction was detected in the effect on self-rated health between bronchitis and either arthritis or angina, but men with both angina and arthritis reported less poor health than predicted from the additive impacts of each condition separately.

Conclusions

Multimorbidity was commonly reported by older British men and each chronic condition had a substantial impact on self-rated health. Arthritis, bronchitis and angina were associated with the greatest health burden at a population level. Research is required to understand how these three conditions impact on each other and on other conditions. Although the data were cross sectional, and the power to investigate interactions between conditions on self rated health was limited, the unexpected lesser impact of the angina-arthritis combination deserves replication.

P081

The prevalence of multimorbidity in primary care and its effect on healthcare utilization and cost.

Presenter: Jose Maria Valderas
Coauthors LG Glynn, JM Valderas, P Healy, E Burke, J Newell, P Gillespie, AW Murphy

Introduction

Multimorbidity (the simultaneous presence of two or more chronic conditions simultaneously) is common among the heterogeneous primary care population, but little data exists on its effect on healthcare utilization or cost. The aim of this

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study was to examine the prevalence and associated healthcare utilization and cost of patients with multimorbidity in primary care.

Methods

All patients >50 years of age with at least two consultations in the previous two years were eligible for the study. Chronic conditions of greater than 3 months duration were identified from patient records through manual record search. Healthcare utilization of primary and secondary care services for the previous 12 months was also extracted from patient records.

Results

In a sample of 3309 patients in the community, 66.2% (95% CI: 64.5, 67.8) had multimorbidity. Healthcare utilization and cost was significantly increased among patients with multimorbidity ($p<0.001$). After multivariate adjustment for age, gender and free medical care eligibility, increasing number of chronic conditions was associated with a significant increase in primary care consultations ($p=0.001$), hospital outpatient consultations ($p=0.001$), hospital admissions ($p=0.01$) and total healthcare costs ($p<0.001$).

Conclusions

Multimorbidity is very common in the community and in a system with strong gatekeeping is associated with high levels of healthcare utilization and cost across the healthcare system. Interventions to address quality and cost associated with multimorbidity must focus on primary as well as secondary care.

P082

What factors affect accrual rates for exercise trials in the older population in Primary Care?

Presenter: Sarah Scott
Coauthors C Barlow, D Haworth, S Gawler, Z Stevens, D Kendrick, S Iliffe

Introduction

Recruitment to exercise trials in primary care has historically been poor. The ProAct65 study is a large multicentre cluster randomised controlled physical activity trial for people aged 65 and over in primary care. During the first 6 months of recruitment actual accrual diverged from predicted. We set out to explore barriers to recruitment and which methodological factors may affect accrual in a preliminary sample from the London arm of the trial.

Methods

Patients aged 65 and over from 11 practices within 5 London PCTs were invited by post to return expressions of interest in the study. Respondents were subsequently screened by telephone to establish eligibility and invited to an initial appointment unless they were already reaching recommended activity levels, frequently falling, or unwell. At appointments researchers confirmed eligibility, obtained consent and carried out baseline assessments. Practices were randomised to receive one of two physical activity interventions or usual care.

Results

During 6 months of recruitment, 5139 patients were invited to participate. 14% (n=714) expressed interest and of these 66% (n=469) were invited to assessment. 11% (n=77) were excluded at telephone screening as they already reached recommended activity levels, and 23% met further exclusion criteria. A total of 17% of those who expressed interest were deemed too fit to participate. 71% of those assessed were consented and of those who did not consent, 34% were excluded for being too fit. Predicted cumulative accrual at 6 months was 480; actual 349. 19% (n=62) of those who consented subsequently dropped out; 42% due to group allocation, 13% due to ill health, 11% due to the burden of paperwork and 34% for other reasons.

Conclusions

Barriers to recruitment include; 1)attracting a more active population; 2)initial telephone screening proving less reliable than expected and; 3)dropouts following allocation. Overall fitness levels in respondents are higher than in the general population, increasing the proportion meeting exclusion criteria. Despite initial telephone screening to exclude those already too fit, frequent fallers or those likely to be absent during the intervention period, 11% of subjects assessed were excluded at appointments for meeting these criteria. These factors have prolonged recruitment time thus reducing accrual.

P083

An Epidemiological Research Project on Antibiotic Prescribing in Children with Sore Throats

Presenter: Jatinder Singh Jheeta
Coauthors S de Lusignan
A Tahir, E Koshy, S Saxena

Introduction

Respiratory tract infections are the commonest acute problem managed in primary care. Childhood respiratory tract infections result in more primary consultations than any other acute condition. Sore throats in children are very common presentations in general practice. Randomised placebo-controlled trials have demonstrated that antibiotics have limited efficacy in treating sore throats in children.

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Furthermore, time-trend analyses show there is no convincing evidence that lower prescribing rates are associated with significantly higher rates of complications. Respiratory tract infections are responsible for 60% of antibiotic prescribing in general practice. As children receive a significant proportion of the total antibiotic prescriptions each year, it is essential to focus attention on reducing unnecessary antibiotic use. Our Primary Outcome Measure aims to determine the rate of antibiotics prescribed in children aged >3 months and <18 years old with sore throats in a one year period. Our Secondary Outcome Measure aims to identify respiratory tract infections in children aged >3 months and <18 years old for which antibiotics are prescribed and for which antibiotics are appropriate due to risk factors, co-morbidities and Centor scores. Our standards state that 70% of children with sore throats should not be prescribed antibiotics.

Methods

12 general practices linked to our department using different brands of electronic patient records systems (EPR) were recruited. All children aged >3 months and <18 years who were coded in the general practice for sore throats were identified. Our dataset was developed from Read Codes chosen following discussions between General Practitioners and a Consultant Paediatrician, and by process evaluation through questionnaires to general practitioners. Electronic searches of patient records over a one year period were then conducted using Read Codes to identify sore throat and upper respiratory tract infections, antibiotics and co-morbidities. A random sample of 20 electronic patient records were 'hand-searched' to validate the audit data obtained electronically. Data was analysed using SPSS and feedback to all practices conducted to recommend and implement changes from prescribing to better Coding. A re-audit pack has been constructed to re-audit in one year and thus complete a full audit cycle.

Results

Late breaking, Results to follow shortly.

Conclusions

Late breaking, Conclusions to follow shortly.

P084

The impact of the Quality and Outcomes Framework (QOF) on recording of smoking status and cessation advice in primary care medical records

Presenter: Jaspal Taggar
Coauthors T Coleman, S Lewis, L Szatkowski

Introduction

Smoking is the biggest UK public health threat but GPs can be effective in helping patients to quit; consequently, the QOF incentivises the recording of smoking status and delivery of cessation advice in patients' medical records. This study investigates whether or not such recording, or the factors which influence these clinical activities, have changed since the QOF's introduction.

Methods

For 2000 to 2008, from medical records in The Health Improvement Network (THIN) database, the proportions of i) patients who had a record of smoking status made in the previous 27 months and ii) current smokers recorded as receiving cessation advice in the previous 15 months were calculated. Then, for all patients at selected points before and after the QOF's implementation, data on gender, age, Townsend score, and smoking-related morbidity data were extracted and multivariate logistic regression used to investigate individual-level characteristics associated with recent recording of smoking status and cessation advice.

Results

Rapid increases in the recording of both smoking status and advice occurred around the introduction of the QOF in April 2004. In subsequent years, rates of increase have slowed, such that by 2008 67.1% of patients aged 15+ had smoking status documented in the previous 27 months and 51.2% of current smokers had cessation advice recorded in the last 15 months. Adjusted odds ratios show that, both before and after the introduction of the QOF, women, those living in more deprived areas and those with chronic medical conditions were more likely to have their smoking status or cessation advice recorded recently; odds ratio sizes suggest that these factors have become more important predictors since the QOF's introduction.

Conclusions

Recording of smoking status and brief advice against smoking have become more comprehensive since the QOF's introduction and appear most likely to occur when these activities attract remuneration. The challenge for primary care is to ensure that recorded cessation interventions are delivered to a high standard to all smokers and so have the potential to exert maximum population health gain.

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P085

A qualitative analysis of processes of change in an asthma self-care intervention

Presenter: Sarah Denford
Coauthors C Greaves, J Campbell

Introduction

Poor control over asthma can lead to increased symptoms, healthcare use and morbidity. Systematic reviews show that self-care interventions improve asthma outcomes. However, evidence explaining how and why such interventions are effective is lacking. The aim of the current research is to explore processes of behaviour change that occur during the delivery of a nurse led complex intervention aiming to improve self-care in adult asthmatics.

Methods

Semi-structured post-intervention interview data was collected from 21 patients (intervention recipients) and 9 nurses (intervention deliverers) and from consultation transcripts. Data was collected at three time points - twice during and once following the intervention - to provide individual case narratives across the duration of the intervention. Framework analysis was used to test and refine the (pre-specified) theory underlying the intervention. The identified concepts and themes reflecting underlying behaviour processes were also related to quantitative and qualitative data on changes in self-care behaviour.

Results

Six main themes relating to processes of behaviour change were evident from the data. These included patient processes (illness understanding, emotional problems, and motivation) and intervention/interaction processes (individual tailoring, active patient involvement and collaborative action planning).

Conclusions

It was possible to identify psychological processes and intervention processes (techniques used by nurses to facilitate change e.g. individual tailoring, active patient involvement and collaborative action planning) that occurred during the intervention. The theoretical model, a grounded theory of asthma self-care, was broadly validated but was also considerably enriched and extended by the analysis. Knowledge, emotions, and motivation needed to be addressed before change occurred. Patient focused, individually tailored interventions and collaborative action planning were associated with change in knowledge, emotions and motivation.

P086

The use of self care in patients with long term health problems

Presenter: Fiona MacKichan
Coauthors C Paterson
N Britten

Introduction

There is increasing impetus for supporting self care within primary care. As part of a larger programme of work aimed at enhancing self care support in primary care, this study explored the extent of self care in the community for 6 common long term health problems; back pain, headache, tummy problems, stress, menstrual problems and fatigue.

Methods

A cross-sectional postal survey was employed, with 3,060 adults identified at random through 3 GP practices in the South West of England invited to participate. In addition to consulting behaviour, demographic data and use of complementary and alternative medicine, data on the use of 20 self care activities were collected. Respondents also reported on utilisation of sources of information (including media, informal and medical sources), and trust in those sources.

Results

1317 people (45.8%) responded to the survey, of which 547 met inclusion criteria and completed the survey questionnaire. Back pain was cited as the primary health problem by over one third of respondents, although 63.8% reported having multiple long term problems. .. Nearly every respondent used self care for their primary health problem. The mean number of self care activities reported was 4 (std. dev 2.9); over half the sample reported using 4 or more specific self care activities. Female ($t = -5.7$, $p<0.01$), and younger ($r = -.175$, $p<0.01$) respondents engaged in a greater number of self care activities. The extent to which respondents were bothered by their problem influenced level of self care, accounting for 11% of variance in a multiple regression. Age and sex accounted for a further 6% of variance. 75% had sought out information about their health problem in the previous 6 months, although the sources of information utilised did not reflect the degree of trust in those sources. 87% reported trusting their GP as a source of information, with nearly 20% reporting that they would trust their GP alone.

Conclusions

Self care has an important role in the management of long term conditions. GPs are uniquely placed to support self care; despite evidence of information seeking from multiple

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sources, they are a trusted source of information and advice.

P087

Living well with multiple morbidity: a qualitative study to inform the design of an intervention to support patients

Presenter: Stewart Mercer
Coauthors R O'Brien, S Wyke, G Watt and S Mercer

Introduction

Multiple morbidity (MM), defined as <2 long-term conditions, is common in patients attending primary care, particularly in deprived areas. Primary health care teams are often in the best position to help people manage MM but there is little research evidence, from the perspectives of patients and health care professionals, about what kind of help is most likely to work and why. The aim here is to present preliminary findings on patient's, general practitioner's (GPs) and practice nurse's (PNs) views of what would most help patients to live well with MM.

