Journal of medical ethics, 1981, 7, 67–69

Ethical aspects of clinical decision-making

I Kollemorten, C Strandberg, B M Thomsen, O Wiberg, T Windfeld-Schmidt, V Binder, L Elsborg, C Hendriksen, E Kristensen, J R Madsen, M K Rasmussen, L Willumsen, H R Wulff, P Riis, *Department of Medical Gastroenterology, Herlev University Hospital, Herlev, Denmark.*

Authors' abstract

The aim of the present investigation was to describe and to classify significant ethical problems encountered by the members of the staff during the daily clinical work at a hospital medical department.

A set of definitions was prepared for the purpose, including the definition of a 'significant ethical problem'.

During a three month period 426 inpatients and 173 outpatients were admitted. Significant ethical problems were encountered during the management of 106 in-patients (25 per cent) and 9 out-patients (5 per cent). No significant difference was found between the frequency of ethical problems in female and male patients, but a positive correlation was noted between the number of problems and the patients' age. The problem types were classified according to a problem list.

The results of this investigation suggest that greater attention must be paid to discussions about ethical problems among doctors and other categories of health personnel and that, among others, medical students ought to be taught the analysis of ethical problems.

Traditionally it is assumed that clinical decisions are based almost exclusively on scientific data. It is accepted that social and psychological information exerts a certain influence, but the influence of the norms and attitudes of the clinician has largely been neglected. Until recently it was assumed that the clinical decision process was almost value-free.

It was the purpose of this study to elucidate to which extent daily clinical decison-making is based not only on scientific premises, but also on the norms and attitudes of the medical staff (1).

The more specific aims were

a) to describe and classify those significant ethical problems which the medical staff of the department encountered in the clinical routine, and
b) to examine the incidence of such ethical problems.

It was explicitly emphasised in the protocol that it was not the purpose to establish ethical standards and to assess the decisions relative to such standards (2).

In order to quantify the results the following *ad hoc* definitions were used:

ETHICAL

A clinical decision has an ethical component, when the doctor bases his/her action (diagnostic examination or treatment) or his/her information to the patients or others on a value judgment. A value judgment is either used to assess the value of the consequences of a decision (teleological ethics) or to assess to what extent the duties of the decision-maker and the rights of others are fulfilled (duty ethics). Therefore, a value judgment is based on non-scientific premises.

SIGNIFICANT ETHICAL PROBLEM

A problem which makes the decision-maker or other members of the staff consider the ethical implications. An ethical problem is also considered important when the decision-maker is in no doubt how to act relative to his or her norms, if he or she at the same time assumes that other clinicians might make a different decision under the same circumstances.

Material and methods

During a period of three months a special form was added to the case records of all patients seen in the Department of Medical Gastroenterology. Each time a staff member encountered an ethical problem during ward-rounds or otherwise when on duty, he or she entered a description of the problem on this form and made a preliminary classification in accordance with the problem list (Table I). The study was concluded one month after the entry of the last patient, and ethical problems encountered after that day in patients who had not yet been discharged were not included.

Results

A total of 426 patients (239 women and 187 men) were admitted during the period of investigation. Significant ethical problems were encountered in 106, *ie* 25 per cent (95 per cent confidence limits: appr. 21–29 per cent). There was no significant difference between the incidence of problems in women and men (Fisher's exact test: $P = 0{\cdot}35$), but in both sexes old patients presented more problems than young patients ($P<0{\cdot}05$).

The preliminary classification of the problems was reviewed, and it was found that 33 problems had been referred to more than one of the categories of

the problem list in Table I. These problems were reclassified, so that they were referred to that category only which described the type of problem best. Several of the patients were both physically and mentally debilitated, and such patients were arbitrarily and consistently classified under *physical* debilitation.

The distribution of ethical problems according to sex and age is shown in Table II. Table III shows the classification of the problems in both in- and out-patients (one problem was encountered in 80, two problems in 20, three problems in four, and four problems in two patients). In addition, nine problems were encountered in 173 out-patients.

The medical staff comprised three consultants, four senior registrars and five registrars/house-physicians. Table IV shows the number of problems encountered by these categories of doctors. The table also shows whether the problems were

Table I *List of problem types*

1. Ethical problems which arise when the request of a *diagnostic examination* is considered
   a) discussions on deviation from normal practice in consideration of the patient's physical condition
   b) - - - - mental condition
   c) - - - - the resources of society
   d) - - - - the patient's particular norms (for instance religious belief)
2. Ethical problems which arise in connection with the *treatment* decision
   a) discussions on the choice between different treatments when this choice is based on a value judgment (*eg* consideration of the quality of life after medical and surgical treatment in a case of ulcerative colitis)
   b) discussions on deviation from normal practice in consideration of the patient's physical condition
   c) - - - -the patient's mental condition
   d) - - - - the resources of society
   e) - - - - the patient's particular norms (for instance religious belief)
3. Ethical problems which arise in connection with the information of patients and relatives
   a) decision not to give patient full information of diagnosis or prognosis
   b) decision to give the patient and the relatives different information
4. Ethical problems reflecting a conflict between the patient's rights and the health system
   a) in our own department
   b) in other departments
   c) in other hospitals and institutions
   d) in general practice
5. Ethical problems reflecting a conflict between the duties and rights of the patient and society as a whole (including legal problems and conflicts with the police or social authorities)
6. Ethical problems reflecting a conflict between patient and relatives, and between relatives
7. Ethical problems related to patients' participation in biomedical research
8. Other problems

