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Impact of Medical Record Audit on Quality of Healthcare Delivery - A Corporate Hospital Experience

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ABSTRACT

With the introduction of managerial governance and risk management the need to be aware of individual performance has become very important. The publication of hospital outcome data is becoming progressively more popular as an answer to society's increasing consensus on general "right to know". Patients deserve and demand that we do the right things, for the right people, at the right time and that we do them right the first time. Outcome data are proved to be useful for research and monitoring trends within an organisation. An effective program of medical record audit will help to provide reassurance to doctors, their patients and managers that the best quality of service is being achieved, having regard to the resources available. This article deals with peer review mechanism, formalized into quality accreditation and the action taken to correct the deviation by peers. A proper structure & processes of Medical Records department in a medium-size private hospital has been highlighted. The checklists that were implemented to perform the audit & the mechanism with which reviews were done have been discussed in this article. A format for Corrective Action, Preventive Action form has been given, which can be tailor-made to respective organisations, need-based. This can be used to encourage quality improvement.

Keywords: Medical Record Keeping, Audit Committee, Checklist for Audit program, CAPA Form.

INTRODUCTION

A Medical Record Audit is a type of quality assurance task which involves formal reviews and assessments of medical records to identify where a medical organization stands in relation to compliance and standards. A medical record audit was not really a big deal several years back. Clinical documentation was originally meant for providers or physicians to access important patient details to identify medical solutions. With the minimal possibility for medical records to serve as legal records, medical record audit requirements did not play the crucial roles back then. Insurance companies did not require medical institutions to present documents to support the claims and charges being reported in accordance to the services delivered, as physicians had taken care of records.(Donaldson LJ and Gray JA M) [1]

But times have changed. The standards for medical recording and reporting have been continuously revised and have become specific enough to jeopardize daily operations if physicians do not observe compliance. Hospitals are now required to submit bills based on the quality of documentation that they present. [2]

Why is medical record audit important? This can be answered by simply knowing the role of medical records in medical reporting and billing. Every patient encounter involves medical information which is then placed into medical records. These records serve as legal documents which insurance carriers require to support the level of solutions billed to them. Also, the medical records will serve as valuable evidences against malpractice or insurance fraud. [3]

A well planned evaluation of medical records and the related clinical documentation practices allows hospitals and physicians have an accurate view of their current standings with regards to accuracy and compliance for medical record keeping. The law requires that all actions related to medical services be recorded completely and accurately. A record should be generated whenever a health care service is involved and this includes all tests, diagnosis, treatments, and nursing care. While accurate clinical documentation is beneficial, failure to meet the legal requirements for medical records may lead to different types of risks. As these records affect the lives of individuals, each detail indicated in a certain health document must be based on facts and professional actions. [3]

There are two ways by which Medical Record Audit can be done, one in terms of people performing audit and the other in terms of action taken: [4]

Internal and External Audit: Audit may be internal where the practitioner reviews his/her own work or external where the review of work is by an outside body separated by distance, experience and values. It's still in a nascent stage in India. A hospital or medical center can enjoy unbiased evaluations through a reliable provider that can do the tasks the right way. A provider of medical record audit will fill in the gaps of home grown auditing techniques.

Formal and Informal Audit: Formal audit is often published. Informal audit may involve regular meetings to present and discuss selected cases. However where treatment involves a multidisciplinary team, technique is required to audit the performance of the whole team. Audit should be presented to and by all parties involved in multidisciplinary team. Informal Audit is more commonly practiced in India.

With the amount of information coming in daily, physicians may overlook some important details and this often leads to medical failures or down coded claims for reimbursements. The deficiencies of medical records not only affect the patients but the stability of the medical care provider. A regularly conducted medical record audit can make a difference. By monitoring what works and what fails in clinical documentation or the resulting medical records, a hospital can avoid a wide variety of risks and legal issues. Medical records will be ready for any change that may be implemented for coding or clinical documentation standards. More importantly, records can serve their purposes well and that is to facilitate the delivery of care while supporting the stability of a provider. Hence, our experience with medical records has been initiated to achieve the following aim.

