

Protocol for Peripheral Vasopressors

Acceptable Indications:

- Vasopressor use expected to be short
- Single agent norepinephrine (maximum 12 mcg) or dopamine (maximum 10 mcg/kg/min) for a maximum 24 hours
- **Must be ordered via Crit Care Peripheral Vasopressor order set and approved by CCTC Consultant (days) or Senior (nights).** The order will task to the nurse to review every 12 hours. All documentation confirming the review is required.
- Notify Charge Nurse if a vasopressor is infusing peripherally

Site Requirements:

- Forearm or upper arm only (no lower extremity /hand/antecubital fossa)
- Minimum 20 gauge with blood return; assess before starting and Q shift
- Must have second back up line that meets same criteria
- No other medication can be administered in same line

Monitoring Requirements:

- Assess and document Infiltration and Phlebitis Scales Q1H and PRN
- Initiate Extravasation Protocol/notify MD **immediately for all site concerns**
- Complete AEMS for **ALL** site or insertion complications for PERIPHERAL or CENTRAL VENOUS LINE adverse events

Documentation Requirements

Peripheral Vasopressors and Arterial Line Deferral

1. Arterial lines are required for the administration and titration of vasoactive medications
2. An exception to the arterial line policy **can be considered** for patients who meet peripheral vasopressor protocol; arterial lines are preferred for accurate and frequent BP measurements
3. Order must be entered in One Chart for either peripheral vasopressors administration or deferral of arterial line placement during vasopressor use. The order must name the approving Consultant.
4. Once entered, the order will task to the nurse for every 12 hours. Documentation in the eHR confirming the need for a review is required.
5. In the Peripheral IV Grouper of the Adult ICU Device Navigation Band, activate the Vesicant band. Document **Infiltration and Phlebitis Scale Q1H** and reassess site frequently.
6. Document Infiltration and Phlebitis Scale Q1H during the peripheral IV administration of any vesicant (such as dextrose >12%, hypertonic solutions, electrolyte replacements, bicarbonate infusions or bolus).
7. Review the ongoing use of peripheral vasopressors/arterial line deferral based on the protocol with the Consultant/Senior during morning and evening rounds. Document this discussion and plan in the Multidisciplinary Progress Note.

Indications for Central Venous Catheter (CVC)

A CVC is required for the administration of vasopressors or vesicants that do not meet criteria for peripheral vasopressor protocol. During acute resuscitation, placement can be deferred for up to 2 hours to facilitate insertion safety and prompt reversal of shock. If appropriate vascular access can not be established within 5 minutes during acute resuscitation, intraosseous insertion should be considered.

A Central Venous Line is required in the following situations:

1. More than one vasopressor is required
2. Maximum dose of single agent norepinephrine or dopamine has been reached, dosing requirements increasing/patient is unstable or required longer than 24 hours
3. Unable to establish or maintain two peripheral IVs that comply with peripheral vasopressor protocol
4. Additional access sites are needed for fluid or medications
5. Concern over IV site quality exists
6. Recommended for medications that are hypertonic, high or low pH or concentrated electrolyte solutions
7. PICC lines are not suitable replacements for central venous lines in patients requiring multiple agents, ongoing resuscitation, vasopressors use or frequent blood sampling

Vein Assessment

VEIN LEVEL

- Level 1:** Visible, easy to palpate, large in size
- Level 2:** Visible, easy to palpate, moderate in size, previous IV site
- Level 3:** Visible, easy to palpate, small size, previous IV site, limited veins (some sclerosed)
- Level 4:** Difficult to see, can be palpated, age > 70, previous therapy has resulted in poor veins
- Level 5:** Vein not visible, cannot be palpated, may require multiple techniques

PHLEBITIS SCALE

- 1+** Pain at Site
- 2+** Pain and redness at Site
- 3+** Pain, redness and swelling at site with palpable cord of less than 7.5 cm
- 4+** Pain, redness and swelling at site with palpable cord of 7.5 cm or greater

Infiltration Scale *DAR if >0

0 No symptoms

1 Skin blanched

Edema < 2.5 cm in any direction

Cool to touch

With or without pain

2 Skin blanched

Edema 2.5 – 15 cm in any direction

Cool to touch

With or without pain

3 Skin blanched, translucent

Gross Edema > 15 cm in any direction

Cool to touch

Mild – moderate pain

Possible numbness

4 Skin blanched, translucent

Skin tight, leaking

Skin discolored, bruised, swollen, gross

edema > 15 cm in any direction

Deep pitting tissue edema

Circulatory impairment

Moderate – severe pain

Infiltration of any amount of blood

product, irritant, vesicant