

**Respiratory Care Services  
John Dempsey Hospital  
Policy and Procedure Manual**

**Subject:** Reconstitution of Pentamadine

**Rationale:** Pentamadine is a pharmacologic agent used in the treatment of pneumocystis pneumonia. However, toxicity from pentamadine is known to affect organs such as the kidney. The ability to reconstitute pentamadine and deliver it in an aerosolized form to the patient results in fewer reported side effects and an enhanced/effective depositional targeting of the alveolar space.

**Equipment:** Vial(s) of Pentamadine (dependent on physician's medication order)  
One (1) vial of 10ml sterile water for injection, USP  
12ml syringe with 18 gauge needle

**Procedure:**

*600 mg Pentamadine*

1. Obtain 2 vials of 300 mg Pentamadine from the pharmacy
2. Draw up sterile water into the syringe and inject 3ml into each of the 300 mg Pentamadine vials
3. Shake the pentamadine vials until all of the solute is dissolved in solvent
4. Withdraw 3 mls from each of the 2 vials and place in the nebulizer. Total amount of solution in the nebulizer of the Filtered Nebulizer System or Respigard II Nebulizer System is six (6) mls.

*300 mg Pentamadine*

1. Obtain 1 vial of 300 mg Pentamadine from the pharmacy
2. Draw up sterile water into the syringe and inject 6 ml into the 300 mg Pentamadine vial
3. Shake the pentamadine vial until all of the solute is dissolved in solvent
4. Withdraw 6 mls of solution from Pentamadine vial and place in the nebulizer. Total amount of solution in the nebulizer of the filtered Nebulizer System or Respigard II Nebulizer System is six (6) mls.

*150mg Pentamidine*

1. Obtain 1 vial of 300 mg Pentamidine from the pharmacy
2. Draw up sterile water into the syringe and inject 6mls into the 300 mg Pentamidine
3. Shake the pentamidine vial until all of the solute is dissolved in the solvent
4. Withdraw 3 mls from pentamidine vial. Add 3 mls of sterile water to the Nebulizer. Total amount of solution in the Filtered Nebulizer System or Respigard II Nebulizer System is six (6) mls.

*30 mg Pentamidine*

1. Obtain 1 vial of 300 mg Pentamidine from the pharmacy
2. Draw up sterile water into the syringe and inject 6 ml into the 300 mg Pentamidine vial
3. Shake the pentamidine vial until all of the solute is dissolved in solvent
4. Withdraw 0.6 mls of solution from Pentamidine vial and place in the nebulizer. Add 5.4 mls of sterile water to the nebulizer. Total amount of solution in the nebulizer of the Filterd Nebulizer System or Respigard II Nebulizer System is six (6) mls.

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