International Journal of Dental Sciences
www.dentaljournal.in
E-ISSN: 2663-4708, P-ISSN: 2663-4694
Received: 06-01-2025; Accepted: 05-02-2025; Published: 20-02-2025
Volume 7, Issue 1, 2025, Page No. 49-52

Identification of incomplete medical record for outpatients service at dental hospital

Sheila Achlaqul Qarimah*, Heru Suswojo, Sholihul Absor
Faculty of Medicine, Master of Hospital Administration, Muhammadiyah University of Surabaya, Indonesia

Abstract
Health services rely on comprehensive medical record documentation. At the dental hospital, incomplete medical records remain prevalent. Statistics from 2024 indicate that medical records were, on average, nearly 100% incomplete—far below the target of 100% completeness. Accordingly, this study aims to determine the frequency of missing information in outpatient medical records and the factors contributing to this issue. Using a comprehensive sampling strategy based on direct observation and documentation studies, 2162 electronic medical records were analysed quantitatively through a cross-sectional approach in November 2024. The process involved data collection, revision, and result presentation. The findings revealed that identity elements were 99.85% complete, authentication was 57.21% complete, and significant reports were 53.21% complete. Consequently, the electronic medical records from the November 2024 outpatient installation at Dental Hospital were not fully comprehensive. Since medical record completeness reflects hospital performance in patient care, hospitals should emphasise assessment, socialisation, and monitoring to improve medical record accuracy as a key measure of healthcare quality.

Keywords: Electronic medical record, incomplete filling, quality of service, dental hospital

Introduction

To ensure that the public receives high-quality health care at affordable prices, hospitals must continually improve their practices in response to changes in health science, technological advances, and the socioeconomic status of the community. To maintain this high standard of care, hospitals must maintain accurate and complete medical records (Law No. 44, 2009).

In 2013, the World Health Organization (WHO) stated that high-quality health care often includes accurate medical records. Hospitals rely heavily on patient records as a source of data for internal and external reporting. Before a patient is allowed to leave the hospital, all required documents, including the patient's name, time, and signature of the health practitioner, must be filled out completely and legibly (Permenkes, 2022).

Medical records are files that contain information about the patient's identity, examination results, treatment, activities, and other services provided to the patient, according to the Regulation of the Minister of Health Number 24 of 2022. All medical records produced using a system specifically designed to handle medical records are electronic medical records (Permenkes, 2022).

The implementation of medical records is regulated in the Decree of the Minister of Health Number 129/Menkes/SK/II/2008 which is the Decree number of the Minister of Health concerning the Basic Criteria for Hospital Services. According to Ambarani and Yuliani (2024) [11], there are four things that need to be considered, namely: the time of providing outpatient medical records, the time of providing inpatient medical records, the completeness of medical action approvals, and the timeliness of medical record documentation.

The internal hospital system is mainly affected by inadequate medical record documentation, such as insufficiently detailed doctor's notes or examiner authentication problems. The efficiency of medical staff and the quality of care received by patients are directly affected by how well the medical record documents are filled out. To maintain the quality of health services, it is important to have complete medical record documentation. (Yulani and Ambarani, 2024) [11].

Implementing high-quality medical records can improve the quality of hospital services. The accuracy of medical records is one sign of hospital quality, which is directly proportional to the accuracy of patient medical records (Prima et al., 2024).

Cases where patient medical records are missing or incomplete can be used to measure the quality of hospital services. One aspect of medical record activities is the analysis of incomplete data. The main objective is to determine whether the medical records are complete and correct according to the established criteria (Hidayati & Dewi, 2019).

The quality of hospital services can be seen by looking at incomplete patient medical records. The quality of service is said to be good if the incompleteness rate in a hospital is low. The incompleteness rate can be seen by quantitative analysis. By using quantitative analysis, one can find the level of incompleteness. According to Susanto and Sugiarto (2017) [6], quantitative analysis involves reviewing or examining certain parts of the medical record to identify problems related to certain documentation. According to Eriko and Widjaya (2018), there are four parts in quantitative analysis, namely identification review, authentication review, review of main reports, and review of accurate documentation. When a hospital has a low level of incompleteness, it means that they provide high quality of service. The first dental and oral hospital in Kediri City, Dental Hospital, is located on Jalan K.H Wachid Hasyim No.65. RME has been used in data collection procedures at Dental Hospital for one year. Based on the quality indicator achievement data, the incompleteness of outpatient medical records at Dental Hospital in the 1st to 3rd trimester of 2024 showed an average incompleteness of 99%. This means that almost all patient medical records are not recorded completely according to standards, so they are still far from the incompleteness target of 0%. This achievement indicates the need for efforts to improve filling in and recording patient medical records more accurately and consistently.

