## **SODIUM CHLORIDE 23.4%**

#### Newborn use only

Sodium supplementation is not always appropriate and fluid restriction may be appropriate in the management of hyponatraemia. Treatment shoul always be tailored to the cause. Although, it can be used for both IV and oral routes, AMMF recommends 3% sodium chloride for IV administration and sodium chloride 23.4% to be restricted for oral administration.           Indication         Treatment of hyponatraemia.           Action         Treatment of hyponatraemia.           Presentation         Sodium chloride 23.4%. contains 234 g/L sodium chloride, equivalent to 4 mmol/mL of sodium.           Presentation         Sodium chloride 23.4%.           Dose         Oral supplementation           Start at 2-4 mmol/kg/day (0.5-1 mL/kg/day) and increase as required, divided into 3-12 doses. IV supplementation           Sodium chloride 3% is recommended. On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.           Dose adjustment         Therapeutic hypothermia- No information.           Heaptic impairment – No information.         Heaptic impairment – No information.           Maximum dose         PO           Virufusion: Refer to special comments section.         Virufusion: Refer to special comments section.           Maximum dose         Dose given mixed with feeds. Divide the daily oral dose into 3-12 doses, aiming for a small but practical volume.           Virufusion: Refer to special comments section.         Noral: Infants who are nor any enteral nutrition, acte gastrointestinal illn		
management of hyponatraemia. Treatment should always be tailored to the cause.           Although, It can be used for both IV and oral routes, AMMF recommends 3% solum chloride for IV administration.           Antimistration and sodium chloride 23.4% to be restricted for oral administration.           Action           Drig type           Sodium chloride 23.4% contains 234 g/L solium chloride, equivalent to 4 mmol/mL of sodium.           Trade name           Sodium chloride 23.4% - 10 mL val.           Dose           Oral supplementation           Sodium chloride 3% is recommended.           On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.           ECMO - No information.           Recommended           Dose adjustment           Therapeutic hypothermia - No information.           Recommended           PO           Total camulative isola           Solar           Solar           Polar Sodium chloride 23.4% valso or oral preparation supplied by pharmacy.           Vi infusion: Refer to special comments section.           Maximum dose           Protar           Total camulative isolar           Solar         Pol           Vi infusion: Refer to special comments section.           Vi infu	Alert	Osmolarity: Sodium chloride 23.4%: 8010 mOsm/L <sup>1</sup> .
Altholgh, It can be used for both IV and oral routes, AMMF recommends 3% sodium chloride for IV         indication       Treatment of hyponatraemia.         Action		
administration and sodium chloride 23.4% to be restricted for oral administration.           Action           Action           Drug type           Sodium chloride 23.4% contains 234 g/L sodium chloride, equivalent to 4 mmol/mL of sodium.           Trade name         Sodium chloride 23.4%.           Presentation         Sodium chloride 23.4%.           Dose         Oral supplementation           Sodium chloride 33.4%.         Sodium chloride 23.4%.           Presentation         Sodium chloride 33.4% is recommended.           On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.           Dose adjustment         Therapeutic hypothermia – No information.           ECMO - No information.         Renal impairment – No information.           Renal impairment – No information.         Renal impairment – No information.           Maximum dose         Toral: Sodium chloride 23.4% is or oral preparation supplied by pharmacy.           IV infusion: Refer to special comments section.         Noral: Sodium chloride 23.4% is or oral preparation supplied by pharmacy.           IV infusion: Refer to special comments section.         Noral: Signs of gastric irritation.           Administration         Oral: Signs of gastric irritation.           Vi infusion: Refer to special comments section.         Oral: Signs of gastric irritation.		
