



NEONATAL Medication Monograph

# HYALURONIDASE





This document should be read in conjunction with this [DISCLAIMER](#)

**Unrestricted:** Any prescriber may initiate treatment

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Presentation</b>      | Ampoule: 1500 units (powder for reconstitution)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>       | <p>Hyaluronidase is an enzyme that promotes the reabsorption of extravasated fluid by temporarily breaking down the hyaluronic acid of tissue cement.</p> <ul style="list-style-type: none"> <li>• After administering hyaluronidase this tissue cement is broken down for 24 to 48 hours.</li> <li>• The extravasated fluid is spread over a large absorptive area, but irritation is said to be minimised by dilution in tissue fluids.</li> </ul>                                                                                                                                                                                                                                                                                                                        |
| <b>Indications</b>       | Prevention of tissue injury caused by IV extravasation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Contraindications</b> | <p>Not recommended for IV use</p> <p>Do not use for extravasation of vasoconstrictive agents (e.g dopamine, adrenaline, noradrenaline) see <a href="#">Extravasation Injuries</a> for use of Phentolamine</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Precautions</b>       | Do not inject near area of infection or acutely inflamed area due to an increased risk of spreading a localised infection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Dosage</b>            | <p><b><u>Subcutaneous or Intradermal routes ONLY</u></b></p> <p><b><u>Infiltration of Hyaluronidase without Normal Saline Irrigation</u></b></p> <p>Administer 1mL hyaluronidase (<b>concentration 15 units/mL</b>) through the existing IV cannula</p> <p><b>and/or</b></p> <p>Administer a total dose of 1mL hyaluronidase in 5 aliquots of 0.2mL (<b>concentration 300 units/mL</b>) into the periphery of the extravasation injury</p> <p><b><u>Infiltration of Hyaluronidase Followed by Normal Saline Irrigation</u></b></p> <p>Inject around and through the extravasation injury a total of 5 aliquots of 0.2 mL hyaluronidase (<b>concentration 1000 units/mL</b>)</p> <p>Irrigate using normal saline as per <a href="#">Extravasation Injuries Guideline</a></p> |

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| <b>Adverse Reactions</b> | <b>Common:</b> injection site reactions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Interactions</b>      | Incompatible with adrenaline, heparin and furosemide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Compatible Fluids</b> | Water for Injections, Sodium Chloride 0.9%, Glucose 5%, Glucose 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Preparation</b>       | <p>Preparation will differ according to concentration required as discussed in <i>Dosage</i> section.</p> <p><b><u>Concentration: 15units/mL</u></b></p> <p>Reconstitute hyaluronidase ampoule with 1mL Water for Injections<br/>Withdraw the entire contents <math>\approx 1\text{mL}</math> (1500units) and make to a final volume of 10mL with a compatible fluid<br/>Concentration = <math>1500\text{units}/10\text{mL} = 150 \text{ units/mL}</math><br/>Take 1mL of the above solution and further dilute to 10mL<br/>Concentration is <math>150 \text{ units}/ 10\text{mL} = \underline{\underline{15 \text{ units} / \text{mL}}}</math></p> <p><b><u>Concentration: 300 units/mL</u></b></p> <p>Reconstitute hyaluronidase ampoule with 1mL Water for Injections<br/>Withdraw the entire contents <math>\approx 1\text{mL}</math> (1500units) and make to a final volume of 1.5mL with a compatible fluid<br/>Concentration = <math>1500\text{units}/1.5\text{mL} = 1000 \text{ units/mL}</math><br/>Take 0.3mL (300units) of the above solution and further dilute to 1mL<br/>Concentration = <u><b>300 units/ mL</b></u></p> <p><b><u>Concentration 1000 units/mL</u></b></p> <p>Reconstitute hyaluronidase ampoule with 1mL Water for Injections<br/>Withdraw the entire contents <math>\approx 1\text{mL}</math> (1500units) and make to a final volume of 1.5mL with a compatible fluid<br/>Concentration = <math>1500\text{units}/1.5\text{mL} = \underline{\underline{1000 \text{ units/mL}}}</math></p> |
| <b>Administration</b>    | Administer via Subcutaneous or intradermal injection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Monitoring</b>        | Monitor IV site for healing and further signs of extravasation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Storage</b>           | Store at room temperature, below 25°C<br>Discard excess unused dilutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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| <b>Notes</b>                       | Hyaluronidase works best if used early, preferably within one hour but up to 24 hours has been reported.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Related clinical guidelines</b> | <a href="#">Extravasation Injuries</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>References</b>                  | <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric &amp; neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 24th ed. Hudson (Ohio): Lexicomp; 2019</p> <p>Truven Health Analytics. Hyaluronidase. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2020 [cited 2020 Feb 23]. Available from: <a href="https://neofax.micromedexsolutions.com/">https://neofax.micromedexsolutions.com/</a></p> <p>MIMS Australia. Hyalase. In: MIMS Online [Internet]. St Leonards (New South Wales): MIMS Australia; 2020 [cited 2020 Feb 21]. Available from: <a href="https://www-mimsonline-com-au.kelibresources.health.wa.gov.au">https://www-mimsonline-com-au.kelibresources.health.wa.gov.au</a></p> |

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| Endorsed by:                                                                                                                                                                                                                                                                                                                                    | Neonatal Directorate Management Group                                                                                                                                                                                                                                                                                                                                                                                                            | Date:                                        | February 2020 |
| Standards Applicable:                                                                                                                                                                                                                                                                                                                           | NSQHS Standards: 1  Governance, 3  Infection Control, 4  Medication Safety, 8  Acute Deterioration |                                              |               |
| <p><b>Printed or personally saved electronic copies of this document are considered uncontrolled.</b></p> <p><b>Access the current version from the WNHS website.</b></p> <p><b>For any enquiries relating to this guideline, please email <a href="mailto:KEMH.PharmacyAdmin@health.wa.gov.au">KEMH.PharmacyAdmin@health.wa.gov.au</a></b></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                              |               |

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