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headlines seemed to criticise physical medicine practitioners but psychiatric patients. In addition, we have found no evidence that 'quality' newspapers are any less stigmatising than the tabloids, given the extensive overlap in their confidence intervals. In retrospect, it would have been interesting to have performed a more detailed content analysis of the differences in coverage by medical speciality, any differences between headlines and articles themselves, and regarding specific issues such as violence.

Newspaper coverage reflects and drives social concerns. Content is also determined by the need for a 'good story' which will sell papers. Psychiatrists will not be able to alter the largely negative coverage our speciality and patients receive by simply complaining about it. We must, therefore, strive to work more closely with the media in providing factual information about psychiatric illness and stressing positive aspects such as advances in psychiatric treatment.

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Prescribing in schizophrenia

Evaluating the effect of introducing a new treatment protocol

AIMS AND METHOD

To develop and introduce a drug treatment protocol for schizophrenia and to evaluate its effect on prescribing. Prescribing of antipsychotics was audited in January 1998. A prescribing protocol was then developed by a collaborative process involving all medical staff, and introduced in September 1998. A second prescribing audit was conducted in February 1999.

RESULTS

The proportion of patients prescribed atypical drugs increased from 16.6% to 25.5%. Co-prescription of atypical and typical drugs was relatively uncommon compared with findings of other prescribing surveys. The use of anticholinergic medication was significantly more likely in patients receiving regular typical drugs alongside atypical agents than in those receiving atypicals alone.

CLINICAL IMPLICATIONS

Widely agreed prescribing protocols may promote improved prescribing practices. Co-prescription of atypical and typical drugs should be discouraged.

The introduction of atypical antipsychotics has brought with it systematic programmes of valid research and a corresponding increase in demand for evidence-based prescribing. Once, arcane combinations of antipsychotics were standard practice, but now prescribers are expected to be guided by robust trials of single agents in clearly defined illnesses.

In our own unit, evidence-based prescribing protocols had been in force since October 1994. Nevertheless, two published studies which incorporated some of our patients (Taylor *et al*, 1997; Taylor *et al*, 1998) have shown clear deficits in prescribing practice. In particular, the co-prescription of atypical and typical antipsychotics seemed disturbingly prevalent. This observation was largely confirmed by our own nationwide survey of atypical antipsychotic prescribing (Taylor *et al*, 2000) which revealed rates of co-prescription of regular atypical and typical antipsychotics to average as much as 40%. In this last study, the prescribing of regular anticholinergic medication was significantly more likely in patients receiving dual therapy.

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As part of an agreed protocol development programme with our health authority, we undertook an evaluation of prescribing practices before and after the introduction of a new prescribing protocol and examined rates of co-prescription and the relative need for anticholinergics in patients treated with different drug combinations.

The study

An initial audit of prescribing (Audit 1) was carried out in one predetermined week in January 1998. Pharmacists of the trust collected data from all prescriptions for antipsychotics presented to any of the trust's pharmacies. This included in-patients and patients in community or outreach centres, but excluded out-patients. Data were collated and analysed using the SPSS software system. The audit separated drugs into atypical (amisulpride, clozapine, olanzapine, quetiapine, risperidone and sertindole) and typical groups (all other antipsychotics). Anticholinergic drugs included benzhexol, benztropine, orphenadrine and procyclidine, but excluded others not used to treat movement disorders (hyoscine, pirenzepine). Prescribing was classified as regular if patients were prescribed drugs to be given at least once daily, every day. P.r.n. prescribing was considered to be that which was irregular, with medication administered or taken according to need. Prescribing was classified as p.r.n. even if a patient had not received the drug prescribed.

In March 1998, a prescribing protocol was drawn up by members of the trust's drug and therapeutics committee and circulated to all consultant psychiatrists for comment. An amended protocol was then presented to the trust medical committee and further comments received and noted. A final protocol with expanded explanatory notes was eventually agreed in September 1998 and circulated to all medical staff in the trust. The protocol was also announced and explained in the trust drug information bulletin (this final version of the protocol appears in the *Maudsley Prescribing Guidelines* (Taylor *et al*, 1999)).

A second prescribing audit (Audit 2) was conducted in one week in February 1999, using the method described above.

Findings

In Audit 1, prescribing data were collected for 1676 patients prescribed antipsychotics. Audit 2 reviewed 1218 prescriptions. A break down is shown in Table 1.

Atypical prescribing was also analysed separately and the results presented in Table 2.

