



CONTINUOUS PATIENT CARE AND EVALUATION ACCORDING TO ACCREDITATION STANDARDS IN INTENSIVE CARE UNITS-THE DISTANCE BETWEEN THE REALITY AND IDEAL CONDITION

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ABSTRACT

Introduction and objectives: Providing high quality care and fulfillment of the requirements of patients are among the main duties of hospitals. On the other hand, compliance with national standards in intensive care units can reduce the costs and preventable mortalities. Standards and the importance of their application in ICU have been neglected in Iran. The aim of this study is to determine the distance to compliance with accreditation standards of ICUs in educational-therapeutic centers on Urmia medical science university.

Method: This study was conducted in 4 educational-therapeutic centers by descriptive cross sectional method. The data were collected by accreditation standard evaluation checklist of ministry of health and medical education which was derived from standards of joint commission international (JCI). Data analysis was carried out by curves and descriptive statistics.

Findings: Out of 40 scores for intensive care units (ICU), the highest and lowest scores were obtained as 35 and 16, respectively. Also, out of 34 scores assigned to cardiac care units (CCU), the highest score was 23 while the lowest score was 19. National standards were more complied in CCU as compared with ICU.

Conclusion: In spite of gaining grade one degree in evaluation of 2015, the sum of mean scores in continuous patient care and evaluation in ICUs of all 4 educational-therapeutic centers was 58.67% which is medium in terms of total score of standards. The difference between the results and those of ICU international standards indicates that some measures have to be taken to resolve the problems.

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Introduction

Regarding the critical condition of patients in ICUs, this unit is one of the most sensitive sections of hospitals [1]. The reason for higher emphasis on intensive units is higher needs of hospitals for these units in comparison with the past. Owing to their intensive equipment, they can provide care for patients with very critical condition; in a way that application of modern therapeutic methods can't be completed without ICUs. Compliance with ICU standards will result in saving costs and prolonged age of patients as they will prevent from management errors and reduce the preventable mortalities [2]. Moreover, these units have been recognized as the focus of hospital function control [3]. On the other hand, the main responsibility of hospitals is providing high quality care and fulfilling the needs and expectations of patients which could be realized by establishment of quality in hospitals [4]. A high quality care is safe, patient-oriented, effective and fair, the higher the quality of care, the lower the waste of time and costs and the higher the patients satisfaction [5]. Continuous patient care is a regular process to establish an effective, interactive and followed-up relationship between the patient and health and care service providers to identify the needs and problems of patients and their sensitization to accept the continuous health behaviors to

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improve and maintain their health [6]. Accreditation is one of the programs developed for quality and safety which would result in satisfaction of patients and service providers [4]. This model is a pattern for enhancement of safety in national and international levels which is indicative of organizations' commitment toward quality [7].

JCAHO is the mother of accreditation in the world which not only covers all types of health service providing centers, but is also involved in accreditation of the organizations which are effective on health but are outside the realm of health system. This organization possesses proper standards for primary health and declares objectives and measurable elements for all its standards [3].

Accreditation standards have been designed by two American non-governmental and nonprofit organizations: JCAHO (Joint Commission on Accreditation of Healthcare Organizations) and JCI (Joint Commission International) [8]. Accreditation was first introduced in 2002 by JCI [5]. Accreditation is a volunteer-based and accessible process capable of evaluating health care system. In an organization, it is an evident commitment to improve quality and safety of patient care, reassure on safe care environment and continuous activity to reduce the risks for patients and staff [9, 10]. In developed countries, numerous studies have been devoted to establish the standards of ICU which have attracted the attention of several organizations. For example, National Environmental Policy Act (NEPA) and Joint Commission on Accreditation of Healthcare Organizations (JCAHO) each of which have established some standards for health care institutes. In 1988, society of critical care medicine (SCCM) presented a guideline for ICU design; however, standardization and its application importance have been rather neglected in our country [11].