Indication       Treatment of hyponatraemia.         Action       Progrep         Sodium chloride 23.4%. Contains 234 g/L sodium chloride, equivalent to 4 mmol/mL of sodium.         Presentation       Sodium chloride 23.4% 10 mL vial.         Dose       Oral supplementation         Statut 2-4 mmol/kg/day (0.5-1 mL/kg/day) and increase as required, divided into 3-12 doses.         V supplementation       Sodium chloride 23.4% is recommended.         On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.         Dose adjustment       Therapeutic hypothermia - No information.         Renal impairment - No information.       Hepatic impairment - No information.         Renal impairment - No information.       Hepatic impairment - No information.         Renal impairment - No information.       Hepatic impairment - No information.         Repatic Impairment - No information.       Hepatic impairment - No information.         Repatic Impairment - No information.       Hepatic Impairment - No information.         Repatic Impairment - No information.       Hepatic Impairment - No information.         Repatic Impairment - No information.       Hepatic Impairment - No information.         Repatic Impaired to special comments section.       Oral:         Oral: To be given mixed with feeds.       Divinde the daily oral dose into 3-12 doses, aimin		
Action	Indication	
Drug type         Sodium chloride 23.4%, contains 234 g/L sodium chloride, equivalent to 4 mmol/mL of sodium.           Trade name         Sodium chloride 23.4%, -10 mL vial.           Dose         Oral supplementation           Sodium chloride 23.4%, -10 mL vial.         Dose           Oral supplementation         Sodium chloride 23.4%, is recommended.           On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.           Dose adjustment         Therapeutic hypothermina - No information.           ECMO – No information.         Renal impairment – No information.           Route         PO           Total compatibility         Oral: Sodium chloride 23.4% vias or oral preparation supplied by pharmacy.           IV infusion: Refer to special comments section.         Noral: Sodium chloride 23.4% vias or oral preparation supplied by pharmacy.           Vi refer to special comments section.         Oral: Sodium chloride 23.4% vias or oral preparation supplied by pharmacy.           Vi infusion: Refer to special comments section.         Oral: Sogium chloride 23.4% vias or oral preparation supplied by pharmacy.           Vi infusion: Refer to special comments section.         Oral: Sogium chloride 23.4% vias or oral preparation supplied by pharmacy.           Vi infusion: Refer to special comments section.         Oral: Sogium chloride 23.4% vias or oral preparation supplied by pharmacy.           Vi infus		
Trade name       Sodium chloride 23.4%.         Presentation       Sodium chloride 23.4%.         Dose       Oral supplementation         Start at 2-4 mmO/Kg/day (0.5-1 mL/kg/day) and increase as required, divided into 3-12 doses.         V supplementation         Sodium chloride 3% is recommended.         On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.         Dose adjustment         Therapeutic hypothermia – No information.         REMO       No information.         Renal impairment – No information.         Read       PO         IV information.       Read         Route       PO         IV forfer to special comments section.         Vinfusion: Refer to special comments section.         Vinfusion: Refer to special comments section.         Oral: Signs of gastric irritation.         Nr: Local IV site for signs of extravastion.         Serum sodium as per chical team's recommendation.         Serum sodium as are not any enteral nutrition, cauce gastrointestinal illness including ileus, necrotising enteractions         No information.         Norgi infractation.         No biodermation.         Adverse reactions         No information.         No information.		Sodium chloride 23.4% contains 234 g/L sodium chloride equivalent to <b>4 mmol/mL</b> of sodium
Presentation         Sodium chloride 23.4% – 10 mL vial.           Dose         Oral supplementation           Start at 2–4 mmol/kg/day (0.5–1 mL/kg/day) and increase as required, divided into 3–12 doses.           N supplementation           Sodium chloride 3% is recommended.           On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.           ECMO – No information.           Renal impairment – No information.           Hepatic impairment – No information.           Hepatic impairment – No information.           Hepatic impairment – No information.           Metator           No rai: Sodium chloride 23.4% vials oral preparation supplied by pharmacy.           Ni Infusion: Refer to special comments section.           Preparation           Oral: Signs of gastric irritation.           No rai: Signs of gastric irritation.           No local special comments section.           Oral: Signs of gastric irritation.           No collicity is ter or signs of extravasation.           Serum sodium as per clinical team's recommendation.           Contraindications           Orgi: Infaits who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           No information.         No information.           N		
Dose         Oral supplementation Start at 2-4 mmol/kg/day (0.5–1 mL/kg/day) and increase as required, divided into 3–12 doses.           N supplementation Sodium chloride 3% is recommended. On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.           Dose adjustment         Therapeutic hypothermia – No information. ECMO – No information. Renal impairment – No information. Hepatic impairment – No information. Hepatic impairment – No information.           Maximum dose         PO           Total cumulative dose         PO           Portification         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.           Administration         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation. IV: Local IV site for signs of eastric insufficiency, pre-existing oedema with sodium retention. Drug interactions No information. Hyperchoreamia, hypercalcutria. 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: No information. Hyperchoreamia, hypercalcutria. Disseminated intravascular coagulation (DIC) is associated with inadvertent injections of sodium chloride intob blood vessels of the uterus or placenta due to hypernatraemic s		
Start at 2-4 mmol/kg/day (0.5-1 mL/kg/day) and increase as required, divided into 3-12 doses.           V supplementation         Sodium chloride 3% is recommended.           On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.           Dose adjustment         Therapeutic hypothermia – No information.           EGMO – No information.         Renal impairment – No information.           Hepatic impairment – No information.         Hepatic impairment – No information.           Maximum dose         PO           Total cumulative dose         No (refer to special comments section)           Vir (refer to special comments section)         Vir (refer to special comments section.           Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy.         Virfusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation.         To be given mixed with feeds.           Divide the daily oral dose into 3-12 doses, aiming for a small but practical volume.         Virfusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation.         Secure on any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Ora: Infants who are not any enteral nutrit	Dose	
IV supplementation         Sodium chloride 3% is recommended. On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.           Dose adjustment         Therapeutic hypothermia – No information. ECMO – No information. Renal impairment – No information. Hepatic impairment – No information. Hepatic impairment – No information.           Maximum dose         PO           Torial comulative         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section)           Preparation         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.           Administration         Oral: To be given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           Winfusion: Refer to special comments section.         Vi infusion: Refer to special comments section.           Vi: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.         Serum sodium as per clinical team's recommendation.           Corla: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.         Moi formation.           Preguinteractions         No information, cardiac insufficiency, pre-existing oedema with sodium retention.           Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.		
