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Variations in administration of depot antipsychotic medication within primary care: a cross-sectional survey of practices in the North Thames Region

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The aim of this study was to describe the extent and variations in administration of depot antipsychotic medication within primary care in the North Thames Region, by means of a cross-sectional survey of a sample of general practices in the North Thames Region. Outcome measures were the number of patients receiving depot at the general practice, the professionals administering depot in that general practice, and the perceived need by these professionals for further training. Depot antipsychotic medication was administered in 55 practices (79.7% of the respondents). Practice nurses gave depot antipsychotics in 41 (59.4%) of the respondents, general practitioners in 27 (39.1%) of the respondents and community psychiatric nurses (CPNs) in 31 (44.9%) of the respondents in the practices studied. It was found that the majority of GP practices within the North Thames Region administer depot antipsychotic medication, and the GPs and practice nurses share a significant proportion of this administration. Practice nurses need specific training for this task, with access to regular refresher courses to ensure good practice.

Key words: depot antipsychotic administration; National Service Framework for Mental Health; primary care; staff training

Introduction

General practitioners (GPs) play a significant role in the management of patients with severe mental illness, and the majority of GPs believe that the care of such patients should be shared between themselves and a psychiatrist (Brown *et al*., 1999). Patients with schizophrenia have frequent contact with GPs (Nazareth *et al.*, 1993), and around 25% of them have no contact with specialist mental health services (Johnstone, 1991). It has been suggested that GPs could use frequent contact with these patients to play a greater role in monitoring their mental state and psychotropic medication (Kendrick *et al.*, 1994). One of these roles could be the administration of depot antipsychotic medication.

Depot antipsychotic medication is the mainstay of treatment for many patients with schizophrenia, and it can have important advantages in facilitating relapse prevention (Kane *et al.*, 1998). Another advantage of depot medication is that staff can be sure that medication has been received by the patient. In the UK, the administration of depot medication has traditionally been one of the roles of the community psychiatric nurse (CPN), but a minority of patients receive their medication from primary care staff. Although previous reports have indicated that GPs regard CPNs as the most appropriate professionals to act as case managers, patients might not particularly appreciate their input (Nazareth *et al.*, 1995). Patients may prefer the non-stigmatizing environment of primary care,

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and regular contact with primary care services may help to promote general health in this vulnerable sector of the population (Billingham, 1998). However, there may also be disadvantages. For example, anecdotal evidence suggests that many nurses responsible for giving depot medication have no specific training for the task, are unaware of the side-effects of the medication, and are not adequately supported by local mental health services. Such concerns have led some commentators to conclude that, on the whole, nurses in primary care should not administer depot antipsychotic medication (Deacon, 1999).

The aims of this study were to determine the extent to which depot antipsychotic medication is currently administered in primary care, and to examine variations in administration patterns within the North Thames Region.

Methodology

An electronic search was conducted using Medline Express 1966–98 and Serline on Silver Platter 98 (British Nursing Index, RCN journal database, King's Fund database, HELMIS and DH database). The key words *depot*, *antipsychotic*, *administration*, *primary care*, *CPN*, *general practice* and *mental health service* were used, and we found only four relevant papers.

A hand search of the *British Journal of General Practice*, the *British Journal of Psychiatry* and the *Psychiatric Bulletin* from January 1995 to January 1999 was undertaken, and we found seven papers relevant to this study. The key paper was by Nazareth *et al.* (1995). A citation search was performed for this article using BIDS, and six references to this paper were found.

Details of all general practitioners in the North Thames Region were obtained from the National Health Service Executive (NHS Executive). This included information about the number of doctors, the names and addresses of their practices, their list sizes and the level of deprivation in binary code on a ward-based system (NHS Executive, 1999).

Within the North Thames Region, there were 3795 general practitioners working in 1447 general practices with a total of 7 680 427 patients. In total, 2217 of 3795 general practitioners were receiving deprivation payments on the ward-based system.

In order to select a sample of general practices for our study, the postal codes of general practitioners were sorted alphabetically using Microsoft Excel 97. They were then grouped into general practices and every fourteenth practice was selected. A total of 104 practices were included in the sample, with a total of 279 GPs, of whom 172 GPs were receiving deprivation payments on the ward-based system. The total GP list size for the sample was 586 230. A questionnaire was sent to the selected practices, addressed to the practice manager, together with a covering letter and a self-addressed envelope. The questions asked which professionals administer depot antipsychotic medication at the general practice, the number of patients who receive depot medication from the practice, and whether the respondent considers that there is a need for further training with regard to depot administration. Comments about depot administration were invited, and the designation of the person completing the form was requested. After 3 weeks, nonresponders were contacted by telephone, and if necessary a second questionnaire was sent out. Those nonresponders who could not be contacted by telephone because of an answering or deputizing service were sent another questionnaire by post, with another covering letter.

