Salbutamol

Newborn use only

2020

Alert	Use with caution; safety data in newborn infants are limited. Evidence in the treatment of respiratory disease and bronchospasm in neonates is poor.
Indication	Hyperkalaemia Bronchospasm (evidence for efficacy is lacking)
Action	Stimulates liver and muscle cyclic AMP production causing potassium flow into cells.
Drug type	Sympathomimetic. β_2-agonist.
Trade name	IV: Ventolin Injection Inhalation: APO-Salbutamol 2.5, Asmol uni-dose 2.5, Butamol 2.5, Chemmart Salbutamol 2.5, Pharmacor Salbutamol 2.5, Salbutamol Actavis 2.5, Salbutamol 2.5, Salbutamol Sandoz 2.5, Salbutamol Sterinebs 2.5, Salbutamol-GA 2.5, Salbutamol-GA 2.5, Ventolin Nebules 2.5
Presentation	IV: 500 micrograms/mL ampoule Inhalation: 1 mg/mL (2.5 mg in 2.5 mL) and 2 mg/mL (5 mg in 2.5 mL) inhalation solution ampoules.
Dose	**Intravenous:** 4–5 microgram/kg over 20 minutes. Monitor serum potassium and heart rate (tachycardia) closely. If potassium critical or continues to rise, consider repeating dose every 4 hours[9] or use of other strategy (insulin/glucose; addition of rectal cation-resin). **Inhalation**: 400 microgram via nebulisation. Repeat two-hourly as required and titrated to response [serum potassium or respiratory status] and heart rate [tachycardia].
Dose adjustment	
Maximum dose	
Total cumulative dose	
Route	IV, inhalation
Preparation	**IV:** Draw up 0.4 mL (200 microgram of salbutamol) and add 19.6 mL of water for injection to make a 10 microgram/mL solution. **FURTHER DILUTE** Draw up 1 mL/kg of the above solution (10 microgram/kg of salbutamol) and add to water for injection to make a final volume of 10mL with a final concentration of 1 microgram/kg/mL. **Inhalation:** Draw up 0.4 mL (400 micrograms of salbutamol) from the 1 mg/mL inhalation ampoule and add 1.6 mL sodium chloride 0.9% to make a final volume of 2 mL with a final concentration of 0.2mg/mL. **OR**. Draw up 0.2 mL (400 micrograms of salbutamol) from the 2 mg/mL inhalation ampoule and add 1.8 mL sodium chloride 0.9% to make a final volume of 2 mL with a final concentration of 0.2mg/mL.
Administration	IV: Over 15–20 minutes via syringe driver. Inhalation: Via nebuliser over 10 minutes and discard remainder..
Monitoring	Cardiac rate and rhythm, Serum potassium, blood glucose
Contraindications	
Precautions	Infants with tachycardia
Drug interactions	Non-selective beta-blockers may increase serum potassium. Diuretics (hydrochlorothiazide, furosemide) increase risk of hypokalaemia and ECG changes. Salbutamol decreases digoxin concentrations.
Adverse reactions	Tachycardia, tremor, hypokalaemia. There is some concern that a transient increase in serum potassium may occur in the first few minutes of treatment.[8]
Compatibility	IV fluids: Water for injection, glucose 5%, sodium chloride 0.9%, glucose 4% in sodium chloride 0.18%, lactated Ringer's injection Y-site: Not recommended. Do not mix with any other drugs. Inhalation: Sodium chloride 0.9%

Incompatibility	IV fluids: No information. Y-site: Pantoprazole. Inhalation: No information
Stability	IV: Ampoules should be used immediately after opening. Any unused solution should be discarded. Diluted solution stable for 24 hours below 25°C. Inhalation: Ampoules should be used immediately after opening. Any unused solution should be discarded.
Storage	IV ampoule: Store at room temperature below 30°C. Protect from light. Inhalation ampoule: Store at room temperature below 25°C. Protect from light.
Excipients	
Special comments	Cross-check the correct strength of salbutamol intravenous and inhalation ampoules.
Evidence	Refer to full version.
Practice points	Refer to full version.
References	Refer to full version.

VERSION/NUMBER	**DATE**
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