Methods

Individual semi-structured interviews were conducted with a purposive sample of 19 primary care staff (GPs and PNs in four practices) and 20 patients working, or living, in areas of high deprivation in Glasgow. Constant comparison was used to examine the commonalities and differences within and across interviews.

Results

Staff in two of the practices described how longer consultations could support a 'whole person' intervention; helping patients to negotiate MM in the context of often "chaotic" lives. However, some were pessimistic about the practicalities of engaging and supporting patients living in deprived areas. GPs and PNs in the third practice described why it had been necessary to create boundaries between 'the medical' and 'the social'. Some focused on medical management because 1) this was believed to be the principle role of a GP in supporting self-management and 2) this enabled health professionals to manage the emotional burden of working in areas of high deprivation and caring for a constant stream of complex patients. Patients, who were identified by GPs as in need of greater support, described how they currently managed living their lives with multiple conditions and reflected on the approaches that primary care might take to support them in future.

Conclusions

Longer consultations and greater continuity of care could improve the experience of care for some patients with multiple morbidity. Early findings suggest that these system changes might also offer benefits to primary care staff, who described experiencing difficulties in their own management of a high volume of complex patients. Further developmental work will be undertaken, involving practice teams and patients, before an intervention is introduced and outcomes evaluated.

P088

Evaluating the effectiveness of a community mentoring intervention to alleviate social isolation in older people

Presenter: Andy Dickens
Coauthors S Richards, A Hawton, C Green, R Taylor, R Edwards, C Greaves, J Campbell

Introduction

The UK has an ageing population, with a greater proportion of older people living alone. 'Quality of ageing' has become one of the most important social, political and health priorities, forming a major component of recent Government policy. A pilot mentoring service was implemented for older people most at risk of social isolation. Early observational research indicated that mentoring may have psychosocial benefits. The aim of the current trial was to examine the effectiveness of the mentoring intervention.

Methods

This case-matched controlled trial compared a sample of mentoring clients (intervention group) with people recruited through general practice (control group). Participant assessments were conducted at baseline and six month follow-up. The primary outcome was SF-12 MCS with secondary outcomes including SF-12 PCS, EQ-5D, GDS-10, social activity, social support and morbidities. Participants were matched on SF-12 MCS and social activity score. The trial ran from March 2007 to April 2009.

Results

No between-group differences were observed at follow-up in the primary (mean difference= 0.8; 95% CI -1.5, 3.2; p=0.48) and most secondary outcomes. The intervention group reported less improvement on the EQ-5D (mean difference= -0.1; 95% CI -0.1, -0.03; p<0.01) and poorer scores on one social activity item (OR= 0.6; 0.4, 0.9; p<0.01), but reported better scores for one social support item (OR= 0.6; 95% CI 0.5, 0.8; p<0.001).

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Conclusions
We found no evidence that mentoring was beneficial across a wide range of participant outcomes measuring quality of life, health status, social activity and depression. We reflect on the representativeness of the mentoring client sample and the implications for interpreting the trial results.

P089
Cost-effectivness of sickness certification for back pain
Presenter: Martyn Lewis
Coauthors M Lewis, G Wynne-Jones, P Barton, DGT Whitehurst, S Wathall, NE Foster, EM Hay, D van der Windt
Introduction
One in 10 patients registered with a general practice will receive a sickness certificate (SC) each year. However, the cost-effectiveness of issuing a SC is currently unknown. We conducted a cost-effectiveness analysis of SC (versus no SC) for adults presenting with low back pain in primary care.
Methods
Medical record data on consultations, referrals and SC were linked to survey data from a large observational cohort study of consulters with low back pain carried out in 2005. Outcome measures were the Roland and Morris Disability questionnaire and EuroQoL EQ-5D. These were assessed at baseline, 3 months and 6 months follow-up. Medical records for 6 months follow-up were linked to the patient data from the questionnaires to provide cost estimates alongside outcomes. Consulters were grouped into SC or no SC (N-SC) based on their status at their consultation for the current back pain episode. Cost analysis focused on the healthcare perspective, which combines resources consumed within the NHS and societal costs due to work absence. Additional questions in the 6-month follow-up questionnaire gathered information on lost productivity (through absenteeism and presenteeism), and these costs were pooled with the healthcare costs so that the societal perspective could be evaluated.
Results
The results showed that the probability of SC being cost-effective was low (<10% for a willingness-to-pay threshold of £50,000 or less (societal perspective)).
Conclusions
These findings indicate that SC is unlikely to be cost-effective. Analyses were adjusted for potential confounding, but given that the study is observational, residual confounding may still account for some of the differences in costs of SC. Although SC may be appropriate for some individuals with acute back pain episodes, SC on the whole is detrimental to the patient, clinically, socially and economically. These results suggest that sickness certification may also be detrimental on a larger societal level.

P090
Presentation, diagnosis, and management of skin and soft-tissue infections in primary care: pilot observational study
Presenter: Nick Francis
Coauthors C Butler, K Hood
Introduction
Acute bacterial skin and soft-tissue infections (SSTI) in primary care are common, can significantly impair quality of life, cause serious consequences, and are difficult to diagnose. There is little research evidence on how these infections present or are managed in primary care. In addition, there is little data about diagnostic accuracy of SSTI in primary care.
Methods
General practitioners in two practices were each asked to recruit 20 adults presenting with a SSTI. A nurse then conducted a structured interview and examination, took clinical photographs of the infected area, a blood sample, and swabs from the anterior nares and any break in the skin. Participants were asked to complete a symptom diary and return for a follow-up appointment at one week. They were also telephoned at two-weeks to record recovery and ask for their views on participation. A dermatologist reviewed the case history and clinical photographs of 20 cases and determined likely diagnosis and the appropriateness of antibiotics.
Results
Both practices recruited their target of 20 participants. The most common diagnoses were: cellulitis/infected trauma/infected insect bite (33%), boil/paronychia (24%), impetigo (13%), and infected eczema (11%). The most common features at presentation were redness (95%), pain (79%), swelling (69%), and itching (62%). The median Dermatology Life Quality Index (DLQI) score at presentation was 8 (range 0-24), which represents a moderate effect on the patient's life. 92% of the participants were prescribed antibiotics (89% oral and 11% topical). At one week, 50% still had moderately bad symptoms and the median DLQI score was 4 (range 0-22). Primary care and dermatology diagnosis were the same for 37% of cases, there was agreement that a bacterial skin infection existed in 55% of

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cases, and agreement about the need for oral antibiotics in 30% of cases. Interviews with patients and participating general practitioners and nurses revealed that the study was considered important, and was acceptable and feasible.

Conclusions

These data suggest that SSTI have a moderate effect on quality of life and are primarily managed with antibiotics. Most of these infections do not resolve within one week. Diagnostic agreement between primary care clinicians and dermatologists appears to be poor. There is evidence that this study is feasible and acceptable to clinicians and patients.

P091

Diabetes services across primary and secondary care settings

Presenter: Sheena Mc Hugh
Coauthors M O'Donnell, M O'Mullane , A de Siun , S Dineen (Dr) , C Bradley (Prof) on behalf of the National Diabetes Register Project

Introduction

The aim of this study was to describe current level of diabetes care among primary and secondary care providers in Ireland.

Methods

A postal survey of a random sample of 600 general practitioners (GPs) and a telephone survey of all 36 public hospitals providing outpatient diabetes care.

Results

A 44% response rate was achieved in the GP survey with a 58% response rate for 9 key questions. The response rate among hospitals was 97%. Sixty percent of GPs reported managing newly diagnosed Type 2 diabetes (T2DM) patients in the practice until additional care was required. Newly diagnosed patients were seen within 3 months by 41% of hospitals and within 6-12 months by 21%. The majority of GPs always referred T2DM patients requiring transition to insulin to the local hospital based team (81%). Most hospitals reported waiting times of one month or less for patients requiring transition to insulin (59%). Almost all hospitals recalled patients with stable T2DM (91%) with 49% recalling patients every 10 to 12 months. Half of the GPs surveyed had a recall system in place for reviewing patients (50%). Forty-six percent of GPs recalled patients every 1 to 6 months, with 3% recalling patients after 7 to 12 months. Ancillary services were deficient in both settings as 43% of GPs did not have direct access to chiropody services and 35% of hospitals did not have access to a chiropodist/podiatrist as part of their outpatient service. Dedicated dietician services for outpatient diabetes services were not available in 26% of hospitals and 37% of GPs reported having no direct access to a dietician. Just over a third of hospitals reported liaising with GP practices (37%). Only 3% of GPs reported having regular meetings with the hospital based team. Most GPs did not have a formal shared protocol with the local hospital diabetes team (89%) while only 10% reported having ever had a joint meeting with the hospital based team.

Conclusions

There is significant variation both within and between settings in terms of the provision of diabetes care. A lack of formal co-ordination and integration between primary and secondary care settings may lead to duplication of services or gaps in care.

P092

Mycoplasma pneumoniae in children with persistent cough: a retrospective cohort study

Presenter: Kay Wang
Coauthors A Harnden, V Chalker, T Harrison, D Mant

Introduction

Mycoplasma pneumoniae (MP) is an established cause of persistent cough in children, which can result in localised epidemics and severe illness in vulnerable contacts. The aims of this study are to estimate the prevalence of MP and to examine the diagnostic value of clinical symptoms in the detection of MP in children with persistent cough.

Methods

Between October 2001 and March 2005, 179 children aged 5 to 16 years presenting to their general practitioner with a cough lasting 14 days or more were recruited from 18 practices in Oxfordshire. Nasopharyngeal aspirates obtained from 154 children were tested for MP using a real-time PCR (Polymerase Chain Reaction) assay targeting the CARDS (Community-Acquired Respiratory Distress Syndrome) toxin gene (Mp181). A detailed cough history was recorded for each child on study entry. Parents and children were also asked to complete a daily cough diary for two weeks and then a weekly cough diary for the duration of the cough.

Results

Evidence of MP infection was detected in 12/154 children (7.8%). Mean cough duration in MP-positive children was 23.3 days (standard deviation=7.7) at study entry. Headache was a significant predictor of MP (Positive Likelihood Ratio (LR+) 1.58, 95% confidence interval 1.17-

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2.12). Vomiting (LR+ 1.12(0.68-1.85)), cyanosis (LR+ 2.63(0.64-10.82)), sinus pain (LR+ 1.37(0.48-3.86)), sweating (LR+ 1.32(0.79-2.20)) and wheeze (LR+ 1.10(0.54-2.21)) were also positive predictors but were not statistically significant. The presence of 5 or more coughing episodes a day was a significant predictor of MP in children whose cough was still present 7 days after study entry (LR+ 1.64(1.24-2.18)).

Conclusions

MP can be found in almost 1 in 10 children with a persistent cough. Headache and increased cough frequency in these children suggest a diagnosis of MP. However, further research is needed to examine how the diagnostic value of clinical symptoms might vary according to cough duration and the presence or absence of concurrent respiratory infections.

P093

Primary care research and implementing change in the NHS: Joint working with PCTs, Acute Trusts and University Departments

Presenter: Daniel Lasserson
Coauthors L McCann, Mary Thompson, Matthew Thompson, C Heneghan

Introduction

Primary care research can support healthcare management to deliver assessment and change in pathways of care, yet examples of joint working between university departments, primary care trusts and acute trusts are rare. We report the input from primary care researchers to service redesign in an emergency department (ED) urgent care pathway together with NHS Oxfordshire.

Methods

Four GPs rated ED case records of consecutive patients presenting to the ED for potential treatment in primary care. Agreement was assessed with Cohen's Kappa. An ED primary care service was set up, with triage based on a GP out-of-hours specification. The observed referral rate from ED was compared with that predicted from the initial case record assessment. Time periods during opening hours of the ED primary care service with low referral rate were selected for case note analysis. Clinicians from ED and primary care rated patients not referred due to failure in triage training or to specification restrictions. Disagreement was settled by consensus and changes in referral specification were derived.

