

## THE IMPACT OF ADMINISTRATIVE CASE MANAGEMENT ON HOSPITAL OPERATIONAL EFFECTIVENESS: A QUALITATIVE CASE STUDY

Vivi Amastasya Sitohang<sup>1</sup>, Ermi Girsang<sup>2,3</sup>, Sri Lestari Ramadhani Nasution<sup>2,3</sup>

<sup>1</sup>Postgraduate Program in Public Health, Universitas Prima Indonesia, Medan, Indonesia

<sup>2,3</sup>Department of Public Health, Universitas Prima Indonesia, Medan, Indonesia

<sup>2,3</sup>COE for Degenerative Disorders and Integrated Health, Universitas Prima Indonesia, Medan, Indonesia

Email address: [srilestariramadhaninasution@unprimdn.ac.id](mailto:srilestariramadhaninasution@unprimdn.ac.id)

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### ABSTRACT

*Effective hospital care is determined not only by clinical factors but also by the efficiency of administrative processes that support the smooth flow of patient care. Administrative issues such as delays in the discharge process, incomplete medical records, and challenges with BPJS claims can impact the quality of care and the hospital's efficiency. This study aims to analyze the role of Case Managers in improving the effectiveness of hospital services from an administrative perspective at Murni Teguh Hospital in Medan. This study employs a qualitative method with a descriptive approach. Data collection was conducted through in-depth interviews, observations, and document analysis involving eight informants, comprising Case Managers, RMD Coordinators, and the Head of Medical Records. Data analysis was conducted through the stages of data reduction, data presentation, and drawing conclusions using triangulation techniques to ensure the validity of the findings. The results of the study indicate that Case Managers play a strategic role in controlling length of stay (LOS), coordinating with the attending physician (DPJP) and other healthcare personnel, ensuring the completeness of medical records, and facilitating the smooth processing of BPJS claims. In the administrative aspect, the Case Manager serves as a liaison between units to minimize barriers that arise in the service delivery process. Challenges faced include a high patient-to-staff ratio, time constraints, and interprofessional communication barriers. However, through effective communication, intensive coordination, and continuous monitoring, Case Managers contribute to expediting administrative processes, improving documentation completeness, and reducing the potential for pending or rejected claims. The conclusion of this study confirms that the role of the Case Manager contributes significantly to improving the effectiveness of hospital services from an administrative perspective. Optimizing the number of Case Managers and strengthening their functions is recommended as a strategy to improve the quality of hospital administrative management on an ongoing basis.*

**Keywords:** Case Manager, Service Effectiveness, Hospital Administration, Medical Records, BPJS Claims.

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### Introduction

In the contemporary healthcare landscape, hospital management globally is experiencing a paradigm shift that disrupts the integration of clinical excellence and administrative efficiency to support operational efficiency (Hariyadi & Aini,

2024). The complexity of modern healthcare systems across countries currently demands that tertiary hospitals consistently achieve operational efficiency and service quality to meet stakeholder expectations (Lin et al., 2022). Effective hospital management practices have been

shown to directly improve care quality, resource efficiency, and institutional financial stability (Zhu et al., 2021). Administrative decisions and practices have a profound impact on patient safety, satisfaction, and overall well-being within the healthcare ecosystem (Bhati et al., 2023). Conversely, poor administrative quality in tertiary care hospitals is often a major obstacle, leading to substandard performance and diminishing patient trust (Mumtaz et al., 2023). Therefore, implementing innovative solutions in administrative management is an urgent need to address future management challenges and prospects (Sokhan et al., 2024). Demonstrating an optimal balance between process efficiency and outcome effectiveness is the key to increasing institutional competitiveness in an increasingly competitive environment (Gong, 2024).

The implementation of case management has emerged as a crucial strategy for optimizing patient flow and improving operational efficiency in increasingly complex hospital environments (Harbi et al., 2024). As the primary coordinator, the Case Manager is responsible for integrating interdisciplinary services to ensure continuity of care from the hospital to the community (PO et al., 2023). This role is vital for prioritizing patients with complex discharge needs by

using early screening tools to minimize administrative barriers (Grafton & Brady, 2023). Case management interventions have proven effective in facilitating care transitions for vulnerable populations and patients with chronic conditions requiring intensive care coordination (Ponka et al., 2020). In addition to clinical coordination, Case Managers play a strategic role in balancing quality service delivery and cost control by efficiently managing logistics and medical supplies (Ying et al., 2020). The integration of advanced technology and artificial intelligence into case management practices further supports data-driven administrative decision-making in transforming healthcare in the 21st century (Varnosfaderani & Forouzanfar, 2024). Overall, the effectiveness of case managers in managing length of stay and discharge planning significantly determines the success of a hospital's clinical and administrative management system (Phua et al., 2020).

