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Original articles

Survey of psychotropic medication: usage in a large mental handicap hospital

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The populations in the large mental handicap hospitals are known to be diverse, ranging from elderly non-psychiatric residential groups to acutely psychotic and behaviourally disturbed patients. At present demographic variables, medical and psychiatric characteristics of populations in these hospitals are changing in parallel with implementation of community care and resettlement programmes. In resettlement programmes, discharge priorities have been given to the easy to manage and less dependent residents while new challenging behavioural units and admission assessment wards are being opened to care for the multi-handicapped population.

The use of psychotropic medication in this population has been under constant debate. While some drugs have probably been over prescribed, others have followed current trends in adult general psychiatry and fluctuated accordingly.

The Cell Barnes Hospital – Psychiatric Database (CBH-PD) was established in 1990 to evaluate, among other variables, the psychotropic medication usage in the total population of this large mental handicap hospital before closure and to form a basis in comparison with future surveys of the same population in the community.

The study

The study was carried out using the Cell Barnes Hospital – Psychiatric Database (CBH-PD) and as part of the screening project. A 30-item demographic characteristics checklist including items about diagnoses and psychotropic medication in use has been prepared. The checklist has been completed for all residents ($n=488$) in the hospital with the help of the ward nurse, the medical case-notes and the medication charts.

The level of handicap has been classified according to previous IQ tests, general functioning and clinical assessment. Beside the DSM-III-R diagnoses of mental illness, retrospective case-note information was used to classify people into different diagnoses. As a result, residents have been evaluated as having a major psychiatric diagnosis, and/or a behavioural disorder, the two main diagnoses where psychotropic medication usage has been widely debated.

Drug charts have been screened for neuroleptics, antiepileptics, antidepressants, lithium salts, antiparkinsonian drugs and benzodiazepines. Correlations between demographic variables and clinical psychiatric and other diagnoses have been noted.

Findings

Seventeen per cent ($n=85$) of the total population ($n=488$) have the diagnosis of major psychiatric disorder and 51% ($n=249$) of the total hospital population have the diagnosis of behaviour disorder of differing severity. Five per cent ($n=24$) of the hospital population have both diagnoses.

Of the total hospital population 40% ($n=200$), are on different neuroleptics; 37% ($n=181$) are on antiepileptics; 2.7% ($n=14$) antidepressants; 4% ($n=20$) lithium salts; 19% ($n=91$) antiparkinsonian drugs and 36% ($n=178$) benzodiazepines. Out of the total population on benzodiazepines ($n=178$), 72% ($n=129$) have a diagnosis of epilepsy and are on benzodiazepines as antiepileptics in the form of stesolid as required; only 28% ($n=49$) were non-epileptic in whom 2.5% ($n=12$) used benzodiazepines regularly and 7% ($n=37$) used it as required (Table I).

Of the population with a major psychiatric disorder ($n=85$), 82% ($n=70$) are on neuroleptics; 24% ($n=20$) antiepileptics; 14% ($n=12$) antidepressants; 22% ($n=19$) lithium salts; 42% ($n=38$) antiparkinsonian drugs; 20% ($n=17$) benzodiazepines (Table I).

The comparison of the total hospital population to the group with major psychiatric disorders shows that psychotropic medication is not indiscriminately used and there is a significantly larger number of

TABLE I
Comparison of psychotropic medication usage in the total hospital population and in two diagnostic categories

	Total population	*Major psychiatric disorder*	*Behaviour disorder*
Total number	488	85 (17%)	249 (51%)
Neuroleptics	200 (40%)	70 (82%)	154 (62%)
Thioridazine	109	40	84
Chlorpromazine	64	22	50
Haloperidol	2	8	19
Trifluoperazine	14	8	8
Depot neuroleptics	49	19	30
Antiepileptics	181 (37%)	20 (24%)	98 (40%)
Antidepressants	14 (2.7%)	12 (14%)	3 (1.2%)
Lithium	20 (4%)	19 (22%)	7 (2.8%)
Antiparkinsonian drugs	91 (19%)	38 (45%)	62 (25%)
Benzodiazepines			
Total	178 (36%)	17 (20%)	96 (39%)
Non epileptic	49 (10%)	9 (10%)	35 (14%)
Regular	12 (2.5%)		
As required	37 (7%)		

people with psychiatric diagnoses who are on neuroleptics (P 0.001).

Out of 51% ($n=249$) of the hospital population who have the diagnosis of behavioural disorder; 62% ($n=154$) are on neuroleptics; 40% ($n=98$) antiepileptics; 1.2% ($n=3$) antidepressants; 2.8% ($n=7$) lithium salts; 25% ($n=62$) antiparkinsonian drugs and 39% ($n=96$) benzodiazepines where 14% ($n=35$) are not epileptic and the drug is used for its sedating and anxiolitic effects. Comparison of the whole hospital population and group with behavioural disorders shows that there is a highly significant difference between the two groups ($P<0.005$) in psychotropic drug use.

