Drug Therapy Protocols: Oxytocin

<table>
<thead>
<tr>
<th>Policy code</th>
<th>DTP_OXYT_0119</th>
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<tr>
<td>Date</td>
<td>January, 2019</td>
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<tr>
<td>Purpose</td>
<td>To ensure a consistent procedural approach to oxytocin administration.</td>
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<tr>
<td>Scope</td>
<td>Applies to all Queensland Ambulance Service (QAS) clinical staff.</td>
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<tr>
<td>Health care setting</td>
<td>Pre-hospital assessment and treatment.</td>
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<tr>
<td>Population</td>
<td>Applies to all ages unless specifically mentioned.</td>
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<tr>
<td>Source of funding</td>
<td>Internal – 100%</td>
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<tr>
<td>Author</td>
<td>Clinical Quality &amp; Patient Safety Unit, QAS</td>
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<td>Review date</td>
<td>January, 2022</td>
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All feedback and suggestions are welcome. Please forward to: Clinical.Guidelines@ambulance.qld.gov.au

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Oxytocin

Drug class
Oxytocin

Pharmacology
Synthetic oxytocin is a uterine stimulant that causes uterine contractions by changing calcium concentrations within uterine muscle cells. Oxytocin administered during the third stage of labour assists with placental separation, raises the tone of the uterine musculature and minimises further uterine blood loss.

Metabolism
Oxytocin is metabolised by the liver and excreted by the kidneys.

Indications
- Active management of the third stage of labour (following confirmed delivery of all foetuses)
- Prevention AND/OR treatment of primary postpartum haemorrhage

Contraindications
- Allergy and/or Adverse Drug Reaction
- Undelivered foetuses

Precautions
- Myocardial ischaemia
- May potentiate hypotension when administered with analgesia

Side effects
- Nausea AND/OR vomiting
- Headache
- Bradycardia
- Tachycardia

Presentation
- Ampoule, 10 International units (IU) / 1 mL

Onset
- IM
  - 2–4 minutes

Duration
- 30–60 minutes

Half-life
- N/A

January, 2019
**Schedule**

- S4 (Restricted drugs).

**Routes of administration**

- Intramuscular (IM)

**Special notes**

- Skin to skin contact and initiation of breastfeeding/nipple stimulation should occur in addition to the use of uterotonic medications to promote natural oxytocin release and promote normothermia, maternal/neonatal bonding and early breastfeeding.

**Special notes (continued)**

- 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.

- The use of uterotonics for the prevention of postpartum haemorrhage during the third stage of labour is recommended for all births.[1]

- When oxytocin is administered for the management of the third stage of labour, multiple births must be excluded prior to the drug being administered.

- Oxytocin is only to be administered to the consenting patient who agrees to an active management of the third stage of labour. Women who prefer a physiological management must birth the placenta unaided, by maternal effort and the natural force of gravity.

- To allow for the benefits of delayed cord clamping it is acceptable to do a modified active third stage management by waiting until the cord has stopped pulsating to administer oxytocin. This is particularly important in neonatal resuscitation where the baby is resuscitated between the mother’s legs (where appropriate) to receive the benefit of a pulsing cord and placental perfusion.

**Adult dosages**

- **Active management of the third stage of labour** (following confirmed delivery of all foetuses)

- **Prevention AND/OR treatment of primary postpartum haemorrhage**

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<tr>
<th>Route</th>
<th>Dosage</th>
<th>Note</th>
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<tr>
<td>IM</td>
<td>10 International units</td>
<td>Single dose only.</td>
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**Paediatric dosages**

- **Note:** QAS officers are NOT authorised to administer oxytocin to paediatric patients.