

GUIDELINES FOR NEBULISING BRONCHODILATOR DRUGS FOR ADULTS

Prescribing

- **An initial dose of 5 mg salbutamol is recommended.** If the patient experiences side effects (palpitations, tremor or angina), the dose can be reduced to 2.5 mg salbutamol.
- **It is not necessary to prescribe ipratropium bromide routinely for acute asthma.** It is a less effective bronchodilator than salbutamol in *acute asthma*. It can be combined with a β_2 -agonist when an acute asthmatic has failed to respond adequately to nebulised salbutamol alone. In *chronic bronchitis/emphysema*, ipratropium is at least as effective as salbutamol and may be used alone or in combination with a β_2 -agonist.
- **Specify the driving gas in the prescription.** Use oxygen in patients who are young and have a clear history of asthma. Use air in patients with chronic bronchitis/emphysema with or without evidence of carbon dioxide retention.

Administration

- **Ensure the patient is sitting upright comfortably** and advise him/her to inhale and exhale gently through the mask.
- **Unit dose vials of bronchodilator** (e.g. "Nebules" or "Unit Dose Vials") can be emptied into the nebuliser without using a needle and syringe.
- **Use a final volume of 4 ml.** This may consist of :
 - 1) a mixture of salbutamol and sterile sodium chloride 0.9%, or
 - 2) salbutamol and ipratropium, or
 - 3) ipratropium and sterile sodium chloride 0.9%.
- **Use a flow rate of 8 litres/minute for the prescribed gas.** This will deliver at least 65% of the aerosol droplets of a size under 5 microns - the size which is necessary for the bronchodilator to deposit in the airways.
- **Tap the nebuliser during nebulisation.** This shakes down large droplets and promotes maximum delivery of the drug. It is unnecessary to continue nebulising for longer than 10 minutes, since approximately 80% of the dose is delivered within this time.

Cleaning

- **Rinse** the nebuliser after each use with sterile water.
- **Dry the outside** with a paper towel.
- **Dry the inner tube** by passing compressed air or oxygen through the empty nebuliser.
- **Store** in a clean paper bag with the patient's name on it. Do not use the nebuliser for other patients.

Replacement and maintenance

- **Change** the nebuliser every two weeks.
- **Compressors (if used) should be serviced every 6 months.** Contact Lung Investigation Unit, Queen Elizabeth Hospital (7700)-3259.

If a patient is being considered for **home nebuliser therapy**, it is essential to confirm that the patient has **reversible** airflow obstruction (contact Lung Investigation Unit to arrange).