Aim & Objectives: The aim was to analyze the records whether the patient care being given is as per the acceptable (by all stakeholders of health care delivery) clinical standard/protocols. It was a purely Internal

and Informal Audit at this hospital. To achieve the goal, the following Objectives were used:

1. Identifying members and formation of a Committee.
2. Process for Selection and review of medical records by the Audit Committee.
3. To identify the gaps with respect to Standard protocols laid by Specialists.
4. To suggest the corrective measures and preventive measures, in case of lacunae.

MATERIALS &METHODS

1. Preparation of the Information Management System Manual of Medical Records Department: Information Management System Manual was prepared by the team of Hospital Administrator, Medical Record Officer, Senior Consultant Physician, and Nursing Director. The manual consisted below scope of Audit.
2. For Medical Records Audit Program: A Committee was formed 2 months ahead of the initiation of audit. It was a retrospective study.
    - Sample Collection Method: Retrieval of files for audit: The audit included 10% of medical files of the total Discharges and Deaths in a month. These records included were of 6 months (January to June for June session &July to December for December session) for the year 2012.
    - The sample collection method utilized for the study was Systematic Random sampling. The sample size was 240 files per session.
    - Data for the audit was collected by primary data collection method done by reviewers of Committee - for their completeness, correctness and whether they are as per the prescribed format or not.
3. Preparation of Check list for Comparison: A Checklist was prepared and the Audit members were asked to Note as 'Yes' for compliance and 'No' for Non-compliance.
4. Introduction of CAPA (Corrective Action and Preventive Action Form) for Correction of Non-conformities in the evaluation of care.

The corporate hospital, operated as a partnership firm, has 150 beds with gamut of specialties like Urology-Nephrology, Cardiology-Cardiothoracic Surgery, General Medicine, General Surgery, Gynaecology & Obstetrics, and Pediatrics. The average daily number of out-patient attendance was 100 in number & about 20 – 25 admissions and discharges used to take place during the months of study. All major surgeries used to be done, including transplantation. The Surgical specialties had more admissions. As part of the initiation of the program, the Audit has been subdivided into structure, process and outcome. Structure involves the use of resources, process involves the treatment procedure and outcome is concerned with desired results versus that actually occurring. Evaluation was done on the quality of services (required for administrative inputs) being provided and the suggesting corrective actions to be taken. When deciding who to involve, it was considered staff who are involved in the delivery of care and who are on permanent payrolls of the hospital. The other Consultants were invited for the monthly

audit meets. There was 50% of attendance in the initial two audits.

All the Committee members were trained for a period of 2 months with an hourly session per week. In the first month they were trained on the processes & Medical Record Officer was particularly trained in the sample picking of the records, using various Indexes (Disease, Physician etc.) of the record system. In the second month, the training sessions were conducted on picking up the type of diseases or cases for the audit. The Duty Medical Officers who are on the permanent pay rolls of the hospital had actively participated in understanding the treatment protocols for various diseases prepared prior by the Specialist Consultants.

Structure of the Medical Audit Committee comprised of

1. Medical Director – Chairman of the Committee.
2. Senior Consultant from each Specialty (8 in number).
3. 2 Senior Duty Medical Officers.
4. Nursing Director.
5. Medical Records Technician - Member Secretary of the committee

Process

1. Periodicity of the meeting –Twice in a year was done.
2. Duration of the meeting – Precisely, half a day.
3. The dates/timings were fixed so as to facilitate maximum attendance of all clinical staff of the hospital – Last working day of month / Last Friday / Saturday of the month.
4. Medical Records Technician has to ensure that records/data are available to the members of the committee 2 weeks prior to the above day, for data review.
5. The medical records of previous month will be reviewed at once.

