POLICY

When an extravasation injury occurs, the Registered Nurse immediately calls the physician to examine the extravasation site.

The clinical features of extravasation injuries may be immediate or delayed, and include any of the following:

- Delayed capillary refill time less than (<) 4 seconds below the infiltration site
- Erythema
- Hematoma
- Inflammation
- Pain and discomfort
- Discolouration and blanching of dermis and subcutaneous tissues
- Swelling
- Skin breakdown and tissue necrosis
- Decreased or absent pulse

Applicability: Management of intravenous drug extravasation injuries occur within the Neonatal Program.

PROCEDURE

The physician refers to the table below and orders one of the following antidotes:
- Hyaluronidase, Appendix A
- Phentolamine, Appendix B

Any modifications to this procedure should be in consultation with the Neonatologist.

<table>
<thead>
<tr>
<th>Antidote</th>
<th>Action of Antidote</th>
<th>Timing of treatment</th>
<th>Drug category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyaluronidase</td>
<td>Hyaluronidase allows the dispersion, diffusion, and re-absorption of the extravasated fluids and substances present in the interstitial spaces, thereby decreasing tissue damage from such toxic substances.</td>
<td>Within 1 hour of intravenous (IV) extravasation injury. May be administered up to 24 hours after injury.</td>
<td>Electrolytes and other hyperosmolar medications</td>
<td>Acyclovir, Aminophylline, Amphotericin, Ampicillin, Calcium solutions, Dextrose, Erythromycin, Gentamicin, Lipid solutions, Magnesium sulfate, Mannitol, Phenytoin, Potassium solutions, Radio contrast media, Sodium bicarbonate, TPN, Vancomycin</td>
</tr>
<tr>
<td>Phentolamine</td>
<td>Phentolamine competitively antagonizes the actions of alpha adrenergic drugs by reversing vasoconstriction.</td>
<td>Within 1 hour of IV extravasation injury. May be administered up to 12 hours after injury.</td>
<td>Adrenergic antagonists / sympathomimetics</td>
<td>Dobutamine, Dopamine, Epinephrine, Norepinephrine, Phenylephrine</td>
</tr>
</tbody>
</table>

Key: mg = milligram, mL = millilitre, TPN = total parenteral nutrition
REFERENCES


APPENDIX

Hyaluronidase  Appendix A
Phentolamine  Appendix B