While numerous studies have explored the implementation of Lean Healthcare to minimize barriers to patient discharge and improve operational efficiency (Peimbert-garc et al., 2021), in-depth analysis of the case manager's role from a purely administrative perspective remains limited. Current literature focuses primarily on the use of analytics and nursing care management to address

clinical challenges in hospitals, often neglecting broader administrative integration (Moreno- et al., 2021). Often, administrative service waste, such as a lack of coordination between staff and process bottlenecks, is identified as a key obstacle. Still, proposed solutions tend to be methodologically general and fail to address the specifics of the case manager's functional role (Usman, 2020). Furthermore, there is an urgent need to clarify the added value that managers and administrators provide in navigating complex regulatory and insurance issues to avoid organizational value deficits (Issel, 2020). Other research suggests that failing to align administrative efficiency with service quality can exacerbate hospital financial challenges, particularly amid facility closures (Saghafian et al., 2022). While supply chain optimization and purchasing alliances have been discussed as ways to control operational costs (Burns & Briggs, 2018), the specific mechanisms by which case managers actively overcome bureaucratic barriers in medical records and claims remain underexplored. This gap underscores the importance of research that explicitly examines case managers' contributions to smooth administrative flows as a key determinant of organizational effectiveness in tertiary care hospitals (Nino et al., 2020).

The current research gap indicates that most studies on Case Managers continue to focus on clinical outcomes, such as reducing Length of Stay (LOS) or improving overall patient satisfaction. There is a lack of studies specifically examining the contribution of Case Managers to purely administrative effectiveness, such as accelerating claims processing and improving the accuracy of medical record documentation in large private hospitals in Indonesia. This situation presents a unique opportunity for this study to explore how Case Manager interventions can address the administrative inefficiencies that have long burdened hospital management.

This study aims to analyze the role of Case Managers in improving the effectiveness of administrative services at Murni Teguh Hospital in Medan, focusing on administrative coordination, documentation management, and facilitating the BPJS (Social Security Agency) claims process. Through an in-depth analysis of these roles, this study will provide practical contributions to hospital management by optimizing the role of Case Managers as spearheads of patient-centered service integration while maintaining the institution's administrative accountability.

## **Method**

**Study Design and Setting** This study employed a qualitative research design with

a descriptive-interpretive approach to investigate the administrative role of Case Managers in enhancing hospital service effectiveness. This design was specifically chosen to capture the nuanced coordination strategies and administrative challenges that are often not quantifiable through traditional survey methods. The research was conducted at Murni Teguh Memorial Hospital in Medan, a private Type B facility that serves as a tertiary referral center. Data were collected over three months from January to March 2025.

**Informants and Data Saturation:** A total of eight (8) informants were selected through a purposive sampling technique, targeting individuals who possess direct authority and comprehensive expertise in hospital administrative workflows. The informants included:

1. Five (5) active Case Managers (Patient Service Managers/PSMs) who coordinate across various inpatient floors;
2. One (1) Head of the Medical Records Department;
3. Two (2) representatives of hospital management (Medical Services Director and Finance Manager) to provide a strategic-managerial perspective on BPJS claims and operational policies.

The inclusion criteria required at least 1 year of professional experience in

their respective roles. To ensure the depth of the inquiry, data collection was concluded once thematic saturation was achieved—the point where subsequent interviews yielded no new information or additional codes related to the research objectives.

**Data Collection:** Data were gathered through a comprehensive multi-method approach to ensure robustness:

- **In-Depth Interviews:** Conducted using a semi-structured interview guide, focusing on administrative coordination, medical record accuracy, and strategies for accelerating BPJS claim verifications.
- **Direct Observation:** The researchers conducted non-participant observations of the Case Managers' daily routines, specifically focusing on the discharge-planning workflow and the verification of administrative documents in the wards.
- **Documentation Review:** An exhaustive examination of the Patient Service Manager (PSM) Standard Operating Procedures (SOPs), medical record completeness audits, and pending claim ratio reports from 2023–2024.

The primary research instrument was the researcher (human instrument),

supported by field notes and digital recording devices. The interview guide underwent expert validation to ensure content relevance and clarity.