Results

Agreement about potential treatment for 629 ED patients in primary care between two GP pairs was low with Cohen's Kappa 0.45 (S.E. 0.05) and 0.42 (S.E. 0.04) respectively. Absolute rates for potential primary care treatment varied from 37.7% to 47.2% (average = 42.9%). Subsequently in 56 days of ED primary care service operation, referrals from ED were <10% on 18 days during which 558 patients were seen in the ED minors department and not referred to the primary care service. Of these, 249 patients (44.6%) were identified as being appropriate for primary care but not referred due to restricted specification (n=240) rather than due to training failure with the specification for primary care referral (n=9). Excluding minor injuries, 113 patients would have required 23 extra specifications to be referred from ED to the primary care service.

Conclusions

Primary care researchers can tackle problems in healthcare requiring service assessment, design and evaluation. Streaming patients from ED triage to primary care requires multiple categories in a referral specification. Primary care run triage in ED may improve selection of the right clinician to see the right patient.

P095

School-based integrated health centres in New Zealand: a preliminary review of purposes, organisation, effectiveness, leadership and research

Presenter: Reynold Macpherson

Introduction

This paper raises the implications of adding a new type of organisation to secondary schools; school-based integrated health centres (SBIHCs) that provide primary health care.

Methods

It provides a preliminary examination of the purposes of SBIHCs, their organisation, effectiveness, leadership and research base. It draws on four main New Zealand sources; research into youth health needs, anecdotal reports of the establishment of some early student health centres, more systematic reports of the general development of SBIHCs, and youth health policy development. It reviews related international research.

Results

This paper finds indications of uneven policy coordination between the Ministry of Health and the Ministry of Education, ad hoc organisational arrangements in schools, uneven attention to Guidelines for establishing SBIHCs, and little evidence concerning the effectiveness of SBIHCs, despite a Best Practice Review.

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Conclusions
Given the accelerated establishment of SBIHCs planned in New Zealand for the period 2009-2012, this paper suggests the need for educational leadership policy development intended to foster inter-professional collaboration, as well as systematic evaluation and case control research that systematically relates organisational arrangements and leadership services to health and educational outcomes.

P096
Trends in blood pressure monitoring and control among individuals with and without cardiovascular disease: 10 year longitudinal study
Presenter: Anthony Laverty
Coauthors A Majeed, A Bottle, C Millett
Introduction
Strategies to reduce the burden of CVD in the UK over the past decade have emphasised improved management of high-risk individuals rather than population based approaches. This has been particularly evident around strategies to improve blood pressure (BP) control. This study examines trends in monitoring and control of BP in individuals with and without cardiovascular disease (CVD) and diabetes between 1998 and 2007. It also examines associations between BP monitoring and control and patient characteristics over this period.
Methods
Longitudinal study of BP monitoring and control among patients registered with general practices in Wandsworth, London between 1998 and 2007. Outcome measures were having a valid BP measurement per year, and this reading being above 140/90 mm Hg. Logistic regression was used to assess associations between demographic factors and measurement and control of BP. Interaction terms were fitted to assess whether trends in measurement and control of BP differed between those with and without CVD.
Results
There have been marked improvements in the percentage of the population having their BP measured between 1998 and 2007, from 13.0% to 36.6% among the non CVD group (with the percentage measured in the previous 5 years reaching 83.7% in 2007), and from 40.3% to 91.7% among those with CVD or diabetes. The percentage with elevated BP decreased at a slower rate in the non CVD group, from 30.7% to 25.2%, , compared with the CVD group (from 56.8% to 36.0%). Among the non CVD group the percentage difference between males and females for measurement of BP has widened from 6.4% to 16.4%, while the percentage difference in control between Black and White patients have narrowed from 10.0% to 3.8%. Among those with CVD or diabetes the percentage difference in measurement between males and females also narrowed from 5.6% to 1.9%, and differences in control between South Asian and White patients decreased from 13.6% to 9.3%.
Conclusions
Measurement and control of BP among those with CVD has improved more markedly over the past decade than among those without CVD. Inequalities in BP control decreased between ethnic groups but appeared to increase between men and women among those without CVD.

P097
Betel nut chewing in Bangladesh-effects on oral health and factors predisposing to long term use
Presenter: Robert Walton
Coauthors Begh AAM Sweeny D Elliott K Johnstone E
Introduction
Betel nut chewing has been practised in the Indian sub continent for several thousand years and currently over 600 million people are estimated to chew betel worldwide. People continuously chew betel nut more then 16 to 17 hours a day and persistent use has been linked to precancerous lesions such as oral sub mucous fibrosis and to oral cancer. Long term use may also have a serious effect on periodontal health. There is relatively little evidence currently existing relating betel nut use to oral disease in Bangladesh.

There is strong evidence for a genetic contribution to addiction to other substances such as tobacco. The major alkaloid in betel nut, arecoline, stimulates nicotinic receptors in the brain in the same manner as nicotine so it seems reasonable to hypothesize that the same underlying processes would determine persistent use. A considerable amount of work has been done on genetic effects on tobacco addiction and specifically the role of the dopamine D2 Taq 1 A receptor polymorphism, however genetic effects in relation to betel nut chewing have not previously been investigated.
Methods
This was an ovservational study with 476 participants rectuited from five major dental hospitals in Bangladesh. Data were collected from questionnaires and clinical examination.

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Genotyping was performed using Polymerase Chain Reaction with sequence Specific primers (PCR-SSP)-DRD2 Taq1A. Statistical analysis was performed by using SPSS version 16.

Results

We found a strong relationship between betel nut chewing and poor periodontal condition ($P < 0.0001$), chance of wearing partial or complete dentures ($P = 0.001$), and with number of missing teeth ($P < 0.001$). Samples were only adequate for genotyping from 176 participants. We found no association between betel or use of other addictive substances (zarda/khayer) and DRD2. There was no association between whether the subject had tried to quit betel and DRD2. However there was an association between whether the subject felt they were addicted to betel and DRD2 status (odds ratio 2.41, $P = 0.04$).

Conclusions

These findings confirm the association between betel nut use and tooth loss and poor periodontal condition. Further study with larger sample sizes are needed to examine the effects of genetic determinants on persistent use of betel nut. Sufficient evidence exists on the consequences of betel use to justify campaigns to raise public awareness of the problem and resulting health problems. Further research is required to establish the optimum methods of helping people to stop chewing betel. Since there are clear similarities with tobacco in its pharmacological action and many users use both substances it might be appropriate to apply similar approaches to those used to treat nicotine addiction.

P098

Personalised therapy for smoking cessation – how can we best develop and evaluate this complex intervention?

Presenter: Robert Walton
Coauthors S Taylor, S Eldridge, C Griffiths, P Hajek, C Seale

Introduction

New therapeutic strategies are urgently needed for tobacco dependence since currently available treatments are only partially effective. Metabolic profile for nicotine is genetically determined and varies considerably between individual smokers. A substantial proportion of smokers currently receive insufficient doses of nicotine when taking conventional nicotine replacement therapy. Thus treatment regimens adjusted according to genetic characteristics offer potential for improved quit rates in smoking cessation programmes.

Methods

The scientific rationale for tailored therapy will be discussed and data from a feasibility study will be reviewed. Plans for developing a smoking cessation intervention incorporating personalized nicotine replacement will be described. Two distinct study designs for evaluating the intervention in a randomized controlled trial will be presented and discussion will be invited on the relative merits of the different approaches.

Results

The substantial advances that have been made over the past few years in personalized medicine have focused on less common diseases in secondary care settings. If these same benefits could be achieved for common illness in primary care there could be substantial health gains.

Conclusions

Theoretical considerations suggest that personalised treatment strategies may be more effective than conventional therapy for smoking cessation however optimum methods for development and evaluation of an appropriate intervention have not yet been adequately developed. It is important that rigorous, well designed evaluations are carried out with comparison against conventional treatments. The principles underlying this process will be important for developing other personalized interventions for application in primary care in the future.

P099

Implementing telephone triage for same-day primary care consultations: What has process evaluation to offer?

Presenter: Sue Rugg
Coauthors Professor N Britten Professor J Campbell Miss E Walshaw

Introduction

Primary care workloads are high and rising, with around a third of the demand coming from same-day patient consultation requests. Telephone triage and consultation is one response to this situation but is under-researched. The ESTEEM trial is the first multi-practice randomised controlled trial to compare nurse- and GP-led telephone triage systems and usual care for managing same-day patient consultations. Telephone triage hinges on the delivery of numerous components, behaviours, targets and outcomes, providing individualised patient care in diverse environments; a truly complex health intervention. Understanding such interventions requires a firm grasp of their nature, and general and local context. Process evaluation is a

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qualitative research approach to achieving such understanding, exploring the processes by which complex health interventions' outcomes develop; the reasons for patient and staff actions, attitudes and approaches to change. Issues of workability and integration are known to influence such interventions' implementation and incorporation into practice (normalisation). The ESTEEM trial contains a parallel process evaluation to explore these issues.

Methods

The trial will be piloted for one year in six practices in Bristol and Devon, before running in 42 (main study) practices in Bristol, Devon, Norfolk and Warwick. Participating practices will be randomly allocated to nurse- or GP-led telephone triage, or usual care, arms. Process evaluation data will come from 45 minute, semi-structured interviews with purposively-selected patients (n=2) and staff (n=5) from each of six diverse (pilot) and 10 diverse (main) practices. Interviews will explore participants' expectations, experiences and views of telephone triage and usual care, local variations in triage implementation and perceived reasons for their success (or not). Field notes from researcher observations in the six pilot practices will supplement these data.

Results

Thematic analysis of the data will illustrate the feasibility of ESTEEM's proposed methods and the fidelity of its triage systems' delivery, as well as such systems' perceived utility and acceptability in general practice use.

Conclusions

There is an urgent need to explore the perceived utility and acceptability of telephone triage as a means of providing enhanced access to primary care for patients seeking same-day consultations. The process evaluation component of the ESTEEM trial explores this gap.

P100

Frequency of Stroke Patients' Consultations in Primary Care – which is the most reliable source, patient or medical record?

Presenter: Tahira Chishti
Coauthors S Kerry, T Harris, D Coster, P Oakeshott

Introduction

Economic evaluations of healthcare interventions may inform clinical practice as the NHS faces growing pressure to control costs. Information on healthcare utilisation by patients is often used in such analyses, and can be obtained subjectively from patients, or more objectively from medical records. Previous work suggests that patients may under report contacts with healthcare professionals, which may lead to the underestimation of costs. However, evidence from primary care on older people and stroke patients is limited. Our objective was to compare information from patient self-reports on GP and nurse contacts, with computerised records in stroke patients.

Methods

We collected data from a sample of 381 patients from 154 practices taking part in a trial for home blood pressure monitoring in stroke patients. Patient self-reported questionnaires were used to assess the number of consultations over the 12 month period of the trial. Consultation data was downloaded directly from general practice computerised records to cover the same period.

Results

To date we have collected information on 31 patients from 14 practices (19 male, mean age 73y, age range 33y-91y). We anticipate data on 100 patients from 50 practices by July 2010. The mean number of GP consultations over 12 months from records was 6.9 (range 0-28) and from patient self-reports 5.4 (range 0-24). The average difference between patients and computer records over 12 months was 1.5 visits (95% CI -0.5 to 3.6).

Patients reported an average of 1.2 visits to the nurse, 1.1 lower than records (95% CI -0.8 to 2.2).

We have found no evidence of a relationship between number of consultations and the accuracy of self-reports.

Conclusions

This is a small study limited to stroke patients in London. Preliminary findings suggest patients tend to under report the number of visits they make to general practice for GP and nurse consultations compared to records.

However, the magnitude of this under reporting may not be large enough to exclude patient self-reports as a valuable source of primary care utilisation data.

If further analysis confirms our initial findings, it may prove more time and cost effective to obtain primary healthcare use statistics directly from patients.