Comparison of the two groups with major psychiatric diagnosis and behavioural disorders showed no significant difference in medication usage.

Age is a determining factor in neuroleptic usage in the behaviourally disturbed group, where the group under age 50 has a significantly larger usage as compared with the group over 50 ($P<0.03$).

Table II shows that there is no statistically significant difference between males and females on neuroleptics in either diagnosis.

TABLE II
Comparison of neuroleptic medication usage and sex and age in two diagnostic categories

	Behavioural disorder	*Major psychiatric disorder*
Total	249	85
Neuroleptics total	154 (62%)	70 (82%)
Female	73	37
Sex <		
Male	81	33
< 50	115	42
Age <		
< 50	39	28

Comment

Alongside forms of psychological treatment, psychotropic drugs have been used in the mentally handicapped population to control and treat psychiatric disorders, intractable behavioural problems and self injurious behaviour (Aman & Singh, 1986).

Our results have shown that only 40% ($n=200$) of the total hospital population were on neuroleptic medication during the period of this survey. This figure is higher than past surveys and probably reflects the fact that the less handicapped patients with less disturbed behaviour have already been discharged from hospital to the community. Thioridazine is the most commonly used drug, followed by chlopromazine in frequency: 50% and 32% of the population on neuroleptics respectively. Haloperidol and trifluoperazine are less frequently used. Depot neuroleptics are used in only 25% ($n=49$) of the people on neuroleptics; of this 2/5 are people with major psychiatric disorders and 3/5 people with behaviour disorders. Past studies

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have shown a wide frequency of neuroleptic usage ranging from 70% to 30% of the hospital population (Fischbacher, 1987; Lynch, 1989).

Eighty-two per cent of the population with psychiatric disorders used neuroleptics compared with 62% of the behaviourally disordered population. There is obviously not indiscriminate usage of neuroleptics in behaviourally disturbed people in this hospital.

It has been stated that a higher proportion of males (Fischbacher, 1987) and a higher proportion of females (Lynch, 1989) have been using neuroleptics. Our survey does not show any difference between males and females in neuroleptic usage (Table II). Neuroleptic use decreases in older people (Jacobsen, 1988). This finding is replicated in our population where significantly fewer people over 50 are on neuroleptics.

Good practice dictates that antiparkinsonian drugs should not be automatically prescribed to everybody on neuroleptics. In this survey less than half of the population with psychiatric disorder, and only one fourth of the population with behaviour disorders are on antiparkinsonian drugs.

In our mentally handicapped hospital population only 2.7% ($n = 14$) have been prescribed antidepressants. This seems to be lower than many community studies and it will be worth studying if depression is under diagnosed in the severely and profoundly handicapped population with limited or no verbal communication.

Lithium salts have been used as antiaggressive agents as well as mood stabilisers in a small number of people. The antiaggressive effect needs to be reconsidered for the behaviourally disturbed and self injurious population.

Benzodiazepines are largely used as antiepileptics to prevent status epilepticus. Only a small number of people in this hospital are on regular benzodiazepines as compared to an adult general population report. Over-prescription, which may be followed by dependency, does not seem to be a problem.

This survey has given us insight into the present use of different types of psychotropic medication. Some have predicted that as hospitals shrink in size only the psychiatrically unwell in need of pharmacological treatment will continue to reside in hospitals or health units, and hence will account for a very large percentage of medication usage. Others predict that, once losing the security and safety of the hospital, mental handicapped people in the community may be given larger amounts of psychotropics to prevent any possible crisis. Longitudinal and follow-up studies looking at the same or similar populations in the community will answer these questions.

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A full list of references is available on request from Dr Kohen.

Continuing medical education, clinical audit and the Mental Health Act

The Public Policy Committee is concerned that psychiatrists should keep up to date, and keep under review, their knowledge of Mental Health Act procedures, particularly in light of the recent changes to the Code of Practice issued under the Mental Health Act 1983, s. 118. An example of recent changes is the amendment to para 2.6 of the Code to the effect that a doctor needs to consider the health *or* safety of the patient, or the prevention of harm to others, rather than the health *and* safety, as previously implied by the Code (*Psychiatric Bulletin*, 1992, **16**, 586).

There are likely to be further amendments to the Code of Practice in due course. In light of this the Public Policy Committee recommends that members seek opportunities to focus clinical audit activity on and develop continuing medical education initiatives in this area.

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