

Medication	Class of Medication	Antidote	Comments	Nursing Interventions
Doxycycline	Antibiotic	No specific antidote		Cold compress
Erythromycin	Antibiotic	No specific antidote		Cold compress
Nafcillin	Antibiotic	Hyaluronidase		Cold compress
Penicillin	Antibiotic	Hyaluronidase		Cold compress
Piperacillin	Antibiotic	No specific antidote		Cold compress
Piperacillin/tazobactam	Antibiotic	No specific antidote		Cold compress
Vancomycin	Antibiotic	Hyaluronidase		Cold compress
Cyclophosphamide	Chemo-alkylating agent-nitrogen mustard	Sodium thiosulfate		Cold compress
Ifosfamide	Chemo-alkylating agent-nitrogen mustard	See footnote*		Cold compress
Mechlorethamine	Chemo-alkylating agent-nitrogen mustard	Sodium thiosulfate		Cold compress
Carmustine	Chemo-alkylating agent-nitrosourea	Sodium bicarbonate	Sodium thiosulfate is an alternative	Cold compress
Streptozocin	Chemo-alkylating agent-nitrosourea	DMSO-topical	Sodium bicarbonate is an alternative	Cold compress
Dacarbazine	Chemo-alkylating agent-triazine	Sodium thiosulfate	Topical DMSO is an alternative	Cold compress
Dactinomycin	Chemo-antibiotic	DMSO-topical	Sodium thiosulfate is an alternative	Cold compress
Mitomycin C	Chemo-antibiotic	DMSO-topical	Sodium thiosulfate is an alternative	Cold compress
Mitoxantrone	Chemo-antibiotic-anthracenedione	DMSO-topical	May add topical hydrocortisone	Cold compress
Epirubicin	Chemo-antibiotic-anthracycline	DMSO-topical	May add topical hydrocortisone	Cold compress
Daunorubicin	Chemo-antibiotic-anthracycline	DMSO-topical	May add topical hydrocortisone	Cold compress
Doxorubicin	Chemo-antibiotic-anthracycline	DMSO-topical	May add topical hydrocortisone	Cold compress
Idarubicin	Chemo-antibiotic-anthracycline	DMSO-topical	May add topical hydrocortisone	Cold compress
Fluorouracil	Chemo-antimetabolite-pyrimidine analog	DMSO-topical	May add topical hydrocortisone	Cold compress
Docetaxel	Chemo-antimitotic-taxoid	Hyaluronidase	May add topical hydrocortisone	Warm compress
Paclitaxel	Chemo-antimitotic-taxoid	Hyaluronidase		Cold/Warm
Etoposide	Chemo-epipodophyllotoxin	Hyaluronidase		Warm compress
Teniposide	Chemo-epipodophyllotoxin	Hyaluronidase	May add topical hydrocortisone	Warm compress
Carboplatin	Chemo-platinum complex	Sodium thiosulfate	Topical DMSO is an alternative	Cold compress
Cisplatin	Chemo-platinum complex	Sodium thiosulfate	Topical DMSO is an alternative	Cold compress
Vinblastine	Chemo-vinca alkaloid	Hyaluronidase		Warm compress
Vincristine	Chemo-vinca alkaloid	Hyaluronidase		Warm compress
Vindesine	Chemo-vinca alkaloid	Hyaluronidase		Warm compress
Vinorelbine	Chemo-vinca alkaloid	Hyaluronidase		Warm compress
Calcium	Electrolytes	Hyaluronidase		Cold compress
Calcium chloride	Electrolytes	Hyaluronidase		Cold compress
Calcium gluconate	Electrolytes	Hyaluronidase		Cold compress
Calcium solutions	Electrolytes	Hyaluronidase		Cold compress

Medication	Class of Medication	Antidote	Comments	Nursing Interver
Potassium	Electrolytes	Hyaluronidase		Cold comp
Potassium chloride	Electrolytes	Hyaluronidase		Cold comp
Potassium solutions	Electrolytes	Hyaluronidase		Cold comp
Aminophylline	Miscellaneous	Hyaluronidase		Cold comp
Dextrose	Miscellaneous	Hyaluronidase		Cold comp
Diazepam	Miscellaneous	No specific antidote		Cold comp
Doxapram	Miscellaneous	No specific antidote		Cold comp
Lorazepam	Miscellaneous	No specific antidote		Cold comp
Phenytoin	Miscellaneous	See footnote*		
Promethazine	Miscellaneous	No specific antidote		Cold comp
Radiocontrast media	Miscellaneous	Hyaluronidase		Cold comp
Sodium bicarbonate	Miscellaneous	Hyaluronidase		Cold comp
TPN solutions	Miscellaneous	Hyaluronidase		Cold comp
Dobutamine	Vasopressor	Phentolamine	May use topical nitroglycerin as alternative	Warm com
Dopamine	Vasopressor	Phentolamine	May use topical nitroglycerin as alternative	Warm com
Epinephrine	Vasopressor	Phentolamine	May use topical nitroglycerin as alternative	Warm com
Metaraminol	Vasopressor	Phentolamine	May use topical nitroglycerin as alternative	Warm com
Norepinephrine	Vasopressor	Phentolamine	May use topical nitroglycerin as alternative	Warm com
Phenylephrine	Vasopressor	Phentolamine	May use topical nitroglycerin as alternative	Warm com

Doses of Antidotes:

Hyaluronidase: Check with pharmacy for availability. Various doses reported in the literature, a) 150 units, b) 150-300 units, c) 150-900 units, d) dilute to 15 u then inject 0.2 mL into 4-5 spots around affected area. The most commonly reported dose was option "d."

Sodium thiosulfate: Dilute 4 mL of 10% sodium thiosulfate with 6 mL sterile water for injection to create a 1/6 molar solution.

Sodium bicarbonate: 5 mL of 8.4%, no frequency specified.

Nitroglycerin: Literature from cases involving neonates. 2% ointment, 2 doses reported a) 1-2" ribbon spread over affected area, b) 4mm/kg ribbon applied to

*The literature does not state specific antidote or temperature recommendations for phenytoin. General measures include discontinuing the administration of phenytoin and elevating the affected limb. Topical nitroglycerin and hyaluronidase, each in single case reports, have been mentioned as possible antidotes.

Note: These guidelines are separate from the Banner Good Samaritan Medical Center chemotherapy extravasation guidelines. For questions regarding the extravasation of chemotherapeutic agents call a clinical oncology pharmacist or an oncology clinical nurse specialist.

Procedure: 1) Stop the infusion at the affected site and restart at new site if needed. 2) Call the physician. 3) Start extravasation treatment on the patient. 4) Clinical Pharmacist for follow-up if needed. 5) complete Patient Incident Report form.