

MEDICAL-SURGICAL NURSING CARE MANAGEMENT WITH A SERVICE EXCELLENCE APPROACH FOR MR. H WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) AT RSUP H. ADAM MALIK, MEDAN CITY, NORTH SUMATRA, IN 2025

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ABSTRACT

Chronic Obstructive Pulmonary Disease (COPD) is a progressive respiratory disorder characterized by airflow limitation due to chronic inflammatory responses to inhaled particles or gases. COPD ranks among the leading causes of death worldwide and has a high prevalence, including in North Sumatra Province. This study aims to describe the management of medical-surgical nursing care based on *service excellence* principles for a COPD patient, specifically Mr. H, who was treated in Room RA6 of RSUP H. Adam Malik Medan. The research method employed is descriptive, using a case study approach. Nursing care was carried out systematically through the stages of assessment, nursing diagnosis, planning, implementation, and evaluation. Interventions focused on managing ineffective breathing patterns, airway clearance, activity intolerance, and anxiety, with the application of service excellence values, including empathy, effective communication, and patient and family education. The results showed that comprehensive and collaborative nursing care improved the patient's clinical condition and accelerated recovery. This study recommends enhancing family education and strengthening nurses' competencies in the professional and ethical management of patients with COPD.

Keywords: COPD, nursing care, service excellence, medical-surgical, Mr. H

Introduction

The National Development Planning Minister of Indonesia, through Decree No. KEP.136/M.PPN/HK/12/2021 has endorsed the 2021–2024 National Action Plan for the Sustainable Development Goals (SDGs) (ASEAN Statistics, 2021). This document serves as the principal reference for planning, implementing, monitoring, evaluating, and controlling Development across all sectors, including health (WHO, 2023). Within the SDG framework, Goal 3 focuses on improving population health and reducing mortality and morbidity from non-

communicable diseases (Manurung, H R, 2022). Such as Chronic Obstructive Pulmonary Disease (COPD), while Goal 17 emphasizes cross-sector collaboration. Consequently, COPD management extends beyond the duties of health professionals alone and demands concerted efforts from educational institutions, local authorities, and communities to ensure continuous, high-quality care (Erika, 2025).

Globally, COPD is recognised by the World Health Organization (WHO) as one of the four leading chronic conditions with elevated mortality, alongside cardiovascular disease, stroke, and cancer. The disorder is progressive, marked by

persistent dyspnoea, chronic cough, and excessive mucus production (Sinaga, SN, 2022). Pathologically, chronic airway inflammation, structural lung changes, and impaired gas exchange culminate in gradual yet relentless tissue damage (Kementrian Kesehatan, 2023). Mr H, a COPD patient, faces heightened complications because of prolonged exposure to cigarette smoke and airborne pollutants. Recurrent irritants can sustain airway inflammation, provoke wheezing and crackles, and ultimately hinder efficient gas transfer. Without timely intervention, such a trajectory may result in Acute Respiratory Distress Syndrome (ARDS) and life-threatening hypoxaemic shock (Simanjutak, 2023). Early, pre-hospital measures are therefore critical. Relatives or first responders must secure the airway, allay anxiety, avert hypoxaemic shock, and maintain safety until professional care arrives. Although not definitive therapy, these actions stabilise the patient and prevent rapid deterioration. Long-term COPD care typically necessitates intensive management in specialised facilities and structured rehabilitation. Core components include oxygen therapy, bronchodilators, and continuous self-management education. Evidence-based guidance under professional supervision minimises complications such as respiratory failure or recurrent infection. At the same time, family training remains vital for handling sudden (Telaumbanua *et al.*, 2025). exacerbations Epidemiological figures illustrate the burden: WHO reported 3.23 million COPD deaths in 2019, making it the third leading global killer. Prevalence stands at 6.3 percent in Southeast Asia, 6.7 percent in Vietnam, and 5.6 percent in Indonesia—roughly 4.8 million people. North Sumatra shows an even higher rate of 27.46 percent, equating to approximately 188,565 cases. At RSUP H. Adam Malik,

the number of documented patients increased from 153 in 2021 to 473 in 2023. Indonesia has launched social assistance, economic empowerment, education, healthcare, infrastructure, and community programmes to reduce NCDs and achieve SDGs 3 and 17. Yet sizeable obstacles persist. High morbidity, limited interprofessional collaboration, and fragmented workflows compromise service quality and patient safety, underscoring the need for a service-excellence model and robust teamwork. STIKes Mitra Husada Medan integrates these principles through its PACER culture—Professional, Accountable, Collaborative, Empathetic, and Reliable. Nursing students apply evidence-based practices, conduct respiratory assessments, monitor oxygen and bronchodilator therapy, and provide education on home COPD management, embodying the institution's vision of innovation and integrity. Given the complex needs of COPD patients, Mr H's case was selected to illustrate holistic, medical-surgical nursing care that aligns with service-excellence standards. The ensuing report details how comprehensive nursing interventions—rooted in collaboration and the SDG agenda—can enhance patient outcomes and advance a sustainable, high-quality healthcare system in North Sumatra.

