

THE AUDIT ACTIVITY IN THE PUBLIC INSTITUTIONS: THE IMPORTANCE OF A CLINICAL AUDIT IN THE PUBLIC HEALTH SYSTEM

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Abstract

Part of the national audit system the clinical audit represents an important instrument in a domain where the quality must be in the totality of the activities through which are assured services to patients. The purpose of the clinical audit is to improve the services' quality and to optimize, in this way, the product offered to the patient, through a constant, systematic and concrete analyze in relation with a set of well defined, explicit criteria and by inserting and monitoring some changes to all the activity levels. Starting with the general framework of the sanitary, working and operational systems and leading to the particular element – the patient, the audit has the role to identify, evaluate and correct all the malfunctions that this complex system can generate, as the medical act involves the human agent situated on the both positions of the same strength report (medic and patient).

Keywords

Public audit, health system, methodology, importance

JEL Classification

I18, H10, H51, H83

Introduction

The role of medical audit is a systematic and critical assessment of the quality of healthcare by a multidisciplinary team and includes the analysis of some procedures used in the diagnosis method, implicitly the marking of a correct and resultant therapeutic procedure, the correlated use of resources for effective care of patients and to improve the quality of life.

This has been described as a complex activity necessary to determine whether existing knowledge and resources (human and technological) are being used appropriately. Medical audit can be defined as estimating, evaluating and improving systemic healthcare provided to patients. It is a systematic assessment by colleagues of an aspect of the patient's behavior. Taking part in medical audit as a multidisciplinary process can increase the quality of medical services by continuously improving assistance, provided that it is based on explicit and measurable quality indicators (Grigorescu, Chitescu, 2017). These indicators include both the perspective of providers and of healthcare users. Thus, it can be demonstrated that it is universal, systematic and efficient.

Audit may be internally - a self-evaluation activity performed within a medical structure as part of general quality assurance procedures or externally when it is done by a team whose composition is from outside the analyzed one and can be done to a section, a compartment, a hospital or at the level of any health care institution or organization.

Audit is delineated by a research because it does not contribute to the generation and promotion of new knowledge, but it represents a component of training and educating this new side of the quality of the medical act itself.

Ensuring safety and good patient care is a problem of the health system. In the Second Report from the Commission to the Council on the implementation of Council Recommendation 2009/C/151/01 states the following data:

In Europe: 37000 deaths directly attributable to IAAM;

- 110000 deaths for which IAAM are a contributing factor;
- an undetermined number of deaths caused by medical errors;
- between 8% and 12% of admitted patients to an EU hospital are, on the care period, victims of events such as IAAM;
- 4.7 billion euros costs only to treat the adverse effects caused by the medical act.

Regarding to diagnostic errors, the number of deaths is 13.5% of the EEAM, the US report between 60000-90000 deaths per year, and in Europe data are only for France, where the reported deaths are between 6000-12000 per year.

In this context, the clinical audit leads, by comparing current practices in the organization with best practice in the field, as well as identifying and solving problems in providing services that limit such deficiencies with severe consequences (deaths) and high financial costs, wants to make visible improvement of clinical results through everything I described earlier. It is therefore able to provide clear data on improvement measures of the quality of health services and, as a consequence, to increase the satisfaction and safety of patients, corers and healthcare professionals. (Esposito, Del Canton, 2014).

In Romania, the body involved in this issue is ANMCS (National Authority for Health Quality Management) and operates under the authority of the Government and the Prime Minister's coordination through the Prime Minister's Cabinet. It has as main objective *continuously improve of the quality of health services and patient's safety by modifying the health organizational culture, standardizing, assessing health services and accrediting sanitary units*. Quality is the main objective of the Romanian authorities, imperative for the development of safe and efficient medical services (Grigorescu, Chitescu, & Lixandru, 2016). In this way, NACMC is accredited to initiate processes for developing standards, methodologies and procedures that are compatible with and equal to European ones, to evaluate and accredit all healthcare providers (sanitary units, personnel training units specialized in quality of health services management), to inform healthcare workers, decision-makers and patients about the quality of health care and patient safety.

