

Classification of Patient Symptoms, Complaints and Problems*

Kerr L. White, M.D.†

The International Classification of Diseases¹ has evolved over the decades as the principal reference source for systematically arranging the contemporary terms used to describe pathological disorders. It serves medical science well, particularly when disturbances in bodily functions are associated with observable anatomical, physiological and behavioral aberrations from accepted norms. Without this classification scheme, communication between biomedical scientists, clinical scientists, specialists, consultants and vital statisticians would be difficult, if not impossible. The ICD has and continues to foster progress in medical science.

There is another range of terms used in medicine that the ICD only touches on. These are the largely subjective terms that patients use in presenting themselves to physicians. The terms are expressed sometimes as symptoms, but most frequently as complaints or problems. Although commonly understood expressions and phrases are often used, there are local, regional and national colloquial terms that are not readily related to each other in the absence of some kind of medical thesaurus or classification matrix. These terms are employed at the interface between the patient and the physician, nurse or other health worker. They are the terms used at the level of first-contact care, primary medical care, family practice or general practice. As such, they constitute the main bulk of the vocabulary used by patients and health

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†Professor of Medical Care and Hospitals, The Johns Hopkins University School of Hygiene and Public Health, Baltimore, Maryland, USA.

professionals to initiate the medical care process. Probably the total number of different terms employed is small in comparison to the number of different terms reported in the ICD, but the frequency with which each term is employed, on average, undoubtedly exceeds by a large margin the average frequency with which ICD terms are used.

Primary care accounts for the great bulk of medical care consumption as measured either by number of visits to health professionals or by time these practitioners spend in coping with the symptoms and complaints presented to them initially. The development of a classification scheme that will permit investigation of the content of primary medical care and comparisons between different arrangements for providing this level of care seems desirable. A large part of the total resources of any health care system is inevitably concerned with the provision of primary medical care to the general population and it is increasingly important to study it with a view to improving its effectiveness and efficiency.

Patients do not complain of diseases when they initially seek medical care. Terms such as arteriosclerotic heart disease, multiple myeloma, duodenitis and fractured femur are rarely used by patients, and only occasionally used by first-contact physicians. Terms such as ache, pain, hurt, itch, rash, swelling, cough, blood, nervous, worried, tired, weak, "blue", and frightened are used. There are many more expressive phrases and colloquial terms with which local practitioners become familiar and which they use in the everyday task of advising, counseling, managing, treating and referring the patients who consult them.

The central task of medicine and the health professions is to resolve the patient's complaint or problem. The patient seeks prompt relief, explanation and eventual resolution of his presenting symptoms. It is the outcome or

end-result of the medical care he receives that interests him. A diagnosis is merely an intermediate step in the process of resolving the patient's complaint and is of little interest and of no intrinsic utility to the patient.²

From the viewpoint of the health services administrator or the official responsible for allocating the health care resources of a nation, a region, a province or a commune, or for monitoring the availability and effectiveness of medical care in his territory, it should be of enormous value to have estimates of the types and numbers of symptoms, complaints and problems presented to the health care system in his territory. It is important to know, for example, the extent to which the people comprising a population of say 100,000 persons complain of "headache" to the general practitioners (or other primary physicians) serving that population. Of the several thousand persons who present this complaint initially in the course of a year, how many are eventually classified as "tension headaches", psychophysiological musculoskeletal reactions, migraine, histamine headaches, subdural hematomas and brain tumors of various types? How many require repeat visits to the general practitioner, how many may require prescriptions for analgesics, how many require x-rays, referral for consultation with a neurologist or a neurosurgeon, how many require arteriograms, electroencephalograms, pneumoencephalograms, "burr holes", craniotomy or other surgery, radiotherapy or chemotherapy? Without some knowledge of the broad base of patient complaints to which the health care system must direct its resources, it is difficult to know how effective health planning and the consequent allocation of resources can proceed. By the same token, it is difficult to know how the objectives of educational curricula for medicine and other health personnel can be devised without adequate information about the content of medical practice.³

Mortality statistics are of limited value in planning medical care services at the primary level. Hospital statistics including clinical, demographic and administrative data are essential for planning hospital or specialty care, but they do not reveal the complete range of morbidity in the community. Similarly household surveys, health examination surveys and ad hoc epidemiological surveys are useful for measuring potential need. The missing segment of a full-scale health services information system is a mechanism for recording and comparing the events that occur in the physician's office or the ambulatory clinic. It is at this level that actual demand for care is measured and the realistic burden placed on the health care system can be determined. Reporting of selected communicable and non-communicable diseases to health departments has its own problems, but apart from these, it is the diseases that are reported, not the problems or complaints presented initially by the patients.

