**SODIUM CHLORIDE 3%  
NEWBORN USE ONLY**

### Alert

Osmolarity: 1027 mOsm/L. 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.

### Indication

Treatment of hyponatraemia.

### Action

Sodium is the major cation of extracellular fluid.

### Drug Type

Sodium chloride 3% contains 30 g/L sodium chloride, equivalent to 0.5 mmol/mL of sodium.

### Trade Name

Sodium chloride 3%

### Presentation

Sodium chloride 3% – 1000 mL.

### Dosage/Interval

**Severe hyponatraemia < 120 mmol/L or symptomatic hyponatraemia**

- **IV:** Give sodium chloride 3% at 0.5 mmol/kg/hour (1 mL/kg/hour) until symptoms abate or sodium ≥ 120 mmol/L.*

- 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.

*Therapeutic goal is to increase sodium by 7 mmol/L/day*

- *1 mL/kg sodium chloride 3% will raise serum sodium by approximately 1 mmol/L.²*

**IV supplementation**

Start at 2–4 mmol/kg/day and increase as required.

### Route

IV

### Maximum Dose

- Precautions Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.
- Drug Interactions No information.

### Adverse Reactions

Hyponatraemia, volume overload, congestive heart failure, respiratory distress. Hyperchloremia, hypercalcuria. Disseminated intravascular coagulation (DIC) is associated with inadvertent injections of sodium chloride into blood vessels of the uterus or placenta due to hyponatraemic shock; not reported in infants. Osmotic demyelinating syndrome. Fever. IV site: Extravasation, phlebitis, venous thrombosis.

### Compatibility

**IV Fluids:** 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.

### Incompatibility

**IV Fluids:** Fat emulsion.

Y site: No information.

### Stability

Store at room temperature, 20–25°C

### Special Comments

Osmolarity of undiluted hypertonic sodium chloride is > 1000 mOsm/L, posing the risk of extravasation for peripheral IV solutions.³,⁴ Monitor for extravasation when infused peripherally at higher rates.

---

NMF Consensus Group

Sodium Chloride 3%

Page 1 of 2

This is a printed copy. Refer to Neomed electronic system for the most up to date version.
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.\(^2,5\)

**Evidence summary**
Refer to full version.

**References**
Refer to full version.

---

**Original version Date: 06/09/2017**
**Author: NMF Consensus Group**

**Current Version number: 1.0**
**Version Date: 06/09/2017**

**Risk Rating: Medium**
**Due for Review: 06/09/2020**

**Approved by: As per Local policy**
**Approval Date: As per Local policy**

---

**Authors Contribution**

<table>
<thead>
<tr>
<th>Original author/s</th>
<th>Chris Wake, Srinivas Bolisetty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy Review</td>
<td>Ushma Trivedi</td>
</tr>
<tr>
<td>Expert review</td>
<td></td>
</tr>
<tr>
<td>Evidence Review</td>
<td>Timothy Schindler</td>
</tr>
<tr>
<td>Final content and editing review</td>
<td>Ian Whyte</td>
</tr>
<tr>
<td>Facilitator/s</td>
<td>Srinivas Bolisetty</td>
</tr>
</tbody>
</table>

---

This is a printed copy. Refer to Neomed electronic system for the most up to date version.