

*APPLICATION OF CHEST PHYSIOTHERAPY FOR INEFFECTIVE AIRWAY
CLEARANCE IN PNEUMONIA PATIENTS ON MECHANICAL VENTILATION
IN THE INTENSIVE CARE UNIT AT RSUD KARSA HUSADA BATU*

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ABSTRACT

Background : *Pneumonia is an infection of the lung parenchyma that can increase secretion production, resulting in ineffective airway clearance, especially in patients with mechanical ventilation. This condition may worsen respiratory function if not managed properly.* **Objective :** *To analyze the application of chest physiotherapy in overcoming ineffective airway clearance in pneumonia patients with mechanical ventilation in the ICU of RSUD Karsa Husada Batu.* **Methods :** *This study used a descriptive case study design with a nursing care approach on one patient for three days (September 8–10, 2025). Data were collected through interviews, observation, physical examination, and medical record documentation. The main interventions included respiratory status monitoring, semi-Fowler positioning, chest physiotherapy (percussion and vibration), hyperoxygenation, endotracheal suctioning, and nebulizer collaboration.* **Results :** *The evaluation showed improvement in the patient's condition, indicated by a decrease in respiratory rate from 28 to 22 breaths/minute, reduced rhonchi, decreased secretion production, disappearance of chest retractions, and reduced oxygen demand with FiO₂ decreasing from 99% to 55%.* **Conclusion :** *Chest physiotherapy was effective in improving airway clearance in pneumonia patients with mechanical ventilation.*

Keywords : *chest physiotherapy, pneumonia, airway clearance*