

Inaccuracies in Paper-Based Medical Record Information: An Exploratory Qualitative Case Study at Putri Hijau Hospital

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ABSTRACT

Paper-based medical records are vulnerable to incomplete, delayed, and inconsistent information, which may hinder data use in care delivery. This study explored medical record information inaccuracies, perceived contributing factors, perceived impacts, and prevention efforts at Rumah Sakit Tk II 01.05.01 Putri Hijau Kesdam I/BB Medan, in 2018. An exploratory qualitative case study used in-depth interviews with four purposively selected informants: a specialist physician, an inpatient ward nurse, a medical records officer, and an inpatient ward general practitioner. Each informant participated in one interview session, totaling 211 minutes. Transcripts were analyzed thematically; analytical decisions were traceable through an audit trail, member checking, and comparison of cross-professional perspectives. Analysis generated 13 substantive codes grouped into four themes. Documentation supported routine care but was not consistently complete or timely. Inaccuracies were perceived to relate to documentation awareness, workflow, service workload, and record verification; they could potentially disrupt continuity of clinical information, administrative processes, data functions, and quality. Prevention requires standard operating procedures, standardized formats, checklists, evaluation, feedback, and cross-professional accountability. The findings offer lessons for improving paper-based documentation and electronic medical record governance during digital transformation, without estimating the prevalence of inaccuracies or overall hospital quality in the single institutional case examined here.

Keywords:

Information accuracy, medical records, paper-based records, case study.

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1. INTRODUCTION

Medical records contain information necessary for continuity of care, interprofessional communication, professional accountability, and effective data management. This document functions as a clinical record, legal evidence, and basis for communication during patient care. The quality of health services is supported by complete and accurate documentation of patient information, as well as administrative, management, and research activities. Documentation errors may reduce service quality and risk clinical decisions based on incomplete information. Data inaccuracies may also pose legal risks to professionals and institutions providing health services [1,2].

Documentation errors at the service level may include missing information, inaccurate data, or records that do not correspond to clinical conditions. These errors may disrupt patient care, data processing, report preparation, financial management, and hospital operational evaluations. Medical record accuracy may be used as an operational evaluation indicator reflecting the quality of hospital services [2,3]. Vulnerability to errors increases in paper-based medical record systems because information is recorded, completed, transferred, and used across professions [3,4]. Documentation processes are influenced by knowledge, diligence, discipline, workload, time, and verification processes in each service unit. High service activity increases workload pressure and reduces health workers' opportunities to document care promptly and accurately. Inconsistent completion of initial assessments, preparer identity, dates, times, or authentication may delay the availability of subsequent clinical information and increase the need for verification [2,3].

This study was conducted in 2018 at Rumah Sakit Tk II 01.05.01 Putri Hijau Kesdam I/BB Medan, a type B general hospital that was still using paper-based medical records for inpatient care at that time. Documentation in this case involved specialist physicians, inpatient ward nurses, medical record officers, and inpatient ward general practitioners. Medical record files were moved from inpatient care to the medical records unit before being checked and processed. Studies on record completeness describe the condition of documents but do not explain experiences, workflows, and cross-professional responsibilities. A qualitative case study was needed to understand the conditions of inaccuracy, perceived contributing factors, impacts, and prevention efforts of such errors.

Digital transformation in Indonesian hospitals does not eliminate the relevance of learning from paper-based medical-record systems. Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 establishes the direction for implementing Electronic Medical Records (EMRs) [1,5]. Information quality is not automatically guaranteed merely because data are digitized; EMR implementation must not transfer inaccuracies from paper to screens [3-7]. An EMR implementation study in Indonesia showed that the digital transition involves infrastructure readiness, digital skills, workflows, and documentation culture [5]. Historical findings on cross-professional responsibility, completeness, timeliness, verification, and audits remain relevant to EMR governance [1,3-5]. The contribution of this study lies in the documentation processes and data governance, not in describing hospital conditions after the study period.

This study used an exploratory qualitative case study design for one institutional case in 2018. This study explored the conditions of inaccuracies in medical record information, perceived contributing factors, perceived impacts on care, and prevention efforts. The focus of the study included incomplete initial assessments, absence of preparer identity and authentication, timeliness of documentation, delayed documentation, and concordance between records and clinical events. The findings were interpreted as informant perceptions within one institutional case, not as estimates of the prevalence of inaccuracies or measures of the hospital's quality. This study did not provide evidence of causal relationships with patient outcomes and did not assess overall hospital quality.

