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Medical Surgical Nursing Care For Mr. J With Cardiovascular System Disorders With Unstable Angina Pectoris At Vita Insani Hospital Pematangsiantar

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Abstract

Attachment Unstable Angina Pectoris is an acute coronary syndrome caused by reduced blood flow to the heart muscle, resulting in chest pain. According to the World Health Organization (WHO) in 2022, cardiovascular diseases accounted for 17.5 million deaths (15.5%). This study aimed to provide medical-surgical nursing care for patients with Unstable Angina Pectoris. This study employed a qualitative method with a descriptive case study approach. The research subject was a patient diagnosed with Unstable Angina Pectoris, namely Mr. J, aged 76 years. The study was conducted from April 30 to May 2, 2026, in the Melati Ward of Vita Insani Hospital Pematangsiantar. The nursing assessment of Mr. J revealed complaints of left-sided chest pain with a pain scale of 7, radiating to the shoulder and back. The nursing diagnoses established were acute pain, decreased cardiac output, and ineffective breathing pattern. After three days of nursing care, including pain management, oxygen therapy, monitoring, semi-Fowler positioning, deep breathing relaxation techniques, health education, and collaborative medical therapy, the patient's condition improved significantly. Medical-surgical nursing care provided to patients with Unstable Angina Pectoris resulted in clinical improvement, and all nursing problems were successfully resolved. Patients are expected to adhere to medications, adopt a healthy lifestyle, and follow a heart-healthy diet to prevent recurrence and complications

Keywords: Medical-Surgical Nursing Care, Unstable Angina Pectoris

INTRODUCTION

Medical-Surgical Nursing (MSN) is a professional service that integrates a comprehensive

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biological, psychological, social, and spiritual approach for adult patients. MSN care standards must be based on four main pillars: proficient quality, evidence-based care, application of methods, and adherence to the nursing code of ethics. In practice, MSN nurses play a multifunctional role, ranging from direct care provider, service coordinator, patient advocate, to health educator (Hariri et al., 2021).

Unstable angina pectoris is a clinical syndrome characterized by episodes of chest pain or pressure due to a lack of coronary blood flow, causing inadequate oxygen supply to the heart or in other words, increasing the heart's oxygen demand, which causes signs and symptoms such as shortness of breath, nausea and dizziness caused by lifestyle habits such as smoking and consuming foods containing high cholesterol, and lack of physical activity. Unstable angina pectoris is chest pain due to coronary heart disease that occurs when the heart muscle does not get enough blood supply because the arteries in the heart are narrowed and blocked (Nia Khusniyati et al., 2025). Pain due to angina pectoris is often interpreted as a symptom of other conditions, such as acid reflux and inflammation of the lungs (Bellinge et al., 2021)..

Based on data from the World Health Organization (2022), it shows that unstable angina pectoris has decreased to 17.5 million people (15.5%) from the previous total number of cases of 102 million people (84.5%), with a mortality prevalence reaching 30.6 million people (30%). Developed countries in 2022, one of which is the United States, is the country with the highest number of people suffering from unstable angina pectoris, as many as 2,016,000 people. The prevalence is found in men around 36,288 people (1.8%), while in developing countries in Southeast Asia in 2022, those experiencing angina pectoris reached around 4.9 million people. Data from provinces in developed countries such as the United States shows that 102,900 people suffer from unstable angina pectoris (2.1%), with a mortality prevalence of around 3.73 (1.5%) (Kaesler et al., 2021).

According to data from the Ministry of Health of the Republic of Indonesia, in 2021, the percentage of people with unstable angina pectoris was 272.68 million people (16.5%). In 2022, the number of people with unstable angina pectoris increased to 71,987 people (26.4%). Data from North Sumatra Province in 2021 showed the number of people with unstable angina pectoris was 16 people. When viewed by region, the recurrence rate of unstable angina pectoris shows differences between regions. Data comparisons show quite clear variations in the prevalence of unstable angina pectoris in each region. Nias Regency ranks highest with a prevalence of 1.5%, or approximately 4,362.68 people suffering from unstable angina pectoris. Gunung Sitoli City is next with a prevalence of 0.5%, or approximately 79,528 people suffering from unstable angina pectoris (Nurulhuda & Jannah, 2024).

