Management of Extravasation and Infiltration of non-cytotoxic medications in adults

(Radiology, oncology and haematology please refer to your local extravasation protocols)

Extravasation and infiltration refers to the leakage of intravenous fluid from the vein into the surrounding tissue. It can result in blistering and tissue necrosis and requires immediate attention to limit further injury.

Suggested management:	
At first concern of extravasation / infiltration:	Further management:
☐ Stop the injection / infusion immediately	☐ Give pain relief if needed
 Leave the IV cannula in-situ until further assessed 	☐ Classify injury (see below)
 Aspirate as much back from cannula as possible (do not flush cannula) 	☐ Mark area with a pen
☐ Elevate limb to minimise swelling	☐ Take digital image for documentation in clinical notes
☐ Obtain extravasation kit from nearest location	☐ Remove cannula if not severe, place dressing over site
☐ Inform medical team & ward pharmacist	☐ Arrange daily assessments and images
☐ Initiate substance specific measures	☐ Complete Safety 1 st report

Classification: Minimal volume of irritant or vesicant causing little pain / swelling, and no erythema / blistering Moderate: Small volume of extravasation causing a local inflammatory reaction, moderate tenderness, with or without erythema but no blistering Large volumes, typically vesicant infusions, resulting in extreme pain, marked swelling, cool to touch, diminished or absent pulse, erythema and often blistering Immediate plastic surgery consultation is required for severe injuries – contact plastics via on-call service

- For specific drug management see below. NB. for drugs not listed see Hospital Health Pathways regarding information on physiological properties
- Thermal compressors should only be applied after determining if the extravasated drug requires a warm or cold compress. Applying a compress that is the wrong temperature can exacerbate the injury. Wet compresses should never be used as this increases the risk of tissue maceration.

Extremes of pH **Extremes of osmolarity Vasopressors** Adrenaline Aciclovir Calcium chloride Aminophylline Phenytoin Dobutamine Cefotaxime Diazepam Calcium gluconate Potassium chloride Dopamine Promethazine Digoxin Glucose 10-50% Sodium bicarbonate Methylene blue Vancomycin Mannitol Parenteral nutrition (PN) Sodium chloride >3% Noradrenaline **Cold compress** Warm compress +/- hyaluronidase* Warm compress +/- phentolamine* Cold induces vasoconstriction and limits damage to Warm increases blood circulation and encourages drug Warm increases blood circulation and encourages drug surrounding tissue dispersal away from affected area dispersal away from affected area cold, dry (not moist) compress warm, dry (not moist) compress warm, dry (not moist) compress apply proximal to injury for 15-20 minutes at apply proximal to injury for 15-20 minutes at apply proximal to injury for 15-20 minutes at least 4 x daily for 24-48 hours least 4 x daily for 24-48 hours least 4 x daily for 24-48 hours no specific antidote

Mild:

Severe:

^{*}antidotes generally only considered in severe cases