

Issue date
18 July 2022

Distributed to:

Chief Executives
Directors of Clinical
Governance

Action required by:

Directors of Clinical
Governance

**We recommend you
also inform:**

Directors of:

- Emergency Medicine
- Medical Services
- Ambulance Services
- Nursing and
Midwifery
- Pharmacy

Intensive Care units
Cardiology units
Medical staff
Nursing and midwifery
staff
Pharmacists

Expert Reference Group

Content reviewed by:

Medication Safety Expert
Advisory Committee
Clinical Excellence
Commission

**Clinical Excellence
Commission**

Tel: 02 9269 5500

[Email](#)

[Internet website](#)

[Intranet website](#)

Review date
July 2024

Avoiding thrombophlebitis with intravenous amiodarone – UPDATED

This is a revision of SN001/22 with amended wording on use of in-line filters.

Background

Amiodarone is a medication used to treat cardiac tachyarrhythmias. In cases of severe cardiac arrhythmia, amiodarone is often administered by the intravenous route; however, care is required when administering amiodarone intravenously due to potential adverse effects including thrombophlebitis.

Systematic analysis of incidents in NSW hospitals involving amiodarone has revealed that the main contributing factors to the development of thrombophlebitis were administration of amiodarone peripherally at a concentration that was too high, or repeated or continuous intravenous administration peripherally.

Steps to minimise thrombophlebitis associated with intravenous amiodarone

For administration of a **single dose** via a peripheral intravenous cannula:

- Dilute in glucose 5% to a maximum concentration of 2 mg/mL and infuse via an infusion device over a period of 20 minutes to 2 hours.¹ Amiodarone should only ever be administered over shorter time periods in emergency situations.¹
- Avoid areas of flexion and ensure peripheral intravenous cannula is stabilised.²
- Use the most appropriate cannula size for the vein. Use of a peripheral intravenous cannula that is too large in diameter for the vein increases the risk of phlebitis.²

For administration of a **high concentration infusion (greater than 2 mg/mL) or when repeated or continuous intravenous administration is anticipated** consider administration via a central venous access device (CVAD).^{1,3,4}

The use of in-line filters may reduce risk of thrombophlebitis⁵ and should be considered when administration via a CVAD is not possible.

References

1. Symons K, Ermer J editors. Australian injectable drugs handbook. 8th ed. Collingwood: Society of Hospital Pharmacists of Australia; 2020.
2. Gorski LA, et al. Infusion therapy standards of practice. Journal of Infusion Nursing. 2021 Jan-Feb; 44(suppl 1): S1-S224
3. [MIMS Online](#) (2021).
4. Norton L, et al Phlebitis in amiodarone administration: incidence, contributing factors, and clinical implications. American Journal of Critical Care. 2013; 22: 498-50.
5. Oragano CA, et al Phlebitis in intravenous amiodarone administration: incidence and contributing Factors. Critical Care Nurse. 2019 Feb; 39(1): e1-e12.

Required actions for the Local Health Districts/Networks

1. Forward this Safety Notice to relevant clinicians, clinical departments and Drug and Therapeutics / Medication Safety Committees for action.
2. Ensure staff members new to clinical areas administering intravenous amiodarone are made aware of the risks associated with its use.
3. Where a local protocol for use of amiodarone exists, ensure that it contains specific guidance on the concentration of infusions to be used and situations where administration via a central venous access device or use of in-line filters should be considered.
4. Where a local protocol on the use of amiodarone is not in place, reference to appropriate medicines information texts, such as the [Australian Injectable Drugs Handbook](#), should be used to guide treatment decisions.
5. Ensure a system is in place to document and review actions taken and any incidents involving intravenous amiodarone.
6. Confirm receipt and distribution of this notice **within two business days** to CEC-MedicationSafety@health.nsw.gov.au