# Chemotherapy Vesicant Extravasation Management (Outpatient) [3452]

1. If you suspect or recognize an extravasation, please stop the chemotherapy immediately.
a. Vesicant: a medication or agent that is capable of causing tissue damage or tissue necrosis if here is infiltration into the surrounding tissue.
b. Extravasation: a passage or escape into the tissues; passage or escape of antineoplastic chemotherapy medications into tissue.
2. Notify the physician ordering the chemotherapy immediately.
3. Use the information below to discuss extravasation management with the physician. The management varies by medication category.

Reference: Olsen, M., LeFebvre, K.B., & Brassill, K.J. (2019). Chemotherapy and Immunotherapy Guidelines and Recommendations for Practice. Oncology Nursing Society, Pittsburgh, PA.

## Alkylating Agents (Trabectedin [Yondelis])

**Treatment/Monitoring Instructions**

| | |
|---|---|
| [ ] Stop infusion immediately and disconnect, but leave the cannula in place | Details |
| [ ] Gently aspirate as much extravasated fluid as possible through the cannula | Details |
| [ ] DO NOT FLUSH THE LINE | Details |
| [ ] Remove the cannula | Details |
| [ ] Elevate extremity | Details |
| [ ] Obtain and initiate antidote | Details |
| [ ] Apply cold compress | Routine, Clinic Performed, Normal, For 20 minutes |
| [ ] Assess IV site - Assess for pain, blister formation, and skin sloughing | Routine, Clinic Performed, Normal |
| [ ] Patient education - Other (Extravasation) | Routine, Clinic Performed, Normal<br>Education for: Other (specify)<br>Specify: Instruct patient to monitor the extravasation site and report fever, chills, blistering, skin sloughing, and worsening pain. Report arm or hand swelling and/or stiffness if a peripheral extravasation. |

## Alkylating Agents (Mechlorethamine hydrochloride [Nitrogen Mustard Mustargen])

**Antidote for Mechlorethamine**

| | |
|---|---|
| [ ] sodium thiosulfate 4% injection solution | subcutaneous, once, For 1 Doses<br>Inject 2 mL of sodium thiosulfate solution for each milligram of Mechlorethamine suspected to have extravasated. Inject the solution subcutaneous into the extravasation site using a 25 gauge or smaller needle. Change needle with each injection. |

**Treatment/Monitoring Instructions**

| | |
|---|---|
| [ ] Stop infusion immediately and disconnect, but leave the cannula in place | Details |
| [ ] Gently aspirate as much extravasated fluid as possible through the cannula | Details |
| [ ] DO NOT FLUSH THE LINE | Details |
| [ ] Remove the cannula | Details |
| [ ] Elevate extremity | Details |
| [ ] Obtain and initiate antidote | Details |
| [ ] Apply ice pack for 6-12 hours following sodium thiosulfate | Routine, Clinic Performed, Normal |
| [ ] Assess IV site - Assess for pain, blister formation, and skin sloughing | Routine, Clinic Performed, Normal |

| | |
|---|---|
| [ ] Patient education - Other (Extravasation) | Routine, Clinic Performed, Normal<br>Education for: Other (specify)<br>Specify: Instruct patient to monitor the extravasation site and report fever, chills, blistering, skin sloughing, and worsening pain. Report arm or hand swelling and/or stiffness if a peripheral extravasation. |

## Anthracenediones (Mitoxantrone [Novantrone])

**Treatment/Monitoring Instructions**

| | |
|---|---|
| [ ] Stop infusion immediately and disconnect, but leave the cannula in place | Details |
| [ ] Gently aspirate as much extravasated fluid as possible through the cannula | Details |
| [ ] DO NOT FLUSH THE LINE | Details |
| [ ] Remove the cannula | Details |
| [ ] Elevate extremity | Details |
| [ ] Apply ice pack | Routine, Clinic Performed, Normal, For 20 minutes |
| [ ] Assess IV site - Assess site for pain, blister formation, and skin sloughing | Routine, Clinic Performed, Normal, Extravasation may cause a bluish discoloration of infusion site area and may require debridement and skin grafting. |

## Anthracyclines (Daunorubicin [Cerubidine]; Doxorubicin [Adriamycin]; Epirubicin [Ellence]; Idarubicin [Idamycin])

**Antidote**

| | |
|---|---|
| [ ] DEXRAZOXANE ORDERABLE (FOR EXTRAVASATION) | 1,000 mg/m2, intravenous, for 1 Hours, every 24 hours, For 2 Doses<br>Dexrazoxane must be given ASAP and within 6 hours of extravasatiDexrazoxane must be given ASAP and within 6 hours of extravasation. Infuse in large vein in an area other than the extravasation.on. Infuse in large vein in an area other than the extravasation. |
| [ ] DEXRAZOXANE ORDERABLE (FOR EXTRAVASATION) | 500 mg/m2, intravenous, for 1 Hours, every 24 hours, Starting S+2, For 1 Doses<br>Infuse in large vein in an area other than the extravasation. Administer AFTER the initial 2 doses of 1000 mg/m2 Dexrazoxane infusion |

