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ORIGINAL ARTICLE

Impact of Clinical Forensic Medicine Department Imparting Training on Accuracy of Medical Record Documentation in Emergency Department

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Abstract:

Private hospitals find it difficult to have qualified manpower in emergency departments. To hire a person especially for documentation work is difficult to hospitals. Managing medico-legal cases and their documentation is a skill that requires patience, and diligence of doctors and nurses. To save doctors from legal troubles, training in documentation enhances the awareness about the court procedures. In emergency department of medical college hospital, 30 doctors and 10 nurses posted for more than 3 months duration in a year, were identified and in 3 batches of 10 people each training programs were imparted. Trainers were faculty from forensic medicine and hospital administration. Simultaneously, junior residents from Forensic Medicine are posted in Clinical Forensic Medicine Unit for completing medico-legal cases documentation. There is an increase in pre-test and post-test knowledge of about 45%. After 3 months and 6 months medical records were verified with a checklist by Forensic residents, the errors by clinicians were reduced by 50%. Forensic experts are experienced with court deliberations and if they conduct training programs to young doctors from clinical departments on a regular basis, it will add a great value in reduction of medical record documentation errors. A constant reminders by senior professors of same department will instil a sense of diligent duty nature amongst young doctors.

Keywords: Clinical Forensic Medicine unit; Forensic Medicine residents; Medical record documentation; Training; Pre-test & post-test.

Introduction:

"Healer safeguard thyself, lest you need healing for the anguish caused by deeds done by your hands in ignorance." This exemplifies the vigilance and adequate training a doctor has to undergo on legal wrangles for acts committed in ignorance and lack of knowledge on errors of medical documentation.

Ineffective completion of medical records has severe implications on efficiency of managing patient care delivery and while dealing with medico-legal cases can have severe negative implications on the morale and motivation of healthcare providers and doctors. As the famous dictum says, "not being aware is not an excuse in medical field." To save from court of law, one should give prime importance to documentation and communication with patients, documentation of communication and communication of documentation, and preservation of documents in emergency room practise. Communication of findings can be done both actively (through direct discussion) and passively (through written documentation).

Emergency Departments – In India: In many hospitals this department/unit is still called "Casualty" though nomenclature all over the world has changed. In India, it is being called as Emergency Department (ED) or Emergency Medicine Department (EMD) or Casualty and Trauma Services or Accident and Emergency Service (A&E). It is known for services being provided non-stop, 24X7, throughout the year, and it is an essential element in contributing to the health of the community. It is an administrator's dream for streamlining the functioning of the accident and emergency services to enhance good image of the hospital in the adjacent community. This area has been called as "miniature" hospital within hospital.

"Medical Emergency" is defined as a situation when the patient requires urgent and high quality medical care to prevent loss of life and limb. "Emergency" may also arise perceived by the patient or his/her relatives (attendants) as requiring urgent medical services, failing which, it could result in loss of life or limb. An "Accident" is defined as "an unexpected, unplanned occurrence which may involve injury" or "an unpremeditated event resulting in recognisable damage".

Types of emergency services: There are four types of emergency services:

i) Major emergency services: (Type I): All specialised facilities, both diagnostic and therapeutic categories are present. Generally such services are provided in large, teaching and tertiary hospitals.

ii) Basic emergency services: (Type II): All basic emergency facilities are available and is manned by general duty medical officer round the clock. Specialists in respective field are available on call duty.

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iii) Stand-by Emergency Services: (Type III): This type of emergency service is seen in PHC and Community Health Centre as first referral centre. These are run by trained nurses round the clock and Medical Officers are on call duty.

iv) Referral Emergency Services: (Type IV): These are satellite centres with only first aid given by the Nurses and the patient is referred to the higher hospital according to the severity.

The medical record is a clinical care related document which notes the clinician problem assessment, treatment management and it provides other clinicians information for continuing the care and also it acts a legal document.[1] The quality of documentation of clinical records has been debated world over. There are many studies which point out deficiencies in medical record documentation, varying from correctness, legibility, completeness, reliability, appropriateness, and accuracy. [1]

Article 51 A (h) of the Constitution of India, states that a treating doctor has a moral obligation and a legal duty, to maintain and preserve medical, medico-legal, and legal documents in the best interests of social and professional justice. All the written records, chart notes, radiographs, and photographs must be meticulous, and necessarily all the documents need to be signed with correct date.[2] As per Medical Council of India,[3] statutory body responsible to ensure ethics in medical profession in India, suggestions on medical records maintenance is as follows: The retention period for all inpatient records of 3 years from treatment commencement date has to be followed by every physician. The format of which has been given in annexures. For medico-legal cases, the retention period is forever or till the case gets disposed in the court. If patients/authorised attendant or legal authorities involved request for medical records, the same should be issued within a period of 72 hours.