2. METHODS

2.1 Research design

This was an exploratory qualitative single-case study conducted at one institution, following the case study approach of Yin [8]. The case examined was the practice of medical record documentation in inpatient care settings. The study focused on the conditions of inaccuracies in medical record information, perceived contributing factors, perceived impacts, and prevention efforts in that institutional context.

2.2 Setting and sample

The study was conducted from March to August 2018 at Rumah Sakit Tk II 01.05.01 Putri Hijau Kesdam I/BB Medan, a type B general hospital that was still using paper-based medical records for inpatient care. Four informants were selected through purposive sampling from four roles directly involved in the paper-based medical record documentation workflow: a specialist physician, an inpatient ward nurse, a medical records officer, and an inpatient ward general practitioner. The inclusion criteria were as follows: professionals actively working at the hospital, directly involved in completing, clinically using, checking, or managing paper-based medical records, with at least two years of employment, able to explain documentation practices in their work units, and willing to provide informed consent. The exclusion criteria were professionals on extended leave, those not directly involved in inpatient documentation, and those unwilling to become informants. Potential informants were identified based on their role and involvement and contacted individually after unit heads facilitated the provision of study information. All candidates who met the criteria agreed to participate.

2.3 Data collection

Primary data were obtained through individual, semi-structured, in-depth interviews. The interview guide contained seven core questions on forms of inaccuracy, documentation conditions, perceived severity, involved parties, contributing factors, impacts, and prevention efforts. Probing questions were used to obtain examples, work sequences, and differences in experiences across professions and units.

Individual in-depth interviews were conducted by the principal investigator in Indonesian without the unit head present, with one session per informant. Interviews were recorded after consent and lasted a total of 211 minutes. P1, a specialist physician, was interviewed on July 24 in the physician consultation room for 58 minutes; P2, an inpatient ward nurse, on July 26 in the nursing discussion room for 54 minutes; P3, a medical records officer, on July 30 in the medical records unit workroom for 51 minutes; and P4, an inpatient ward general practitioner, on August 2 in the inpatient ward physician room for 48 minutes. Each recording was transcribed verbatim within 24 h of the interview. Field notes and reflective memos were promptly prepared to document the context and initial analytical impressions.

2.4 Data analysis

Data were analyzed thematically using Miles, Huberman, and Saldaña's interactive analysis model [9]. This model includes data reduction, display, conclusion drawing, and verification. During data reduction, the transcripts were read repeatedly, and relevant segments were coded inductively and deductively according to the four domains of the research questions. Codes were recorded in a codebook containing working definitions, code boundaries, supporting quotations and informant sources.

During data display, the codes were compared in a cross-informant matrix to identify convergence and variation. Information adequacy was monitored through code development during data collection, following Hennink and Kaiser [10]. The P4 interview was analyzed independently and then compared with the P1-P3 matrix to assess whether new substantive codes were present. The analysis generated 13 substantive codes grouped into four themes, while P4 generated

no new substantive codes. The code definitions and theme development were reviewed repeatedly during the analysis, and every analytical decision was documented in an audit trail. The coding and theme-development process followed the principles of thematic analysis described by Saunders et al. [11].

Table 1. Analysis development log during data collection

Interview	New substantive codes	Analytical decision
P1	Seven initial codes	Formed the initial framework: initial assessment, timeliness of documentation, preparer identity and authentication, documentation awareness, service risk, quality, and standard operating procedures (SOPs).
P2	Four new codes	Added workflow, service workload, delayed documentation, and use of checklists.
P3	Two new codes	Added record verification and concordance between documentation and clinical events.
P4	No new substantive codes	Confirmed the four themes and emphasized discipline, responsibility, quality, and accreditation.

2.5 Trustworthiness and rigor

Trustworthiness was maintained, following Noble and Smith [12], through source triangulation, member checking, an audit trail, quotation-code-theme traceability and contextual description. Source triangulation was performed by comparing the perspectives of P1-P3 and P4 within the same domains of inquiry; P4 was a source triangulation informant and remained included in the interview corpus. During member checking, a one-page summary of the main interview points and initial themes was provided to each informant no later than seven days after the interviews. Reporting followed the Consolidated Criteria for Reporting Qualitative Research and Standards for Reporting Qualitative Research, as summarized by Dossett et al. [13].