Sodium chloride 3% is recommended. On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section for preparation and administration.           Dose adjustment         Therapeutic hypothermia – No information. ECMO – No information. Renal impairment – No information. Hepatic impairment – No information. Maximum dose           Maximum dose         Fortal cumulative dose           Maximum dose         PO           Virifer to special comments section)           Preparation         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.           Oral:         To be given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           Vinfusion:         Refer to special comments section.           Monitoring         Oral:         Sodium aper clinical team's recommendation. Serum sodium as per clinical team's recommendation. Serum sodium as per clinical team's recommendation. Serum sodium as per clinical team's recommendation.           Oral:         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention. No information. No information. No information.           Adverse reactions         Hyperchloraemia, hypercalcuria. Usisseminated 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. Osmatic demyelinating syndrome. Fever IV site: Extravasation, phlebitis, venous thrombosis. Oral: Gastric irritation. Nation Add solutions – No info		
for preparation and administration.           Dose adjustment         Therapeutic Mypothermia – No information. ECMO – No information. Renal impairment – No information. Hepatic impairment – No information.           Maximum dose         Impairment – No information.           Total cumulative dose         PO           Number of the second of the seco		
Dose adjustment         Therapeutic hypothermia – No information. ECMO – No information. Renal impairment – No information. Hepatic impairment – No information.           Maximum dose         PO           Fotal cumulative dose         PO           Route         PO           IV (refer to special comments section)           Preparation         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.           Administration         Oral:           IV infusion: Refer to special comments section.           Oval:         Dyactic action of the daily oral dose into 3–12 doses, aiming for a small but practical volume.           IV infusion: Refer to special comments section.         Vi infusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation. Serum sodium as per clinical team's recommendation.           Org: Infants who are not any enterral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions         No information.           Adverse reactions         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		On rare occasions, if sodium chloride 23.4% is required for IV, refer to special comments section
ECMO – No information.         Renal impairment – No information.         Hepatic impairment – No information.         Maximum dose         Total comulative dose         Route       PO         W (refer to special comments section)         Preparation       Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.         Administration       Oral:         To be given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.         IV infusion: Refer to special comments section.         Monitoring       Oral: Signs of gastric irritation. Serum sodium as per clinical team's recommendation.         Contraindications       Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.         Precautions       No information.         Preceutions       No information.         Adverse reactions       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         V site: Extravasation, phlebitis, venous thrombosis. Oral: Gastric irritation.         Compatibility       V Huids: Glacose		for preparation and administration.
Renal impairment - No information.         Hepatic impairment - No information.         Maximum dose         Total cumulative dose         Route       PO         IV (refer to special comments section)         Preparation       Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy.         VI infusion: Refer to special comments section.         Administration       Oral: To be given mixed with feeds. Divide the daily oral dose into 3-12 doses, aiming for a small but practical volume.         IV infusion: Refer to special comments section.         Monitoring       Oral: Signs of gastric irritation. NV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.         Contraindications       Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enteracolitis, intestinal obstruction.         Precautions       No information.         Adverse reactions       No information.         Adverse reactions       No information.         Hyperchloraemia, 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         V site: Extravasation, philebitis, venous thrombosis. Oral: Gastric irritation.       Oral: Gastric irr	Dose adjustment	
Hepatic impairment – No information.           Maximum dose           Total cumulative dose           Route         PO NV (refer to special comments section)           Preparation         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy.           V infusion: Refer to special comments section.           Administration         Oral: Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           W infusion: Refer to special comments section.         Oral: Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           Monitoring         Oral: Signs of gastric irritation. IV: Locall V site (for signs of extravasation. Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Orge interactions         No information.           Adverse reactions         Hyperchloraemia, hypercalcuria. 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           V site: Extravasation, phlebitis, venous thrombosis. Oral: Gastric irritation.         V Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0		
Maximum dose       PO         Total cumulative dose       PO         Route       PO         Dreparation       Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy.         IV infusion: Refer to special comments section.         Administration       Oral:         To be given mixed with feeds.         Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.         IV infusion: Refer to special comments section.         Monitoring       Oral: Signs of gastric irritation.         IV: Local IV site for signs of extravasation.         Serum sodium as per clinical team's recommendation.         Contraindications       Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.         Precautions       Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.         Drug interactions       No information.         Adverse reactions       Hypernhoraemia, volume overload, congestive heart failure, respiratory distress.         Hyperchloraemia, volume overload, congestive heart failure, respiratory distress.         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.       Fev		
Total cumulative dose         PO           Route         PO           IV (refer to special comments section)         Preparation           Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.           Administration         Oral: Oral: To be given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           IV infusion: Refer to special comments section.         Oral: Oral: Gaily site for signs of extravasation. Serum sodium as per clinical team's recommendation. Serum sodium as per clinical team's recommendation. Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Oral: Information.         No information. No information.           Adverse reactions         Hypernatraemia, volume overload, congestive heart failure, respiratory distress. Hypernatraemia, 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. Oral: Gastric irritation.           Compatibility         V Fluids: Ent emulsion. Y site: No information. Amino Acid solutions – No information. Amino Acid s		Hepatic impairment – No information.
