Assessment of patient documentation and registration in emergency department in Tikrit Teaching Hospital.

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Abstract

Patient information, medical history, clinical outcomes and demographic information, can be registered in different ways in registration programs. Emergency department records are important source of injury surveillance data. The bedside registration, combined with a new electronic medical record system, helps to expedite patient care in the emergency department. To identify the registration and documentation performance in emergency unit in Tikrit teaching hospital and to estimate the gap in the file system registration. This is a cross-sectional study performed by collecting and analysis of data registered on files of cases admitted to the emergency unit in Tikrit Teaching Hospital over one month period extended from 1-31 January 2011 (including demographical data, examination, lab Investigation, discharging notes and doctor notes) of (2660) records these information was divided into items weighing by using scales designed according the data registered in the records. Current study revealed that most of the demographic information were not fully written as 1560 (58.65%) files did not meet the standards of documentation while patients history there were 1500(56.4%) files with partially written general history. (52.6%), (60.2%) not written information systematic and background history respectively. The study founded that examination notes there were a high percentage of incomplete documentation of vital signs, general assessment and systematic examination which represented (70.7%) (65.41%) and (59.4%) respectively. The sources of referral showed (51.9%) were walk-in patients which is the most common source. Most of files contain discharging note, (40.6 %) were discharged home, and (39.1%) discharged on their responsibility. There were (68.42%) files contained the notes of the house officer. Registration of files does not meet the international standards, as files are packed in nylon sacs and stored in the unit of statistics. Concerning the registration book of accidents; it is found that not all items of trauma (international classification) were recorded. This study concludes that patients' files in emergency department were not fully documented, also there is no standardized program of registration of patient files and no computerized data for this unit.

Introduction

The hospital emergency department (ED) is one of the most important components of the health delivery system (1). Documentation in the medical records is historical proof of the clinical course of the disease, the findings of the tests and examinations, and the outcomes from the interventions. Clear and concise documentation facilitates communication between physicians, is frequently the basis for research and education and helps to authenticate the diagnoses and the necessity and appropriateness for interventions. In this regard, the quality of documentation reflects the quality of care delivered. Medical documentation is important for communication among health care professionals, research, legal defense, and reimbursement. Previous studies have indicated insufficient documentation by health care providers and resistance among physicians to comply with the new guidelines(2).

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Accurate documentation of medical records is important medically and legally. Impeccable documentation important in the emergency department because of potentially life-threatening illnesses and injuries which are treated (3).

Quality assurance programmes have become an accepted part of health care delivery in hospitals in a number of countries. There are three general approaches to the development of quality assurance progammes: (a) structural approaches-for example, addressing issues such as medical education, practitioner training and registration, equipment and facilities, (b) evaluation of the outcomes of health delivery, and (c) documenting and assessing the process of delivering health care.(4)

In general practice the use of electronic medical records (EMRs) instead of patient recirds has become more and more common(5). In an EMR data about a patient's medical history, clinical outcomes and demographic information is recorded. It can provide information about guidelines, patient condition, clinical outcomes and treatment (6). These benefits from the EMR could result in more efficient and better patient care and care management (7). Use of EMRs can not only improve care management, but can also be beneficial for research (8). Data collection from an EMR is less time-consuming than from a paper patient record . A structured registration program (SRP) is designed for use in addition to the EMR and has easy data extraction possibilities (9).

Methodology

A cross sectional study was conducted in Emergency Department (ED) of Tikrit Teaching Hospital. This department serves principally civilian citizens, but it also provides services for military personnel and their dependents, if needed. The ED is open 24 hours a day.

2660 medical records of admitted patients over two months extended from 1st of December 2010 to 31st of January 2011 were reviewed for analysis and assessment. The analysis was performed by using a predesigned questionnaire included documentation of patients demographic information, medical history including (chief complaint, present history, systematic, family and social history), physical examination(vital signs ,general and systematic examination), lab investigation, doctor notes and discharging notes, based on fully written patients medical records or partially documented or not written at all. In addition, the registration of patients was investigated too.