Selection of the Study Topics

- Depending on patient load - Every 5^{th} case or record can be picked up, if discharges less than 10 a day in a month or 10^{th} case in case of more than and equal to 20 per day, on an average in a month, can be picked. If the record selected is not available (for example, because the patient has been readmitted), the next record on the list should be selected. [5] As the current hospital had 400 admissions/discharges per month on an average, every 10^{th} case were picked for Auditing. We had a sample size of 240 files per audit.
- Specific Disease / Specific Procedure cases can be taken into review. Specific Physician / Surgeon cases can also be considered, alternatively.
- All Deaths cases were included.

Limitations of study:

In-Patient records could only be evaluated as the Medical Records Department did not have possession of the Out patient records.

1. Only few Specialists were under payrolls of the hospital, most of the Consultants were working on Pay-for-Service basis.
2. The Audit team performs both Medical Records Audit & Clinical Audit, due to human resource constraint for audit members in the hospital. This would later be changed.

Comparison of data in the patient's charts with standard criteria was done. The criteria in the form of checklist (Table 1) was attached to each Medical record and handed over to the Committee members, till they get accustomed to the audit. The members are expected to improvise on this checklist as and when required.

Table 1: Checklist for medical audit program.

1	Are the records complete? (as per the Standard Content Check List for each file) Example given as Table 2.	Deficiencies to be noted by Audit members. (Later compiled by MRD Technician as per excel sheet shown as Table 3)
2	Case History Taking(In Emergency / OPD / Wards)	Was it done within 12 hours of admission, Written legibly, Signed (with full name) by treating Doctor.
3	Nutritional Assessment	Was it done within 6 hours of admission
4	Diagnosis – Provisional / Final	Was the Diagnosis supported by findings?
5	Were all investigations justified?	Did the HPE report confirm the pre-operative diagnosis?
6	Was the treatment given as per the accepted protocols?	Eg. GCS less than 9 – Ventilator support given, CPR done before 3 min of stoppage of heart beat. (Hospital clinical consultants develop the clinical criteria)
7	Was the case within competence of treating doctor?	Identify instances of Malpractice or Negligence, if any?
8	Consultations / Referrals done	Were they indicated? Reason?
9	Results of Treatment	Discharged with Improved Health Status / Health Status did not improve - referred to other hospital / LAMA / Deaths
10	Was the length of stay within normal range?	Depends on Long stay/ short stay Cases, Hot /Cold Cases (Hospital Specialists will develop protocol)
11	Did the final bill overshoot the initial estimate?	What were the reasons?

This format was circulated to all Department Heads, a month ahead of audit, i.e. in February 2012, to be circulated amongst staff in their departments, Wards and Nursing Stations, across the hospital. The Resident Doctors or Duty Medical Officers under each Department were held responsible for the arrangement of the sheets in the file.

RESULTS

Weaknesses in medical records include mainly issues on Accuracy, Completeness, Clarity, Compliance, and Accessibility. As part of Medical Record Audit, the auditors observed that the medical records were lacking mainly in two aspects as following:

1. Quality of the records, and 2. Documentation.

Quality of Records: Forms inside the file were torn or cut, Condition of X-Rays was Wet, Image not visible, stuck to other documents.

Documentation:

A. Missing Documents: The files were found short of important documents in the following order of deficiency:

1. OPD Records.
2. Investigations.
3. Informed Consent before Surgery.
4. General Consent at the time of admission.
5. Surgeon's Notes.
6. Preoperative Site verification forms.
7. Anesthesia Notes.
8. Miscellaneous.

Documents with Incomplete information: The documentation in most of the medical files was incomplete in the following aspects:

1. Initial Assessment Form – 9 records.
2. Doctor's Progress notes – 12 records.
3. Signature of Treating Doctor was absent – Admission Notes - 1 record.
4. Investigations – 4 records.

Analysis of the records was done using Checklists given to the members along with each patient file. The information was transferred into an Excel sheet, as in Table 2.