dose         PO           Route         IV (refer to special comments section)           Preparation         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy.           IV infusion: Refer to special comments section.         Oral:           Administration         Oral:           IV infusion: Refer to special comments section.         Oral:           IV infusion: Refer to special comments section.         Oral:           Monitoring         Oral: Signs of gastric irritation.           IV: Local IV site for signs of extravasation.         Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions.         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.           Oral: Gastric irritation.         Oral: Gastric irritation.           V site: Extravasation, phlebitis, venous thrombosis.         Oral: Gastric irritation.           Oral: Gastric irritati		
Route         PO IV (refer to special comments section)           Preparation         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.           Administration         Oral: Do given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           W infusion: Refer to special comments section.         Oral: Oral: Gans of gastric irritation. Victoral IV site for signs of extravasation. Serum sodium as per clinical team's recommendation. Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions         No information. Hypernoloraemia, 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. Oral: Gastric irritation.         V 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         V Fluids: Flat emulsion. Y site: No information. Amino Acid solutions – No information. Amino Ac		
IV         (refer to special comments section)           Preparation         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.           Administration         Oral:           To be given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           IV infusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation. IV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         No information.           Adverse reactions         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. Oral: Gastric irritation.           Compatibility         IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, sodium chloride 0.45%. Y site: No information.           Incompatibility         IV site: Stat emulsion. Y site: No information.           Incompatibility         IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.45%. Y site: No informat		
Preparation         Oral: Sodium chloride 23.4% vials or oral preparation supplied by pharmacy. IV infusion: Refer to special comments section.           Administration         Oral: To be given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           IV infusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation. IV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation. Serum sodium as per clinical team's recommendation. Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction. Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention. Preprinteraemia, 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. Oral: Gastric irritation. Y fuids: 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. Amino Acid solutions – No information. Amino Acid solutions – No information. Stability Oral solution: Supplied by pharmarcy with a	Route	
IV infusion: Refer to special comments section.           Administration         Oral: To be given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           IV infusion: Refer to special comments section.         IV infusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation.         IV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Orug interactions         No information.           Adverse reactions         Hypernotraemia, 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. Oral: Gastric irritation.         Veriadis: 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         V Fluids: Fat emulsion. Y site: No information. Amino Acid solutions – No information. Amino Acid solutions – No information. Stability         Vi als: Use immediately after opening and discard the unused potion. Check with loc	Droporation	
Administration         Oral: To be given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           IV infusion: Refer to special comments section.         IV infusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation. IV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions         No information.           Adverse reactions         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. Oral: Gastric irritation.           Compatibility         IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.45%. Y site: No information. Amino Acid solutions – No information. Amino Acid solutions – No information. Amino Acid solutions – No information. Amino Acid solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy. Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.           Storage         IV: Store at room temper	Preparation	
To be given mixed with feeds. Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.         IV infusion: Refer to special comments section.         Monitoring       Oral: Signs of gastric irritation. IV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.         Contraindications       Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.         Precautions       Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.         Drug interactions       No information.         Adverse reactions       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         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. Amino Acid solutions – No information. Amino Acid solutions – No information. Stability       Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy. Yials: Use immediately after opening and discard the unused potion. Check with local pharmacy.	Administration	
Divide the daily oral dose into 3–12 doses, aiming for a small but practical volume.           IV infusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation. IV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions         No information.           Adverse reactions         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. Oral: Gastric irritation.           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. Amino Acid solutions – No information. Amino Acid solutions – No information. Stability         V Fluids: Fat emulsion. Y site: No information. Amino Acid solutions – No information. Amino Acid solutions – No information. Stability         Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy. Visits: Use immediately after opening and discard the unused potion. Check with local pharmacy. </td <td>Auministration</td> <td></td>	Auministration	
IV infusion: Refer to special comments section.           Monitoring         Oral: Signs of gastric irritation. IV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions         No information.           Adverse reactions         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. Oral: Gastric irritation.           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. Amino Acid solutions – No information. Stability         IV Fluids: Glucose 10% pharmacy with a 7-14 day expiry. Check with local pharmacy. Yials: Use immediately after opening and discard the unused potion. Check with local pharmacy.           Storage         IV: Store at room temperature, 20–25°C.		-
Monitoring         Oral: Signs of gastric irritation. IV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions         No information.           Adverse reactions         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. Oral: Gastric irritation.           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         Oral solutions – No information. Yals: Use immediately after opening and discard the unused potion. Check with local pharmacy. Yials: Use immediately after opening and discard the unused potion. Check with local pharmacy.		