On the other hand, assessment of trauma book registration was evaluated. The trauma registry elements were obtained from standard data elements designed by the American College of Surgeons, Committee on Trauma (NATIONAL TRACS-ACS 1993 version). The trauma registry contained elements on patient's demographics, injury, emergency department care, radiological findings, laboratory findings, treatment conducted, hospital diagnoses, operations, mortality, complications, trauma quality improvement indicators, and discharge. Data presentation was done by using charts and graphs.

Results

A total of (2660) medical records over two months period were analyzed . This work revealed that cases admitted to the ED were (52%) as walk-in patients followed by (27%) who were referred from other hospitals, and (20%) were from out clinic. Only 1% from PHCC, as revealed in figure (1).

Concerning the documentation of sociodemographic information in patients' case sheet, the study showed that fully written data were (26.3%) while the partially written were (73.7%) as shown in figure (2).

In regard to patients' medical history, it is found that in general history most of patients' records are partially written (56.4%) while those which are not written at all comprised (34.6%), documentation of systematic history showed that (52.6%) were not written at all. The background history was not written at all in (60.1%). These results are shown in figure (3).

In concern to physical examination part, the vital signs were incompletely written in (70.7%), not written at all in (27.06%). The general assessment was completely reported in (65.41%), not written in (30.07%) of the records. Systemic examination was incompletely written

in (59.4%) and not written at all (37.6%). These figures are demonstrated in figure (4).
The doctor notes written on records was as the following; (68.42%) records had the notes of senior house officer, (29.3%) resident doctor and only (2.3%) had the written notes of the specialist. Figure (5).
Regarding discharge of patients, (42%) were discharged home, (40%) on their own responsibility, (7%) admitted to hospital, (2%) referred to other hospitals and in (9%) of records, the discharging note was not documented. Figure (6).
Concerning the gender distribution of trauma in accident book of ED, it found that (66) of cases were males and (5) were females. Figure (7).
The age distribution of trauma in trauma book registry was as following , age group (21-30) years was 27(38%), followed by 11-20 years 16(22.5%), then age group 31-40 years 12(16.9%), 1-10 years 11 (15.5%), 41-50 years 3(4.2%) and 51-60 years was 2(2.8%). These results are shown in table (1).

Discussion

The ED of Tikrit Teaching Hospital is the only department in center of the Salahaddin which receives patients from all over this governorate, it was found that most of admitted cases were walk-in patients (52%), this result was in agreement with Frank Oberklaid work which found that (74%) were walk-in patients(10).
In regard to the documentation of demographic characteristics of patients in ED, it was found that most of the records had partially written information (73.7%). In other counties, even the advanced ones, still there were errors in documentation of sociodemographic information, as what found by Penelope K. Knapp et al study (11) .
The study showed that in general medical history (chief complaint and history of present illness), high percentage of partially written records was (56.4%), while in the systematic and background history, the not-written information comprised the higher proportion (52.6%) and (61.2%). This can be explained by the fact that the ED is sometimes overloaded by patients combined with limited number of doctors which may lead to overlook some important information from being recorded. This will have impact on data base essential for future researches as well , it may have even legal consequences over the doctors on duty. In addition to that there is no a triage room as in other countries which support the doctors in reporting information and classification of conditions as urgent and not urgent and this had advantage for both the doctor work and patient wait time , as documented in other studies (12,13,14).
This work showed a high percentage of incomplete documentation of patients' examination findings for all parts (vital signs, general assessment and systemic examination) as (70.7%), (65.41%) and (59.4%) respectively. It is possible that the same reasons previously mentioned in documenting patients' history led to this incomplete documentation, in addition to that, the doctors may missed documenting these information because there was no a specified area in the patient's case sheet to write down them.

Most of the records had the notes of the senior house officer only (68.42%), resident doctor (29.3%) and only (2.3%) for the senior notes. This can be explained by the fact that most of the cases are not urgent and can be treated by simple measures such as hypotension, sun stroke, scorpion bite and alike, which in most of the instances patients, discharge on their responsibility after feeling well before being examined by the resident or the senior doctor. In Jordan it was found that most of ED cases were not urgent(15), in Kuwait (61%)(16) and in Saudi Arabia (70%)(17).

