

SODIUM CHLORIDE 0.9%

Newborn use only

2017

Alert	
Indication	Volume expansion Replacement of fluid and electrolyte losses e.g. excessive gastric losses Partial exchange transfusion for polycythaemia Maintenance of vascular catheter patency
Action	Sodium and chloride are the major cation and anion respectively of extracellular fluid. The main functions are regulation of osmotic pressure and water balance in the extracellular fluid. Sodium also affects conductivity of nerves and muscles, and active transport of glucose and amino acids.
Drug Type	Electrolyte
Trade Name	Sodium chloride 0.9% Injection. Contains 0.15 mmol of sodium and chloride per mL.
Presentation	
Dosage/Interval	Volume expansion: 10–20 mL/kg Maintaining catheter patency: Capped/IV Cannula 0.5 mL 6 hourly IV infusion: 0.5–1.0 mL/hour Partial exchange transfusion for polycythaemia: Volume exchanged (mL) = $\frac{\text{Blood volume (mL)} \times (\text{Hct observed} - \text{Hct desired})}{\text{Hct observed}}$ (Blood volume = 70–90 mL/kg for term and 85–110 mL/kg for preterm infants. Volume may be higher in growth restricted infants. Refer to www.nicutools.org to calculate volume for partial exchange transfusion)
Route	Intravenous, intra-arterial
Maximum Dose	
Preparation/Dilution	
Administration	Volume expansion: Rate of infusion is titrated to clinical need/response. Catheter patency: IV bolus/infusion Partial exchange: Recommend isovolaemic exchange over at least 30 minutes. Refer to local hospital policy for detailed procedure.
Monitoring	Monitor blood pressure, heart rate, urine output, electrolytes, haematocrit
Contraindications	
Precautions	Severe renal impairment with oliguria or anuria Use with caution in patients with moderate renal impairment, congestive heart failure, peripheral or pulmonary oedema
Drug Interactions	
Adverse Reactions	Hypernatraemia (symptoms include irritability, muscle twitching, seizures, hypertension, tachycardia, fluid accumulation) Hyperchloraemic acidosis Peripheral oedema Fluid overload.
Compatibility	Glucose solutions. See individual drugs for compatibilities
Incompatibility	See individual drugs for incompatibilities
Stability	
Storage	Store below 30 degrees Celsius. Discard unused portion of ampoule after use.
Special Comments	Sodium chloride 0.9% (normal saline) contains 0.15 mmol of sodium per mL and is isotonic i.e. given a constant infusion of 1 mL/hour, a baby will get 3.6 mmol of Na per day.
Evidence summary	
References	

Original version Date: 17/07/2017	Author: NMF Consensus Group
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Risk Rating: Medium	Due for Review: 17/07/2020

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Approved by: As per Local policy

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