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STUDY OF MEDICAL RECORDS DEPARTMENT AT A TERTIARY CARE TEACHING HOSPITAL WITH SPECIAL REFERENCE TO MEDICAL AUDIT

Health Science

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ABSTRACT

INTRODUCTION: Medical record is a clinical, scientific, administrative and legal document to justify diagnosis and treatment. Medical audit is a professional evaluation of quality care. The aim was to study physical facilities, staffing, workflow, deficiency check and medical audit
METHODS: Prospective observational study of facilities, staffing and work flow Retrospective study of case sheets for deficiency check and medical audit .
RESULTS AND DISCUSSION: Area available is 278 m2 which is inadequate against norm of 350 m2. Existing staff of 28 is adequate as per norms. Deficiencies were observed in physical examination (44%), history (43%), radiology (40%), anesthesia (28%) and laboratory reports (16%).
CONCLUSION AND RECOMMENDATIONS: Staff & Equipment was adequate. Recommended for regular staff training and usage of Electronic medical records, Focus on deficiency check by specific MRD staff on regular basis monitored by the administration and supported by medical audit committee.

KEYWORDS

Medical Record, Deficiency Check, Medical Audit

INTRODUCTION:

A Hospital is an integral part of a social and medical organization, the Function of which is to provide for the population complete health care, both Curative and preventive and whose outpatient services reach out to the family and its home environment, the hospital is also a centre for training of health workers and bio social research.[1] Medical record is a clinical, scientific, administrative and legal document relating to patient care in which are recorded sufficient data written in the sequence of events to justify diagnosis and warrant treatment and end results[2]. Medical audit is a professional evaluation of the quality of care rendered to patients[3]

AIM:

To study Medical Records department focusing on deficiency check and medical audit

OBJECTIVES:

1. To study existing physical facilities, staffing pattern, work flow and to assess workload in medical records department of Narayana Medical college and hospital
2 To identify deficiencies in medical records and to scrutinize for medical audit.

METHODS:

This study was undertaken in Medical Records Department of Narayana Medical College Hospital.

I) Prospective observation study:

A) To observe existing physical facilities, staffing pattern, work flow in medical records department and evaluation of workload was done under 4 categories i) work at I.P registration counter, ii) certificates section, iii) filing section iv) coding.

B) Existing policies and procedures were scrutinized. Suggestions for better functioning of medical records department were gathered from the faculty.

II) Retrospective study: Deficiency check list was prepared and 100 randomly selected case sheets were scrutinized and analyzed for entire medical record forms. This study was done to emphasize the importance of medical audit for quality patient care.

The study was presented before the Ethical committee and approval was obtained.

RESULTS AND DISCUSSION:

Physical facilities:

A. Space:

There are 3 patient registration counters situated one in the outpatient of Block I second at OPD of Block II and third at Emergency.

Total area of MRD is about 3000 square feet, divided into office (1400 square feet) & storage area (1600 square feet).Total area available in the medical records department is 278 m^2 which is less when compared to the statutory requirements (according to minimum standard requirements for the medical college for 250 admissions annually regulations, 1999, space required for central MRD is 350 square meters).[4]

PTO

Table 1: summarizes existing staffing pattern.

STAFF DESIGNATION	EXISTING NUMBER
1.Medical Records Officer	03
statistician	01
coding clerks	04
Record Clerks	06
Filing , storage and Retrieval	06
Daftaries	02
Medicolegal and certificates Peons	03 02
Stenotypist	01

Total 28 numbers of staff are working in the department allotted with different functions of receipt, assembling, coding, indexing, filing, storage and retrieval of case sheets. For coding International Classification of Diseases (ICD) 10 is being followed.

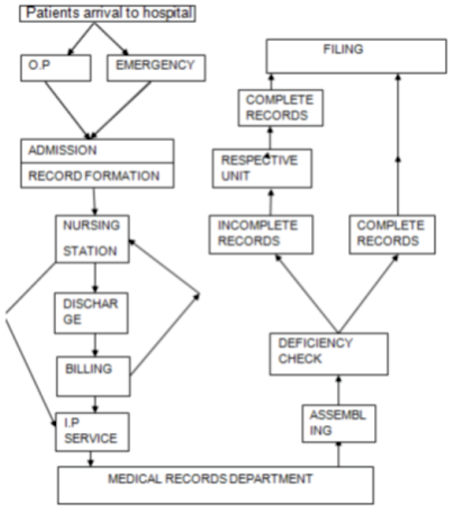
In addition medico legal cases, births and death registration, certificates divisions are working to facilitate patients. Census, Deficiency check list team and mortality meetings coordination was done by the Medical records officer. Hospital statistics and all records are monitored by MRO .According to minimum standard requirements for the medical college for 250 admissions annually regulations, 1999, [5]. Existing staff is adequate.