Table - 2: Analysis of Medical records for june &dec' 2012:

S.No.	DOCUMENTS	JUNE				DECEMBER		
		C	NC	NCM		C	NC	NCM
1	Initial assessment form	160	72	8		200	32	8
2	General Consent for admission	136	72	32		196	44	-
3	OPD Record	112	64	64		192	32	16
4	Case Paper / Admission Notes	224	8	8		232	-	8
5	Doctor's Progress Notes	120	96	24		162	70	8
6	Informed Consent*	124	46	20		180	16	6
7	Pre-Operative Site verification Checklist*	152	34	4		152	48	2
8	Pre-Anaesthesia form*	164	16	8		178	24	-
9	Anaesthesia Consent form*	142	36	12		180	22	-
10	Surgeon's notes*	136	31	23		180	16	6
11	Anaesthesia notes*	142	36	12		180	22	-
12	Nurses notes	200	24	8		216	24	-
13	Patient Referral /Transfer Request form**	64	96	-		80	80	-
14	Investigation	176		64		200	16	8
15	Discharge Summary	192	48	-		216	16	8
16	Miscellaneous(X- Rays)	176	32	32		192	40	8

Note: C –Conformity (Documents present and complete); NC –Non-Conformity (Documents present, but incomplete); NCM - Documents missing. * These forms are NOT APPLICABLE for all cases; hence number will not match Sample size.
** Few cases did not require cross referrals.

The NC & NCM Category was identified based on the following criteria (shown in Table 3): If information should be present and form itself is not present, "0"was placed in the box for that file. If information is present, the quality was rated on the information with 3 = Superior, 2 = Satisfactory, and 1 = Unacceptable." NA" was used to score items that do not apply to a given chart (e.g., patient does not require Cross referrals).

Table - 3: Checklist for Analysis of Medical Records: [6]

File number	0	1	2	3
Pages have patient ID				
Contains socio-demographic and/or personal data				
Charts are assembled in a consistent manner internally				
Person providing care identified on each chart entry				
Entries are dated, legible				
There is a consistent, organized format for notes (i.e., Present & Past Medical History, Social History, Allergy, Family History)				
Lab and other tests ordered as appropriate				
Working diagnoses are consistent with findings				
Surgeon's Notes/Anaesthesia				
Patient Referral /Transfer Request form				
Informed consent noted for all procedures and appropriate prescriptions				
Discharge Summary (Follow-up Visit, Instructions etc.)				

DISCUSSION

When an audit group considers shortcomings in practice, it is important that the group members analyze carefully the potential contributing factors or causes of any shortcomings. Clinical documentation is one of the crucial areas where the maintenance, creation, and management of medical records are done. The committee in charge of medical records should coordinate with medical staff to avoid confusion and allow effective communication which eventually leads to faster identification of the right medical strategy. The consultants/physicians of the respective departments in this hospital were intimated about the lacunae in the records with the help of CAPA forms.

Capa Form (Corrective Action & Preventive Action Form): The CAPA Form must have the "Identified problem" with a description of the problem which is written and that is concise - but complete. The description must contain enough information

so that the specific problem can be easily understood. An example that was used is shown in Figure 1. It should contain chiefly two parts,

- "Evidence for the problem" - List the specific information, documents, or data available that demonstrates that the problem does exist. Evidence documents should be attached to the form. [7]
- Action Plan: Needed changes to documents, processes, procedures, or other system modifications should be described. Enough detail must be included so it is clearly understood what must be done and what the outcome of the changes should be. To be effective, all modifications and changes made must be communicated to all persons, departments, suppliers, etc. that were or will be affected. [7]

Figure 1. Corrective action and preventive action form:

Information about the Concern(People/System)
Employee name : Date:
Finding (use additional sheet if necessary):
Action taken (if any):
Employee's Signature: Date:
Section to be filled by Audit Committee:
Is this a Non-conformance? Why?
Root Cause of Non-Conformance:
Short Term Corrective Action (Use extra sheet and attach if needed):
Short Term Corrective Action Assigned to:Due Date:
Long Term Corrective Action (Preventive Action)(Use extra sheet and attach if needed):
Chairman (of Audit Committee) Signature with Name &Date:
Follow up by Managing Director Representative/Office:
Corrective or preventive action has been evaluated and determined to be effective. Method used to verify effectiveness may include:
□ Responsible person submitted acceptable evidence (see attached) □ Follow up audit □ Others, describe
Corrective action accepted:
Nonconformance Closed Date:
MD Representative Signature :