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Management of unstable angina pectoris patients is usually given in the form of diuretics, which are useful for reducing pressure on the heart, which can reduce pulmonary (lung) and peripheral (body swelling) edema. ACE-Inhibitors (ACE-I) are usually used as first-line therapy to prevent worsening of heart conditions, for example, ramipril, perindopril, enalapril, captopril, lisinopril. Meanwhile, nursing management is carried out for patients with recommendations for a heart-healthy diet such as consuming fruits and vegetables, choosing lean meats and fish, reducing saturated fat, consuming whole grains (whole wheat rice, whole wheat pasta), reducing salt and reading food labels (Lucas-Herald et al., 2022).

According to research by Fidianti in 2022 entitled nursing care for patients with unstable angina pectoris in the Begonia Room of Sultan Fatah Demak Regional Hospital, the results of the research were conducted from December 12-15, 2023. The main nursing problem that often arises in patients with unstable angina pectoris is acute pain and nursing care actions have been implemented for 3 x 7 hours which focus on reducing the level of pain. It was found that the nursing interventions carried out were able to reduce the pain experienced by patients (Puriana et al., 2024).

Meanwhile, according to Damayanti in 2022, entitled the relationship between the rationality of unstable angina pectoris medication use and length of hospitalization in Buleleng Regency General Hospital. Research evaluation that can show the relationship between the rationality of unstable angina pectoris medication use is shown based on ICD I20.0 inpatients for the period January-June 2023. For relationship analysis using the Spearman Rank test. The results of the study showed that the relationship between the rationality of APTS medication and length of hospitalization at the point of correct indication, correct drug and correct dose showed a negative value (-) of -0.222 which means a significant relationship with a weak correlation to length of hospitalization, at the point of correct duration of administration showed a Sig. (2-tailed) 0.505 (>0.05) which means that the exact duration of administration is not correlated with the length of hospitalization, the correlation coefficient value at the exact duration of administration point shows a positive result (+) namely 0.061 which means that the relationship is not in the same direction with a very weak correlation with the length of hospitalization (O'Kelly et al., 2022).

According to data obtained by researchers from Vita Insani Hospital Pematangsiantar, in 2023, 133 patients experienced unstable angina pectoris, in 2024 there was a decrease of 77 people, and in 2025 there were 212 people. Data for the last 3 years, the number of sufferers of unstable angina pectoris was 422 people. In October there were 18 people, in November there were 13 cases and in December there were 13 cases (Medical Record of Vita Insani Hospital).

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According to the results of the initial survey conducted by researchers on January 14, 2026, on clients who had just experienced unstable angina pectoris, the main complaints experienced were chest pain and difficulty sleeping at night. The actions provided by officers related to non-pharmacological ones such as deep breathing relaxation. Researchers also conducted interviews with nurses in the inpatient ward of internal medicine related to unstable angina pectoris patients, in general, patients were still unable to apply nursing care actions independently (Acosta et al., 2023).

Based on the background description above and the initial survey that has been conducted, the researcher is interested in conducting research related to Medical Surgical Nursing Care for Cardiovascular System Disorders with a Medical Diagnosis of Unstable Angina Pectoris at Vita Insani Hospital, Pematangsiantar.

METHOD

In qualitative research, the focus/research problem is expected to develop according to the reality in the field, prioritizing the emic perspective, and moving from facts/information/events to a higher level of abstraction (whether concept or theory) and not the other way around, from theory or concept to data/information. Therefore, conceptually-paradigmatically, qualitative researchers must be able to free themselves from the "captivity" of a theory; this does not mean ignoring the need to understand existing theories because theories also have certain uses, especially in the final stages of a qualitative research when they have to discuss or discuss the research results (Bellone et al., 2022).Qualitative research aims to find the characteristics of the nature and phenomena included in one category; then researchers look for relationships between phenomena by comparing the differences/similarities in the nature of the various symptoms found. Then researchers classify symptoms that have similar properties and make "generalizations" to form a theory (Polit & Beck, 2012).

Research informants are subjects or individuals who provide relevant information and data for research, selected because of their knowledge, experience, or position related to the research topic. They can be primary informants, supporting informants, or experts, with criteria such as knowledge, willingness to share, and objectivity. Informants can be selected using convenience sampling, a non-probability technique in which researchers select samples based on ease of access, availability, and proximity to the subject. Informants are defined as research subjects who can provide information regarding the phenomena/problems raised in the research. In qualitative research, informants are divided into three categories: (Adiputra et al., 2021).

