International Journal of Applied Research 2025; 11(8): 385-389

ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor (RJIF): 8.69
IJAR 2025; 11(8): 385-389
www.allresearchjournal.com
Received: 14-06-2025
Accepted: 20-07-2025

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Study to evaluate the completeness and accuracy of inpatient medical records in a tertiary care centre, northeast India

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Abstract
Medical records are critical for patient care, legal compliance, and quality assurance in healthcare. Despite existing guidelines like NABH and JCI, poor documentation remains a global challenge. This study aimed to assess the completeness and accuracy of inpatient medical records and identify documentation gaps. A retrospective and prospective observational audit was conducted in a NABH-accredited super-speciality hospital in Guwahati, Assam, during July 2025. A total of 100 inpatient files (50 active, 50 discharged) from all wards were evaluated using a NABH-based checklist covering patient history, doctor's orders, medication charts, and discharge summaries. Results showed 100% completeness in doctor's orders, pre-admission diagnosis, progress notes, and discharge summaries, with the highest sample share from the Cabin ward (51%). Minor lapses were observed in files of patients admitted after 5 PM, likely due to shift changes. Overall, documentation adhered to NABH standards with excellent compliance. Continuous training, regular audits, and technology adoption are recommended to sustain accuracy and improve documentation quality.

Keywords: Medical records, active audit, passive audit, death summary, hand written discharge, hospital audit, NABH, JCI

Introduction
It is a known fact that all kinds Medical record documents are important legal documents and are a professional requirement for any health professional. Whenever any person visits a hospital or any healthcare service provider, his/her interaction with the hospital and any use of hospital services is documented in the form of Medical records. There are even laws which make it compulsory for any healthcare service provider to maintain safely, accurately and securely all kinds of medical records as per the time duration in the guidelines. Despite the importance, there are limited research available which evaluates the quality level of medical records. There is no doubt of medical records being a great source of health related information. They play an essential role in maintaining all the types of medical records to ensure accurate patient data. They are inclusive of all the relevant facts, diagnostic and clinical findings, and observations related to patient's history including past and present illnesses, diagnostic tests, types of treatments, and final outcomes. Quality Medical record and its completeness can be taken as a key performance indicator which is related directly with healthcare services delivery [1].

Reviewing any medical record can be taken as the most applied technique for investigating any kind of adverse events in hospital. It has to be noted that the determination which was used while recording information will influence the correct documentation of adverse events. It is generally seen when the quality of information is poor in the medical records, it may indirectly point towards poor quality of care and is usually associated with high frequency of adverse events. Improvement in overall completeness of medical records is an important step which directly improves the quality of healthcare. From the legal aspect also The medical records are important legal documents. Good quality of medical records which are complete and accurate are essential both during the present and any future admission of the patient. It also acts as a legal document for protection of the patients as well as the hospitals from litigation [2]. In the healthcare services, commonly the documenting process is often seen as of lesser priority.

A busy physician may not be motivated enough to completely fill each and every document. A nurse involved in patient care may receive a call to provide assistance to another patient and might forget to record medication. The value of medical records finally judged on the basis of their completeness and accuracy [3].

One of the reasons behind incomplete records can be attributed to patients requiring urgent medical attention in the time of any emergency. Sometimes it was also observed that doctors occasionally look at the documentation process to be unrelated with patient care. World Health Organization (WHO) is also of the opinion that all kinds of medical records have to be clear, accurate, fully complete, totally confidential and patient-centred [4].

Meaningful clinical documentation is very essential for maintaining high quality standards of patient care. The General Medical Council in the United Kingdom also emphasizes "Good Medical Practice" which means that clinicians are required to maintain complete, clear and accurate patient records. Whenever documentation is incomplete, it can cause miscommunication between the healthcare providers which will lead to types medical errors, and finally can cause legal issues. So quality documentation essential for clinical matters as well as legal issues. Despite the advancements in various medical fields, still many healthcare providers have been found to be maintaining low-quality of documentation. These practices can be attributed to inadequate training, absence of standardized formats, and human reluctance to transform [5].

In countries like United states, many hospitals have their own Peer Review Organizations, these PRO are tasked with the maintenance of integrity of all Medicare plans. It is proven fact that efficient use of hospital resources will be beneficial in the financial aspect also [6].

Medical records, which are used by the healthcare providers act as the foundation for any type of programming and also helpful in decision making. If there is any incomplete registration of data in the medical records, it will cause duplication of the tests and resulting in further unwanted expenses for the patients [7].

