ARTICLE

THE APPLICATION OF PATIENTS' MEDICAL RECORDS IN TEACHING HOSPITALS

Sohaila Sadat Ghazavi Shariat Panahi[1], Mehdi Kahouei[2*], Zahra Hosseini[3]

[1]Health Information Technology, Department of Allied Health School, Semnan University of Medical Sciences, Semnan, IRAN

[2]Social Determinants of Health Research Center, Allied Health School of Semnan University of Medical Sciences, Semnan, IRAN

[3]Student Research Committee, Semnan University of Medical Sciences, Semnan, IRAN

ABSTRACT

The aim of maintaining the medical records is to meet the legal, training, research, and treatment requirements. Accordingly, a question arises that to what extent the medical records at teaching hospitals can meet the multiple needs of clients. In other words, what kinds of objectives are mostly intended with the medical records? In order to answer the question, a study was conducted to evaluate the different applications of medical records of hospitalized patients. 400 medical records of patients who were admitted in hospitals affiliated to Semnan University of medical sciences have been evaluated in 2016. A checklist was developed by the authors, after reviewing related literatures. The results showed that 55% of medical records of patients who were admitted in internal medicine ward have used for legal purposes and20% of medical records of patients who were admitted in psychiatrist ward have used for therapeutic purposes. The finding showed that the medical records were more used for legal purposes. The results showed that the medical records of hospitalized patients are used for various purposes. The nature of hospitalization wards, duration of patient stay, and type of services offered to patients affect the amount and usage type of the records.

KEY WORDS
Application, Patient medical record, Teaching hospital

Received: 30 Jul 2016
Accepted: 15 Oct 2016
Published: 30 Oct 2016

***Corresponding Author**
Email:
mkahouei@yahoo.com

INTRODUCTION

Medical records are valuable documents that are arranged and maintained for continued patient care, training, research, legal issues, hospital statistics, and evaluation of care and services provided to patients by physicians and other health care providers [1, 2]. The accumulation of information in the medical records will increase the quality of care [3]. Medical records department having clinical records can be a major source of information for patient care, qualitative research, training, research, and management planning. The accurate and appropriate use of medical records reduces reworking, the time, and the cost consumed [4]. Convenient collection, accurate record, correct application of capabilities at medical records department, and rapid recovery provide an efficient approach to be applied by managers, researchers, physicians, and other providers of health services [5]. The basic features to be considered when using medical records are completeness, accuracy, and quality of data listed in the medical record [6]. Different tools are employed in hospital promotion plans in order to evaluate the method of encoding diagnosis and the quality of patient care. One of these tools is the use of medical records of patients [7]. Nowadays, the medical record is not only a means of communication for all people involved in the treatment, but also reflects the quality of care and treatment of patients [8].

Access to accurate and up-to-date medical information is a determining factor in implementation and development of research as well as proper use of environmental technology products for the treatment of patients. Limited access to important data of patients may retard and/or even hinder the research process [9]. In a study, Safdari et al. found that a considerable amount of nursing sheet information was used to accelerate the cure in 52.5 percent of cases. In addition, the use of medical records was 54 percent in response to legal issues [10]. Rangraz Jeddi et al. investigated the use of medical records in Iran and showed that more than 50 percent of medical records information was used in legal issues, most which in were associated with surgery, specialized wards, and emergency room [11].

The aim of maintaining the records is to meet the legal, training, research, and treatment requirements. Accordingly, a question arises that to what extent the medical records at the affiliated hospitals of Semnan University of Medical Sciences can meet the multiple needs of clients. In other words, what kinds of objectives are mostly intended with the medical records? In order to answer the question, a study was conducted to evaluate the different applications of medical records of hospitalized patients.

METHODS

400 medical records of patients who were admitted in hospitals affiliated to Semnan University of medical sciences in Iran have been evaluated. The research was conducted from July 2016 to November 2016. A checklist was developed by the authors, after reviewing related literatures [10-12]. The checklist consisted of 50 questions in four sections. The first section included 14 items and focused on kinds of hospital wards. The second section comprised 19 items and contained types of patient's reports. The third section consisted 7 items and measured the reasons of the use of patient's reports. The fourth part included 10 items and was related to kinds of the units requesting patient's reports. The primary check list was reviewed for content validity and evaluated by experts in relation to the simplicity and clarity of questions,

and the relationship between questions. Next, further revisions were made and some statements were rephrased. Lastly, the final version of the checklist was used. Frequency and percentage was calculated by descriptive statistics. Ethics approval was obtained from the Semnan University of Medical Ethics Committee (IR.SEMUMS.REC. 1394.229).

RESULTS

The results showed that 55% of medical records of patients who were admitted in internal medicine ward have used for legal purposes, 20% of medical records of patients who were admitted in Psychiatrist ward have used for therapeutic purposes, 5% of medical records of patients who were admitted in psychiatry and post catheterization wards have used for research purposes and 60% of medical records of patients who were admitted in eye ward have used for administrative aims [Table 1].

