

Neuroleptics in dementia

Two consecutive surveys of prescribing practice at the interface of hospital and primary care

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Aims and method We surveyed the prescription of neuroleptic drugs in patients with a diagnosis of dementia discharged from a general psychiatric hospital over two consecutive years. The surveys looked at documentation of information around prescribing and communication to primary care teams. Our aim was to help to minimise the potential contribution of hospital practice to unnecessary or continuing unreviewed neuroleptic prescription in the community.

Results The first survey led to the adoption of new clinical standards in the Department of Old Age Psychiatry. The second survey found improvements in all surveyed parameters.

Clinical implications Clear communication of information around prescribing and follow-up arrangements could help to reduce inappropriate community prescription of neuroleptics in this vulnerable group of patients.

With a rapidly growing residential and nursing home population, considerable attention in recent years has been focused on the use of neuroleptic drugs in the elderly. A meta-analysis of the few randomised, placebo-controlled studies of the efficacy of neuroleptics in this age group found only a modest effect on size (Schneider *et al.* 1990). Side-effects and risks, however, are well documented. Extrapyrarnidal side-effects and orthostatic hypotension can increase the incidence of falls, leading to fractures with possible life-threatening consequences. Rare idiosyncratic reactions such as the neuroleptic malignant syndrome can prove to be fatal, and other more common side-effects such as tardive dyskinesia may be irreversible (Mulsant & Gershon, 1993; Ray *et al.* 1987).

A more recent paper published in the *British Medical Journal* found a correlation between neuroleptic medication and accelerated cognitive decline in patients with a diagnosis of dementia, and suggested that there should be regular review of the need for these patients to continue taking neuroleptic drugs (McShane *et al.* 1997).

Research evidence for high rates of prescription of neuroleptics in residential home settings in the USA, which were judged by the authors to be excessive (Ray *et al.* 1980), has led to growing concern and the implementation of specific legislation containing guidelines on prescribing. McGrath *et al.* summarise these guidelines as follows:

"The use of a neuroleptic is appropriate for (a) psychotic disorders and (b) organic mental syndromes associated with specific psychotic and non-psychotic behaviours that present a danger to the resident or others or that interfere with the ability of families or staff to provide care for the resident. Behaviours for which neuroleptic treatment is considered inappropriate are wandering, poor self care, restlessness, impaired memory, anxiety, insomnia, unsociability, indifference to surroundings, fidgeting, nervousness, depression without psychosis, uncooperativeness, and agitation that is not dangerous. Neuroleptics should be prescribed for use as required only in appropriate conditions and for up to five days." (McGrath *et al.* 1996).

Although these guidelines have received mixed praise and criticism, they have been shown to have led to a marked change in prescribing practice in the USA (Semla *et al.* 1994).

In the UK a recent survey of 909 Glasgow nursing home residents identified high rates of neuroleptic prescription and found that 88% of these did not meet current US guidelines on prescribing (McGrath *et al.* 1996).

A pilot survey of neuroleptic prescribing in the elderly community in Nottingham found similar prescription rates to the Glasgow study in a mixed population of residential and nursing home residents. Within this population, patients with dementia formed the largest group of recipients but had the least monitoring by psychiatric teams. The authors concluded that closely monitored and audited prescribing of neuroleptics for specific target symptoms is required if unnecessary iatrogenic morbidity is to be avoided (Thacker & Jones, 1997).

We surveyed neuroleptic prescription, documentation, follow-up arrangements and communication with primary care teams in a Department

of Old Age Psychiatry. Our aim was to help to minimise the potential contribution of hospital practice to unnecessary or continuing unreviewed neuroleptic prescription in this vulnerable group in the community.

The study

The data were collected in the Old Age Psychiatric Service at the United Bristol Healthcare Trust. In-patient facilities consist of 64 beds on several wards located on one site. Fifteen beds were used for acute assessment and treatment; the remainder were long-stay beds with low patient turnover. The catchment population consists of approximately 40 000 people aged over 65 years.

