

ED CLINICAL GUIDELINE

PERIPHERAL VASOPRESSOR EXTRAVASATION

This guideline is strictly intended for educational purposes, and does not assure outcomes, set a definitive standard of care, or replace the physician's duty to apply clinical judgment tailored to each patient's individual presentation.

CONTEXT & PURPOSE

Provide guidelines to manage extravasation events in patients receiving peripheral intravenous vasopressors (Norepinephrine, Vasopressin, Epinephrine, Phenylephrine, Dobutamine, and Dopamine) with the goal of early detection and treatment.

CLINICAL FEATURES

Symptoms

- Pain, Tightness, Tingling, Burning, Itching

Exam findings

- Swelling, Redness, Blisters, Ulceration, Necrosis
- Unexplained reduced IV flow rate

IMMEDIATE MANAGEMENT

- ❖ Stop the infusion immediately. Do not flush the line.
- ❖ Leave the catheter in place until you slowly aspirate as much drug as possible with a syringe.
- ❖ Elevate the limb to reduce edema and pain
- ❖ Apply warm compresses to the affected area for 20 minutes once every 4-6 hours for 1-2 days.
- ❖ Restart the vasopressor in a new access site.
- ❖ Small Volume Extravasations: provide supportive care as above and observation.

LARGE VOLUME EXTRAVASATION

Terbutaline

1 mg diluted in 10 mL of 0.9% NS.

1. Inject 3-10 mL **SUBCUTANEOUSLY** using a 25 G or smaller needle into the peripheral area of extravasation.
2. Administer ASAP. Redose after 15 minutes if needed. Monitor for hypotension and tachycardia.

Contraindication: Terbutaline hypersensitivity

- OR -

Phentolamine

5-10 mg diluted in 10 mL 0.9% NS

- 5 mg/mL in 9 mL of 0.9% NS
- OR 10 mg (5 mg/mL x2) in 8 mL of 0.9% NS

1. Inject 5 mL through the extravasated IV site, then remove IV.
2. Inject remaining 5 mL **SUBCUTANEOUSLY** along the peripheral area of extravasation using 25 G or smaller needle. Administer **ASAP**.
3. Re-administer in 60 minutes for persistent symptoms. Monitor for hypotension and tachycardia.

Contraindications: Phentolamine hypersensitivity, history of MI /CAD, coronary insufficiency, or angina (excludes OraVerse formulation).

Should see blanching reversal. If not, may need additional doses.

-AND-

2% topical nitroglycerin ointment

Apply 1 inch (2.5 cm) strip over affected area every 8 hours PRN until symptoms resolve.

Apply within 1 hour of extravasation

*Avoid using warm compresses if topical nitroglycerin is used

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PERIPHERAL VASOPRESSOR EXTRAVASATION

EPIC instructions for ordering Terbutaline

1. Search Terbutaline on Orders
2. Choose Extravasation Management Dosing

Name	Dose	Route	Frequency
terbutaline (BRETHINE) 10 mL NS (extravasation management)		Subcuta...	Once
terbutaline (BRETHINE) 1 mg/mL injection	0.25 mg	Subcuta...	Once

INDICATIONS FOR SURGICAL EVALUATION

- ❖ Development of site infection or abscess
- ❖ Progression of the radiographic abnormalities concurrent with clinical deterioration
- ❖ Clinical deterioration (tissue necrosis)
- ❖ Unresolved local tissue injury (ischemia, necrosis) despite conservative measures

IMPORTANT: Document the extravasation event and the treatment(s) pursued.

REFERENCES

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