SODIUM ACETATE

Read in conjunction with Disclaimer

Formulary: Restricted Requires Neonatologist review within 24 hours of initiation.	
Presentation	**Ampoule:** Sodium acetate 16.4% (1.64 g/10 mL). Each 1 mL contains 2 mmol of sodium and 2 mmol of acetate.
Classification	Electrolyte
Indication	Maintenance of central and umbilical catheter line patency for extreme preterm neonates born less than 25 weeks gestational age.
Special Considerations	Use with caution in patients with: • **Hypernatraemia**. • **Renal impairment** – increased risk of hypernatremia. • **Severe hepatic impairment**. • **Fluid overload** – can worsen. • **Metabolic or respiratory alkalosis** – can worsen.
Monitoring	Blood gas monitoring of acid base status and electrolytes.
Compatibility	**Fluids:** Water for injection, sodium chloride 0.9%, glucose 5%. **Y site compatible:** Labetalol. **Limited data available for other medications, contact pharmacy**.
Incompatibility	**Fluids:** No information. **Y site incompatible:** Amiodarone, caspofungin, hydralazine. **This list may not be exhaustive, contact pharmacy for further information**.
Side Effects	Metabolic alkalosis, hypernatraemia, hypokalaemia**,** fluid overload (associated with rapid infusion).
	Note: Some references refer to aluminium toxicity from leaching of aluminium from glass ampoule. This is not noted in the Australian product information and unlikely to be a concern when using TGA registered sodium acetate.
Storage	**Ampoule:** Store at room temperature, below 30°C.

CONTINUOUS INFUSION			
	Presentation	**Ampoule:** Sodium acetate 16.4% (1.64 g/10 mL). Each 1 mL contains 2 mmol of sodium and 2 mmol of acetate.	
	Dosage	Prescribe sodium acetate infusion on the Neonatal Parenteral Fluid Orders Chart (MR828.01). **The continuous infusion should be prescribed to contain:** • 4 mmol of sodium acetate and, • 25 units of heparin, • made to a final volume of 50 mL with water for injection. **Prescribed rate:** 0.5 mL/hour = 0.04 mmol of sodium and acetate ions per hour.	
	Preparation	**Required for preparation:** • Sodium acetate 16.4% ampoule. • Heparinised Saline ampoule containing **50 units/5 mL** of heparin. • Water for injection. **Dilution steps:** 1. Measure **45.5 mL of water for injection** into a syringe. 2. Measure and add **2.5 mL (25 units) of Heparinised Saline**. **Double check heparin concentration:** Use Heparinised Saline **50 units/5 mL** ampoule. 3. Measure and add **2 mL (4 mmol) of sodium acetate**. Final volume is 50 mL with final concentrations of: • *Sodium acetate 0.08 mmol/mL* and, • *Heparin 0.5 units/mL.*	
	Administration	Infuse via syringe driver pump at a rate of 0.5 mL/hour.	
	Comment	Osmolarity of the above sodium acetate preparation is similar to sodium chloride 0.45% at 160 mOsm/L.	

Related Policies, Procedures, and Guidelines

HDWA Mandatory Policies:

MP 0131/20: WA High Risk Medication Policy

Clinical Practice Guidelines:

Umbilical Arterial Catheter (UAC)

Pharmaceutical and Medicines Management Guidelines:

CAHS Neonatology – Medication Administration Guideline

High Risk Medicines

References

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NSQHS Standards Applicable:	☒ Std 1: Clinical Governance		☒ Std 4: Medication Safety		
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