**Data Analysis** Thematic analysis was conducted following the framework by Miles and Huberman (2014), involving three iterative stages:

1. **Data Reduction:** Coding and classifying raw interview data into specific themes (e.g., administrative bottlenecks, documentation accuracy, and claim strategies).
2. **Data Display:** Organizing categorized data into narrative matrices and flowcharts to visualize the interaction between Case Managers and administrative efficiency.
3. **Conclusion Drawing and Verification:** Interpreting the findings and re-verifying the results against the original data.

**Trustworthiness and Triangulation**  
To ensure the rigor and credibility of the findings, the study employed source triangulation (comparing narratives between Case Managers, medical records staff, and management) and methodological triangulation (cross-referencing interview data with objective hospital metrics such as pending claim reports). Furthermore, member checking was conducted by presenting interview summaries to the

informants for confirmation, thereby ensuring the accuracy of the researcher's interpretations.

**Ethical Considerations** This study was conducted in strict adherence to ethical principles. Ethical approval was obtained from the Health Research Ethics Committee. Informed consent was obtained in writing from all participants before data collection, emphasizing the principles of confidentiality and voluntary participation.

## **Results**

### **The Role of the Case Manager in Coordinating Patient Care Administration**

The study findings indicate that the *Case Manager* (MPP) serves as a communication hub linking clinical and administrative aspects. The MPP ensures that all support units are ready before the discharge process begins. Informant 1 (MPP) emphasized the importance of synchronizing medical instructions, while Informant 4 (MPP) highlighted their role in breaking the bureaucratic chain that prolongs patient wait times.

*“We ensure all doctors have conducted their rounds and issued discharge instructions early. We check the readiness of the pharmacy and cashier so patients don't pile up during discharge hours.” (P1)*  
*“Without centralized coordination, the discharge process is often hindered by the lack of readiness of documents in support*

*units. This is where we step in to pull all those processes together so they run simultaneously.” (P4)*

### **Implementation in Patient Documentation and Medical Record Management**

In medical record management, the MPP conducts *real-time* documentation compliance audits. Informant 3 (MPP) focuses on the physical completeness of files in the ward, while Informant 6 (Head of Medical Records) acknowledges that the presence of MPP significantly improves the quality of data entering their unit, reducing the frequency of files that must be returned due to incompleteness.

*“Our daily task is to review patient status in the ward. If there are missing signatures or supporting reports, we immediately remind the attending physician before the patient is discharged from the hospital.” (P3)*

*“The presence of MPP has been very helpful to us. The files sent to Medical Records are now much ‘cleaner’ and more accurate, so coding staff no longer face technical documentation issues.” (P6)*

### **Challenges and Strategies in Facilitating the BPJS Claims Process**

The claims process is often hindered by incomplete supporting documents and changes in insurer regulations. Informant 2 (MPP) explained the *early verification* strategy they employ, while Informant 7

(Casemix/Claims Department) described how collaboration with MPP successfully reduced the number of *pending* claims by aligning diagnosis codes and medical records.

*“We verify cards and referrals at the start of the treatment period. If there are insurer administrative issues, we resolve them immediately on the first day so they don’t become obstacles during the claims process later.” (P2)*

*“MPP is our partner in maintaining the hospital’s cash flow. When there are indications a claim will be rejected due to an insufficiently detailed medical summary, MPP immediately coordinates with the doctor for corrections on the spot.” (P7)*

### **Contributions to Improving Hospital Service Effectiveness**

Overall, the role of the MPP makes a tangible contribution to operational efficiency and patient satisfaction. Informant 5 (MPP) noted a reduction in administrative workload for ward nurses, and Informant 8 (Management) emphasized that, strategically, the MPP has become a driving force in optimizing the *Bed Occupancy Rate* (BOR) by accelerating the discharge process.

*“Since administrative coordination has been taken over by the MPP, ward nurses feel greatly assisted because they can now focus entirely on patient care.” (P5)*

*“From a management perspective, the administrative efficiency managed by the MPP has a direct impact on bed turnover speed and a reduction in financial risk due to unpaid claims.” (P8)*

## **Discussion**

### **The Case Manager as a Mechanism for Administrative Integration**

The finding that Case Managers (MPPs) function as “integrators” indicates a shift from a traditional hierarchical hospital organizational structure toward a more dynamic network coordination model. The phenomenon of “organizational silos” at Murni Teguh Hospital was successfully addressed not only through routine communication but also through the MPP's role as a boundary spanner, translating clinical needs into administrative language. The synchronization of patient discharge times between P1 and P4 demonstrates that the MPP is working to mitigate the information fragmentation that typically occurs between units. This success indicates that administrative integration is not simply a technical communication issue, but rather the result of a central actor with cross-functional authority to harmonize previously fragmented workflows.