In Iran, hospitals are evaluated by standards of ministry of health [10, 11]. Recently, accreditation has been proposed as one of the most important methods to guarantee and enhance the quality of medical education in Iran and some measures have been taken to establish the structure of accreditation in hospitals [13]. Souri study showed that evident-based instructions in accreditation can decrease the rate of hospital infection diseases in ICUs [14]. In Egypt, a study was conducted to determine the effect of non-governmental health units' accreditation on patients' satisfaction which declared that patients' satisfaction is significantly higher in accredited health units as compared with those lacking accreditation certificate [15]. Study of Sahebzadeh showed that the level of compliance with CCU standards was medium in Isfahan. However, increasing the efficiency of the intensive care units by compliance with standards in different fields requires further attention and precision of hospital authorities [16]. Yavari showed that there is a significant difference between the results of evaluations made by ministry of health and national and international standards which has to be resolved [17]. The ministry of health and medical education has conducted some different strategies related to patient safety and patient-oriented approaches [18]. Among these strategies, comprehensive approach to patient safety, seven steps toward patient safety [19], annual evaluation of hospitals in 1997, implementation of "clinical dominance" in 2009, "safe and patient-friendly hospitals" in 2010 and "hospitals evaluation program" based on patient safety and patient-oriented approaches in 2012 can be mentioned [20]. However, these evaluations are not enough, continuous evaluation of health and treatment centers by valid domestic and international standards can be helpful in identification of weak points and their resolve and improvement [21]. It seems that standards and the significance of their application in special units of treatment centers have not gained considerable attention especially in terms of continuous patient care and evaluation [22]. Regarding that and also the importance of care quality in hospitals according to standards, the aim of this study is to evaluate continuous patients care and evaluation based on national standards in ICUs of centers under cover of Urmia Medical Science University.

Methodology

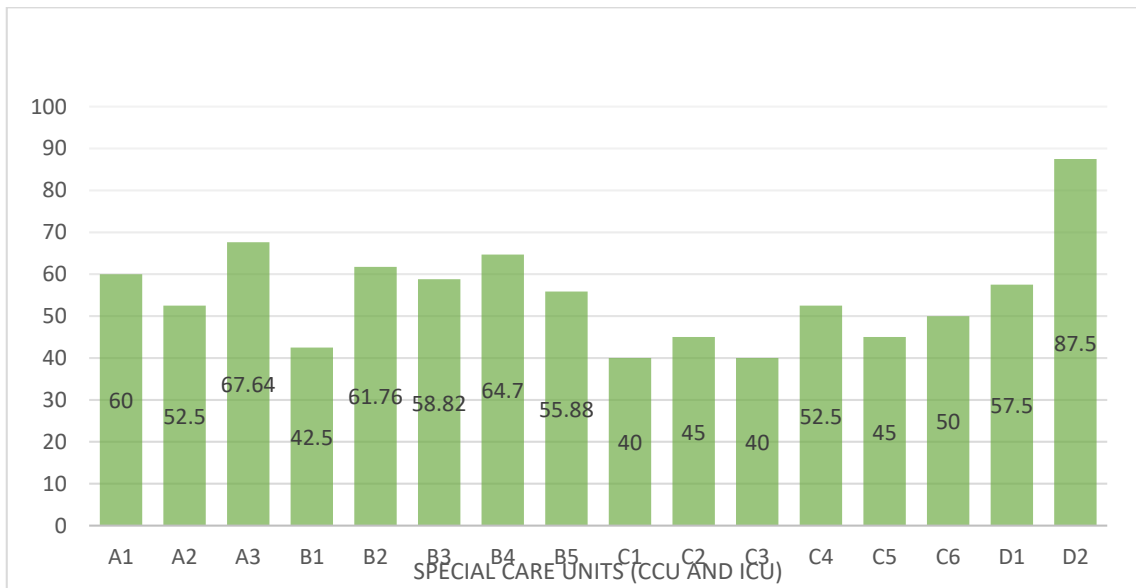
This study was conducted in a descriptive manner to investigate the continuous patient care and evaluation based on national standards in ICUs of center under coverage of Urmia Medical Science University which included 16 ICUs and CCUs in winter 2016.

