Nosocomial Infections - Ethical Opinions

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Abstract: - This article discuss about nosocomial infections in connection with a practical study made on three Romanian hospitals (St. George County Hospital, County Hospital Emergency Clinic from Brașov and Children's Hospital of Brașov). In daily practice, health professional have a part of responsibility in a nosocomial infection and prove that the ethical rules are founded on the principles of individual wellbeing: regarding nosocomial infection the principle on non malfeasance is the most relevant. The balance between these ethical principles is delicate, however, for doctors; the main concern should be to avoid any distortion of the debate which could result from their confusing use of the principles of good.

Key-Words: - nosocomial infections, questionnaire, Medical ethics, hospitals, scientific debates, graphics.

1 Introduction
Nosocomial infections are a real health problem worldwide. Unfortunately, reporting them in our country is poor and it blocks taking strong prevention measures [10]. Although there is a legal framework according to European standards, a part of health staff is not aware of basic rules of prevention of nosocomial infections and, therefore, those measures which could reduce both lethality and mortality and also the hospitalization costs are not applied.

Another disadvantage of the Romanian health system, which helps to maintain an increased incidence of nosocomial infections, is the lack of screening and health education of the population, many patients presenting to the physician in an advanced or terminal disease, which is why there are required more invasive procedures, surgery is more laborious, the duration of hospitalization is higher, all this leading to higher costs that could be avoided.

Professor M. Voiculescu shows that medical activities should be examined not only on technical achievement, but as much in the light of the medical ethics, of their moral correctness, of the highest responsibilities towards humans.

Medical ethics profession issues concerns circles of an increasingly wider range of medical practitioners and researchers, for this theme, there are different scientific debates, from national symposiums to global and international congresses of medical morality, from meetings that discuss a particular issue to inclusion on the agenda the concerns of complex coordinates on the moral, ethical of the right and the responsibility to cure, all this taking place also in the most representative international forums like the UN and WHO.

Although at first view the understanding of medical ethics status seems very simple, there isn’t a consensus on its field of interest and hence the leverage by which it must be manifest. Apparently would only be some differences of emphasis within the same problem, but in reality, the theoretical guidelines involves a different circumscription of a specific area of medical ethics [3].

Ethical issues regard nosocomial infections, points out moral responsibility of physicians and also show the link between particular moral problems that arise in the relationship between patient and physician and the principle of accountability [2]. Medical staff should be interested in knowing these reflections, whether the product of personal studies or group of specialists, either as the attitudes expressed in public debates [1].

Using survey-based questionnaire, the study's aim is to improve both performance and verification of knowledge, also the awareness of the gravity that the nosocomial infections represent, the ethical and legal implications of which they benefit. This is because the analysis of the patients’s health, the recovery and the purchase of new hospital equipment and resources necessary to meet these requirements are the core business of health institutions.

The rules of legal settlement, prevention, control and fight the outbreak is based on legislation in force:
• Ord. M.S. no. 994/2004 approving the rules of supervising and control of nosocomial infections in health units [11];
• Ord. M.S. no. 185/2003 for approval of technical rules relating to cleaning, disinfection, sterilization of objects and materials in state and private sanitary units [12];

2 Materials and methods

The survey of this study was conducted using the investigation procedure with the help of a questionnaire. The investigation underlines a study and involves „an exchange of information, namely a communication between the researcher and some elements (human individuals) of the reality investigated” [8].

In this study we used the written survey by completing a questionnaire, which aims to produce a scientific knowledge. As a technical and a tool of inquiry, the questionnaire consist on a set of written questions and eventually graphics, psychological and logical ordered that are given by operators of inquiry or self administration and it determines writing answers from the respondents [7].

The procedure is operative and it allows the development and elucidation of problems in a short time and, therefore, the analyzed results will be more real, more strategic and can be used more effectively in practice [9].

To facilitate the processing of statistical data in this study we applied a questionnaire containing 15 questions, of which 14 were closed, that had answers already made and the 15th was designed requesting suggestions from physicians.

In this research from 102 subjects interviewed, 52 are physicians from St. George County Hospital, 30 are from the Children's Hospital of Brașov and 20 are from the County Hospital Clinical Emergency from Brașov. As for response time to questions was elected duty report, and where it wasn’t possible, the questionnaire was personally given and recovered in time.

The data provided by physicians has been centralized and then analyzed, its interpretation being detailed in the following pages.

3 Results and discussions

The sample that we applied the questionnaire is made up of 52 physicians from St. George County Hospital, 30 physicians from the Children's Hospital of Brașov and 20 physicians from the County Hospital Emergency Clinic from Brașov.

By processing the data obtained we can finally rate specialists’ physicians who participated in the study conducted by health units, like in Figure 1.

Thus, after data centralization, a percentage of 50.98% of all physicians from the study participants belong to the County St. George Hospital, 29.41% to the Children's Hospital of Brașov, and 19.61% to the County Hospital Clinical Emergency from Brașov.

