

OUR LADY OF THE LAKE REGIONAL MEDICAL CENTER			
<b>Policy Manual:</b>	Children's Hospital	<b>Section/ Chapter:</b>	Oncology
<b>Title:</b>	<b>Chemotherapy Extravasation Protocol</b>	<b>Policy Reference #:</b>	CHON-001
		<b>Supersedes #:</b>	
<b>Date of Origination:</b>	June 22, 2009	<b>Review Date:</b>	April 5, 2013
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**PURPOSE:**

To provide pertinent information regarding the proper procedure for the management of extravasation of cytotoxic drugs

**DEFINITIONS:**

Some chemotherapeutic agents are considered vesicants and may cause serious tissue damage if they leak into tissue outside of the vein (extravasate). Extravasation is the inadvertent administration of a vesicant into the surrounding tissues that can cause pain, burning, inflammation, necrosis, sloughing, and / or ulceration of the tissue. Irritants are those agents that can inflame tissue but will not cause tissue necrosis if extravasation occurs; reactions range from mild erythema and burning to pain and inflammation at the injection site. Flare reactions may include erythema, urticaria, and phlebitis along the vein. The degree of tissue damage related to an extravasation is dependent upon the vesicant potential of the agent and the concentration and quantity of drug extravasated.

**POLICY:**

The extravasation protocol should be initiated as soon as an extravasation of a vesicant/irritant is suspected.

Initiate the following steps in the event of any extravasation of a chemotherapeutic agent.

1. Stop the administration of the chemotherapy infusion.
2. Notify the physician at the time of the occurrence and obtain orders for treatment
3. Put on chemotherapy gloves to minimize personal exposure to any chemotherapeutic agent in blood.
4. Withdraw as much drug from the site as possible through the existing needle and IV tubing.
5. Elevate and immobilize the site.
6. Apply warm or cool compresses for 15 minutes at least 3-4 times a day for the first 24-48 hours. (see chart below as a reference)
7. Do not rub or press on the area.
8. Observe the site for pain, erythema, induration, and/or necrosis.
9. Document the following:
  - a. Date
  - b. Time
  - c. Type of access
  - d. Location of access
  - e. Drug sequence
  - f. Drug administration technique
  - g. Approximate drug amount extravasated
  - h. Patient response

- i. Appearance of the site
- j. Physician notification
- k. Follow up measures
- l. Document the incident according to institutional policy. Notify risk management, if indicated.

Drug Name	Classification	Application	Suggested Antidote if applicable
Carboplatin	Irritant (>10 mg/ml)	Cold	None
Carmustine	Irritant	Cold	None
Cisplatin	Irritant (<0.5 mg/ml ) Vesicant (>0.5mg/ml & over 20ml)	Cold	Sodium Thiosulfate
Cyclophosphamide	Irritant	Cold	Sodium Thiosulfate
Dacarbazine	Irritant	Cold	None vs. DMSO
Dactinomycin	Vesicant	Cold	None
Daunorubicin	Vesicant	Cold	Topical DMSO 99% vs. Dexrazoxane IV
Doxorubicin	Vesicant	Cold	Topical DMSO 99% vs. Dexrazoxane IV
Docetaxel	Irritant	Cold	Normal Saline vs. Hyaluronidase SC vs. Topical DMSO 99%
Etoposide	Irritant	Warm	Hyaluronidase (only for a large infiltration)
Fluorouracil	Irritant	Cold	None
Idarubicin	Vesicant	Cold	Topical DMSO 99% vs. Dexrazoxane IV
Ifosfamide	Irritant	Cold	None vs. DMSO
Irinotecan	Irritant	Cold	None
Melphalan	Vesicant	Cold	None
Mitomycin	Vesicant	Cold	Topical DMSO 99%
Mitoxantrone	Vesicant	Cold	Topical DMSO 99%
Oxaliplatin	Irritant vs. Vesicant	WARM DO NOT APPLY COLD	Sodium Thisulfate
Paclitaxel	Vesicant	Cold	Normal Saline vs. Topical DMSO 99%
Topotecan	Irritant	Cold	None
Vinblastine	Vesicant	Warm	Hyaluronidase
Vincristine	Vesicant	Warm	Hyaluronidase
Vinorelbine	Vesicant	Warm	Hyaluronidase

Kline, N. E. (ED.). (2011). *The Pediatric Chemotherapy and Biotherapy Curriculum*. (3<sup>rd</sup> ed.). pg 86. Glenview, IL: Association of Pediatric Hematology/Oncology Nurses.

**REFERENCES:**

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