



**MANAGEMENT OF MEDICAL-SURGICAL NURSING CARE WITH
SERVICE EXCELLENCE FOR MR. S WITH OPEN TIBIAL
FRACTURE POST-ORIF IN ROOM RB 3 AT H. A
DAM MALIK GENERAL HOSPITAL
MEDAN CITY**

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ABSTRACT

Fractures are a condition characterized by the discontinuity of bone structure, which causes damage to the surrounding tissues. The chances of recovery are significantly higher when first aid is administered before the patient is taken to the hospital. There are various types of fractures, such as longitudinal, transverse, or mid-shaft fractures. These injuries are commonly accompanied by automatic tissue damage at the time the fracture occurs. According to a 2018 report by the World Health Organization (WHO), the prevalence of fractures reached 4.9%, with approximately 25 million cases recorded. In the previous year, 2017, there were 20 million cases with a prevalence rate of 4.2%. The number increased to 21 million cases in 2018 due to traffic accidents, although the prevalence slightly decreased to 3.8%. The latest data in 2022 showed a significant increase, with cases reaching up to 440 million worldwide. This study aims to provide an overview of medical-surgical nursing care for patients with fractures. The method used is a descriptive method, which aims to illustrate the ongoing phenomenon. The study includes a literature review with a nursing process approach consisting of assessment, diagnosis, planning, implementation, and evaluation. Based on the study results, the author provided medical-surgical nursing care to Mr. S, a patient who suffered an open tibial fracture following an ORIF (Open Reduction and Internal Fixation) procedure, for three days in Ward 3 at H. Adam Malik General Hospital. The results showed that the patient was able to use non-pharmacological techniques, such as deep breathing relaxation, to relieve postoperative pain. In addition, the issue of impaired physical mobility showed improvement through early mobilization carried out in stages.

Keywords: Fracture, Prevalance, Pain, Post Orif, Excellent Service, Nursing Management, Community Health



Introduction

Based on the Decree of the National Development Planning Agency No. Kep.136/M.PPN/HK/12/2021 concerning the 2021–2024 National Action Plan for the SDGs, equitable healthcare services are a primary focus, including in the management of fractures. Fractures, or broken bones—caused by accidents, falls, or diseases such as osteoporosis—are closely related to SDG Goal 3: Good Health and Well-being. However, orthopedic and rehabilitation services remain unequally distributed, especially in remote areas, worsened by a shortage of specialists, inadequate facilities, and low public awareness regarding the importance of proper treatment and rehabilitation. According to WHO data (Profil Kesehatan Indonesia, 2021), there are 13 million global fracture cases (2.7%), while the prevalence in Indonesia reaches 5.8% (Profil Kesehatan Indonesia, 2021). In North Sumatra, the fracture rate is 3.74% (Profil Kesehatan Indonesia, 2021), and according to the Provincial Health Office, there were 2,700 reported fracture cases in 2020, with 675 resulting in death. At RSUP H. Adam Malik Medan.

There has been an increase in fracture cases due to traffic accidents over the past three years. An initial survey of patient Mr. S, who suffered an open tibia fracture post-ORIF, revealed complaints of severe pain, limited movement, and redness at the surgical wound site. Referring to Minister of Health Regulation No. 4 of 2022, the role of nurses is crucial in delivering accurate and professional nursing care. Support from the vision of the Ministry of Health, STIKes Mitra Husada Medan, and RSUP H. Adam Malik, which emphasizes Evidence-Based Practice (EBP), provides a strong foundation for implementing nursing care

with service excellence. Based on these considerations, the author selected this case study under the title: "Management of Medical-Surgical Nursing Care with Service Excellence for Mr. S with Open Tibia Fracture Post-ORIF in Room RB 3, RSUP H. Adam Malik Medan, North Sumatra, 2025.

Research Method

Research Objective This study aims to implement medical-surgical nursing care management with service excellence for Mr. S, who suffered an open tibia fracture post-ORIF in Room RB 3 of RSUP H. Adam Malik Medan in 2025. The specific objectives include: conducting assessment, formulating nursing diagnoses, planning interventions, implementing nursing actions, evaluating outcomes, and documenting the nursing care comprehensively and professionally based on the patient's condition.