Equipment:

The existing equipment in MRD(10 desk top computers,10 printers, 2

scanners.) is available for carrying the daily technical functions in MRD.The complete technical information needed and related to the patient are been stored in the HIS.

FLOW CHART 1: Depicting work flow of Medical Records



Work flow:

The medical record of a patient starts from entry of the demographic data at both outpatient registration and emergency. Once the primary consultation, laboratory, radiology and special investigations were completed then final consultation leads to admission of patient into the wards, Intensive care units and or paying rooms.

Once the patient gets admitted as "Inpatient", patient will undergo further diagnostic, therapeutic and treatment modalities and therapies, thus the medical record (MR) with various forms like Admission record, Discharge summary, History sheet, Physical examination sheet, Doctors order, Doctors progress notes, Laboratory reports, Radiology reports, Nurses/ Temperature chart, Intake/output chart, Consent, Operation record, Anesthesia record etc., are available in the case sheet. Once the patient gets discharged the case sheets are sent to medical records department along with laboratory investigation reports and radiological films.

Once the case sheet is received to the MRD after assembling, deficiency check is identified and sent for review to the respective clinical departments. Then after coding and indexing the case sheets will be sent for filing and storage

Table 2: Deficiency check list

S.no	Availability of record forms	Yes (%)	No (%)
1	Admission record forms	95	5
2	Discharge summary	99	1
3	History sheet	57	43
4	Physical examination sheet	56	44
5	Doctors order form	97	3
6	Doctors progress notes	88	12
7	Laboratory reports	84	16
8	Radiology reports	60	40
9	Nurses/ TPR chart	94	6
10	Intake/output chart	92	8
11	Consent form	85	15
12	Operation record	95	5
13	Anesthesia record	72	28

56% of case sheets had correct **examination records**, 44% do not have accurate report of examination. In a study conducted by Chamissa et.al[6]. Showed 61% had examination details.

In another study by Jean Osei-kofour et.al.,[7] revealed 61% had no detailed examination reports. 96% of case sheets had availability of **diagnostic details** in our study as against 65.3% by Arotiba J.T et al.,[8]

Our study had 96% of **treatment details** as against 51% by Gleeson M et al.,[9]studies.

Our study had 67% availability of **progress notes** where as Arotiba et al.,[8]study had 66.5%.

Discharge summary of case is attached to record in 90% in our study but it is 29% by Arotiba et al.,[8]

79% of records in our study support **final diagnosis**. In a study conducted by Menzella F et al[10] showed 45.5 % of records to support final diagnosis. **Consent** was obtained from 82% of records in present study, whereas it was only 63% in a study conducted by Shaza basher et al.,[11]

Preanaesthetic notes was available in 67% of records, it was only 40% in study conducted by Gupta et al.,[12]. Adequate **indication for surgery** was there in 77% in a study conducted by Lo Gerfo J[13].In our study had 98% of records had correct indication for surgery.

Limitations:

1. only sample of cases are reviewed in medical audit hence it doesn't reflect the total hospital.2.Reviewed only surgical specialties, hence it doesn't reflect total 24 clinical depar tme nts.3.Subjective bias

CONCLUSION AND RECOMMENDATIONS:

The space of 278 m^2 which is inadequate as per norms, there is always demand for additional space for storage of medical records to maintain. Digitalization and implementation of Electronic medical records is suggested to reduce requirement of space. Top Management support and staff training is required for efficient organization of MRD.

The no. of existing staff is adequate as per norms. It is recommended to reallocate the staff after training in deficiency check monitoring and medical audit.

As the specialists opined, there is limitation regarding the situation of admission counters away from inpatient wards causing difficulty in identifying and reaching the respective wards for patients. The admission office and patient relation executives from OPD and emergency need to focus on directing patients and attendants to the respective wards and handover to in charge sister of wards. The efficiency of medical record is reflected in accurateness and completeness should be achieved by an effective deficiency check mechanism with support of all the clinical departments monitored by the medical records officer and administration. Department wise medical audit of critical cases covering all departments is the necessity of the day. Medical audit committee should function efficiently for future improvement in quality patient care and outcomes.

Conflict of interest: none.
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ABBREVIATION

1. MRD- Medical Records Department
2. IP-In Patient
3. OPD-Out Patient Department
4. MRO-Medical Records Officer
5. HIS-Hospital Information System

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