Table 2. Strategies for ensuring data trustworthiness and traceability

Aspect	Strategy	Implementation
Credibility	Source triangulation	Perspectives from P1-P4 were compared within the same domains of inquiry.
Credibility	Member checking	A one-page summary of the main interview points and initial themes was provided to each informant no later than seven days after the interview.
Dependability	Audit trail	The interview guide, recruitment log, recordings, transcripts, codebook, analytical notes, theme matrix, and analytical decisions were retained in sequence.
Confirmability	Traceability of analysis from interview quotations, codes, to themes	Each thematic claim was linked to quotations and their sources; analytical decisions could be traced through the codebook and matrix.
Transferability	Adequate presentation of the research context	The paper-based medical record system, study period, case boundaries, informant positions, and data sources were described in detail.

2.6 Ethical considerations

The study was conducted after administrative coordination with Instalasi Pendidikan (Instaldik) Rumah Sakit Tk II 01.05.01 Putri Hijau Kesdam I/BB Medan, based on a letter from the Direktorat Pascasarjana Universitas Sari Mutiara Indonesia No. 202/01/01/F/USM/III/2018. Before the interviews, each informant received an explanation of the study's purpose, benefits, procedures, and implications, and signed an informed consent form. Informant identities were replaced with codes P1-P4, and all data were kept confidential and used only for research purposes.

3. RESULTS AND DISCUSSION

3.1 Results

Case context and informant characteristics

The study was conducted in 2018 at Rumah Sakit Tk II 01.05.01 Putri Hijau Kesdam I/BB Medan, when inpatient care still used paper-based medical records. The files were used by specialist physicians, inpatient ward nurses, inpatient ward general practitioners, and medical records officers during care and then returned to the medical records unit for

checking and processing. Four informants were interviewed. P1, P2, and P3 were the main informants involved in the completion, clinical use, checking, and management of medical records. P4 was a source-triangulation informant who remained in the interview corpus and theme development to compare the P4 perspective with P1-P3. Age and length of employment are presented as ranges to protect identity confidentiality in small sample.

Table 3. Informant characteristics

Code	Role	Sex	Age	Length of employment	Analytical position
P1	Specialist physician	Male	40-49 years	15-19 years	Main informant
P2	Inpatient ward nurse	Female	30-39 years	5-9 years	Main informant
P3	Medical records officer	Female	30-39 years	10-14 years	Main informant
P4	Inpatient ward general practitioner	Male	30-39 years	5-9 years	Source-triangulation informant

Theme development, information adequacy, and member checking

The analysis generated 13 substantive codes grouped into four themes. The P4 interview generated no new substantive codes but strengthened the comparison of perspectives on discipline, responsibility, quality, and accreditation. After member checking, one wording revision was made to Theme 2 to clarify that delayed completion was a situational condition during busy care, not a characteristic of all inpatient ward nurses. Table 4 presents the four themes, 13 supporting substantive codes, and the information sources.

Table 4. Final themes and supporting substantive codes

Theme	Supporting substantive codes	Sources
Documentation was performed but was not consistently complete or timely	Initial assessment; timeliness of documentation; preparer identity and authentication; delayed documentation; concordance between documentation and clinical events.	P1, P2, P3, P4
Human factors and workflow contributed to inaccuracy	Documentation awareness; workflow; service workload; record verification.	P1, P2, P3, P4
Perceived inaccuracies could disrupt care and managerial functions	Service risk; quality.	P1, P2, P3, P4
Prevention required strengthened SOPs, standardization, feedback, and accountability	SOPs; use of checklists.	P1, P2, P3, P4

Theme 1 - Documentation was performed but was not consistently complete or timely

All informants explained that paper-based medical records continued to support the routine care. This operational function does not necessarily mean that all information is complete, timely, and consistent with clinical events. The reported inaccuracies included incomplete initial assessments, missing preparer identity and authentication, documentation that was not completed on time, and records created after care. These findings describe informants' perceptions of documentation practices, not the results of an audit of record completeness.

P1 - specialist physician: "During morning report, some initial assessment forms were still incomplete. If allergy history or the chief complaint has not been recorded from the outset, the next physician must verify it before continuing care."

P2 - inpatient ward nurse: "When services are busy, completion of some fields may be delayed. If they are completed after the patient is discharged, the exact time and clinical condition may not always be recalled accurately."

P3 - medical records officer: "A file that appears completed does not necessarily mean that all of its information is accurate. We still find missing dates or signatures, and some notes need to be matched again against the sequence of care."

