

practice is that they pay too little attention to distribution-free methods. Nevertheless, we commend these guidelines to the authors of inferential papers intended for the *Journal*. They provide both a fair target for these authors to aim at and a useful yardstick for the *Journal's* statistical assessors. Most importantly, they underline the basic message of this editorial: statistical advice is often needed and readily available.

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References

1. Russell IT, Barley SL. Statistics and general practice. (Editorial.) *J R Coll Gen Pract* 1982; 33: 331-333.
2. Altman DG, Gore SM, Gardner MJ, *et al.* Statistical guidelines for contributors to medical journals. *Br Med J* 1983; 286: 1489-1493.
3. Gardner MJ, Altman DG, Jones DR, *et al.* Is the statistical assessment of papers submitted to the 'British Medical Journal' effective? *Br Med J* 1983; 286: 1485-1488.
4. Altman DG. Statistics and ethics in medical research. In: *Statistics in practice*. London: BMA, 1982.
5. Swinscow TDV. *Statistics at square one*. London: BMA, 1978.
6. Hill AB. *A short textbook of medical statistics*. London: Hodder and Stoughton, 1977.
7. Castle WM. *Statistics in small doses*. Edinburgh: Churchill Livingstone, 1977.
8. Castle WM. *Statistics in operation*. Edinburgh: Churchill Livingstone, 1979.
9. Remington RD, Schork MA. *Statistics with applications to the biological and health sciences*. London: Prentice-Hall, 1970.
10. Siegel S. *Nonparametric statistics for the behavioural sciences*. Maidenhead: McGraw-Hill, 1956.
11. Sprent P. *Quick statistics*. Harmondsworth: Penguin, 1981.

To classify is to clarify

IF it is to improve, any discipline must be able to analyse itself so that it can develop its strengths and diminish its weaknesses. The process of analysis frequently consists of the three C's—classifying, counting and comparing—and it is no accident that general practice emerged as a discipline at a time when systems of analysis became more common.

It has been a particular contribution of the research units of the Royal College of General Practitioners that they have created some of the most important tools for the job. For example, it was the Birmingham Research Unit, led by Drs Crombie and Pinsent, who in the 1950s and 1960s developed the age-sex register,¹ the first and still the most important basic analytical tool of general practice. This simple device, which divides patients in a practice by their two most fundamental variables, can be considered as a classification of the consumers of medical care. It has moved during the last 30 years from being an interesting research instrument in the 1950s, to a tool of training practices in the 1970s and a part of the day-to-day service arrangements of the majority of general practitioners in this country in the 1980s. Indeed, the Royal College of General Practitioners is currently selling, through its Information Service, as many as three million age-sex cards a year.

However, although this classification is excellent as far as it goes, it provides no information about other important factors, namely the nature of the problems which patients bring to doctors, the diagnoses which doctors make, and the activities of medical practice. Clearly some other system of analysis is required, and the E book^{2,3} (named after Dr T. Eimerl, who invented it, and developed by the Research Committee of the then College of General Practitioners), which is a morbidity or diagnostic register, is the next most important system. The central idea is very simple. Categories are created which represent the main problems dealt with by doctors, and entries are made accordingly. A

diagnostic register may be comprehensive and cover every single contact between patients and doctors throughout the year, or it may be partial and limited to a shorter defined list of common or especially important diseases. Thus the diagnostic register answers the question of what a general practitioner does, while the age-sex register answers the question of who he does it for.

Following the development of the diagnostic register, the Birmingham Research Unit subsequently arranged for two national morbidity surveys^{4,5} to be undertaken using this system. This early RCGP system also influenced other international systems of classification^{6,7} and helped trigger worldwide interest in the nature of diseases seen in primary health care.

A new classification

The news that in December 1983 the Council of the Royal College of General Practitioners had approved a new form of diagnostic register came as a surprise to many people. Why should yet another version be introduced? Why should it differ from those used in the past or those in current use today? The answer lies first in the need to relate the College's system of classification to the WHO *International Classification of Disease (ICD)*,⁶ and secondly, in the need to adapt it to make it as suitable as possible for microcomputers in general practice.