Of the total batch interrogated most physicians are interns compared with other specialties, which can be explained by the lower number of doctors in surgical specialties employed in sanitary units where the questionnaire was applied, as indicated in the figure below.

![Figure 1](image1.png)

**Fig. 1 - The percentage of physicians according to hospital unit they belong to**

**Fig. 2 - Percentage of specialist physicians according to specialty group in which they are included**
In all three hospitals in which the questionnaire was applied it prevail physicians from medical specialities in a percentage of 73.53% of the total sample, unlike those in the surgery, which are represented as a percentage of 26.47%.

In Figure 3 we see that the largest percentage of subjects is the age group between 45-54 years old (56.86%) and lowest of 6.86% in the age group 25-34 years old, which is justified by the increased number of years of training that a physician get through to professional maturity. The increased percentage of physician aged over 40 years brings an element of maturity in the quality and rigor with which they answered the questions from the questionnaire applied.

All participants in the study know the concept of nosocomial infection, which is represented graphically in Figure 4 and which has been observed after data processing from the questionnaire. The question, that conferred these data, was introduced in the questionnaire to provide safety and correct answers and to inform the participant on the theme.
The highest percentage is 65.68% and is attributed to physicians that know the new legal regulations concerning nosocomial infections, as is show in graphically in the figure above. Is noteworthy that the total percentage of physicians who do not know the new regulations and those who have browsable is 34.32%, and is less than those who know the law, but it is still a major concern on safety in hospital units.

The greatest deficit of this questionnaire is that physicians heads of department couldn’t be quantified, because the questionnaires were anonymous, and the head of department: organizes, controls and is responsible for carrying out their activities under their own section according to the annual plan of supervision and control of nosocomial infections in the health unit (according to Order 994-2004, Annex II, IV subheading [11]).

Following the graphical representation on Figure 6 we can conclude that the physicians are interested in the rules of conduct required in connection with the exercise of rights and duties as a professional physician [6]. The percentage of doctors who do not know the Code of Medical Ethics and those who are browsable is lower; 8.82% and 2.94% respectively.

The figure above shows that the ethical aspects of nosocomial infections concern the physicians in a very large percentage of 97.06%, as opposed to 2.94% that are not interested.

Very high percentage can be explained by the increased number of physicians who read the Code of Medical Ethics [4].
We can see from Figure 8 that the aspects of the occurrence of a case of nosocomial infection is a concern and a major interest (97.06%) of physicians in St. George County Hospital, in Children's Hospital in Braşov and in County Hospital Emergency Clinic from Braşov.

![Percentage of doctors with different opinions on the ethical aspects of the impact of nosocomial infections, which took questions from the questionnaire](image)

Analyzing the graphical representation of medical specialists who consider it is ethical to inform the patient when he caught a nosocomial infection during hospitalization [5], we find that they have different views and only 64.71% brought to the attention of patients this unpleasant fact for them and the physician. Thus it may be remarked the honesty and sincerity of physician-patient and the conscientiously ethics of doctors to the patient.

The percentage of physicians who have not always informed the patients on nosocomial infections is low compared with others, of 27.45%, a result which is not negligible and that raises a question of medical ethics.

![Graphical representation of physicians from the three hospitals that consider it is ethical to inform the patient when he caught a nosocomial infection](image)

The unanimity according to the idea that it is ethical to notify the patient that he caught a nosocomial infection during hospitalization demonstrates that the morality and the conscientiousness of physicians are at the highest levels, despite the unsuitable conditions in some hospitals.

By processing the data it shows an increase of 97.06% of medical specialists who consider through given answers, that the questions have brought more attention to the ethical issues of nosocomial infections.
This is gratifying and shows that one of the major objectives of the study was reached.

4 Conclusions

- Most practitioners interviewed (50.98%) come from the County Hospital St. George, in all three hospitals predominates physicians of medical specialties as a percentage of 73.53%.
- The largest percentage of subjects interviewed was aged between 45-54 years old.
- Ethical issues concern physicians in a very large percentage of 97.06%, which can be explained by the large number of doctors who read the Code of Medical Ethics (88.24%) as well as the proportion increased (65.68%) of those who know the new rules on nosocomial infections.
- Physicians are interested in rules of conduct required in connection with the exercise of rights and duties as a medical professional, in which concerns the ethical aspects of nosocomial infections.
- There is a concern and a major interest of the subjects interviewed on aspects of the occurrence of any event of nosocomial infection.
- Most physicians (64.71%) have always brought to the attention of patients when they contact a nosocomial infection, which is unpleasant for both the doctor and for the ill.
- Consciousness and morality of the physician are at the highest levels, despite the unsuitable conditions in some hospitals, as demonstrated by the unanimity concerning the idea that it is ethical to notify the patient that he contacted a nosocomial infection during hospitalization.

- An increased percentage (97.06%) of those interviewed considered that the questions of the questionnaire brought more attention to ethical issues related to nosocomial infections, as illustrated by the given answers.

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