Research Benefits For educational institutions, this study serves as a scientific reference in medical-surgical nursing education, especially in fracture cases. For the author, the study enhances knowledge and application of nursing theory into real-world practice. For the hospital, the findings may serve as a reference to improve orthopedic nursing services. In general, this research contributes to the development of nursing science and has a positive impact on patients through effective, empathetic, and recovery-oriented care (Astuti et al., 2020).

Result

The initial survey conducted by the author in Room RB 3 of RSUP H. Adam Malik Medan identified a patient diagnosed with an open tibia fracture post-ORIF. From interviews conducted by the author



with the patient, three nurses, and the Clinical Instructor (CI) involved in the patient's care, the following findings were obtained: Nurse 1 observed that the patient grimaced in pain, especially when the leg was moved; Nurse 2 stated that the patient appeared to limit movement; and Nurse 3 noted redness around the surgical wound. The patient had no previous medical history and reported experiencing pain in the left leg for the first time following the ORIF procedure. The head nurse emphasized that this case requires proper handling as it could worsen the patient's condition. Therefore, providing appropriate nursing care is essential to improve the patient's comfort and support the healing process in a safe and conducive manner (Triana et al., 2025).

The survey was conducted by the author in March 2025, and the research took place from April 24 to May 24, 2025. In accordance with Minister of Health Regulation No. 4 of 2022 regarding the functional positions of nurses, it is stated that the nursing functional position includes roles, duties, position levels, elements and sub-elements of activities, details of tasks, as well as procedures for promotion and evaluation. This position is divided into two categories: the skills category, which includes novice and proficient nurses, and the expertise category, which includes first-level, junior, intermediate, and senior expert nurses (Yerry S, Siti R and Riada O, 2023)

Meanwhile, under Ministry of Health Decree No. HK.01.07/MENKES/425/2025, the professional standards for nurses encompass two main aspects: competency standards and the professional code of ethics. The implementation of nursing practice is also regulated in Minister of Health Regulation No. 26 of 2016 and Law

No. 38 of 2014 on Nursing, which require nurses conducting independent practice to fulfill additional requirements beyond holding a valid Nursing Practice License (SIPP), including proper location, building condition, infrastructure, equipment, and availability of medicines and consumable medical supplies (Suriya M and Zuriati, 2019).

Patients with fractures often complain of post-operative pain, limited mobility, and redness at the wound site, thus requiring appropriate treatment. The reason the author chose Mr. S as the subject is because he was more cooperative and willing to undergo nursing care implementation. The background outlined above motivated the author to choose the title:

"Management of Medical-Surgical Nursing Care with Service Excellence for Mr. S with Open Tibia Fracture Post-ORIF in Room RB 3 of RSUP H. Adam Malik Medan, North Sumatra.

Discussion

The assessment stage is the initial step in the nursing care process, carried out through interviews, observation, and physical examination. At this stage, data collection is conducted comprehensively to obtain accurate and complete information about the patient's condition. The data is gathered from the patient's subjective complaints, direct observation, physical examination results, and a review of medical records (Sagala I and Limbong M, 2024).

The assessment of the patient, Mr. S, was conducted on May 6, 2025, in Room RB 3 of RSUP H. Adam Malik Medan. The patient is a 40-year-old male, the second of four siblings, a Protestant Christian, originally from Pematang Siantar. He lives with his family and works as a self-



employed businessman. During the assessment, additional information was also obtained from his wife, Mrs. E. Sipahutar, who accompanied him throughout the hospitalization (Susilawati S, Yantih N and Aritonang A, 2024).

The patient was admitted to the hospital following a traffic accident that caused an open fracture of the right tibia and had undergone an ORIF (Open Reduction Internal Fixation) procedure. The main complaint expressed by the patient was severe pain in the surgical area, especially when the right leg was moved. He described the pain as stabbing, with a pain intensity ranging from 6 to 7 on the Wong-Baker Pain Rating Scale. In addition to pain, the patient also experienced limited mobility and dependence in daily activities such as eating, transferring, and walking (PPNI, 2023).

