QUALITY ASSESSMENT AND AMBULATORY CARE*

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MY assignment is to offer a critique of practical applications of assessments of quality of care in the ambulatory setting. The principles of this assessment are not different from those used in studying the hospitalized patient where techniques of review require justification for use of the high cost facility. In the ambulatory setting, however, retrospective studies must direct attention not only to medical care and its costs but also to features that define potential actions which, if carried out, could decrease risks and prevent illness.

We have been using a method developed by Dr. Leonard Rubin at the Kaiser Permanente Foundation in Oakland, Calif.[1] The aim of this process is to set a standard which is acceptable to a group. Our group, incidentally, includes nurses. A clinical chart, selected by a random technique, is reviewed by a physician, who lists evidence of instances in which there is inadequate data, improper utilization, or negligence. A second physician reviews the patient's record and the list developed by the first physician and makes additions or deletions. At a subsequent staff conference the second physician then reports his findings. The name of the patient and the physician of record are omitted from the discussion. Attempts at this kind of review usually begin with the recognition by a professional group that data in the charts are unsatisfactory. Standards that are acceptable to the group are then developed. This is the key. When a problem is found, a group of peers set criteria which are acceptable to them as a standard for solution of the problem. The process starts with the recognition of an insufficient history or a lack of recording of data from the physical examination. Instead of prescrib-

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TABLE I. CRITERIA FOR TREATMENT OF HYPERTENSION

Justification for treatment	*Standard*	*Exceptions*
Systolic BP >160 mm. Hg.*	100%	Patients more than 65 years of age with
Diastolic BP >104 mm. Hg*	100%	a) Diastolic BP <110 mm. Hg*
		b) No heart enlargement present
		c) No protein in urine

*Found in three successive readings
BP = blood pressure

TABLE II. MANAGEMENT OF PATIENTS WHOSE BLOOD PRESSURE EXCEEDS THE ACCEPTABLE LEVEL

Minimum work-up	*Recommended treatment*
Physical examination	1) First drug: hydrochlorothiazide
Examination of eyegrounds	2) Second drug: Aldomet
Chest x ray	3) Apresoline, reserpine, propanolol, guanethidine, Aldactone, or a combination of these
Measurement of blood urea nitrogen	
Electrocardiogram	

ing minima, the physicians of the group begin to recognize that they too have not been recording many things which they have done. Then they begin to add things that they believe should also be expected. In my opinion this is a better method for developing data-base requirements than the system of using a "laundry check-off" list. Moreover, behavioral change is more likely to occur in this setting than in settings where habits are changed by policy instead of being altered through an educational process. Those who have tried to develop problem-oriented records need no other example.

At one of our recent reviews, a doctor noted that a patient had signed himself out of the hospital in July with a diastolic pressure of 130. Despite subsequent clinic visits, in December the diastolic pressure was still 130. "This is not satisfactory," the physician declared. When the group agreed, the question was asked how long it should take before a patient's pressure is reduced.

I cannot begin to tell you how much discussion took place about the variables to which Dr. Avedis Donabedian has alluded in his paper.[2]

TABLE III. DESIRED OUTCOME

Status at review	*Standard*	*Length of treatment*	*Mortality*	*Complications*
Systolic BP <141	100%	3 months	None	N.A.
Diastolic BP <100	100%			

BP = blood pressure, N.A. = not applicable

TABLE IV. COMPLIANCE

If no response to medication	*If BP did not reach expected status*
Were at least three visits ordered?	Was health education present in record?
Were there any broken appointments?	Was pill counting performed?
How many study periods?	Were there side effects from drugs?
Were there defects because of misunderstanding?	Did patient run out of medication?
	Did patient think he could stop medication because he felt well?

These included such elements as the patient's responsibility and psychosocial factors. Someone even quoted Harry Schwartz of the *New York Times*,[3] who has suggested that after passage of a national health insurance bill, expectations of the public for excellence in medical care might include freedom from disease from birth to the grave, maintenance of full sexual potency, availability and access to care at 2 A.M.—and all this at no cost.

The type of session I am describing is educational; for such an educational process, a good moderator is essential. "Let us be practical," our moderator said. "Assuming that the patient is cooperative, when would you expect the doctor, controlling the number of visits that may be required, to have the blood pressure under control if it can be controlled?" The group agreed on three months.

"Well, then, what level of blood pressure should we begin to control?" the moderator asked. The group agreed that while a pressure of 140/90 was desirable, pressures above 160/104 should be treated unless a contraindication was present. Such a contraindication should be stated in the chart (see Table I).

