



DEDER GENERAL HOSPITAL

*Standard Operating Procedure (SOP) for
Prevention and Management of Healthcare-
Associated Pneumonia (HAP)*

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1. Purpose

This SOP aims to outline procedures for preventing, detecting early, and managing Healthcare-Associated Pneumonia (HAP) to improve patient outcomes and reduce the incidence of this infection in healthcare settings.

2. Scope

This SOP applies to all healthcare personnel involved in the care of patients at risk of or diagnosed with Healthcare-Associated Pneumonia (HAP) in hospitals, long-term care facilities, outpatient care centers, and other healthcare settings.

3. Definitions

- ☞ **Healthcare-Associated Pneumonia (HAP):** Pneumonia that occurs 48 hours or more after admission to a healthcare facility or within 48 hours after discharge.
- ☞ **Ventilator-Associated Pneumonia (VAP):** A subtype of HAP occurring in patients who are mechanically ventilated.

4. Responsibilities

- **Healthcare Providers:** Implement infection prevention protocols, conduct early detection, and manage HAP cases.
- **Infection Control Team:** Monitor HAP rates, provide training, and review infection control practices.
- **Management:** Ensure resources and support for infection prevention and management practices are available.

5. Procedures

5.1. Prevention of HAP

1. Hand Hygiene:

- **Routine Handwashing:** Perform hand hygiene using soap and water or alcohol-based hand rubs before and after patient contact, after handling respiratory secretions, and after touching contaminated materials.
- **Technique:** Follow proper handwashing techniques, including scrubbing all parts of the hands for at least 20 seconds.

2. Aseptic Technique:

- **Use of PPE:** Wear appropriate personal protective equipment (PPE) such as masks, gloves, and gowns as needed, particularly during procedures involving respiratory secretions.

- **Sterilization:** Ensure proper cleaning, disinfection, and sterilization of equipment used in patient care, particularly those involving the respiratory tract.

3. Ventilator Management (for VAP):

- **Elevate Head of Bed:** Maintain the head of the bed at an angle of 30-45 degrees to reduce the risk of aspiration.
- **Oral Hygiene:** Perform oral care using antiseptic solutions (e.g., chlorhexidine) twice daily or as recommended.
- **Ventilator Circuit Care:** Replace ventilator circuits only when visibly soiled or malfunctioning, following manufacturer guidelines and using sterile techniques.

4. Patient Care:

- **Early Mobilization:** Encourage patients to engage in early mobilization and physical therapy to enhance lung function and prevent pneumonia.
- **Hydration and Nutrition:** Ensure patients receive adequate hydration and nutrition to support overall health and immune function.

5.2. Early Detection of HAP

1. Clinical Monitoring:

- **Observation:** Regularly assess patients for signs of pneumonia such as fever, cough, dyspnea, and changes in sputum.
- **Assessment Tools:** Use tools like the Pneumonia Severity Index (PSI) or CURB-65 score to evaluate the severity and risk of pneumonia.

2. Diagnostic Testing:

- **Imaging:** Obtain chest X-rays or other imaging studies to identify signs of pneumonia.
- **Laboratory Tests:** Perform sputum cultures, blood tests, and other relevant tests to identify pathogens.

5.3. Management of HAP

1. Antibiotic Therapy:

- **Empirical Therapy:** Initiate empirical antibiotic therapy based on local guidelines and patient risk factors, ensuring timely administration.
- **Targeted Therapy:** Adjust antibiotic therapy based on culture and sensitivity results, following local protocols for duration and choice of antibiotics.

2. Supportive Care:

- **Oxygen Therapy:** Provide supplemental oxygen as needed to maintain adequate oxygen saturation levels.
- **Bronchodilators:** Administer bronchodilators if clinically indicated based on patient condition.

3. Monitoring and Follow-Up:

- **Response to Treatment:** Monitor the patient's response to treatment, including improvement in symptoms and resolution of fever.
- **Reassessment:** Reassess the patient's condition regularly and adjust treatment as necessary.

5.4. Infection Control and Reporting

1. Infection Control Measures:

- **Isolation Precautions:** Implement appropriate isolation precautions based on the type of pneumonia and patient's condition, including contact and droplet precautions if necessary.
- **Environmental Cleaning:** Ensure regular cleaning and disinfection of patient care areas and equipment, particularly those involved in respiratory care.

2. Reporting:

- **Incident Reporting:** Document and report all cases of HAP, including patient symptoms, treatment, and outcomes, to the infection control team.
- **Data Review:** Regularly review HAP data to identify trends and areas for improvement, and report findings to relevant stakeholders.

5.5. Training and Competency

1. Training Programs:

- **Education:** Provide ongoing education and training on infection prevention, early detection, and management of HAP to all relevant staff.
- **Simulation:** Incorporate scenario-based training and simulation exercises to enhance practical skills.

2. Competency Assessment:

- **Evaluation:** Conduct regular competency assessments to ensure staff adherence to infection prevention protocols and proper management of HAP cases.

5.6. Monitoring and Auditing

1. Regular Audits:

- **Compliance Checks:** Perform regular audits to ensure adherence to infection prevention protocols and proper management of HAP.
- **Data Analysis:** Analyze HAP rates and audit findings to identify trends and opportunities for improvement.

2. Feedback and Improvement:

- **Continuous Improvement:** Use audit results and feedback to make necessary improvements to infection prevention and management practices.

5.7. Compliance and Regulations

- **Regulatory Adherence:** Ensure compliance with national and local regulations, guidelines, and standards for the prevention and management of HAP, including those from health authorities such as the CDC and WHO.

5.8. Review of SOP

- **Annual Review:** Review and update this SOP every 2 years or as needed to incorporate new evidence, best practices, and changes in local epidemiology.

6. References

1. Centers for Disease Control and Prevention (CDC) guidelines for the prevention and management of Healthcare-Associated Pneumonia.
2. World Health Organization (WHO) recommendations for infection prevention and control in healthcare settings.
3. Local health regulations and standards.