Noradrenaline

CAUTION: High Administration Risk Rating

Form	Ampoules containing 1mg/mL (1:1000) Noradrenaline as Noradrenaline tartrate.
Reconstitution	Already in solution. Further dilution is required before administration. • Draw up using a 5 micron filter needle • Use gloves when opening ampoules **Dilute further before IV administration.** Discoloured solutions or solutions containing precipitate should not be used.
Compatibility & Stability	Glucose 5%
Administration	**Central IV Infusion (critical care only)** Use a syringe driver to control the rate of infusion. Noradrenaline is usually prescribed as a "microgram/minute" dose for adults. The usual range is 0-30 microgram/minute titrated to desired effect. Doses outside this range (up to 80 microgram/min) may be required in some patients.

Single Strength Noradrenaline

Add 3mg Noradrenaline (3mL) to 47ml Glucose 5% to give 50mL of a solution containing 60microgram/ml Noradrenaline.

Infusion rate of 1mL/hr = 60microgram/hr = 1microgram/min
1mL/hr = 1microgram/min
2mL/hr = 2microgram/min
3mL/hr = 3microgram/min

Double Strength Noradrenaline

Add 6mg Noradrenaline (6mL) to 44mL Glucose 5% to give 50mL of a solution containing 120microgram/mL Noradrenaline.

Infusion rate of 1mL/hr = 120microgram/hr = 2microgram/min
1mL/hr = 2microgram/min
2mL/hr = 4microgram/min
3mL/hr = 6microgram/min

Quadruple Strength Noradrenaline (ITU only)

Add 12mg Noradrenaline (12mL) to 38ml Glucose 5% to give 50mL of a solution containing 240microgram/mL Noradrenaline.

Infusion rate of 1mL/hr = 240microgram/hr = 4microgram/min
1mL/hr = 4microgram/min
2mL/hr = 8microgram/min
3mL/hr = 12microgram/min

	Peripheral IV infusion (where no Central access) Use 1:1,000 (1mg/mL ampoule) Add 4mg (4mL) to 246mL Glucose 5% (conc. **16 microgram/mL**) Administer via infusion pump Starting dose 0.05microgram/kg/min UP Titrate to desired effect - Maximum rate 0.13 microgram/kg/min (8 microgram/kg/h)

Rate (mL/hour) for microgram/kg/min doses using 4mg/250mL infusion*

Dosage (microgram/kg/min)	50kg	80kg	100kg
0.05 microgram/kg/min	9	15	19
0.1 microgram/kg/min	19	30	38
Max 0.13 microgram/kg/min	25	40	50

*Doses rounded for convenience

Monitoring	Continuous blood pressure and ECG monitoring required. When administered via an infusion, use invasive blood pressure monitoring and monitor blood glucose.
Extravasation	If a central venous access device is not available, use a large peripheral vein and a concentration of noradrenaline suitable for peripheral venous access. Monitor the insertion site closely (as may cause venous irritation) using a recognised phlebitis scoring tool. Re-site cannula at first signs of inflammation. Risk with extravasation resulting in tissue damage/necrosis if given peripherally as noradrenaline is a vasoconstrictor and has a low pH. If extravasation occurs, use warm compress + **Phentolamine** or consider application of 2.5cm **Nitroglycerin 0.2%** paste to area of extravasation
Notes	• Infuse through a central venous catheter using a syringe driver to control the rate of infusion. • Do not use if brown colour or precipitate is visible in solution. • IAEM-Clinical-Guideline-Peripheral-Vasopressors-V1.0.pdf • Extravasation injury from cytotoxic and other noncytotoxic vesicants in adults - UpToDate

Information provided relates to Noradrenaline (Hospira)