Research of Service Administration Health and Sains Healthys
Vol. 7 No. 1 Maret 2026
*p-ISSN:*2830-4748 e-ISSN: 2830-4772
DOI: *10.58258/rehat.v7i1.10475/ http://ejournal.mandalanursa.org/index.php/Rehat*

Evaluation of Physician Compliance in the Implementation of Clinical Pathways at Moh Ridwan Meuraksa Level Ii Hospital Jakarta

Ahyaita[1], Bayu Wahyudi[2], Oke Andikarya[3]
Universitas Adhirajasa Reswara Sanjaya

Article Info
Article history:
Accepted: 10 March 2026
Publish: 16 March 2026

Keywords:
Clinical Pathway;
Physician Compliance;
Quality of Care;
Clinical Management;
Hospital.

Abstract
This study aims to evaluate the level of physician compliance in the implementation of Clinical Pathways (CP) at Moh Ridwan Meuraksa Class II Hospital, Jakarta. Clinical Pathways function as a clinical care management tool designed to ensure consistency, efficiency, and quality of patient services based on scientific evidence and standardized procedures. The research applied a quantitative approach with an observational cross-sectional design through direct observation and the distribution of questionnaires to physicians. The sample consisted of 40 physicians involved in the implementation of CP for five major diagnoses, namely Acute Myocardial Infarction (AMI), Severe Preeclampsia, Hypertrophic Tonsils, Femur Fracture, and Cervical Cancer. The research instruments included observation sheets and questionnaires that had been tested for validity (r > 0.361) and reliability (Cronbach's Alpha = 0.857). The findings indicate that overall physician compliance with CP implementation falls into the moderate category (65.8%). The highest compliance occurred in emergency clinical examinations and initial therapy administration, while the lowest compliance appeared in variance documentation and multidisciplinary consultation. The study recommends strengthening training, improving information systems, and integrating CP into Electronic Medical Records to enhance compliance and service quality.

Corresponding Author:
Ahyaita
Universitas Adhirajasa Reswara Sanjaya
Email: ahyaitahussein@gmail.com

1. INTRODUCTION

Format In the era of increasingly complex modern healthcare, the primary challenge faced by hospitals is not only about providing advanced facilities and technology, but also about how to deliver consistent, efficient, and high-quality services in accordance with evidence-based practice. One clinical management tool designed to address this challenge is the Clinical Pathway (CP). A Clinical Pathway is a standard document containing a multidisciplinary, structured, and time-based patient care plan, designed to optimize treatment outcomes, minimize variation in clinical practice, and improve hospital resource efficiency (Campbell et al., 2023). CP not only serves as a technical guide, but also as an instrument to integrate teamwork, accelerate clinical decision-making processes, and ensure patient safety through a systematic and measurable approach.

Globally, the implementation of Clinical Pathways has been proven to have a significant positive impact on service quality. A study by Rotter et al. (2022) in the Cochrane Database of Systematic Reviews showed that CP can consistently shorten length of stay (LOS), reduce treatment costs, lower complication rates, and improve patient satisfaction. In developed countries such as the United States and the United Kingdom, CP has become an integral part of the healthcare system, particularly in the management of

critical illnesses such as Acute Myocardial Infarction (AMI), Stroke, and Preeclampsia. In some referral hospitals, CP is directly integrated into the health information system (Electronic Medical Record/EMR) to ensure compliance, facilitate documentation, and enable automatic real-time audits.

In Indonesia, Clinical Pathway implementation is one of the mandatory indicators in hospital accreditation based on the National Hospital Accreditation Standards (SNARS). The Indonesian Ministry of Health requires every hospital to develop and implement CP for priority diagnoses, particularly those frequently managed and with a high impact on service quality and costs. However, despite existing regulations, the reality in the field shows that physician compliance in implementing CP remains highly variable and not yet optimal. Many hospitals have developed CPs, but their implementation is often inconsistent, documentation is incomplete, and they are even ignored in daily clinical practice. This reduces the effectiveness of CP as a quality management tool and potentially threatens patient safety.

