Coll. Antropol. **29** (2005) Suppl. 1: 21–24
UDC 617.7:006
Original scientific paper

Internal Quality Audit and Quality Standards as a Method of Quality Improvement at the Department of Ophthalmology, University Hospital

Mirjana Nasić[1], Rajko Pokupec[1], Damir Katušić[1], Pavle Miklić[2], Ivan Suić[3] and Slobodan Galić[4]

[1] University Department of Ophthalmology, Clinical Hospital Center »Rebro«, Zagreb, Croatia
[2] University Department of Neurosurgery, Clinical Hospital Center »Rebro«, Zagreb, Croatia
[3] University Department of Ophthalmology, Clinical Hospital »Systers of Mercy«, Zagreb, Croatia
[4] University Department of Pediatrics, Clinical Hospital Center »Rebro«, Zagreb, Croatia

A B S T R A C T

Quality assessment of clinical health care with the programme of quality standard is a method of health management, through which better efficiency and safety of health outcomes can be achieved. In the period from 2002 to 2004, a pilot program of quality has been carried out on the Department of Ophthalmology, University Hospital Center in Zagreb. Seven internal audit teams of hospital commission and teams of hospital departments were evaluating introducing practice for quality standards every three months. In the period of two years improvement in all standards of quality has been noticed (expressed in percent of progress towards the ideal result of 100%): personnel 20%, patient rights 15%, medical equipment 40%, quality of emergency service 60%, implementation of clinical guidelines and criteria for elective admission 55%, quality of risk prevention 70%, quality of medical records 60%. The two-years-improvement dynamics of about 46%, first year 24%.

***Key words**: ophthalmology, health care reform, standards, quality, guidelines, patient rights*

Introduction

In the 21st century, the World Health Organization program Health for All by the Year 2000 has been modified into a new concept of realistic approach taking due consideration of the macropolitical and economic conditions of a particular region, with health promotion as summarized in 21 targets considering a moral commitment of all participants (providers and users) to provide the best possible result based on the resources available. Target No. 16 refers to »care quality management«[1]. The Health reform which started in 1999 in Croatia is a all-including national programme of preventive, primary and secundary health care[2]. Croatia is a country that has a declared social politics and it stives to balance the needs of all user in medical sector. Hospitals hold traditionally an important place in Croatia. They enjoy the confidence of the population and hold a prestigious position in the society. Although, they often spent a huge amounts of the health budget, they have little influence on health of population generally. Anyway, everyday fight for the lives of the individuals justifies all the necessary investments.

In Croatia, about 14 % of the population are hospitalized for treatment every year. At the same time, there is an inaequate level of computerization, inappropriate personnel structure with too high a proportion of non-medical personnel and too low a proportion of high-school medical personnel, and a tendency towards expensive forms of health care. Although the rate of hospital bed occupancy is highthere is high (81%–87%), exceeding the European Union (EU) average by some 15%, the mean lenght of hospital stay indicates it to result from prolonged hospitalisation[3]. Although Croatia gives about 9 % of its BNP for health care, these budget (regarded in absolute values) can hardly satisfy the volume and requirements for health care of the population of Croatia nowadays. For a better utilisation, the hospital sector approached to the whole reorganisation planning a hospital network appropriate to the needs of the number and distribution of population, thus considering new and more functioning models of financing, identificating primar investition and organisation in order to reduce waiting lists, improving technology with which it rea-

Received for publication January 11, 2005

ches and optimal effect of treatments and investing in human resources because of their temporal and qualified maximal utilisation[4].

Methods through which – routine in the developed world – the quality of clinical praxis is being improved and controlled, are *quality standards* and *quality indicators*[5]. There is a number of definitions of quality, but the Avedis Donabedian's is the first basic and fundamental one. We cite the definition of World Health Organisation: »Quality in health care can be defined as care or service with characteristics which comply with specific requirements and which fulfill – with today's degree of knowledge and available resources – expectations for maximal profit and minimal health and welfare risks of the patient.«[6].