There were (42%) of patients' records had documented "discharged home" note, and (40%) discharged on their own responsibility. This may be due to the fact that most of cases are trivial and not need long stay in the ED, and reasons such as overcrowding, seeking advice from a specialist in the out clinic.

It was found that there was incomplete documentation of some items of trauma registration in the accidents book. This result is similar to other studies (18).

This study shows most of cases of trauma registered in the accident book were males (66), this result is in agreement with other study(19).
Our study shows that the most age group affected by trauma as registered in the trauma book was between 21-30 years, this is result is in agreement with a Saudi study (19).

Conclusions

The documentation of patient information in patients' files were not complete and there is no program of registration in ED of TTH. In addition, there were missed items not documented in accident book related to trauma.

Recommendations

It is recommended to:
1.Activate a carefully thought-out triage system staffed by registered nurses experienced in handling emergency cases could be established, with non-urgent cases being turned away from the emergency department as the last management option. This will decrease the load on the ED which will lead to more efficient documentation.
2. Redesign the ED patients case sheet, so it will be more accurate and comprehensive.
3. Establish a modern ways of registrations like electronic registration program.
4. Include all trauma items in accident book of ED which has a medico-legal importance.
5. Perform further studies dealing with quality assurance of the ED.

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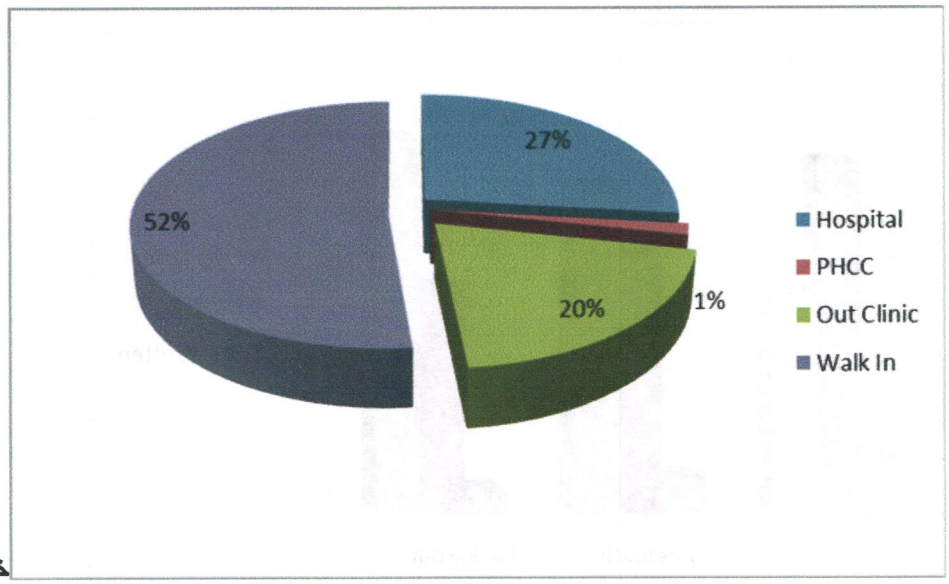

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Figure (1): Sources of referral to ED of Tikrit Teaching Hospital