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P101

Acceptability of linking routinely collected NHS data sets to create a paediatric pharmacovigilance database

Presenter: Yvonne Marina Hopf
Coauthors CM Bond, PJ Helms, JAF Haughney, on behalf of CHIMES

Introduction

There is widespread recognition of the vulnerability of children to adverse drug reactions (ADRs) 1,2. Paediatric pharmacovigilance is a recognised priority. The UK Yellow Card Scheme (YCS) is central to medicine surveillance, but other methods have been suggested as useful adjuncts3. The inclusion of the community health index (CHI) in all NHS contacts in Scotland will facilitate linkage of multiple datasets on a routine basis to create a database which could be used for, for example, pharmacovigilance. However there are questions about the acceptability, and legal and ethical implications of this. We are engaged in a CSO funded programme of work to address these issues and develop novel methods of early ADR detection in children. The aim of the work reported here is to assess health care professionals' opinions of, and attitudes to, current systems of pharmacovigilance, advantages of, and barriers to, the national linking of data, and to propose solutions.

Methods

Semi-structured interviews are exploring views on pharmacovigilance, confidentiality/patient privacy, data protection, acceptable and non-acceptable usage of data, and dissemination of findings. A purposive sample of national experts, REC chairs and Caldicott guardians from all Scottish Health Boards are participating. Ethical approval was granted (NoSREC).

Results

Analysis of the early interviews (n=15) demonstrates awareness of the YCS but identifies limitations: "it [spontaneous reporting] doesn't produce data, it produces anecdotes" (A04). Practical, ethical and legal concerns are raised. Practical issues include physical security of data and anonymisation: "anonymisation [...] is not a science, it's a craft" (A11). The need for consent is discussed widely, a blanket approach seen as not feasible but public awareness perceived as crucial: "[the] patients need to be aware of what is proposed..... [the] use the data would be put to" (A05). Legal issues are related to Acts, professional standards and codes of conduct.

Conclusions

Data linkage is seen as beneficial but concerns are raised. These results cannot be quantified or generalised. They will inform a Delphi survey to be distributed to a national sample of professionals. The outcome will be agreed solutions to inform the next stage when datasets will be linked.

P102

Depression: The Patient Experience of Treatment

Presenter: Penny Louch
Coauthors None

Introduction

Kleinman developed an Explanatory Model (EM) theory to describe individual interpretation of an illness (1). An EM is determined by the individual's general beliefs about health and illness and is specific to a particular illness. Kleinman's Explanatory Model has been used as the theoretical framework for this mixed method study exploring the patient experience of stopping antidepressant medication. This paper will present the findings from the questions: What kind of treatment do you think you should receive? What are the most important results you hope to receive from the treatment?

Methods

Kleinman proposed the use of 8 questions designed to gain the patient's perspective on their illness, he defines this as the 5 Parts of the Illness Experience:

1. Aetiology
2. Time and mode of onset of symptoms
3. Pathophysiology
4. Course
5. Treatment

In-depth interviews with 30 patients from one general practice have been analysed using Framework, a thematic approach to data analysis. The data was indexed and charted according to Kleinman's 8 questions and the charted data was then entered into NVivo to facilitate interpretation of the data.

Results

Patient responses identified a number of key themes in response to the question exploring treatment preferences:

- Pharmacology
- Counselling
- Alternative therapies
- Personal care

The results patients want to receive from treatment are categorised within:

- Reusable knowledge

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- Maintenance
- Restoration
- Cure

Conclusions

All the patients in this study are characterised by the fact their depression has been medicalised; they have sought help from their GP and have accepted antidepressant medication as a treatment option. Responses indicate some people would have preferred an alternative intervention but despite this they still complied with GP advice to take antidepressants.

The interviews provided the opportunity for people to reflect on their treatment options and to identify what they consider to be important outcomes in their depression treatment. People anticipate a future dependent on their personal definition of what recovery from depression as an illness means to them.

Reference:
1. Kleinman A. Patients and healers in the context of culture. Berkeley, CA: University of California Press, 1980.

P103

Exploring the avenues to involvement in primary care research: The role of the research networks

Presenter: Adam Firth
Coauthors A Walter, C Chew-Graham, T Frank

Introduction

Primary Care research is an increasing NHS priority as more services are being delivered within the setting and evidence is often biased towards secondary care. 'Best Research for Best Health' outlines the establishment of a Primary Care Research Network (PCRN) in England to develop research infrastructure and aid recruitment of trial participants.

Previous studies have highlighted barriers to research involvement within primary care teams and it was hoped that researcher networks would overcome some of these. This study explores GPs' experiences of the impact of initiatives such as the PCRN on participation in primary care research.

Methods

Semi-structured interviews of 20+ GPs, purposively sampled within one PCT to incorporate large, small, training and non-training practices were carried out. Interviews followed a topic guide addressing GPs' research experience, views on barriers and facilitators to participation, views on the relationship between research and general practice and awareness of initiatives to promote primary care research. Interviews were taped and transcribed verbatim before being independently coded line-by-line by the researchers. Consensus on thematic categories was developed by regular review before arriving at a final framework outlining research participation.

Results

Emergent themes support findings from the literature, particularly the need to ensure studies are relevant to both primary care professionals and their patients. 'Pharma fear', where industry research is viewed with suspicion, was a common attitude amongst respondents. Few GPs were aware of research networks and many suggested that research participation was not relevant in their work. For those actively involved, the need to create a research culture within GPs early in their career was suggested to be necessary in order to challenge this prevalent attitude.

Conclusions

Although the study is based within a single PCT the issues addressed have national and international relevance with no specific local factors identified to explain the development of the prevalent negative attitude to pharmaceutical research and research in general. This work supports the fact that there remains a need for a cultural shift within primary care in order to meet the goals set out in 'Best Research for Best Health'; this has yet to be achieved through the current initiatives.

P104

Implementation of a peer support intervention for people with type 2 diabetes: a qualitative study

Presenter: Susan Smith
Coauthors Paul GM, Smith SM, Keogh K, D'Eath M, O'Dowd T and the peer support study team

Introduction

Peer support has been identified as a promising approach for diabetes management. However the best methods of organising and implementing such programmes are still open to debate. We examined these issues using qualitative methods.

Methods

The qualitative study was nested within a cluster RCT of peer support in type 2 diabetes. Participants were selected from the patients, peer supporters and practice nurses recruited to the RCT. Seven focus groups were conducted; five with patients and two with peer supporters.

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Seven semi structured interviews were conducted; six with practice nurses and one with a peer supporter. The focus groups and semi structured interviews were taped and transcribed verbatim. Descriptive phenomenological analysis was conducted focusing on implementation issues of the intervention.

Results

The themes that emerged from the analysis were recruitment, training and support for peer supporters, the peer support meetings, workload for practice nurses, challenges that arose and the future direction of peer support programmes. Peer supporters reported being initially reluctant to take on the role however they were surprised with how much they enjoyed it. They felt they had received adequate training and support to carry out their role. The facility of a 'Frequently Asked Questions' system and support from the project manager and practice nurses were identified as helpful to them in their role. Patients, peer supporters and practice nurses felt the duration of the intervention, length of the meetings and the venue for the meetings were appropriate. Practice nurses reported being adequately supported and reimbursed for their input into the intervention. The workload related to the study was surprisingly manageable. The main challenges that arose in the study were recruiting peer supporters and low attendance at the peer support meetings. Targeting specific groups such as people who are newly diagnosed with type 2 diabetes and having guest speakers at the meetings were ideas raised for future meetings.

Conclusions

This study identifies implementation strategies that were successful, such as training and support for peer supporters, as well as challenges in delivering peer support interventions. It is the first of its kind and adds to the limited body of evidence in the area.

P105

The prevalence of eye disease in Norfolk and Waveney

Presenter: Abosede Ighomereho
Coauthors Dr N Steel
Prof Max Bachmann

Introduction

Visual impairment is an important preventable cause of disability in the United Kingdom. Cataract, glaucoma, diabetic retinopathy and age related macular degeneration are the common causes of visual impairment in the blind register, but little is known about the prevalence of eye disease in the community. This study aims to estimate the community prevalence of eye disease.

Methods

Twenty five general practices in Norfolk and Waveney were invited, and seven practices from rural, urban and inner city areas agreed to participate. Anonymised data about age, sex, Read codes, ophthalmic prescription, and post codes were extracted from electronic records using MIQUEST data extraction programme. Patients with an ophthalmic diagnosis between 1st May 2008 and 30th April 2009 were identified. The prevalence of both minor eye conditions such as conjunctivitis and eyelid conditions, and major conditions leading to visual impairment (cataract, glaucoma, diabetic retinopathy and age related macular degeneration) was estimated.

Results

3089 (5.1%) people with ages ranging from 0 to 104 years (mean 49.9years) had an eye condition, out of a total practice population of 60739. Of these 3089 people, 1707 (55.3%) were female, 1382(44.7%) were male. 165 (5.3%) had age related macular degeneration, 210 (6.8%) had glaucoma, 238 (7.7%) had cataract, 385 (12.5%) had diabetic retinopathy, 585 (18.9.%) had eyelid conditions, 1232 (39.9%) had conjunctivitis and benign conjunctival conditions,. Some patients had more than one eye condition.

A limitation of the study is that we relied on Read codes for identification of eye conditions. Eye conditions may not have been coded at all, and any errors in coding could have introduced misclassification bias.

Conclusions

The four eye conditions that are the major causes of preventable visual impairment are frequently encountered in general practice. Further research is needed into the management of these conditions in primary care, so that ways to further reduce avoidable visual impairment can be identified.

P106

The protective effect of antimicrobial prescribing in children with RTI on suppurative complications: a systematic literature review

Presenter: Tamara Keith
Coauthors T Keith, S Saxena, J Murray, M Sharland

Introduction

Most childhood respiratory infections including acute otitis media (AOM), sore throat, upper respiratory tract infections (URTI) and sinusitis

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are self-limiting illnesses. Despite extensive guidance discouraging routine use of antibiotics to limit side effects, reduce prescribing costs and combat antimicrobial resistance, antibiotic prescribing for these conditions remains high in many developed countries fuelled by the fear of rare but serious bacterial complications. We aimed to quantify the protective effect of antibiotic use in preventing serious bacterial complications of common URTIs in children including mastoiditis, quinsy, pneumonia and brain abscess.

Methods

We searched electronic databases such as Medline, Embase, PubMed, and the Cochrane library using multiple search terms to identify studies reporting suppurative complications of RTIs in children aged < 18 years. Citations were independently reviewed by two authors for inclusion. We included only English language articles.

Results

Eight studies met our inclusion criteria but only one presented denominator data required to calculate risk of complications among children receiving and not receiving prior antibiotics. 503/838 (60%) of children with mastoiditis from 7 studies had previously received antibiotics for AOM. 189/268 (71%) of children with quinsy from 2 studies had received prior antibiotics for sore throat. 1 study reported 143/430 (36%) of children with pneumonia had received prior antibiotics. We found no studies reporting the effect of antibiotics on risk of brain abscess following sinusitis in children. We calculated the pooled excess risk of suppurative complications (pneumonia, quinsy or mastoiditis) in children who did not receive an antibiotic following diagnosis of URTI, sore throat or AOM was 3.8 per 10,000, using data from 1 observational study reporting antibiotic use in children. Our review was limited by a dearth of studies reporting outcomes in children who did not receive antibiotics.

Conclusions

Based on limited evidence from one observational study, antibiotics offer little benefit in preventing suppurative complications of mastoiditis following AOM, quinsy following sore throat and pneumonia following URTI/bronchitis. More observational cohort studies are needed to better quantify risk of serious bacterial complications after URTI in children.

P107

Quality of type 2 diabetes management at the GCC: a systematic review

Presenter: Layla Alhyas
Coauthors A Mackay

Introduction

The states of the Co-operation Council for the Arab states of the Gulf (GCC) have some of the highest rates of diabetes in the world: five of the International Diabetes Federation's 'top 10' countries for diabetes prevalence in 2010 and 2030 are in this region. Current approaches to the problem are evidently inadequate. Objective: To investigate the quality of diabetes management in GCC states.

Methods

Information was obtained through a systematic search for publications from 1950 – 2010, scanning reference lists of relevant studies, hand-searching key journals, contacting researchers in the field and searching relevant internet resources, including those of global and local diabetes associations. Key information was recorded using a specifically-designed data extraction tool and the data set refined on the basis of pre-determined inclusion/exclusion criteria and quality assessment.

