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special articles

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Service innovation: transitional attention-deficit hyperactivity disorder clinic

Attention-deficit hyperactivity disorder (ADHD) affects 3–7% of school-age children (Goldman *et al*, 1998) and causes symptoms of inattention, hyperactivity and impulsivity (DSM–IV; American Psychiatric Association, 1994). In the UK, many adolescents are currently being treated for ADHD; the prevalence of treated ADHD among boys aged 5–14 years was estimated at 5.3 per 1000 in 1999 (Jick *et al*, 2004). This means that over 40 000 boys aged 5–14 years are currently treated in the UK (2001 Census; http://www.Statistics.gov.uk/census2001/census2001.asp).

Although ADHD is primarily seen as a disorder in children, it is clear that symptoms continue into early adulthood (Gittleman *et al*, 1985; Weiss *et al*, 1985; Mannuzza *et al*, 1993). This was supported by Faraone & Biederman (1998), who found up to 20% of parents of children with ADHD also had the condition. Furthermore, in a more recent study, the prevalence of ADHD in adults was 2.5%, using a cut-off of four relevant DSM–IV symptoms (Kooij *et al*, 2005).

Hence young people currently treated for ADHD by child and adolescent mental health services (CAMHS) and paediatric services are likely to require treatment beyond 16. However, when they reach 16 (or 18 if they are continuing in education) these young people will exceed the upper age limit for these services.

Need for transitional services

It is unclear what happens to a patient with ADHD symptoms once they reach 16 or 18. In England, a mainly tertiary referral service for adults with ADHD has been running at the Maudsley Hospital for some years. There is also a tertiary service at Addenbrooke's Hospital in Cambridge. However, there is little specialised provision to meet the needs of young people moving on from child ADHD services.

In Rotherham, CAMHS are seeing patients beyond the upper age limit. This not only increases pressure on existing services, but also raises the question of whether young adults should be seen by a children's service.

Is it possible that many patients are lost to follow-up owing to a lack of services to meet their needs? In this paper we describe a dedicated clinic that aids the smooth transition of young people from child and adolescent mental health services to adult psychiatric services.

Assessment of local need

An audit of cases of ADHD diagnosed in CAMHS between 1994 and 2004, in Rotherham, found 88 confirmed cases of ADHD, 37 of hyperkinetic conduct disorder and 3 of attention-deficit disorder. Of these, 27 patients were over the age of 16 but only 3 were being followed by general adult psychiatry services. Significantly, it was not known whether the other 24 individuals had been lost to follow-up. A recent audit found 27 young people with ADHD in the Rotherham CAMHS that were expected to reach the age of 16 between January 2005 and December 2006 (Verity *et al*, 2006). To meet this need, a transitional clinic for ADHD patients leaving the service was proposed.

Transitional clinic

History

In July 2004, South Yorkshire clinicians with an interest in ADHD in adults and adolescents attended a meeting in Rotherham which clarified two sources of ADHD referrals to general psychiatrists in the area: the first, from general practitioners for adults with ADHD and the second from CAMHS for young people due to move on from their service. It was agreed that R.V. should ascertain what was happening nationally to adult patients with ADHD, and report back in November 2004. At the November meeting it was decided that efforts should initially be concentrated on those transitional patients who were due to leave CAMHS, as this represented the best use of limited resources.

In March 2005, a protocol for patients with ADHD at the upper age limit of CAMHS was agreed and in April 2005, the Rotherham psychiatry consultant body approved its use (Box 1).

Aims

The aims of the transitional ADHD clinic were:

- to be led by local need and ensure continuity of care
- to provide a supportive environment for the transition from CAMHS to adult services
- to promote a quality service through training, audit and research
- to continue developing specialist expertise through training, audit and research
- to act as a role model for best practice.

Experience to date

At the first clinic appointment a current DSM–IV diagnosis of ADHD is confirmed and the degree to which symptoms affect the individual's life is assessed; thus the current need for treatment is determined. All individuals are encouraged to attend the initial appointment with

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Box 1. Transitional protocol (April 2005)

- Young person leaves the CAMHS with a written doctor referral to transition service
- Joint assessment with carer, CAMHS worker and R.V.
- If continued treatment is not appropriate, discharge, with letter informing that general practitioner can re-refer
- If any comorbid psychiatric diagnosis is found, assessment and referral to appropriate service (e.g. drugs service)
- If diagnosis and need to continue treatment is confirmed, medication prescribing (e.g. methylphenidate) is continued, and general practitioner and CAMHS are informed
- Six-month assessment including blood pressure, weight, full blood count, urea and electrolytes and liver function tests
- One-year assessment including period off medication if applicable.

someone who knows them well, and is able to give an informant history.

We have seen 11 patients so far, all moving on from the local CAMHS, and a diagnosis of ADHD has been made in each case. A further 16 patients will have been seen by February 2007. We are expecting more referrals in the near future.

In 9 out of 11 young people seen at the time of writing the medication regimen recommended by the CAMHS service was continued. One patient was recommended a higher dose of current medication, and for 1 patient medication was not recommended. No comorbid psychiatric diagnoses have been made in the initial cohort.

Follow-up

If no changes are made to medication and the patient is stable, follow-up arrangements are for every 6 months. If medication is changed, patients and/or their carers are asked to assess the response to treatment over a period of 2 weeks for methylphenidate-based medications (there has been no experience so far with atomoxetine). Patients and carers then contact R.V. by telephone to discuss the outcome. The rationale behind this approach is that patients have been treated usually for many years and know their own reaction to stimulant medication. Prescriptions are given every 6 weeks.

Full blood count, urea and electrolytes, liver function tests, weight and blood pressure are measured. The current plan for 1-year follow-up is to advise the patient to consider a trial period without medication in order to reassess the need for treatment.

Limitations

The following unmet needs have been highlighted in the clinic:

- young people in need of educational or training opportunities
- young people requiring help with housing
- some young people and their families have chaotic lifestyles that makes adherence difficult
- ADHD has caused difficulties in family relationships
- we have no nursing, social work or psychology input into the team which could help meet the above.

Furthermore, we only accept referrals from CAMHS, and currently operate only within one locality of our NHS trust.

Future plans

In the near future we hope to become a trust-wide resource and later aim to take referrals from the region. As the clinic expands we aim to liaise with local general practitioners, facilitate shared care and offer a multidisciplinary service to counter the unmet needs.

Clinical implications

In our locality there is a clinical need for a service to enable the transition of patients with ADHD from CAMHS to adult services (Verity *et al*, 2006). The Rotherham transitional ADHD clinic facilitates this transfer, in accordance with the National Service Framework for Children and Young People (Department of Health, 2004).

Declaration of interest

R.V. received travel and subsistence support from Eli Lilly for visiting the Maudsley Hospital.

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