



# 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.