Results

18/1489 studies were identified as suitable for analysis. These included studies of Saudi (10), Emirati (5), Bahraini (2), Omani (1) and Kuwaiti (1) populations carried out between 1993 and 2007. They were predominantly cross-sectional studies of primary health care-treated populations, but 5 quasi-experimental, interventional studies (4 with multiple interventions, 4 without control groups) were also included.

Glycaemic control, prevalence of microvascular complications, hypertension and dyslipidaemia, and the frequency of (referral for) testing were commonly used outcomes for assessing quality of management. Interventions included trials of specialist clinics, implementation of new clinical guidelines and use of a flow sheet to guide management.

The cross-sectional studies demonstrated variable levels of disease control, frequently suggested to be 'poor' (e.g. wherever investigated, > 50 % of individuals did not meet target HbA1c levels). Generally, interventions successfully increased compliance with clinical guidelines, and improved the above-mentioned outcomes, where monitored.

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Conclusions
The high prevalence of diabetes in GCC states is at least partially due to insufficient/ineffective management strategies. The levels at which success may be hindered are manifold and the points of greatest resistance are unknown, but the reviewed data suggest interventions aimed at improving compliance to well developed, locally-sensitive clinical guidelines would improve management in terms of the mentioned outcomes. Interventions that address other aspects of disease control may also be useful in (evaluating their potential for) reduction of disease burden.

P108
An Evaluation of Rheumatology Practitioner Clinics in Primary Care and Secondary Care
Presenter: Asmaa Abdelhamid
Coauthors A S Abdelhamid,
A Walker, J Mooney, G Barton,
D G I Scott, R Watts
Introduction
Rheumatoid Arthritis (RA) is a common chronic destructive arthritis that requires regular monitoring. Services in Norfolk have evolved with the development of seven independently led outreach Rheumatology Practitioner (RP) clinics in primary care (PC). However, their clinical and cost effectiveness, in comparison with hospital based services, has not been assessed. The RECIPROCATE study aims to evaluate the clinical and cost effectiveness of community based rheumatology services provided by RPs in PC in comparison with secondary care (SC) based services in Norfolk. The qualitative component of the study aimed to explore the advantages and disadvantages of the rheumatology outreach service as perceived by health professionals.
Methods
Semi-structured interviews were conducted with GPs and practice nurses from participating practices as well as hospital doctors and RPs in order to elicit their views of the service. The interviews were analysed using thematical analysis.
Results
Eighteen interviews in total were transcribed and analysed (5 RPs, 5 rheumatology doctors, 4 GPs and 4 practice nurses). All interviewees agreed that the service was supportive and valuable providing high quality personalised care that is not just disease monitoring but also social, educational and support service. Advantages identified were many examples being convenience, providing continuity of care and services closer to home. It was also noted that RP clinics helped bridge the communication gap between PC and SC. Some professionals suggested having a doctor alongside RPs occasionally. The service was viewed as being cost effective for patients but unsure as to its cost effectiveness for staff and service providers. There were not many disadvantages identified with the most recurring being the lack of other onsite services when needed which means that patients still have to travel to access. It was also noted that more services could still be provided by RPs like prescribing and joint injections as well as playing more active role in knowledge transfer to PC professional.
Conclusions
Professional involved in the care of RA patients recognised the valuable role of the evolving RP outreach clinics. Services can be further developed in rheumatology and example can be replicated in care of other chronic diseases.

P109
Supporting parents/carers' management of childhood eczema: development of a website based intervention and pilot RCT
Presenter: Miriam Santer
Coauthors P Little, L Yardley
Introduction
Childhood eczema is very common, affecting approximately 20% of children at some point. It is the most common cause of consultation in children under 5, after infectious illnesses. Impact on families can be considerable, mainly due to sleep disturbance and behavioural problems relating to itch. The main cause of treatment failure is parents/carers not using treatments correctly due to poor understanding of treatments, child refusal or therapy being time-consuming. Carers need support in using treatments effectively, as well as a wealth of information about identification and avoidance of trigger factors, e.g. soap, allergens and infections. We plan to develop an internet-based behavioural intervention to support eczema management amongst carers of affected children.
Methods
What should a web-based intervention consist of in order to support self-management amongst parents/carers of children with eczema?
• Carry out qualitative interviews with carers of children with eczema in primary care to explore perceptions of eczema, current self management, barriers to this and how these are overcome.
• Use qualitative findings and existing evidence to develop a website based behavioural

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intervention to support self management of childhood eczema. Obtain feedback from users and focus groups and observe website use to refine intervention.

Can a web-based intervention improve subjective eczema severity score and quality of life for child and family? Does support from a health professional make the intervention more effective?

- Carry out pilot RCT of intervention amongst carers of children with eczema in primary care, examining recruitment, randomisation procedures, response rate, outcome assessment, and estimating effect size.
- Randomise participants to: (i) normal care only; (ii) website based intervention plus minimal technical support; (iii) intervention plus support session from practice nurse.

Results

This research will help us to understand the experiences and concerns of carers of children with eczema, a previously under-researched group. It will also allow optimal design of a complex intervention and provide necessary information to design a phase 3 trial to test this intervention.

Conclusions

If shown to be effective, this intervention could improve quality of life for children with eczema and their families. Better early control of eczema may lead to improved prognosis.

P110

The experience of discharge from secondary care and the subsequent needs of long-term cancer survivors

Presenter: Sian Harrison
Coauthors P W Rose
N F Khan, A Ward, E Watson, E Adams, D Turner, M Roche, D Forman

Introduction

There are two million adult cancer survivors in the UK. Most patients are followed up in secondary care for 3-5 years and then discharged back to primary care. Primary care is well placed to cater for the needs of these patients but currently no formal care is offered. This study investigated experience of discharge from secondary care and the ongoing needs of long-term cancer survivors.

Methods

A questionnaire survey of 2400 survivors of breast, colorectal and prostate cancer, 5-16 years post-diagnosis was conducted. Survivors were identified from regional cancer registries and contacted via their GP. The questionnaire explored experience of discharge, current needs (CaSUN), health status (EQ-5D) and psychological well-being (HADS).

Results

To date, 659 patients have completed the questionnaire. Findings indicate variation in patients' experience of discharge from secondary care. There was inconsistency in the provision of information, the future contact details supplied and the feelings patients experienced at discharge. Despite the variation, 87% of patients reported satisfaction with their discharge. In terms of needs, 47% of patients reported at least one cancer-related unmet need within the past month. The most commonly reported unmet needs were for help to manage fears of recurrence, for co-ordinated health care and for health care services to be available locally. The health status of the survivors in the current study was consistent with population norms and anxiety and depression caseness was below population norms.

Conclusions

There is variation in patients' experiences of discharge from secondary care. Although the majority of long-term survivors are satisfied with their discharge and report good health status and psychological well-being, there is a subgroup that has ongoing cancer-related needs that are not being addressed. These patients may benefit from additional medical and/or psychological support. If this subgroup of patients could be identified at discharge, appropriate interventions and support could be offered.

P111

Treating well patients urgently: Patients', GPs' and transient ischaemic attack (TIA) clinic staff's experiences and views on current management

Presenter: Duncan Edwards
Coauthors S Cohn, S Virdee, N Mavaddat, K Fletcher, J Mant

Introduction

People who have a transient ischaemic attack (TIA) have a risk of stroke by 90 days of around 18%, with most of this risk occurring within the first week. The National Institute for Clinical Excellence recommends that patients at highest risk of stroke after TIA are seen by a specialist within 24 hours, and others are seen within seven days. In practice, these targets are often unmet. A qualitative study has been undertaken to explore patient and staff's views and experiences of the current management of TIA.

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Methods
Purposive sampling was undertaken across two sites to identify representative groups of patients, GPs and TIA clinic staff. Semi-structured one-to-one interviews are being conducted with 30-40 participants. All interviews will be anonymised, transcribed verbatim and analysed using the constant comparative technique.
Results
Results are late breaking. 1/3 of interviews have been completed with the remaining interviews to be completed in March and April.
Conclusions
The aims of this research include the following.
1. To establish a qualitative understanding of the impact and meaning of a suspected diagnosis of TIA and of the experiences of both patients and medical professionals along the pathway from GP consultation to TIA clinic referral and attendance.
2. To ascertain patients', GPs' and TIA clinic staff's views on current practice, the management of suspected TIA and its final diagnosis.
3. To discover patient, GP and TIA clinic staff attitudes towards GP initiation of therapy and how consent should be obtained.

P112
The impact of angiotensin-converting enzyme inhibitors (ACEi) and angiotensin receptor blockers (ARB) on type 2 diabetes patients with normoalbuminuria ¨C A systematic review
Presenter: Jennifer Hirst
Coauthors R Stevens
C Blacklock, G Wong, N Roberts, A Farmer
Introduction
Angiotensin converting enzyme inhibitors (ACEi) and angiotensin receptor blockers (ARB) improve outcomes for type 2 diabetes patients with elevated urinary albumin (UA) levels (UA>30mg/24 hours). The benefits of these treatments on people with type 2 diabetes and normoalbuminuria (UA>30mg/24 hours) are unclear. We have evaluated the effects of ACEi and ARB treatment on the health outcomes for type 2 diabetes patients with normoalbuminuria in a systematic review.
Methods
MEDLINE, EMBASE and the Cochrane Library were searched from 2006 to 2009 to identify randomised controlled trials of at least 6 months duration in which patients with diabetes were treated with ACEi or ARBs. Further trials were identified from two Cochrane reviews of ACEi or ARB treatment in diabetes published in 2005. Trials were included if outcomes from type 2 diabetes patients with normoalbuminuria were separately reported. Where possible, outcomes from ACEi or ARB treatment were pooled in a meta-analysis.
Results
Thirteen trials were included: five comparing ACEi or ARB with placebo or no treatment, four comparing ACEi with a calcium channel blocker (CCB) and three comparing ACEi or ARB with another treatment. In seven of the trials all the patients studied had hypertension. Outcomes (number of trials) included were urinary albumin levels (5), progression to microalbuminuria (5), change in blood pressure (BP)(6), change in glomerular filtration rate (GFR) (2) and death (3).
Treatment with ACEi or ARBs resulted in lower UA than in comparator groups (mean difference, CI) (-4.12 mg/24h, -5.58 to -2.65, $p<0.00001$). ACEi or ARB treatment lowered diastolic BP (-1.95 mmHg, -2.66, -1.25), but had no impact on systolic BP or GFR. Progression to microalbuminuria was less frequent in the treatment than comparator groups (relative risk 0.76, CI 0.69 to 0.83, $p<0.00001$), but did not affect mortality (RR 0.93, CI 0.59, 1.45).
Conclusions
Patients with type 2 diabetes and normoalbuminuria treated with ACEi and ARBs have slower progression to microalbuminuria, and lower UA compared to those without treatment. There is, however no convincing evidence of mortality benefits of ACEi or ARB treatment. Further work is required to establish the benefits of routine treatment of normoalbuminuric patients with type 2 diabetes.

P113
Healthcare professional attitudes to using a 'polypill' to manage cardiovascular risk - in interview study
Presenter: Satnam Virdee
Coauthors J Mant, K Fletcher, S Greenfield
Introduction
It has been suggested that a 'polypill' combining several preventative therapies could lead to an 80% reduction in cardiovascular disease (CVD). Whilst initially conceived as a preventative approach at a population level, it may have potential to be used to treat people with known risk factors or existing CVD, given that many such people are not currently being treated as intensively as guidelines recommend. A 'polypill' strategy may be more cost-effective than treating to individual blood pressure and

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cholesterol targets because of reduced monitoring costs, better adherence and fewer side-effects. Here, we determine healthcare professional (GP and practice nurse) attitudes to using a polypill to manage cardiovascular risk.

Methods

16 healthcare professionals (HCPs) across 9 GP practices were purposively sampled to allow maximum variety of characteristics. They agreed to participate in an in-depth semi-structured interview using a topic guide developed from the existing literature. Interviews were audio taped and transcribed verbatim. The data was analysed using Framework software. A grounded theory approach was used to guide sampling, data collection and analysis.