Any kind of Medical records are important both from the angle of legal and professional requirement. Medical records are seen as major source of Patient related information, they have to be maintained in full accuracy. They include facts, diagnostic findings, and clinical observations about the patient's history which also includes past and present illnesses, clinical examinations, laboratory tests, treatments, and outcomes. Medical records whether in manual or in electronic format includes all the related information. Healthcare information is required for providing legal protection to healthcare providers or hospitals. Also medical records play big role in providing financial information and guiding treatment costs, healthcare services, and in clinical research. There are international laws which require many actions related to medical services which has to be recorded completely and accurately. In today's era of advanced information and modern technology, medical records can be treated as most important, they are the most factual and richest source of medical information. Few of the medical forms, which are treated as primary forms of patient's record and they carry substantial importance like discharge summary sheet, history sheet, daily progress note etc and if these are not present in the records or are incomplete, they can lead to incorrect diagnosis during the course patient's stay in hospital [8].

According to the requirement of Ethiopian Comprehensive Committee, the hospital have to maintain individual medical records in appropriate manner which will ensure accuracy and retrieval when required. It is seen that due to presence of concerns which involves health professionals there exists a worrying degree of full completeness in the medical records. The survey by Hospital Quality Improvement Team on completeness medical record also showed a low rate [9].

There is something called Clinical audit which is a process for quality improvement that aims to improve the patient care and treatment outcomes through a systematic review of patient care against set standards and the implementing any changes if needed [10].

Objectives

- To identify deficiencies in documentation practices.
- This study aims to determine whether the medical records are completed in a correct and timely manner.

Methodology

Design

The current was conducted in a tertiary care hospital with multiple units across North East India. We did an observational study during the study period. For the study in total 100 patient's files were audited. For conducting the study, we selected 50 active patient files which were currently undergoing treatment. And we selected 50 passive files for those patients who were already discharged. Only files of patients admitted during the month of July'25 were evaluated.

Sample Size

The sample size was 100 files of patients which were taken from MRD of GNRC, Dispur. The inclusion criteria were Patients admitted to both male and female wards during the month of July'25.

Sampling Technique

For selection of active files, census sampling was done. All patient files who were admitted in any of the wards in the last 24 hours were included in the active file audit. A systematic simple random sampling technique was used to select 50 patient files for passive audit with the only criteria that all the passive files belonged to patients admitted in July month.

Data Collection Technique and Analysis

Files of patients available in the record room of the hospital were accessed for data collection. The standard checklist as per NABH guidelines was used to access the completeness of the files from the perspective of Consultants and Resident doctor's responsibilities. Nursing sheets were not included in the study. Each parameter of the file was compared and marked as completed or not completed on the checklist. In the first cycle, 50 active files were compared by reviewing each file against the checklist, then audit of 50 passive files in the 2nd cycle. The data analysis was done using inpatient medical records of the month of july'25 and Microsoft Excel 2016.

Study tool: Eight types of parameters were studied:

- Admission sheet (patient name, age, sex, address)
- Medical history and examination sheet
- Doctor Orders sheet
- Progress note
- Vital signs sheet
- Operation sheet
- Clinical pharmaceutical sheet
- Discharge Summary

A two level scoring system was used for assessing the level of documentation completeness

1. **Complete documentation:** Score 1 is given
2. **Incomplete documentation:** Score 0 is given

Result: A total of 100 patient files were audited, equally divided into 50 active (currently receiving care) and 50 passive (discharged or not under care) files. The analysis was conducted to evaluate the completeness and quality of documentation inpatient medical records across various indicators.

Table 1: Classification among Active and Passive files

	Number of files	Percentage (%)	Details & Notes
Active Patients File	50	50%	Patients currently receiving care
Passive Patients File	50	50%	Patients discharged or not under care
Total Files	100	100%	Combined active and passive files

Classification based on Ward

During the study, majority of the files belonged to Cabin wards, with the highest patient file concentration (51%), followed by Semi ICU (23%), ICU (17%), and ICCU (9%). Distribution was consistent across both active and passive patients, indicating balanced sampling. More number of patients i.e 51% were admitted in cabin, which suggests that it may be the largest or most frequently used ward. Semi ICU 23% and ICU 17% follow, indicating that a significant portion of patients required elevated care. In cabin, there are more number of active patient's files (26) in comparison to passive patient's files (25) and in Semi ICU, there are more number of active patients' files 13 in comparison to passive patients' files 10 and in ICU, there are more number of passive files 10 in comparison to active patients' files 7 and in ICCU, there are more number of passive patients' files 5 in comparison to active patients' files.

