

Original Research Article

To Study the Organisation and Functioning of Medical Record Department of a Tertiary Level Govt. Hospital

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ABSTRACT

The most important database of treatment of the patient is the medical records. Consistent recording by doctors, nurses and other staff is proof of proper monitoring of the health, planning and treatment. The Medical Records Department (MRD) has become an indispensable department in every hospital, which provides several services not only to the patients but also to running a hospital efficiently and plays a key role in health care management. Thus, assessment of the services provided in this department is important. The current study was an observational study conducted in the medical record department of a 500 bedded tertiary care government hospital in Haryana. The present research not only studied the organisation and functioning of Medical Record department in a government run medical college and hospital in a rural setting, but also tried to identify the problems relating to it and recommended the ways to improvise, strengthen and modernise the department, so that there is improvement in efficiency and effectiveness of Medical Record Department.

Key Words: medical record department, hospital, situational analysis, computerisation

INTRODUCTION

The medical record is an orderly written document encompassing the patient's health history, physical examination, findings, laboratory report, treatment and surgical procedure report and follow ups etc. The compile action of information contained in medical records reveal the public health scenario of the area which is very useful for planning, formulation and implementation of health intervention measures. Therefore, proper preservation and maintenance of these records and compilation of data is essentially required. Medical Record Department, which is responsible for maintenance of these health records and compilation of health information, is like brain of a hospital. Efficiency of a hospital in discharging its various functions related

to health care delivery largely depends on the availability of proper, valid and timely information. Like all major Departments of a hospital, the Medical Record Department (MRD) thus needs to be essentially strengthened so it they effectively discharges the functions. This necessitates that MRD personnel should be properly trained in record management, compilation and analysis of health information in a standard manner. Most of the medical records department in India either private or in government hospitals are partially computerized. The use of a fully computerized system may improve the effectiveness and efficiency of a Medical Record Department, but only where the basic manual procedures are already in place and well organized.

This study is based on same objectives, to evaluate the existing medical record keeping system and ways to improvise and modernise the current medical record department.

Aims & Objectives:

- Situational Analysis of infrastructure in terms of the organization, functioning, logistics and human resources along with their training & skills in a Medical Record Department of a tertiary level hospital.
- To study the present system of record generation, compilation, analysis, storage and retrieval of medical records in the hospitals.
- To recommend on improvisation, strengthening and modernisation of Medical Record Department.

METHODOLOGY

Study location:

The study was conducted in the medical record department of a tertiary care hospital Shaheed Hasan Khan Mewati Government Medical College & Hospital, Nalhar of the Nuh district, Haryana.

Study population: The population included in the study:

Medical Record department.

Other Staff of hospital involved in medical record maintenance except MRD

Type of study: it is a situational analytical or observational study

Data collection tools:

Primary Sources:

For present study, primary data was collected by canvassing of the questionnaires from the required personnel. A number of questions pertaining to the organisation, functioning and working procedure of Medical Record Department were framed which were in proper sequence. Additional information was gathered by observation and hospital statistics.

Secondary Sources:

The secondary data was collected from existing published material, books, journals and the internet.

Study period: 2 months duration i.e. February and March, 2018

Sample size: The study covered medical record department of a single tertiary level 500 bedded government medical college and hospital.

Sample selection: purposive sampling to be done. The in-charge of the Medical Record Department and other regular employees who has more than 2 year experience in the institution were included whereas contractual staff and recently recruited MRD personnel of experience less than 2 years were excluded.

Pre testing and validation of questionnaire:

Pre validated questionnaire taken from a study conducted by DGHS, Central Bureau of Health Intelligence, MOHFW, GOI report and recommendation, 2011. ^[1]

Questionnaire of the Study:

The questionnaires were designed primarily to collect data on:

- (i) Availability of manpower/skilled personnel and logistics for medical record keeping at the institution.
- (ii) Organization & functioning of the Medical Record Department.
- (iii) Present status of functioning of medical record unit at the institution.
- (iv) Training status of personnel engaged in Medical record keeping/maintaining.
- (v) Usage of ICD in storage, compilation & analysis of Medical records.
- (vi) Usage of the information collected in MRD/U in the institution
- (vii) The opinion of respondent on the required logistics, manpower, training needs and usage of information available at MRD/U.

OBSERVATIONS AND DISCUSSION

(a) Institutional status:

The bed strength of above mentioned institute is 652 and sanctioned is 470. Annual OPD attendance for the previous year 2017 was 339684 out of

which Emergency OPD was 36688 and regular OPD was 302996. The annual IPD attendance of the institute for the previous year 2017 was 23673.

