



## GUIDELINE

### Salbutamol - Intravenous

<b>Scope (Staff):</b>	All Emergency Department Clinicians
<b>Scope (Area):</b>	Emergency Department

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<http://kidshealthwa.com/about/disclaimer/>

# Salbutamol - Intravenous

## Medication

- Salbutamol is a  $\beta$  agonist that can be used intravenously in severe acute asthma in the Emergency Department
- It is used initially as an intravenous bolus, but can be continued as an intravenous infusion (in a Paediatric Intensive Care Unit)

## Actions

- Salbutamol acts on the  $\beta_2$  adrenoreceptors in the smooth muscle of the bronchi causing bronchodilation

## Indications

- Acute severe asthma
- Inadequate response to continuous nebulised salbutamol

## Contraindications

- Patients with known hypersensitivity to salbutamol
- Care should be taken with patients with hypertension, hyperthyroidism, myocardial insufficiency or diabetes

## Adverse

- Muscle tremors, especially of the hands
- Tachycardia

- Nausea and vomiting
- Headaches, agitation and hyperactivity
- Palpitations
- Feelings of warmth
- High doses can cause peripheral vasodilatation resulting in hypotension
- Overdose can result in chest pain, SVT and pulmonary hypertension

## Dosage

- **Intravenous Continuous Infusion:** 1-5 micrograms/kg/min (start at 1 microgram/kg/min, discuss with PICU if considering a higher dose). Infusion rate will be adjusted according to patient response.

## Preparation

### Continuous Infusion

- Drug: 3mg/kg Salbutamol
- Diluent: 500ml bag of 0.9% Saline or 5% Dextrose
- Rate of 10ml/hour = 1 microgram/kg/minute
- Titrate infusion 1 – 5 micrograms/kg/min according to patient response

## Administration

- Administer infusion via a pump
- Set volume to be infused on the pump to prevent overdose
- **Always prime the line** with the diluted salbutamol solution to prevent any delay in the patient receiving the medication

## Special

- The patient will require 1 : 1 nursing care
- Continuous cardiac monitoring
- 5 minutely observations for the first 10 minutes – heart rate, respiratory rate, blood pressure, oxygen saturations
- 15 minutely observations thereafter
- Consider Paediatric Intensive Care review
- Consider placing a second intravenous cannula (for further treatment as salbutamol is incompatible with many other drugs)


## Tags

asthma, breathing, bronchodilator, bronchospasm, intravenous, life threatening, nebulised, respiratory, salbutamol, severe, ventolin, wheeze

## References

PMH ED Guidelines: Salbutamol Intravenous – Last Updated 03/09/14

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