Drug Therapy Protocols: Noradrenaline (norepinephrine)

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Noradrenaline (norepinephrine)

Drug class
Sympathomimetic

Pharmacology
Noradrenaline is a vasopressor which acts predominantly on $\alpha$, and to a lesser extent $\beta$ adrenergic receptors thereby increasing vascular tone.$^{[1–3]}$

Metabolism
Noradrenaline is primarily metabolised by monoamine oxidase at the synaptic level.$^{[4]}$

Indications
- Shock unresponsive to adequate fluid resuscitation (excluding haemorrhagic causes)

Contraindications
- Nil

Precautions
- Hypertension
- Hypovolaemic shock
- Concurrent MAOI therapy

Side effects
- Reflex bradycardia
- Hypertension
- Extravasation necrosis

Presentation
- Variable (hospital presentations may vary)

<table>
<thead>
<tr>
<th>Onset (IV)</th>
<th>Duration (IV)</th>
<th>Half-life</th>
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<tbody>
<tr>
<td>30 seconds</td>
<td>5–10 minutes</td>
<td>2 minutes</td>
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Noradrenaline (norepinephrine)

**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.
- All noradrenaline (norepinephrine) infusions are to be initiated using hospital supplies; noradrenaline will not be supplied by QAS.
- Authorised officers should, where possible, administer noradrenaline (norepinephrine) infusions through an appropriately placed CVL.
- Authorised officers should, where possible, utilise invasive pressure monitoring for patients being administered noradrenaline (norepinephrine) infusions.
- Noradrenaline (norepinephrine) infusions must be administered through a dedicated line.

**Routes of administration**

- Intravenous infusion (IV INF)

**Schedule**

- S4 (Restricted drugs).

**Adult dosages**

**Shock unresponsive to adequate fluid resuscitation**

(excluding haemorrhagic causes)

<table>
<thead>
<tr>
<th>IV INF</th>
<th>CCP ESoP aeromedical – RSQ Clinical Coordinator consultation and approval required in all situations.</th>
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<tbody>
<tr>
<td></td>
<td>Commence infusion at 5 microg/minute (5 mL/hour) and increase by 1–2 microg/minute every 3–5 minutes as determined by MAP.</td>
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<td></td>
<td>Syringe preparation: Mix 3 mg of noradrenaline (norepinephrine) with sodium chloride 0.9% to achieve a final concentration of 3 mg/50 mL (60 microg/mL). Ensure all syringes are appropriately labelled. Administer via syringe driver.</td>
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**Paediatric dosages**

Note: QAS officers are NOT authorised to administer noradrenaline (norepinephrine) to paediatric patients.