Teaching Medical Documentation to Newly Admitted MBBS Students - A Pre- and Post-Test Study

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ABSTRACT

BACKGROUND

Teaching of documentation to newly joined M.B.B.S students as a part of foundation course is important. We wanted to evaluate the improvement in knowledge regarding medical documentation as a part of early exposure to clinical aspects based on foundation course for new curriculum by Medical Council of India.

METHODS

This is a cross-sectional, retrospective study conducted from October to November 2019 at PES Institute of Medical Sciences and Research, Kuppam, Andhra Pradesh. A total of 141 first year newly joined medical students were given pre-test on documentation followed by classroom teaching on medical documentation. Post-test was given at the end of the session. Data obtained was analysed in percentage.

RESULTS

Gain in knowledge was seen in various aspects of consent process (wrong responses < 10% at post-test). Knowledge regarding registration and admission process, medication order documentation in case records and consent before blood transfusion was good even before the teaching session (wrong responses at pre-test <10%). There was worsening in knowledge need of documentation of drug given during emergency even after teaching session (wrong responses increased from 36.17% to 41.84%). Knowledge regarding duration of maintenance of medical records, not to use unapproved abbreviations, documentation of patient details in each case sheet, documentation of initial assessment and oral orders within the time frame (24 hours), signature of consultant along with date and time daily, documentation of food/drug allergies though showed improvement, needs further reinforcement in these areas.

CONCLUSIONS

Medical documentation is important legally and provides an overall correct description of each patient's details of care. The usual mistakes done in practice such as- 1. summaries given to relatives after death. 2. not using unapproved abbreviations. 3. documentation of initial assessment within 24 hours. 4. documentation of oral orders within 24 hours. 5. need of documenting the drugs given in emergency. 6. daily notes to be counter signed along with date and time by the consultant. 7. documentation of any food allergy, showed improvement at post-test, but not as expected. These above mentioned areas need to be addressed and reinforced in future teaching and clinical practice, so that mistakes committed can be minimized in future.

KEYWORDS

First Year M.B.B.S, Foundation Course, MCI, Medical Documentation, Teaching

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DOI: 10.18410/jebmh/2020/283

How to Cite This Article:
Sujatha K, Devivaraprasad M, Chitra N, et al. Teaching medical documentation to newly admitted MBBS students- a pre- and post-test study. J. Evid. Based Med. Healthc. 2020; 7(28), 1332-1336. DOI: 10.18410/jebmh/2020/283

Submission 15-05-2020,
Peer Review 21-05-2020,
Acceptance 22-06-2020,
Published 13-07-2020.

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BACKGROUND

Medical malpractice litigation is built around the medical record. It provides the only objective record of the patient's condition and the care provided. A well written and organized medical record is best defence for the doctor.[1] Documentation also helps to gain insight into quality of care provided by the healthcare facilities.[2] All individuals who provides care to a patient is responsible for documenting the care and recommendations that have been provided to the patient.[3] The medical notes should be signed by the concerned person.[3] A good clinical record keeping should enable continuity of care and should enhance communication between different healthcare professionals. The clinical records should be maintained strictly as per the law of the land.[4] Engaging the students in their early part of medical education will help in better acclimatization to the workplace or the course in future.[5] Teaching of documentation to newly joined M.B.B.S students as a part of foundation course is important.

We wanted to assess the knowledge gained on medical documentation in newly joined MBBS students.

METHODS

This is a cross- sectional, retrospective study conducted from October to November 2019 at PES Institute of Medical Sciences and Research, Kuppam, Andhra Pradesh. A total of 141 first year newly joined medical students selected through purposive sampling were given pre-test on documentation followed by classroom teaching on medical documentation. Post-test was given at the end of the session. The data obtained was analysed in percentage.

Study Tools

Self-prepared questionnaire.

Methodology of Collecting Data

As a part of foundation course for newly joined first year M.B.B.S students, a session on "Teaching medical documentation to newly admitted MBBS students" was taken in September 2019. This was done to make the newly joined students to have an idea on importance of documentation in medical practice early in their career. A pre-test containing set of 20 questions were given with time limit of 20 minutes. Pre-test was followed by a classroom teaching session for 60 minutes regarding importance of documentation. The teaching was based on power point presentation along with interaction with students. This session was followed by post-test containing same 20 questions for 20 minutes. The questions were in form of true or false, choose the single best answer in multiple choice questions and few had multiple options. The questions covered various basic aspects of documentation in day to day practice and its importance. The questions were related to general aspects of documentation, documentation in case sheets, informed consent form medico legal importance etc. The identity of the participants was not revealed. Permission was obtained from Institutional Human Ethics Committee to do the study and collect the data. A total of 141 newly joined first year M.B.B.S students were included in the study.

Statistical Analysis

The data was tabulated and analyzed in percentage. The wrong responses in percentage pre and post-test were calculated.

RESULTS

A total of 141 newly joined M.B.B.S students were included in the study. Various general aspects of documentation are shown in table 1. Least wrong responses were observed regarding compulsory registration and admission process. Most knowledge gained was seen regarding issue of discharge and death summary, purpose of documentation and responsibility for errors in documentation (refer table 1).