Materials and Methods

University Hospital Centre (in further text: KBC) Zagreb founded a committee for improving quality and internal supervision and hospital quality in 2002. The committee was multidisciplinary consisting of experts of all clinical professions, lawyers, nurses and medical engineers. The committee was established by seven three-member teams consisting of doctors, senior nurses and secretaries, who worked voluntary. In 29 departments, including the Department of Ophthalmology, a three-member team was established, which implements the programme of quality standard, consisting of head of the department, coordinating doctor and the head nurse. Using the internal audit method, the team of the hospital quality committee had meetings every three months with the team from the ophthalmological department, considering and improving the implementation of the set of standards for quality improving. Annual descriptive evaluation for programme imple- mentation was performed. Set of written standards for insuring quality of health care was taken from the accreditation procedure programme of two health systems that are of best quality: Agence Nationale d'Accreditation et d'Evaluation en Sante, France (further: ANAES)[7] and NHS Executive Department of Health, Great Britain[8]. The team work results was measured by assessing each standard on a scale from 0% to 100% (0 – completely unsatisfactory through 100% – completely satisfactory). We set our own acceptable standard : score over 70%. We have graphically showed the dynamics of the progress in the first and second year for following categories: personnel, patient rights, medical equipment, quality of emergency service, implementation of clinical guidelines and criteria for elective admission, quality of risk prevention, quality of medical records[9].

Results

Following standard groups were implemented in written form:

I Patients and patient care

Patient rights and informed consent

An internal rule book about patient rights, procedure of giving information to patients about rights which belonging to them, procedure of giving information to patients about their health condition, list of medical procedures which require additional acceptance of patients and methods of getting it, procedure of getting patient's acceptance for taking part in biomedical researc, procedure of archiving valuable items that belong to the patient, procedure for implementation confidement and isolation of the patient, hospital house order.

Medical records

Rules which determine the content of medical documentation required in hospitals, rules that insure regular filling out of medical documentation in hospital, process of keeping medical documentation from being deleted, counterfeiting and access by unauthorised persons, guidelines for determining content of routine doctor anamnesis and routine physical examination, guidelines for determining content of routine assessment by the nurse, documentation that confirms gathering information about the number of patients distributed by diagnostic codes and procedure codes, documentation that confirms the examination of medical documentation and possible improvement.

Patient care organisation

Patient admission procedures during planned admission, emergency cases and disasters, procedure of cooperation with admission office with other departments, procedure of cooperation of emergency service with emergency medical team, list of medicaments, principles of listing medicaments which are not on the list of prescribed medicaments, procedures of ensuring medicaments which are being kept in the pharmacy and in the department, list of medicaments, equipment and material which must be accessable in emergency cases, procedure of getting medicaments in a emergency case, procedures of preparing and using special kinds of nourishment, list of medicaments necessary for correct functioning of emergency team and procedure for their supplement.

II. Managing and administration in the service of patients

Managing in hospital and its activities

Tasks and strategic objectives of the hospital, hospital development plan, documentation containing real and necesarry structure of the hospital, areas of responsibility for most important positions of the hospital – posts with special responsibility, organisation scheme, documentation confirming reports of Hospital's administration about problems dealing with quality, information about main extern institutions that are connected to the hospital, the Hospital Statute.

Managing of personnel

General plan of education and professional training of the personnel, plans about education of the personnel distributed by departments, requring qualification for special posts in the hospital and description of these posts, documentation confirming periodic implementation of personnel qualification assessment and its professional activity. Criteria of these assessments, documentation that confirms setting aside funds for educating personnel on designated purpose, documentation confirming that every employee had no less than one form of training each year, programme for accomodation of new employees.

Managing logistics

Procedure of planned maintenance and ensuring of all medical instruments, documentation confirming control systematicness of all medical instruments and their attests, list of errors in the field of civil engineering and plans about decreasing these mistakes, documentation confirming security system control in case of interruption of water distribution, electric energy and medical gases, plan about fire prevention, current attest of fire prevention systems, plan about medical waste disposal, record of identification and storage of medical waste disposal, reports of utilisation of radioactive products.

III. Quality and prevention

Managing the quality and risk prevention

Special prevention programmes and transfusion safety

Reports on unpredictable events (anaesthesia, choronography and other invading diagnostic and therapy procedures), records on the work time spent within ionising radiation zones, records of dosimeter control, procedure of preventing and suppressing clinical infections of patients and employees

Observation, prevention and control of infection risks

Dynamic of progress in observed categories showed that the best progress was achieved in following categories: quality of emergency service, implementation of clinical guidelines and criteria for elective admission, quality of risk prevention, quality of medical records. (Figure 1). Proffesional activities which are traditionally present in Croatian medical educatiional program and close to natural science, while little progress was achieved in the area of patient rights and personnel politics, multidisciplinary medical categories close to social sciences.

