

Cincinnati Pediatric Intravenous Extravasation Assessment System



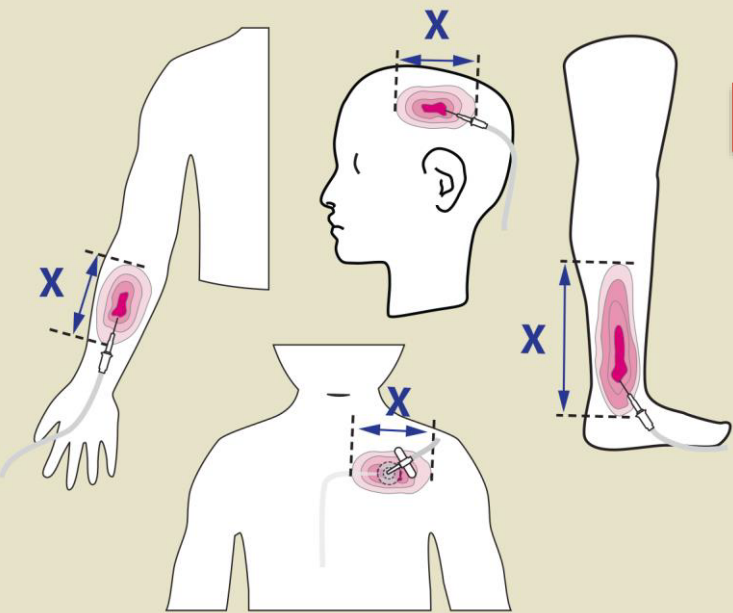
STEP 1:

Assess Extravasation

Volume

STEP 1a: Measure Swelling

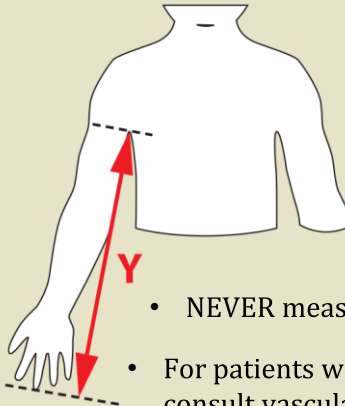
X



- Notes:**
- Define edges of swelling by palpation/visual observation.
 - Measure longest dimension.

STEP 1b: Measure ARM Length

Y



Y = Axilla to tip of longest finger

- For **Y** measure arm length regardless of site of extravasation.

- NEVER measure leg or other body part.
- For patients with casts or limb deficiency, consult vascular access team.
- Arm length **Y** is just a convenient way to consistently estimate the patient's size. For **Y** never measure the leg or other body part.

STEP 1c: Calculate

$$\left(\frac{X}{Y} \right) \cdot 100 = \square \%$$

STEP 2:

Assess Extravasated

Medication

Venous Infusion Extravasation Risk

This is an estimate of risk for phlebitis or local tissue injury due to extravasation from any intravenous infusion device. Risk derived from available evidence, CCHMC data and CCHMC expert opinion, subject to review and change as further evidence becomes available. This does not apply in situations of emergency medical treatment. Any change requests to this medication list should be directed to RYG@cchmc.org and approved by P&T committee.

Red Higher Risk	Yellow Intermediate Risk	Green Lower Risk
Acyclovir Amiodarone Caffeine Citrate Calcium (all salt forms) Dextrose > 12.5% Doxycycline Esmolol Mannitol 20% & 25% Potassium >60 mEq/L Promethazine Sodium bicarbonate ≥ 3% Sodium chloride ≥ 3% TPN > 950 mOsm/L Chemotherapy Drugs (Extravasation Treatment: Refer to policy P&T II-113)	Acetazolamide Allopurinol Amikacin Amphotericin B (conventional) Arginine Ciprofloxacin Dextrose 10% to ≤12.5% Diazepam Erythromycin Ganciclovir Lorazepam Midazolam Morphine Ondansetron Nafcillin Iodine based (CT) Radiology Contrast Phenobarbital Phenytoin Potassium ≤ 60 mEq/L Propofol TPN ≤950 mOsm/L Vancomycin	Any medication not listed as Red or Yellow should be considered Green. NOTE: No intravenous infusate is "safe". Gross extravasation, even of normal saline, may result in serious harm including compartment syndrome, causing ischemia and loss of tissue or permanent loss of limb function.

For Treatment of Extravasation, Refer to CCHMC Policy P&T II-112
 Chemotherapy Drugs Extravasation : Refer to policy P&T II-113

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Notes:

- "Extravasated Medication" means medication administered through the IV/CVC during the previous 2 hours, or since the last normal IV/CVC site check, whichever is longer.
- Refer to current Red/Yellow/Green listing (each new version has a different color border, consult latest version)

EXTRAVASATION MEDICATION CODING

- R = medication on RED list
- Y = medication on YELLOW list
- G = medication on GREEN list
- F = Fluids only (no medications or potassium)
- U = medication Unlisted
- N = medication not listed but causing harm similar to a RED drug (this category will rarely be needed)

STEP 3:

Chart in Epic and initiate treatment per CCHMC protocol

Notify Vascular Access Team as soon as possible if:

**Volume ≥ 30%
and/or RED list Medication**

Vascular Access Team Pager:

736-0337

Extravasation Treatment Decision Table

Medication Name	% Swelling and Infusate Component	Action
RED List VASOACTIVE Dopamine, Dobutamine, Epinephrine, Norepinephrine, Vasopressin, Terlipressin and Phenyphrine	Extravasation of ANY Percent	IMMEDIATE consult to the Vascular Access Team and Provider to determine treatment plan and use of Phentolamine.
RED List NON-VASOACTIVE	Extravasation > 30% Extravasation < 30% See Online Resource QR Code	Treatment with Hyaluronidase per provider order Clinical evaluation of the extravasation site by the Vascular Access Team and provider to determine if Hyaluronidase is clinically indicated. Decision criteria include imminent skin loss and / or circulation impairment (compartment syndrome).
YELLOW or GREEN List Infusates	Extravasation > 30% Extravasation < 30%	Clinical evaluation of the extravasation site by the Vascular Access Team and provider to determine if Hyaluronidase is clinically indicated. Hyaluronidase treatment usually NOT indicated. Usually NO treatment indicated