Table 2: Ward wish classification of patients file

Ward	Active Patients File	Passive Patients File	Total File
Cabin	26	25	51
Semi ICU	13	10	23
ICU	7	10	17
ICCU	4	5	9
Total	50	50	100

Table 3: Completeness of History Sheet active and passive patients file

Indicator	Total Yes	Total No	Percentage (%)
History of present illness	100	0	100%
Past medical history	90	10	90%
Progress notes	100	0	100%
Physical Examination	100	0	100%
Admission diagnosis recorded	100	0	100%

The provided table shows that the documentation is highly complete across all history sheet indications. Progress notes, Physical Examination and Admission Diagnosis are recorded in full i.e. 100% of patients files. This suggests that while overall documentation practices are strong, some improvement can be done to ensure complete and consistent recording of patient history information.

Table 4: Classification based on Completeness of Doctors Orders in active and passive patients file

Indicator	Total Yes	Total No	Percentage (%)
Doctors orders present	100	0	100%
Date & time	90	10	90%
Sign	100	0	100%

The provided table shows a high level of completeness in the documentation of doctor's orders. All patient files i.e.100% consisted of the doctor's orders. However, during the study it was observed that 90% of the files had the date and time recorded and 100% included the doctor's signature. This shows that while the content of doctor's orders is being properly documented, there are scope of improvements in ensuring complete authentication and time-stamping.

Table 5: Completeness of Doctors Notes active and passive patients file

Indicator	Total Yes	Total No	Percentage (%)
Initial Assessment present	100	0	100%
Date & Time	95	5	95%
Sign	100	0	100%

The provided table shows that the initial assessment is documented in 100% of the doctors' notes. However, the date and time are recorded in only 95% of the patient files, and signatures are present in 100%. This shows us that while the clinical assessment is being consistently documented, there are some gaps in proper authentication and time-stamping. This may be attributed to the active files which got admitted after 5.30 pm once the resident leaves and completes the date and time next morning during round.

Table 6: Completeness of Medication Chart active and passive patients file

Indicator	Total Yes	Total No	Percentage (%)
1.Drug Name(capital Latter)	90	10	90%
2. Dosage	100	0	100%
3.Time	90	10	90%
4.Route	100	0	100%
5.Sign	100	12	100%

The provided table shows high completeness in the documentation of dosage and route of medication 100%. However, documentation of time i.e. 90% is comparatively

lower. The drug name is recorded in Capital letters in 90% of cases. Overall, most indicators meet the acceptable standards but, focused efforts are needed to improve time do.

Table 7: Completeness of Discharge Summary passive patients file

Indicator	Total Yes	Total No	Percentage (%)
Discharge summary complete	100	0	100%
Entries dates, timed, sign, name designation	100	0	100%
Final diagnosis	100	0	100%
Discharge date & time	100	0	100%

The provided table shows us that all discharge summaries for passive patient files are fully complete according to the indicators. Each item i.e. Discharge summary completeness, entry details (dates, time, sign, name), final diagnosis, and discharge date & time have full compliance.

Discussion

Quality and completeness of inpatient medical records are important in the provision of safe, efficient, and patient-focused care. Proper Medical records serve the purpose of complying with all the requisite legal guidelines as well as it serves as a quality parameter to check the complete ness, correctness and accuracy of the record keeping mechanism in the hospital.

During the study we observed that completeness of the history of illness, progress notes, physical examination, and admission diagnosis were fully documented (100%). But past history was missing in some cases. This reflects very high compliance with history-taking standards. It reflects resident doctors are taking proper history. By comparison, Mahmoud *et al*. in 2018 in Iraq found major deficiencies in history documentation, with completeness often falling below 80%, especially in past histories. Malipatil *et al*. in their study in 2024 in India reported high completeness (>95%) in physical examination and admission diagnosis, similar to our study, but noted occasional omissions in past histories. Arshad *et al*. in 2025 in study conducted in Pakistan showed almost similar findings to our study with 100% progress notes but ~85% for past history

While studying the compliance for initial assessment, 100% of files had an initial assessment, but date & time were missing in 10%. This suggests that while the clinical content is complete, authentication remains inconsistent. This can be attributed for all such current admissions which took place after 5-5.30 pm after any departments single resident had left the premise. This was observed specifically at maximum in those admissions where there is only single resident doctor and admission happened in late evening. As the rounds for active file audit was done in between 9-9.30am so few such files were missing the date and time which was completed during the same day morning rounds. This finding parallels Latha & Marshall (2022, India), who found date and time missing in 12-15% of notes. Similarly, Arshad *et al*. (2025, Pakistan) reported date and time documentation at 80-85%, with frequent lapses in authentication. Mahmoud *et al*. (2018, Iraq) found even worse results, with doctor's notes completeness falling below 75% in some hospitals.