Observations revealed that the patient grimaced in pain when his leg was moved, an elastic bandage was still applied to the right leg, and redness was noted around the surgical wound. Vital signs were within normal limits: blood pressure 125/80 mmHg, heart rate 90 bpm, respiratory rate 22 breaths per minute, and body temperature 36.0°C. Laboratory results showed an elevated white blood cell count (11,990 /µL), indicating a risk of post-operative infection (Kurniati L, 2020).

Overall, this assessment identified three primary nursing problems: acute pain related to physical injury (surgical procedure), impaired physical mobility related to fracture, and risk of infection related to invasive procedures. The data obtained serve as a critical foundation for establishing nursing diagnoses and formulating appropriate intervention plans to optimally support the patient's recovery process (Hakim K et al., 2024).

Conclusion and Suggestion

In the case of Mr. S, who experienced a fracture, several nursing diagnoses were established based on the Indonesian Nursing Diagnosis Standards (SDKI), including: acute pain related to physical injury (surgical procedure), impaired physical mobility related to fracture, and risk of infection related to invasive procedures. These diagnoses were determined through both subjective and objective data, such as postoperative pain complaints with a pain scale of 7, limited mobility, and early signs of infection like redness around the surgical wound and elevated leukocyte levels (Hadi W.A and Stefanus Lukas, 2024).

Nursing interventions were planned based on the Indonesian Nursing Interventions Standards (SIKI), focusing on pain reduction, mobility improvement, and infection prevention. For the acute pain problem, interventions included identifying the characteristics of pain, using appropriate pain scales, providing patient education, implementing relaxation techniques, and administering analgesics as indicated (Dzulqornain F.F and Agustin W.R, 2024).

For impaired physical mobility, interventions involved assessing mobility ability, monitoring vital signs, using assistive devices, involving family support, and educating the patient on early mobilization. For the risk of infection, interventions focused on monitoring infection signs, limiting visitors, and enforcing strict hygiene principles (Devi N.S et al., 2024).

The nursing actions were carried out through both independent and collaborative interventions. Independent actions included deep breathing relaxation and patient education, while collaborative actions were conducted in coordination with the



healthcare team, including doctors and physiotherapists. All activities and patient responses were systematically recorded in nursing documentation (Berutu R and Berdikta J, 2020).

The nursing evaluation showed that the issues of acute pain, impaired mobility, and risk of infection had not been fully resolved and required continued care by the ward nurse. Evaluation was conducted by comparing the patient's current condition with the previously established goals.

Regarding documentation, the entire nursing process was recorded according to standards, including patient data, interventions performed, evaluation results, and follow-up actions. This documentation aims to ensure continuity of care, serve as proof of the nurse's accountability, and be used for administrative, legal, and nursing research purposes (Yerry Soumokil, Siti Rochmaedah and Riada Ohoirenan, 2023).

Acknowledgment (If Any)
On May 6, 2025, Mr. S, who suffered an open tibia fracture following ORIF surgery, reported pain with an intensity level of 6, especially when moving his leg. The nursing diagnoses established included acute pain due to the surgical procedure, impaired physical mobility due to the fracture, and risk of infection from invasive procedures. Nursing interventions were designed based on the 2018 Indonesian Nursing Interventions Standards (SIKI) and implemented systematically. Evaluation was carried out using the SOAP method, while documentation recorded the patient's condition and progress in full detail.

Suggestions were addressed to multiple parties:

- For students, to be able to provide accurate nursing care using the five stages of the nursing process.
- For educational institutions, this report may serve as a useful

reference in the learning of medical-surgical nursing, especially in fracture cases.

- For the patient, to understand and apply the education provided to support the healing process of pain.
- For RSUP H. Adam Malik, this report is expected to serve as a guideline in the delivery of nursing care for patients with tibia fractures post-ORIF.

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