Questions Regarding	Pre-test (%) Wrong Responses	Post-test (%) Wrong Responses
Purpose of documentation	24.82% (35/141)	0.71% (1/141)
Registration and admission process should be documented	2.13% (3/141)	0% (0/141)
In case of patients who have expired both death certificate or intimation and death discharge summary should be given	21.28% (30/141)	4.26% (6/141)
Duration of storing all medical records of outpatient, in patient, Medico-legal cases	32.62% (46/141)	13.48% (19/141)
Abbreviations specific to the hospital shouldn't be used	52.48% (74/141)	12.06% (17/141)
Post Graduate is not responsible for errors in documentation, only consultant is responsible	32.62% (46/141)	5.67% (8/141)
The patient & family should be educated about disease process, Cost, their rights, preventive aspects and complications	19.15% (27/141)	4.26% (6/141)

Table 1. Various Parameters Important in Documentation

Questions Regarding	Pre-test (%) Wrong Responses	Post-test (%) Wrong Responses
Every sheet in the medical record of patient should contain - patient name, gender, age and UHID (Unique Identity number)	44.68% (63/141)	10.64% (15/141)
The initial assessment documentation for inpatients should be done within 24 hours	79.43% (112/141)	31.19% (45/141)
Oral orders should be documented and signed within 24 hours	76.6% (108/141)	24.11% (34/141)
Any drug given in emergency to save life, should be documented	36.17% (51/141)	41.84% (59/141)
The daily notes should be signed dated and timed by consultant	39.01% (55/141)	21.28% (30/141)
Administration of medication includes correct documentation of the time, route, medication name, signature of the staff, for each of the drugs administered	17.02% (24/141)	2.13% (3/141)
Medication order should be legible, clear, timed, dated and signed	4.96% (7/141)	0% (0/141)
Documentation of food/drug allergies inside the case sheets, on the front cover and in the discharge summary	58.16% (82/141)	36.88% (52/141)
Writing prescription in capital letters	47.52% (67/141)	2.13% (3/141)

Table 2. Documentation in Case Sheet

Various aspects of documentation in case sheet are shown in table 2. Most gain in knowledge was seen regarding administration of drugs and documentation, legibility of medications written and writing prescription in capital letters. There was improvement in knowledge regarding initial assessment documentation, oral orders documentation, writing patient details in every page, daily notes signature by consultant, but not up to expected less than 10% wrong responses in post-test. The gain in knowledge regarding documentation of food allergies too was not much (refer Table 2). There was no gain in knowledge, in fact worsening of knowledge in post-test, regarding documentation of the drugs given in emergency.

There was improvement in various aspects documentation of informed consent from pre-test to post-test as shown in table 3.

Questions Regarding	Pre-test (%)	Post-test (%)
	Wrong Responses	
Informed consent regarding any treatment or procedure or surgery should be taken by treating doctor	19.86% (28/141)	4.96% (7/141)
Informed consent in the language understandable by the patient or relatives	19.15% (27/141)	9.93% (14/141)
Consent should be obtained before every procedure and signed by treating doctor	13.48% (19/141)	0% (0/141)
Blood Transfusion needs consent	6.38% (9/141)	1.42% (2/141)

Table 3. Consent in Documentation

DISCUSSION

The Medical council of India as introduced the foundation course for new students joining from 2019 as a part of new curriculum. It is aimed at early exposure to various aspects of medical education and profession. It also aims at brining out better future doctors.[6]

The documentation is used mainly to communicate between doctors, collect health related statistics and parameters, legal and court matters and insurance cases.[7] There was improvement in the knowledge gained regarding the purpose of documentation in this study (wrong responses decreased from 24.82% to 0.71%, table 1). The students were well aware that registration and admission process should be documented at pre-test level (wrong responses 2.13% pre-test to 0% post-test, table 1). Each patient should be registered and unique identification number should be given as per NABH standards. Various hospitals have standard operating procedures for the same. NABH says the organization should have a well-defined registration and admission process in chapter AAC-2.[8,9] In this study the knowledge regarding receiving discharge summary along with cause of death (death certificate) improved drastically (wrong responses decreased from 21.28% to 4.26%). Every patient in hospital has right to receive discharge summary. In case of death summary of cause of death should be there, this is usually issued in death certificate. If the cause is not clear and post-mortem is ordered or performed, the same should be documented as per AAC-14.[9,10] There was increase in knowledge regarding storage of medical records (wrong responses decreased from 32.62% to 13.48%). The Medical Council of India guidelines also insist on preserving the inpatient records in a standard proforma for 3 years from the commencement of treatment.[10] Under the provisions of the Limitation Act 1963 and Section 24A of the Consumer Protection Act 1986, which dictates the time within which a complaint has to be filed, it is advisable to maintain records for 2 years for outpatient records and 3 years for inpatient and surgical cases. However the provisions of the Consumer Protection Act allows for condoning the delay in appropriate cases.[10] Medico-legal records to be kept for at least period of 30 years or up till the cases are decided in the court of law whichever is earlier, even though it is so difficult to keep them for such a long period.[11] Knowledge regarding not using unapproved abbreviations improved in this study. Only standard abbreviations should be used. Unapproved abbreviations related to specific hospital should be avoided as what is inked is taken as legal during court proceedings. Most common unapproved abbreviations are used for drugs. Sometimes lead to wrong administration of different drug with undesired effects and complications.[12] Serious errors in documentation were reported by 18% of the residents and 48% minor errors in a study done in paediatrics department in Pakistan.[13] Residents have inadequate disclosure to senior physicians about the errors and result in negative emotions but there was positive change in their behaviour, which resulted in improvement in their future training and patient care.[13] It can be in form of abbreviation or wrong documentation etc. It has legal consequences on the treating physician and all involved treating the case.[14] Postgraduate or resident too can be dragged to court along with treating consultant.[15]

