

Trauma Vasoactive Meds Via PIV

I. Purpose:

To define the process of ordering, administering, and monitoring of vasoactive medications via a peripheral intravenous (PIV) line in the Trauma Intensive Care Unit.

II. Process:

A. Peripheral IV (PIV) Line Requirements:

1. Provider deems patient a candidate to receive vasoactive medications through a PIV and places a nursing order.
2. PIV is located in the upper extremities at the antecubital fossa or a more proximal location, on the opposite arm of the blood pressure cuff – no hands, wrist, or chest.
3. PIV size is a 20 gauge or larger; preferably placed by ultrasound.
4. The RN confirms a brisk blood return with no resistance when flushing the PIV prior to administration of a vasoactive medication via a PIV.
5. PIV is dedicated to only the vasoactive medication and no other medications are infused through this access site, even if medications are compatible.
6. Only one vasoactive medication is infused through a PIV. If the patient requires a second vasopressor or intermittent pushes of another vasoactive medication, a central line is required.

B. Nursing Requirements and Expectations:

1. Assessment of the PIV function every 2 hours includes:
 - a. Site check and assessment for any signs of extravasation;
 - b. PIV has a brisk blood return;
 - c. PIV flushes with no resistance; and
 - d. Documentation of assessment in eStar
2. Immediately notify provider team for signs of extravasation and promptly treat the patient for the extravasation as outlined in the VUMC infiltration/extravasation management standard operating procedure and extravasation order set.

C. Vasoactive Medication Dosing and Duration Restrictions

1. Vasoactive medications are only infused through a PIV up to 48 hours with an option to renew the infusion for an additional 48 hours

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2. Infusions renewed beyond 48 hours will require use of a new PIV site, adhering to the directions above. Each vein or peripheral site may only be used once, for no more than 48 hours.
3. The following vasoactive medications may be infused through a PIV when maintained at the specified infusion rate:
 - a. Norepinephrine ≤ 15 mcg/min;
 - b. Phenylephrine ≤ 75 mcg/min

D. Contraindications:

1. EPINEPHrine, vasopressin, DOPamine, DOBUTamine, and milrinone are not infused through a PIV.
2. Vasoactive medications cannot be infused through a PIV in the following situations:
 - a. Sluggish or no blood return from the PIV;
 - b. Resistance met when flushing the PIV;
 - c. Signs of extravasation;
 - d. Any concern about the overall function of the PIV;
 - e. Patient reports pain or discomfort around the PIV site;

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V. References:

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