Table 1: The use of patients' medical records for different purposes among clinical departments

Wards		Reason to use				
		Administrative	Research	Therapeutic	Legal	Total
Internal medicine	N	19	1	7	33	60
	%	32	2	11	55	15
Emergency	N	22	0	3	20	45
	%	49	0	7	44	11.25
CCU	N	12	0	6	13	31
	%	38	0	19	41	7.75
ICU	N	29	1	8	24	62
	%	47	2	13	38	15.5
Chemotherapy	N	11	1	3	7	22
	%	50	4	13	31	5.5
Surgery	N	29	2	13	34	78
	%	37	3	17	43	19.5
POST CCU	N	9	0	0	12	21
	%	42	0	0	54	5.25
Post catheterization	N	7	1	2	10	20
	%	35	5	10	50	5
Ophthalmology	N	25	0	7	9	41
	%	60	0	17	21	10.25
Psychiatrist	N	7	1	4	8	20
	%	35	5	20	40	5

The results showed that the medical records were more used for legal purposes [Fig. 1].

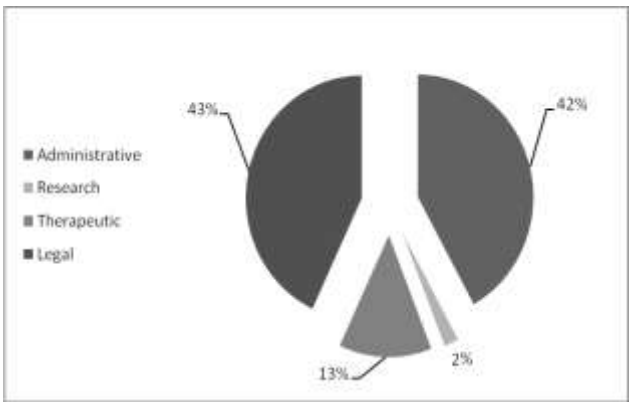

Fig. 1: The percentage of using of patients' medical records for different purposes.

The findings indicated that admission and summary sheet, record summary sheet (100%) and emergency sheet (86.8%) have more used than other records. Patient education sheet (1%) had the least use among patient's medical records [Fig. 2].

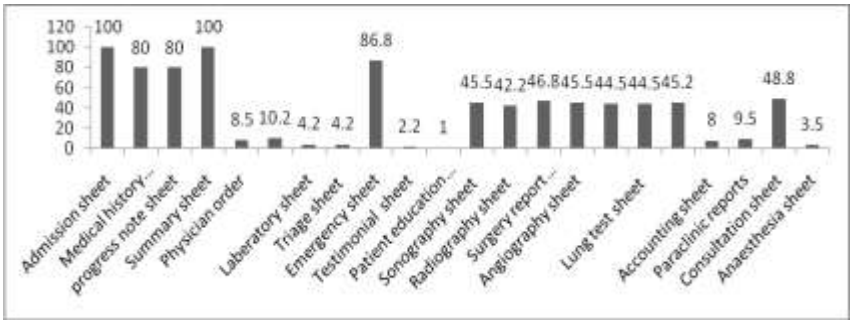

Fig. 2: The percentage of using of patients' medical records' papers.

DISCUSSION

This study was performed to evaluate the use of medical records of hospitalized patients.The findings suggest that most of the medical records studied were used in legal and administrative cases each with 170 cases and 42.5 percent with the least amount of 7 (1.75%) usage in the training-research area. This findings are inconsistent with other studies [13, 14]; however, the differences are justifiable given the differences in the research populations studied. Regarding the high research uses of records, it can be stated that research information is often extracted through archival records; moreover, any survey needs a dozen of cases that raises the frequency of medical records usage.

Furthermore, concerning the frequency of medical records usage depending on the application and the specialized sector in the research population [15], the results of this study showed the highest usage at the male surgical ward with 78 cases (19.5%) and also at the Internal medicine ward with 60 cases (15%), but the lowest use was observed at the post catheterization and psychiatrist wards with 20 cases (5%). The high levels of records available at the specialized surgical ward, including orthopedic, urology, and neurosurgery are mainly due to the fact that orthopedic, urology, and neurosurgery wards need longer treatment periods leading to increased use of the records. Therefore, it is recommended that necessary measures be taken to familiarize students with the importance and roles of the recordsin promotion of their scientific levels. In addition, the use of medical records will not be finished after 10-15 years but legal and administrative cases will make most use of them [16].

Considering the fact that correct documentation makes medical records a primary tool for evaluating the performances and health-treatment cares with an important role in legal and medical studies, hospitals should seek to identify factors influencing the improvement of documentation quality in order to enhance the strength of clinical records' accountability in legal medical cares. The study by Jeddi also showed that more than 50 percent of medical records information was used in legal cases [11]. The finding shows that the admission and summary sheets, among all medical records of hospitalized patients, are used more than the other ones for different purposes. The greater use of these sheets seems to be because of the fact that they are among the main sheets in patients' records, which must be attached for any use of the records.