The details of Medical Certificates issued by a registered medical practitioner shall be maintained in a register. He/She shall record the signature and/or thumb mark, address and at least one identification mark of the patient on the medical certificates or report. All hospitals should put efforts to computerize medical records wherever possible, to ensure quick and prompt care continuity. Notwithstanding the busy schedules of physicians and others in generating records, the medical records must be: complete, accurate and legible.[4]

In 2016, a study conducted by Mahendra Kumar Bajpai, states that in India, year-over-year there is a 110% increase of medical negligence cases against hospitals, 12% of these are being decided by consumer courts. The leading cause of medical negligence against the hospitals is for not taking consent in proper format or content which amounts to 60 to 66% of the filed cases. It can be clearly understood that doctors and other healthcare personnel are not taking this aspect seriously.[5]

With an aim to improve trauma care in the country, the government has decided to make it mandatory for all medical colleges to have emergency medicine department by 2022. Several studies have said the absence of integrated and organised systems of trauma care in India is the main cause of high rate of injury-related deaths and disabilities in the country.[6] Hence, we have proposed this research to extrapolate the utilisation of Clinical Forensic Medicine Unit in every emergency department.

Educational Value of Documentation: The value of documentation activities rises from the point that doctors can self-reflect their own chart notes in future or notes from peers particularly during referral or transfer of cases to their care. Documentation activities provide immense educational value to residents in medical colleges. To achieve optimum benefits in educational value, the record writing should be critiqued and the faculty should provide feedback. A study done by Oxentenko et al.,[7] identified that residents spend more than 4 hours per shift in documentation activities, and they rate importance of feedback from their faculty from "moderately high" to "very high" importance, but, they received in very less instances. With a regular ongoing structured feedback to residents, the documentation error has reduced from first year to third year.

Effectiveness of Training Program: Training aims to boost employee learning and complete organizational performance. It increases skills and current performance of employees. These are several ways to identify current employee's performance, like:[8]

a) Performance appraisals,

b) Job-related performance data (productivity, absenteeism, wastes, downtime, customer complaints).

c) Observations by supervisors or other specialists.

d) Attitude surveys.

e) Special performance gap analytical software.

Aim and Objectives: To effectively improve medical record documentation in emergency departments of hospitals in Indian context. To conduct knowledge, attitude, practices study among doctors, nurses dealing with medical record documentation. To conduct training programs to emergency department doctors and nurses and measure efficiency of training programs in improving documentation.

Methodology:

The study used a qualitative research with data collected through questionnaire, and imparting training programs and observations noted. It was prospective Cohort study. Institutional ethics committee approval was received prior (IEC No. 211/2020).

Study Design: Qualitative, prospective, single centre study with trainings conducted with agenda topics (mentioned below) to assess current knowledge and practices in emergency departments of a medical college teaching hospital.

Study Area: Medical Record Department & Emergency Department of hospitals.

Study Requirements: Medical records, doctors, resident medical officers, senior residents, nurses, administrators, training plan & material.

Sample Size: Sample Size: 40 (30 doctors and 10 nurses). – Surgery, Orthopaedics, Medicine, Emergency Medicine – of grades of SRs, APs, medical officers, Consultants etc. Nurses – GNMs, staff /ward nurse, ANS etc. using the formula method,[9] $n_0 = Z^2pq/e^2$

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Study intervention tool: Training plan: Training to improve accuracy in documentation in medical records should be planned at the time of 1) Induction of employees, 2) Departmental orientation by senior staff members from Forensic Medicine, hospital administrators, and lawyers. In our study, we initiated now. Later, when we have 20 participants as new employees, we will conduct during induction.

Training program title: Impact of accurate medical record documentation to reduce future medico-legal implications. Type of Training: 4 Hours Workshops, half-day, 4 resource persons on the following topics: 1) What does a Complete, Adequate, accurate medical record means to a Court? 2) Importance of evidence collection, types of evidence, injury depiction. 3) What is importance of complete, accurate consent form? 4) Timeliness in filling the forms, 5) Relevance of documentation in electronic health records, 6) How can organisation support you, 7) How can you support the organisation by filling the records?

List of materials distributed to audience: case studies and previous medico-legal cases, sample case records of hospital, success stories of good medical record maintenance. List of training equipment used: projector, power point, checklist for error mitigation. Venue: seminar room in Emergency department.

