Auditing possible side-effects of atypical antipsychotics

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ABSTRACT Houltram, B., Twigger, M. (2006) Auditing possible side-effects of atypical antipsychotics. Nursing Times; 102: 13, 32–34. This article describes how a tool for auditing the side-effects of atypical antipsychotic medication was developed. This was then used to audit case notes revealing that care practices were towards the worst practice end of the continuum. This article considers the wider implications of this for care and education.

Schizophrenia is now treated with new medications that are commonly called atypical antipsychotics. These have a reduced incidence of extrapyramidal side-effects and unpleasant symptoms and should result in increased concordance with medication and improved psychosocial outcomes (McDonald and Murray, 1998). Unfortunately, this type of medication can cause a number of side-effects that are predominantly physical.

Atypical antipsychotics

There is now a substantial body of research on weight gain, particularly with respect to specific atypical antipsychotics (American Diabetes Association et al, 2004; Taylor et al, 2003). Lipid abnormalities and altered glucose metabolism are commonly reported side-effects of atypical antipsychotics. Gupta et al (2003) noted that in a young, chronically psychiatrically ill population taking atypical antipsychotic medication, there were high rates of diabetes and lipid abnormalities. Finally, 65% of those surveyed in one study reported clinical side-effects associated with raised prolactin levels including sexual dysfunction, amenorrhoea, galactorrhoea and gynaecomastia (Hogman and Sandamas, 2000). These side-effects are cited as causes of increased rates of both morbidity and mortality (Osby et al, 2000; Kleinberg et al, 1999) and as significant factors in non-concordance (Rettenbacher et al, 2004). These physical health problems have a knock-on effect on mental health, intensifying symptoms such as anxiety and depression and increasing the risk of suicide (Dixon et al, 1999).

Therefore, an important way of promoting mental health could be to improve or at least prevent deterioration in physical health and regular systematic physical health checks are recommended (Marder et al, 2004).

Background

Care maps were developed to provide concise, evidence-based, step-by-step guidance for busy clinicians and concerned service users. They were designed to help the clinician assess and manage the following commonly reported side-effects:

- Weight gain;
- Hyperprolactinaemia and sexual side-effects;
- Sedation;
- Extrapyramidal side-effects such as tremor, slurred speech, akathisia, dystonia, anxiety, distress, paranoia, and bradyphrenia;
- Hyperlipidaemia and cardiovascular effects;
- Postural hypotension;
- Altered glucose metabolism and hyperglycaemia.

The care maps, which incorporate current evidence, were used to provide the evidence base for benchmarking best practice in managing the side-effects of atypical antipsychotic medication. Benchmarking normally uses other care settings as a unit of comparison (Trinder, 2001). However, using...
the care maps placed a greater emphasis on objective evidence and less reliance on personal opinion to determine action.

To audit care against the benchmarks the framework from Essence of Care (Department of Health, 2001) was used. The rationale for using this relates to the structured approach it takes to comparing and measuring practice to help improve the quality of care.

Initially audit tools were designed for four of the seven care maps: weight gain; impaired glucose tolerance; dyslipidaemia; and raised prolactin levels. This article reports on the development of the weight gain audit tool and the results of its clinical application.

**The audit tool**

The factors that lent themselves to measurement with the benchmarking audit tool were identified and represent a step-by-step approach:

**Factor 1:** The benefits and drawbacks of the medication are discussed and if there is potential for weight gain information on this is given.

**Factor 2:** Clients are weighed at baseline or the start of the newly prescribed medication. A body mass index is taken.

**Factor 3:** Client is weighed monthly for six months at the start of new medication associated with weight gain and then every three months.

**Factor 4:** Proactive approach to lifestyle changes to manage potential for weight gain is recorded.

**Factor 5:** Client is gaining weight and records show that an assessment has been undertaken.

**Factor 6:** Records show that attempts have been made to manage client anxieties about weight gain.

**Factor 7:** Medication continues to cause weight gain so further changes to medication and lifestyle are considered.

Fig 1 shows the first factor to be considered in the audit. Several criteria have been identified from the care map to assist in making a judgement. To be credited with best practice (A) all of the above criteria needed to be shown to be met.

Conversely, for worst practice (E) none of the criteria would be in evidence. For practice points along the continuum (D–C–B), a judgement was made about the extent to which these criteria could be seen to apply with reference to the indicators of best practice

A similar structure has been adopted for the other factors using between four and six criteria against best practice.

**Results**

An audit was carried out in June 2005. Through an examination of the case notes, scores were obtained across a number of factors related to weight gain on female and male wards for patients on antipsychotic medication.

**Male patients**

Fig 2 shows how factors 1–7 relate to the management of weight for three male patients.

Overall, practice barely got beyond the ‘worst practice’ end of the continuum. For example, for factor 1 the score indicates that there was no evidence that the benefits and drawbacks of prescribed antipsychotic medication were discussed with any of the male patients. The scores also show inconsistency in approach to weight management. This suggests that different standards appear to apply to the care given to patients on the same unit.

**References**

The same audit process was used to assess female patients. Fig 3 shows there was no record that the benefits and drawbacks of medication had been discussed. Moreover, care differences are indicated between patients on the same ward. However, overall scores show a much better level of weight management across the factors for the three female patients when compared with the male unit.

Comparison
Why is there a difference in applying the benchmark standards between the male and female units in the same organisation?

Bennett et al (1995) point out that in the general population aged 16–34, obesity levels are 5% for males and 7% for females and, between the ages of 25 and 34, are around 10% in both.

This raises some questions. Is weight considered to be less of an issue for male patients? Do female patients complain more about their weight? Are female staff more conscious of the health issues for the female patients?

The answer to these questions is beyond the immediate scope of this exercise. However, it is clear that there are differences in the approach to managing weight between patients on the same unit, whether they are female or male.

Implications for practice
From the aspect of staff accountability, and in particular working in partnership with patients, the records did not give obvious evidence of this.

Obesity is a significant risk factor for a number of serious physical conditions and atypical antipsychotics are known to increase weight (Marder et al, 2004; Taylor et al, 2003). Even if a client decides to continue eating an unhealthy diet, it is important that she or he is fully informed of the risks of continuing to do so and that this is properly documented.

This audit and other related evidence clearly demonstrate that physical health promotion in the mental healthcare setting has to be generally regarded as an underdeveloped and under-resourced activity.

Encouragingly, however, and very much in line with policy exhortations on physical health promotion (NICE, 2002; DH, 1999), evidence of good practice is emerging (Rahka and McKeown, 2005; Wood and O’Neill, 2005).

One of the most worrying recent findings showed that the coronary heart disease mortality rate for severely mentally ill people was not following the trend in the general population of reducing over time (Lawrence, 2003). Our duty of care demands that clients receive a better deal than they do at present. At the very least, serious attention needs to be paid to educating patients on diet, providing opportunities for exercise and reducing rates of smoking.

Clearly, this is only a brief snapshot of the outcomes of health promotion practices in one setting at a particular time. To what extent the results from this restricted audit might reflect the wider picture of health promotion activity within mental healthcare settings on weight control related side-effects of atypical antipsychotic medication is uncertain. However, previously cited evidence would appear to support their validity (American Diabetes Association, 2004; Coodin et al, 2001).