This study's findings, which position Patient Care Managers (PCMs) as administrative integrators, reinforce global evidence that the role of health

administration is crucial in aligning patient care processes to improve healthcare facility efficiency (Awadh et al., 2024). The success of PCMs in breaking down organizational silos aligns with Sikka & Pratt, (2025) study, which emphasized that workflow optimization through a central facilitator role can significantly reduce internal inefficiencies in patient transition processes. Furthermore, this integrative role provides empirical support for (Hughes & Shaw, 2020) proposition that care integration is not a static intervention, but rather a series of adaptive practices aimed at improving service efficiency at the system level. The administrative synchronization implemented by PCMs also aligns with the integrated case management model developed by (Hudon et al., 2023) to address the complexities of service coordination between clinical and administrative units. From a theoretical perspective, this confirms the importance of organizational integration capabilities as a key prerequisite for achieving effective health outcomes in tertiary care institutions (Colla et al., 2020). Finally, the success of this implementation confirms that the leadership and competence of case managers are fundamental instruments in facilitating the integration of patient-centered services (Hudon, 2022).

The role of the Patient Care Manager (PSM) as an administrative

integrator provides significant empirical support for Relational Coordination Theory, which emphasizes that successful work coordination relies heavily on shared goals, shared knowledge, and mutual respect among practitioners (Bolton et al., 2021). The implementation of this role reflects a shift in institutional logic, where traditional hierarchies and organizational silos are broken down through a relational shift to achieve operational harmony in the healthcare sector (Vivier et al., 2024). These findings also align with the multilevel analytical framework of care coordination, where specific individual roles act as critical catalysts for service integration at the organizational and system levels (Khatri et al., 2023). Furthermore, integrating clinical and administrative staff through case management reinforces the principles of Value-Based Health Care (VBHC) by fostering high-quality interprofessional collaboration across the full care cycle (Staalduinen et al., 2023). The results of this study indicate that administrative coordination is a dynamic, integrated process capable of enhancing organizational resilience in responding to emergencies and operational complexity (Margherita et al., 2020).

### **Proactive Quality Assurance in Medical Documentation**

Real-time medical record audits by the MPP represent a transformation from

reactive quality control (after a patient is discharged) to preventive quality control (during treatment). The synthesis of these findings suggests that the presence of the MPP creates a system of checks and balances that directly impacts the data source. P6's testimony regarding "cleaner" files confirms that the MPP acts as a first filter, ensuring data integrity before it enters the coding stage. This mechanism demonstrates that the quality of medical documentation in Indonesia cannot be improved through passive policies alone; rather, it requires active oversight that bridges clinical indifference to the administrative details of medical records.

The implementation of a clinical documentation improvement (CDI) program has proven crucial for ensuring that coding data submitted to external agencies is complete and accurate, thereby mitigating the direct impact on reimbursement (Hay et al., 2020). This proactive audit activity aligns with the digital transformation of clinical management systems, which supports value-based healthcare by providing real-time data for improved clinical and administrative decision-making (Barbieri et al., 2023). The use of near-real-time electronic medical record-based surveillance systems has been shown to assist management in accurately monitoring field conditions and informing

strategic decision-making (Sheikhtaheri et al., 2022). Furthermore, early document verification by the MPP is crucial for detecting asynchronous data that could lead to billing errors or claim denials (Matloob et al., 2020). Thus, proactive medical documentation quality assurance not only protects the hospital's legal standing but also serves as a key instrument in maintaining operational and financial stability through high-integrity data.

Findings on proactive medical record audits by Patient Care Managers (PCMs) make a significant theoretical contribution to implementing Total Quality Management (TQM) in the healthcare sector, emphasizing a shift from error detection to error prevention in administrative documentation (Jain et al., 2022). This proactive approach aligns with Systems Theory, which views quality assurance as a continuous process of understanding complex interactions within healthcare systems to enhance safety and mitigate operational risk (Wong & Pawlicki, 2022). The success of PCMs in improving documentation quality also provides empirical validation of accreditation frameworks, which identify management support and a well-defined organizational structure as key facilitators of medical record standardization (Sharifi et al., 2021). Furthermore, the effectiveness of this quality control function is highly

dependent on individual readiness to change, which is a crucial mediator in linking operational leadership style to the success of quality management initiatives in hospital settings (Salahat et al., 2023). Theoretically, integrating audit functions directly into daily workflows strengthens a clinical governance model based on professional accountability and continuous process improvement.