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Data collection techniques are the most important step in research, as the primary goal of researchers is to obtain data. Without understanding data collection techniques, researchers will not obtain data that meets established data standards. Data collection can be conducted in various settings, from various sources, and in various ways. Based on the data source, data collection can use primary and secondary sources. Furthermore, in terms of data collection methods, data collection techniques can be carried out through observation, interviews, questionnaires, documentation, or a combination of the four (Puspandhani, Erlisya Mitha & Sugiyono, 2020). Qualitative data analysis is indeed more complex than quantitative, and researchers must truly master the theory so that the perceptions created are not subjective but based on scientific knowledge. Qualitative research can be very complex and overlapping, because the information collected is not only focused on a predetermined problem but can also develop depending on field conditions (Yao et al., 2023)..

DATA ANALYSIS

This research was conducted at Vita Insani Hospital Pematangsiantar, a private health service established in 1983. Geographically, this hospital is located in a very strategic location in the city center at Jl. Merdeka No. 329 Pahlawan, East Siantar District, Pematangsiantar City, North Sumatra. Currently, Vita Insani Hospital holds a type B Hospital classification and has achieved Paripura Accreditation status (Five Stars). Vita Insani Hospital has complete services to meet the medical health needs of the community.

This research is a case study conducted in Melati's room with one respondent. The research was conducted on client Mr. J on April 30, 2026. The discussion stage is in accordance with the stages of nursing care, starting from nursing assessment, determining nursing diagnoses, nursing interventions, nursing implementation, and nursing evaluation. The results chapter of this study will describe the suitability and intentionality found in the client or respondent (Polit & Beck, 2022b).

Data analysis

Table 1. Data Analysis

Data	**Etiology**	**Nursing Problems**
DS :	Unstable Angina Pectoris ↓	**Acute pain**

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- **The client said he had chest pain since 1 day before being admitted to the hospital.** - **The client complained of pain that felt like pressure and stabbing in the left side of the chest spreading to the shoulder and back.** - **The client said the pain appeared suddenly even when resting quietly.** - **The client said the pain was also very disturbing, especially in the morning and at night.** **DO:** - **The client appears to be suffering from chest pain.** - **The client appears to be grimacing in pain, restless, anxious, and breaking out in cold sweat when the pain appears.** - **Vital signs** - **BP 140/90 mmHg,** - **Pulse 100 x/minute** - **Pain scale 7**	coronary artery narrowing decreased blood flow to the myocardium ↓ reduced oxygen supply to the heart muscle ↓ myocardial ischemia ↓ release of pain mediators ↓ pain receptor stimulation ↓ Complaining of pain, grimacing, restless, increased pulse rate	
DS: - **The client said that his chest felt painful and he often had shortness of breath when the pain recurred.** - **The client said his body felt weak and tired easily so that his activities were limited.** **DO:** - **The client looks pale, tachycardia (100 x/minute)** - **Vital signs** - **BP 140/90 mmHg**	coronary artery atherosclerosis ↓ decreased myocardial perfusion ↓ decreased cardiac contractility ↓	**Decreased cardiac output**

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- **The client stated that his activities were limited and he spent most of his time lying in bed.** - **Oxygen saturation 94%**	reduced heart pumping ability ↓ the volume of blood pumped by the heart decreases ↓ Bradycardia/tachycardia, edema, hepatomegaly, increased blood pressure, weak peripheral pulses, pale/cyanotic skin color	
DS: - **The client said he often had shortness of breath since the chest pain recurred.** - **The client said that shortness of breath appeared along with chest pain and heavy breathing.** **DO:** - **The client is fitted with a nasal cannula breathing aid, 3 liters x/minute** - **RR: 25x/minute** - **The client appears to be holding back breath, anxious, and restless when pain appears.** - **Wheezing breath sound**	Respiratory effort obstruction ↓ increasing chest pain ↓ suboptimal chest expansion ↓ increased oxygen demand ↓ increased breathing rate ↓ inadequate ventilation pattern	**Ineffective breathing pattern**

DISCUSSION

After providing nursing care to Mr. J with a medical diagnosis of Unstable Angina Pectoris

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(UAP) in the Melati Room of Vita Insani Hospital, Pematangsiantar for 3 days of treatment on April 30–May 2, 2026, the researcher will discuss the gap between the theoretical review and the case review found during the provision of nursing care which includes assessment, nursing diagnosis, intervention, implementation, and nursing evaluation.

