Critical disruption to the supply of multiple intravenous fluid bags

SAFETY ALERT 011/24

Issue Date:	16 July 2024
Replaces:	SN:014/24
Content reviewed by:	Medication Safety Expert Advisory Committee Medication Shortage Assessment and Management team Infection Prevention and Control Emergency Care Institute
Distributed to	Chief Executives; Directors of Clinical Governance; Director, Regulation and Compliance Unit
KEY MESSAGE:	NSW Health facilities and clinicians are aware of the criticality of the ongoing disruption to the supply of multiple intravenous fluid bags over the next **2-3 weeks**.
ACTION REQUIRED BY:	Chief Executives, Directors of Clinical Governance
REQUIRED ACTION:	1. Distribute this Safety Alert to all relevant clinicians and clinical departments where intravenous fluids are held, prescribed, and/or administered, and include this Safety Alert in relevant handovers and safety huddles. 2. Undertake a local risk assessment and incorporate the below recommendations to manage the disruption of supply of intravenous fluids. 3. Ensure a system is in place to document actions taken in response to this Safety Alert. 4. Escalate any concerns regarding this disruption to supply to Noman.Masood@health.nsw.gov.au. 5. Confirm receipt and distribution of this Safety Alert within **24 hours** to: CEC-MedicationSafety@health.nsw.gov.au.
DEADLINE:	COB 17 July 2024
We recommend you also inform:	Directors, Managers and Staff of: • All clinical areas • Pharmacy • Nursing/Midwifery • Medical Services • Drug and Therapeutics Committees Clinical Product Managers Infection Prevention and Control Other relevant clinicians, departments and committees.
Website:	https://www.health.nsw.gov.au/sabs/Pages/default.aspx http://internal.health.nsw.gov.au/quality/sabs/index.html
Review date:	September 2024

Contact: Clinical Excellence Commission
02 9269 5500
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What is updated in the Safety Alert from SN:014/24?

This Safety Alert replaces SN:014/24 – Ongoing disruption to the supply of multiple intravenous fluid bags, which has now been rescinded. The criticality of this disruption to supply has now escalated, especially over the coming **2-3 weeks**. Compliance with the recommendations within this Safety Alert and a reduction in the use of intravenous fluid bags is required to ensure equitable access across all NSW Health facilities.

Situation

There is an ongoing disruption to supply (with intermittent stock available) of intravenous fluid bags due to manufacturing issues and increases in demand. This is expected to be critical in the coming **2-3 weeks**. The date of return to normal supply is variable for each brand, product and volume.

Products affected include:

- Glucose 5% bags (Baxter, B. Braun and Frensenius Kabi) – all volumes.
- Hartmann's solution bags (Baxter, B. Braun and Frensenius Kabi) – all volumes.
- Sodium chloride 0.9% bags (Baxter, B. Braun and Frensenius Kabi) – all volumes.
- Water for injection bags (Baxter, B. Braun and Frensenius Kabi) – all volumes.

Supply of alternative crystalloid solutions (such as Plasma-Lyte 148) are **not** expected to fulfill the shortfall in supply of Hartmann's solution.

Background

Intravenous fluid bags are used to manage or correct deficiencies in hydration and electrolyte imbalance. They are also used as diluents for compatible intravenous medicines.

Assessment

- If the preferred intravenous fluid bag (diluent and/or volume) is not available due to a disruption to supply, alternative products will need to be used considering clinical appropriateness and compatibility.
- LHDs/SHNs must have mechanisms in place to ensure redistribution of supply within their district/network to allow for equitable access amongst their facilities.

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Recommendations

- An LHD/SHN-wide review of intravenous fluid bag stock holding **must** be conducted, ensuring all locations of stock are identified.
    - Identify all excess stock in wards/clinical areas and ensure mechanisms are in place to share stock both within and between facilities in your district/network.
    - A reduction of minimum/maximum quantities held in imprest areas should be enacted with stock management throughout the disruption to supply. Prioritise supply of intravenous fluids to clinical areas with high usage.
    - Ensure supply of intravenous fluid is appropriately rotated to minimise potential wastage of stock due to expiry.
- Liaise with preferred wholesalers/suppliers, and where required, ensure appropriate back orders for intravenous fluid bags based on average usage are placed to ensure adequate distribution of stock when it becomes available. Orders in excess of clinical needs must be avoided.
- Where appropriate, rather than using an intravenous infusion bag, consider:
    - alternative intravenous administration practices (for example, an intravenous bolus injection where appropriate, or administration via syringe driver) – refer to the Australian Injectable Drugs Handbook for advice
    - fluid replacement via the oral route of administration
    - medicine administration via alternate routes of administration such as oral, subcutaneous and intramuscular.
- Ensure regular review of patients receiving intravenous infusions and switch to alternative routes of administration as soon as possible.
- Ensure clinicians are aware that fluids marketed for irrigation are **unsuitable** for injection or infusion.
- Ensure that the management and administration of all intravenous fluids are in accordance with NSW Health Policy Directive *Infection Prevention and Control in Healthcare Settings* (PD2023_025).
- When administering medicines via the intravenous route, refer to the Australian Injectable Drugs Handbook to ensure compatibility of the medicine with the selected diluent and that the final concentration is within the acceptable range for administration/stability.
- Be aware that some medicines (for example, ciclosporin, tacrolimus and diazepam) are incompatible with polyvinyl chloride (PVC) and some of the intravenous fluid bags may not be appropriate for administration of these medicines. Refer to the Australian Injectable Drugs Handbook for further information.
- The features of intravenous fluid bags (including overfill and maximum volume that can be added) and a comparison of constituents is available in the Australian Injectable Drugs Handbook.

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