We also asked, "What is the minimum information that a physician should expect to find in the chart of such a patient?" As specified in

Table II, a minimum work-up should include a physical examination, examination of eyegrounds, chest x ray, measurement of blood urea nitrogen, an electrocardiogram, and a urinalysis.

Next, the drugs a physician might use to treat hypertension were discussed and listed in order of preference (see Table II).

Final expectation of a blood pressure less than or equal to 140/100 without evidence of side effects was an outcome all agreed would be desirable (see Table III).

The use of a 100% standard, as shown in Table II, is an interesting technique. It is used to require review of charts that are at variance.

A physician then asked, "How can we evaluate the patient's compliance?" Some criteria for evaluating the patient's compliance with his prescribed treatment are listed in Table IV and includes the role of ambulatory nurses in the education of patients, also important.

The information given in Tables I to IV could easily be recorded on one form, such as the one suggested by the Joint Commission on Accreditation of Hospitals. The criteria I have described may vary from group to group and from time to time; however, it is most important that some audit be performed and recorded.

Was this audit difficult? No, it was quite easy. What was difficult was establishing initial understanding of the educational process required of our physicians so that they would not resist the establishment of these standards and would be willing later to review their validity. What are the results of such audits? We have not yet finished ours, but the results are predictable. As Dr. Mildred A. Morehead's findings suggest, while physicians often may agree on what they should be doing, when they are confronted with the facts about care of their patients it is usually found that they are not living up to their own expectations. We expect to find more hypertensives without reduction of pressure than our physicians will tolerate. We shall also find a large number of patients who break appointments or who do not take their medicine and need instruction. We may also find that we shall need to analyze the frequency of medical visits, especially as this is related to the patient's outcome.

An important issue to which I have already alluded is the educational aspect of audit. Within the inpatient hospital setting controls on costs have led to requirements for both utilization and audit. But, in addition to cost control, many have pointed out that auditing is a tool

for determining educational needs. Within the ambulatory setting these educational needs have yet to be defined.

Methods and techniques must be introduced through an educational curriculum based on the concept that we are striving toward excellence and that the role of the physician and other professional persons for all of their professional lives will be to reexamine and reinvestigate professional efficiency and proficiency as an outgrowth of the processes of care.

Since medicine has often been described as an art, I think it is appropriate to quote Louis Kronenberger, editor of a text entitled *Quality: Its Image in the Arts.*[4] He stated

> Quality . . . is the chief element in almost all aesthetic appraisal. . . . What is good and valuable will seldom, of course, be flawless; but what it lacks or in what ways it is limited, will neither disfigure nor discredit it, and in every age we feel the need to search it out. If today, in a forever changing age with "revolutionizing" fads and sometimes totally inverted values, there is reason to reaffirm the need for quality, there is equal reason to re-investigate the nature of it. . . .

Discussing the essence of quality, Virgil Thompson stated:

> Quality is a word that, like beauty, can mean almost anything. Also, like beauty, it is stronger in its adjectival form. . . . I like the usage, because it turns quality away from something you might *have* toward that which you are. . . .
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> There is no getting around the fact that "quality" goods in arts and culture, in land and houses, in clothes, cuisine, cars, pets, and horses are the goods that we, the self-appointed "quality," consume. . . . When I say quality goods are what "the quality" consume, I go no farther in assigning to anyone the sociological status of "quality" than to assume that with regard to some product or kind of product he has experience and a dependable reaction to his own sensory and intellectual perception of that product.

If health care can be likened to a product, the professional—and like the art critic it must be the professional who examines that product —must develop dependable reactions toward his perceptions of its excellence.

The following are essential:

1) The goal of an audit must be to develop measures through which standards for excellence will be created through educational programs.

2) The definitions of these standards of excellence are local rather than national, permitting adaptability to social and individual variations which may occur within communities of people or practitioners. Thus, while audit techniques may be created by general principles developed outside an institution, specific methods, assessments, and studies of variations must lie within the domain of the practicing professionals.

3) A satisfactory outcome is never guaranteed for the patient even when the process of care is excellent.

4) Measures of efficiency such as cost effectiveness also must be included as measures of outcome, while it should be recognized that quality may be a costly product. This is particularly true in the ambulatory setting where, unlike what happens with inpatients, measures of effectiveness must include factors which will prevent illness as well as reduce long-range costs.

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