Assessment

Based on the results of the assessment conducted on Mr. J, data was obtained that the client is 76 years old with a medical diagnosis of Unstable Angina Pectoris (UAP). During the assessment, the client complained of chest pain since one day before admission to the hospital. The client said the pain felt like pressure and stabbing in the left chest, spreading to the shoulder and back, appearing suddenly even at rest with a pain scale of 7 and a duration of 5–10 minutes. (Basit et al., 2023). The client also complained of shortness of breath, fatigue, limited activity, and appeared weak and grimaced in pain. On physical examination, blood pressure was 14 0/90 mmHg, pulse rate 100 x/minute, respiratory rate 25 x/minute, and the client was attached to a nasal cannula oxygen 3 liters/minute. The results of supporting examinations showed a blood sugar level of 180 mg/dL and ECG results that supported the diagnosis of Unstable Angina Pectoris.

Nursing Diagnosis

A nursing diagnosis is a clinical assessment of an individual, family, group, or community's response to a health problem or life process, whether present or at risk. A nursing diagnosis serves as the basis for nurses in determining appropriate interventions to achieve desired nursing outcomes. According to the Indonesian Nursing Diagnosis Standards (SDKI) published by the Indonesian National Nurses Association (PPNI), a nursing diagnosis is established based on a comprehensive assessment through the collection of subjective and objective data, which is then analyzed to identify the health problem that becomes the focus of nursing actions. Establishing an accurate nursing diagnosis is crucial because it serves as the basis for developing nursing interventions and evaluations, ensuring that care is provided systematically, directed, and in accordance with the client's needs (Polit & Beck, 2022b).

Next, a diagnosis of Ineffective Breathing Pattern related to respiratory effort was made. characterized by the client complaining of frequent shortness of breath since the chest pain recurred, shortness of breath appears together with chest pain and heavy breathing, the client is attached to a nasal cannula oxygen 3 liters / minute, the respiratory rate is 25x / minute, and appears anxious and restless when shortness of breath appears. The shortness of breath

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experienced by the client occurs due to an increase in the body's oxygen demand due to myocardial ischemia and chest pain which causes suboptimal lung expansion so that the ventilation pattern becomes inadequate. This is in line with the researcher Aqila (2025) who stated that patients with Unstable Angina Pectoris often experience breathing pattern disorders due to increased myocardial oxygen demand and the body's response to prolonged chest pain. Based on the results of the assessment and data analysis conducted on Mr. J, the three nursing diagnoses are in accordance with the SDKI diagnostic criteria and are the main focus in providing nursing care during the treatment period (Shi et al., 2023).

Nursing Interventions

Nursing interventions are action plans that nurses will implement for clients based on established nursing diagnoses to ensure the client's needs are met. In theory, nursing interventions Nursing interventions are arranged based on the Indonesian Nursing Intervention Standards (SIKI) and adjusted to the Indonesian Nursing Outcome Standards (SLKI). Nursing interventions in Mr. J's case focus on the nursing problems of Acute Pain, Decreased Cardiac Output, and Ineffective Breathing Patterns which aim after nursing actions are carried out, it is hoped that the pain level will decrease, cardiac output will increase, and breathing patterns will improve with outcome criteria in the form of reduced complaints of chest pain, decreased pain scale, reduced grimacing and restless expressions, improved activity tolerance, reduced complaints of shortness of breath, stable vital signs, increased oxygen saturation, and improved client breathing patterns. Based on the Indonesian Nursing Intervention Standards (SIKI) and the Indonesian Nursing Outcome Standards (SLKI), nursing interventions arranged for Mr. J include observation, therapeutic, educational, and collaborative (OTEK) actions that are adjusted to each nursing diagnosis (Nurazizah & Rantesigi, 2023).

