

UPDATED Critical disruption to the supply of multiple intravenous fluid bags

⚠ SAFETY ALERT 014/24

Issue date:	20 September 2024
Replaces:	SA:013/24
Content reviewed by:	System Sustainability and Performance, Medication Shortage Assessment and Management Team, Infection Prevention and Control, Emergency Care Institute and other relevant clinical experts.
Distributed to:	Chief Executives; Directors of Clinical Governance; Director, Regulation and Compliance Unit
KEY MESSAGE:	NSW Health facilities and clinicians are aware of the ongoing critical disruption to supply of multiple intravenous fluid bags, recommendations to conserve supply, mandatory audit requirements and information regarding the establishment of a local Intravenous Fluid Stewardship (IVFS) group.
ACTION REQUIRED BY:	Chief Executives, Directors of Clinical Governance
REQUIRED ACTION:	<ol style="list-style-type: none"> 1. Distribute this Safety Alert (and/or related factsheets) to all relevant clinicians and clinical departments where intravenous fluids are held, prescribed, and/or administered, and include this information 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 clinical concerns regarding supply to HealthShare NSW via email HSNSW-EmergencyManagementUnit@health.nsw.gov.au or phone 02 8644 2288. 5. Escalate any clinical concerns to CEC-MedicationSafety@health.nsw.gov.au. 6. Confirm receipt of this updated Safety Alert within 24 hours to: CEC-MedicationSafety@health.nsw.gov.au.
DEADLINE:	COB 23 September 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 Infection Prevention and Control 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:	December 2024

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What is updated in the Safety Alert from SA:013/24?

This Safety Alert replaces SA:013/24 – *UPDATED Critical disruption to the supply of multiple intravenous fluid bags*, which has now been rescinded. This Safety Alert has been updated with the following recommendations:

- Mandatory QARS audit frequency changed from twice weekly to **once** weekly audits every Tuesday.
- *Inventory control strategies* section to include prioritising the supply of Australian registered IV fluids for use with pressure devices and supply of the S19A alternative in clinical areas where infusion via pressure is not required.

Compliance with the recommendations within this Safety Alert is essential to minimise impact on clinical activities despite supply chain constraints.

Situation

There is an ongoing global disruption to supply (with intermittent stock available) of IV fluid bags due to manufacturing issues and increases in demand. This is now an **extreme risk** due to shipment delays. The date of return to normal supply is being closely monitored by HealthShare NSW, the Clinical Excellence Commission (CEC) and the Ministry of Health.

The primary products affected include:

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

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

The Therapeutic Goods Administration (TGA) continues to review applications and approve the use of international alternatives under Section 19A (S19A) of the *Therapeutic Goods Act 1989*, however supply is limited. Refer to the [TGA shortage information](#) page and CEC factsheet [Information for NSW Health clinicians – Clinical recommendations for managing intravenous \(IV\) fluids shortage](#) for further information. HealthShare NSW is negotiating with suppliers for a bulk order of these products for use across all NSW Health Facilities. Individual facilities are **not** to place separate orders for S19A products.

Background

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

Assessment

If the preferred IV fluid bag (diluent and/or volume) is not available, alternative products or methods of administration will need to be used considering clinical safety, appropriateness and compatibility. To assist with the management of the disruption to supply, clinicians must review and comply with the information provided in the following factsheets:

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- Factsheet: [Information for NSW Health clinicians – Clinical recommendations for managing intravenous \(IV\) fluids shortage.](#)
 - Provides clinical conservation strategies that must be implemented in all NSW Health facilities where clinically safe to do so.
- Factsheet: [Information for NSW Health Services – Intravenous Fluids Stewardship.](#)
 - Provides information regarding establishment of an Intravenous Fluids Stewardship (IVFS) group (mandatory for each facility or group of facilities) to ensure conservation strategies are in place and there is clinically appropriate distribution of IV fluids across all NSW Health facilities. Establishment was required by **COB Friday 2 August 2024.**
- Factsheet: [Information for NSW Health clinicians – Intravenous \(IV\) fluid bags – International alternatives and associated safety considerations.](#)
 - Provides information regarding S19A alternatives which are **not registered** for use in Australia and the important safety issues that must be reviewed prior to use.
- Factsheet: [Information for NSW Health clinicians – Risk of air embolism when administering intravenous fluids without in-line air detection.](#)
 - Provides information regarding the risk of air embolism due to the flexible container presentation for many of the S19A alternatives.
- Factsheet: [Information for clinicians caring for maternity patients – Intravenous fluids and oxytocin infusion.](#)
 - Provides additional information for NSW maternity services to support conservation strategies and ensure the continuation of essential care.

The content within the above factsheets is subject to change as further information becomes available and the supply situation evolves. Clinicians are to refer to the **electronic** versions of these factsheets using the above hyperlinks (also accessible via the [CEC Medication Safety Updates webpage](#)), as printed versions are uncontrolled.

Recommendations

Mandatory QARS audit:

- Facilities **must** complete once weekly audits every **Tuesday** to determine current stock levels and usage of IV fluids.
 - LHDs/SHNs must determine how the audit is completed – either at a facility **or** ward/unit level (not LHD/SHN level). **Please ensure duplication of data entry does not occur.**
 - The audit is to be completed by **close of business** on Tuesday.
 - A link to the audit will be provided by the CEC to CEs, DCGs and the QARS Advisory Group via email prior to each Tuesday. Facilities will be able to review their own data within the QARS portal.

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Inventory control strategies:

- When assessing IV fluid bag stock holdings, consider the following:
 - Identify all locations where IV fluids are stored and ensure mechanisms are in place to share stock both within and between facilities in your district/network.
 - Prioritise supply of Australian registered IV fluids for use with pressure devices and supply of the S19A alternatives in clinical areas where infusion via pressure is not required.
 - Reduce quantities held in imprest areas throughout the disruption to supply.
 - Prioritise supply of IV fluids to clinical areas with clinically appropriate high usage requirements and critical needs. For example, conserve sodium chloride 0.9% 100 mL for the administration of vasopressors/inotropes in critical care settings.
 - Be aware of locations where specific volumes of fluid are required (e.g. sodium chloride 0.9% 500 mL required to prime and flush transducers).
 - Ensure supply of IV fluid is appropriately rotated to minimise potential wastage of stock due to expiry. Any facility with supply of expiring IV fluids (expiring within 28 days) must escalate to CEC-MedicationSafety@health.nsw.gov.au.

Stock ordering/distribution:

- Facilities are directed not to place orders for sodium chloride 0.9% IV bags and Hartmann's solutions with suppliers/wholesalers (this applies to both Australian registered and S19A supply).
- HealthShare NSW will have centralised IV fluid orders for sodium chloride 0.9% products and Hartmann's solution and will distribute stock from the OneLink Warehouse (OLW) based on historical usage, considering the QARS audit results and the quantities available from suppliers. Please refer to the [communication](#) from HealthShare NSW for further information.
- Escalate concerns regarding this disruption to supply to HealthShare NSW via email HSNSW-EmergencyManagementUnit@health.nsw.gov.au or phone 02 8644 2288.

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