ICD

The *International Classification of Disease* is accepted internationally and is in use worldwide. Furthermore, it is not necessarily based on primary, secondary or tertiary health care, although the pathological basis of its system of classification makes it in some ways more appropriate for use by hospital-based services. Therefore, as primary health care became more involved in the comparison of its work with secondary care, it

became more important for all doctors in all countries to adopt a system of classification which was closely based on *ICD*. This need was probably greatest in the UK because of the structure of its National Health Service. Over 98 per cent of the British population are registered through the NHS, and so the need for a compatible internationally based system which could be used by doctors in both primary health care and in hospital services was urgent. For general practice to use numbers which were not compatible in the UK would be an administrative nonsense and a clinical tragedy. However, in an analysis carried out at the Manchester Research Unit of the Royal College of General Practitioners in the last few years, it became clear that many of the numbers used in the previous College classification did not precisely match *ICD* and that the same problem was apparent in some of the international classifications of disease including the *International Classification of Health Problems in Primary Care (ICHPPC)*.⁷ In order to achieve numerical compatibility a rearrangement of many numbers had to take place.

Computers

The second main reason for change lies in the introduction of computers in general practice. After 13 years of development, it is clear that the future of computers in practice lies not in centrally controlled mainframe systems, nor even in the intermediate minis, but in microcomputers located in the practice itself. Although many people believe that their introduction generally is still a long way away, in some parts of the country general practitioners are taking to microcomputers at considerable speed. For example, in the health district of North Devon, one third of the general practitioner principals already have microcomputers in their practices, and a quarter of the 97 trainers in Devon and Cornwall are now using them. It was therefore urgent for the College to introduce a system which could exploit the new power which these machines are bringing to general practice. The new classification does just that and has been carefully designed by a working party led by Dr Clifford Kay to ensure that the numbering is logical and easily coded on microcomputers.

The price of progress

The two main objectives in the reform of the classification have thus been achieved, while the added advantage of interrogation systems is yet to come. It is, however, only fair to note the price of progress and to realize that gains of this magnitude have been achieved at some cost. The first great loss is the disappearance of the short and relatively simple 500-category classification of common problems in general practice. Whatever the difficulties of the old system, it did enable the vast majority of consultations in general practice to be coded relatively easily. Five hundred numbers were manageable and, in some ways, much more easy to assimilate than the present list. It was even possible to remember

many of the numbers simply because there were never more than three for each rubric. The new four-digit system is inevitably more cumbersome and that much harder to recall. Its very size will be daunting to many practitioners whether it sits on their desks or on those of their staff in the office.

The other problem is the price of precision. By offering, for example, codes for uncomplicated hypertension, hypertension with cardiovascular or renal involvement, or hypertension with other complications, it is now possible for the doctor to record more precisely the range of complications of this common condition.

However, the very variety and degree of choice offered to the practice means extra work for doctors and staff, and there are bound to be many colleagues who will not believe that the greater precision achieved is worth the increase in size of the classification itself. The pressure to produce shortened lists with major clinical conditions grouped together is likely to grow, particularly from doctors who wish to continue recording morbidity manually.

To meet the needs of as wide a number of doctors as possible, the Royal College of General Practitioners is publishing the new classification as *Occasional Paper 26* and is also making it available for computer use. It cannot yet be adequately assessed in either form because the development of data recording in general practice is still at an intermediate stage. The written version by itself does not fully recognise the benefits of computerization, and the benefits of computerization are not immediately apparent because relatively few practices are able to take advantage of it.

However, this classification is a major academic advance and its importance is likely to grow rather than diminish. Professional development, educational planning and rational planning by health service authorities will increasingly depend on the nature of the problems presented in primary health care, and planners of all kinds are likely to want to know much more accurately in future what the health problems of the time really are and how primary health care is responding to them. The need for aggregated morbidity data can confidently be predicted in the 1980s and this classification is one way of providing it. Furthermore, computers are coming and coming fast, and as more practices buy them and use this system, so its benefits will become clearer.

The Royal College of General Practitioners exists to encourage, foster and maintain the highest possible standard of general medical practice. It does so by setting standards, and this classification represents an important new standard for data recording in general practice. Like all standards when first introduced, it is somewhat threatening at first sight, particularly to those unfamiliar with this kind of recording. However, it has come at an appropriate time and is clearly going to become the national standard in the UK. To classify is to clarify—and all who are interested in the analysis of

general practice can be grateful to the authors for the tremendous amount of work which they have done.