Materials and Methods

This study explains the phenomenon studied through the application of quantitative analysis tools. It examines the relationship between independent and dependent variables at a certain time using a cross-sectional technique. The location of the study was the Medical Records Unit of IIK Bhakti WIyata Kediri Dental Hospital. Medical record data was used to conduct this study in November 2024.

All 2162 medical record files related to outpatient electronic medical records from November 2024 were the population used. This study used a comprehensive sampling strategy, which involved selecting samples from the entire population.

Researchers at Dental Hospital collected data by studying the medical records of outpatients and seeing the research objects themselves. Data analysis techniques include collecting, editing, and presenting. The first technique involves collecting medical record documents, especially from the outpatient department, to check their completeness and accuracy. The second technique involves checking the completeness of medical record documents. Finally, data presentation involves processing the data that has been studied so that it is easy for readers to understand.

Table 1: Conceptual Table of Study

Input	Process	Output	Outcome
Electronic Medical Record Document for Outpatients at IIK Bhakti WIyata Kediri Dental Hospital	1. Identification Review 2. Critical Report Review 3. Authentication Review	Analysis of Incomplete Inpatient Medical Record Documents	The biggest incompleteness in the aspects of identification, important reports, and authentication

Results and Discussion

Health Information Technology System, an online program, is used by Dental Hospital for their electronic medical records. The findings are based on a statistical analysis of 2162 electronic medical records from outpatient care in November 2024. The provision of high-quality long-term health care depends on accurate and comprehensive medical records. When every column in a patient's medical record is filled in correctly and precisely, we say that the medical record is complete (Muhlizardy & Meisari, 2022) [9]. Three aspects of identity, authentication, and significant reports are referred to in the descriptive analysis and observation techniques used for data collection. The following are the results achieved:

Factors related to identification include gender, information about the patient, including name, medical record number, and date of birth.

Table 2: Review of Identification

No	Review of Identification	Complete		Incomplete	
		Number	Percentage	Number	Percentage
1	Patient’s Name	2162	100%	0	0%
2	Registration Number	2149	99,39%	13	0,6%
3	Place and date of birth	2162	100%	0	0%
4	Gender	2162	100%	0	0%
	Mean	2158	99,85%	3,25	0,15%

From Table 2 above, the study shows that the electronic medical record identification examination is very comprehensive. Gender, place, date of birth, and patient’s name are three of the four components that are completely filled in.

The only component that is incomplete is the medical record number (MR), with a completeness rate of 99.39% (2149 documents) and an incompleteness of 0.6% (13 documents). This shows that the identification aspect of computerized health records is complete, with a very high average completeness.

To ensure patient safety, healthcare providers must comply with several basic standards, one of which is the need for a complete medical record identity (Harsiwi and Insani, 2021) [13]. Personal information such as patient name, date of birth, age, gender, place of residence, and medical record number are inseparable parts of patient identity. Patients who have undergone different examinations and treatments from healthcare institutions can only prove their identity with clear and complete documentation (Wirajaya & Dewi, 2019) [12].

Authentication review, including the name and signature of the dentist and dental nurse, is the second part of the review of electronic outpatient medical record documents at IIK Bhakti Wiyata Kediri Dental Hospital.

The purpose of authentication is to verify the identity of the person authorized to change the patient's medical record, such as a dentist, doctor, or dental nurse. A unique and easily recognizable signature, stamp, or seal can authenticate medical records (Swari et al., 2019) [15]. For healthcare facilities, it is essential that patient medical records are filled with all the necessary authentication information completely; this requires teamwork between dentists, doctors, and other medical staff (Rizkika, 2020) [14].

