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Original articles

Casemix in psychiatry

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Just as the management of individual patients requires specific and timely information upon which clinical decisions can be based, so managers and clinicians, responsible for service planning, require appropriate information on the activity levels and functions of their services. This is true at all levels, from individual clinicians and teams who wish to audit their activities, through clinical directors and managers of departments and units, to those who plan for Districts and Regions. Casemix is an attempt to facilitate this process by developing a meaningful language, to describe and measure clinical activity.

What is casemix?

Casemix is the assignment of patients (cases) to discrete categories (casemix groups) that accurately predict the resources required to meet care needs (these resources might be expressed in terms of facilities and skills as well as financial cost). Casemix groups are sometimes referred to as iso-resource groups. Good casemix groups should also be clinically recognisable, that is they should share clinical characteristics or expected outcome.

In medicine casemix classifications have most often been based on diagnosis and/or the necessary medical or surgical intervention with length of hospital stay as the main resource measure. Undoubtedly the best known classification is Diagnosis Related Groups (DRGs), derived by Fetter *et al* (1980) at Yale university, which aggregates diagnostic and operational codes into some 470 groups.

DRGs are now well established in general medicine and surgery in the United States, and are incorporated into the prospective payment system, whereby medical insurance companies pay hospitals the expected cost of a package of treatment for a particular patient (derived from the DRG) rather than the actual cost of services consumed.

Potential problems with casemix in psychiatry

Casemix groups based on diagnosis and treatment procedures may not be clinically meaningful. Exploration of the potential uses for DRGs in the UK led to the conclusion that, besides other problems, they were not – at least in relation to the practice of medicine in the UK – as clinically homogeneous as was claimed.

This problem particularly applies to psychiatry. The psychiatric DRGs are recognised as being so poor in the United States that services for the mentally ill are excluded from prospective payment. In the UK also, there seems little likelihood that diagnostic aggregations alone will ever be a useful way of describing psychiatric casemix. Oyebode *et al* (1990) found that over half the admissions to their unit fell into a single DRG (DRG 430: psychoses), and the variation of length of stay of cases within each group was unacceptably high. Thus, assigning cases to a particular group failed adequately to predict resource use. Unpublished findings by two of the present authors (P.A. and M.E.) produced similar results. This should be of no surprise to psychiatrists who know that a patient with acute schizophrenia may require anything from a single brief admission followed by occasional out-patient attendance to life-long care in highly staffed facilities.

Established research findings about factors affecting the onset and course of mental illness suggest that meaningful psychiatric casemix groups would have to contain demographic, social and behavioural variables and information about previous mental health. To introduce such a system these variables would have to be routinely collected in a standardised form throughout the health service.

A further problem with DRGs in psychiatry is that length of hospital in-patient stay is often a poor indicator of the resource needs of an individual. A

large proportion of many modern community psychiatric units' budgets is spent on facilities and staff based outside hospital sites.

What are the potential benefits of casemix?

At a local level casemix analysis would allow individual clinicians, clinical teams and units to draw constructive inferences about the services they provide. For example, a service may wish to compare its casemix for the past quarter with the same period 12 months ago in order to identify changes in the nature of the service provided or in the sorts of resources being accounted for.

Alternatively, comparison could be made with services provided elsewhere. If the casemix of the local hospital differs from the region as a whole, the nature of those differences may raise important questions about the structure and provision of care, particularly in the light of epidemiological factors. The answers to such questions are likely to be complex but, provided the casemix groups are clinically meaningful and are derived in a uniform way across centres, these differences could provide valuable data for both clinical audit of service quality and epidemiological research. In addition, casemix analysed in relation to cost can provide documentary evidence for arguments about resource allocation.

Current work in British casemix

The National Casemix Office was established, by the Department of Health, in response to the findings of the acute hospital pilot Resource Management sites that DRGs did not accurately predict resource use and were unacceptable to clinicians, largely because they did not aggregate patients into clinically recognisable groups.

The resulting proposals for an English casemix classification will be called Healthcare Resource Groups (HRGs). Version 1 of HRGs will be available as computer software and manuals for health service use from early 1992 (obtainable from the National Casemix Office). It does not include psychiatry.

Empirical evidence as to which factors can be used to account for the consumption of resources in psychiatry is presently being gathered in research carried out by Dr Martin Elphick in West Berkshire. This project aims to develop a practical and affordable means of data collection and analysis, and to investigate the potential of a variety of diagnostic, social and demographic factors as predictors of resource use. Measures of resource use are being developed that reflect the cost of both hospital and community care. The intention is that findings from this work be used as the basis of new groupings and incorporated into further versions of the Healthcare Resource Groups manual.

The National Casemix Office will seek to support the introduction of casemix measures for psychiatry by providing information and materials for users, consultation and advice on request. Both Dr Anthony, of the Casemix Office, and Dr Elphick would welcome correspondence on these matters and are likely, in due course, to seek collaboration in the testing and refinement of any measures.

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