

Document control sheet

GUIDELINE NUMBER	
AREA IN WHICH THIS MONOGRAPH APPLIES	Paediatrics

DIVISIONAL AUTHORISATION	
GROUP	DATE
Paediatric monograph review group	13.04.2022
Clinical Director – Paediatric BU	
Divisional Clinical Governance Committee – Integrated care	

AUTHORS		
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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
	Amendments made since approval on 13.04.2022 re wording for where can be used. Approved by pharmacy and E. Starkey 01.08.22	01.08.22

Paediatric: Levetiracetam (Loading dose)

- CED/PCCU only

Presentation:	Levetiracetam 500mg in 5ml vials																									
Indication:	Status epilepticus – prolonged seizure 2 nd line agent Levetiracetam should ONLY be prescribed and administered on the instruction of a consultant or COMET, as it is not included in local or national paediatric emergency treatment of seizure protocols.																									
Dose:	Child >1 month: Loading dose only: 40mg/kg (maximum 3000mg) given over 15 minutes* *Can be given over 5 minutes if needed																									
Route of administration:	Intravenous infusion via peripheral or central line																									
Instructions for preparation and administration:	<ul style="list-style-type: none"> • Draw up the required dose of the 100mg/ml solution • Dilute the required dose to a final concentration of 50mg in 1mL with sodium chloride 0.9% or glucose 5%. • Administer over 15 minutes using an infusion pump. <p>NOTE: Use immediately after preparation.</p>																									
Prescribing	<p>Prescribe on EPMA or on Yellow emergency treatment card.</p> <p>e.g. Example for a 14kg child</p> <ol style="list-style-type: none"> 1. 14 x 40mg = 560mg 2. 560mg divided by 50mg/ml = 11.2ml <table border="1"> <thead> <tr> <th>Drug</th> <th>Drug amount in syringe</th> <th>Diluent</th> <th>Total volume (ml)</th> <th>Route</th> </tr> </thead> <tbody> <tr> <td>Levetiracetam</td> <td>560mg</td> <td>sodium chloride 0.9%</td> <td>11.2ml</td> <td>IV</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Drug	Drug amount in syringe	Diluent	Total volume (ml)	Route	Levetiracetam	560mg	sodium chloride 0.9%	11.2ml	IV															
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Levetiracetam	560mg	sodium chloride 0.9%	11.2ml	IV																						
Known compatibility issues	Do not infuse Levetiracetam with any other medicines																									
SMART pump directions	<ul style="list-style-type: none"> • Load Syringe, prime line using the pump for accurate dosing. • Open 'Children' folder then open "Emergency Drug (Children)" • Using DATA chevrons enter the calculated rate in ml/h and confirm • Visually confirm the rate (ml/h) • Perform STOP moment with medical team (Pump against prescription) • Connect to Child • Press start button 																									
Additional Comments:	<ul style="list-style-type: none"> • Line to be flushed with Sodium chloride 0.9%. • Do not use if any particulate matter or discolouration is present. • ALL maintenance doses to be made by pharmacy. Contact ward pharmacist for supply. 																									

information available in the BNFC and Medusa

References:

Medusa [Injectable Medicines Guide - Display - Levetiracetam - Intravenous - Version 6 \(wales.nhs.uk\)](#) (Accessed December 2021)

Summary of product characteristics (SmPC): Keppra 100 mg/ml concentrate for solution for infusion

[Keppra 100 mg/ml concentrate for solution for infusion - Summary of Product Characteristics \(SmPC\) - \(emc\) \(medicines.org.uk\)](#) (Accessed December 2021)

Resuscitation Council UK, Paediatric Immediate Life Support (4th edition), May 2021, Appendix D p124. ISBN: 978-1-903812-38-9

Refractory Status Epilepticus guideline; Nottingham University Hospitals Guidelines App; accessed January 2022

Critical care pharmacopeia; Nottingham University Hospitals Guideline App; accessed January 2022

CEWT guidelines, available online: http://www.cewt.org.uk/CEWT/Epilepsy-to-go_files accessed 31.01.2022

Paediatric formulary, accessed via CMS app on 31.01.22