Out of all the sanctioned beds, the beds allotted to different specialities are as follows: General Medicine(120); General Surgery(120); Obstetrics and Gynaecology(60); Paediatrics(60); Emergency & Casualty(45); and rest of the beds are distributed equally in ophthalmology(10); ENT(10); T.B. & Chest (10); Psychiatry (10); ICU(15), Dermatology (10) etc.

The OPD registration counter and central admitting office is under MRD and they both are computerised.

(b) Location and Availability of Space in MRD:

All the 14 health institutions which reported to have MRDs had designated exclusive space. The average number of

rooms allocated to MRD is 2.6 rooms per health institution per MRD. Average space and number of rooms available for MRDs of government hospitals was 1741 sq ft area and 3 rooms per MRD. [1]

Only a single room is allotted to the MRD under study and that too in the basement. The total floor space available to the MRD was 2511 square feet. There was no different space for keeping separately active and inactive records but MLC records did acquired sufficient adequate space. There were different areas earmarked for computer section, statistical section and for equipments like Xerox & other machines but were not adequate leading to congestion and lack of air circulation. Average space and number of rooms available for MRD of hospital under study was less than the recommended guidelines by different authors and agencies. [1,3,5,9,11]

(c) Upkeep of MRD:

Table 1: Upkeep in Medical Record Departments

| Level of Health Institution | General appearance of record room | | | Upkeep of medical records | | | Lighting arrangement | | | Condition of electric wire fitting | | | Medical Records are kept in systematic order | Pest and Rodent control is done regularly | Medical Records are preserved in Hard copies | Medical Records are preserved in Soft copies |
|---------------------------------------------------|-----------------------------------|---|---|---------------------------|---|---|----------------------|---|---|------------------------------------|----|---|----------------------------------------------|-------------------------------------------|----------------------------------------------|----------------------------------------------|
| | P | G | V | P | G | V | P | G | V | P | G | V | | | | |
| MRD attached to Medical College (14) ² | 4 | 8 | 2 | 4 | 8 | 2 | 3 | 9 | 2 | 2 | 11 | 1 | 13 | 7 | 12 | 7 |
| MRD under study | 1 | - | - | - | 1 | - | - | 1 | - | - | 1 | - | 1 | - | 1 | - |

P – poor; G – good; V – very good

(d) Availability of Stationery/ Reference Material in Medical Record Departments:

From the information collected during the survey it is found that Medical Record Department of this institute has no availability of medical dictionary. Medical record manual is available but not in adequate quantity. Medical terminology book is absent along with WHO published ICF coding book – red color and ICPM book. Only WHO published ICD-10 (3 volumes green colour) is available and that too inadequate in number and an old edition.

From the above it is clear that in general, availability and adequacy of various reference materials which are very

important for the day to day efficient functioning of the Medical Record Department, has not been satisfactory and not according to the prescribed norms [3,4,6,9,10,11] A large numbers of hospitals [1] with Medical record Departments either do not have these reference materials or if have they are not available in adequate numbers.

(e) Human Resources in Medical Record Department:

Information on manpower sanctioned, posts vacant, training status and knowledge of computers and ICD-10 of different levels of personnel posted in the Medical Record Department was also collected to study availability of manpower, their quality and knowledge of their

functions in the MRD and assess the optimum manpower structure in the MRD vis-à-vis work load in terms of size of the hospital.

It was found that there was no post sanctioned for Senior Medical record Officer. Only one Medical Record Officer post was sanctioned and in position, whose main job responsibility is MRD supervision and it was not adequate in number. There was no post sanctioned for Assistant MRO but a post of Statistical Assistant was sanctioned since 2015 and it was lying vacant. Out of Senior MRT/MRT/Asstt. MRT job positions, no sanctioned posts were for Sr. MRT, two posts were sanctioned for Medical Record Technician which was lying vacant since 2012. The two

sanctioned posts of UDCs were also lying vacant since 2012. The LDCs which have the responsibility for record maintenance with four sanctioned posts since 2012, only half of which are occupied. Record attendants sanctioned strength was 3 and only 2 were in use. One additional post of steno/typist or drafting was also sanctioned since 2012 but was vacant. There was no regular or brief orientation or training programs/policy done to train employees of MRD in the institute.