Results

Full results are not yet available as the analysis is still on-going. However, interim findings suggest: HCPs have reservations regarding prescribing the polypill as a preventative measure to the over 50 year old population; they would not prescribe the polypill without any monitoring; and the way they present the polypill to patients would influence its acceptability to patients.

Conclusions

These interim findings suggest that if HCPs did prescribe the polypill to patients, they would continue to monitor blood pressure and cholesterol. However, they would need to be convinced with evidence that using a polypill was not inferior to conventional care.

P114

Determining analgesic prescribing rates in primary care using a consensus model of prescribing from General Practice

Presenter: John Bedson
Coauthors Dr O.I.Martino
Dr K.P.Jordan

Introduction

Pain is a common symptom. Despite there being over 300 prescribable analgesics in primary care, up to 80% of patients do not gain complete relief. Detailed knowledge of analgesic prescribing appears limited. To understand why treatment 'failure' may occur in pain, we need to develop a model of prescribing that better reflects general practitioners' use of analgesics which can be employed to describe in detail the prescribing rates of analgesic medications.

Methods

A consensus model of analgesic prescribing was constructed using two groups of GPs. The main requirement was that it reflected current practice through identifying groups of analgesics considered to be equipotent. Secondly these were organised into a hierarchy of increasing potency. Analgesic medications from the British National Formulary were used. The model was then used to analyse prescribing rates from the Prescribing in Primary Care Archive for the year 2006.

Results

The consensus model derived 6 analgesic groups. Five were of increasing potency ranging from basic analgesics to 'very strong' single opioids. NSAIDs were considered a separate group. 1.6 million prescriptions were issued. 9.5% of these were for analgesics, most commonly basic analgesics (12.6%) then NSAIDs (11.2%), and weak combination opioids (10.3%). NSAIDs were more frequently prescribed in those aged 45 – 65. In all groups, except very strong opioids, females more commonly received a prescription (F:M ratio 1.31). Repeat prescriptions rates increased 20 fold in those aged over 75. Females appeared more likely to receive more than one medication from a single drug group. Finally, there appeared to be an age related increase in the number of people receiving prescriptions (18% aged 15 – 44 vs. 65% aged 75+).

Conclusions

The consensus model allows prescribing data and comparative drug use analysis. 10% of all prescribing was for analgesics, indicating the substantial workload that pain presents. There appears to be a 'stepwise' approach to using analgesics, with a greater frequency of basic analgesic use compared to moderate, then strong combination opioids. Future research might use the model in relation to specific musculoskeletal conditions, to determine if 'stepwise' prescribing relates to better outcomes using health markers such as consulting rates and secondary care referral.

P115

Evaluation of the Electronic Prescription Service in Primary Care.

Presenter: Jasmine Harvey
Coauthors S Sadler, R Hibberd, M Boyd, J Waring, T Avery

Introduction

Better information for better, safer healthcare is a recent paradigm in healthcare. Integral to this agenda is the Electronic Prescription Service (EPS): a service that allows prescribers in primary care to generate and transmit electronic prescriptions to the EPS spine, from where they can be downloaded and dispensed in pharmacies. Evaluation of the EPS is a Connection for Health Evaluation Programme (CfHEP) funded project.

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A key objective of the project is to investigate how EPS changes workloads and practices in general practices and community pharmacies, and the bearing on quality of service and safety.

Methods

Ethnographic-informed methods that incorporated non-participant observations, shadowing and unstructured interviews were used. Over 35 hours of non- participant observation and seven unstructured interviews have been conducted in three out of twelve sites from three PCTs as part of the baseline study. In addition, two interviews were conducted at a GP site.

Results

Themes from the findings have provided an understanding of key issues concerned with the functioning of community pharmacies in the context of workflows; prescription and dispensing journeys; human and technological interactions involved in prescribing and dispensing; factors related to risk, quality and safety; and, the influence of temporal and spatial features on pharmacy work. Particular issues that have emerged include:

- the potential of EPS to reduce errors and risks that are sometimes part of the work culture and therefore have become part of prescription and dispensing journeys, such as orderliness; particularly in pharmacies that have chaotic work culture towards dispensing, as all prescriptions will be ordered electronically and tokens can be printed off as many times as possible;
- the emphasis - by pharmacists interviewed - on the need to print off tokens to dispense from in order to avoid mistakes.

Although this approach will improve workflows and organization, it could also make a small increment to the dispensing workload.

These findings will be compared with observations following the introduction of EPS.

Conclusions

Although the EPS has a long way to go, early findings show that the service is capable of improving quality of work for healthcare professionals by reducing risks that have become part of the work culture.

P116

Bisphosphonates and Upper GI Cancer

Presenter: Ellen Wright
Coauthors P Seed, P Schofield, J Josson, R Jones

Introduction

Bisphosphonates; used to treat osteoporosis, are being prescribed with increasing frequency in primary care. Alendronic acid (Fosamax) in particular, has well documented gastrointestinal side effects including dyspepsia and oesophagitis. In 2009 The American Food and Drug Administration reported 23 cases of oesophageal cancer between 1995 and 2008 in the US and 31 in Europe and Japan which were thought to be linked to alendronic acid prescriptions. Is alendronic acid linked to the development of gastric and oesophageal cancers in the United Kingdom?

Methods

We will analyse data held in the General Practice Research database (GPRD) to see whether any relationship exists between the prescribing of alendronic acid and the development of upper gastrointestinal (GI) malignancy.

We will be use the GPRD to identify patients with an upper GI cancer. We will then conduct a case control study looking at matched groups of patients with and without upper GI cancer and will compare prescribing of alendronic acid in the two groups.

Results

Results

Will be presented and will provide new data on the risks of development of upper GI cancer in patients taking alendronic acid.

Conclusions

This research will define the association between the use of alendronic acid and upper GI cancer and if a positive association is found, should lead to further investigation of a causal relationship in a large prospective cohort study.

P117

Developing an RCT of general practice-based, pharmacist-led, management of chronic pain: the PIPPC study

Presenter: Christine Bond
Coauthors H Bruhn, AElliott, PHannaford, ALee, PMcNamee, BSmith, MWatson, ABlyth, RHolland, DWright

Introduction

Chronic pain affects approximately half the population. Most people are managed with prescribed analgesics, but sub-optimal prescribing, imperfect monitoring, and therapeutic duplication mean that treatment is often ineffective. Pharmacists are well placed to deal with these issues.

The aim is to develop an RCT comparing: (i) pharmacist medication review of patients with chronic pain with recommendations to GP; (ii) pharmacist prescribing for patients with chronic pain; and (iii) usual care. The MRC framework

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for development and evaluation of complex interventions is being followed. This paper reports Phase I.

Methods

The setting was two Grampian general-practices. Patients with chronic pain were identified by computerised search of pain-related prescription records. A random sample of patients (n=149) was screened by their respective GP, who then sent study invitation letters to those eligible. Consenting patients forwarded contact details to the researchers who sent them a baseline questionnaire including, the Chronic Pain Grade, SF-12, WHOQOL-Bref and Pain and Discomfort Module, Health Utilities Index, ICECAP-O, HADS. Patients returning questionnaires were randomised to one of three study arms. A two-day training update in pain management was provided for pharmacists and the training was evaluated. Pre-intervention, two patient focus groups were conducted, and five GPs and two pharmacists were interviewed to assess expectations and concerns. Post-intervention, two GPs, two pharmacists and five patients in the prescribing arm were interviewed.

Results

Our initial analysis of the data has shown a small but significantly increased proportion of gastric cancer cases being prescribed a bisphosphonate compared to the controls as shown in the table below.

Prescribed biphsophonates	case_ctrl_status: control	case	Total
No	40,175	9,987	50,162
	96.34%	95.80%	96.23%
Yes	1,525	438	1,963
	3.66%	4.20%	3.77%

The odds of being a case are increased by 1.168 for those on bisphosponates during the study period with a confidence interval of 1.04411 - 1.3088, a small but significant effect.

We plan to run further analyses looking at particular sub groups and also to examine the effects of various confounding variables such as PPI usage and H Pylori status.

Conclusions

The feasibility of the intervention has been demonstrated. A pilot trial (phase II) is ongoing, informed by phase I.

P118

Interventions to promote the rational use of antibiotics: a qualitative study of GPs' views and experiences.

Presenter: Sarah Tonkin-Crine
Coauthors L Yardley, P Little

Introduction

The effectiveness of interventions, aimed at practitioners, to reduce antibiotic prescribing is naturally dependant on the acceptance of such approaches by the practitioners themselves. Research investigating practitioners' views has often focused only on a national level; however adopting an international approach and assessing the differences in practitioner's views between countries, can help specify how interventions could be adapted to fit a variety of populations.

Methods

Fifty two semi-structured interviews, with practitioners from five European countries, explored the views and experiences of interventions aimed at decreasing antibiotic prescribing. Interviews were carried out in person or over the phone, transcribed verbatim and translated into English where necessary.

Results

Practitioners across all countries identified similar aspects which they felt could be altered to improve interventions. The delivery of recommendations was often seen as inadequate in all countries and practitioners also often reported a lack of trust in guidelines. A lack of support from health authorities in encouraging practitioners to change their practice was also commonly raised. In contrast, GPs reported that interventions incorporating patient education helped to reduce pressure to prescribe and interventions which allowed peer comparison, helped practitioners to identify how their practice could change.

Conclusions

Findings provide practical steps which can be taken to inform future interventions which are likely to improve their acceptability with GPs. Although the study design does not allow results to be generalisable to all the populations of interest, the consistency in practitioners' views across the countries indicates the potential for the development of an intervention which could be implemented on a European-wide scale.

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P119

A high prevalence of vitamin D deficiency in pregnancy is driven by poor understanding of its risks, and barriers to adequate replacement.

Presenter: Ameana Khan
Coauthors Sarah Finer, Elias Chandran, Alison Fiddler, Judith Littlejohns, Peter MacCallum, Shohreh Beski

Introduction

A wealth of data highlights the high prevalence of vitamin D deficiency in the UK, and association with adverse health outcomes. In pregnancy, deficiency increases incidence of pre-eclampsia. National guidance supports vitamin D supplementation during pregnancy, but the suggested Healthy Start supplements have been difficult to obtain. Our locally deprived and ethnically-diverse population has a high burden of adverse pregnancy outcomes. We sought to identify prevalence of vitamin D deficiency and barriers to adequate supplementation in primary care, with which to develop an evidence base to guide effective local policy and reduce adverse pregnancy outcomes

Methods

We performed vitamin D (25(OH) D3) screening in an unbiased group of 500 women prior to the availability of healthy start at their antenatal booking. We surveyed GPs in Tower Hamlets PCT to explore their knowledge, attitudes and behaviours towards vitamin D supplementation and replacement in pregnancy.

Results

Of 500 women screened (mean age 26, BMI 24, 53% Bangladeshi), 90% were vitamin D insufficient (<80nmol/L) and 53% deficient (<30nmol/L). 47.2% of GPs responding to our survey of which 80% correctly predicted this prevalence, and 92% knew of its association with childhood rickets, but only 12.5% of that with pre-eclampsia. 44% thought it important to identify Vitamin D deficiency in pregnancy but only 12% would do this biochemically. Only 52.2% of GPs were aware of current recommended supplementation (400 iu/day) and 60% routinely give this (84% prescribe Calcichew D3 forte). GPs found the following barriers to vitamin D supplementation in pregnancy: lack of guidelines (87.5%), poor tolerability of preparations (75%) and unavailability of Healthy Start (65.5%). GPs thought responsibility for supplementation should be taken jointly by pregnant women (67%), midwifes (66.7%) and GP (53%).

Conclusions

We have identified prevalent vitamin D deficiency in our local pregnant population, supporting published literature. Despite a good prior understanding of this by GPs and national guidance on supplementation, there remains a high prevalence in pregnant women. Our study highlights the need for greater awareness of the risks of maternal vitamin D deficiency, heightened surveillance, improved strategies for supplementation and replacement via primary care and a clear public health message.