Research Method

In this scientific paper, the researcher adopted a descriptive method with a case study approach. This method was chosen to effectively achieve the study's objectives and guide each step of the research process. The design was carefully structured to explore relationships among variables, specify data collection techniques, and outline the analytical procedures employed. The descriptive approach was selected to

provide a detailed, comprehensive overview of the subject's condition and nursing interventions, with particular emphasis on the five key stages of the nursing process: assessment, nursing diagnosis, planning, implementation, and evaluation. The research was conducted at H. Adam Malik General Hospital (RSUP H. Adam Malik), a leading referral hospital located in Medan, North Sumatra. The hospital serves multiple provinces, including North Sumatra, West Sumatra, Aceh, and the Riau Islands. Data collection took place from May 1 to May 3, 2025, in Room RA6, a dedicated ward for respiratory infectious diseases. In addition to its reputation for excellence in cardiology and oncology, the hospital is highly committed to respiratory care, especially in cases like Chronic Obstructive Pulmonary Disease (COPD), by providing oxygen therapy, bronchodilators, and family education—all grounded in service excellence principles. The subject of this case study was Mr. H, a patient with COPD admitted to Room RA6 during the study period.

The data collected for this study consisted of both primary and secondary sources. Primary data were obtained through direct observation and interviews with the patient and his family, aiming to collect firsthand information about the patient's condition (Manurung, H R, 2022). Secondary data were gathered from medical records and documentation related to the primary findings (Pasaribu, RS, 2023). Data collection tools included structured interviews (anamnesis), physical examinations (including inspection, palpation, percussion, and auscultation), and nursing documentation using standard formats tailored to medical-surgical care. The researcher followed a series of steps to obtain data ethically and accurately. These included obtaining permission from the

hospital, selecting a patient diagnosed with COPD, and securing informed consent from Mr. H to participate in the study. Nursing care was then administered across all stages—from assessment to evaluation—and documented systematically. For data analysis, the researcher used a descriptive approach to present a complete picture of Mr. H's health status and responses to nursing care. The intervention design was based on Orem's Self-Care Theory, which emphasizes the patient's active role in managing their own health. This framework was designed to empower Mr. H to manage COPD symptoms, improve respiratory function, and enhance his overall quality of life.

Result

This case study focuses on Mr. H, a 56-year-old male patient diagnosed with Chronic Obstructive Pulmonary Disease (COPD). He resides in Desa Gajah and works as a farmer. Mr. H is married to Mrs. P, a civil service teacher; both are members of the Karo ethnic group and practice Christianity. Mr. H was admitted to H. Adam Malik General Hospital on May 1, 2025, and the nursing assessment began on May 3, 2025. The patient was accompanied by his wife, who provided most of the information in the evaluation. Upon admission, Mr. H reported shortness of breath that had persisted for a month and had worsened significantly over the previous three days. A persistent, productive cough with thick, yellowish-white sputum and extreme fatigue accompanied this. His symptoms intensified during physical activity and were followed by chest discomfort. Clinical examination revealed a blood pressure of 125/80 mmHg, a heart rate of 102 bpm, a temperature of 36 °C, a respiratory rate of 27 breaths per minute, and an oxygen

saturation of 90%. Physical signs included retraction of the chest muscles, use of accessory muscles for breathing, and adventitious lung sounds (wheezing and crackles). From the nursing assessment, both subjective and objective data were analyzed. The patient reported difficulty breathing, excessive fatigue, and inability to clear secretions effectively. Objectively, the patient appeared weak, exhibited rapid breathing (tachypnea), and showed signs of respiratory distress. Based on these findings, three primary nursing diagnoses were established: (1) ineffective airway clearance related to excessive mucus production, (2) ineffective breathing pattern related to decreased lung elasticity, and (3) activity intolerance related to fatigue and dyspnea during minimal exertion. Nursing interventions focused on managing the respiratory condition through oxygen therapy, administering bronchodilators, teaching pursed-lip breathing techniques, encouraging effective coughing, and providing light physical activity as tolerated. Education was also provided to the patient and his family on home care strategies for COPD management. Nursing care was delivered over three days and aligned with the Indonesian Nursing Interventions Standards (SIKI), incorporating principles of service excellence. The results of these interventions were positive. Through continuous evaluation using the SOAP method (Subjective, Objective, Assessment, Plan), Mr. H demonstrated gradual clinical improvement: oxygen saturation increased from 90% to 94%, respiratory rate decreased from 27 to 25 breaths per minute, and he was able to cough effectively without assistance. Symptoms of breathlessness diminished, and the patient appeared more comfortable and cooperative. Subsequent care was transitioned to the staff nurses in the

pulmonary ward (RA6) for ongoing support and monitoring.