Table II *Number of patients with and without important clinical problems, classified according to sex and age*

Age (years)	Female patients with ethical problems	Female patients without ethical problems	Male patients with ethical problems	Male patients without ethical problems
10–19	1	7	0	4
20–29	1	7	0	13
30–39	5	15	7	12
40–49	5	18	2	13
50–59	7	38	3	28
60–69	7	34	12	33
70–79	17	37	10	31
80–89	20	17	6	12
90–99	2	1	0	0
100–109	0	0	1	0
Total	65	174	41	146

The difference between the age distribution of men and women with and without ethical problems is significant. (Rank sum test: $P<0.05$)

Table III *The distribution of important ethical problems in in-patients and out-patients*

Problem type	Number of problems In-patients	Out-patients	Number of problems Total
1a	13	0	13
1b	3	2	5
1c	3	2	5
1d	4	1	5
2a	5	0	5
2b	25	1	26
2c	6	0	6
2d	7	1	8
2e	2	0	2
3a	19	0	19
3b	5	0	5
4a	10	0	10
4b	1	1	2
4c	10	0	10
4d	4	1	5
5	11	0	11
6	11	0	11
7	0	0	0
8	1	0	1
	140*	9†	149

* in 140 patients
† in 9 patients

Table IV *Number of problems recorded in in-patients by:*

Consultant	60 (43%)
Senior registrars	45 (32%)
Registrars/house-physicians	35 (25%)
Doctors during ward-rounds	117 (84%)
Doctors while on other duties	23 (16%)

encountered during ward-rounds or while the doctors were otherwise on duty.

Discussion

The present investigation presents a number of methodological problems. A *threshold* problem arises, because a *significant* ethical problem was not sharply defined, and it must be expected that the labelling of a problem as being *significant* was subject both to *between*-doctor and to *within*-doctor variation. If we had chosen to formulate a very restrictive definition of the word 'significant' the number of recorded problems would have been small (although it would probably not have reached zero) and if we had chosen to formulate a very wide definition, it would have led to the inclusion of problems which did not really interfere with the clinical decision. Because of the threshold problem the quoted percentages must be interpreted with some caution.

A different methodological difficulty is due to the fact that many recorded problems were *multi-dimensional*, and they could have been classified under different entries on the problem list. As mentioned already it was decided to classify each problem under one entry and to accept the resulting loss of information.

It is probable that the particular attention paid by the members of the medical staff to the ethical aspect of their decisions during the time of the study influenced the results. This methodological difficulty is inevitable and it must further be expected that the threshold for recording a problem was particularly low at the beginning of the study and that it became higher as the study progressed and the level of attention dropped.

Table II shows that a variety of ethical problems were encountered. Those which were recorded most frequently were:

a) problems concerning the justification of reducing diagnostic and therapeutic activity in chronically ill (mostly old) patients in a poor physical condition (problem types 1a and 2b),
b) information problems particularly in patients with malignant diseases (problem type 3a),
c) conflicts between the patient's needs/rights and the health service (including consideration of the resources of the health service) (problem types 4a and 4c),
d) conflicts between patients and society as well as conflicts between patients and relatives (problem types 5 and 6).

It is not surprising that the greatest number of problems were encountered in old patients and that more problems were recorded by doctors during ward-rounds than by doctors on other duty. It is well known that the largest number of clinical decisions is made during that part of the day when most members of the medical staff are present.

The investigation shows that clinical decisions are not value-free to such an extent that the norms and attitudes of the clinical decision-makers can be ignored. The fact that the management of approximately 1/4 of all in-patients and approximately 1/20 of all out-patients presents significant ethical problems ought to influence both the daily clinical routine and the education of doctors and other health personnel.

The ethical premises of clinical decision-making must of course not reduce the patient's rights, as formulated in the laws governing the work of doctors and other health personnel, but apart from that it is desirable that clinical decision-making varies as little as possible from case to case, from doctor to doctor, and from hospital to hospital. Of course the norms and attitudes of different doctors reflect the pluralism of attitudes and ethical norms in society, and for this reason important clinical decisions based on a value judgment ought not to be taken by the individual doctor, but whenever possible by groups of doctors, preferably in cooperation with other categories of health personnel (nurses, social workers, etc.). This is a safeguard for greater representativity. The patient's right and/or the right of the patient's relatives to be consulted is obvious.

Findings like ours ought to have a profound influence on the education of doctors and other categories of health personnel. Medical students, for instance, ought to be taught that value judgments constitute an essential component of clinical decision-making and they should learn the logical analysis of ethical problems (3). If doctors become more familiar with the ethical aspects of their work, it may be hoped that discussions of ethical problems will gain their natural place at for instance the daily meetings of the medical staff at hospital departments. An improved education may also improve the relationship between patients and doctors and the information of relatives.

It must be emphasised that the present investigation cannot be regarded as representative of all hospital departments and of all sectors of the health service. It must, however, be assumed that clinical work in all parts of the health service has a significant ethical component.

Acknowledgment

The authors thank the secretaries Lone Atke, Birthe Deleuran, Anne Grete Hansen, Carla Irgens, Margrethe Lauesen, and Lise Nielsen for valuable help.

References

(1) Blomquist C. Medicinsk Etik. *Natur og Kultur* 1971. Stockholm.
(2) Riis P. Patientinformation. In: Vejlsgaard R, ed. *Medicinsk Arbog* 1979. Copenhagen Munksgaard.
(3) Wulff H R. *Rational Diagnosis and Treatment*. 2nd edn. Oxford, Blackwell, 1980.