

# SODIUM CHLORIDE 3%

## NEWBORN USE ONLY

2017

<b>Alert</b>	Osmolarity: 1027 mOsm/L. <sup>1</sup> Sodium supplementation is not always appropriate and fluid restriction may be appropriate in the management of hyponatraemia. Treatment should always be tailored to the cause.
<b>Indication</b>	Treatment of hyponatraemia.
<b>Action</b>	Sodium is the major cation of extracellular fluid.
<b>Drug Type</b>	Sodium chloride 3% contains 30 g/L sodium chloride, equivalent to 0.5 mmol/mL of sodium.
<b>Trade Name</b>	Sodium chloride 3%
<b>Presentation</b>	Sodium chloride 3% – 1000 mL.
<b>Dosage/Interval</b>	<p><b><u>Severe hyponatraemia &lt; 120 mmol/L or symptomatic hyponatraemia</u></b></p> <p>IV: Give sodium chloride 3% at 0.5 mmol/kg/hour (1 mL/kg/hour) until symptoms abate or sodium <math>\geq</math> 120 mmol/L.*</p> <p>Then give sodium chloride 3% at 0.15 mmol/kg/hour (0.3 mL/kg/hour) for 48 hours or until desired sodium is achieved.</p> <p>[Therapeutic goal is to increase sodium by 7 mmol/L/day]</p> <p>*1 mL/kg sodium chloride 3% will raise serum sodium by approximately 1 mmol/L.<sup>2</sup></p> <p><b><u>IV supplementation</u></b> Start at 2–4 mmol/kg/day and increase as required.</p>
<b>Route</b>	IV
<b>Maximum Dose</b>	
<b>Preparation/Dilution</b>	<b>IV:</b> Sodium chloride 3% can be given undiluted.
<b>Administration</b>	<b>IV:</b> Sodium chloride 3% – Can be given undiluted as an infusion, preferably through large vein.
<b>Monitoring</b>	IV: Watch the local site for signs of extravasation. Monitor serum sodium as per clinical team's recommendation.
<b>Contraindications</b>	IV: No information.
<b>Precautions</b>	Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.
<b>Drug Interactions</b>	No information.
<b>Adverse Reactions</b>	Hypernatraemia, volume overload, congestive heart failure, respiratory distress. Hyperchloraemia, hypercalciuria. Disseminated intravascular coagulation (DIC) is associated with inadvertent injections of sodium chloride into blood vessels of the uterus or placenta due to hypernatraemic shock; not reported in infants. Osmotic demyelinating syndrome. Fever. IV site: Extravasation, phlebitis, venous thrombosis.
<b>Compatibility</b>	<b>IV Fluids:</b> Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%, sodium chloride 0.9%, sodium chloride 0.45%.  Y site: No information.
<b>Incompatibility</b>	<b>IV Fluids:</b> Fat emulsion.  Y site: No information.  Amino acid solutions – No information.
<b>Stability</b>	
<b>Storage</b>	Store at room temperature, 20–25°C
<b>Special Comments</b>	Osmolarity of undiluted hypertonic sodium chloride is $>$ 1000 mOsm/L, posing the risk of extravasation for peripheral IV solutions. <sup>3,4</sup> Monitor for extravasation when infused peripherally at higher rates.

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	Total body water is traditionally calculated as weight x 0.6 in children. Greater total body water content in newborns should be considered and therefore should be calculated as weight x 0.75. <sup>2,5</sup>
<b>Evidence summary</b>	Refer to full version.
<b>References</b>	Refer to full version.

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<b>Risk Rating: Medium</b>	<b>Due for Review: 06/09/2020</b>
<b>Approved by: As per Local policy</b>	<b>Approval Date: As per Local policy</b>

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