### **Bridging the Clinical-Administrative Divide for Financial Stability**

The MPP's contribution to hospital cash stability through BPJS claims management demonstrates its role as a catalyst in Revenue Cycle Management. Why is the collaboration between P2 and the casemix department (P7) so effective? Because the MPP can address information asymmetry between physicians providing services and administrative staff who enter claim codes. By verifying the alignment of diagnoses before patient discharge, the MPP prevents potential claim disputes early. These findings suggest that hospital financial constraints within the JKN system often stem not from external BPJS systems, but from internal "asynchronization" that is now successfully mitigated through the facilitation function of case managers.

These findings align with research by Njau & Abdul (2022), which asserts that an effective revenue cycle management (RCM) strategy is a key determinant of the

financial performance and sustainability of private hospitals. This consistency is further reinforced by Adeleke (2023) framework, which states that optimizing hospital billing relies heavily on the interdependence between accurate clinical documentation, accurate diagnosis coding, and reimbursement timelines. Furthermore, the role of MPP in mitigating pending claims provides empirical support for Evarist et al., (2025) argument that administrative efficiency and value-based reimbursement models are vital tools for controlling costs without compromising patient outcomes. The success of this data synchronization also underscores the importance of coordinating information management channels and dynamic monitoring to prevent financial losses from operational bureaucratic inefficiencies (Goudarzi et al., 2023). Collectively, this comparison with the international literature confirms that case managers function as strategic actors, minimizing the risk of insurance claim denials through tight administrative integration.

### **Impact on Overall Service Effectiveness**

Increased staff productivity and bed turnover (BOR) are manifestations of the MPP's elimination of administrative friction. Synthesis of statements from P5 and P8 reveals that service effectiveness is achieved through the Resource Liberation mechanism—that is, freeing nursing staff

from the clerical burden that consumes their clinical care time. By taking over administrative responsibilities, the MPP allows role specialization to return to its original function. This demonstrates that clinical effectiveness in tertiary care hospitals cannot stand alone without an administrative support system that is "friendly" to the medical staff's workload.

### **Research Limitations and Novelty**

This study offers a new perspective by highlighting the administrative aspects of the *Case Manager*, which have often been overlooked in previous studies that focused more on clinical aspects. However, this study has limitations as it was conducted at only one private Type B hospital; therefore, generalizing the findings to hospitals with different types or management systems must be done with caution.

Nevertheless, the success of the coordination model at Murni Teguh Hospital in Medan can serve as a *benchmark* for other healthcare institutions in optimizing the role of the MPP as a driving force for administrative efficiency in the JKN era.

### **Conclusions**

This study concludes that the role of the *Case Manager* or Patient Service Manager (PSM) at Murni Teguh Hospital in Medan is a fundamental strategic element in improving the effectiveness of hospital services from an administrative

perspective. The PSM has proven successful in performing an integration function that bridges the communication gap between clinical and administrative units, thereby accelerating the discharge planning process and reducing bureaucratic inefficiencies. The PSM's contribution to conducting real-time audits of medical records and preliminary verification of insurance documents is found to be crucial in improving data accuracy and minimizing the risk of delayed or rejected claims by BPJS. Overall, the implementation of MPP creates a leaner service ecosystem, which not only optimizes bed turnover and hospital cash flow but also allows medical and nursing staff to focus fully on clinical care by reducing their workload.

Based on the findings, the management of Murni Teguh Hospital in Medan is advised to consider increasing the number of *Case Managers* to ensure the staff-to-patient ratio remains at an ideal level, thereby enabling more intensive monitoring. Additionally, enhancing the competencies of Medical Practice Professionals (MPPs) through continuous training on the dynamics of health insurance regulations and the optimization of hospital information systems needs to be prioritized to maintain the quality of documentation. For future researchers, it is recommended to conduct further studies using a quantitative approach to measure

economic impacts more specifically, such as reductions in operational costs or the return on investment (*return on investment*) resulting from MPP interventions. Expanding the study to a broader scale across various types of hospitals is also strongly encouraged to enrich the literature on patient care management within the context of Indonesia's healthcare system.

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