MONOGRAPH

METARAMINOL

Scope (Staff):	Medical, Pharmacy, Nursing, Anaesthetic Technicians
Scope (Area):	Emergency Department, Paediatric Critical Care, Theatres

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this DISCLAIMER

HIGH RISK MEDICINE

QUICKLINKS

Dosage/Dosage Adjustments | Administration | Compatibility | Monitoring

DRUG CLASS

Sympathomimetic.

Metaraminol is a High Risk Medicine.

INDICATIONS AND RESTRICTIONS

- Acute hypotensive state.[1]
- Adjunctive treatment of hypotension.[1]

CONTRAINDICATIONS

Hypersensitivity to metaraminol or any component of the formulation (contains sodium metabisulfite).[1]

PRECAUTIONS

- Correct hypovolaemia before using metaraminol.[2]
- Liver cirrhosis.[2]
- Concurrent use with digoxin – risk of ectopic arrhythmias.[1]
- Concurrent use with monoamine oxidase inhibitor or tricyclic antidepressants – potential increase in sympathomimetic effects.[1]

- Heart disease, hypertension, thyroid disease, diabetes mellitus – metaraminol causes vasoconstriction.[1]

FORMULATIONS

Listed below are products available at PCH, other formulations may be available, check with pharmacy if required:

- 10 mg/mL ampoule.

Imprest location: Formulary One

DOSAGE, DOSAGE ADJUSTMENTS AND ADMINISTRATION

Extravasation may cause tissue necrosis. Administer via large peripheral vein or a Central Venous Access Device (CVAD). Monitor for signs of extravasation.[3]

Child (≥ 4 weeks – 18 years)

IV injection[3, 4]:

- 10 micrograms/kg/dose (max 500 micrograms).
    - In emergency situations, administer as a push injection.
    - Repeat every 2 to 5 minutes or commence IV continuous infusion if required.
- Dilute 10 mg metaraminol to 100 mL with sodium chloride 0.9% to make 100 micrograms/mL solution.

IV continuous infusion[3, 4]:

- 0.05 – 0.5 micrograms/kg/minute, titrate to effect. Doses of up to 5 micrograms/kg/minute may be required.

Patient's Weight	Concentration	Notes
10 kg or less	1 mg in 30 mL (33 microg/mL)	In a 3 kg patient 0.05 microg/kg/min = 0.3 mL/hour
Above 10 kg	10 mg in 50 mL (200 microg/mL)	In a 20 kg patient, 0.05 microg/kg/min = 0.3 mL/hour

- Administration via CVAD is preferred.
- Do not cease continuous infusion abruptly, wean gradually.

IM injection[4]:

- Not recommended but may be considered in an emergency, when IV access is not available.
- 0.1 mg/kg/dose (100 micrograms/kg/dose).

Renal impairment:

- No dosage adjustment necessary.[4]

Hepatic impairment:

- No dosage adjustment necessary. Use with caution in patients with cirrhosis.[2]

COMPATIBILITY *(LIST IS NOT EXHAUSTIVE)*

Compatible fluids:

Glucose 5% (preferred), sodium chloride 0.9%, Ringer's, Hartmann's solution/compound sodium lactate (except Torbay® brand).[3]

Compatible at Y-site:

No data for drug compatibility.[4] Plasma-Lyte 148 compatible via Y-site.[3]

Only commonly used drugs are listed below. This is not a complete list of incompatible drugs. Compatibilities of IV drugs must be checked when two or more drugs are given concurrently.

INCOMPATIBLE drugs:

Atropine, benzylpenicillin, furosemide, thiopental sodium.[3]

MONITORING

Continuous cardiac monitoring.[3]

ADVERSE EFFECTS[2]

Common: Headache, hypertension.

Infrequent: Arrhythmia, bradycardia, peripheral ischaemia.

Rare: Abscess and necrosis caused by extravasation injury.

STORAGE

Store below 25°C. Protect from light.[3]

INTERACTIONS

This medication may interact with other medications; consult PCH approved references (e.g. Clinical Pharmacology), a clinical pharmacist or PCH Medicines Information Service on extension 63546 for more information.

Please note: The information contained in this guideline is to assist with the preparation and administration of **metaraminol**. Any variations to the doses recommended should be clarified with the prescriber prior to administration

Related CAHS internal policies, procedures and guidelines

CAHS Policy Manual: High Risk Medicines Policy

References

1. Newth N. AusDI: product information. 2024 [Available from: https://ausdi-hcn-com-au.pklibresources.health.wa.gov.au/quickSearch.hcn.
2. Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists., Pharmaceutical Society of Australia., The Royal Australian College of General Practitioners. Australian medicines handbook, 2024. Adelaide SA: Australian Medicines Handbook;
3. Burridge N, Collard N, Symons K, Society of Hospital Pharmacists of Australia. Australian injectable drugs handbook. Eighth edition. ed. Collingwood, Vic.: The Society of Hospital Pharmacist of Australia; 2024 [cited. Available from: http://aidh.hcn.com.au.pklibresources.health.wa.gov.au/browse/about_aidh.
4. Micromedex®. Greenwood Village, Colorado, USA: Truven Health Analytics; 2024 [Available from: http://www-micromedexsolutions-com.pklibresources.health.wa.gov.au/.

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