



Respiratory Managed  
Clinical Network

**Nebuliser  
Administration  
COPD and Asthma**

**Respiratory MCN**

Managed Clinical Network

Extended until July 2021 (Covid-19)

## COPD

Nebulise prescribed drug via air compressor unit for up to 10 minutes. If oxygen therapy prescribed this can be used at the same time via nasal cannula.

## Asthma

Nebulise prescribed drug via oxygen 6 - 8l/min for up to 10 minutes. Oxygen for nebulisation must be prescribed.

If nebulised ipratropium bromide (Atrovent<sup>®</sup>) is prescribed it is mandatory to use a mouthpiece for delivery. Hand held tiotropium inhaler (Spiriva<sup>®</sup>) should be withheld for the duration of nebulised ipratropium bromide therapy.

Salbutamol (Ventolin<sup>®</sup>) alone can be delivered using a face mask or mouthpiece.

All usual inhaled steroid e.g. Qvar<sup>®</sup>, Pulmicort<sup>®</sup> or combination inhalers e.g. Seretide<sup>®</sup> or Symbicort<sup>®</sup> should be prescribed as normal.

### COMMON SIDE EFFECTS OF SALUBUTAMOL

Tremor      Tachycardia      Palpitations      Headaches

### COMMON SIDE EFFECTS OF IPRATROPIUM BROMIDE

Glaucoma    Dry mouth    Nausea    Bladder outflow obstruction

## **Advice on the administration of nebulised drugs for COPD and Asthma**

A nebuliser is a device which turns an aqueous solution of a drug into a mist of fine particles for inhalation using compressed gas. The aim of nebuliser therapy is to deliver a therapeutic dose of the desired drug within a short delivery time.

The nebuliser driving gas (oxygen or air) must be prescribed on the drug kardex. When using oxygen a rate of 6 – 8 l/min should be prescribed. Patients with COPD should only be nebulised via an air compressor to avoid risk of carbon dioxide retention. These patients may have their prescribed oxygen therapy at the same time via nasal cannula.

The patient should be comfortable and sitting upright where possible. Encourage the patient to breathe steadily through the mouth (not nose). The patient should avoid talking as this reduces the efficiency of drug delivery. It is important that the nebuliser chamber remains upright at all times.

All nebuliser chambers leave a residual volume of between 0.5 and 1.0ml. The nebuliser will never run dry due to the residual volume. Dependent upon the drug and nebuliser, up to 80% of the total dose is administered within the first five minutes of delivery.

The nebuliser chamber should be tapped when spluttering occurs. The nebuliser should then be used for a further minute. Delivery time should not exceed 10 minutes.

Nebuliser chambers should be washed after each use and dried immediately (N.B. manufacturers' instructions advice to drip dry chambers however this is NOT advised within a hospital setting). Nebuliser chambers, masks and tubing are single patient use only and should be discarded when nebuliser therapy is discontinued.

Compressor units should be cleaned thoroughly with detergent wipes daily when in use and in-between patients. Masks should be wiped clean after use.

Ward compressors should be serviced according to medical physics instruction.

Where ipratropium bromide (Atrovent®) is prescribed a mouthpiece MUST be used to prevent acute angle glaucoma. Where a patient chooses not to use a mouthpiece this should be clearly documented in the patients notes. In this instance ensure the patient wears the mask tightly and is aware of the risk.

Only tiotropium inhaler (Spiriva®) should be withheld while on ipratropium bromide (Atrovent®) nebulisers. All other inhaled medication should be prescribed on the drug kardex.

Nebulised treatment should be discontinued within 24 – 48 hours if patient responding to treatment and 24 hours prior to discharge unless patient is being followed up by the Respiratory Early Supported Discharge Team.