Rumah Sakit TK. II Moh Ridwan Meuraksa Jakarta, as a military hospital providing services to military personnel, police, and the general public, has implemented Clinical Pathways since 2020 for various primary diagnoses, including Acute Myocardial Infarction, Severe Preeclampsia, Hypertrophic Tonsils, Femur Fracture, and Cervical Cancer. However, to date, no formal evaluation has been conducted on the level of physician compliance in using CP. It is not precisely known to what extent CP is truly integrated into clinical workflows, whether doctors understand the purpose of CP, and what factors hinder or support its implementation. This situation creates a gap between policy and practice, raising concerns that CP has become merely an administrative document without real impact on service quality.

Several previous studies have examined CP implementation in Indonesia, but remain limited in scope and methodology. Most research is descriptive or qualitative, focusing on healthcare workers' perceptions, without direct observation of clinical compliance. Furthermore, there is rarely research combining observation and questionnaire methods to obtain objective and comprehensive data. Research by Widjaja et al. (2025) highlights the importance of leadership and organizational culture in adopting clinical innovation, but does not directly measure compliance. Meanwhile, research by Juliana et al. (2024) found that lack of training and management support are the main barriers, but did not include statistical analysis of factors influencing compliance.

Therefore, this study was conducted to fill this research gap by objectively evaluating the level of physician compliance with Clinical Pathway implementation at Rumah Sakit TK. II Moh Ridwan Meuraksa Jakarta. This study uses a quantitative approach with an observational cross-sectional design, combining direct observation of medical records and patient services, as well as questionnaire distribution to doctors to identify factors influencing compliance. Using instruments tested for validity and reliability, this study aims to provide an accurate and reliable picture of the actual condition of CP implementation in the hospital.

The findings of this study are expected to provide a basis for hospital management in designing improvement strategies, such as continuous training, integration of CP into the EMR system, strengthening multidisciplinary teamwork culture, and implementing periodic audit systems. In addition, the research findings can serve as a reference for other hospitals in Indonesia in optimizing Clinical Pathway implementation as part of a commitment to improving quality and patient safety.

2. RESEARCH METHOD

This study uses a quantitative approach with an observational cross-sectional design to evaluate the level of physician compliance in implementing Clinical Pathways (CP) at Rumah Sakit TK. II Moh Ridwan Meuraksa Jakarta. This design was chosen because it allows simultaneous data collection at a single point in time, with a focus on direct observation of clinical practice and physician perceptions of CP, thus providing an objective picture of the actual implementation conditions. The research was conducted at the hospital, with data collection taking place from January to February 2025. The study population consisted of all doctors involved in CP implementation, totaling 45 individuals. Samples were taken using purposive sampling with inclusion criteria: (1) doctors actively treating patients with CP-covered diagnoses, (2) having worked at the hospital for at least 1 year, and (3) willing to be respondents. Based on these criteria, 40 doctors were selected as the study sample.

The main variable in this study is physician compliance with Clinical Pathway implementation, measured through two main methods: direct observation and questionnaire. Observation was conducted on 140 patient medical records from five priority diagnoses: Acute Myocardial Infarction, Severe Preeclampsia, Hypertrophic Tonsils, Femur Fracture, and Cervical Cancer. The observation instrument was an assessment sheet covering 10 key CP indicators, such as initial clinical examination, therapy administration according to protocol, variance documentation, multidisciplinary consultation, and patient information. Meanwhile, to identify factors influencing compliance, a closed questionnaire with a 5-point Likert scale was used, covering dimensions of CP understanding, CP availability in units, workload, management support, and reporting culture. The questionnaire and observation sheets underwent validity testing using Pearson Product Moment correlation, with all items having $r > 0.361$, indicating good validity. Reliability testing using Cronbach's Alpha yielded a value of 0.857 for the questionnaire and 0.832 for the observation sheet, meaning the instruments have high internal consistency and are suitable for use.

