



SAFETY ALERT

Norepinephrine via Peripheral Line

“Sharing Best Practices”

Due to the risk of Norepinephrine infiltration during peripheral line administration, it became important to share essential criteria for ordering, administering, monitoring, and managing extravasation.

Ordering Criteria:

- △ Only for ≥18 years Patients in Emergency or Critical Care areas.
- △ Orders ≥24 hours needs an Emergency Medicine and Critical Care Physician approval, documented (**under order comment and progress note: 1-Justification 2-Approving Physician ID, name and MCD**).
- △ The Inpatient Pharmacists will review history of previous orders and approval information.

Intravenous Access:

- △ Use two (2) peripheral venous lines to avoid administering other medications with Norepinephrine.
- △ Avoid the antecubital fossa and veins next to joints, tendons, nerves, or arteries.
- △ Label the line used for Norepinephrine (peripherally administered Norepinephrine).
- △ Use 20 gauge or larger IV catheters.

Concentration:

- △ The lowest concentration is 4mg in 250 mL of NS or D5W, a final concentration of 16 mcg/mL.
- △ The initial dose is 0.05-0.1 mcg/Kg/minute.
- △ The maximum dose should not exceed 25 mcg/minute.

Monitoring:

- △ Monitor/assess IV site every one (1) hour for signs and symptoms of extravasation.

The screenshot displays a medication ordering interface. On the left, a sidebar contains navigation options like 'PowerOrders', 'Flowsheet', and 'View and I & O'. The main area shows a 'Diagnoses & Problems' section with a search bar and a list of active diagnoses. Below this is an order form for 'norepinephrine 4 mg + Dextrose 5% and Water 250 mL'. The form includes fields for 'Route of administration' (set to IV), 'Requested Start Date/Time' (16/08/2021 08:35), 'Duration units' (Hours), and 'Priority' (Routine). A 'Diagnoses' dropdown is set to 'Active'. On the right, a search results list for 'norepinephrine' shows various infusion and oral tablet options. A red box highlights the search results, and another red box highlights the 'Order comments' field, which contains the text: 'by EMS & ICU physicians only Conc.= 16 mcg/mL (Peripheral line) Titrate to maintain MAP from ___ to ___ mmHg, SBP from : ___ to ___ mmHg Titrate dose from : ___ to ___ mcg per kg per min'. A third red box highlights the 'Duration' field, which is set to 24 hours.

Extravasation Management

Start immediately with non-pharmacological treatments:

Elevate the arm, apply warm compress to the site for 15-20 minutes four (4) times a day/ till symptoms resolve.

Use Phentolamine (floor stock-Fridge) as an antidote:

- △ Infiltrate the area of extravasation with a small amount of 0.5-1 mg/mL solution (made by diluting 5-10 mg in 10 mL of NS) within 12 hours of extravasation.
- △ Do not exceed 0.1-0.2 mg/kg or 5 mg total.
- △ With an effective dose, the normal skin color should return to the blanched area within one (1) hour.