Results:

In our study, the analysis was done for sample population of doctors and nurses from one hospital, before the training (pretest) and after the training (post-test). It was 4 hour workshops conducted with same content during 1 month period, to ensure covering all the 40 members in sample size. The researcher forwarded google forms as questionnaire before the workshop and ten minutes was given to answer the questions. For post training also another questionnaire was circulated to answer the questions.

As per data collected in table 1, the audience in training included people who had experience in treating emergency cases. In the sample size of 40, 6-10 years was the average experience for 18 people, rest of the 22 people were within 6 years of past experience. Their experience in handling medico-legal cases was in different hospitals. The youngest doctor was 28 year old and oldest doctor was 62 years old in the sample and youngest nurse was 22 years and eldest was 45 year old. 30-35 year age group people were more in number. The average score before the training was 7 marks out of 14 marks and post the training period the average score increased to 10 marks. The highest scores were 13 and 14 before and after training program. The lowest scores were 4 and 6 marks. There is a relative 21% increase in knowledge after the training programs. People who scored less than 50% of marks were reduced by 71%, people who scored full 100% marks increased by 23%. Overall, we found an average increase of knowledge levels by 55% between pre-test and post-test.

Discussion:

The American Health Information Management Association (AHIMA) states training as one of the most effective ways to improve the documentation process.[10] Medical Council of India also proposes AETCOM modules to deliver improvement of attitudes and communications among students. The other modalities suggested by AHIMA are; incentives, medical forms designing and updation, and providing physicians with the best and most appropriate time to access and complete medical records.

This study also gave importance to Instructive interventions as a way to enhance compliance in documentation significantly.[11] In one study done in 2015, Tavakoli et al. published that lack of education as the main reason for low quality in medical records.[12] In 2010, Khoshbaten et al. showed that a training workshop had a positive effect on medical record documentation.[13] Jeanmonod et al. declared if faculty reinforce the importance to residents and provide feedback on the quality of documentation during education period, the charting quality can be improved.[14] In one study the documentation rate was checked through record verification after educational workshop, 1 month and 6 months after the trainings.[15] A study conducted in emergency department of a teaching hospital in 2022, describes that many requests that came for autopsy, the arrival pattern of patients was 70% of cases in ambulances, 30% through private cars, and most of the people documentary evidences of injury were recorded as per prescribed format by the forensic medicine residents.[16] A model checklist for medical record audit program has been given in many published articles, which can be followed.[17] In a study done on 459 mortality cases, where 106 death certificates were filled and verified retrospectively for errors in documenting, in 25 cases there were major errors in writing cause of death, and 30 cases minor errors in antecedent causes. The authors suggest training to the doctors.[18] The findings in our study note that training programs can be effective in imparting knowledge on medico-legal cases and documentation. The training effectiveness in medicolegal documentation in case of sudden deaths in chronic kidney diseases, is lacking among medical college residents, the frequency and spectrum of renal pathologies have not been well documented in medicolegal cases and authors suggest adequate training programs through forensic medicine experts in all teaching hospitals.[19]

Table 1. Showing demographic variables and knowledge acquired after the training program.

	Criteria	Pre-test	Post-test	% Change after training
1	Youngest, eldest persons	28 year, 62 years	28 year, 62 years	
2	Age group 30-35 highest representation	17 out of 35	17 out of 35	
3	Experience after MBBS	18 people were 6-10 years	18 people were 6-10 years	
4	Average Score of Group	7	10	21% increase
5	Median Score	8	11	
6	Range of marks in 14 marks	4 to 13	6 to 14	
7	Less than 50% (or 7 marks)	16	5	71% reduction
8	Between 50-70% (7-10 Marks)	22	11	50% reduction
9	Between 70-90% (11-13 Marks)	2	16	75% increase
10	100% (14 Marks)	0	8	23% increase

Conclusion:

The backbone of performance analysis can be understood by understanding why performance is low. One has to differentiate whether it is a can't-do or won't-do problem. If it's a can't-do problem, for example, if employees don't know how to do or what standards are: there are obstacles in the system like lack of tools or supplies, no job aids or you have hired people who don't have the skills to do the job or there is inadequate training. Or it might be a won't-do problem. Here employees could do a good job if they wanted to, but they do not perform. To handle such situation, incentives is the way. In our study, we solved "can't do" problem by imparting training programs and noticed reduction in errors of documentation.

Conflict of Interest: We do not have any financial conflicts, material copyright conflicts.

Ethics Approval: IEC 211/2020

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