

NICU: Hydrocortisone for Hypotension

Reference MONO-PAEDS/567/23

Presentation:	Hydrocortisone (as sodium succinate) 100mg powder for solution for injection
Indication:	Hypotension resistant to inotropic treatment and volume replacement (limited evidence)
Dose:	<p>Neonate: Initially 2.5 mg/kg, repeated if necessary after 4 hours. Then 2.5 mg/kg every 6 hours. Dose rounded to the nearest 0.5 mg.</p> <p>Child 1 month to 18 years: 1 mg/kg (max. per dose 100 mg) every 6 hours</p> <p>Continue for 48 hours or until blood pressure recovers, then dose to be reduced gradually over at least 48 hours</p>
Route of administration:	Slow IV bolus over 3 to 5 minutes. In an emergency, can be given over at least 1 minute
Instructions for preparation:	<p>Doses to be prepared on NICU as stated below and used immediately.</p> <p>For doses less than 5 mg:</p> <ol style="list-style-type: none"> 1. Reconstitute a 100 mg vial of hydrocortisone sodium succinate (Solu-Cortef) with 1.9ml Water for Injections. This will provide a 50 mg/ml concentration. Shake until clear. 2. Draw up 1 ml of the 50 mg/ml solution into a 10 ml syringe and dilute to 10 ml with Sodium Chloride 0.9%. This will provide a 5 mg/ml concentration. 3. Withdraw the required amount of the 5 mg/ml solution into a suitable sized syringe and discard the remainder. Administer as a slow IV bolus over 3 to 5 minutes. <p>For doses greater than 5 mg:</p> <ol style="list-style-type: none"> 1. Reconstitute a 100 mg vial of hydrocortisone sodium succinate (Solu-Cortef) with 1.9ml Water for Injections. This will provide a 50 mg/ml concentration. Shake until clear. 2. Withdraw the required amount of the 50 mg/ml solution into a suitable sized syringe. Administer as a slow IV bolus over 3 to 5 minutes.
Known compatibility issues	<p>May be diluted with glucose 5% or sodium chloride 0.9%.</p> <p>Flush with sodium chloride 0.9%</p> <p>Please refer to Medusa for Y-Site compatibility</p>
Additional Comments:	

Note: The contents of this monograph should be read in conjunction with information available in the BNFC and Medusa

References:

1. BNF for Children accessed through

<https://www.medicinescomplete.com/#/content/bnfc/164174358?hsp=hydrocortisone#content%2Fbnfc%2F164174358%23pot-directionsForAdministration> on 15/12/23

3. Medusa. Accessed by 4. SOLU-CORTEF® (hydrocortisone sodium succinate) Minimum Reconstitution Volume manufacturer information accessed via <https://www.pfizermedicalinformation.co.uk/en-gb/document/142013> on 15/12/23

5. NUH Hydrocortisone (as sodium succinate) monograph, accessed via [on 15/08/23](#)

6. Pfizer contacted 15/12/23

Document control sheet

GUIDELINE NUMBER	CH PH N 44
AREA IN WHICH THIS MONOGRAPH APPLIES	NICU

DIVISIONAL AUTHORISATION	
GROUP	DATE
Paediatric monograph review group	22/12/23

AUTHORS		
Author	Position	Date
Written by: Lorraine McIntyre	Pharmacist	Oct 2008
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If review:

	Position	Date
Reviewed by: Maisie-Jane Fry and Ellie Cheale	Rotational/Womens and childrens Pharmacist	August 2023
Checked by: Lamia Ahmed	Advanced pharmacist, Womens and Childrens	December 2023

Change history:

Changes Reference	Change details	Date
1	Addition of 'can be given one 1 min in an emergency' as per MEDUSA	November 2023
2	Reconstitution instructions changed as per Medusa, has a 0.1ml displacement value and manufacturer information emailed	December 2023