Data collection was performed by instructive checklist of accreditation standards of ministry of health and medical science which were derived from JCI standards. In this checklist, one of several criteria is designed for evaluation of each standard. Below each criterion, a scoring table is located which includes four main columns of documents, observations, interview and score. In case of interview and observation of each aspect, 5 to 10 cases were evaluated. Interviewed people included doctors, nurses, patients and their companions. Scores were ranged from 0 to 2 and non-evaluable. In this study, continuous patient care and evaluation means following criteria: investigation of the level of contribution of doctors, nurses and other people with the main doctor in continuous patient care and evaluation and re-evaluation of the patients in proper time intervals which will be recorded in patients' files, continuous evaluation of patient in terms of pain management and resolving the needs to tranquilizers, investigation of hands hygiene according to protocol approved by ministry of health and medical education, examination of care measures based on recorded programs and orders in the files. Presenting required education by the main doctor or one of the nurses at the time of discharge from hospital and their recording, investigation of referring for follow-up after discharge and providing required explanations by the nurse and also examination of the continued paraclinical tests results to the patients after their discharge from hospital/ the checklist was derived from the book entitled national accreditation standards of Iran whose reliability was confirmed by experts in treatment vice presidency of ministry of health and medical education. A team consisting of ICU experts and experts in the field of nursery and medical science were also involved in its development [8]. As the mentioned checklist was approved by the center of supervision and accreditation of treatment affairs

in health vice presidency of ministry of health and medical science, its reliability was confirmed. After acquiring permissions and recommendation letters from the university to vice presidency of health, the required coordination was made and the investigations started. The quantitative data were analyzed by adaptive curves and descriptive statistics.

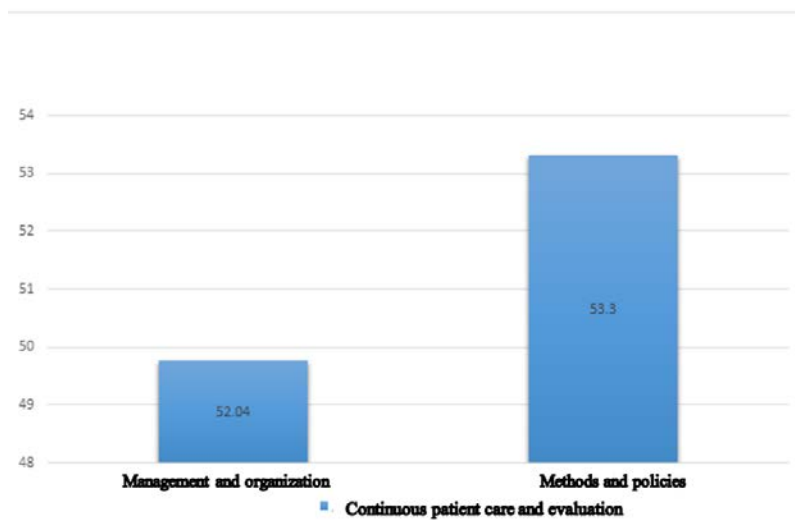
Findings

In the four selected hospitals, the scores after the continuous patient care and evaluation varied from 40 to 87% (mean: 58%). Sum of scores after continuous patient care and evaluation was 40 in ICUs with maximum and minimum values of 35 and 16, respectively. For the same aspect, the sum of scores was 34 in CCUs with max and min scores of 23 and 19, respectively. The sum of scores of all 4 hospitals after continuous patient care and evaluation was 334 out of 610. The average of compliance with accreditation standards in educational-therapeutic centers of Urmia was 58.6% in terms of continuous patient care; in the other words, out of 139 scores of ICU section in 8 evaluated aspects, the highest score was obtained in all sections of ICUs of Urmia medical science university educational and therapeutic centers and the lowest score was attained. Moreover, from the sum of CCU scores, the highest score was obtained among the CCU sections of Urmia medical science university educational and therapeutic centers and the lowest score was attained.



Curve 1. the sum of scores based on accreditation standards in all intensive care units of Urmia medical science university educational and therapeutic centers

Comparison of the obtained percentages of 4 studied hospitals in curve 1 showed that D2 hospital which has internal medicine and children surgery ICUs gained the highest score and C1 and C3 which are among ICUs obtained the lowest scores. These two sections belonged to the same hospital