The existing hospital database for all patients discharged from the psychogeriatric wards in 1995 was searched for patients for whom a diagnosis of a dementing illness according to ICD-10 (World Health Organization, 1992) was recorded. Patients with recorded ICD-10 codes F00 (dementia in Alzheimer's disease), F01 (vascular dementia), F02 (dementia in other diseases classified elsewhere) or F03 (unspecified dementia) were included in the survey. The medical records of these patients were then screened for their medication on discharge, and patients discharged on neuroleptics were entered into the survey.

The interim discharge letters were evaluated first. These consist of a one-page form that is usually filled in by a junior doctor at the time of discharge. They are sent immediately to the general practitioner (GP) to inform him or her about the diagnosis, medication and follow-up arrangements for each patient. The type and dosage of neuroleptics used were recorded, along with whether they contained information about the specific indication for the prescription of neuroleptics.

Then the final, typed discharge summaries were assessed, also recording whether they contained any information about intended duration of prescription and follow-up arrangements for the monitoring of medication. The type of follow-up arrangements was also recorded for each patient.

Finally, the authors decided whether the use of neuroleptics for each patient appeared appropriate according to US guidelines using the formulation cited above (McGrath *et al.* 1996).

The results of this first survey were presented to the Department of Old Age Psychiatry in September 1996. New clinical standards were agreed on as follows:

- (a) The indication for, and intended duration of, neuroleptic prescriptions should be

made clear to clinical teams, including junior doctors, by consultants.

- (b) The specific indication for neuroleptic prescription should be documented clearly in both the case notes and the discharge summaries.
- (c) There should be clear communication to primary care teams of the intended duration of neuroleptic prescription in discharge summaries and at discharge from follow-up by psychiatric services.

The second survey covered discharges during 1996 using the same methods as described above.

Findings

Survey population

The number of patients discharged with an ICD-10 diagnosis of dementia was similar in both years (63 in 1996, 62 in 1995). In 1996 slightly more patients were discharged on neuroleptics (24 *v.* 18 in 1995, *i.e.* 38% *v.* 29%), although in 1996 one patient who had two independent admissions entered the study twice.

Interim discharge letters

Apart from one set of records in the 1995 population, all records contained copies of the interim discharge letters. There was an increase in the documentation of the indication for neuroleptic use on these interim discharge letters in the 1996 population (12 *v.* 3, *i.e.* 50% in 1996 *v.* 18% in 1995).

Discharge summaries

All discharge summaries could be assessed, apart from one that was missing in the 1995 population. There was an increase in the documentation of all three assessed parameters in 1996:

- (a) Indication for neuroleptic medication (20 *v.* 12, *i.e.* 83% in 1996 *v.* 67% in 1995).
- (b) Intended duration of medication (6 *v.* 3, *i.e.* 25% in 1996 *v.* 17% in 1995).
- (c) Follow-up arrangements (21 *v.* 12, *i.e.* 88% in 1996 *v.* 67% in 1995).

These findings are summarised in Fig. 1.

Type and dosage of neuroleptics prescribed

Table 1 lists the types and dosage ranges of neuroleptics prescribed each year: there was an increase in the rate of prescription of sulpiride; haloperidol was not prescribed at all in 1996; trifluoperazine and thioridazine were used in similar frequency although at lower doses.

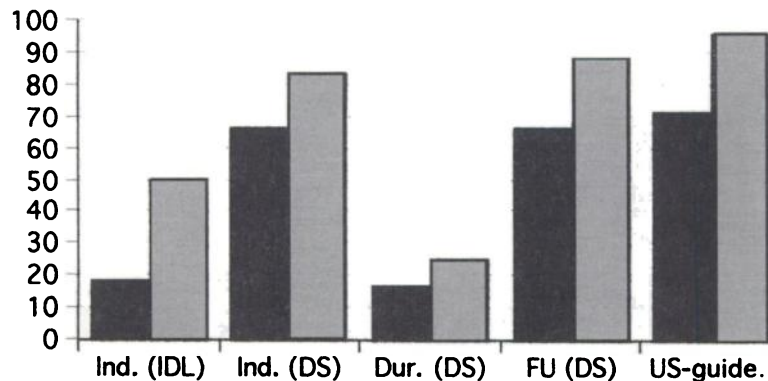


Fig. 1. Percentages of interim discharge letters (IDL) and discharge summaries (DS) containing information about: the indication for prescription (Ind.); the intended duration of prescription (Dur.); follow-up arrangements for monitoring (FU). The final columns show the percentages of prescriptions that appeared to be appropriate according to current US guidelines (US-guide). ■, percentage in 1995; ■, percentage in 1996.