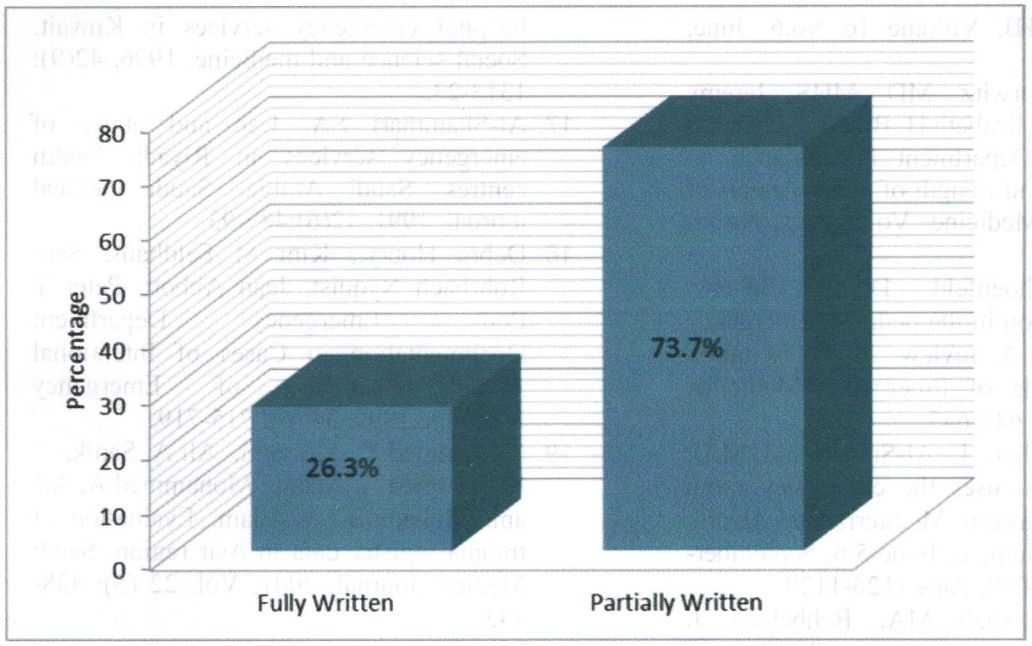

Figure (2): The frequency distribution of demographic information documentation among the study sample

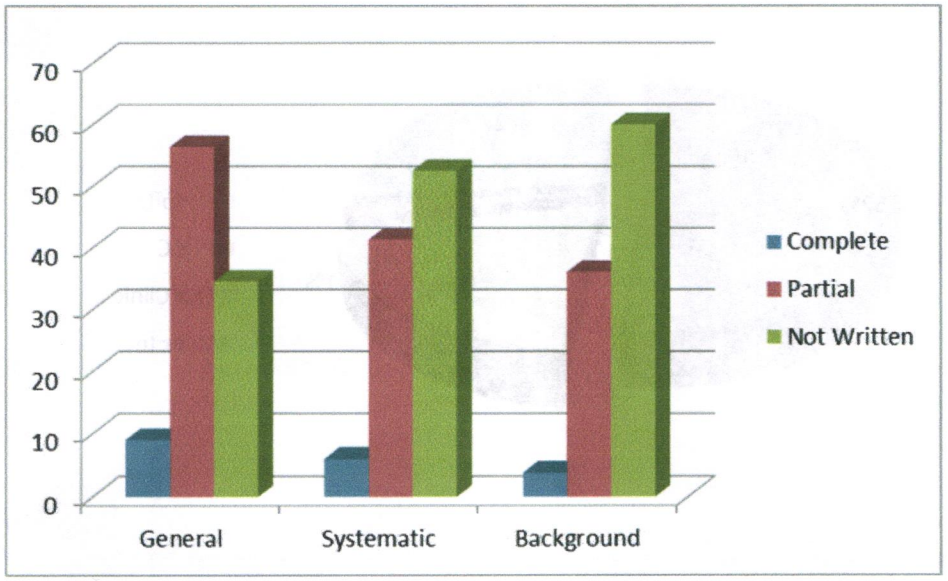

Figure (3) The frequency distribution of patient medical history documentation among study sample