Nursing Implementation

The nursing implementation for Mr. J was carried out for 3 days of treatment in accordance with the interventions that had been prepared based on the Indonesian Nursing Intervention Standards (SIKI). The implementation focused on managing acute pain, increasing cardiac output, and improving breathing patterns. Nursing actions were carried out continuously through observation, therapeutic actions, education, and collaboration with the medical team. During the implementation, the researcher carried out nursing actions according to the client's condition and evaluated his progress daily. In the diagnosis of acute pain, the researcher identified the location, characteristics, duration, frequency, quality, and intensity of pain,

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identified the pain scale, nonverbal pain responses, factors that aggravate and alleviate pain, and the effect of pain on the client's quality of life. The researcher provided deep breathing relaxation techniques, controlled the environment that could aggravate pain, facilitated rest and sleep, provided education about the causes and triggers of pain, and collaborated in administering analgesics according to the therapy program. When diagnosing an ineffective breathing pattern, researchers monitored breathing patterns, adventitious breath sounds, and sputum production. Researchers maintained a patent airway, positioned the client in a semi-Fowler's position, provided warm fluids as tolerated, taught effective coughing techniques, and collaborated with physicians regarding bronchodilator administration. expectorant, or mucolytic if necessary (Polit & Beck, 2022a).

Based on the results of the implementation for three days and supported by previous research, the researcher is of the opinion that the nursing actions provided were in accordance with the client's needs and contributed to reducing chest pain, increasing cardiac output, improving breathing patterns, and improving the client's health condition during the treatment period in the Melati room.

Nursing Evaluation

Nursing evaluation was conducted to assess the progress of the client's condition after nursing interventions were administered for 3 days. The evaluation was conducted by comparing the client's condition before and after implementation based on the outcome criteria established in the Indonesian Nursing Outcome Standards (SLKI). During the evaluation process, the researcher observed changes in pain levels, hemodynamic status, activity tolerance, and respiratory status in Mr. J. Diagnosis I: Acute Pain Related to Physiological Injury Agents (Myocardial Ischemia)

a. On the first day : Mr. J complained of left chest pain that felt like pressure and stabbing that radiated to the shoulder and back. The pain appeared suddenly even at rest with a pain scale of 7. The client appeared to grimace, was restless, frequently held his chest, and his activities were limited due to the pain. Vital signs showed increased blood pressure and pulse rate in response to the pain.
b. On the second day : after nursing actions in the form of identifying pain characteristics, monitoring vital signs, providing a comfortable position, deep breathing relaxation techniques, and collaboration in providing anti-anginal therapy according to the medical program, the client said the pain began to decrease with a pain scale of 5. The facial expression looked more relaxed, the frequency of pain decreased, and the client

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was able to rest more comfortably compared to the previous day (Akbaş & Yiğitoğlu, 2020)..

c. On the third day : the client stated that chest pain had become less frequent with a pain scale of 2. The client appeared calm, no longer grimaced, was able to gradually perform light activities, and her general condition appeared to improve. The established outcome criteria had been met with decreased pain intensity, increased comfort, and improved activity capacity. These evaluation results are in line with research by Siregar, R., Simanjuntak, D., & Hutagalung (2025) stated that pain management through pain monitoring, relaxation techniques, and collaborative pharmacological therapy is effective in reducing pain intensity in patients with unstable angina pectoris. The improvement in Mr. J's condition indicates that the intervention provided has achieved the expected goals.

The results of this evaluation are in line with research by Hutagalung, D., Nainggolan, T., & Simanjuntak (2025) which stated that providing a semi-Fowler position, breathing exercises, and continuous monitoring of respiratory status effectively improved ventilation and oxygenation in patients with cardiovascular disorders. Furthermore, research by Sari, N., Putri, Y., & Rahman(Mardhiyah et al., 2023).showed that comprehensive respiratory interventions were able to improve breathing patterns and increase patient comfort. The improvement in Mr. J's condition, marked by the disappearance of complaints of shortness of breath and a normal respiratory rate, proved that the outcome criteria had been achieved well.

CONCLUSION

Based on the results of the implementation of nursing care for Mr. J with a medical diagnosis of Unstable Angina Pectoris (UAP) during 3 days of treatment at Vita Insani Hospital Pematangsiantar, it can be concluded that the assessment found the main complaints in the form of chest pain radiating to the shoulders and back, shortness of breath, fatigue, limited activity, and requiring oxygen therapy with hemodynamic conditions that require monitoring. Based on the results of the assessment, three nursing diagnoses were established, namely acute pain, decreased cardiac output, and ineffective breathing patterns. Nursing interventions included pain management, cardiac care, airway management, education, and collaboration in providing therapy according to the treatment program. After implementing nursing for 3 days, the client's condition showed good development, marked by a decrease in the pain scale, reduced shortness of breath, increased activity tolerance, improved hemodynamic status, and a more effective breathing pattern. The three nursing diagnoses were successfully resolved

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according to the established outcome criteria so that the objectives of nursing care could be achieved.

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