Table 3: Review of Authentication

No	Review of Authentication	Complete		Incomplete	
		Number	Percentage	Number	Percentage
1	Dentist’s Name	1082	50,04%	1080	49,95%
2	Dentist’s Signature	1392	64,38%	770	35,61%
	Mean	1237	57,21%	925	42,78%

The study's results on the electronic medical record document authentication review revealed significant variations in completeness. For the dentist's name component, out of 2162 documents examined, 1082 (50.04%) were completely filled in, while 1080 (49.95%) were incomplete.

In the dentist's signature component, the level of completeness was higher than the dentist's name. Of the total documents, 1392 documents (64.38%) had a complete dentist's signature, while 770 documents (35.61%) were not equipped with a dentist's signature.

These results indicate that there are still obstacles to the completeness of electronic medical record document authentication, especially in the aspect of including the dentist's name, which almost half of the total documents were not filled in. However, the dentist's signature showed a better percentage of completeness, more than a third of documents still had not been signed.

Important reports must be filled in completely so that they contain crucial data for tracking the development of the patient's disease. The primary diagnosis, subjective and

physical examination results, actions taken, and the date of the examination are crucial information that must be included in the medical record. There is a high expectation that the report will contain accurate, comprehensive, and reliable information because it will detail the steps followed by the dental hygienist, physician, and nurse in providing patient care (Swari et al., 2019) [15]. To protect patients from potential harm, all required report components must be filled out completely (Wicaksono et al., 2022) [16].

Table 4: Review of Important Reports

No	Variable of Important Report	Complete		Incomplete	
		Number	Percentage	Number	Percentage
1	Date of Treatment	2162	100%	0	0%
2	History Taking	1381	63,87%	781	36,12%
3	Physical Examination	1079	49,90%	1083	50,09%
4	Diagnosis	1061	49,07%	1101	50,92%
5	Treatment Plan	69	3,19%	2093	96,80%
	Mean	1150,4	53,21%	1011,6	46,79%

Table 4 contains important information about the completeness of reporting in outpatient medical records. Based on the analysis of important reports found in electronic medical records, significant variations in completeness were found among its components. For the service date, perfect completeness was recorded, with 2162 documents (100%) filled in without any incomplete documents.

In the anamnesis component, the completeness level reached 1381 documents (63.87%), while 781 documents (36.12%) were incomplete. For physical examination, 1079 documents (49.90%) were complete, and 1083 documents (50.09%) were incomplete.

The diagnosis component showed a completeness rate that was almost balanced with incompleteness, where 1061 documents (49.07%) were completely filled in and 1101 documents (50.92%) were incomplete. The most striking thing is in the type of action component which has a very low level of completeness, only 69 documents (3.19%) were complete, while 2093 documents (96.80%) were incomplete.

All of this is done under the guise of quantitative analysis, namely the examination of certain parts of the medical record document in an effort to identify weaknesses in certain records. There are three parts to it: reviewing patient identity, verifying their identity, and reviewing important reports (Anggriyani & Wicaksono, 2020) [17].

Because medical records are usually the only records that can provide complete and detailed information about what the patient has been given, such as the patient's condition, medication administration, infusion, examinations performed, etc., incomplete medical record documents are a problem. Both internally and publicly, this gap will undoubtedly cause a big commotion (Wirajaya et.al, 2019) [12]. Hospital care is disrupted if patient records are lost or inaccurate, which can have serious consequences if the records are used in court (Hasibuan and Malau, 2019) [10].

Conclusion

The documentation in the electronic medical record related to the Dental Hospital outpatient installation in November 2024 is not yet completely complete. Several things, including patient identity data such as name, location and date of birth, and gender, have reached 100% completeness of the three components examined (identification, authentication, and important reports). Meanwhile, the date of service is the only important report item that is filled in completely. Incompleteness analysis is critical because it shows how well the hospital is performing in terms of patient care. The quality of service increases as the incompleteness of patient medical records decreases.

