

Algorithm – extravasation management of intravenous anti-cancer therapies

Nearest extravasation kit is located:

PRIMARY ACTIONS:

- S** STOP the injection or intravenous infusion immediately and SEND for assistance (notify senior nurse, medical staff, pharmacist)
- L** LEAVE the vascular access device (VAD) in situ
- A** ASPIRATE any residual drug from VAD
- P** PLAN next actions

SECONDARY ACTIONS:

- complete assessment of affected area: size, colour, oedema, sensation, pain
- collect the extravasation kit
- outline the affected area with a marker pen
- photograph affected area for medical record
- initiate appropriate drug specific management measures

VESICANT

DNA binding

e.g. Amsacrine, Daunorubicin*, Doxorubicin*, Epirubicin*, Mitomycin

Non-DNA binding

e.g. Vinblastine, Vincristine, Vindesine, Vinflunine, Vinorelbine

IRRITANT with vesicant properties

e.g. Bendamustine, Carmustine, Cisplatin > 0.5 mg/mL, Docetaxel**, Doxorubicin Liposomal, Nab-paclitaxel, Paclitaxel**

e.g. Oxaliplatin

IRRITANT

e.g. Etoposide, Etoposide phosphate, Teniposide

e.g. Cabazitaxel, Carboplatin, Cisplatin ≤ 0.5 mg/mL, Dacarbazine, Fluorouracil, Gemcitabine, Ifosfamide, Zoledronic acid

Refer [here](#) for a summary of the treatments for extravasation of intravenous anti-cancer therapies

Neutralise & localise

Neutralise:

- apply thin layer topical DMSO 99% solution to marked area as soon as possible (within 10 - 25 minutes)
- continue every 6 hours for 7 days
- use cotton bud / swab stick soaked solution OR
- glass dropper (4 drops of solution per 10 cm² of affected area)
- allow to air dry

Localise:

- apply **COLD** compress to affected area for 15 - 20 minutes every 6 hours for 48 hours
- elevate limb

NOTE:

- ensure skin is dry before applying DMSO 99% solution
- do not cover with dressing

*Alternatively, consider dexrazoxane for anthracycline extravasations (must be administered within 6 hours). Refer [here](#) for more information.

Disperse & dilute

- Administer pain relief prior to as appropriate
- Reconstitute hyaluronidase 1500 international units in 2-5 mL sterile water or sodium chloride 0.9%
- Administer solution 0.2 - 0.4 mL subcutaneously around marked area using the "pin cushion" technique at "2 hourly intervals" on an imaginary "clock face"
- Gently massage area to facilitate dispersal
- Apply a **WARM** compress to affected area for 15 - 20 minutes every 6 hours for 48 hours
- Elevate limb

Localise

- Apply **COLD** compress to affected area for 15 - 20 minutes every 6 hours for 48 hours
- ** If hyaluronidase used for extravasation – do not apply compress

- Apply a **WARM** compress to affected area for 15 - 20 minutes every 6 hours for 48 hours

Localise

- Apply a **COLD** compress to affected area for comfort measures
- Note: There is no evidence for use of warm or cold compress for trastuzumab emtansine extravasations

Pain management

- Discuss regularly with patient and treating medical team.
- Medications will vary according to the individual patient and extravasation.

Consider specialist referral e.g. surgical, plastics

- Provide verbal and [written patient information](#)
- Organise post-acute assessment and management
- Replace items/[extravasation kit](#) including drugs from pharmacy if required
- Complete [documentation](#) and incident report as per local policy
- Refer [here](#) for the clinical procedure
- Refer to [extravasation management](#) for a comprehensive list of the references used to develop this flow chart.