

EXTRAVASATION

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DEFINITIONS

- Vesicant
 - Any agent that has the potential to cause blistering or tissue necrosis when extravasated
- Irritant
 - Any agent that causes aching, tightness, and phlebitis along the vein or at the injection site with or without a local inflammatory reaction
 - Does not cause tissue necrosis
- Extravasation:
 - Leakage or infiltration of a vesicant or irritant solution into surrounding tissue

SIGNS OF EXTRAVASATION

- Pain or burning at IV site
- Swelling at IV site
- Decreased flow of IV fluid
- Absence of blood return
- Redness at or near the IV site
- Change in skin temperature
- Change in sensation
- Decrease in motion or mobility











PROCEDURE FOR EXTRAVASATION

1. Stop medication/fluid immediately
2. Assess site, blood return, and flow of fluid
3. Attempt to aspirate to remove residual agent from the tip of the catheter
4. Remove access (IV catheter or port needle)
5. Apply compresses to site 4-5x/day for 20 minutes for the next 24-48 hours
 - Warm compress: Vincristine, vinblastine, vinorelbine, etoposide, oxalliplatin
 - Cold compress for all others
6. Avoid pressure to the site. Elevate affected extremity to decrease swelling

Table 4: Treatment guidelines

Treatment Guidelines	Non-Pharmacological Interventions	Pharmacological Treatments
Vinca/anthracycline combination (e.g., vincristine and doxorubicin) Vincristine, vinblastine, vinorelbine	None	DMSO
Vindesine, etoposide	Warm compresses	Hyaluronidase
Doxorubicin, daunorubicin, Liposomal doxorubicin, epirubicin, idarubicin	Cold compresses	DMSO
Mechlorethamine	Cold compresses	Sodium thiosulfate
Cisplatin (if large volume of concentrated solution)	Cold compresses	Sodium thiosulfate
Paclitaxel, docetaxel	Cold compresses	No specific antidote known. Consider hyaluronidase
Mitomycin C	Possible cold compresses	DMSO
Mitoxantrone	None identified	Possibly DMSO
Dactinomycin	Possible cold compresses	No specific antidote known

Irritants	Vesicant
Bleomycin	Cisplatin (if concentration >0.5mg/ml)
Busulfan	Dactinomycin
Carboplatin	Daunorubicin
Cyclophosphamide	Doxorubicin
Etoposide	Vinblastine (APPLY HEAT)
Ifosfamide	Vincristine (APPLY HEAT)
Irinotecan	
Topotecan	

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