In Audits 1 and 2 regular anticholinergic use was significantly more common in patients prescribed dual therapy. For Audit 1, $P<0.0001$ (χ^2 test, d.f.=1) and for Audit 2, $P=0.0008$ (χ^2 test, d.f.=1). Details are shown in Table 3.

Comment

Three important observations can be made about our findings. The first is that prescribing practices changed little during the study period, with the notable exception that the proportion of patients prescribed atypical drugs increased substantially from 16.6% of the total of 25.5%. Second, co-prescription of atypical and typical antipsychotics was uncommon and did not change

Table 1 Overview of prescribing

	Audit 1 (*n*=1676)	Audit 2 (*n*=1218)
Typical antipsychotics		
Typical alone	941 (56.1%)	557 (45.7%)
Typical and regular typical	277 (16.5%)	180 (14.8%)
Typical and p.r.n. typical only	56 (3.3%)	55 (4.5%)
Atypical antipsychotics		
Atypical alone	278 (16.6%)	310 (25.5%)
Atypical plus regular typical	55 (3.3%)	47 (3.7%)
Atypical and p.r.n. typical only	38 (2.3%)	61 (5.1%)
Atypical plus regular atypical	32 (1.9%)	8 (0.7%)

Table 2 Atypical antipsychotic prescribing

	Audit 1	Audit 2
Total	403 (100%)	426 (100%)
Alone	278 (69.0%)	310 (72.8%)
Plus regular typical	55 (13.7%)	47 (11.0%)
Plus p.r.n. typical	38 (9.4%)	61 (14.3%)
Plus regular atypical	32 (7.9%)	8 (1.9%)

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Table 3 Prescribing of anticholinergic medication

	Audit 1		Audit 2	
	Regular anticholinergic	No regular anticholinergic	Regular anticholinergic	No regular anticholinergic
Atypical alone	30 (10.8%)	248 (89.2%)	36 (11.6%)	274 (88.4%)
Atypical plus regular typical	16 (29.1%)	39 (70.9%)	12 (25.5%)	35 (74.5%)

markedly. Third, co-prescription of regular typical antipsychotics alongside atypical agents was clearly and significantly associated with prescribing of regular anticholinergic medication.

The increased use of atypical antipsychotics in our study cannot definitively be linked to the publication of our prescribing protocol. Common sense would predict that new drugs with a reputation for improved efficacy and tolerability would, over time, be used more often. However, our new protocol was the first trust-produced document to recommend the use of atypicals as first line and our impression was that this had an important impact on prescribing practice. It is also noteworthy that during the period of the study, our trust suffered a severe financial crisis, during which prescribers were made aware of the need to limit prescribing costs. Clearly, under any other circumstances, this would tend to decrease the use of more expensive atypical drugs. This last point neatly encapsulates the dilemma faced by many trusts: atypicals are felt to be better tolerated and perhaps more effective, and may well prove cost-effective, but short-termism and parochial financial considerations militate against more widespread use.

Our observed rates of regular atypical–typical co-prescription were relatively low in comparison with rates cited in the literature. In a 1996 survey, the co-prescription rate for risperidone (with regular and/or p.r.n. typicals) was found to be 53% (Taylor *et al*, 1997) and was 17% for olanzapine (regular antipsychotics only) in a 1997 survey (Taylor *et al*, 1998). In our UK survey conducted in 1998, co-prescription rates averaged more than 30% for regular atypicals with regular typicals (Taylor *et al*, 2000). Co-prescription may reduce or abolish the perceived advantages of atypical drugs. In particular, adding a regular typical drug is likely to induce extrapyramidal symptoms. This effect is clearly shown in both audits where the use of regular anticholinergic drugs was significantly more common in those patients receiving regular atypical and typical drugs. We assume that regular anticholinergic medication is only needed when extrapyramidal side-effects occur and so regular prescription is a useful surrogate marker for this effect. Our findings in this respect are as expected and confirm our observations in previous surveys.

Prescription surveys such as this provide only a snapshot view of practices at a given time and cannot clearly associate changes in practice with supposed influences. Nevertheless, we have shown that prescribing patterns changed after the introduction of an agreed protocol, in line with recommendations made. The quality of our prescribing was relatively good in comparison with other findings and, as expected, the co-prescription of typical drugs with atypicals unequivocally made the use of anticholinergic drugs more prevalent. Widely-agreed prescribing protocols are recommended for assuring quality in the drug treatment of schizophrenia.

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