The results showed that the records of hospitalized patients are used for various purposes. The nature of hospitalization wards, duration of patient stay, and type of services offered to patients affect the amount and usage type of the records. Our findings demonstrated that the patients' medical records are mostly used in the surgical ward compared to the other clinical wards. The results also denote that the sheets of medical records are not equally applied with some sheets used far more than others. The results of this study should be interpreted with caution because the study was conducted using a researcher made check list method and potential problems, such as, poor understanding of questions and probably bias answer threaten the results of the study, that is resolved with regard to questionnaire validity and reliability. Also, non-generalizable results of the study because of being done in a city, is of the other limitations of this study. But, however, the study results were in line with other studies in this field.

CONFLICT OF INTEREST
There is no conflict of interest.

ACKNOWLEDGMENTS
We would like to thank the Clinical Research Development Unit of Kowsar and Amiralmomenin Educational, Research and Therapeutic Centers of Semnan University of Medical Sciences for providing facilities to this work.

FINANCIAL DISCLOSURE
None

REFERENCES

[1] Thate J, Couture B, Collins S. [2016] Outstanding research-poster: Use of documentation in the patient record for interprofessional communication and collaborative decision making: Implications for the reduction of CLABSI. CIN: Comput Informat Nurs, 34(10): 434.
[2] Horsky J, Ramelson HZ. [206] Development of a cognitive framework of patient record summary review in the formative phase of user-centered design. J Biomed Informat, 64: 147-157.
[3] Mularski RA, Hansen L, Rosenkranz SJ, Leo MC, Nagy P, Asch SM. [2016] Medical record quality assessments of palliative care for intensive care unit patients. Do they match the perspectives of nurses and families?. Ann Am Thorac Soc, 13(5): 690-698.
[4] Maillet É, Mathieu L, Sicotte C. [2015] Modeling factors explaining the acceptance, actual use and satisfaction of nurses using an electronic patient record in acute care settings: An extension of the UTAUT. Int J Med Informat, 84(1): 36-47.
[5] Gottlieb LM, Tirozzi KJ, Manchanda R, Burns AR, Sandel MT. [2015] Moving electronic medical records upstream: Incorporating social determinants of health. Am J Prev Med, 48(2): 215-218.
[6] Margolis J, Masters ET, Cappelleri JC, Smith DM, Faulkner ST, Thompson E. [2015] Drivers of healthcare resource utilization and factors associated with increased resource use in patients with Fibromyalgia: An evaluation using electronic medical records. Value Health, 18(3): A305.
[7] Williams H, Spencer K, Sanders C, Lund D, Whitley EA, Kaye J, Dixon WG. [2015] Dynamic consent: A possible solution to improve patient confidence and trust in how electronic patient records are used in medical research. JMIR Med Informat, 3(1): e3.
[8] Echaiz JF, Cass C, Henderson JP, Babcock HM, Marschall J. [205] Low correlation between self-report and medical record documentation of urinary tract infection symptoms. Am J Infect Contr, 43(9): 983-6.
[9] Moghaddasi H, Sheikhtaheri A. [2008] Organizational chart of health information management department. Presented a new pattern for hospital of Iran. Payesh, 7(2): 129-140.
[10] Safdari R, Khodabandeh F, Abolmasoomi Z. [2011] Survey response rate of medical record in the cases referred to forensic in 2009. J Forensic Med, 17(1): 29-35.
[11] Rangraz Jeddi F, Farzandipour M, Moosavi GA. [2005] Investigating the use of patients' medical records at hospitals in the city of Kashan in 2003. Health Manag, 8(15): 88-94.
[12] Saiidi M. [2003] To investigate the activities of the hospitals Tehran university of medical sciences. J Res Depart Tehran Univ Med Sci, 4(42): 38-55.
[13] Gillespie P, O'Shea E, Smith SM, Cupples ME, Murphy AW. [2016] A comparison of medical records and patient questionnaires as sources for the estimation of costs within research studies and the implications for economic evaluation. Fam Pract, 33(6):733-9.
[14] Effoe VS, Katula JA, Kirk JK, Pedley CF, Bollhalter LY, Brown WM, Savoca MR, Jones ST, Baek J, Bertoni AG. [2016] The use of electronic medical records for recruitment in clinical trials: Findings from the lifestyle intervention for treatment of diabetes trial. Trials, 17(1): 496.
[15] Kite BJ, Tangasi W, Kelley M, Bower JK, Foraker RE. [2015] Electronic medical records and their use in health promotion and population research of cardiovascular disease. Curr Cardiovasc Risk Rep, 9(1): 1-8.
[16] Hesselbrock R. [2015] Use of descriptive terms in medical records. JAMA Neurol, 72(11): 1378-1386.