

MANAGEMENT OF EXTRAVASATION: TREATMENT SUMMARY

- Extravasation suspected – resistance or absence of free flow, swelling, discomfort, burning, pain. STOP the injection immediately, but leave the cannula in place.
- Aspirate as much fluid as possible through the cannula, try to draw back about 3-5ml of blood.
- Contact the patient's doctor.
- Remove the cannula.
- Mark the extravasation area with a pen.
- Classify the agent using the tables below and treat as directed.

Vinca alkaloids	Vesicant drugs	Extreme pH, osmolarity, or toxic excipients		Exfoliant or Irritant drugs		Vascular regulators	Neutral drugs
Vinblastine Vincristine Vindesine Vinorelbine	Amsacrine Bendamustine Hydrochloride Carmustine Dacarbazine Dactinomycin Daunorubicin Doxorubicin Epirubicin Idarubicin Mitomycin Mustine Paclitaxel Plicamycin Streptozocin Treosulphan	Aciclovir Allopurinol Aminophylline Amiodarone Amphotericin Calcium chloride Calcium gluconate Ciprofloxacin Clarithromycin Co-trimoxazole Diazepam Erythromycin Etomidate Foscarnet Ganciclovir	Hypertonic glucose (10% or greater) Hypertonic saline (1.8% or greater) Magnesium sulphate Mannitol Methohexitone Methylene blue Parenteral nutrition Phenytoin Potassium chloride (>40mmol per litre) Sodium bicarbonate Thiopentone Vancomycin X-ray contrast media	Aclarubicin Arsenic Trioxide Busulphan Carboplatin Cisplatin Cloretazine Daunorubicin (liposomal) Docetaxel Doxorubicin (liposomal) Etoposide Etoposide phosphate Floxadine Fluorouracil Irinotecan Methotrexate Mitoxantrone	Oxaliplatin Raltitrexed Teniposide Topotecan Trastuzumab	Adrenaline Alprostadil Dobutamine Dopamine Epoprostenol Noradrenaline	Aldesleukin Asparaginase Bleomycin Bortezomib Cladribine Clofarabine Cyclophosphamide Cytarabine Fludarabine Gemcitabine Ifosfamide Interferons Melphalan Monoclonal antibodies Nelarabine Pemetrexed Pentostatin Thiotepa

Aim: spread and dilute

- Reconstitute 1500iu of Hyaluronidase with 1ml Water for Injection.
- Give this Hyaluronidase solution in 0.1- 0.2ml subcutaneous injections at 6 to 8 sites around the circumference of the extravasation area.**
- Apply a HOT pack for 24 hours. Remove the pack every 3 hours for 20 to 30 minutes replace with a fresh pack.
- Apply Hydrocortisone Cream 1% four times a daily for as long as erythema persists.

Aim: localisation 1.

- For bendamustine hydrochloride, carmustine, mustine, paclitaxel and treosulphan treat as in 'Aim: localisation 2'. For all other vesicant drugs treat as detailed below.
- Apply a thin layer of DMSO 50% cream to the marked area immediately using a cotton bud and cover with gauze. Avoid contact with unaffected skin.
- Repeat DMSO application every 2 hours for 24 hours then every 6 hours for 7 days.
- Immediately after first DMSO application apply COLD pack for 30 minutes. Repeat every 4 hours for 24 hours.
- 3 hours after first DMSO application apply hydrocortisone 1% cream. Repeat every 6 hours for 7 days.

Aim: localisation 2.

- Apply cold pack for 30 minutes every 4 hours for 24 hours.
- Apply hydrocortisone cream 1% every 6 hours for 7 days or as long as erythema persists'

NB for liposomal daunorubicin / liposomal doxorubicin treat as in 'Aim: localisation 1' but delay DMSO application until 8 - 12 hours post incident and continue for 10 - 14 days. Commence treatment with hydrocortisone 1% cream and COLD pack immediately.

Aim: symptomatic treatment

- Apply hydrocortisone cream 1% four times each day if erythema is present

DOCUMENTATION

- Inform the patient's consultant
- Complete a Cardiff and Vale NHS Trust Incident Record Form (HS/IDO/02).
- Document the extent of extravasation in the patient's medical notes. Consider including a photographic record of the injury and treatment progress.
- Complete an extravasation report (Green Card) and post or complete on-line at <http://www.extravasation.org.uk/Documentation.htm>
- Return opened extravasation kit to pharmacy for replacement.

Check the site regularly and review at least twice daily, initially. Then according to the severity of the injury and progress.

The treatment proposed above is "first aid" only. Seek further advice – early review by plastic surgeon is advisable.

Further information
More detailed information may be obtained from the National Extravasation Information Service: <http://www.extravasation.org.uk/home.html>

EXTRAVASATION KITS ARE AVAILABLE

UHW - Ambulatory Care : Sky Ward : Heulwen : Paediatric South Ward : HDC : A7 : B4 Haem : GITU : A&E : ICU : Dermatology : C2 : C7 : B5 : Nephrology OP Clinic : C4 Neurosciences : Upper Ground Gynaecology : A1 Ophthalmology : Rheumatology OP Clinic : Main Theatres : A5 OP Clinic : Pharmacy Emergency Cupboard.

LLAN - Chemotherapy Day Unit : ICU : MAU : Pharmacy Emergency Cupboard : Theatres Ground Floor