Standards developed by NAMMC regarding the management of sanitary institutions are (<http://anmcs.gov.ro/web/>):

STANDARD 1: The institution has a policy for receiving and highlighting patients

STANDARD 2: Patients' access to services is a component of the institution's policy

STANDARD 3: The care plan of the patient is based on the data obtained at the time of admission

STANDARD 4: The patient's medical and personal needs are considered in their complexity

STANDARD 5: Patient's care is coordinated within clinical activity sectors

STANDARD 6: The institution guarantees the continuity of care

STANDARD 7: Patient's management with surgical potential is based on communication between specialized multidisciplinary teams

STANDARD 8: The sections of the institution and the pharmacy ensure the continuity of care

STANDARD 9: Operation, delivery and ATI rooms ensure the continuity of care

STANDARD 10: Clinical and Para clinical medical analysis laboratories, as well as pathological anatomy ensure the continuity of care

STANDARD 11: The institution has organized the fields of radio diagnostic, radiotherapy, nuclear medicine, functional explorations, medical recovery and physiotherapy

STANDARD 12: Patient's extermination is planned and coordinated

STANDARD 13: The institution has procedures related to critical situations or death

STANDARD 14: The departments of the institution use diagnostic and therapeutic protocols

STANDARD 15: The departments of the institution assess their professional practices and achievements

Methodology

In this study we will analyze the methodology of conducting the clinical audit process that addresses the three main elements of medical practices: structure, process, and outcome, and we will highlight the importance of this process in the health system.

"The internationally accepted medical audit model involves establishing the requirements (the standards), assessing the practice by comparing it with the 'golden standard' or 'the desirable practice', detecting deficiencies and correcting them." (Benjamin, 2008)

a. The audit cycle

The classic quality improvement model, illustrated in Figure 1, consists of 2 parts: Three key questions that can be put in any order and The Plan-Performance-Check-Action (PPCA) cycle is used to test and implement changes in practical reality (Harding, 2014).

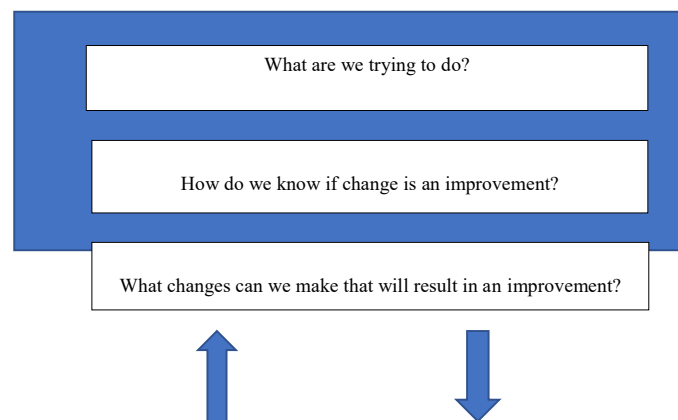


Fig. no 1. Three key questions

Source: interpretation after Harding M., 2014, *Audit and Audit Cycle*. Professional Reference: Care.data. June 16, 2014, <https://patient.info/doctor/audit-and-audit-cycle#nav-3> [Accessed on 17 March 2018]

Auditing is a cyclical process that allows tracking of improvements and demonstrates through evaluation that these have been made. The clinical audit cycle has 4 stages. These are: setting standards, assessing current practices, comparing results with standards, changing practices. There are many models for presenting a clinical audit cycle because the projection of an audit should take into account the clinical outcome to be improved, the

available standards at the time of the audit, how changes are to be introduced to make implementation effective and how this result can be verified in a systematic manner.

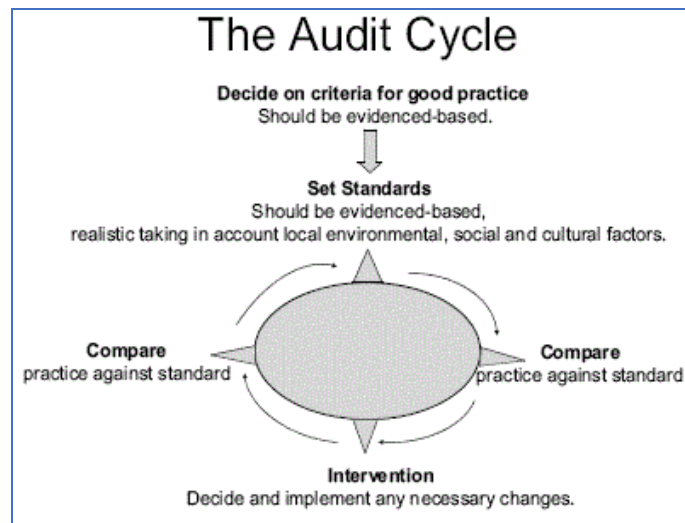


Fig.2. The audit's cycle

Source: Asnani M, Brown P, Connor D. O., Lewis T., Win S. and Reid M 2005, *A clinical audit of the quality of care of hypertension in general practice. West Indian Medical Journal*, 54(3), pp. 176-180.

