Department Procedure: **Nebulized Pentamidine**  
Reference #: G-14  
Department: Respiratory Therapy

Origination Date: 03/2011  
Next Review Date: 03/2020  
Effective Date: 03/2017

**Approval Date:** 01/2017  
**Approved By:** Respiratory Therapy Manager

**Procedure Owner Group:** Respiratory Therapy Manager  
**Procedure Information Resource:**

**SCOPE:**

<table>
<thead>
<tr>
<th>Sites, Facilities, Business Units</th>
<th>Departments, Divisions, Operational Areas</th>
<th>People applicable to (MD, NP, Administration, Contractors etc.)</th>
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<td>District One Hospital</td>
<td>All</td>
<td>RT, Pharmacy, Nursing</td>
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**PROCEDURE**

1. All Pentamidine treatments will be conducted in a negative pressure isolation room.  
2. Administering personnel need to wear a HEPA mask during administration.  
3. Collect and assemble the equipment before the patient arrives.  
4. When the patient arrives, order Pentamidine treatment by Excellian so pharmacy can mix the drug.  
5. Greet the patient using AIDET and take them to the treatment room.  
6. Use universal precautions  
7. Greet and identify patient using two identifiers and verify physician order  
8. If this is the first time the patient has used Pentamidine, be prepare to give an albuterol neb for bronchospasm.  
9. Access lungs, question patient regarding any respiratory symptoms. Obtain patient’s S\textsubscript{PO\textsubscript{2}} reading, pulse and respiratory rate  
10. Have them breathe through their mouth and not their nose. Treatment time is about twenty to thirty minutes.  
11. Reassess the patient for complications or adverse reaction. Report an adverse reactions to the physician.  
12. Discard the used equipment.  
13. Record the treatment in the DocFlow sheet.  
15. **CAUTION:** Health care workers should avoid prolonged or recurrent exposure to Pentamidine. Use of filtered neb is required. Treatment should be administered in a room with the patient as the only occupant during the Nebulization process. During nebulization an N95 mask or PAPR should be worn.

**DEFINITION**

Pentamidine has been shown to be effective in preventing and treating pneumocystis carinii pneumonia (PCP), a life threatening opportunistic pneumonia associated with immunosuppressive conditions such as organ transplant, or HIV. Pentamidine may also be beneficial for other medical problems caused by protozoa.

**EQUIPMENT**

1. NebuPent® (300 mg vial from Pharmacy)
2. Unit dose Albuterol from Pharmacy
3. 10 ml syringe with safety needle
4. Special Respirgard II Nebulizer kit
5. Flow meter assembly
6. Negative pressure isolation room (333-4 or ED 108)

**ADMINISTRATIVE CONTROLS**

1. Prompt recognition and treatment of TB in HIV+ patients should help in reducing transmission of TB. Screening and surveillance of workers should place emphasis on their respiratory complaints. Workers with symptoms should be more extensively evaluated and may need to be offered alternative assignments.
2. Reproductive policies, such as allowing pregnant workers the right to transfer to other jobs, should be available until it is established that exposure does not pose a reproductive risk.
3. Employees administering Pentamidine as well as those handling Pentamidine waste should be instructed in proper work procedures.
4. Patients who have a history of smoking or asthma may have an increase in coughing or difficulty breathing while receiving Pentamidine inhalation.

**CONTRAINDICATIONS AND SIDE EFFECTS**

Aerosolized Pentamidine is contraindicated in patients with a history of anaphylactic reaction to inhaled Pentamidine isethionate.

Unpleasant metallic taste, cough, shortness of breath, wheezing, dizziness of light-headedness, difficulty swallowing, discomfort in the throat, skin rash.

**REFERENCES:**

- www.mayoclinic.com/health/drug-information/DR202448
- AARC Standards of Practice Guidelines: Selection of Device for Delivery of Aerosol to the Lung Parenchyma
- ASHP – American Society of Hospital Pharmacists (1996) - Technical assistance bulletin on handling cytotoxic and hazardous drugs.
## Allina Health | District One Hospital

### Related Policy

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<th>Related Policy</th>
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<th>Business Unit/Dept. where Originated</th>
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### Policy Replacing

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### Stakeholder Groups

- Respiratory Therapy
- Nursing Departments
- Physicians

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