

Document control sheet

GUIDELINE NUMBER	CG-MONO/4388/24
AREA IN WHICH THIS MONOGRAPH APPLIES	Paediatrics - all areas

DIVISIONAL AUTHORISATION	
GROUP	DATE
Paediatric monograph review group	4/6/24 (Dr Nagaraj and Kelly Farrington)

AUTHORS		
Author	Position	Date
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If review:

	Position	Date
Reviewed by: Name		
Updated and transferred to new template by:		

Change history:

Changes Reference	Change details	Date

Paediatric Maintenance Fluid: Glucose 5%, Sodium Chloride 0.9% and **Potassium 10 mmol** 500 ml bag

Presentation:	Glucose 50% 50 ml (glass vial) and Sodium Chloride 0.9% and Potassium 10 mmol 500 ml (bag)																											
Indication:	Paediatric intravenous fluids for children aged 4 weeks and older (maintenance fluid) Children weighing less than 20 kg																											
Dose:	<p>Please refer to the Intravenous (IV) Fluids and Management of Electrolyte Abnormality guideline for calculating fluid deficit volumes for patients requiring a correction (i.e. dehydration) For children aged 4 weeks and older (maintenance):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Childs weight (kg)</th> <th>Volume of fluid (ml/kg/day)</th> </tr> </thead> <tbody> <tr> <td>First 10 kg</td> <td>100</td> </tr> <tr> <td>Second 10 kg</td> <td>50</td> </tr> <tr> <td>Every subsequent kg</td> <td>20</td> </tr> </tbody> </table> <p>The maximum maintenance requirement for males is 2500 mls/day and for females is 2000 mls/day. This does not apply when using correction volumes for dehydration.</p>	Childs weight (kg)	Volume of fluid (ml/kg/day)	First 10 kg	100	Second 10 kg	50	Every subsequent kg	20																			
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Route of administration:	Intravenous (Peripheral and central administration)																											
Instructions for preparation and administration:	<ol style="list-style-type: none"> 1. Remove 50mL from a 500mL bag of sodium chloride 0.9% with potassium 10mmol and discard 2. Draw up 50 ml of glucose 50% into a syringe using a filter needle and add to the 500mL bag of sodium chloride 0.9% with potassium 10mmol (this will make the glucose concentration of the bag 5%) 3. Mix well before administration by inverting the bag gently 4. Label bag with patients name and additive as per guideline (see example) <p>Example label:</p> <table border="1" style="width: 100%; border-collapse: collapse; background-color: #ffff00;"> <thead> <tr> <th colspan="4" style="text-align: center;">DRUGS ADDED TO THIS INFUSION</th> </tr> </thead> <tbody> <tr> <td colspan="2">PATIENT <i>Patient A</i></td> <td colspan="2">WARD <i>PCCU</i></td> </tr> <tr> <td>DRUG <i>Glucose 50%</i></td> <td>AMOUNT <i>50mL</i></td> <td rowspan="2">BATCH No.</td> <td>PREPD BY <i>HH</i></td> </tr> <tr> <td><i>Sodium Chloride 0.9% Potassium 10mmol</i></td> <td>Total volume <i>500mL</i></td> <td>CHECKED BY <i>HH</i></td> </tr> <tr> <td>Diluent.....</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DATE PREPD <i>21/03/23</i> TIME PREPD <i>0900</i></td> <td>EXP. DATE <i>22/03/23</i> EXP. TIME <i>0900</i></td> <td colspan="2">ROUTE <i>IV</i></td> </tr> <tr> <td colspan="4" style="text-align: center;">DISCONTINUE IF CLOUDINESS OR PRECIPITATE DEVELOPS.</td> </tr> </tbody> </table>	DRUGS ADDED TO THIS INFUSION				PATIENT <i>Patient A</i>		WARD <i>PCCU</i>		DRUG <i>Glucose 50%</i>	AMOUNT <i>50mL</i>	BATCH No.	PREPD BY <i>HH</i>	<i>Sodium Chloride 0.9% Potassium 10mmol</i>	Total volume <i>500mL</i>	CHECKED BY <i>HH</i>	Diluent.....				DATE PREPD <i>21/03/23</i> TIME PREPD <i>0900</i>	EXP. DATE <i>22/03/23</i> EXP. TIME <i>0900</i>	ROUTE <i>IV</i>		DISCONTINUE IF CLOUDINESS OR PRECIPITATE DEVELOPS.			
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Prescribing	Prescribe on the paper fluid charts (RDH sites) or on Meditech (Burton site)																											
Known compatibility issues	Incompatible with solutions containing aminophylline See Y-Site compatibility chart																											

Additional Comments:	<ul style="list-style-type: none">• The preparation of this product means that the approximate sodium chloride concentration is 0.8% and the potassium is 9 mmol in 500 ml• It is accepted that concentrations of the newly prepared bag will be approximate
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Note: The contents of this monograph should be read in conjunction with information available in the BNFC and Medusa

References:

UHDB Management of Diabetic Ketoacidosis in Children and Young People - Full Paediatric Guidelines [opac-retrieve-file.pl \(koha-ptfs.co.uk\)](http://opac-retrieve-file.pl(koha-ptfs.co.uk))

NICE (NG29) Intravenous fluid therapy in children and young people in hospital [Recommendations | Intravenous fluid therapy in children and young people in hospital | Guidance | NICE](#)

Review due : June 2027