Discussion

The World Health Organization advocates three pillars for preventing and managing Chronic Obstructive Pulmonary Disease (COPD): stronger case-surveillance systems, broad-based public-health education, and integrated non-communicable-disease centres—an approach that aligns well with the Indonesian context. National policy echoes this framework: Government Regulation No. 4/2022 on the nursing career ladder and Ministerial Decree No. HK.01.07/MENKES/425/2020 on professional standards compel nurses to maintain competence, ethical conduct, and service accountability when caring for COPD patients. In Mr H's case these policies guided a structured nursing plan that covered triage, oxygen-therapy monitoring, bronchodilator administration, and family teaching, all aimed at stabilising respiratory function and preventing relapse. Indonesia's 2023 Health Act further obliges providers to deliver high-quality curative and rehabilitative services; it also authorises nurses to give urgent first aid during acute COPD exacerbations. That mandate is operationalised through the Ministry of Health Regulation 26/2019, which outlines nurses' independent and collaborative roles from assessment through evaluation, particularly for respiratory disorders. For Mr H, this legal framework legitimised continuous breath-pattern surveillance, early detection of hypoxia, secretion management, and structured home-care counselling—ensuring safe, timely intervention even during sudden deterioration. Evidence-based practice underpinned every clinical decision. Interventions such as pursed-lip

breathing, graded activity, and meticulous aseptic technique for sputum handling were selected from current research and national guidelines. By synthesizing the best available evidence, the nurse's clinical acumen, and Mr H's preferences, the care team reduced dyspnoea, enhanced airway clearance, and reduced the risk of lower respiratory tract infections—all while respecting legal and ethical standards.

STIKes Mitra Husada Medan's vision—to produce highly skilled, ethical nurses committed to holistic chronic-disease management—aligned seamlessly with this case. Through its PACER values (Professional, Accountable, Collaborative, Empathetic, Reliable) and tri-dharma mission of education, research, and community service, the institution equips graduates to deliver international-calibre respiratory care. Partnerships with clinical sites and ongoing faculty research further reinforce students' ability to perform detailed lung assessments, manage acute flare-ups, and provide sustained patient-family education, as demonstrated in Mr H's management. Finally, the medical-surgical nursing process—data collection, precise diagnosis, targeted planning, implementation, and outcome evaluation—proved decisive. Rapid oxygen delivery, airway-clearance drills, and close vital-sign monitoring brought Mr H's SpO₂ from 90% to 94%, reduced his respiratory rate, and enabled independent, effective coughing within three days. These gains confirm that legally grounded, evidence-based, institutionally supported nursing care can measurably improve quality of life for Indonesian patients with COPD while meeting national and international practice benchmarks.

Conclusion

The nursing assessment conducted on Mr. H, a patient diagnosed with Chronic Obstructive Pulmonary Disease (COPD), revealed several critical findings. During the interview and physical examination, the patient reported experiencing shortness of breath. His respiratory rate was 27 breaths per minute, heart rate was 102 beats per minute, and oxygen saturation (SpO₂) was measured at 90%. The patient also demonstrated accessory respiratory muscle use, particularly abdominal breathing. He was unable to expel secretions effectively, wheezing sounds were present upon auscultation, and the patient appeared weak, anxious, and pale. Based on these clinical findings, the nurse established three priority nursing diagnoses: ineffective airway clearance related to retained secretions, ineffective breathing pattern related to respiratory muscle fatigue and airway obstruction, and activity intolerance related to an imbalance between oxygen supply and demand. These diagnoses were determined through a combination of patient-reported symptoms and objective physical assessment. The planned nursing interventions for Mr. H included practical coughing exercises, airway management techniques, and activity therapy. These interventions were conducted over three consecutive days (3×24 hours) to improve respiratory function, promote airway clearance, and gradually increase physical tolerance.

Implementation of the nursing care plan began on May 1st, 2025, and continued through May 3rd, 2025. All nursing actions were performed in accordance with the planned interventions and were subsequently transferred to the ward nurses for continuation. Each procedure was aligned with the Indonesian Nursing Interventions Standards (SIKI) and adapted to Mr. H's condition. Evaluation was

conducted daily using the SOAP method (Subjective, Objective, Assessment, and Plan) for three consecutive days. The results showed a slight improvement in the patient's condition. His respiratory rate decreased, oxygen saturation trended upward, and he coughed more effectively. Although not all issues were fully resolved, the nursing interventions had a positive impact on Mr. H's respiratory stability and comfort.

Suggestion

For nursing students, it is essential to develop the ability to carry out nursing care systematically and thoroughly, following the five key stages of the nursing process: assessment, diagnosis, planning, implementation, and evaluation. Mastery of each stage is crucial to ensure accurate and effective patient care, particularly when managing complex conditions such as Chronic Obstructive Pulmonary Disease (COPD). For the institution, this final project report is expected to serve as a valuable reference for enhancing knowledge in medical-surgical nursing, particularly in the management of COPD cases. It is hoped that STIKes Mitra Husada Medan, notably the Diploma Three Nursing Program, will incorporate this report into its academic resources to enrich student learning and practical readiness (WHO 2021, 2021).

For RSUP H. Adam Malik, this final project report may contribute to the ongoing improvement of nursing care practices for patients with COPD. By implementing the findings and interventions presented in this report, the hospital can further strengthen evidence-based care strategies and improve patient outcomes in the respiratory unit.

For future researchers, this final project is intended to serve as a foundational reference for further studies. It provides a clinical overview of COPD management and nursing

interventions to guide future nursing care studies and support the continuous Development of professional nursing practices in chronic respiratory disease care.

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