P4 - inpatient ward general practitioner: "In general, medical record processing continues, but the completeness of information is not yet consistent across all sections of the document."

The four quotations demonstrate convergence: the perceived problem involved not only blank fields but also the timing and concordance of the information. P1 highlighted the availability of early clinical information. P2 emphasized the workflow during busy care, whereas P3 emphasized file verification. P4 emphasized the importance of complete information in medical record processing.

Theme 2 - Human factors and workflow contribute to inaccuracy

Informants did not regard inaccuracy as a problem for a single profession. This theme emerged from the intersection of understanding the functions of medical records, documentation awareness, discipline, diligence, service workload, available time, and verification processes. P2 specifically explained that documentation could be delayed when direct care was prioritized: Clarification during member checking confirmed that this condition was situational and did not apply to all the nursing staff.

P1 - specialist physician: "Some medical staff still regard diagnosis and treatment as the most important components. However, a good medical record also requires complete assessments, time entries, and authentication."

P2 - inpatient ward nurse: "Not only knowledge but also diligence and the work situation influence documentation. When many procedures are performed simultaneously, completion may be delayed if there is no clear reminder."

P3 - medical records officer: "The awareness of the person completing the record and diligence when checking files are very important. If a record is not adequately checked before it is returned, deficiencies become evident only during assembly."

P4 - inpatient ward general practitioner: "Discipline and a sense of responsibility need to be strengthened because medical records are part of care, not additional work after care has been completed."

P1 emphasized balance between clinical care and documentation. P2 explained the influence of the work situation on the delayed completion. P3 focused on checking before files were returned, whereas P4 emphasized discipline and responsibility. These variations show that human factors and workflows are perceived as interrelated in paper-based documentation.

Theme 3 - Perceived inaccuracies may disrupt care and managerial functions

Informants explained that incomplete or inaccurate information could disrupt continuity of care, the availability of clinical information, administrative processes, data functions, and quality assessments. This theme was interpreted as the perceived impacts or risks described by the informants. This study did not measure patient safety incident reports, claim denials, or hospital quality indicators. Therefore, the study findings do not state that these impacts occurred at Rumah Sakit Tk II 01.05.01 Putri Hijau Kesdam I/BB Medan hospital.

P1 - specialist physician: "When important information is not documented properly, the next health professional may lose context. In certain situations, this can increase the risk of misunderstanding the patient's needs."

P2 - inpatient ward nurse: "An incomplete file can make information difficult to find and make administrative processes take longer. The impact can be experienced by patients and by staff who need the information."

P3 - medical records officer: "Medical record quality is related to information needs for care providers, administration, management, and quality activities. If the data are incomplete, these functions cannot be optimally supported."

P4 - inpatient ward general practitioner: "Medical records are one component of service quality. Recurrent incompleteness can affect compliance evaluation and accreditation readiness."

P1 and P2 used more examples of risks in the care processes and information access. P3 and P4 emphasized data functions, quality, management and accreditation. These differences in emphasis broaden the understanding of the theme without removing the shared view that documentation has both clinical and administrative functions. All explanations in this theme are limited to informant perceptions within the case studied.

Theme 4 - Prevention requires strengthened SOPs, standardization, feedback, and accountability

All the informants proposed improvements that were not solely focused on sanctions. They considered that prevention should combine the availability of standard operating procedures (SOPs), communication, user-friendly formats, checklists, periodic evaluation, feedback, and professional accountability. These proposals indicate the need for simultaneous system support and individual behavioral changes. Each proposal is presented from the perspective of an informant on improvements in the context of paper-based documentation.

P1 - specialist physician: "SOPs for medical record completion need to be available at points of care, communicated again, and evaluated through morning reports or quality activities."

P2 - inpatient ward nurse: "A simple checklist can help remind staff of the parts that must be completed before a file is returned."

P3 - medical records officer: "Standardized formats and completeness-review forms will make checking easier. Feedback also needs to be provided to units, not only when a deficiency is found."

P4 - inpatient ward general practitioner: "Discipline, awareness, and responsibility must be strengthened. If deficiencies recur, there must be clear coaching and follow-up."

P1 emphasized communication of SOPs and clinical evaluation. P2 emphasized a tool at the point of completion, whereas P3 emphasized standardization and feedback from the medical records unit. P4 added coaching and follow-up for recurrent deficiencies in the program. This convergence points to an improvement package that combines process design, reminders, evaluation, feedback, and accountability.

