Regional audit of depot neuroleptic usage in adults with learning disabilities

Shaun Gravestock

A previous survey (Gravestock, 1996) assessed factors associated with depot neuroleptic usage in 79 adults with learning disabilities using mainly community-based services. The data informed consensus standard setting and this audit focusing on 32 out of 79 original subjects. At two year follow-up, five subjects had been withdrawn from depots; there was a significant (P < 0.001) reduction in subjects' median depot dosage and reduced concomitant usage of oral neuroleptics and anticholinergics. The importance of completing the audit cycle and other psychotropic medication monitoring studies in community learning disabilities services are discussed.

Previous UK psychoactive medication surveys mainly studied heterogeneous hospital populations of adults with learning disabilities (LD) rather than community LD service users. Surveys estimate the prevalence of psychotropic drug usage in diverse hospital and community populations as 30-50% and 10-36% of adults with LD respectively (Aman, 1987; Clarke et al, 1990). Other studies showed that 8-10% of mental handicap hospital in-patients (Wressell et al, 1990; Kohen et al, 1993) and 5% of adults with LD resettled in the community (Thinn et al, 1990) receive depot neuroleptics.

Despite concerns about fatalities (Craft & Schiff, 1980), various depot neuroleptics are used as antipsychotics and as adjunctive treatments for the wide range of behavioural disturbances occurring in adults with LD. Broader concerns have been raised about the extent and monitoring of depot usage in generic psychiatric services (Crammer & Eccleston, 1989).

The study

The author devised a semi-structured checklist to be completed by consultants or their trainees for each survey subject. The 1992 survey identified 79 adults with LD receiving depot neuroleptics under the in- or out-patient care of ten district consultants in the psychiatry of LD in the South East Thames Region (Gravestock, 1996). Data feedback and discussion at a Regional Psychiatry of Learning Disabilities Specialist Sub-Committee meeting resulted in consultants reaching consensus agreement about the following clinical practice standards:

(a) All patients are to be reviewed by a consultant or trainee psychiatrist at least every six months.
(b) All patients satisfying one or more of the below criteria are to receive the minimum depot dosage needed to stabilise their mental state and behaviour:
(i) aged over 60 years
(ii) severe LD
(iii) known to have epilepsy
(iv) not known to have a functional psychotic disorder
(v) receiving doses outside British National Formulary (BNF; British Medical Association & The Pharmaceutical Society, 1993) limits.

Applying these standards to the 1992 survey we identified 32 out of 79 original subjects (Gravestock, 1996), to be monitored over 24 months to audit changes in clinical practice (see Table 1). Consultants or trainees completed another checklist to update data on each subject for 1994. As in previous studies (Wressell et al, 1990), all depot dosages were converted into daily oral chlorpromazine milligramme equivalents (CPZE) to allow comparison. Checklist data from 1992 and 1994 were compared statistically using the SAS/STAT programme (SAS Institute, 1989).

Findings

Of the 32 audit subjects 24 were male and 8 were female; their modal age was 32 years [range 22–77]; 13 had mild LD, 12 moderate LD, and seven severe LD. While 18 lived in staffed residences, seven lived with their families or independently and seven were in-patients at mental handicap hospital units. Their depots were fluphenazine decanoate (n=14), zuclopenthixol decanoate (n=8), flupentixol decanoate (n=5), haloperidol decanoate (n=3), and pipothiazine palmitate.
These findings may be cautiously compared with the chronic and fluctuating natural course of proved over two years. These findings also reflect the necessity of depot usage in adults with LD and epilepsy. Future audit focusing on withdrawal behaviour had epilepsy and three still exhibited unstable doses used and the greater use of zuclopenthixol.

Concerning their reported attitudes towards depot injections, in 1992, 19 subjects and 20 carers had positive attitudes, 11 subjects and eight carers were uncertain, while two subjects and four carers had negative attitudes. By 1994, 19 subjects and 23 carers had positive attitudes, six subjects and four carers were uncertain, while two subjects had negative attitudes.

Comment
These findings may be cautiously compared with those of larger hospital (Wressell et al., 1990) and community (Thinn et al., 1990) medication monitoring surveys and a regional audit in primary care, out- and in-patient populations with normal intellect (Crammer & Eccleston, 1989). As expected, study subjects with LD had a broader range of psychiatric diagnoses and challenging behaviours than those without LD. This audit also suggested the wide range of depots and dosages used and the greater use of zuclopenthixol in LD services (Gravestock, 1996).