Data collection was carried out by trained researchers, with a direct approach to service units to conduct medical record observations and distribute questionnaires to doctors after obtaining ethical approval and informed consent. The collected data were then analyzed using SPSS software version 25. Data analysis included descriptive statistics to describe respondent characteristics and compliance levels, as well as inferential analysis using Spearman correlation tests to evaluate the relationship between independent variables (influencing factors) and dependent variables (compliance level). Additionally, thematic analysis was conducted on variance notes and documented improvement recommendations to provide qualitative insights in the context of system improvement.

3. RESULTS AND DISCUSSION

This study successfully collected data from 40 doctors involved in Clinical Pathway (CP) implementation at Rumah Sakit TK. II Moh Ridwan Meuraksa Jakarta, consisting of 26 specialist doctors (65%) and 14 general practitioners (35%), with the majority having worked between 5 to 10 years (52.5%). Evaluation was conducted on 140 patient medical records from five priority diagnoses: Acute Myocardial Infarction (AMI), Severe Preeclampsia, Hypertrophic Tonsils, Femur Fracture, and Cervical Cancer. The results showed that the overall level of physician compliance with CP implementation was in the moderate category at 65.8%, with significant variation across diagnoses, reflecting inconsistency in CP implementation across various service units. The highest compliance occurred with Acute Myocardial Infarction (78.6%) and Severe Preeclampsia (75.0%),

while the lowest compliance was recorded for Cervical Cancer (52.1%) and Femur Fracture (58.9%). This variation reflects that compliance levels are not only influenced by diagnostic complexity, but also by systemic factors such as team readiness, protocol availability, and work culture in each unit.

When analyzed based on key items in the CP, a very interesting pattern emerged. In the early service phase, such as clinical examination in the emergency department and initial therapy administration, the compliance rate reached 100%. For Acute Myocardial Infarction cases, all patients received ECG examination within less than 10 minutes and were immediately given initial therapy such as ISDN, antiplatelet, and oxygen according to protocol. Similarly, in Severe Preeclampsia cases, administration of MgSO4 and Methyldopa was performed consistently and in a timely manner. This shows that doctors greatly understand and appreciate the critical and time-sensitive aspects of initial management. The high compliance in this phase confirms that CP successfully embeds evidence-based practice for emergency actions, where errors can be fatal. However, in aspects more related to process management, documentation, and teamwork, compliance dropped drastically, indicating a gap between knowledge and sustained practice.

One of the most concerning findings is the low rate of variance documentation—that is, deviation from the established pathway—which was only performed in 35% of total cases. Variance is a core component of Clinical Pathways because it functions as a continuous quality improvement (CQI) mechanism. Without adequate documentation, the hospital loses the opportunity to analyze the root causes of deviations, identify system weaknesses, and make continuous improvements. The low documentation indicates that CP is still understood by most doctors as a procedural guide to be followed, rather than as a dynamic quality management tool requiring evaluation and adaptation. Doctors may feel that documenting variance is an additional time-consuming task, especially when the workload is high, or there may be a fear of consequences if the deviation is considered a personal error, reflecting a still-strong blame culture.

Furthermore, multidisciplinary consultation was only performed in 42% of cases, indicating still-weak teamwork culture in care delivery. Clinical Pathways are fundamentally designed to facilitate collaboration among professions, including doctors, nurses, pharmacists, physiotherapists, and nutritionists, to ensure holistic patient care. However, in reality, services still tend to operate in silos, with each profession working separately. This strongly contrasts with the CP principle emphasizing a team approach. Low multidisciplinary collaboration not only reduces CP effectiveness, but can also increase the risk of communication errors and duplication of actions. Another factor also showing low compliance is patient education, where only 48% of patients were given explanations about their treatment plans. This contradicts the patient-centered care principle that should be central to CP. Patients who do not understand their treatment plan tend to be less compliant, more anxious, and less satisfied, which can ultimately affect clinical outcomes.