IV: Local IV site for signs of extravasation. Serum sodium as per clinical team's recommendation.         Contraindications       Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.         Precautions       Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.         Drug interactions       No information.         Adverse reactions       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. Oral: Gastric irritation.         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.         Amino Acid solutions – No information. Oral solutions – No information.         Stability       Oral solutions – No information. Y site: Sue immediately after opening and discard the unused potion. Check with local pharmacy. Yials: Use immediately after opening and discard the unused potion. Check with local pharmacy.		IV infusion: Refer to special comments section.
Serum sodium as per clinical team's recommendation.           Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions         No information.           Adverse reactions         Hypernatraemia, volume overload, congestive heart failure, respiratory distress.           Hypernatraemia, 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           Fever         IV site: Extravasation, phlebitis, venous thrombosis.           Oral: Gastric irritation.         Oral: Sodium chloride 0.9%, sodium chloride 0.45%.           Y site: No information.         Amino Acid solutions – No information.           Incompatibility         IV Fluids: Fat emulsion.           Y site: No information.         Amino Acid solutions – No information.           Stability         Oral solutions – No information.           Oral solutions         No information.           Storage         IV: Store at room temperature, 20–25°C.	Monitoring	Oral: Signs of gastric irritation.
Contraindications         Oral: Infants who are not any enteral nutrition, acute gastrointestinal illness including ileus, necrotising enterocolitis, intestinal obstruction.           Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions         No information.           Adverse reactions         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.         Oral: Gastric irritation.           Compatibility         IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%. Y site: No information.           Incompatibility         IV Fluids: Fat emulsion. Y site: No information.           Stability         Oral solution: Oral solution = No information. Y site: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy. Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.		IV: Local IV site for signs of extravasation.
enterocolitis, intestinal obstruction.         Precautions       Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.         Drug interactions       No information.         Adverse reactions       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.       Oral: Gastric irritation.         Compatibility       IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%.         Y site: No information.       Y site: No information.         Incompatibility       IV Fluids: Fat emulsion.         Y site: No information.       Amino Acid solutions – No information.         Stability       Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.		Serum sodium as per clinical team's recommendation.
Precautions         Impaired renal function, cardiac insufficiency, pre-existing oedema with sodium retention.           Drug interactions         No information.           Adverse reactions         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           V site: Extravasation, phlebitis, venous thrombosis. Oral: Gastric irritation.         V 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.           Incompatibility         Oral solutions – No information. Amino Acid solutions – No information.           Stability         Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy. Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.	Contraindications	
Drug interactions         No information.           Adverse reactions         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. Oral: Gastric irritation.         Oral: Gastric irritation.           Compatibility         IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%. Y site: No information.           Incompatibility         IV Fluids: Fat emulsion. Y site: No information.           Stability         Oral solutions – No information. Mino Acid solutions – No information.           Strage         IV: Store at room temperature, 20–25°C.		
Adverse reactions       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. Oral: Gastric irritation.         Compatibility       IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%. Y site: No information.         Incompatibility       IV Fluids: Fat emulsion. Y site: No information.         Stability       Oral solutions – No information. Amino Acid solutions – No information.         Stability       Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy. Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.		
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. Oral: Gastric irritation.CompatibilityIV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%. Y site: No information.IncompatibilityIV Fluids: Fat emulsion. Y site: No information.StabilityOral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy. Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.StorageIV: Store at room temperature, 20–25°C.		
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.         Oral: Gastric irritation.         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.         Amino Acid solutions – No information.         Stability         Oral solution:         Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.	Adverse reactions	
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.         Oral: Gastric irritation.         Compatibility         IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%, sodium chloride 0.45%.         Y site: No information.         Incompatibility         IV Fluids: Fat emulsion.         Y site: No information.         Amino Acid solutions – No information.         Stability         Oral solution:         Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.		
Osmotic demyelinating syndrome.         Fever         IV site: Extravasation, phlebitis, venous thrombosis.         Oral: Gastric irritation.         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.         Amino Acid solutions – No information.         Stability         Oral solution:         Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage		
Fever         IV site: Extravasation, phlebitis, venous thrombosis.         Oral: Gastric irritation.         Compatibility         IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%.         Y site: No information.         Incompatibility         IV Fluids: Fat emulsion.         Y site: No information.         Y site: No information.         Y site: No information.         Amino Acid solutions – No information.         Stability         Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.		