Source triangulation and variation across informants

Source triangulation was conducted by comparing cross-professional perspectives within the same domains of inquiry. P1, P2, and P3 were compared with P4, who was a source triangulation informant and remained included in the interview corpus. This comparison was used to strengthen credibility through convergence and variations in views. Source triangulation was not used as a document audit but as a method to examine similarities and differences in perceptions within the interview corpus.

Table 5. Convergence and variation across informants

Theme	Convergence	Meaningful variation
Documentation conditions	All four informants noted that completeness and timeliness were not yet consistent.	P1: early clinical information; P2: delayed completion; P3: record verification; P4: data and reporting functions.
Contributing factors	Awareness, discipline, and diligence were considered important.	P2 emphasized the work situation and care workflow; P4 emphasized professional responsibility.
Perceived impacts	Inaccuracy could disrupt clinical and administrative functions.	P1-P2 described service risks; P3-P4 described quality, data, and accreditation.
Prevention	SOPs and compliance need to be strengthened.	P1: evaluation; P2: checklists; P3: formats and feedback; P4: coaching and follow-up.

3.2 Discussion

This study shows that inaccuracies in medical record information in a paper-based system within one institutional case are not merely a form completion problem. The four themes describe the interrelationships between the completeness and timeliness of documentation, working conditions, perceived risks, and the need to strengthen the system. The perspectives of the four informants positioned medical records as part of the care process, not as administrative work after care was completed. This interpretation is important because files move across professions and units before being checked and processed by the medical records unit.

Grouping 13 substantive codes into four themes showed that documentation problems are interrelated within one care workflow. The absence of new substantive codes from P4 did not remove this informant from the interview corpus; rather, it confirmed the role of P4 in comparing perspectives with the three main informants. Clarification after member checking ensured that delayed completion was not attributed to all inpatient ward nurses. The findings should be read as an in-depth explanation within one case, not as a measure of data saturation or a description of all the hospitals.

Theme 1 shows that initial assessment, timely documentation, authentication, delayed documentation, and concordance between records and clinical events are interrelated. Davis and Shepherd [2] placed completeness, timeliness, and data usability at the center of clinical documentation integrity for care, coding, and health information management. Ghalavand et al. [14] identified accuracy, completeness, and timeliness as the most frequently used dimensions of health information system data quality in their systematic review. Wurster et al. [3,4] showed that EMR implementation can change documentation completeness, although the results vary by information element and clinical department. Gurupur et al. [24] likewise identified incompleteness in EHRs as a process problem that requires explicit data quality governance. In this case, dates, times, and authentication should be understood as markers of the care process that enable information tracing and verification. The delayed completion described by the informants also indicates that completeness cannot be separated from when information is documented.

Theme 2 shows that inaccuracy was not attributed to a particular profession. Documentation awareness, workflow, service workload, and file verification were perceived as mutually influential. Murad et al. [15] and Moy et al. [16], in research conducted in EHR environments, described the documentation burden as a multidimensional construct involving time, workflow fragmentation, and usability; the qualitative study by Moy et al. also showed that workflow fragmentation can add to clinicians' documentation burden. Hossain et al. [5] demonstrated in their Indonesian EMR implementation study that documentation culture interacts with organizational readiness, human resources, and technology (T). These findings cannot be equated with those of paper-based systems, but they support the interpretation that individual factors and workflow design should be assessed together. P2's explanation of busy care remains understood as a situational condition, in accordance with clarification after member checking.

Theme 3 needs to be retained as the perceived impacts or risks described by informants, not as outcomes already demonstrated. Davis and Shepherd [2] considered documentation integrity to be an important component of patient safety, service quality, data use, and health information management. P1 and P2 emphasized the risks to continuity of care and information access, whereas P3 and P4 highlighted the data, administration, management, quality, and accreditation functions. These differences in emphasis reflect the respective positions of the informants in using and managing the files. The study did not measure patient safety incidents, care delays, claim denials, or hospital quality indicators; therefore, conclusions about the actual impacts at Rumah Sakit Tk II 01.05.01 Putri Hijau Kesdam I/BB Medan cannot be drawn from this study.