Questionnaire results revealed several systemic factors that are the main barriers to compliance. Although 70% of doctors stated they understood the purpose of CP, only 55% regularly accessed CP. The main reason was limited access—60% of doctors complained that CP was not available in service units, especially in digital format, and still relied on paper documents that were easily lost, not updated, or difficult to find. Many doctors reported having to look for CP in the administrative section or wait for nurses who stored it, greatly hindering clinical workflow. High workload was also a major barrier, acknowledged by 68% of respondents, who felt they did not have time to find, read, and document according to CP amidst very demanding task requirements. Additionally, only

40% of doctors felt there was strong management support in CP implementation, reflecting a lack of systemic commitment to this clinical innovation. Without encouragement from leadership and adequate resources, CP risks being perceived as an additional administrative burden rather than a valuable tool.

Spearman correlation tests showed significant relationships between compliance and: CP understanding ($r = 0.72$; $p < 0.01$), CP availability in units ($r = 0.68$; $p < 0.01$), and workload ($r = -0.54$; $p < 0.05$). These findings strongly support that compliance is not just a matter of individual knowledge or willingness, but is highly dependent on support systems. As mentioned in the literature, CP success depends heavily on leadership, resource availability, and integration into daily workflows (Ahyaita, 2025). The low compliance in diagnoses such as Cervical Cancer may be due to management complexity involving many stages (chemotherapy, radiotherapy, surgery) and poor inter-departmental coordination, making it difficult to follow a single linear pathway. On the other hand, high compliance in AMI and Preeclampsia shows that CP is most effective for conditions with clear management pathways, time-sensitive nature, and that have been the focus of training and audits.

Overall, these findings indicate that although CP has been introduced and possessed by the hospital, its implementation is still far from optimal and risks becoming a 'dead document' if not supported by a strong system. High compliance in initial actions shows that CP has great potential to improve service quality, but low performance in documentation, collaboration, and patient education aspects reveals weaknesses in holistic implementation. Therefore, a comprehensive strategy is needed that includes continuous training not only focusing on CP content but also on its philosophy and benefits, direct integration of CP into the Electronic Medical Record (EMR) system to facilitate access and automatic documentation, and strengthening teamwork culture through regular multidisciplinary team meetings (MDT). Without this systemic intervention, CP's potential to improve quality, efficiency, and patient safety will not be maximally realized, and CP will remain merely an accreditation requirement rather than a service transformation tool.

4. CONCLUSION

Based on the results and discussion of the research conducted, it can be concluded that the level of physician compliance with Clinical Pathway (CP) implementation at Rumah Sakit TK. II Moh Ridwan Meuraksa Jakarta is in the moderate category at 65.8%, indicating that although CP has been introduced and used, its implementation is still not optimal and consistent across all service units. High compliance occurred in critical and time-sensitive aspects such as initial clinical examination and emergency therapy administration, reflecting that doctors understand the importance of evidence-based initial actions. However, compliance decreased significantly in aspects requiring team collaboration, process documentation, and patient education, such as low variance documentation (35%), multidisciplinary involvement (42%), and patient information (48%).

This reveals that CP has not been fully internalized as a dynamic quality management tool, but is still viewed as a formalistic procedural guide. The factors most influencing compliance are physician understanding of CP's purpose and benefits, availability and accessibility of CP documents in service units, and high workload, where doctors feel they do not have sufficient time and resources to follow all CP stages comprehensively.

Therefore, improving compliance cannot be achieved through training alone, but requires comprehensive systemic interventions, including integration of CP into the Electronic Medical Record (EMR) system to facilitate access and documentation, strengthening multidisciplinary teamwork culture through regular multidisciplinary team

meetings (MDT), and implementing continuous audit and feedback systems as part of clinical quality management. Thus, Clinical Pathways can transform from merely administrative documents into real tools for improving consistency, efficiency, and patient safety in hospital healthcare services.