IV site: Extravasation, phlebitis, venous thrombosis.         Oral: Gastric irritation.         Compatibility         IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%, ry site: No information.         Incompatibility       IV Fluids: Fat emulsion.         Y site: No information.       Y site: No information.         Amino Acid solutions – No information.       Amino Acid solutions – No information.         Stability       Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.		
Oral: Gastric irritation.         Compatibility       IV Fluids: Glucose 5%, glucose 10%, glucose 5% in sodium chloride 0.9%, glucose 5% in sodium chloride 0.45%, Y site: No information.         Incompatibility       IV Fluids: Fat emulsion.         Y site: No information.       Y site: No information.         Stability       Oral solutions – No information.         Stability       Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Yials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.		
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. Amino Acid solutions – No information.         Stability       Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy. Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.		
0.45%, sodium chloride 0.9%, sodium chloride 0.45%.         Y site: No information.         Incompatibility         IV Fluids: Fat emulsion.         Y site: No information.         Amino Acid solutions – No information.         Stability         Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage	Compatibility	
Incompatibility         IV Fluids: Fat emulsion. Y site: No information. Amino Acid solutions – No information.           Stability         Oral solution: Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.           Storage         IV: Store at room temperature, 20–25°C.	-	
Y site: No information.         Amino Acid solutions – No information.         Stability       Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.		Y site: No information.
Amino Acid solutions – No information.         Stability       Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.         Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.         Storage       IV: Store at room temperature, 20–25°C.	Incompatibility	IV Fluids: Fat emulsion.
Stability         Oral solution: Supplied by pharmacy with a 7-14 day expiry. Check with local pharmacy.           Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.           Storage         IV: Store at room temperature, 20–25°C.		
Vials: Use immediately after opening and discard the unused potion. Check with local pharmacy.           Storage         IV: Store at room temperature, 20–25°C.		
Storage IV: Store at room temperature, 20–25°C.	Stability	
Oral solution: Refrigerate (2–8°C).	Storage	
		Oral solution: Refrigerate (2–8°C).

# **SODIUM CHLORIDE 23.4%**

Newborn use only

	Vials: Store at room temperature, 20–25°C	C, once opened refrigerate vials (2–8°C)		
Excipients				
Special comments	for peripheral IV solutions. <sup>3,4</sup> So, local cons	n chloride is > 1000 mOsm/L, posing the risk of extravasation sensus was to bring the osmolarity of IV preparation to 2.4% sodium and an estimated osmolality of 855 mOsm/L.		
		as weight x 0.6 in children. Greater total body water content erefore should be calculated as weight x 0.75. <sup>2,5</sup>		
	IV preparation and administration CAUTION—CANNOT BE GIVEN UNDILUTE	D.		
	Severe hyponatraemia < 120 mmol/L or symptomatic hyponatraemia: Infuse sodium chloride at 0.4 mmol/kg/hour until symptoms abate or serum sodium ≥ 120 mmol/L. Then infuse sodium chloride at 0.15 mmol/kg/hour for 48 hours or until desired serum sodium is achieved. Therapeutic goal is to increase serum sodium by 7 mmol/L/day.			
	IV supplementation Start at 2–4 mmol/kg/day and inc	crease as required.		
	IV infusion: Draw up 5 mL (20 mmol sodium) of 23.4% a final volume of 50 mL with a final concer Infusion at 1 mL/kg/hour = 0.4 mmol/kg/h			
	Infusion Strength	Prescribed amount		
	1 mL/kg/hour = 0.4 mmol/kg/hour	5 mL of sodium chloride 23.4% and make up to 50		
		mL of water for injection		
	*1 mL/kg of 0.4 mmol/mL of sodiu	um chloride will raise serum sodium by 0.8 mmol/L. <sup>2</sup>		
Evidence	neonatal populations. Recommendations a from adult consensus guidelines <sup>6,7</sup> and take	ations in this clinical setting is extremely limited, particularly in are based on expert opinion, which have been extrapolated e into account specific neonatal safety concerns (see Safety e risk of sequelae is greater than that of osmotic		
	sodium is achieved (≥ 120 mmol/L). <sup>9</sup> Once	ol/L per hour until symptoms abate or a safe level of serum the safe level is achieved, suggested subsequent goals are 6–8 nours and 14–16 mmol/L in 72 hours. <sup>10</sup> (LOE IV, GOR C)		
	Dosage and infusion rate recommendations in this formulary are extrapolated from the rate of rise expected with sodium chloride 3% <sup>2</sup> and are as follows: 0.5 mmol/mL of sodium chloride (i.e. sodium chloride 3%), when administered at 1 mL/kg, will raise serum sodium by 1 mmol/L. 0.4 mmol/mL of sodium chloride (i.e. diluted sodium chloride in this formulary), when administered at 1 mL/kg, will raise serum sodium by 0.8 mmol/L.			