Results

Three practices that did not respond to the initial letter were not listed in the telephone directory. It was assumed that these practices had changed premises and were not included in the final analysis of replies. Thus 101 practices were included in the study. In total, 69 replies (68.3% of the sample) were received, of which four were incomplete. All the replies were included in the analysis. The characteristics of responders and nonresponders in terms of the number of GPs per practice are listed in Table 1. A list of the professionals who completed the questionnaire is shown in Table 2.

In total, 55 practices (79.7% of the respondents) reported administering depot medication to one or more patients, and 10 practices (14.5% of the respondents) were administering depot medication to more than 10 patients. A median of 4 patients and a mode of 3 patients were receiving depot antipsychotic medication. The range was between 0 and 15, with the 90th percentile at 13. In order to obtain more comparable figures, the rate of depot

Table 1 Characteristics of responders vs. nonresponders in terms of number of GPs per practice

Number of GPs per practice	Responders ($n = 69$)		Non-responders ($n = 32$)	
	Number	Percentage	Number	Percentage
1	23	33.3	15	46.9
2	13	18.8	7	21.9
3	11	15.9	4	12.5
4	9	13.0	2	6.3
5	4	5.8	2	6.3
6	4	5.8	2	6.3
7	3	4.3	0	0
8	2	2.9	0	0

Table 2 A table showing professionals completing the questionnaire together with their replies to the question about the need for further training

Professional filling in the questionnaire	*n*	Professionals reply to the question 'Is there a need for further training in depot administration?'		
		Yes	No	Don't know
GP	40	6	27	7
Practice nurse	18	9	8	1
Practice manager	6	0	5	1
GP and practice manager	2	0	1	1
Practice nurse and practice manager	1	1		
Don't know	2			2
Total	69	16	41	12

Table 3 Depot administration rate per 1000-patient list size in the practices studied

Number of GPs per practice	Depot administration rate per 1000-patient list size per GP	
	For practices receiving deprivation payments from the Department of Health	For practices not receiving deprivation payments from the Department of Health
1	1.66	1.60
2	0.82	0.23
3	2.53	0.11
4	0.24	0.20
5	0.00	0.04
6	0.06	0.16
7	0.06	0.60
8	0.10	0.09

administration per 1000-patient list size was calculated. The rate of depot administration ranged from 0.00 to 2.53 per 1000 patients (see Table 3).

Practice nurses were giving depot antipsychotic medication in 41 practices, GPs in 27 practices and CPNs in 31 of the practices studied. In total, 10 practices relied exclusively on CPNs attached to the practice, and 6 practices referred their patients to community mental health teams (CMHTs).

The responses to the question 'Would the staff administering depot medication like to have further training in this task?' revealed marked differences between the views of doctors and practice nurses. In general the doctors did not consider that there was a need for further training in depot administration. Their comments included the following: 'All are trained and therefore aware of side-effects'; 'We have a thorough and precise protocol'; 'Capable and experienced'; 'Do not feel that this work should be transferred to practices'; 'All responsibilities for depot injections should rest with CPNs'. In contrast, just over half of the practice nurses felt that there was a need for regular training. The views expressed by nurses included the following: 'Probably useful'; 'None of us trained'; 'No formal training received'; and 'As a practice nurse, updates on medications are very beneficial'.

Discussion

This study has demonstrated that the majority of GP practices within the North Thames Region administer depot antipsychotic medication to a small number of patients. GPs and practice nurses share this work, and in a minority of surgeries community psychiatric nurses are also involved. There is wide variation between practices, which could not be conclusively explained by either practice size or the receipt of deprivation payments.

Divergent opinions emerged regarding the need for further training in this area, with most of the GPs stating that additional practice training was not required, whereas many of their nursing colleagues expressed a need for such training.

The results of any postal survey need to be treated with caution. Although no differences were found between responders and nonresponders in terms of practice size and level of deprivation, there may be undetected differences in other areas. Improving the initial response rate to a postal questionnaire by follow-up telephone calls is an accepted practice (Kaner *et al*., 1998), but it can increase the likelihood of social desirability bias (Sibbald *et al*., 1994). The other limitation of this study is that the results are based on answers given by practice staff, and we were unable to validate their responses. It is unlikely that this resulted in any systematic bias, but the possibility cannot be discounted altogether.

