



## **Nebulised Meropenem 250mg Twice Daily**

Inhaled antibiotics are an important part of maintenance therapy.

Inhalation (breathing medication into the lungs) via a nebuliser is an excellent delivery technique as it allows treatment to be delivered directly where it is needed, into the lungs and the airways.

The 'fine mist' created by a nebuliser allows particles of medication to be inhaled efficiently and reach the small airways of the lungs putting a fine layer of antibiotic directly onto the mucous.

### **How to prepare the Meropenem**

#### **• Nebulised Meropenem needs to be done twice daily**

- Meropenem should be taken after you have done all other inhaled therapies and airway clearance
- Any inhaled bronchodilator should be taken at least 10 minutes before
- Bronchodilators can be nebulised (Salbutamol / Terbutaline) or via an inhaler (Salbutamol / Bricanyl – blue; Symbicort – white and red).

#### **• PLEASE NOTE the following instructions using 1 vial will prepare 2 nebulised doses**

- Wash your hands
- You will need to prepare the following on a clean / dry surface
  1. 1 Vial of Meropenem 500mg vial
  2. 10ml vial of 0.9% sodium chloride (saline)
  3. 10 ml syringe
  4. Green needle
  5. Nebuliser e.g. eFlow / iNeb (Lilac chamber) / Porta-Neb / Pari-Boy (patient specific)
  6. Nebuliser handset with filter set (new filter each time) (no filter used with iNeb)
- Check the vial of Meropenem is of the prescribed dose (500mg) and "use by" date is still "in date"
- Remove cap from Meropenem vial
- Open the 0.9% saline draw up 10mls with syringe and needle and add to the Meropenem vial. A new syringe and needle needs to be used each time.
- Roll the vial between your hands to mix the powder with the saline. Try not to shake the solution as it becomes frothy!
- Once fully mixed, draw up 5mls of the antibiotic solution using the syringe and needle, (the left-over 5mls should be kept in the fridge).
- Put 5mls Meropenem solution in to the Porta-Neb chamber, attach nebuliser lid, mouth piece and filter valve set. Make sure a new filter pad is used with each dose.
- Attach tubing from handset to Porta-Neb

### **How to Administer Inhaled Meropenem**

- Your nebuliser will run off the mains or via battery
- If a Porta-Neb / Pari-Boy is used then it should be positioned on a clean dry surface (not on the carpet)
- Switch on, sit upright and breathe in and out through the mouthpiece ensuring lips are sealed tightly around mouthpiece throughout treatment
- During administration no mist should be escaping from the nebuliser hand set
- Treatment is finished when there is no further mist being produced, turn off your nebuliser. If you are using the iNeb / eFlow then these devices should turn off when treatment is complete
- Drink some water after treatment to rinse antibiotic from your mouth



### **To gain the most benefit from your medication**

- Meropenem nebuliser should be taken after physio in the morning and in the late evening after your final physio session of the day
- Breathe at a rate that is comfortable
- Do not talk whilst using your nebuliser

### **Cleaning the Nebuliser**

It is vital to clean and dry your nebuliser properly otherwise germs (such as Pseudomonas Aeruginosa) will thrive and the time taken to nebulise will increase.

### **Please clean equipment after every use as follows:**

- Take the nebuliser apart completely
- Soak immediately in warm water with washing up liquid for five minutes (except for the tubing)
- Place on paper towel to air dry completely (at least 4 hours)

### **Disinfection of Nebuliser**

- At least once a week the nebuliser needs to be disinfected by: -

#### **1. Steaming**

- A 'steam steriliser unit' (electric only) should be used
- It is recommended that items are sterilised for 15 minutes
- Follow instructions of steam steriliser
- Place on paper towel to air dry completely (at least 4 hours)

Or

#### **2. Boiling**

- Place all parts of your nebuliser (except for the tubing) in boiling water for at least 15 minutes. Ensure that there is sufficient water in the pan throughout so that parts do not come in to contact with the hot pan.
- Place on paper towel to air dry completely (at least 4 hours)

**It is essential that the nebuliser parts are completely dry before they are reassembled.**

### **Care of the Nebuliser unit**

Regularly wipe clean