While the QAS has attempted to contact all copyright owners, this has not always been possible. The QAS would welcome notification from any copyright holder who has been omitted or incorrectly acknowledged.

All feedback and suggestions are welcome. Please forward to: Clinical.Guidelines@ambulance.qld.gov.au

Disclaimer

The Digital Clinical Practice Manual is expressly intended for use by QAS paramedics when performing duties and delivering ambulance services for, and on behalf of, the QAS.

The QAS disclaims, to the maximum extent permitted by law, all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs incurred for any reason associated with the use of this manual, including the materials within or referred to throughout this document being in any way inaccurate, out of context, incomplete or unavailable.

**Metoprolol**

**Drug class**

β1 selective adrenoceptor blocker

**Pharmacology**

Metoprolol is a selective β1 receptor blocker used in the treatment of cardiovascular disease. Metoprolol blocks the action of the sympathetic nervous system thereby reducing heart rate, the force of myocardial contraction and thereby reducing blood pressure and myocardial oxygen demand.[1–4]

**Metabolism**

Hepatic and excreted by the kidneys.[1]

---

**Indications**

- ACS (unresponsive to nitrates)
- Heart rate control (in the setting of ACS)

---

**Contraindications**

- Allergy and/or Adverse Drug Reaction
- Acute heart failure
- Heart rate < 60 beats
- Systolic BP < 90 mmHg
- Second OR third degree AV block
- Concomitant antiarrhythmic medication
- Bronchospasm OR allergic disorders which may suggest a predisposition to bronchospasm

---

**Precautions**

- History of heart failure
- First degree AV block
- Diabetes Mellitus (patient receiving insulin or oral hypoglycaemics)

---

**Side effects**

- Hypotension
- Bradycardia
- Palpitations
- Dizziness
- Headache

**January, 2020**
**Metoprolol**

**Presentation**
- Ampoule, 5 mg/5 mL *metoprolol*

**Onset (IV) | Duration (IV) | Half-life**
---|---|---
1–2 minutes | 5–8 hours | 3–7 hours

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

**Routes of administration**
Intravenous injection (IV) *(RSQ taskings only)*

**Special notes**
- Ambulance officers must only administer medications for the listed indications and dosing range. Any consideration for treatment outside the listed scope of practice requires mandatory approval via the QAS Clinical Consult and Advice Line.
- Metoprolol 5 mg/5 mL ampoules are not currently available via QAS warehouse – for procurement information please refer to the QAS Drug Management Code of Practice.

**Adult dosages**
- **ACS** (unresponsive to nitrates)
- **Heart rate control** (in the setting of ACS)

<table>
<thead>
<tr>
<th>Route</th>
<th>Dose</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>1–2 mg</td>
<td>Repeated every 5 minutes. Total maximum dose 10 mg.</td>
</tr>
</tbody>
</table>

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