P120

Health service costs for people diagnosed with depression

Presenter: Garry Barton
Coauthors Garry Barton, Tracey Sach, Paula Dhiman, Carol Coupland, Tony Arthur, Richard Morriss, , Julia Hippisley-Cox

Introduction

Antidepressant drugs are among the most commonly prescribed drugs in primary care. We sought to estimate health service costs in older people diagnosed with depression, and compare these for patients taking different anti-depressant drugs.

Methods

Using data from a large primary care database (QRESEARCH), a cohort of patients aged ≥65 years with a recorded diagnosis of depression (made between 1/1/1996 and 31/12/2004) was identified. We sought to estimate the cost to health service within the first 5 years post-diagnosis, including those associated with i) individual anti-depressants, ii) all anti-depressant prescriptions, and iii) visits to GPs, practice nurses and community nurses, and iv) all prescription and visit costs (overall total). These were subsequently compared for different types of anti-depressants.

Results

The economic analysis consisted of 37,381 patients (39.0% of which had died within 5 years of diagnosis). On average, total anti-depressant prescription costs ranged between £46.36 (Amitriptyline Hydrochloride (TCA)) and £640.01 (Venlafaxine Hydrochloride (other-SNRI)), overall visit costs ranged between £1630.39 (Lofepramine (TCA)) and £2109.97 (Escitalopram (SSRI)) and the overall total (prescription plus visit costs) ranged between £1710.23 (Dosulepin Hydrochloride (TCA)) and £2548.17 (Venlafaxine Hydrochloride). After adjusting for differences between patients taking different anti-depressants, compared to those who received no anti-depressant prescriptions

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within the 5 year post-diagnosis period, the mean incremental cost ranged between £51.58 (Amitriptyline Hydrochloride) and £641.18 (Venlafaxine Hydrochloride) for prescription costs and between £292.87 (Fluoxetine Hydrochloride (SSRI)) and £982.03 (Venlafaxine Hydrochloride) for the overall total.

Conclusions

It was found that for older people diagnosed with depression prescription costs are far outweighed by visit costs. Both these costs were also shown to vary considerably across different anti-depressant drugs. It should however be recognised that not all visits will be associated with depression and that not all health care costs were assessed (secondary care costs are not routinely recorded in the QRESEARCH database). Additionally, in order for resources to be allocated efficiently, it is important to consider the benefits/adverse events associated with different anti-depressant drugs in order to make decisions about the cost-effectiveness of different anti-depressants.

P121

The feasibility of a complex intervention on polypharmacy in primary care: the perspective of general practitioners in a cluster-randomized study (PRIMUMpilot).

Presenter: Christiane Muth
Coauthors Muth C, Namyst A, Ziegemeyer A, Werner B, Guethlin C, Haefeli WE, Harder S, Rochon J, Beyer M, Erler A, Gerlach FM, Knottnerus JA, van den Akker M

Introduction

Polypharmacy is recognized as a leading healthcare problem in elderly multimorbid patients. To improve medication appropriateness in these patients, we developed a complex intervention: 1) a checklist-based pre-consultation interview on medication-related problems, including 2) medication reconciliation by a healthcare assistant, 3) a computerised decision support system (AiD) alerting on e.g. double prescriptions and drug-drug interactions, 4) a medication-related GP-patient consultation. To prepare the main study, the feasibility of the study design and the intervention was tested in the cluster-RCT PRIMUMpilot (PRIoritization of MUltimedication in Multimorbidity; BMBF-grant: 01GK0702). To show the feasibility of the intervention for GP's, results of the intervention group (n=10 general practices; 50 patients) are reported.

Methods

Per patient, GPs completed a questionnaire on time expenditure and satisfaction with the intervention.
After study completion, GPs described their experience with the intervention in a structured interview. The usability of the checklist and AiD were analysed by a case vignette (a case description incl. a medication regimen). Additionally, GPs rated usability criteria for AiD (e.g. learnability, clarity) in a short questionnaire.
Interviews were transcribed and analysed according to a previously designed coding scheme. Descriptive statistics were performed for quantitative data.

Results

Per patient (21/50 male, median age 75 yrs.), GPs (7/10 male, median age 59 yrs., clinical experience 28 yrs.) reported a median of 15 min. (interquartile range: 10-30) to prepare, 20 min. (15-30) to conduct the consultation. They rated their satisfaction with the intervention very high. In structured interviews GP's described the intervention feasible. With the case vignette, GPs used a median of two out of four AiD functions to optimize medication, and reduced potentially severe drug-drug interactions by a median of 86%. Inappropriate NSAID prescriptions of the vignette were stopped by 6/10 GPs, and substituted by appropriate analgesics by 3/10. Usability of AiD was rated high to moderate by GPs: learnability, clarity and handling were good, but workaday practicability only fair to poor, mostly because it was not integrated into the GP's software system.

Conclusions

The PRIMUM intervention was feasible for GPs. The results of PRIMUMpilot provided valuable information leading to modifications in training modules and tools for the main study.

P122

Blood Pressure and Beliefs: does self management of hypertension affect beliefs about medicines?

Presenter: Sheila Greenfield
Coauthors EP Bray; RJ McManus on behalf of the TASMINH2 investigators

Introduction

Reducing blood pressure (BP) reduces cardiovascular risk for hypertensive patients. Such control relies on a combination of lifestyle and pharmacological interventions which in turn are mediated through an individuals' illness response and health beliefs. Patients who self-managed in the TASMINH2 trial had

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significantly lower blood pressure after both six and twelve months. This sub-study explored beliefs about medicines over time and the influence of socio-demographic variables on these beliefs.

Methods

234 intervention (self management) and 246 control patients (usual care) completed a Beliefs about Medicines questionnaire (BMQ) after randomisation and at 12 month follow up. The BMQ measures necessity (the extent an individual considers medication necessary to control the condition) and concern (the extent to which an individual is concerned about adverse effects of medication). The analysis compared both absolute score and change in score over time.

Results

A mixed model analysis showed a significant change over time for both necessity and concerns score in trial patients overall with necessity being higher, and concerns lower at 12months than at baseline. Neither absolute score nor change in BMQ variables significantly differed between groups, nor was there a significant change in pattern of the scores. Change in concerns score for the intervention group was significantly positively correlated with change in SBP and DBP ($r=0.152$, $p<0.05$; $r=0.144$, $p<0.05$) but not in the control group. White compared to non-white and older compared to younger participants showed a larger decrease in concerns score over the year but not alcohol or activity. Change in necessity score was not significantly associated with change in BP, nor the other factors investigated.

Conclusions

Beliefs about medicines changed over time with individuals more likely to consider medication necessary but less worried about side effects after a year. These changes were not affected by self management. People who self managed and achieved lower BP were less concerned about adverse effects of medication than those whose blood pressure was higher, but achieved BP did not influence beliefs about the necessity for medication. It seems unlikely that beliefs about medicine were a significant factor in the success of the self management intervention in the TASMINH2 trial.

P123

Visual impairment makes a difference to medication management for older people

Presenter: Margaret Cupples
Coauthors Dr RM McCann, Mr MR Stevenson, Prof AJ Jackson

Introduction

Numbers of older people in our society with multi-morbidity and need for multiple drug therapies are rising. The impact of visual impairment (VI) has increasing importance as the proportion of people with VI increases with age. Our objective was to determine if VI is associated with difficulties in medication management, including compliance, in older people.

Methods

Design: Case-control study; clinic assessment of visual actuity; outcome measurements in own home.

Setting: Primary care.

Participants: aged 65 years or older, taking 2 or more daily oral medications, no cognitive deficit. 156(56M;100F) with VI (corrected Visual Acuity (VA) 6/18-6/120) recruited from Low Vision Clinics; 158(61M, 97F) normally sighted (VA 6/9 or better) recruited from community optometry clinics.

Main outome measures: validated questionnaires: medication compliance (primary outcome), quality of life (QoL) (generic (SF-12; EQ-5D); vision specific (DLTV)) and activities of daily living.

Sample size: estimated 300 required to detect 15% difference in compliance between groups with 90% power and 0.05 alpha.

Results

The groups were similar in distribution of age (65-101years, mean 79(SD7.0)), gender, educational status and proportion living alone. Measures of compliance did not differ between groups but more people with VI (29% v 13%) required help in sorting their medication (OR 0.4; 95%CI 0.2-0.7; $p=0.002$): 97% could not read medication labels, despite using low vision aids; 24% reported difficulties distinguishing tablets, particularly in relation to colour. Participants (47% VI; 44% control) had difficulties opening medications. In both groups (VI 40%; Control 36%) compliance aids were used: significantly more with VI (10% v 2.5%) had pharmacy support for these (OR 4.4; 95%CI 1.4-13.5). More of the VI group reported falls (OR3.8; 2-7.3; $p<0.001$) and had social services contacts (OR 6.6; 3.6-12.1; $p<0.001$). VI participants had significantly poorer QoL relating to physical (self-care, performing usual

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activities, pain, mobility) and mental (anxiety) function.

Conclusions

Whilst we found no difference in medication compliance between older people with and without VI, our findings show that VI limits the ability to read prescription labels and distinguish different medications. Healthcare professionals should recognise that people with VI have a relatively poorer QoL and need additional support in managing medications.

P124

Application of multimorbidity measures in primary health care: identification of relevant studies by systematic review.

Presenter: Alyson Huntley
Coauthors R Johnson,S Purdy, C Salisbury

Introduction

Multi-morbidity is a major challenge for health services, especially primary health care (PHC). Measures of multi-morbidity can take different forms. The two main approaches are an index which uses weights or pathophysiologic severity rankings for the conditions and a disease count which is a simple enumeration of the number of diseases. Measures of multimorbidity are important for PHC, but most measures were developed and validated for case-mix adjustment in secondary care settings. The aims of this review were to identify measures of multi-morbidity studied in PHC and related populations, to describe relationships with patient characteristics, process measures and health outcomes, and if possible to identify the best measure to use in primary care.

Methods

Studies were identified using custom-designed search strategies in Medline and Embase from inception to May 2009. These results were cross-referenced with a bibliography from the International Research Community on Multimorbidity.

Results

From over 9,000 references, 257 full papers were assessed of which 148 papers (138 studies) were included in the review. These described Adjusted Clinical Groups (ACGs) n=17, Charlson Index n=26, CIRS n=9, Disease count (clinician & self-reported) n=43 & n=40, ICED n=3 and DUMIX/DUSOI n=6.

ACG studies: The majority of these studies described predictive values for a range of cost or process outcomes associated with multi-morbidity.

Charlson index: Seven of the 26 studies investigated process outcomes but the majority described the effect of multi-morbidity on health outcomes.

Disease counts (self-reported) and ICED
The majority described the effect of multi-morbidity on health outcomes.

CIRS, Disease count (clinician) & DUSOI/DUMIX
These describe a mixture of patient characteristics, process measures and health outcomes.

Comparison data
There were limited data (n=13 studies) comparing measures. Seven studies included the Charlson Index but lack of, and disparate evidence makes it impossible to comment on its performance compared to other measures. Two studies suggested ACGs were superior to using age and gender in predicting costs.

Conclusions

These results show that disease counts are the most commonly used multi-morbidity measure in PHC. Different multi-morbidity measures have been used and show relationships with different outcomes. Comparison data between the measures are limited.

P125

Shared Care for people with cancer: investigating the model with patients and professionals

Presenter: Peter Murchie
Coauthors Susan Hall, Leslie Samuel

Introduction

In primary care oncology, aftercare encompasses ongoing general medical care following a diagnosis of cancer, monitoring of treatment, structured follow-up and secondary prevention, education and support of patients and their families, and palliative care. Despite this, formal aftercare is usually delivered in secondary care-based clinics. This project had two aims. Firstly to explore the views of people with cancer on shared-follow-up care. Secondly, to evaluate a pilot shared care clinic for people with metastatic colorecatal cancer and melanoma.

Methods

Face to face or telephone interviews were conducted with 20 cancer patients at consultant led hospital clinics and also with six attending GP led shared care clinics in the community. Interviews with eight clinicians involved in the

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provision of services for cancer patients.
Standard qualitative methods are being used for the analysis.