**Treatment/Monitoring Considerations**

| | |
|---|---|
| [ ] Stop infusion immediately and disconnect, but leave the cannula in place | Details |
| [ ] Gently aspirate as much extravasated fluid as possible through the cannula | Details |
| [ ] DO NOT FLUSH THE LINE | Details |
| [ ] Remove the cannula | Details |
| [ ] Elevate extremity | Details |
| [ ] Obtain and initiate antidote | Details |
| [ ] Apply ice pack but remove at least 15 minutes prior to Dexrazoxane treatment | Routine, Clinic Performed, Normal |
| [ ] Assess IV site for pain, blister formation, and skin sloughing, or worsening pain | Routine, Clinic Performed, Normal |
| [ ] Patient education - Other (Extravasation) | Routine, Clinic Performed, Normal<br>Education for:<br>Specify: Instruct patient to monitor the extravasation site and report fever, chills, blistering, skin sloughing, and worsening pain. Report arm or hand swelling and/or stiffness if a peripheral extravasation. |

## Antitumor Antibiotics: (Mitomycin; Dactinomycin; Daunorubicin and cytarabine; Doxorubicin hydrochloride liposome)

**Mitomycin Antidote**

| | | |
|---|---|---|
| [ ] | dimethyl sulfoxide (RIMSO-50) 50 % solution | 50 mL, topical (top), PRN, extravasation<br>Apply 50% DMSO using a saturated gauze pad to an area twice the size of the extravasation. May repeat every 4-8 hours for 7-14 days. |

**Treatment/Monitoring Considerations**

| | | |
|---|---|---|
| [ ] | Stop infusion immediately and disconnect, but leave the cannula in place | Details |
| [ ] | Gently aspirate as much extravasated fluid as possible through the cannula | Details |
| [ ] | DO NOT FLUSH THE LINE | Details |
| [ ] | Remove the cannula | Details |
| [ ] | Elevate extremity | Details |
| [ ] | Apply ice pack | Routine, Clinic Performed, Normal, For 15-20 minutes |
| [ ] | Assess IV site for pain, blister formation, and skin sloughing | Routine, Clinic Performed, Normal, Assess extravasation area. |

## Plant alkaloids and microtubule inhibitors (Vinblastine [Velban]; Vincristine [Oncovin]; Vinorelbine [Navelbine])

**Antidote**

| | | |
|---|---|---|
| [ ] | hyaluronidase (HYLENEX) 150 unit/mL injection | 150 Units, subcutaneous, once<br>Administer 150 units of hyaluronidase solution as 5 separate injections each containing 0.2 ml subcutaneously into extravasation site using a 25 gauge or smaller needle. Change needle with each injection. |

**Treatment/Monitoring Considerations**

| | | |
|---|---|---|
| [ ] | Stop infusion immediately and disconnect, but leave the cannula in place | Details |
| [ ] | Gently aspirate as much extravasated fluid as possible through the cannula | Details |
| [ ] | DO NOT FLUSH THE LINE | Details |
| [ ] | Remove the cannula | Details |
| [ ] | Elevate extremity | Details |
| [ ] | Obtain and initiate antidote | Details |
| [ ] | Apply heat to affected area | Routine, Clinic Performed, Normal, Apply warm pack for 15-20 minutes. |
| [ ] | Assess IV site for pain, blister formation, and skin sloughing, periodically | Routine, Clinic Performed, Normal |
| [ ] | Patient education - Other (Extravasation) | Routine, Clinic Performed, Normal<br>Education for: Other (specify)<br>Specify: Instruct patient to monitor extravasation and report any fever, chills, blistering, skin sloughing, and worsening pain. |

## Taxanes (Docetaxel [Taxotere]; Paclitaxel [Taxol]; Paclitaxel protein bound [Abraxane]; Cabazitaxel [Jeftana])

**Antidote**

| | | |
|---|---|---|
| [ ] | hyaluronidase (HYLENEX) 150 unit/mL injection | 150 Units, subcutaneous, once<br>Administer 150 units of hyaluronidase solution as 5 separate injections each containing 0.2 ml subcutaneously into extravasation site using a 25 gauge or smaller needle. Change needle with each injection. |

**Treatment/Monitoring Considerations**

| | | |
|---|---|---|
| [ ] | Stop infusion immediately and disconnect, but leave the cannula in place | Details |
| [ ] | Gently aspirate as much extravasated fluid as possible through the cannula | Details |
| [ ] | DO NOT FLUSH THE LINE | Details |
| [ ] | Remove the cannula | Details |
| [ ] | Elevate extremity | Details |
| [ ] | Apply ice pack | Routine, Clinic Performed, Normal, For 15-20 minutes |
| [ ] | Assess IV site for pain, blister formation, and skin sloughing | Routine, Clinic Performed, Normal, Docetaxel extravasation may cause hyperpigmentation, redness, and tenderness. Paclitaxel is a mild vesicant; extravasation may cause induration, blistering, and, rarely, tissue necrosis. |
| [ ] | Patient education - Other (Extravasation) | Routine, Clinic Performed, Normal<br>Education for: Other (specify)<br>Specify: Instruct patient to monitor the extravasation site and report fever, chills, blistering, skin sloughing, and worsening pain. Report arm or hand swelling and/or stiffness if a peripheral extravasation. |