

Sodium chloride 3% (Hypertonic saline)

40:12 – Replacement preparations



PHARMACY PREPARATION:

- Sodium chloride 3% 500 ml IVPB
- Clear, colorless solution
- Osmolarity: 1026 mosm/L

STABILITY:

Store at room temperature.

ADMINISTRATION:

- Always infuse via IV infusion pump.
- Dose may not require entire bag. Remaining hypertonic saline should be discarded as soon as possible after dose is administered.
- Central line is strongly preferred. Peripheral line may be used for urgent administration (e.g. symptomatic hyponatremia, cerebral edema). An 18 gauge at the antecubital or higher is strongly preferred for peripheral administration.
- May be ordered with the following restrictions:
 - GMC Davenport and Silvis: Orders by a Genesis pulmonary/critical care or nephrology provider. ED providers may order upon the recommendation of a pulmonary, critical care, or nephrology provider from the receiving referral center (e.g. OSF or UIHC).
 - GMC Aledo, Dewitt, Jackson: ED providers may order upon the recommendation of a pulmonary, critical care, or nephrology provider from the receiving referral center (e.g. OSF or UIHC).

	Symptomatic hyponatremia	Cerebral edema
Baseline labs	CMP, serum osmolality, thyroid function tests, cortisol, lipid panel, urine sodium, urine osmolality	Serum sodium and chloride if available
Warnings and precautions	<p>Osmotic demyelination syndrome risk should be assessed</p> <ul style="list-style-type: none"> • Chronic > acute • Rate of correction <ul style="list-style-type: none"> ○ Neonate: NMT 10 mEq/L/day ○ Infants, children, adolescents: NMT 12 mEq/L/day ○ Adults with Na < 120 mmol/L: 4-6 mEq/L/day ○ Adults with Na ≥ 120 mmol/L: 8-12 mEq/L/day <p>*Severely symptomatic patients may require Na correction of 4-6 mEq/L within the first 6 hours of care.</p>	Consider mannitol or alternative treatments for Na > 160 mmol/L or Cl > 115 mmol/L.

<p>Dosing</p>	<p>Infusion rate based on baseline Na and Na goal (as indicated by the provider but no more than 8-12 mEq/L or 0.5 mEq/L/hr)</p> <p>May be calculated at: "Hypertonic and normal saline infusion calculator" https://globalrph.com/medcalcs/hypertonic-saline-3-and-normal-saline-infusion-calculator/</p> <p>Follow Serum Na levels q6h during infusion.</p>	<p><u>Adults</u> Bolus: 100 – 500 ml over 15-60 min (most commonly 250 ml over 30 min) Infusion: 1 ml/kg/hr targeting Na 145-155 mmol/L. Follow serum Na q6h during infusion.</p> <p><u>Pediatrics</u> Bolus: 2.5-5 ml/kg over 10-20 min Infusion: 0.1-1 ml/kg/hr to target ICP or Na per provider (Avoid Na > 160 mmol/L). Follow serum Na q6h during infusion.</p>
<p>NMT – not more than</p>		