



NEONATAL MEDICATION GUIDELINE

HYALURONIDASE

Scope (Staff): Nursing, Medical and Pharmacy Staff

Scope (Area): KEMH NICU, PCH NICU, NETS WA

This document should be read in conjunction with the [Disclaimer](#).

Quick Links

[Dose](#)

[Preparation & Administration](#)

[Side Effects & Interactions](#)

[Monitoring](#)

Restrictions

[Formulary: Unrestricted](#)

This monograph should be read in conjunction with the CAHS Neonatology Clinical Guideline [Extravasation Injuries](#)

Description

Hyaluronidase is an enzyme that promotes the reabsorption of extravasated fluid by temporarily breaking down the hyaluronic acid of tissue cement.

- After administering hyaluronidase this tissue cement is broken down for 24 to 48 hours.
- The extravasated fluid is spread over a large absorptive area, but irritation is said to be minimised by dilution in tissue fluids.

Presentation

Ampoule: 1500 units (powder for reconstitution)

Storage

Store at room temperature, below 25°C

Dose

Subcutaneous or Intradermal routes ONLY

Infiltration of Hyaluronidase without Normal Saline Irrigation

Administer 1mL hyaluronidase (*concentration 15 units/mL*) through the existing, tissue, IV cannula

and/or

Administer a total dose of 1mL hyaluronidase in 5 aliquots of 0.2mL (*concentration 300 units/mL*) into the periphery of the extravasation injury

Infiltration of Hyaluronidase Followed by Normal Saline Irrigation

Inject around and through the extravasation injury a total of 5 aliquots of 0.2 mL hyaluronidase (*concentration 1000 units/mL*)

Irrigate using normal saline as per Extravasation Injuries Guideline (link below)

Preparation

Preparation will differ according to concentration required as discussed in *Dosage* section.

Concentration: 15units/mL

- Reconstitute hyaluronidase ampoule with 1mL Water for Injections
- Withdraw the entire contents $\approx 1\text{mL}$ (1500units) and make to a final volume of 10mL with a compatible fluid
- Concentration = $1500\text{units}/10\text{mL} = 150 \text{ units/mL}$
- Take 1mL of the above solution and further dilute to 10mL
- Concentration is $150 \text{ units}/10\text{mL} = \underline{15 \text{ units /mL}}$

Concentration: 300 units/mL

- Reconstitute hyaluronidase ampoule with 1mL Water for Injections Concentration is 1500 units/mL
- Withdraw 0.2mL (300units) of the above solution and make to a final volume of 1mL with a compatible fluid
- Concentration = 300 units/ mL

Concentration 1000 units/mL

- Reconstitute hyaluronidase ampoule with 1mL Water for Injections
- Withdraw the entire contents ≈1mL (1500units) and make to a final volume of 1.5mL with a compatible fluid
- Concentration = 1500units/1.5mL = **1000 units/mL**

Administration

Administer via subcutaneous or intradermal injection

Compatible Fluids

Water for Injections, Sodium Chloride 0.9%, Glucose 5%, Glucose 10%

Side Effects

Common: injection site reactions

Interactions

Incompatible with adrenaline, heparin and furosemide

Monitoring

Monitor IV site for healing and further signs of extravasation

Comments

Hyaluronidase works best if used early, preferably within one hour but up to 24 hours has been reported.

Not recommended for IV use

Do not use for extravasation of vasoconstrictive agents (e.g dopamine, adrenaline, noradrenaline) see [Extravasation Injuries](#) for use of topical [glyceryl trinitrate](#)

Do not inject near area of infection or acutely inflamed area due to an increased risk of spreading a localised infection

Related Policies, Procedures & Guidelines

Neonatology Clinical Practice Guidelines for KEMH and PCH:

[Extravasation Injuries](#)

References

Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index: a universal resource for clinicians treating pediatric and neonatal patients. 27th ed. Hudson (Ohio): Lexicomp; 2020

Truven Health Analytics. Hyaluronidase. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2021 [cited 2021 Nov 25]. Available from: <https://neofax.micromedexsolutions.com/>

Society of Hospital Pharmacists of Australia. Hyaluronidase. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2021 [cited 2021 Nov 25]. Available from: <http://aidh.hcn.com.au>

AusDI. Hyaluronidase. In: AusDI By Medical Director [Internet]. Australia: AusDI by Medical Director; 2021 [cited 2021 Nov 25]. Available from: <https://ausdi-hcn-com-au.kelibresources.health.wa.gov.au/quickSearch.hcn>

Keywords	Hyaluronidase, Extravasation Injury				
Document Owner:	Head of Department - Neonatology				
Author/ Reviewer	KEMH & PCH Pharmacy/Neonatology Directorate				
Version Info:	4.1 – amendment: removed reference to phentolamine for extravasation of vasopressors and added GTN (Jan 2024)				
Date First Issued:	March 2001	Last Reviewed:	26/07/2022	Review Date:	26/07/2027
Endorsed by:	Neonatal Directorate Management Group			Date:	29/01/2024
NSQHS Standards Applicable:	<input checked="" type="checkbox"/>  Std 1: Clinical Governance <input type="checkbox"/>  Std 2: Partnering with Consumers <input type="checkbox"/>  Std 3: Preventing and Controlling Healthcare Associated Infection <input checked="" type="checkbox"/>  Std 4: Medication Safety		<input type="checkbox"/>  Std 5: Comprehensive Care <input type="checkbox"/>  Std 6: Communicating for Safety <input type="checkbox"/>  Std 7: Blood Management <input type="checkbox"/>  Std 8: Recognising and Responding to Acute Deterioration		
Printed or personally saved electronic copies of this document are considered uncontrolled. Access the current version from WNHS HealthPoint.					

The health impact upon Aboriginal people has been considered, and where relevant incorporated and appropriately addressed in the development of this document (insert ISD Number). (Please refer to the Aboriginal Health Impact Statement and Declaration for Department of Health and Health Service Provider Guidelines – please delete once you have completed this).

This document can be made available in alternative formats on request for a person with a disability.

© Women and Newborn Health Service 2020

Copyright of this material is vested in the State of Western Australia unless otherwise indicated. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the provisions of the Copyright Act 1968, no part may be reproduced or re-used for any purposes whatsoever without written permission of the State of Western Australia.