	Sodium deficit calculation			
	Deficit in mmol = (desire	d sodium – serum sodium) x total body water		
		as weight x 0.6 in children. Greater total body water content erefore should be calculated as weight x 0.75. <sup>2,5</sup> (LOE IV, GOR C)		
	sodium versus placebo from DOL 7 to 35 ir sodium levels and increased weight gain in	kg/d (0.4 mL/kg per dose of 2.5 mmol/mL sodium chloride) of n infants born 24–31 weeks (53 infants) showed higher serum n the intervention group. <sup>11</sup> A randomised, controlled trial of 4 of sodium versus placebo from DOL 4 to 14 in infants born at		

## **SODIUM CHLORIDE 23.4%**

#### Newborn use only

29–34 weeks (20 infants) showed higher serum sodium levels and increased weight gain in the intervention group. <sup>12</sup> There are also three case-control studies that report similar findings with respect to	
serum sodium levels and growth in preterm infants supplemented with oral sodium. <sup>13-15</sup> A systematic review comparing higher versus lower sodium intake for preterm infants is in progress. <sup>16</sup> These findings support the use of oral sodium supplements to correct hyponatraemia and potentially improve growth. (LOE II, GOR B)	0
<u>Safety</u> An historical, case-control study identified 42/350 ELBW NICU admissions with an episode of hyponatraemia (Na <125 mmol/L [range 113-124]) that lasted >6 hours (median 1.5 days). <sup>17</sup> Rates of abnormal head ultrasound (IVH or PVL) and abnormal neurological examination were higher in the hyponatremic group (p< 0.03; p< 0.001 respectively). Correction $\ge$ 0.5 mmol/L/h showed a trend toward higher rates of abnormal neurological examination. In paediatric and adult populations, multiple cohort studies and reviews have concluded that in patients with chronic hyponatraemia ( $\ge$ 48 hours), neurological sequelae due to osmotic demyelination are associated with more rapid rates of correction. <sup>7,9</sup>	
In summary, rapid correction of hyponatraemia may be detrimental to neurological outcome during myelination of the newborn brain. <sup>17</sup> In adult populations, osmotic demyelination syndrome can usually be avoided by limiting correction of chronic hyponatraemia to < 10 to 12 mmol/L in 24 hours and to < 18 mmol/L in 48 hours. These estimates should be regarded as approximate limits and not goals of therapy. (LOE IV, GOR C)	
Osmolarity and Osmolar load A retrospective, matched-cohort study of 352 children ≤ 18 years evaluated the incidence of phlebitis or infiltration associated with peripheral administration of parenteral nutrition with an osmolarity > 1000 mOsm/L vs ≤ 1000 mOsm/L. <sup>18</sup> There were 151 neonates in the study. There were no differences between patients who did or did not develop adverse events in terms of age or weight. Administration of PPN with osmolarity > 1000 mOsm/L vs ≤ 1000 mOsm/L significantly increased infiltration (17% vs 7%; odds ratio [OR, 2.47]; 95% confidence interval [CI], 1.24–4.94; p = 0.01) and the combined composite end point of phlebitis or infiltration (45% vs 34%; OR, 1.65; 95% CI, 1.07–2.54; p = 0.02). In multivariate analysis, osmolarity > 1000 mOsm/L vs ≤ 1000 mOsm/L was an independent risk factor for developing complications (OR, 1.67; 95% CI, 1.08–2.52; p = 0.02). <sup>18</sup> (LOE III, GOR C)	n
A prospective, observational study in adults suggests that osmolar load (i.e. number of milliosmoles per hour, calculated as osmolarity x infusion rate) is a better predictor than osmolarity alone for phlebitis. <sup>19</sup> They found an osmolarity rate of 84–99 mOsm/hour was associated with 4–27% rate of phlebitis. They did not report on other injuries such as extravasation. The infusion rates suggested in our formulary have low osmolar load and are considered to carry minimal risk of phlebitis (Consensus opinion).	е
Practice points	