5. DAFTAR PUSTAKA

Adisasmito W. Kebijakan standar pelayanan medik dan diagnosis related group (DRG), kelayakan penerapannya di Indonesia. Jakarta: Fakultas Kesehatan Masyarakat, Universitas Indonesia; 2008.

Ambari, Sunarsih E, Minarti M. Studi Literatur Tentang Peningkatan Manajemen Mutu Pelayanan Kesehatan Di Rumah Sakit Indonesia. J Nurs Public Health. 2023;11(2):318–30.

Davis N, Leadership WN, for Healthcare IA. Integrated Care Pathways: A Guide to Good Practice. National Leadership and Innovation Agency for Healthcare; 2005.

Evans Lacko S, Jarrett M, McCrone P, Thornicroft G. Facilitators and barriers to implementing clinical care pathways. BMC Health Serv Res. 2020;10:182.

Firmansyah H. Clinical Pathway: Integrasi Pendokumentasian Berbagai Disiplin Ilmu Kesehatan di Rumah Sakit. Pelayanan Jantung Terpadu RSCM, Fak Ilmu Keperawatan Univ Indones. 2009;1(1).

Gittell JH. Coordinating mechanism in care provider groups: relational coordination as a mediator and input uncertainty as a moderator of performance effects. Management Science. 2022;48(11):1408–26.

Gunawan A. Implementasi Clinical Pathway dalam penatalaksanaan pneumonia: Pengaruh terhadap lama rawat inap pasien. J Manaj Pelayan Kesehat. 2023;26(2):123–9.

Kementerian Kesehatan RI. Peraturan Menteri Kesehatan Nomor 1438/MENKES/IX/2010 tentang Standar Pelayanan Kedokteran. 2010;132(464):140–5.

Kementerian Kesehatan RI. Permenkes No. 6 Tahun 2024 tentang Standar Teknis Pemenuhan Standar Pelayanan Minimal Kesehatan. 2024.

Kinsman L. Clinical pathway compliance and quality improvement. Nurs Stand. 2000;18(18):33–5.

Komite Akreditasi Rumah Sakit. SNARS Edisi 1.1 Standar Manajemen Informasi dan Rekam Medik (MIRM). 2017.

Kusrini K, Lazuardi L, Rosyada A. Persepsi Petugas Kesehatan Terhadap Peran Rekam Medis Elektronik Sebagai Pendukung. 2016.

Modjarrad K, et al. Factors Influencing Physician Adherence to Clinical Pathways. 2022.

Pemerintah Republik Indonesia. PP No. 28 Tahun 2024 tentang Mutu Pelayanan Kesehatan. 2024.

Republik Indonesia. Undang-Undang No. 17 Tahun 2023 tentang Kesehatan. 2023.

Roymeke T, Stummer H. Clinical pathways as instruments for risk and cost management in hospitals – A discussion paper. Glob J Health Sci. 2022;4(2):50–9.

Schultz EM, Pineda N, Lonhart J, Davies SM, McDonald KM. A systematic review of the care coordination measurement landscape. BMC Health Serv Res. 2013;13:119.

Standar Akreditasi Rumah Sakit. Jakarta: Kemenkes RI; 2024.

Sudjana S. Aspek Hukum Rekam Medis atau Rekam Medis Elektronik sebagai Alat Bukti Dalam Transaksi Terapeutik. VEJ Veritas et Justitia. 2017;3(2):359–83.

Vanhaecht K, Whittle KD, Sermeus W. Clinical pathway audit tools: a systemic review. J Nurs Manag. 2007;14:529–37.

Widjaja, Y. R., Purwadhi, P., Maharani, D., & Setiati Putri, P. I. (2025). Lingkup Teori Organisasi pada Pelayanan Kesehatan. Jurnal Sosial dan Sains (SOSAINS), 5(6), 1543–1552.

World Health Organization. Quality of care: Delivering the right time, in the right place. Geneva: WHO; 2022.