Classification of Diseases, Problems and Procedures 1984, Occasional Paper 26, is available from the Publications Sales Office, Royal College of General Practitioners, 8 Queen Street, Edinburgh EH2 1JE, price £4.75 including postage; payment should be made with order.

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References

1. College of General Practitioners Records and Statistical Unit. The age-sex register. *J Coll Gen Pract* 1963; 16: 196-197.
2. Eimerl TS. Organized curiosity. *J Coll Gen Pract* 1960; 3: 246-252.
3. College of General Practitioners Records and Statistical Unit. Continued morbidity recording in practice—the use of the E book. *J Coll Gen Pract* 1963; 16: 219-224.
4. College of General Practitioners and General Register Office. *Morbidity statistics from general practice. Studies on medical and population subjects No. 14.* Vols 1-3. London: HMSO, 1958.
5. Royal College of General Practitioners/Office of Population Censuses and Surveys/Department of Health and Social Security. *Morbidity statistics from general practice. Second national study. Studies on medical and population subjects No. 26.* London: HMSO, 1974.
6. World Health Organization. *Manual of the international statistical classification of diseases, injuries and causes of death.* Ninth revision. Geneva: WHO, 1977.
7. World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA). *International classification of health problems in primary care (ICHPCC-2).* Oxford: Oxford University Press, 1979.

Quasijudicial use of medical records

It is likely that both doctor and patient presume that clinical notes will be used only as an adjunct to the care of that patient. Nevertheless, the content of the medical record may subsequently be disclosed to an outside agency and used in assessing the patient's standing as an insurance risk, as an adoptive parent, as a prospective employee, or for some other purpose.

Is the medical record a reliable (or even ethical) source of information for these other agencies? Much of what is written in general practice records reflects the attitudes of the general practitioner and the course of the particular consultation, rather than the presence or degree of serious disease. Furthermore, what is put into, and retained, in the medical record envelope may be arbitrary and yet have serious consequences. This is a particular danger in the hazy area between the normal and the diseased wherein lie so many of the problems presented to general practitioners. For example, one doctor might reserve the word 'depression' for serious and protracted affective disturbance, whereas another doctor might apply it freely to anyone who complains of being 'run down'. One doctor might intimate in the clinical notes that there is a drink problem, while another might think this but not write it down, and a third doctor might not even think of the possibility. Then, the distinction between asthma and bronchitis is difficult to determine in children, and the diagnosis can cost the child a job 10 years later.

If there has to be summarization of medical records for quasijudicial use, the fairest way of doing this would be to involve the doctor who made the original record. Unfortunately, this is becoming impracticable with fewer single-handed practices and with the increased movement of populations.

Doctors and lawyers are rightly concerned that consent for medical procedures should be both proper and properly obtained. Certain criteria must be met in the consent to an operation under general anaesthesia: the

patient must understand the nature of, and the reasons for, the surgery; the consent must be freely given; the patient must be free to refuse the operation; it will be understood that the surgeon, in performing the procedure, will be acting in the Hippocratic tradition—exercising his skill in the service of the patient. The type of consent required for the disclosure of the contents of the medical record is quite different: it cannot be 'informed' consent unless the patient knows both the content of the record and the significance of what is written—and neither criterion is possible with present day medical records; consent is given under duress, since refusal might disallow the goal to the patient.

The ethos of medical disclosure is seldom explained and probably not often understood. Most patients believe that doctors always act in their interests; they are unaware that in preparing a medical report the doctor is acting for another agency. Although legally acceptable, the present consent for disclosure of a medical record is ethically inadequate. If patients were aware of the possible risk to their future when information is used for purposes other than their personal medical care they would, understandably, choose to withhold information.

For their part, doctors are not immune from the effects of the records they make. If the doctor's first duty is to care for his patient, the decision about what to record must be dictated by a consideration of the benefits or dangers for the patient relative to that information.

Much is being done to foster better, more detailed medical records. At the same time, doctors should be aware of the use and abuse of medical records and be considering radical changes in the present practice of information disclosure.

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