Drug Therapy Protocols: Metaraminol

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<table>
<thead>
<tr>
<th>Date</th>
<th>April, 2018</th>
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<tbody>
<tr>
<td>Purpose</td>
<td>To ensure a consistent procedural approach to Metaraminol administration.</td>
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<tr>
<td>Scope</td>
<td>Applies to all QAS clinical staff.</td>
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<tr>
<td>Author</td>
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<td>Review date</td>
<td>April, 2021</td>
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<tr>
<td>Information security</td>
<td>This document has been security classified using the Queensland Government Information Security Classification Framework (QGISCF) as UNCLASSIFIED and will be managed according to the requirements of the QGISF.</td>
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**Metaraminol**

**Drug class**
Sympathomimetic amine

**Pharmacology**
Metaraminol causes release of accumulated noradrenaline from nerve endings which then acts to increase systolic and diastolic blood pressure by directly and indirectly stimulating the alpha receptors in the sympathetic nervous system. This alpha stimulation causes vasoconstriction of the blood vessels. It also has a positive inotropic effect on the heart.\(^1\,^2\)

**Metabolism**
Hepatic.\(^1\)

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**Precautions**
- Ischaemic heart disease
- Thyroid disease
- Hypertension
- Diabetes

**Side effects**
- Tissue necrosis if extravasation occurs
- Reduced blood flow to 'non vital' (skin and gut) organs

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**Indications**
- Hypotension (without hypovolaemia)
- Prevention and treatment of the acute hypotensive state occurring with anaesthesia

**Contraindications**
- Allergy and/or Adverse Drug Reaction
- Current MAOI therapy
- Pregnancy
- Hypovolaemia secondary to ongoing haemorrhage

**Presentation**
- Injection (prefilled syringe, 5 mg/10 mL metaraminol)

**Onset (IV) | Duration (IV) | Half-life**
--- | --- | ---
1–2 minutes | up to 20 minutes | Minutes
**Metaraminol**

**Schedule**
- S4 (Restricted drugs).

**Routes of administration**
- Intravenous injection (IV)
- Intraosseous injection (IO)

**Special notes**
- Rapid excessive hypertension may precipitate APO, cardiac arrhythmias, cerebral haemorrhage or cardiac arrest.
- All cannulae and IV lines must be flushed thoroughly with sodium chloride 0.9% following each medication administration.

**Adult dosages**
- **Hypotension** (without hypovolaemia)
- **Prevention and treatment of the acute hypotensive state occurring with anaesthesia**

<table>
<thead>
<tr>
<th>Route</th>
<th>Dosage</th>
<th>Administration Notes</th>
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<tbody>
<tr>
<td>IV</td>
<td>0.5 mg</td>
<td>Repeated at 1 minute intervals. No maximum dose.</td>
</tr>
<tr>
<td>IO</td>
<td>0.5 mg</td>
<td>Repeated at 1 minute intervals. No maximum dose.</td>
</tr>
</tbody>
</table>

**Paediatric dosages**
- **Note:** QAS officers are **NOT** authorised to administer metaraminol to paediatric patients.