References

1. Asyfia A, Mahendika D, Setyowati M. Medical Record Digitization Policy: Overview of the Health Minister Regulation Number 24 of 2022. Cons Sanit J Heal Sci Policy,2023:1(2):54–61.
2. Saraswati PS, Andry A, Kusumapradja R. The Influence of Organizational Climate, Doctor Motivation, and Transformational Leadership Style on Completing Medical Records. Asian J Eng Soc Heal,2024:3(9):1947–55.
3. Permenkes. 'Permenkes No. 269/Menkes/Per/III/2008::Rekam Medis', 7. Available at: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjbwLn7haDsAhUTXisKHQ7DDg0QFjACegQIAhAC&url=http://www.apikes.com/files/permenkes-no-269-ta. 2022:
4. Halimatusaadah HI, Hidayati M. Analisis Kelengkapan Pengisian Rekam Medis Pasien Rj Poli Umum Guna Menunjang Mutu Rekam Medis. J-REMI J Rekam Med Dan Inf Kesehat,2022:3(2):159–68.
5. Hutauruk PM, Husna N. Analisa Ketidaklengkapan Catatan Medis (KLPCM) Rawat Inap Pasien Bedah Orthopedi di RSUD Sultan Sulaiman Serdang Bedagai Tahun 2018Analisa Ketidaklengkapan Catatan Medis (KLPCM) Rawat Inap Pasien Bedah Orthopedi di RSUD Sultan Sulaiman Serdang Bedagai. In: SINTAKS (Seminar Nasional Teknologi Informasi Komputer dan Sains 2019), 2019, 508–14.
6. Susanto ES. Manajemen Informasi Kesehatan IV Etika Profesi dan Hukum Kedehatan. Jakarta: Kemenkes RI, 2017.
7. Eriko S, Widjaja L. Tinjauan Kelengkapan Rekam Medis Secara Kuantitatif di Unit Ruang Inap Rumah Sakit Muhammadiyah Taman puring, 2016.
8. Sugiyono. Metode penelitian kuantitatif. 1st ed. Bandung: Alfabeta, 2018.
9. Muhlizardy, Meisari WA. Analisis Kelengkapan Berkas Rekam Medis Elektronik pada Pasien Covid-19 di Rumah Sakit. Jurnal Rekam Medik dan Manajemen Informasi Kesehatan,2022:1(1):7–11. https://doi.org/10.47134/rammik.v1i1.10
10. Hasibuan AS, Malau G. Ketidaklengkapan Dokumen Rekam Medis Rawat Inap Pasien Diabetes Mellitus di RSU Imelda Medan. Jurnal Ilmiah Perekam Dan Informasi Kesehatan Imelda, 2019, 675.
11. Ambarani, Putri, Yuliani Resta. Incomplete Analysis of Inpatient Medical Records at the Ibnu Sina Hospital, Gresik Regency: Analisis Ketidaklengkapan Rekam Medis Rawat Inap di Rumah Sakit Ibnu Sina Kabupaten Gresik, 2024. 10.21070/ups.4716.
12. Wirajaya, Made Karma Maha, Dewi, Ni Made Umi Kartika. "Analisis Ketidaklengkapan Rekam Medis Pasien Rawat Inap di Rumah Sakit Dharma Kerti Tabanan," Jurnal ARSI (Administrasi Rumah Sakit

Indonesia), 2019, 6(1). Article 2. DOI: 10.7454/arsi.v6i1.3553
13. T Harsiwi, N Insani, "Evaluasi Penerapan Identifikasi Pasien di Klinik Laras Hati Sewon," Jmiak, 2021, 4(1).
14. Rizkika MY. 'Analisis Kuantitatif Kelengkapan Dokumen Rekam Medis Pasien Rawat Inap Dengan Diagnosa Fracture Femur Di RSUD Dr. RM Djoelham Binjai', Jurnal Ilmiah Perekam dan Informasi Kesehatan Imelda,2020:5(1):62–71.
15. Swari SJ, et al. 'Analisis Kelengkapan Pengisian Berkas Rekam Medis Pasien RawatInap RSUP Dr. Kariadi Semarang', ARTERI : Jurnal Ilmu Kesehatan,2019:1(1):50–56. doi: 10.37148/arteri.v1i1.20.
16. Wicaksono J, Farlinda S, Purba TMP. Analisis Kelengkapan Pengisian Formulir Informed Consent Pada Pasien Rawat Inap Di RS Pusat Pertamina. Jurnal Rekam Medik & Manajemen Informasi Kesehatan,2022:1(1):56-63.
17. Femy Anggriyani, Triyo Wicaksono. "Analisis Kuantitatif Kelengkapan Berkas Rekam Medis Pasien Rawat Inap Di Rumah Sakit Universitas Muhammadiyah Malang, Jrmik Pdf.", 2020, 1(1).