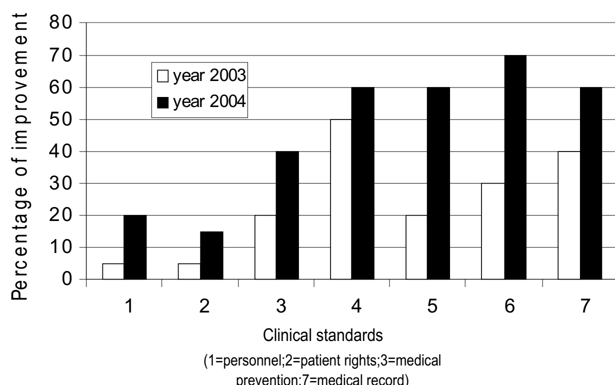

Fig. 1. Percentage of improvement of clinical standards during the period of the years 2002–2004 at ophthalmology department.

All categories recorded dynamic increase which shows the acceptance of the programme by medical personnel. Advancement of the category medical equipment is limited by the budget of the hospital.

Discussion

The process of quality improvement in hospitals through quality standards is an activity that has been on the run for years. In French agency for accreditation only the preparing of written materials lasted two years. One year for preparing process and further two years for team education[7]. In KBC Zagreb there was a quicker achievement of a result because that model has already been tested. Overtaking a model of other countries is probably possible to implement when health systems are being organised similarly, have comparable medical technology and have similar education programmes[10]. Introducing standards showed a positive attitude of medical personnel towards the programme and significant enthusiasm. Surely, besides administrative success of the team organisation programme and preparation of written material and protocols the real result of this programme may be measured only by introduction of clinical quality indicators, what requires additional engagement as well as experts from particular fields and development of software which could objectively and continuously follow special parts of medical interventions and outcome. Slow progress of programmes like patient rights or managing human resources is a result of facts that these programmes are multidisciplinary and require knowledge and experience in the field of health organisation, philosophy, medical ethics, psychology, law and economy. They are also less comparable and it is more difficult to import them because of different culturological, religious and social environment as well as of society's degree of democracy[11]. For such programmes there is support of specialised agencies in countries with more developed health management which don't exist in Croatia yet[12–14]. In ophtalmologic literature of different internet data bases there are also presented papers that are close to standard education programmes at Medical Faculties, like: clinical guidelines, effectiveness of some diagnostic or therapy process, seldom cost-effectiveness analysis, and in the area of patient rights mostly patient quality of life referring to specific fields of ophthalmic pathology[15–18]. Such trend gives us light that the education programme in quality of health protection in pregraduate, postgradu-

ate and also in courses is decisive for implementation of quality standards in hospitals[19–20].

Conclusions

The quality standard implementation programme through teams for internal control is a promising instrument for the begining of quality standard introduction to the hospitals. The greatest progress was achieved in natural science medical category standards: quality of emergency service, implementation of clinical guideliness and criteria for elective admission. Interdisciplinary standards; patient rights and personnel policy are less known to hospital's personnel, are difficult to adopt and understand and therefore need different expert education programmes for the whole medical personnel of the hospital.

