

## **Formulary Guidance for Amiodarone Loading Dose Regimen**

### **Background**

The pharmacokinetics of amiodarone are unusual and complex. The half-life of amiodarone varies between 20 and 100 days. It is extensively distributed to body tissues and is extensively plasma protein bound. Oral absorption is variable but is around 50% and an oral dose can take up to 15 hours to be absorbed (usual peak at 3-7 hours). A loading dose of amiodarone is needed because of the long half-life. Even with loading regimes maximal effects of amiodarone will usually be seen at 1-5 months. Various loading regimes are used but in general it is stated that 10g iv loading (20g oral) is needed to adequately load **over several days/weeks**

### **Oral Administration**

<b>Standard oral loading</b>	<b>Rapid Oral loading (unlicensed)</b>
200mg tds for 7 days then 200mg bd for 7 days then 200mg od thereafter (or minimum dose needed)	400mg tds for 7 days then 400mg bd for 7 days then 200mg od thereafter (or minimum dose needed)

### **Intravenous administration**

Extravasation can cause significant tissue damage including necrosis. Intravenous loading should only be used when a rapid response is needed.

Amiodarone should only be administered via a central line unless there is absolutely no alternative to peripheral administration eg cardiac arrest, destabilising ventricular arrhythmia.

<b>Standard iv infusion loading dose (see <a href="#">medusa</a> for full details)</b>
300mg amiodarone in 250ml glucose 5% over 1 hour followed by 900mg in 500ml glucose 5% over 24 hours (More concentrated solutions can be given centrally)

Written by: Julie Kay, Consultant Pharmacist

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## Peripheral Administration

If there is absolutely no initial alternative to peripheral administration eg life threatening arrhythmia all precautions should be taken to prevent extravasation. If the infusion is likely to be needed beyond 12 hours arrangements should be made to organise an emergency CVP line (via emergency theatres blp 1328)

<b>Preventing extravasation</b>
Ensure the amiodarone has been diluted appropriately using glucose 5%
Select a small gauge catheter to minimise trauma to the vein and allow enough blood flow around the catheter eg 20 gauge cannula in distal vein
Aspirate from catheter site before giving amiodarone and look for brisk blood return
Select the venepuncture site carefully, avoid sites of flexion
Don't probe for a vein, if you don't penetrate it immediately, stop and begin again at another site
Don't administer at an iv site for more than 24 hours, the vein may already be irritated
Secure the catheter carefully, cover with transparent dressing so area can be visualised easily
Assess the venflon site frequently, observe for erythema, pain and oedema
Assess site to confirm patency every 1-2 hours, gently flushing with 5-10ml glucose 5% whilst palpating site to detect oedema
Always use an infusion pump

## Recognising Extravasation

Pain at injection site
Blanching, redness, swelling, puffy or hard skin around the injection site
IV not working or lack of blood return from cannula
Cool skin temperature around the IV site or of the scalp, hand, arm, leg or foot near the site
Local blistering is indicative of a partial thickness skin injury
Early firm induration has been shown to be a reliable sign of ulceration due to amiodarone
Where full thickness of the skin is damaged the surface may appear very white, cold with no capillary filling
Ulceration due to amiodarone is not usually evident until 1-2 weeks following injury when the eschar sloughs away to reveal underlying ulcer cavity. Ulcers have a typical necrotic , yellowish fibrotic base with a surrounding rim of persistent erythema

## Amiodarone induced skin necrosis



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## Management of Extravasation-see [table](#) for extravasation management

- If extravasation suspected stop the amiodarone immediately, disconnect the administration set. Do not flush the device under any circumstances
- Rapid review and treatment is needed to ensure the best outcome for any extravasation
- Advice on extravasation can be sought from the Sister on Chatsfield Suite (Mon to Friday 08.00hrs to 17.00hrs) or nurse in charge on ward 18 (out of hours)
- Amiodarone infusion has a low pH (3.7-3.8) and osmolality of 239-283 (max osmolality for peripheral infusion is 900mosm/l). Assess and grade the extravasation-for grade 3 or 4 ensure medical team informed immediately
- For small amounts of extravasated drug causing only minor symptoms apply 1% hydrocortisone cream,
- Assess and grade the extravasation using a standard assessment [tool](#)-leave the cannula in for grade 3 and 4 in case needed for wash out and consideration for hyaluronidase by experienced personnel only. (extravasation kit available on ward 18 and Chatsfield suite)
- Aspirate as much drug from the tissue as possible
- Mark the affected area with a pen to monitor progress of treatment
- Elevate the affected limb (up to 48 hours)
- Apply a dry cold compress to limit spread of the drug into tissue (up to 24 hours)
- Give pain relief as appropriate and medical team to consider need for stat dose of hydrocortisone injection and chlorphenamine
- Document skin damage in medical notes and on Skin Integrity IPOC Wound care Identification Care Sheet (WPR 47150) and Wound Assessment and Care Plan (WPR44282), and refer to Skin Integrity Team (SIT) via SIT Dashboard using the Datix form. Ensure photographs are taken and uploaded onto Nervecentre every 3 days or if any signs of deterioration

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