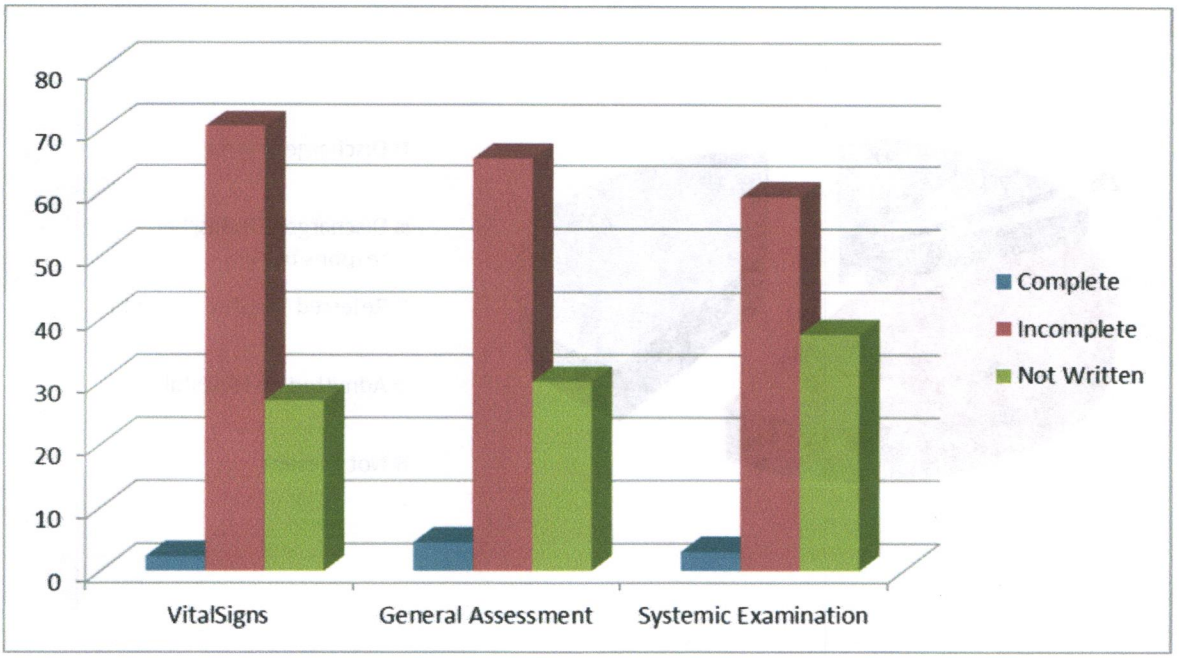

Figure (4): Documentation of findings of examination of patients attended ED in Tikrit Teaching Hospital.

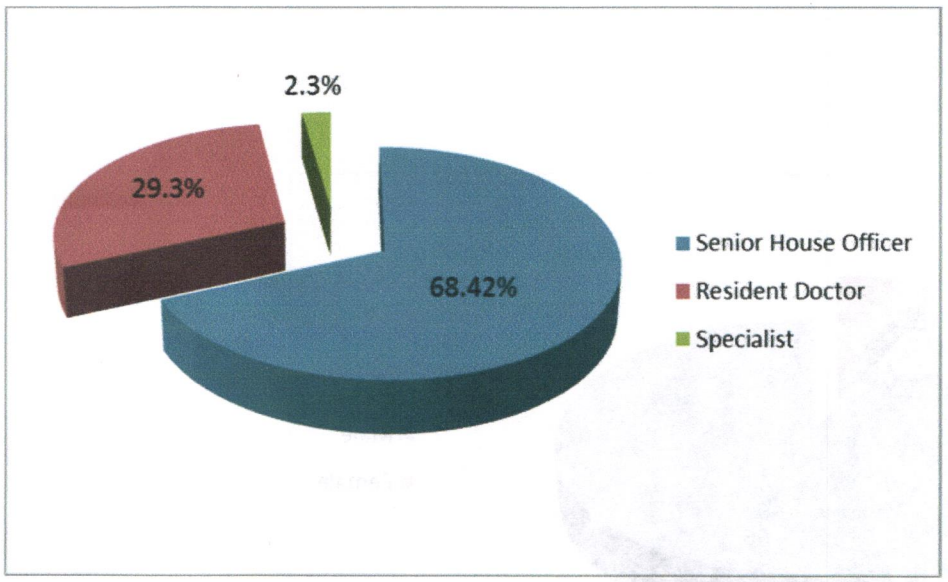

Figure (5): Documentation of doctor notes in patients' case sheet.