<ol> <li>Micromedex solutions. Accessed on 18 July 2017.</li> <li>Zieg J. Evaluation and management of hyponatraemia in children. Acta Paediatr 2014;103:1027-34.</li> <li>Dugan S, Le J, Jew RK. Maximum tolerated osmolarity for peripheral administration of parenteral nutrition in pediatric patients. Journal of Parenteral and Enteral Nutrition. 2014 Sep;38(7):847-51.</li> <li>Timmer JG, Schipper HG. Peripheral venous nutrition: the equal relevance of volume load and osmolarity in relation to phlebitis. Clinical Nutrition. 1991 Apr 1;10(2):71-5.</li> <li>Modi N, Bétrémieux P, Midgley J, Hartnoll G. Postnatal weight loss and contraction of the extracellular compartment is triggered by atrial natriuretic peptide. Early Hum Dev 2000;59:201-8.</li> <li>Spasovski G, Vanholder R, Allolio B, Annane D, Ball S, Bichet D, et al. Clinical practice guideline on diagnosis and treatment of hyponatraemia. Eur J Endocrinol 2014; 170: G1-47.</li> <li>Verbalis JG, Goldsmith SR, Greenberg A, Schrier RW, Sterns RH. Hyponatremia treatment guidelines 2007: expert panel recommendations. Am J Med 2007;120:S1-21.</li> <li>Marcialis MA, Dessi A, Pintus MC, Irmesi R, Fanos V. Neonatal hyponatremia: differential diagnosis and treatment. J Matern Fetal Neonatal Med 2011;24:75-9.</li> <li>Assadi F. Hyponatremia: a problem-solving approach to clinical cases. J Nephrol. 2012;25(4):473-80.</li> <li>Sterns RH, Nigwekar SU, Hix JK. The treatment of hyponatremia. Semin Nephrol 2009;29:282-99.</li> <li>Isemann B, Mueller EW, Narendran V, Akinbi H. Impact of Early Sodium Supplementation on</li> </ol>	5
Hyponatremia and Growth in Premature Infants: A Randomized Controlled Trial. Jpen: Journal of Parenteral & Enteral Nutrition 2016;40:342-9.	

#### Newborn use only

12	Manage M. Havin D. Duchamera H. Asonia A. Cadium and have static a settimized unitation in
12.	Vanpee M, Herin P, Broberger U, Aperia A. Sodium supplementation optimizes weight gain in
	preterm infants. Acta Paediatr. 1995;84:1312-1314.
13.	Sulyok E, Rascher W, Baranyai Z, Ertl T, Kerekes L. Influence of NaCl supplementation on vasopressin
	secretion and water excretion in premature infants. Biology of the Neonate 1993;64:201-8.
14.	Ayisi RK, Mbiti MJ, Musoke RN, Orinda DA. Sodium supplementation in very low birth weight infants
	fed on their own mothers milk, I: effects on sodium homeostasis. East Afr Med J. 1992;69:591-595.
15.	Al-Dahhan J, Haycock GB, Nichol B, Chantler C, Stimmler L. Sodium homeostasis in term and preterm
	neonates. Arch Dis Child 1984;59:945-950.
16.	Chan W, Chua MYK, Teo E, Osborn DA, Birch P. Higher versus lower sodium intake for preterm
	infants (Protocol). Cochrane Database of Systematic Reviews 2017: CD012642.
17.	Bhatty S, Tsirka A, Bigini-Quinn P, La Gamma EF. Does Hyponatremia Result in Pontine Myelinolysis
	and Neurological injury in Extremely Low Birth Weight (ELBW) Micropremies? <sup>†</sup> 825. Pediatric
	Research 1997;41:140.
18.	Clark E, Giambra BK, Hingl J, Doellman D, Tofani B, Johnson N. Reducing risk of harm from
	extravasation: a 3-tiered evidence-based list of pediatric peripheral intravenous infusates. Journal of
	Infusion Nursing 2013;36:37-45.
19	Pereira-da-Silva L, Henriques G, Videira-Amaral JM, Rodrigues R, Ribeiro L, Virella D. Osmolality of
15.	solutions, emulsions and drugs that may have a high osmolality: aspects of their use in neonatal
	care. The Journal of Maternal-Fetal & Neonatal Medicine 2002;11:333-338.

VERSION/NUMBER	DATE
Original 1.0	06/09/2017
Version 2.0	15/12/2020
Version 3.0	18/02/2021
Current 4.0	1/09/2022
REVIEW	1/09/2027

#### **Authors Contribution**

Original author/s	Chris Wake, Srinivas Bolisetty
Evidence Review	Timothy Schindler
Expert review	
Nursing Review	Eszter Jozsa, Kirsty Minter
Pharmacy Review	Ushma Trivedi, Jessica Mehegan
ANMF Group contributors	Ansar Kunjunju, Nilkant Phad, Bhavesh Mehta, John Sinn, Carmen Burman,
	Michelle Jenkins, Helen Huynh, Wendy Huynh, Thao Tran, Simarjit Kaur, Renae
	Gengaroli, Stephanie Halena, Karl Kizur, Rebecca O'Grady, Rebecca Barzegar
Final editing and review of the original	lan Whyte
Electronic version	Cindy Chen, Ian Callander
Facilitator	Srinivas Bolisetty