Follow-up arrangements

The percentage of patients followed up by community psychiatric nurses increased in 1996 (11 v. 6, i.e. 46% in 1996 v. 33% in 1995) and the percentage of patients with unspecified follow-up arrangements decreased slightly (5 v. 5, i.e. 21% in 1996 v. 38% in 1995). These findings are summarised in Fig. 2.

US guidelines

Almost all prescriptions of neuroleptics in 1996 appeared to be appropriate according to published US guidelines (see Fig. 1: 23 v. 13, i.e. 96% in 1996 v. 72% in 1995).

Comment

Rates of neuroleptic prescription in our survey population of demented patients at the point of discharge (29% in 1995 and 38% in 1996) are not dissimilar to reported rates of community prescription in demented patients in Nottingham (32% in nursing/residential care and 23% in own homes) (Thacker & Jones, 1997). Rates reported previously for a general psychogeriatric inpatient population have been high: 44% (Gilleard *et al.*, 1983) and 48% (Christopher *et al.*, 1978). A more recent study of neuroleptic prescription in a psychogeriatric continuing care unit found rates comparable to our study (37.5%; Connelly, 1992) and demonstrated that clinical audit could improve the appropriateness of prescribing in this setting (Connelly, 1993).

Table 1. Types and dosage ranges of neuroleptics prescribed

	1995			1996		
	No. of patients	Percentage of total	Dosage range (mg)	No. of patients	Percentage of total	Dosage range (mg)
Trifluoperazine	5	28	2-10, daily	7	29	1-7, daily
Sulpiride	5	28	40-400, daily	12	50	50-400, daily
Thioridazine	4	22	50-100, daily	3	13	30-50, daily
Haloperidol	3	17	4-10, daily	0	0	NA
Risperidone	0	0	NA	1	4	0.5, daily
Fluspirilene	1	6	4, weekly	0	0	NA
Zuclopenthixol	0	0	NA	1	4	300, 3-weekly

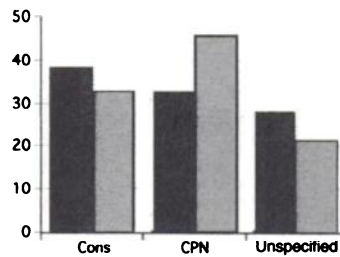


Fig. 2. Percentages of different follow-up arrangements according to the medical notes: follow-up by the consultant psychiatrist (Cons) or by community psychiatric nurses (CPN). The third column represents patients for whom no specific arrangements were made (unspecified).

We surveyed two successive years of prescribing practice in a naturalistic clinical setting. There were, however, limitations to our methodology: The cohorts were surveyed retrospectively and were not randomised or controlled for any confounding variables; we did not attempt to validate the assigned ICD-10 diagnoses; and many of the phrases used in current US guidelines are open to individual interpretation and are difficult to apply reliably.

These limitations prevented us from ascribing any statistical significance to our findings. Nevertheless, we found improvements in all surveyed parameters and would therefore suggest that these findings may reflect a real change in clinical practice.

New clinical standards were formally adopted by the department in September 1996. Therefore less than four complete months of potential adherence to these were captured within our second survey. This may, in fact, have limited the degree of improvement in parameters that we measured.

The intended duration of neuroleptic prescription was the least documented parameter in the discharge summaries and improved only slightly over the surveyed period. The intended duration of a prescription is difficult to specify prospectively, and follow-up arrangements for the monitoring of prescriptions may be far more important.

With the deteriorating neurochemical and functional baseline of dementia, regular review of psychotropic, and in particular neuroleptic, medication is essential. We believe that clear communication of information around prescribing and follow-up arrangements could

help to reduce unnecessary or continuing unreviewed community prescription of neuroleptics in this vulnerable group of patients. We suggest that further research and clinical audit at the interface of hospital and primary care is needed.

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