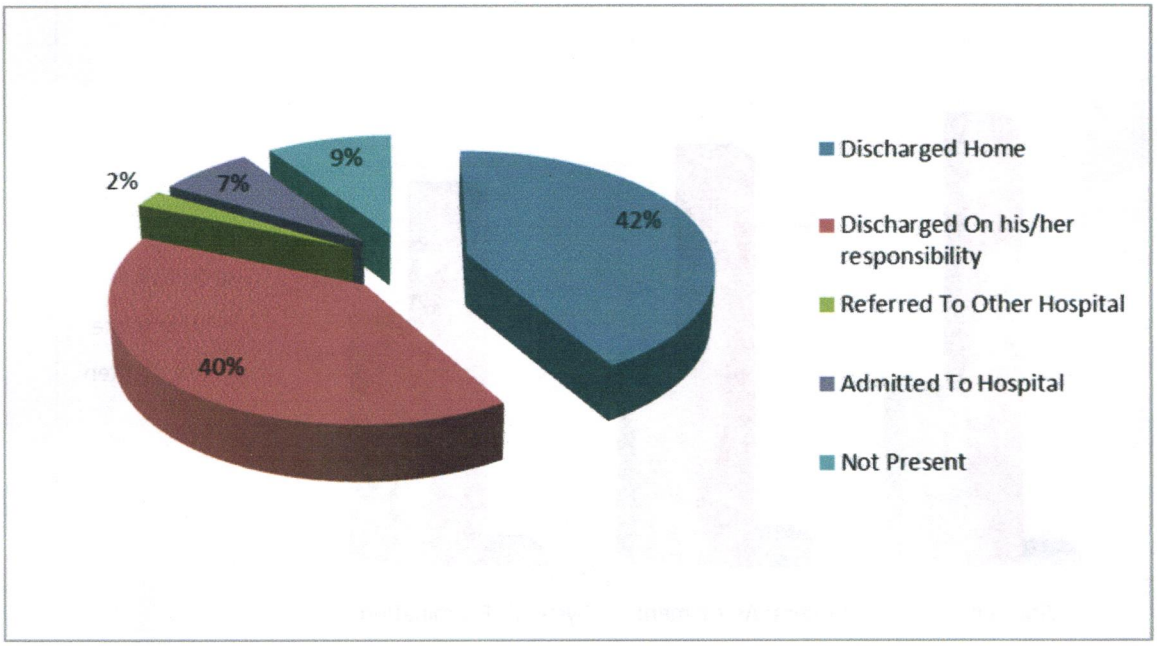

Figure (6): Documentation of discharging note of patients in the ED.

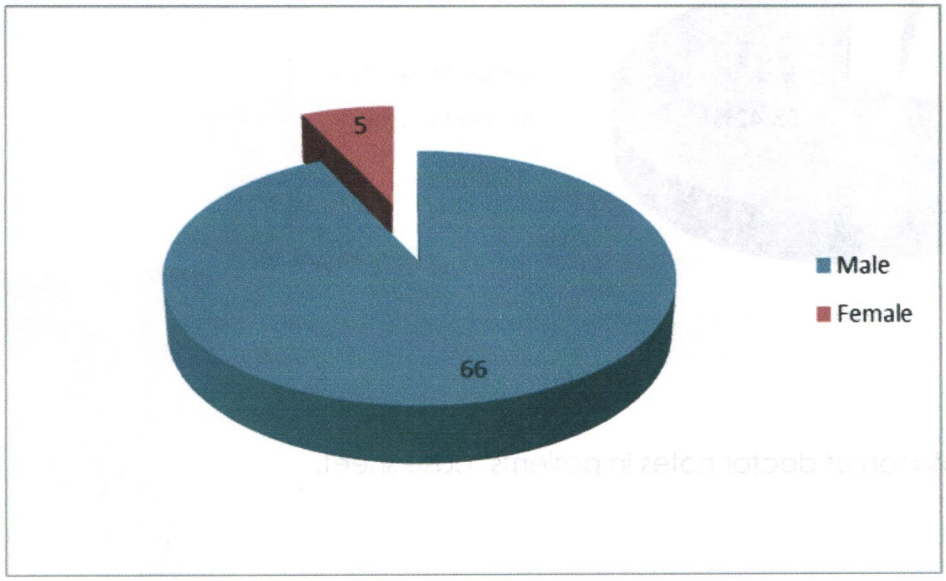

Figure (7): Frequency distribution of trauma according to gender.

Table (1): Distribution of trauma cases according to age.

Age	No.	%
1-10 yr	11	15.5
11-20 yr	16	22.5
21-30 yr	27	38
31-40 yr	12	16.9
41-50 yr	3	4.2
51-60	2	2.8
Total	71	100