Princess Margaret Hospital for Children Emergency Department Guideline

GUIDELINE		
Salbutamol - Continuous Nebulised		
Scope (Staff):	All Emergency Department Clinicians	
Scope (Area):	Emergency Department	

This document should be read in conjunction with this DISCLAIMER http://kidshealthwa.com/about/disclaimer/

Salbutamol - Continuous Nebulised

Medication

- Salbutamol is a β₂ agonist
- In severe asthma it can be given as a continuous nebuliser

Actions

Salbutamol acts on β_2 adreno-receptors in the bronchial smooth muscle of the lungs to allow bronchodilation

Indications

Acute severe asthma not responding to initial treatment with intermittent inhaled salbutamol

Adverse

Although the incidence of all side effects is very low following intermittent inhalation, the continuous nebulised route commonly induces side effects, these may be so severe that the drug has to be discontinued

- Peripheral vasodilation with a reflex tachycardia
- Irritability, agitation, tremors, hyperactivity, headache
- Nausea and vomiting
- Hyperglycaemia
- Paradoxical bronchospasm
- Paradoxical hypoxaemia
- Hypokalaemia

Dosage

The dosage is the same regardless of the child's age or weight, as the actual inhaled dose will be adjusted by the patient's tidal volume

Preparation

- Chart 100mg salbutamol in 50mL of 0.9% saline on the drug chart
- Using the 5mg in 2.5ml salbutamol nebules, draw up 20 nebules = 100mg in 50mL of solution
- Add this to 50mL of 0.9% saline
- This gives a final solution of 1mg/mL
- Deliver this volume to the nebuliser chamber via infusion pump

Administration

- Fill nebuliser bowl with 4mL of solution prior to commencing
- Run oxygen flow of 8L/min via the nebuliser
- Run infusion pump at 25mL/hour to deliver 25mg/hour
- Check the nebuliser regularly to ensure it is not over-filling

Special

- Ensure the patient is sitting upright
- The length of time of continuous nebulised salbutamol should be based on the clinical response. Discuss with a Senior Doctor.
- Consider the need for treatment escalation (to intravenous therapy) and plan for this
- Ensure appropriate monitoring continuous oxygen saturations and cardiac monitoring
- The patient will often require 1:1 nursing care during this time
- Consider Paediatric Intensive Care review

Tags

accessory muscles, asthma, atomiser, bronchodilator, continuous, hypoxia, nebulised, nebuliser, salbutamol, steroids, ventolin, wheeze, wheezing

References

• Salbutamol. *Australian Medicines Handbook Pty Ltd*. 2013 July. Accessed online at www.amh.net.au

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