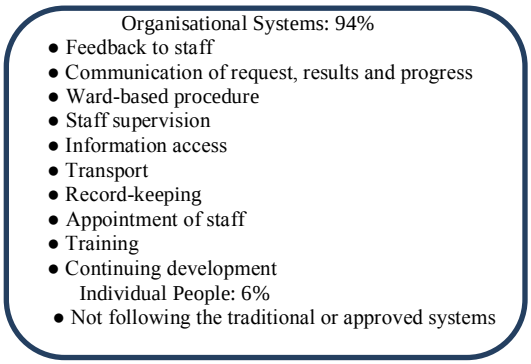
It may be valuable for groups to identify breakdowns in organizational systems rather than to attribute any failures to individual people. Using a rule of thumb developed by Deming for analysis of 'quality failures' in industry, it is much more likely that poor systems – not poorly performing people – are the root cause of problems which affect patient care.

If a well-planned medical record audit is conducted regularly, medical records can serve effectively as supporting documents for any lawsuit or legal claims. In the first place, ensuring the reliability of medical records through a medical record audit should help prevent medical malpractices.

The box in Figure 2, illustrates the range of systems in a healthcare organisation which can ultimately affect the quality of care delivered to members of the public, these issues were identified in various hospitals, under NHS and as per Summary of Selected Literature to Support Criteria for Clinical Audit. It is important for audit groups to appreciate that individual people usually can't 'buck' an existing system,

even if the system doesn't work to support the delivery of the best possible patient care.

Figure. 2: Systems vs people issues in an organisation: [8]



The data that was collected in Table 1 has been circulated to all the departments for their internal circulation in the staff and were intimated not to perform such mistakes, as hospital was gearing up external audits in future. On the basis of audit of records following outcomes resulted in the hospital:

1. High Quality Medical Records - Complete, Correct, Legible and as per prescribed format, Enhanced adherence of staff to treatment protocols, Increased Accountability of the staff toward patient satisfaction towards treatment, and ultimately improved quality of patient care.
2. Improvement of the Medical Records storage Area by:
    A. Increasing the size of the medical records room, by creating and providing additional area. Additional racks were provided with each rack having 750 files.
    B. The documents were protected from any damages such as fire, theft, rodents, dust etc.
    C. For Medico-legal files, covered racks with locks were provided.
3. The documents were completed according to the given formats, with no one writing on blank papers.
4. The documents were complete with respect to - patient socio-demographic data, admission and discharge dates, up to six discharge diagnoses (International Classification of Disease, 10th revision, Clinical Modification (ICD-10-CM)), up to six clinical procedures, modality of admission (emergency versus scheduled admission) and status at discharge (alive, dead or transferred to other hospital).
5. The arrangements of the documents in the record will be carried according to the provided lists. So that the retrieval becomes easier for research & educational purposes.
6. The CAPA forms also can be further subjected to analysis at later dates, but, currently it will be taken out of the scope of the study.
7. Consultants and Specialists became more involved in the process of quality assessment, rather than hostile to it.

CONCLUSION

Prioritizing medical records in terms of quality, compliance, and reliability can help a hospital become more flexible to whatever change or demands that may be implemented in the medical field. Quality problems can have a significant financial impact on an organisation. Professional self-regulation provides clinicians with the opportunity to help set standards. The utility of audit and feedback has been reviewed by the Cochrane Collaboration. [9] Lifelong learning will provide medical staff with the

opportunity to continuously update their skills and knowledge to offer the most modern, effective and high quality care to patients. In these times of expanded initiatives to improve payment modalities, evaluating medical records through a medical record audit is one of the best ways to identify problems so that the most appropriate solutions can be applied.

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