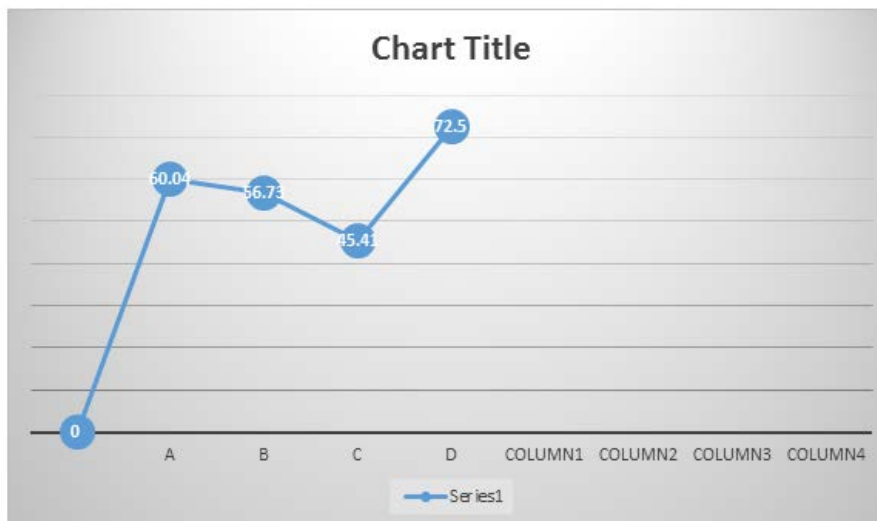


Curve 2. Sum of obtained scores for continuous patient care and evaluation according to accreditation for ICU and CCU in educational and therapeutic centers of Urmia (%)

As curve 2 suggests, in comparison with ICU, CCU managed to obtain higher scores in terms of continuous patient care and evaluation. Therefore, continuous patient care and evaluation in CCU is closer to national standards.

Discussion and conclusion

Accreditation will result in safe care, increase of patients' satisfaction and quality enhancement. This model is globally and internationally considered as a pattern for safety enhancement and will eventually result in improvement of organization performance. This is a prerequisite of the major goal of health system which is enhancement of society health [7].



Curve 3. comparison of continuous patient care and evaluation in four studied hospitals

As curve 3 shows, most of the hospitals were in medium and above level in terms of continuous patient care.

In terms of continuous patient care and evaluation, the highest and lowest scores were 72.5 and 45.4, respectively. The obtained scores were related to documentation and no compliance with this criterion could be observed in observations and interviews. The total score of this section (58.6%) was assessed as medium level.

Study of Skimoto in Japan revealed that accreditation of hospitals could have a profound effect on institutionalization of activities and control of infections [16]. Ghadamgahi expressed that the majority of nurses do not have proper knowledge about how to control the hospital infections [17]. In this content, regarding the significant role of staffs (in all levels) in control of hospital infections, required education has to be provided to induce positive attitudes and benefit from the correct health behaviors.

Although all the hospitals managed to obtain grade one level in the evaluations conducted last year, the mean of special care units in all 4 educational hospitals of Urmia Medical Science University was obtained as %; which according to the total score of standards is in ...level. Lack of qualification in the obtained score by the ministry of health and medical education indicates the difference between the intensive care units assessments by ministry and international standards which necessitate proper actions to resolve them.

Rata conducted a study in India and declared that accreditation of hospitals would deeply influence increase of patients satisfaction and quality of therapeutic services, reduction of medical errors, respect to patient rights at the time of admission, control of access to patient's information, and increase of motivation among nurses to present the best service [18]. Although annual evaluation by ministry of health and medical education indicated an enhancement in performance of intensive care units [20], however, it is sufficient. In addition to formal annual evaluations, it is better to conduct private evaluations about the manner of implementing standards and policies, increase of doctors', nurses' and other staffs' knowledge, supervision on precise recording of reports and involving the doctors in accreditation programs and their feedbacks among patients.

The conducted study also confirms the results of other previous researches. In his study, Moeini declared that health care standards of intensive care units of Arak hospitals are far away from the valid standards in this field [19], which confirms the results of current research. Furthermore, Yavari expressed that the sum of scores obtained by ICUs of Shahid Beheshti Medical Science hospitals are far lower than the expected total score [25]. By evaluation of JIC accreditation in laboratories of a military hospital, Amerin said that the position of the mentioned hospital in the evaluation by ministry of health and medical education is not in complete agreement with the score obtained based on the JIC and the standards of JCI has to be considered more [21].

The studied units implemented the required measures in terms of documentation, providing the necessary documents such as charts, processes, policies, objectives and their implementation, but they were weak in terms of implementing and acting. Therefore, some programs have to be designed for execution of standards and policies and improve the conditions; in this way they can provide the health and treatment services in the best possible state. It is also proposed to conduct some investigations

on the level of compliance with the accreditation standards in all intensive care units of the province and also in other provinces of country. Examination of the strong and weak points of accreditation-based evaluation programs in Iran and their comparison with JCI accreditation procedures could be also recommended.