Results

Patient interviews

Preliminary analysis indicates that most rural patients and some urban patients would, in theory, appreciate the convenience of attending a clinic closer to home with the associated benefits of time saved and easier parking, and being able to see the same doctor at every visit. They are concerned about losing contact with their consultant and end of life issues. Interviews with patients experiencing shared-care are broadly consistent.

Professional interviews

Preliminary with GPs delivering shared care highlights concernes about maintaing skills when relatively few patients are seen. Further problems have arisen in seeking timeous specialist input when concerns arise. Several ideas for systemic improvements have arisen.

Conclusions

Most cancer patients are happy to see a GP for their follow-up as long the GP has received additional training and can readily access specialist advice. Other patients do not wish to lose the relationship they had with a consultant. GPs providing the pilot service are mostly positive but have several suggestions to ensure the long term viability of this care model.

P126

Pilot study of opportunistic health screening in a retail environment

Presenter: Eugenia Lee
Coauthors Jones R

Introduction

Cardiovascular diseases have high mortality and morbidity, but primary cardiovascular risk factors are under-diagnosed in the UK
NHS Healthchecks are being implemented nationally, aiming to deliver health checks for 40 to 75 years old in the next 5 years. Many Primary Care Trusts offer health checks opportunistically in public places to improve uptake and access. There is little evidence on the effectiveness of this approach. This pilot explores the effectiveness of health screening in a supermarket in South East London

Methods

Eight consecutive Saturday clinics at the entrance of a supermarket offered opportunistic health screening, including blood pressure, random glucose, body mass index, spirometry, depression screening and a review of cancer screening.The primary outcome was the proportion of participants in whom previously unknown cardiovascular risk factors or other disorders were identified

Results

1024 participants underwent screening and 425 (41%), required follow-up: 106 had abnormal results in previously known conditions such as diabetes, hypertension,COPD and,asthma. 261(26%) were previously undiagnosed:95 (9%) had raised blood glucose,172 (16%) hypertension, 52 (5%) FEV1 less than 75% of predicted. 29 (31%) with raised blood glucose had not seen their GP for more than 1 year. 296 patients screened positive for depression, 29 % of participants. 42 (21% of eligible) women recalled that their breast screening was out of date and 130 (26% of eligible) their cervical smear . 99/ 129 (77%) eligible participants recalled receiving the bowel screening toolkit but had not participated.

434 (42 %) were overweight (BMI of 25 to 29.9), 284 (28%) were obese (BMI 30 to 39.9), and 35 (3%) had BMIs over 40. Qualitative feedback was positive. Participants brought family members for health checks in subsequent clinics and requested more clinics.

Conclusions

This study helps to inform commissioners the effectiveness of opportunistic healthcheck which aims for 'hard to reach' groups. A significant proportion of previously undiagnosed diabetics/ hypertensive may be missed if the age range indicated by NHS healthchecks were followed. The study indicates that opportunistic health screening in a retail environment is likely to be effective, particularly for those who rarely attend their GP.

P127

Partnership between domestic violence researchers and service providers: collaborators or co-investigators?

Presenter: Jean Ramsay
Coauthors A Gregory
D Dunne, D Sharp, R Agnew Davis, M Johnson, C Metters, A Howell, J Buss,
G Feder

Introduction

Good quality relevant research on domestic violence (DV) and health care requires the involvement of service providers. This paper addresses the challenge of genuine partnership between health service researchers and domestic violence service providers, highlighting the transition from collaboration to co-investigation

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which has consequences for the design and conduct of research, dissemination and knowledge transfer. These issues are addressed in the context of a randomised controlled trial of a training and support intervention in general practice.

Methods

IRIS (Identification and Referral to Improve Safety) is a cluster randomised controlled trial, investigating the effect of a training and support programme, targeted at general practice teams, on the identification of women experiencing DV and on referral to DV advocates. The advocates, who also helped to deliver the programme, were based in two specialist agencies (in east London and Bristol). They were part of the IRIS steering group, as were senior managers within the agencies. In this presentation we focus on the issues arising from this collaboration.

Results

We will discuss what we have learnt in terms of the challenges of collaborating closely with service providers, as well as the advantages that it brings.

The challenges include:

„X priorities for DV service providers necessarily differ from those of primary healthcare researchers

„X managing an intervention delivered by DV specialist agencies in the context of a trial is challenging

„X involvement in a trial requires a greater degree of explicitness about the content of the service than agencies generally require

The benefits include:

„X juxtaposition of different paradigms of care (beyond medical models)

„X imaginative interventions responding more sensitively to the needs of patients and clients than conventional NHS services

„X flexibility sometimes lacking with health service partners

„X facilitated active contact with service users who have taken significant roles within the trial

„X an emphasis on the translation of findings into policy and commissioning guidance

Conclusions

We will conclude with a suggested framework for this type of collaboration in future DV research.

P128

Limiting and motivating factors for accepting an intervention offer among subjects 75 years and over who screened positive for depressive symptoms in general practice; a qualitative study

Presenter: Gerda van der Weele
Coauthors R de Jong, MWM de Waal, RC van der Mast, Ph Spinhoven, H Rooze, WJJ Assendelft, J Gussekloo

Introduction

Screening can increase recognition of depressive symptoms, but screen-positive subjects are not automatically willing to accept the subsequent unsolicited treatment offer. We explored limiting and motivating factors for accepting the ¡®Coping with depression¡¯ course offer and needs among subjects ¡Ý75 years who screened positive for depressive symptoms in general practice.

Methods

Of the 121 subjects who screened positive for depressive symptoms (15-item Geriatric Depression Scale ¡Ý5 points) 101 accepted referral to the community mental health centre and were offered the ¡®Coping with depression¡¯ course, which was accepted by 23 (19%) subjects. We interviewed a sample of 23 subjects: 5 of them had accepted and 18 had declined the course offer. The in-depth interviews contained questions about views on depression, self-recognition of depressive feelings, personal coping style, perceived needs, expectations about the course effect, group participation, accessibility of the course, social influences and the influence of age on course acceptance. Interview transcripts were coded independently by 2 researchers. Atlas.ti 5.2 was used to explore associations.

Results

Limiting factors for course participation included: not feeling depressed, feeling too old, having no confidence in effectiveness of the course, dislike to join a group and accessibility problems. Motivating factors for participation included: meeting others, sharing problems and wanting to learn new things and, for a few subjects, feeling depressed and belief in course effectiveness. The perceived needs to cope with depressive feelings match largely with elements of the offered course. Many subjects mentioned they want to discuss course participation with their GP.

Conclusions

Although the content of the offered course matches well with expressed needs of older subjects in coping with depressive feelings,

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many barriers to course participation exist. For subjects who feel depressed and are open to help, GPs can play an important motivating role to accept the intervention.

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WORKSHOPS

W1
QOF: New ways of working

1 Stephen Campbell, 2 Helen Lester, 3 Kerin Hannon, 4 Tim Stokes

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2: National Institute for Health & Clinical Excellence

Introduction
In 2004 the UK government introduced new contractual arrangements for general practice, which included the Quality and Outcomes Framework (QOF), a pay-for-performance scheme. The QOF is now an embedded and an integral part of primary care, representing around 25% of practice income. 99.6% of practices participate although the scheme is voluntary. QOF currently includes 134 indicators adding up to 1000 points. Eighty six indicators worth 697 points (70 per cent of the total) lie within the clinical domains.

2009 saw the introduction of a new way of developing clinical indicators for QOF, led by NICE (TS) in collaboration with independent external contractors led by NPCRDC (SC, HL, KH) and the York Health Economics Consortium (YHEC) in collaboration with the RCGP and supported by SAPC.
The new process consists of several different elements: 1) collating and prioritizing new areas for QOF indicators, based on submissions from individuals and stakeholder groups 2) developing and piloting clinical and health improvement indicators for the QOF in representative samples of practices, , 3) reviewing and recommending whether existing indicators should remain in QOF, and 4) advising on points and thresholds for new and existing indicators.

Aim
This workshop aims to share our experiences of the new NICE-led process of prioritizing, reviewing, developing and piloting QOF indicators.

We shall draw on our current and previous work on evaluating the QOF to describe how the new system works, our experience of working with pilot practices, and present a rationale and criteria for removing indicators from incentives schemes - including the eight clinical process indicators that have already been agreed for retirement from the QOF in April 2011. We hope the workshop will also include primary care academics who are members of the independent NICE QOF Advisory Committee.

Educational objective
1. To learn from the experience of the workshop delegates on the perceived strengths and weaknesses of the new process.
2. To share ideas on how the profession and the general public might better engage in developing QOF.

W2
Higher degrees for Medical Educators

Dr Sophie Park, Dr Deborah Gill & Dr Ann Griffin
UCL
Research Department of Primary Care and Population Health
and Division of Medical Education

Introduction
The field of medical education has undergone rapid change. The ‘professionalisation’ of the GP educator has seen an increasing requirement for them to broaden their knowledge of teaching and learning and develop their educational research skills. The manifestation of ‘professionalisation’ is the rising enrolment on higher degree programmes and a proliferation of available courses. The strong orientation of many of these programmes towards research reflects a wider change in the perceptions of knowledge that favours the empirical enquiry above educational activities.

Aim
This workshop aims to help delegates take the next steps towards a higher degree in medical education.

Educational objective
During this workshop we hope to equip participants to consider the importance of the shifting status in what constitutes knowledge; individual courses each adopt different emphases between practical and theoretical, as well as, possessing a range of other factors which need to be carefully assessed before making a commitment to a protracted period of study.

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W3
Demystifying Problem-based Learning

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UEA

Introduction
PBL is a realtively new teaching method in UK health education, and is delivered in a variety of ways. There is much written on PBL but due to its recent arrival, few practitioners have experienced it as students, and unless educators work in a PBL environment, few will have experienced it as teachers.

Aim
To understand why PBL is a useful learning method and to experience it first hand UEA-style

Educational objective
By the end of the workshop delegates will be inspired to consider PBL in their own teaching settings.

W4
The Teaching of Medically Unexplained Symptoms and Somatisation at Medical Schools in the United Kingdom.

Dr Marta Buszewicz (senior lecturer), Dr Mary Howman (clinical teaching fellow), Dr Joe Rosenthal (primary care education lead)
and Dr Kate Walters (senior lecturer)
Department of Primary Care and Population Health, UCL Medical School

Introduction
Around half of consultations in primary and secondary care concern medically unexplained symptoms (MUS), which despite investigation do not have a clear underlying organic pathology. In some cases patients are 'somatising'; presenting with physical manifestations of an underlying psychological disorder. Nonetheless, the majority of medical school teaching is about medically explained symptoms leading to a medical diagnosis. A 2005 BMJ editorial noted, "Currently theoretical and practical training in MUS is insufficient in most university curricula".

Robert Priest conducted a survey into the teaching of 'psychosomatic medicine' at UK medical schools in 1983. He postulated there should be minimum standards for the teaching of this topic and more integration in its teaching across specialties.

Stimulated by our teaching about MUS and somatisation to 4th year medical students at UCL we conducted a recent survey across UK medical schools. Results indicate the topic does feature in most schools' curricula, but usually for a few hours in total, with variable assessment and at different stages in training. Concern was expressed about the amount of teaching and lack of integration across disciplines. Potential barriers included limited time, uncertainty around where in the curriculum to place this teaching and lack of recognition of its importance.

Aim
The aim of this workshop is to use these survey results as a basis for discussion about the teaching of medically unexplained symptoms and somatisation to medical students. Workshop attendees will have the opportunity to share their experiences of the format, strengths and weaknesses of teaching in this area at their own institutions.

Using the collective expertise of the group we shall then aim to explore whether there is a need for change and, if so, how this could be accomplished. We shall consider areas such as core objectives, curriculum design, integration and assessment in relation to MUS and somatisation.

Educational objective
1. To share the results of our recent survey of the teaching of MUS and somatisation in UK medical schools.
2. To encourage inter-school sharing of experiences, models of good practice and barriers to teaching about medically unexplained symptoms and somatisation.
3. To formulate ideas for improving teaching in this area which may be taken back to individual medical schools

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Conference Chair: Prof Chris Salisbury

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