There was better awareness regarding rights of patient in this study which improved after the teaching session (Table 1). The patient & family should be educated about disease process, Cost, their rights, preventive aspects and complications. The chapter PRE (patient rights and education) talks about this issue as per NABH policy.[9] There was improvement in knowledge regarding documentation on initial assessment within 24 hours for in-patient, documenting oral orders within 24 hours, signing of daily notes by consultant with date and time, documenting food allergies. Improvement regarding these parameters mentioned was not up to the mark (Table 2) and needs to be stressed or taught more as its most common things missed in routine case sheets. The knowledge regarding documenting drugs used in emergency worsened in this study. This was only parameter which showed no improvement in this study despite a teaching session (wrong responses- Pre-test 36.17% to 41.84% Post-test). Knowledge regarding various aspects of medication like writing prescription in capital letters, administration and documentation of medicine, legibility of written order improved in this study (Table 2). The above aspects on documentation are mentioned in AAC (assessment and continuity of care) and management of medication (MOM) chapters of guide book to accreditation standards for

hospitals.[9] Knowledge regarding documentation of consent for various procedures, blood transfusion and in language understandable by patient improved in this study (table 2). These above objectives fall under care of patients.[9]

The discharge protocol, clearance from finance department, counseling in case of death, organ donation etc was not dealt in detail in this study, as it was taught to just medical students who had just joined the course as a part of orientation program. Various aspects on medical documentation which were left will be taught as the newly admitted students enter the clinical postings later on.

There was worsening of knowledge despite teaching on documentation regarding any drug given in emergency as most felt it's not compulsory to document any drug in emergency. They felt that there can be excuse in emergency situations. Some had influence from cinemas too on emergency situations. This attitude carries on later too, which has to be stressed during the course and its legal aspects.

Summary

Had knowledge regarding these aspects before the teaching session (pre-test score wrong responses less than 10%) and improved better after post-test.

1. Registration and admission process should be documented.
2. Medication order should be legible, clear, timed, dated and signed.
3. Consent before blood transfusion.

Improvement in knowledge with wrong responses less than 10% after post-test.

1. Documentation is used to communicate between doctors, collect health related statistics and parameters, legal and court matters and insurance cases.
2. Discharge summary and death summary both should be issued in cases of death unless post-mortem is ordered.
3. A post graduate too can be held responsible for errors in documentation along with the consultant.
4. The patient & family should be educated about disease process, cost, their rights, preventive aspects and complications.
5. Administration of medication includes correct documentation of the time, route, medication name, signature of the staff for each of the drugs administered.
6. Prescription of drugs should be written in capital letters
7. Informed consent regarding any treatment or procedure or surgery should be taken by treating doctor
8. Informed consent in the language understandable by the patient or relatives
9. Consent should be obtained before every procedure and signed by treating doctor

Worsening of knowledge despite teaching on documentation (36.17% to 41.84% Pre to post-test)

Any drug given in emergency to save life, should be documented.

Improvement in knowledge, but wrong responses more than 10% after post-test.

1. Duration of maintenance of medical records.
2. Unapproved abbreviations should not be used.
3. Every sheet in the medical record of patient shall have patient name, gender, age and UHID (Unique Identity number).
4. The initial assessment documentation for inpatients should be completed within 24 hours.
5. The daily notes should be signed dated and timed by the consultant.
6. Documentation of food/drug allergies inside the case sheets, on the front cover and in the discharge summary.
7. Oral orders should be documented and signed within 24 hours.

CONCLUSIONS

Medical documentation is important legally and provides an overall correct description of each patient's details of care. The usual mistakes done in practice such as 1. summaries given to relatives after death. 2. not to use unapproved abbreviations. 3. documentation of initial assessment within 24 hours. 4. documentation of oral orders within 24 hours. 5. need of documenting the drugs given in emergency. 6. daily notes to be counter signed along with date and time by the consultant 7. documentation of any food allergy showed improvement at post-test, but not as expected. The above mentioned areas need to be addressed and reinforced in future teaching and clinical practice so that the mistakes committed can be minimized in future.

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