References

1. International standard of hospital accreditation. Emami M, Seraydaran M, Asile shayeghi, first edition, Publications of Andisheh gostar ,2009.
2. Jeanette E,I, The Value of Joint Commission Hospital Accreditation , Joint Commission International 2008;777-780.
3. Mohammadpour A, Mehdipour Y, Karimi A, Rahdari A. A comparative study of the Iran Ministry of Health patient and family education standards with joint commission on Accreditation of Healthcare Organizations. *Health Information Management* 2009; 6(2): 122.
4. Sadaghiani E. Auditing standards and the accreditation organizations and health care facilities (hospitals). Tehran: Research Institute for Social Security Publication; 2004.
5. Sadaghyani E. Evaluation of healthcare and hospital standards. 2nd ed. Tehran: Jafari publication; 2005: 87-94.
6. Davoudi A. The Effect of Hospital Integration on Hospital's Performance Indicators (8&9 January), Tehran: Ministry of Health and Medical Education, 2003.
7. Sourilaki A, Zigheimat F, Ebadi A, Rahmati Najarkolaei F. Development and validation of the guidelines for preventing Nosocomial infections in the intensive care units: The evidence-based approach. *IJCCN*. 2014; 7 (2) :110-115
8. Tehewy M, Salem B, Habil I And El Okda S. Evaluation of accreditation program in non-governmental organizations' health units in Egypt: short-term outcomes, , *International Journal for Quality in Health Care*; (2009); 2(13): 183–189.
9. Sahebzadeh M. Evaluation of standards in CCU of University hospitals in Isfahan. Search project approved: Isfahan University of Medical Sciences. 2007
10. Yavari M, Ardahali SH, Moeini M, Study of standards in the intensive care unit of selected hospitals in Tehran. *Journal of Medical Council of Islamic Republic of Iran*, 2015; 33(2): 131-137.
11. Aghaei Hashjin A, Dionne S, Kringos, Manochehri J, Ravaghi H, Niek S. Klazinga. Implementation of Patient Safety and Patient Centeredness Strategies in Iranian Hospitals. *PLOS one*, 9(9), septamber 2014, 1-7.
12. Asefzade S, Mehrabian F, Nikpey A, Kianmehr SH. Assessment of Patient Safety Based on Standards of Patient Safety Friendly Hospitals in Education and Treatment Centers of Rasht City in 2013; 5(1): 36-44.
13. ememi razavi, seyed Hassan etal. 2010. "Hospital accreditation standards in Iran" health deputy. Ministry of health and education. 39.
14. Amerioun A, Tofighi Sh, Mahdavi M, Mamaghani H, Meskarpour Amiri M. Assessment of International Joint Commission (IJC) accreditation standard in a military hospital laboratory. *Iranian Journal of Military Medicine*. Summer 2011; 13(2): 75-80.
15. Ayoubian A, Navid M, Moazam E, Hoseinpoufard M, Izadi M. Evaluation of Intensive Care Unit and Comparing it with Existing Standards in Hospitals of Isfahan. *Iranian Journal of Military Medicine*, 2013; 14(4); 295-301.
16. Sekimoto M, Imanaka Y, Kobayashi H, Okubo T, Kizu J, Kobuse H, et al. Impact of hospital accreditation on infection control programs in teaching hospitals in Japan. *Am J Infect Control* 2008; 36(3): 212-9.
17. Ghadamgahi F, Zigheimat F, Ebadi A. Knowledge, attitudes and self-efficacy of nurses in hospital infections control. *Journal of military medicine* ,2011; 13(3): 167-172.
18. Rana BK. Accreditation as a tool for quality improvement in a healthcare setting: Indian scenario. *Proceedings of the Kuwait Quality Summit Meeting*; 2010 May 25-26; Kuwait City, Kuwait; 2010.
19. Moini L, Fani A, Peyroshabani B, Baghinia M. 2010 "Evaluation of the standards of health care services and comparison of predicted mortality and real mortality in patients dmited to Valiasr and Amiralmomenin Hospitals of Arak by APACHE IV scoring system" *Arak Medical university Journal (AMUJ)* 2011; 14(57): 79-85.