AMIODARONE

Read in conjunction with Disclaimer

HIGH RISK Medication

Formulary: Highly Restricted Requires Neonatologist or Cardiologist approval before commencing	
Presentation	**Ampoule:** 150 mg/3 mL = 50 mg/mL **Oral suspension:** 5 mg/mL
Classification	Antiarrhythmic
Indication	Control of ventricular and supraventricular arrhythmias
Special Considerations	Amiodarone injection contains benzyl alcohol that is associated with "gasping syndrome" (respiratory distress, gasping, metabolic acidosis) in neonates
Monitoring	ECG and blood pressure monitoring during intravenous (IV) administration (rapid infusion may cause severe hypotension and circulatory collapse)
Compatibility	**Fluids:** Glucose 5% only
Incompatibility	**Fluids:** Sodium chloride solutions **Y-site:** amiodarone is **incompatible** with aciclovir, amoxicillin-clavulanic acid, azithromycin, cefotaxime, ceftazidime, dexamethasone, digoxin, flucloxacillin, fosfomycin, ganciclovir, **heparin sodium**, hydrocortisone sodium succinate, meropenem, phenobarbitone, piperacillin-tazobactam, potassium phosphates, sodium acetate, sodium bicarbonate, sodium phosphates. **This list is not exhaustive – contact pharmacy for further advice.**
Interactions	• **Digoxin:** Amiodarone increases digoxin concentration and risk of toxicity and also has additive effects in slowing cardiac conduction • **Flecainide:** Amiodarone reduces metabolism of flecainide and increases risk of its toxicity • **Phenytoin:** Amiodarone increases phenytoin concentration and risk of toxicity. Phenytoin may decrease amiodarone concentration, possibly decreasing its efficacy. • **Rifampicin:** Rifampicin may decrease amiodarone concentration and reduce its clinical effect
Side Effects Intravenous (acute treatment)	**Common:** Hypotension, injection site reaction, arrhythmia
	Rare: Hot flush, hyperhidrosis, agranulocytosis, neutropenia
Side Effects Oral (ongoing therapy)	**Common:** Hypothyroidism, corneal deposits, visual disturbances photosensitivity, altered taste or smell, nausea/vomiting, abdominal pain, headache, ataxia, tremor, constipation, anorexia, elevated liver enzymes, fatigue
	Infrequent: Arrhythmias, dry mouth, myopathy, peripheral neuropathy
	Rare: Alopecia, aplastic or haemolytic anaemia, thrombocytopenia, vertigo, epididymo-orchitis, pulmonary toxicity, optic neuritis, hepatotoxicity

Storage & Stability	**Ampoule:** Store below 25°C. Protect from light. Do not freeze. **Infusion solution:** Discard 12 hours after preparation **Oral suspension:** Store below 25°C. Protect from light.

ORAL

Presentation	**Oral suspension**: 5 mg/mL (available from pharmacy)
Dosage	**Supraventricular tachycardia (SVT)** **Initial dose:** 5 to 10 mg/kg twice a day for 7 to 10 days **Then reduce to** 5 to 10 mg/kg once a day
Administration	• Shake well before use • Draw prescribed dose into oral/enteral syringe • Can be given Oral/OGT/NGT • Give with or soon after a feed

INTRAVENOUS INFUSION

Presentation	**Ampoule:** 150 mg/3 mL = **50 mg/mL**
Dosage	**High Risk Medication**, particularly with IV administration - requires neonatologist or cardiologist approval before commencing and close monitoring during administration. **Supraventricular and ventricular arrhythmias** **Loading dose:** 5 mg/kg over 30 to 60 minutes, followed by **Continuous infusion:** 5 microg/kg/**minute**, gradually increase to 15 microg/kg/minute according to response
Preparation	**Loading dose** Draw up 50 mg (1 mL) and make up to 50 mL total volume with glucose 5% *Concentration now equal to* **1 mg/mL** **Continuous infusion** • Draw up 15 mg (0.3mL) per kg of body weight and make up to 50 mL total volume with Glucose 5% • *Concentration now equal to* **300 microgram/kg/mL** • This will give the following infusion rate: ***1 mL/hour = 5 microgram/kg/minute***
Administration	**Loading dose** • Infuse via syringe driver pump over 60 minutes • Infusion time may vary between 20 to 120 minutes depending on clinical need **Continuous infusion** • Administer via syringe driver pump at prescribed rate • Adjust administration rate to patient's clinical condition and urgency; give slowly to patients who have a pulse (ie, perfusing arrhythmia -atrial fibrillation, stable ventricular tachycardia) • Do not exceed recommended IV concentrations or rates of infusion (severe hepatic toxicity may occur) • Slow the infusion rate if hypotension or bradycardia develops
Comments	• Non-PVC tubing should be used. • Use a central line for concentrations exceeding 2mg/mL.

Related Policies, Procedures, and Guidelines

HDWA Mandatory Policies:

MP 0131/20: WA High Risk Medication Policy

Clinical Practice Guidelines:

Neonatology – Cardiac: Arrythmias

Neonatology- Cardiac Arrest and Arrhythmias in NICU: Treatment Algorithms

Pharmaceutical and Medicines Management Guidelines:

High Risk Medicines

References

Australian Medicines Handbook. Amiodarone. In: Australian Medicines Handbook [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2024 [cited 2024 July 01]. Available from: https://amhonline.amh.net.au/

Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 27th ed. Hudson (Ohio): Lexicomp; 2020. P120.

Truven Health Analytics. Title e.g. Amiodarone. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2024 July 01]. Available from: https://neofax.micromedexsolutions.com/AIDH

British National Formulary. BNF for Children. 2023-24 ed. London, UK: BMJ Group and Pharmaceutical Press; 2023. p. 84-85.

Society of Hospital Pharmacists of Australia. Amiodarone. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2024 [cited 2024 July 1]. Available from: http://aidh.hcn.com.au

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NSQHS Standards Applicable:	☒ Std 1: Clinical Governance		☒ Std 4: Medication Safety		
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