Administration of depot medication enables regular contact with a vulnerable group of patients. Those responsible for administration have an obligation to use this contact effectively. It gives staff an opportunity to monitor the patient's mental state, assess any side-effects, and develop a therapeutic relationship. This regular contact can also allow staff to discuss general health promotion, and to assess the patient's physical well-being. It is also essential that staff are proactive when patients do not attend for medication, and that they have clear guidance on a course of action for defaulting patients. All of this is possible in primary care. However, our findings suggest that practice nurses perceive a need for training in this area if they are to do the job properly. In a large survey of practice nurses (Crosland and Kai, 1998), 80% of the respondents reported that they had concerns about their ability to address mental health problems effectively. Burns *et al*. (1998) demonstrated that, after a period of training, practice nurses could conduct structured assessments on patients receiving depot antipsychotics, but that they lacked confidence in assessing psychotic symptoms. We suggest that a needs-led training programme for the primary care staff, involving lectures and small-group discussion, could be the first step in this direction (Kerwick *et al*., 1997).

The National Service Framework for Mental Health (Department of Health, 1999) states that primary care groups should work with primary care teams and specialist services to agree upon and implement assessment and management protocols for patients with mental disorders. Issues surrounding the administration of depot medication should be included in any such protocols. If good practice is to be achieved, practice staff need to understand the complexities of the task, and to invest the necessary time and commitment. We would suggest that if practices do administer depot medication, this should be done by specifically trained staff, structured assessments should be conducted, and good practice guidelines should be used. The burden of doing the job properly should be rewarded by practice remuneration. Occasional administration by staff who are not specifically trained in this procedure should be discouraged.

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References

Billingham, F. 1998: Treating schizophrenia in general practice – the depot injection. *Community Mental Health* Summer Issue, 14–16.

Brown, J., Weich, S., Downes-Grainger, E. *et al*. 1999: Attitudes of inner-city GPs to shared care for psychiatric patients in the community. *British Journal of General Practice* 49, 643–44.

Burns, T., Millar, E., Garland, C. *et al*. 1998: Randomized controlled trial of teaching practice nurses to carry out structured assessments of patients receiving depot antipsychotic injections. *British Journal of General Practice* 48, 1845–48.

Crosland, A. and **Kai, J.** 1998: 'They think they can talk to nurses': practice nurses' views of their roles in caring for mental health problems. *British Journal of General Practice* 48, 1383–86.

Deacon, M. 1999: Administrating depot injections: whose work? *Mental Health Nursing* 19, 14–19.

Department of Health 1999: *Modern standards and service models. National service framework for mental health*. London: HMSO.

Johnstone, E.C. 1991: Disabilities and circumstances of schizophrenic patients – follow-up study. *British Journal of Psychiatry* 159 (Supplement 13), 43.

Kane, J.M., Aguglia, E., Altamura, A.C. *et al*. 1998: Guidelines for depot antipsychotic treatment in schizophrenia. *European Neuropsychopharmacology* 8, 55–66.

Kaner, E.F.S., Haighton, C.A. and **Mcavoy, B.R.** 1998: 'So much

post, so busy with practice – so, no time!': a telephone survey of general practitioners' reasons for not participating in postal questionnaire surveys. *British Journal of General Practice* 48, 1067–69.

Kendrick, T., Burns, T., Freeling, P. *et al.* 1994: Provision of care to general practice patients with disabling long-term mental illness: a survey in 16 practices. *British Journal of General Practice* 44, 301–5.

Kerwick, S., Jones, R., Mann, A. *et al*. 1997: Mental health care training priorities in general practice. *British Journal of General Practice* 47, 225–27.

Nazareth, I., King, M., Haines, A. *et al*. 1993: Care of schizophrenia in general practice. *British Journal of Psychiatry* 307, 910.

Nazareth, I., King, M. and **Davies, S.** 1995: Care of schizophrenia in general practice: the general practice and the patient. *British Journal of Journal Practice* 45, 343–47.

NHS Executive 1999: *Seniority payments and deprivation payments*. Health Service Circular 1999/107. Leeds: NHS Executive.

Sibbald, B., Addington-Hall, J., Brenneman, D. *et al*. 1994: Telephone versus postal surveys of general practitioners: methodological considerations. *British Journal of General Practice* 44, 297–300.

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