b. Clinical audit coverage

Clinical audit can cover a wide range of activities, especially those that have predefined a reference system, meaning standards and guides to good practice. *The theme* of these activities should take into account the improvement of the risk to the patient due to identified and claimed problems, to be of interest to the staff of the institution and be part of the quality management project promoted by the institution. Among the criteria that may help classify domains in order of priority are: clinical, didactic and scientific interest, the interests of service users, doctors' interests, high risk, high volume, complex or difficult management, high costs, availability of national/ professional standards requirements. One way to set the priority areas is to score a score in each domain according to the frequency, risk and level of interest for doctors. Fields that get a high score for all these criteria represent a priority for the audit. Alternatively, assigning a score based on criteria such as availability of evidence, patient's interest and cost may set different priorities. Any process in medical practice can be audited (number of days of hospitalization, waiting times for consultations, duration of surgery, how to draw up the Observation Sheet and the accuracy of the records).

c. Importance of health industry

Improving it is a process in which all members of the medical team must be involved. The clinical audit team consists, in general, of people who know the method and the audited process, a professional auditor and a representative of the management. It is important for the team to agree on the method used in the audit process, the simple method leading to the collection of specific data in the shortest possible time. This must be in line with the priority areas previously set, as the criteria used will influence the result. In setting auditing objectives, the team has to define its purpose, so the audit will focus on a realistic theme and time and resources are used effectively. After setting audit objectives, the team develops provisions that are good practice statements derived from National Clinical Protocols based on international guidelines. The dispositions used in the audit should be the best evidence-

based practice. National clinical protocols based on International Guides will contain evidences of specific interventions that are proven to be effective and will be used to develop audit provisions. When selecting the audit sample, the team must first identify the target population whose healthcare is evaluated. The group should be defined as precisely as the results will only apply to the selected target group.

The purpose and the objectives of the audit

The primary goal is to improve the perception and care of the patient with the intention of maximizing the clinical safety effect and minimizing the negative effects on the health of the individual in a health institution.

Objectives share the audit objective in components that can be measured and limited over time (Limb et al, 2017). The overall objectives of the clinical audit must be clearly defined and consistent with the purpose and should be consistent with the generally accepted goals: improving the quality of patient care, promoting efficient use of resources, improving the provision and organization of clinical services, and promoting vocational training and education.

Clinical audit is a systemic and continuous activity that does not disrupt the daily work of medical staff and pacify patients. Identifying malfunctions and collecting data is done with well-defined tools appropriate to the process.

"It is not surprising that most of the audits carried out (over 50% of all audits) relate to the financial and accounting aspects or the specifics of the audited entity." (Dumitrescu-Peculea, 2015).

In the presentation of Luncan M (2017), in the case of clinical audit, must be made a monitoring, in general, of an indicators set that can be classified in the following categories:

1. Indicators of services' use:

- Number of patients discharged
- Case complexity index
- Average hospitalization time
- Running the sick
- Bed Usage Rate (%)
- The proportion of emergencies in total hospitalized patients (%)
- Proportion of patients admitted from the total number of patients presented to UPU (%)
- Proportion of internalized patients with sentinel note from total hospitalized patients (%)
- Percentage of surgical patients in all patients discharged from surgery (%)
- Percentage of patients with complications and comorbidities of all patients discharged from surgery (%).

In order to outline the importance of this indicator we will provide some statistics made by the CMR and the National Institute of Statistics of Romania valid for 2016: 111,650,857 services provided by the family doctors and 64,964,866 services in the ambulatory specialty and 7,084,147 hospitalizations; over 180,000 medical services (with an average of 3,000 services provided by one doctor, most of them outpatient, only cases requiring hospitalization being permanently monitored in hospital units) were offered. A day of hospitalization represents for the hospital an amount equivalent to 60 euros received from the state, about 22 times lower than in the western countries. The average length of hospitalization is 6-7.5 days/patient (figure no 3).

The Romanian medical system has more than 59,000 sanitary units: hospitals, treatment and diagnostic centers, health centers, specialized outpatient clinics and ambulatory hospitals,

medical laboratories and dental laboratories as well as cabinets, pharmacies and pharmaceutical points.