If reporting of symptoms, complaints and problems presented to the sources of primary medical care is important for the planning of personal health services, then it seems essential to have a "realistic" classification scheme. At this point, the term "realistic" is emphasized because it is probably more accurate to count "headaches" as observed at the initial patient-physician encounter than it is to count tentative, potential or possible diagnoses that may or may not be supported by further observation, investigation or the passage of time. Spurious accounts of the number of questionable or possible "brain tumors", for example, would give an inflated impression of the overall need for neurosurgical services by the population.

Any attempt to devise a classification scheme for symptoms, complaints and problems should start with the patient's terms and move to a medical classification scheme that represents their equivalent meaning. It is this

classification scheme, in contrast to the one developed as the ICD and expounded in the university medical centers of the world, that is used by the vast majority of medical practitioners for the vast majority of the problems brought to the medical profession and its allied personnel.⁴

In summary, then, what is being advocated is the development of a clinical descriptive language that reflects lay terms, complaints and problems but expresses them in medical language. It can well be related to the international classification of diseases and operations, and procedures, based on anatomical, physiological and behavioral changes, but it serves a different purpose and covers that end of the natural history of disease that is associated with its inception, rather than with its culmination and the patient's demise. Such a classification scheme could prove useful for general application in medical records, particularly to automated systems, but discussion in this paper is restricted to its use for measuring and describing the burden of illness presented by the community to sources of primary medical care.

The classification scheme should have at least two dimensions, a body-system or anatomical regional classification and a symptom, or better still, a functional classification. Examples of the former would include: abdomen, head and gastro-intestinal system, and of the latter, pain, aching and weakness. Applications of some of these ideas have been pioneered by Eimerl⁵ and the Royal College of General Practitioners in Great Britain⁶ and by the Dutch College of General Practitioners.⁷ Bain and Spaulding have devised and tested another approach in Canada.⁸

A more elaborate matrix that encompasses many other dimensions is being designed and developed by Brunjes,⁹ Director of Medical Computer Sciences at Yale University. A ten dimensional scheme is outlined in Table 1.

Table 1.

Ten Dimensional Matrix of a Sign, Symptom, Complaint or Problem

(Adapted from Brunjes⁹)

1. System	Subsystems Body as a whole Regions	7. Etiology	Diagnosis Resolved problems
2. Function	Normal functions Abnormal functions	8. Markers	Problems Complaints Reminders Omissions
3. Quantity	Severity Urgency Numeric values Normal	9. Modifiers	Aggravating Alleviating Quality Setting Environmental Space Position Treatment
4. Time	Outset/onset Duration Periodicity Rate of change Time recorded	10. Others	Associations Cross references Links
5. Who	Patient Family		
6. Source	Validity Patient Relative Doctor Nurse Laboratory Other		

This array of ten dimensions would permit the ready classification of most if not all symptoms and complaints. Although suitable for automated medical record applications, it can also be used in simpler form on Medical Care Event Records or on Patient Encounter Forms. The purposes of each of the ten dimensions proposed by Brunjes requires a brief comment. "System" refers to the usual categories but permits regions of the body and the body as a whole to be identified. "Functions" are classified as normal or abnormal. Variations in basic functions such as pulse rate or blood pressure would be classified as normal and bleeding or pain as abnormal. The dimension of "quantity" can be applied to measurable and subjective observations. "Time" is an essential dimension frequently overlooked in brief notes that adds important clinical information. The category "who" permits identification of data from both the patient and the family. "Source" provides an opportunity to establish the validity of the information. "Etiology" is self-explanatory; in this matrix, however, it is only one dimension and unless specific and certain may be of limited value. "Markers" identify important features of the patient's problem for later attention or follow-up. "Modifiers" provide opportunities for more subjective and qualifying comments that extend the basic description. "Associations" provide a dimension for linking several features together.

This is not the place to attempt a full presentation of Brunjes ideas but the approach would appear to have real merit as a method of bringing some order to the vast array of symptoms and complaints presented by patients. It could provide the same kind of order to the language of symptoms that the introduction of the periodic table brought to chemistry.

The ideas developed by Eimerl, Bain and Spaulding, Brunjes and others are important for health services planning. Quantitative and qualitative information about the demands made by populations for health care services and a system of organizing and classifying that information is needed if

the impact of current health services on the community's problems is to be measured and if new services and educational objectives are to be developed to meet new demands. Health services planning that does not pay full attention to the problem of primary medical care can scarcely be regarded as "comprehensive".

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