Thus, we can conclude that less than five-six personnel per MRD were available for the work of the MRD which was not adequate according to the prescribed standard. [3,5,7,8,9,11,13]

Table 2: MRDs with trained human resources:

| Level of Health Institution | SMRO/MRO/AMRO | | | | Sr. MRT/MRT/Jr. MRT | | | | Others | | | |
|---------------------------------------------------|---------------|----------------|-------------------------|---------------------------|---------------------|----------------|-------------------------|---------------------------|---------------|----------------|-------------------------|---------------------------|
| | Post filed in | Trained in MRS | Having ICD-10 Knowledge | Having knowledge computer | Post filed in | Trained in MRS | Having ICD-10 Knowledge | Having knowledge computer | Post filed in | Trained in MRS | Having ICD-10 Knowledge | Having knowledge computer |
| MRD attached to Medical College (14) ¹ | 8 | 5 | 6 | 6 | 3 | 2 | 2 | 1 | 8 | 1 | 5 | 4 |
| MRD under study | 1 | Y | Y | Y | 0 | 0 | 0 | 0 | 8 | N | Y | Y |

Y – Yes; N – no

(f) Functions of MRD:

Table 3: Various functions performed by MRDs of different level hospitals:

| Level of Health Institution | OPD Registration | Recording in Admission register | Recording in discharge register | Daily ward census | Receiving/Collection of discharge files from wards | Assembling of records in specified order | ICD coding and indexing | Deficiency check and completion of records | Maintenance of Alpha Index card OP/IP | Maintenance of medical certificate | Maintenance of Wound certificate | OP Statistics & disease classification | IP Statistics & disease classification | Recording, Maintaining & Reporting of Birth & death records | Filing of medico-legal case | Filing record | Filing record - OP |
|---------------------------------------------------|------------------|---------------------------------|---------------------------------|-------------------|----------------------------------------------------|------------------------------------------|-------------------------|--------------------------------------------|---------------------------------------|------------------------------------|----------------------------------|----------------------------------------|----------------------------------------|-------------------------------------------------------------|-----------------------------|---------------|--------------------|
| MRD attached to Medical College (14) ¹ | 9 | 10 | 10 | 9 | 13 | 14 | 6 | 13 | 6 | 12 | 10 | 11 | 10 | 13 | 14 | 12 | 8 |
| MRD under study | Y | Y | Y | Y | Y | Y | Y | Y | N | N | N | N | Y | N | Y | Y | Y |

Y – yes; N – no

(g) Availability of Computers & Other Equipments in MRD:

Availability of Computers, Internet connection, LAN connectivity, Medical Record software and regular hardware

maintenance is very much needed for efficient functioning of Medical Record Department and digitization of the medical records. Information on these points was gathered from the visited MRD.

In the MRD under study, a single telephone landline connection available which was sufficient. Single internet connection was provided for five computers which was inadequate and two more computers were needed. LAN connectivity of MRD with other departments of hospital was present which was only one and six more were required. There was one printer scanner machine and four separate printers which were insufficient as two more scanners were required. A single photocopy machine was provided which was sufficient; however, there was no fax machine present in the department which was needed. Five UPS were there and they were adequate in number. There was a dire need for Medical record software or packages which was absent.

The equipments and stationery needs of the MRD under study was average and was not fully equipped as per the recommended standards. ^[11]

The computers provided in the department were not maintained by the institute regularly as there was no provision for software or hardware maintenance. Similarly, no provisions or guidelines for the security and confidentiality of medical records and how they should be maintained.

(h) Use of Computers:

The institute has patient registration computerised along with compilation of medical records and report generation of both OPD & IPD. However, the patient prescriptions of OPD & IPD were still manually done. The entire hospital information system was computerised i.e. records, Bed occupancy, referral, logistics etc. of the entire hospital on a daily basis. Hospital report generation and its transmission to state/district authorities were also sent on daily basis. The compilation of the all the data or daily statistics done computerized but transmitted manually not online. However, the need of computers, internet, LAN and software was sufficient for daily functioning but for upgradation of MRD to HIS a lot more were required according to the prescribed norms. ^[2,3,4,7,8,12]

CONCLUSION & RECOMMENDATIONS OF THE STUDY

The management and preservation of medical record in our country still presents a very unsatisfactory scenario. Prior to last four decades, the status of medical record administration and technology in developing countries was deplorable. The medical staff only vaguely appreciated the value of the health care record, record completion task and its maintenance remains a low priority. Within last few decades, significant progressive changes have occurred in the field of medical records in developing countries. Medical record departments in teaching and research hospital have planned and organized efficacious system for record completion and retention. But still as compared to international standards much remains to be done, specifically in the vast majority of medical care institutes where medical record services are sometimes considered as an administrative burden. The proper management and maintenance of these records in right quantity and quality is the quintessence of record management. With this effect following recommendations are being made to strengthen and improve the health record system in the hospital:

1. Minimum requirement of Medical Record Department/Unit to be fulfilled
2. Need for recruitment of qualified trained Medical Record Personnel
3. Formulation of appropriate and recommended guidelines and instructions with regard to establishment of MRD in hospital.
4. Capacity building and trained Manpower development
5. Standardization of Medical Records and their effective documentation
6. Need for development and implementation of a standard format for compilation of data
7. Need of Computerization and use of modern technology in collection, compilation and storage of medical record

8. Availability of appropriate and proper space for MRD.

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