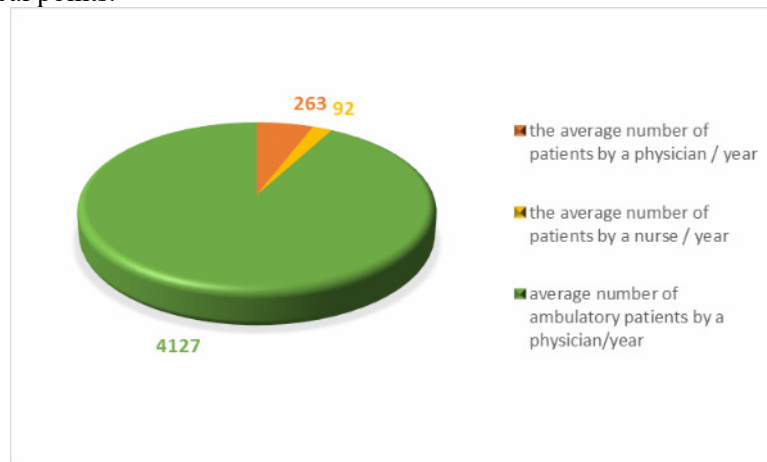


Fig. no 3. Audit indexes in health

Source: authors computation based on INS data for 2016

2- Indicators of quality:

- Hospital mortality rate
- The rate of infections associated with healthcare
- Recurrent patient rate (without appointment) within 30 days of discharge
- Compliance index between diagnosis at admission and diagnosis at 72 hours
- Compliance index between inpatient diagnosis and discharge diagnosis
- Percentage of patients transferred to other hospitals out of total hospitalized patients
- Percentage of deceased patients within the first 24 hours of admission
- Percentage of patients dying within the first 48 hours of surgery
- Number of complaints / complaints of patients, registered

Referring to the quality of medical services in Romania, one can observe the low number of the medical staff, except the doctors who are insufficient, who have specialty higher education. An indicator used internationally, present and in increasing statistics by the European Union, for a pertinent analysis of their health systems, especially of their performance, refers to avoidable hospital mortality. Eurostat statistics highlight that the highest rate of avoidable hospital deaths is in Romania (49.4%). Part of these deaths could have been due to the lack of effective intervention in a timely manner.

Another worrying statistic is the number of hospitals - 20% - using a disinfectant that fails to destroy inter-hospital microbes. In this context, the rate of nosocomial infections associated with poor healthcare is very high, well above the average of 1 in 50 cases reported at European level. In Romania, 8,105 cases were reported in 2010, reaching 12316 in 2015 (according to insse.ro).

Regarding the Luncan Operational Procedures, 2017, recalls the following indicators (Buttery, 1998) could be:

- The number of complaints from patients, the number of patient complaints from satisfaction questionnaires. For example, in 2017, there were 684 complaints about the medical act in Romania, of which only 160 came to the attention of the Superior Disciplinary Board of the College of Physicians. Coercive measures were only for 26 cases, three of which were exclusions from the medical system. The large number of reported cases is also due to the introduction, in 2016, of Order no. 1501/2016 which implements the "patient feedback mechanism in public hospitals".

- the number of employees' dissatisfaction resulting from the satisfaction questionnaires;
- the number of occupational accidents,
- the number of appeals in hiring competitions,
- escalation number in hospitalized patients, number of transfusion incidents;
- number of patient identification errors, number of incidents with regard to confidential data protection, goods or values of patients, and indicators referring to the patient's path in hospital, monitoring is the waiting times from entering the hospital gate to discharge
- the mean waiting time from the patient's presentation to the CPU until the meeting with the emergency doctor;
- Median time required from the moment the patient is presented to the CPU until the initial treatment is administered;
- the average duration of the initial consultation for patients presented to the CPU;
- the average time elapsed between the arrival of the ambulance and its release; the average time elapsed since the patient was presented to the CPU until the FOCG was drawn up;
- the average time elapsed since prescribing a Para clinically investigation until the results arrive (for emergencies);
- The medium time elapsed from prescribing a CT or MRI investigation until it is completed; surgical intervention time/ types of intervention and/ physician; average use of the operating room, etc.

The way data is collected can be: prospective or concurrent with the existence of efficacy and efficiency indicators for protocols and procedures, retrospective (data already collected) by analyzing FO records or combined, especially for patients with chronic diseases. The methodology of obtaining is sociological, either on a questionnaire, or on a focus group or interview. Multidisciplinary auditing may require more than one person to complete the data collection form. In this case, it is important to define the responsibilities of each person involved. Monitoring will take place over a *predefined time period*, resulting in a report.