During our study, dosage and route were always recorded (100%), while drug names were complete in 90%, time in 90%, and signatures in 100%. The main weakness is time of administration. Bayisa *et al*. (2024, Ethiopia) reported worse results, with drug names complete in only ~70%, and timing frequently omitted. Malipatil *et al*. (2024, India) found similar patterns, where dosage/route were complete but timing was missing in up to 20-25% of cases. Adeleke *et al*. (2012, Nigeria) highlighted major issues with missing times and signatures, contributing to dosing errors. This implies that residents and consultants should be regularly reminded the NABH guidelines of proper maintenance of SNDT in each and every notes given by them. Drug names were found missing in those files which were admitted in previous day late evening once the residents have left and medication was started on verbal directions.

While accessing the completeness of discharge summaries it was observed that 100% completeness across all indicators (diagnosis, date/time, names, designations, and signatures) were present. No deficiencies were observed, making discharge summaries a key strength of the hospital. Other studies report weaker outcomes. Saravi *et al*. (2016, Iran) found incomplete discharge summaries in up to 20% of files, often missing signatures. Singh *et al*. (2017, India) reported 85-90% completeness, with missing dates and final diagnoses in some files. Arshad *et al*. (2025, Pakistan) similarly reported <95% completeness, with frequent lapses in recording final diagnoses.

Conclusion

From the study it can be concluded that proper maintenance of medical records is a important quality parameter for any hospital. Not only it ensures efficiency but also it is important from the legal view point. It can be concluded that the inpatient medical record documentation is found to be compiling with the majority of the NABH standards, with excellent compliance in key areas. Each file examined contained documented doctor's orders, admission diagnosis, progress notes, and discharge summaries. This reflects strong attention to capturing key clinical data and maintaining continuity of care.

Having proper and complete documentation is an essential aspect for the healthcare provider and the consultants and junior doctors play a very important role in achieving 100% compliance with the guidelines given by NABH/JCI. It is the role of the management to impart regular trainings and awareness sessions with the consultants and junior doctors on the importance of correct and complete documentation of patient files. The management should take the help of HR department in regular organization of workshops on NABH standards. Adoption of regular audits, focused training, and technology solutions can assure complete, accurate, and compliant medical records.

References

1. Latha R, Marshall XP. Evaluation of the medical records documentation completeness. Int Res J Eng Technol. 2022 May;9(5):2848-50.
2. Tola K, Abebe H, Gebremariam Y, Jikamo B. Improving completeness of Inpatient Medical Records in Menelik II Referral Hospital, Addis Ababa, Ethiopia. Reach engaged audiences with Wiley Online Library. 2017 Apr 12;2017(1):1-5.
3. Adeleke IT, Adekanye OO, Onawola KA, Okuku AG, Adefemi SA, Erinle SA, *et al*. Data quality assessment in healthcare: a 365-day chart review of inpatients

health records at a Nigerian tertiary hospital. J Am Med Inform Assoc. 2012 Nov-Dec;19(6):1039-42.
4. Malipatil GN, Kalyanappagol V, Doddihal C. A Study on the Completeness Level of Inpatients Medical Record Documentation. Afr J Biol Sci. 2024 Aug 14;6(6):4072-13.
5. Arshad R, Rizwan U, Waheed A, Rafique A, Baqai HZ. Evaluating The Quality And Completeness Of Inpatient Medical Record Documentation: A Clinical Audit. J Med Health Sci Rev. 2025 Mar;2(1):3027-37.
6. Tavakoli N, Jahanbakhsh M, Akbari M, Baktashian M, Hasanzadeh A, Sadeghpour S. The study of inpatient medical records on hospital deductions: An interventional study. J Educ Health Promot. 2015 May 19:1-6.
7. Mohseni Saravi B, Asgari Z, Siamian H, Bagherian Farahabadi E, Heidari Gorji A, Motamed N, *et al*. Documentation of Medical Records in Hospitals of Mazandaran University of Medical Sciences in 2014: a Quantitative Study. J Acad Med Sci Bosnia Herzegovina. 2016 Jun 4:202-5.
8. Mahmoud RA, Hussein RA, Al-Hamadi NQ, Saihoud SA. Assessment of the documentation completeness level of the medical records in Basrah General Hospital. Med J Basrah Univ. 2018 Mar;36(2):51-9.
9. Bayisa G, Gonfaa L, Badasa K, Dugasa N. Improving medical record completeness at Wallaga University Referral Hospital: a multidimensional quality improvement project. BMJ Open Qual. 2024 Mar:1-6.
10. Singh MM, Patnaik S, Sridhar B. Medical Audit of Documentation of Inpatient Medical Record in a Multispecialty Hospital in India. Int J Res Found Hosp Healthc Adm. 2017 Jul-Dec:77-83.