### Guide to Extravasation Management in Adult Patients

#### SPECIFIC SUBSTANCES

- **Calcium**
- **Carmustine**
- **Etoposide**
- **Teniposide**
- **Vinblastine**
- **Vincristine**
- **Vindesine**
- **Vinorelbine**
- **Dacarbazine**
- **Potassium**
- **Sodium bicarbonate**
- **Cisplatin**
  (>20mL and concentrations • 0.5 mg/mL)
- **Mechlorethamine**
- **Dobutamine**
- **Dopamine**
- **Epinephrine**
- **Norepinephrine**
- **Phenylephrine**
- **Doxorubicin**
- **Mitomycin**
- **Vancomycin**
- **Irinotecan**
- **Paclitaxel**
- **Phenytoin**
- **Radiocontrast Media**

#### RECOMMENDED TREATMENT:

- **Apply warm packs** for 15 to 20 minutes at least four times a day.

#### ANTIDOTE

- **Hyaluronidase**
- **Sodium thiosulfate**
- **Phentolamine**

#### ANTIDOTE PREPARATION AND ADMINISTRATION INSTRUCTIONS

**Hyaluronidase** *(Amphadase (bovine), Vitrase (ovine))*
*Preparation: 1. Amphadase (bovine): Use solution as provided (150 unit/1 mL vial); do not dilute further.
  2. Vitrase (ovine): Use the 200 unit/mL x 2 mL vial. Prior to administration, dilute 0.75 mL of solution with 0.25 mL of 0.9% sodium chloride (final concentration: 150 unit/mL). Inject subcutaneously or intradermally into the extravasation site using a 25-gauge needle or smaller. Dosage: the dose is 150 units (1mL) given as five 0.2 mL injections into the extravasation site at the leading edge; change the needle after each injection.*

**Phentolamine** *(Regitine)*
*Prepare by diluting 5 to 10 mg phentolamine in 10 mL of 0.9% sodium chloride. Inject subcutaneously into the extravasation area within 12 hours of event. Blanching should reverse immediately; additional injections may be required if blanching returns.*

**Sodium Thiosulfate**
*Mix 4 mL of sodium thiosulfate 10% with 6 mL sterile water for injection to prepare a 0.17 mol/L solution. Inject 5 mL subcutaneously into extravasation site.*

Other agents that have been reported to cause irritation, phlebitis, or necrosis with extravasation include but may not be limited to:

- **Arsenic trioxide**
- **Cytarabine**
- **Fluorouracil**
- **Flucytosine**
- **Gemcitabine**
- **Gemtuzumab**
- **Ibosamide**
- **Ivermectin**
- **Liposomal doxorubicin**
- **Mitoxantrone**
- **Plicamycin**
- **Pamidronate**
- **Paclitaxel**
- **Plicamycin**
- **Plicamycin**
- **Streptozocin**
- **Thiotepa**
- **Topotecan**
- **Vincristine**

*Note: Some references suggest cold compresses as a therapeutic alternative for oxaliplatin extravasation. Oxaliplatin administration is associated with sensory neuropathies that may be exacerbated or precipitated by cold temperatures or objects. Utilization of warm therapy may be more comfortable for patients with oxaliplatin-associated sensory neuropathy.*