The analysis of the data will be done by the audit team and the management of the institution through comparative studies between them and the information provided by the standard reference material, protocol, good practice guide. The results obtained are valid as long as they allow identification of the problems assumed and can provide improvement measures, which, through implementation, lead to the quality of the medical act, increase the safety of patients and staff, meaning to increase the efficiency and effectiveness of the audited processes.

Audit is the process by which competent, independent individuals collect and evaluate evidences to form an opinion on the degree of correspondence between those observed and certain predetermined criteria (Wanda Wallace - CEO of Leadership Forum, Inc.) as *"professional review of information to express a responsible and independent opinion on a particular standard."* Therefore, the importance of clinical audit is aimed at continuously improving clinical quality, meaning the positive adjustment of medical practice among doctors in order to satisfy the patient through a superior medical act. Audit efficiency is ensured when specialized employees facilitate auditing, when the audit team receives adequate logistic support, as meeting rooms, secretarial assistance, IT systems and technical assistance, and when interpreting results leads to effective solutions.

Conclusions

Establishing a clinical audit effectively has positive outcomes both for the patient (care, perception, offering quality) and physicians (knowing their own results and colleagues, knowing the financial situation of the provision of services, knowledge strengths and weaknesses at team level or which leads to the development of a real change management) by increasing the quality of the medical act. Thus, it is necessary to create as many professionals as possible in the clinical audit. "Having a modern legal framework and regulations and procedures developed in accordance with accepted international auditing standards and good practice within the European Union, public internal audit is in a development process" (Dumitrescu-Peculea, 2017), so establishing a legislative framework less volatile in terms of implementing policies, strategies and plans for medical audit would create responsibilities not only to users of medical services, as well as at suppliers and targeted and efficient. Dissemination of information and the experience gained from the medical audit, achieved by observing the methodology in force, at one moment or another, certainly leads to an increase in the quality standard of medical services.

References/Bibliography

- Asnani M, Brown P, Connor D. O., Lewis T., Win S. and Reid M 2005, A clinical audit of the quality of care of hypertension in general practice. *West Indian Medical Journal*, 54(3), pp. 176-180.
- Benjamin A., 2008. Audit: how to do it in practice, *BMJ*, 336:1241–1245. PubMed.
- Buttery Y., 1998. Implementing evidence through clinical audit. In: *Evidence-based Healthcare*. Editor Oxford: Butterworth-Heinemann; pp. 182–207.
- Dumitrescu-Peculea A., 2015. The Romanian Internal Public Audit System – An X-Ray Analysis of Audit Compartment Activities. *Review of International Comparative Management*, Volume 16, Issue 3.
- Dumitrescu-Peculea A., 2017. Suport de curs „Auditul institutiilor publice”. SNSPA. Bucharest.
- Esposito P., Del Canton A., 2014. Clinical audit, a valuable tool to improve quality of care: General methodology and applications in nephrology. *World Journal of Nephrology*. 3(4): 249–255.
- Ghosh, R., ed. 2009. *Clinical Audit for Doctors*. Nottingham: Developmedica.
- Grigorescu, A., Chitescu, R. I. and Lixandru, M., 2016. *Role of Human Resources in Creating Customer Culture of Quality*. BASIQ International Conference 2016 - Proceedings, pp. 133-141 [online] Available at: <http://conference.ase.ro/wp-content/uploads/2018/01/BASIQ_Volume2016.pdf> [Accessed 6 March 2018].
- Grigorescu, A. and Chitescu, R.I., 2017. Information management in digital era – benefits and threats. In: s.n., *International Conference in Economics and Management, EMAN, 2017, "Global Challenges" 2017*. Liubliana, Slovenia. s.l:s.n.
- Harding M., 2014. Audit and Audit Cycle. Professional Reference: Care.data. June 16, 2014. <https://patient.info/doctor/audit-and-audit-cycle#nav-3> [Accessed on 17 March 2018].
- Limb C. et al, 2017. How to conduct a clinical audit and quality improvement project, *International Journal of Surgery Oncology*. 2(6): e24.
- Luncan, M., 2017. *Auditul clinic*. [online] Available at: <<https://medicaacademica.ro/auditul-clinic/>> [Accessed 3 February 2018].
- Swage, T., 2000. *Clinical governance in health care practice*. Oxford: Butterworth-Heinemann

Ungureanu, S., 2017. *Auditul Clinic*. [online] Available at:
<http://www.sanatateromania.ro/images/conf_mcc2/Dr._Sorin_Ungureanu_-_Auditul_clinic.pdf> [Accessed 3 February 2018].