Theme 4 shows that prevention cannot rely solely on emphasizing individual obligations. Informants proposed the availability and communication of SOPs, user-friendly standardized formats, checklists, evaluations, and feedback. Bayisa et al. [17] reported improved medical record completeness at another hospital after combining format standardization, staff orientation, supportive supervision, and record audits. This evidence supports the use of complementary interventions rather than a single, standalone action. Sloss et al. [18], in their scoping review of efforts to reduce the documentation burden, identified workflow improvement, training, user-centered approaches, and combinations of interventions as strategies used across care contexts. In this case, a checklist can be placed before files are returned, whereas standardized formats can facilitate the completion and checking of every required element.

Feedback, coaching, and follow-up were important components of the prevention proposals made by the informants. Ivers et al. [19], in their Cochrane review, showed that audit and feedback can improve professional practice, although the magnitude of the effect varies and is generally small to moderate. Implementation should use clear indicators, actionable feedback, and improvement plans for relevant units. Periodic clinical evaluation, completeness checks by the medical records unit, and coaching for recurrent deficiencies can be incorporated into the same cycle of improvement. These recommendations are based on the findings and literature, not claims that all such measures have been implemented or proven effective at this hospital.

Cross-professional comparisons demonstrate convergence and variation that enrich the explanation of the case. All four informants stated that the completeness and timeliness of documentation were not yet consistent and that SOPs and compliance needed strengthening. The variations in focus remained meaningful: P1 highlighted early clinical information, P2 delayed completion during busy care periods, P3 file verification, and P4 data and reporting functions. The status of P4 as a source-triangulation informant did not exclude this informant from the data because the P4 interview remained included in the analysis during theme development. This comparison strengthens credibility through similarities and differences in perspectives but does not replace a document audit or independently prove inaccuracy in each file.

The relevance of this study in the era of electronic medical records lies in the lessons on documentation processes and data governance. Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 establishes the direction for electronic medical records in Indonesia [1]. Hossain et al. [5] showed that EMR implementation in Indonesia is influenced by documentation culture, organizational readiness, human resources, and technology. Fraser et al. [20] evaluated 50 health facilities and showed that completeness, data concordance, and timeliness still require periodic data quality assessment, training, and technical improvement. Olakotan et al. [6], Cahill et al. [7], and Corby et al. [25] demonstrated that system design, usability, alignment with workflow, and the use of copy tools influence documentation burden and the safety of clinical information. This study did not describe the status of electronic medical records or conditions at Rumah Sakit Tk II 01.05.01 Putri Hijau Kesdam I/BB Medan after 2018. Its contribution is to emphasize that digitization must build completeness, timeliness, authentication, verification, feedback, and accountability into workflows rather than merely moving forms from paper to screens.

Study limitations and strengths

This study has some limitations that should be considered when interpreting the findings. The case study was conducted at one hospital and involved four informants from different roles; therefore, the findings are not intended for statistical generalization to all service units or hospitals. Data were derived mainly from interviews and were susceptible to selective recall, personal judgment, and socially desirable responses. Data were collected in 2018 when medical records were paper-based, and the findings do not describe the status, quality, or success of EMR implementation after that period. The strength of this study lies in presenting cross-professional experiences within one paper-based medical record documentation workflow, supported by interview recordings, verbatim transcripts, interview logs, a codebook, memos, and a theme matrix as a data trail for analytical traceability. Informant quotations and cross-informant variations are presented to show the basis for theme development and comparison of cross-professional perspectives.

Implications and recommendations

The implications of this study include strengthening paper-based medical record documentation and EMR governance by incorporating data completeness, user authentication, time markers and accountability into workflows. Process improvements can be directed through SOPs, formats, and checklists that fit care workflows, as well as actionable evaluation and feedback. Coaching for recurrent deficiencies should be conducted across professions without assigning documentation problems to a single profession. In paper and digital formats, the required fields should be designed proportionately to support information quality without adding unnecessary documentation burden. These recommendations were derived from informants' views and are intended for comparable service contexts.

4. CONCLUSION

A 2018 qualitative case study at Rumah Sakit Tk II 01.05.01 Putri Hijau Kesdam I/BB Medan showed, based on the perspectives of four informants, that paper-based medical records continued to support care but were not consistently complete, timely, and concordant with clinical events. Inaccuracies were perceived to be related to documentation awareness, discipline, service workload, workflow, and file verification, and could potentially disrupt the continuity of clinical information, administrative and data functions, and quality. Prevention requires strengthened documentation governance, continuous evaluation and cross-professional accountability. These findings are not prevalence estimates or measures of hospital quality but offer lessons for improving paper-based documentation and EMR governance to ensure data completeness, authentication, timeliness, and information traceability.

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