REFERENCES

1. WORLD HEALTH ORGANIZATION: Health For All Database. (WHO Regional Office for Europe, Copenhagen, 2001). — 2. MINISTRY OF HEALTH REPUBLIC OF CROATIA: Health Care Reform: Strategy and Plan for the Reform of the Health Care System and Health Insurance of the Republic of Croatia. (Ministarstvo Zdravstva Republike Hrvatske, Zagreb, 2000). — 3. CROATIAN HEALTH INSURANCE: Institute Database. (Hrvatski Zavod za Zdravstveno osiguranje, Zagreb, 2000). — 4. WORLD BANK DEPARTMENT FOR CROATIA AND ALBANIA, MINISTRY OF HEALTH OF THE REPUBLIC OF CROATIA. Rev. Soc. Pol., 3–4 (2000) 331. — 5. DORAN, I., G. R. BAKER, M. MURRAY, J. BOHNEN, C. ZAHN, S. SIDANI, J. CARRYER, Health Care Manage Rev., 27 (2002) 7. — 6. ELDAR, R.: Vrsnoća medicinske skrbi. (Medicinska naklada, Zagreb, 2003). — 7. AGENCE NATIONALE D'ACCRÉDITATION ET D'ÉVALUATION EN SANTÉ: Accreditation manual for health care organizations. (ANAES Service Communication et Diffusion, Paris, 1999). — 8. NATIONAL HEALTH SERVICE: Quality and performance in the NHS: High level performance indicators. (United Kingdom National Health Service, Finance and performance assessment, London, 1999). — 9. KLINIČKI BOLNIČKI CENTAR ZAGREB: Norme kvalitete za akreditaciju bolnica. (Ured za unutarnji stručni nadzor i kontrolu kvalitete, KBC Zagreb, Zagreb, 2004). — 10. NAŠIĆ, M., S. OREŠKOVIĆ, Croat. Med. J., 43 (2002) 430. — 11. DOWNIE, R. S., K. C. CALMAN: Healthy respect. (Oxford university press, Oxford, 2001). — 12. COMITÉ DE COORDINATION DE L'EVALUATION CLINIQUE ET DE LA QUALITÉ AN AQUITANE: Questionnaire SAPHORA-JOB de satisfaction au travail dans les établissements de santé. (CCECQA, Pessac, 2004) — 13. BRITISH MEDICAL JOURNAL: Clinical evidence concise. (BMJ Publishing Group, London, 2003). — 14. WWW.AZQ.DE: German manual for clinical practice guidelines. (Ärztliches zentrum für qualität in der medizin, Cologne, 2004). — 15. MEMBRENO, H. J., M. M. BROWN, G. C. SHAIMAS, Ophthalmology, 109 (2002) 2265. — 16. SCHOENFELD, E. R., M. J. GREENE, S. Y. WU, M. C. LESKE, Ophthalmology, 108 (2001) 563. — 17. ROSENBAUM, T. J., Semin. Arthrit. Rheumat., 19 (1990) 248. — 18. LITWAK, A. B., Clin. Eye Vis. Care, 9 (1999) 149. — 19. KOVNER, A. R., Health Care Manage. Rev., 27 (2002) 27. — 20. SHORT, J. C., T. B. PALMER, Health Care Manage. Rev., 27 (2002) 48.

M. Nasić

University Department of Ophthalmology, Zagreb Clinical Hospital Center, Kišpatićeva 12, 10000 Zagreb, Croatia
e-mail: mirjana.nasic@zg.htnet.hr

INTERNA KONTROLA KVALITETE I STANDARDI KVALITETE KAO METODA UNAPRJEĐENJA KVALITETE NA ZAVODU ZA OFTALMOLOGIJU KLINIČKE BOLNICE

SAŽETAK

Unaprjeđenje kvalitete bolničke zdravstvene zaštite putem programa standarda kvalitete je metoda zdravstvenog menadžmenta kojom se postiže veća efikasnost i sigurnost zdravstvenih ishoda. U razdoblju od 2002. do 2004. godine na Klinici za oftalmologiju Kliničkog Bolničkog Centra Zagreb proveden je pilot program uvođenja standarda zdravstvene kvalitete. Organizirano je sedam timova unutarnje kolegijalne kontrole bolničkog povjerenstva za unaprjeđenje kvalitete i timovi bolničkih odjela koji su svaka tri mjeseca evaluirali uvodjenje standarda kvalitete u praksu. Na Klinici za Oftalmologiju u razdoblju od dvije godine rada zabilježen je napredak u svim standardima kvalitete (izraženo u postotku napretka prema idealnom rezultatu izraženom kao 100%): ljudski resursi 20%, prava pacijenata 15%, medicinska oprema 40%, kvaliteta hitnog prijema 60%, primjena kliničkih vodiča i kriteriji za elektivni prijem 55%, prevencija rizika 70%, kvaliteta medicinske dokumentacije 60%. U dvogodišnjem razdoblju kvaliteta je poboljšana za 46% od očekivanog idealnog rezultata, prve godine 24%.