

Disruption to supply – Sodium chloride 0.9% 100 mL intravenous solution

n SAFETY NOTICE 008/24

Issue Date:	27 May 2024
	Chief Executives; Directors of Clinical Governance
KEY MESSAGE:	NSW Health facilities are informed of the current disruption to the supply of sodium chloride 0.9% 100 mL intravenous solution.
ACTION REQUIRED BY:	Chief Executives, Directors of Clinical Governance
REQUIRED ACTION:	<ol style="list-style-type: none"> 1. Distribute this Safety Notice to all relevant clinicians and clinical departments where sodium chloride 0.9% 100 mL intravenous solution is held, prescribed, and/or administered, and include this Safety Notice in relevant handovers and safety huddles. 2. Undertake a local risk assessment and incorporate the below recommendations to manage the disruption of supply of sodium chloride 0.9% 100 mL intravenous solution. 3. Ensure a system is in place to document actions taken in response to this Safety Notice. 4. Confirm receipt and distribution of this Safety Notice within 72 hours to: CEC-MedicationSafety@health.nsw.gov.au.
DEADLINE:	COB Wednesday 29 May 2024
We recommend you also inform:	<p>Directors, Managers and Staff of:</p> <ul style="list-style-type: none"> • All clinical areas • Pharmacy • Nursing/Midwifery • Medical Services • Drug and Therapeutics Committees <p>Clinical Product Managers</p> <p>Other relevant clinicians, departments and committees.</p>
Website:	https://www.health.nsw.gov.au/sabs/Pages/default.aspx http://internal.health.nsw.gov.au/quality/sabs/index.html
Review date:	November 2024

Situation

There is a current disruption to the supply of sodium chloride (Baxter and Fresenius Kabi) 0.9% 100 mL intravenous solutions due to manufacturing issues. At the time of publication, the estimated date of return of supply is early June 2024.

Background

Sodium chloride 0.9% intravenous solution is used to manage or correct deficiencies in hydration and electrolyte imbalance. It is also used as a diluent for compatible intravenous medicines.

Assessment

There is a current disruption to the supply of sodium chloride (Baxter and Fresenius Kabi) 0.9% 100 mL intravenous solution due to manufacturing issues.

Alternative volumes of sodium chloride 0.9% such as 50 mL and 250 mL intravenous solution remain available, however, it is expected that supply across all volumes of sodium chloride 0.9% will be affected as a result of this shortage.

Alternative diluents remain available (for example glucose 5% and compound sodium lactate infusion [Hartmann's]) and can be considered where clinically appropriate and compatible.

Recommendations

- A facility-wide review of stock holding should be conducted, ensuring all locations of stock are identified.
 - Identify all excess stock in wards/clinical areas and consider sharing of stock between units within each facility.
 - A reduction of minimum/maximum quantities held in imprest areas should be enacted with stock management throughout the disruption to supply.
- Remaining stock of sodium chloride 0.9% 100 mL intravenous solution is to be reserved for the patients and indications where use of alternative sodium chloride 0.9% volumes or diluents is not appropriate.
- Consider alternative intravenous administration practices (for example, an intravenous push where appropriate, or administration via syringe driver).
- If using an alternative volume of a sodium chloride solution when diluting a medication for intravenous use, refer to the [Australian Injectable Drugs Handbook](#) to ensure the final concentration is within the acceptable range for administration.
- Be aware that some medicines (for example, ciclosporin, tacrolimus and diazepam) are incompatible with polyvinyl chloride (PVC) and some of the alternative intravenous solutions may not be appropriate for administration of these medicines. Refer to [Australian Injectable Drugs Handbook](#) for further information.
- Liaise with preferred wholesalers/suppliers, and where required, ensure back orders based on average usage are placed to ensure adequate distribution of stock when it becomes available.
- The features of alternative sodium chloride solutions outlined in Table 1 should be considered.

Table 1. Comparison between sodium chloride solutions available from multiple suppliers.

	<i>Presentation</i>	<i>Storage</i>	<i>Maximum volume that can be added to 50 mL container</i>	<i>Maximum volume that can be added to 100 mL container</i>	<i>Maximum volume that can be added to 250 mL container</i>
B Braun® (50 mL, 100 mL & 250 mL)	Ecoflac Plus® container*	Below 25°C	70 mL	40 mL	90 mL
Baxter® (50 mL, 100 mL & 250 mL)	Viaflex® plastic (PVC) container	Below 30°C	140 mL	90 mL	60 mL
Fresenius Kabi® (50 mL, 100 mL & 250 mL)	Freeflex® composite plastic laminate bags	Below 25°C	70 mL	50 mL	75 mL

*The B Braun Ecoflac Plus® container has been designed in such a manner that it does not require a giving set with an airvent. The container empties automatically under atmospheric pressure, except for a small residual portion of fluid at the end of infusion, thus preventing the inadvertent entry of air into the system. Training may be required for clinicians on the appropriate use of this presentation.