As in mental handicap hospitals (Craft & Schiff, 1980), the audit showed no specific problems with depot usage in adults with LD and epilepsy. However, as all five patients withdrawn from depots had epilepsy and three still exhibited unstable behaviour, future audit focusing on withdrawal from depots would be useful.

In spite of statistically significant medication reductions, the stability of subjects' mental state and behaviour was clinically maintained or improved over two years. These findings also reflect the chronic and fluctuating natural course of psychotic and behavioural disorders in LD patients over time (Fraser & Nolan, 1994).

Compared with similar surveys (Crammer & Eccleston, 1989; Kohen et al., 1993) this audit found higher baseline and follow-up concomitant prescription of oral neuroleptics and anticholinergics and a high occurrence of side-effects. The data supports ongoing controversies about prescribing neuroleptics for people with LD and non-specific disturbed behaviours (Manchester, 1993). On the other hand, few subjects and their carers had clearly negative attitudes towards depot injections.

The audit data showed the following improvements in clinical practice over two years:

(a) an increase from 24/32 (75%) to 23/27 (85%) subjects for whom the minimum standard was met for the frequency of psychiatric reviews
(b) an overall statistically significant reduction in depot dosages with better adherence to BNF dose limits
(c) an overall reduction in concomitant oral drug usage
(d) despite (b) and (c), a modest decrease in subjects with unstable mental state and behaviour.

Improvement (a) above indicated better follow-up practices than in Crammer & Eccleston's (1989) audit which revealed uncertain follow-up arrangements for two-thirds of general adult psychiatric patients.

Unlike a similar more sophisticated audit (Harvey & Cooray, 1993) this audit did not include monitoring the use of as required psychoactive medications, but both audits emphasised the necessity of completing the audit cycle and establishing ongoing medication monitoring systems. This way, improvements in clinical practice can be both achieved and maintained by setting higher standards for further audits.

Future psychotropic medication audits could include: concomitant usage of similarly acting drugs; usage of anticholinergics; usage of as required medications; usage of zuclopenthixol acetate; lithium and carbamazepine monitoring; usage of hypnotics and sedatives; monitoring the

<table>
<thead>
<tr>
<th>Table 1. Audit subjects</th>
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<tbody>
<tr>
<td>Inclusion criteria</td>
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<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>(n=32)</td>
</tr>
<tr>
<td>Psychiatric diagnoses</td>
</tr>
<tr>
<td>Autism</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Epilepsy</td>
</tr>
<tr>
<td>Depot dosages outside BNF limits</td>
</tr>
<tr>
<td>Psychiatric review not every 6 months</td>
</tr>
<tr>
<td>Severe LD</td>
</tr>
<tr>
<td>Aged over 60 years</td>
</tr>
</tbody>
</table>

*5 subjects withdrawn from depots by 1994
1. BNF, British National Formulary
Table 2. Clinical condition and practice

<table>
<thead>
<tr>
<th>Subjects' condition</th>
<th>1992 (n=32)</th>
<th>1994 (n=26)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental state and behaviour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Unstable</td>
<td>12</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Medication side-effects</td>
<td>12</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Clinical practice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median depot dosage (CPZE)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All subjects (range)</td>
<td>255 (25-2386)</td>
<td>119</td>
<td>P &lt; 0.001**</td>
</tr>
<tr>
<td>Subjects without functional psychoses (range)</td>
<td>308 (51-2386)</td>
<td>170</td>
<td>P=0.037**</td>
</tr>
<tr>
<td>Median frequency (months) of psychiatric reviews (range)</td>
<td>2 (0.03-24)</td>
<td>3</td>
<td>P=0.77**</td>
</tr>
<tr>
<td>Concomitant oral medication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroleptics</td>
<td>20</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Anticholinergics</td>
<td>25</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

*1 subject on depot lost to follow-up

**Wilcoxon signed rank test

provision of user-friendly information to patients and carers on the risks and benefits of each medication; and ensuring regular assessment and documentation of both informal and detained patients’ consent to treatment (Curran & Hollins, 1994).

As more adults with LD are resettled from mental handicap hospitals or remain living in the community, purchasers and providers are likely to expect high standards of psychiatric practice. Developing effective medication monitoring systems will become an essential part of clinical audit and quality assurance activities (Gravestock, 1994), particularly so in diverse dispersed multi-agency community-based LD services.

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References


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