

Document Title:	PREPARING ANTICONVULSANTS FOR CHILDREN AND YOUNG PEOPLE (for use with information outlined in the paediatric emergency folder)		
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Document type: (Policy/ Guideline/ SOP)	Guideline	To be followed by: (Target Staff)	Nurses, Junior Doctors and Consultant Paediatricians
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Developed in response to:	Standards of care of children requiring anticonvulsant medication		
Contributes to HSC Act 2008 (Regulated Activities) Regulations 2014(Part 3); and CQC Regulations 2009 (Part 4) CQC Fundamental Standards of Quality and Safety:	9,12		
Issuing Division/Directorate:	Women's & Children's		
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Consulted With:	Post/ Approval Committee/ Group:	Date:
Alison Cuthbertson / Miss Rao	Clinical Directors for Women's & Children's Division	24 th May 2019
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Children's Urgent & Emergency Care Group	Trust wide group	
Deborah Lepley	Warner Library	8 th May 2019

Related Trust Policies (to be read in conjunction with)	04072 Hand Hygiene 08038 Aseptic technique and aseptic non-touch technique 09060 Injectable Medicines
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Document Review History:			
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1.0	Andrea Stanley/Claire Fitzgerald		23 July 2009
2.0	Andrea Stanley/Claire Fitzgerald		February 2013
3.0	Andrea Stanley/Claire Fitzgerald		3 May 2016
4.0	Mary Stebbens/Claire Fitzgerald	Full Review	15 th May 2019

INDEX

- 1. Purpose**
- 2. Procedures**
- 3. Staff Training**
- 4. Infection Prevention**
- 5. Audit and monitoring**
- 6. Communication**
- 7. Equality Impact Assessment**
- 8. References**
- 9. Appendices**

Appendix 1: Anti-convulsant drug preparation and administration

Appendix 2: Status Epilepticus Algorithm

Appendix 3: Preliminary Equality Analysis

1.0 Purpose

- 1.1 This guideline aims to provide health care professionals with practical information for the safe preparation and administration of medication which may be given to children and young people who require anticonvulsants.

2.0 Procedures

- 2.1 Anticonvulsant drug preparation and administration is attached as Appendix 1.
- 2.2 Status epilepticus algorithm is attached as Appendix 2.

3.0 Staff Training

- 3.1 All medical and nursing staff to ensure that their knowledge, competencies and skills are up-to-date in order to complete their portfolio for appraisal.
- 3.2 All registered nurses will be trained in the preparation and administration of anticonvulsant medications.
- 3.3 Junior medical staff will be trained during their induction process.

4.0 Infection Prevention

- 4.1 All staff should follow Trust guidelines on infection prevention ensuring that they effectively 'decontaminate their hands' before and after each procedure.
- 4.2 All staff should ensure that they follow Trust guidelines on infection prevention using Aseptic Non-Touch Technique (ANTT) when carrying out procedures.

5.0 Audit and Monitoring

- 5.1 Non-compliance with the guideline is monitored as part of the datix reporting system. Serious incidents will be reported and monitored through the Children's urgent and emergency group.
- 5.2 Annual audit of medications used for children requiring anticonvulsants.

6.0 Communication

- 6.1 Approved guidelines are published monthly in Focus that is sent via email to staff.

- 6.2 Approved guidelines will be disseminated to appropriate staff via email after ratification of this guideline.

7 Equality Impact Assessment

- 7.1 Mid Essex Hospital Services NHS Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.
(Refer to Appendix 3)

8. References

Children's Acute Transport Service (CATS) [online] <http://site.cats.nhs.uk/>

National Institute for Health and Care Excellence (2019) British National Formulary for Children. [online]

Pharmacy Department, University College London Hospitals (2010) UCL Hospitals Injectable Medicines Administration Guide. 3rd edition. Oxford: Wiley

Medusa Injectable Medicine Guide [online]

Appendix 1: Anti-convulsant drug preparation and administration

For use with the “Treatment Guideline for Status Epilepticus” in the Paediatric Emergency Folders

Ensure the child is attached to cardiac and saturation monitors, and that respiration and blood pressure are closely observed.

Drug	Dose	Route	Preparation	Administration	Comments
Diazepam	0.5mg/kg OR by age: Neonate – 1.25 - 2.5mg 1 month – 1 years: 5mg 2 – 11 years: 5 – 10mg 12 – 17 years: 10mg – 20mg	Rectal	Use diazepam rectal tubes. Diazepam 2mg/ml solution available preparations: 1.25ml (2.5mg) tube 2.5ml (5mg) tube Diazepam 4mg/ml solution available preparation: 2.5ml (10mg) tube	Insert the nozzle half way into the rectum and gently squeeze the tube until empty.	
Midazolam	0.5mg/kg MAX 10mg OR by age: Neonate: 300 micrograms/kg 1 – 2 months: 300 micrograms/kg (max 2.5mg) 3 month – 11 months: 2.5mg 1 – 4 years: 5mg 5 – 9 years: 7.5mg 10 –18 years: 10mg	Buccal	Use midazolam buccal liquid 10mg/ml or 5mg/ml pre-filled syringe available in the following preparations: 2.5mg pre-filled syringe 5mg pre-filled syringe 7.5mg pre-filled syringe 10mg pre-filled syringe	Administer half of the prescribed dose to each side of the buccal cavity. If this is not possible, then administer the whole dose quickly to one side of the buccal cavity. Retain in the buccal cavity. The dose can be repeated once after 10 minutes if necessary.	Alternatively, buccal midazolam can be administered intra-nasally if the patient has excessive salivation.
Lorazepam	Neonate: 100 micrograms/kg	IV/IO	Neonates: Dilute to	Give over 3-5 minutes	Lorazepam injection is

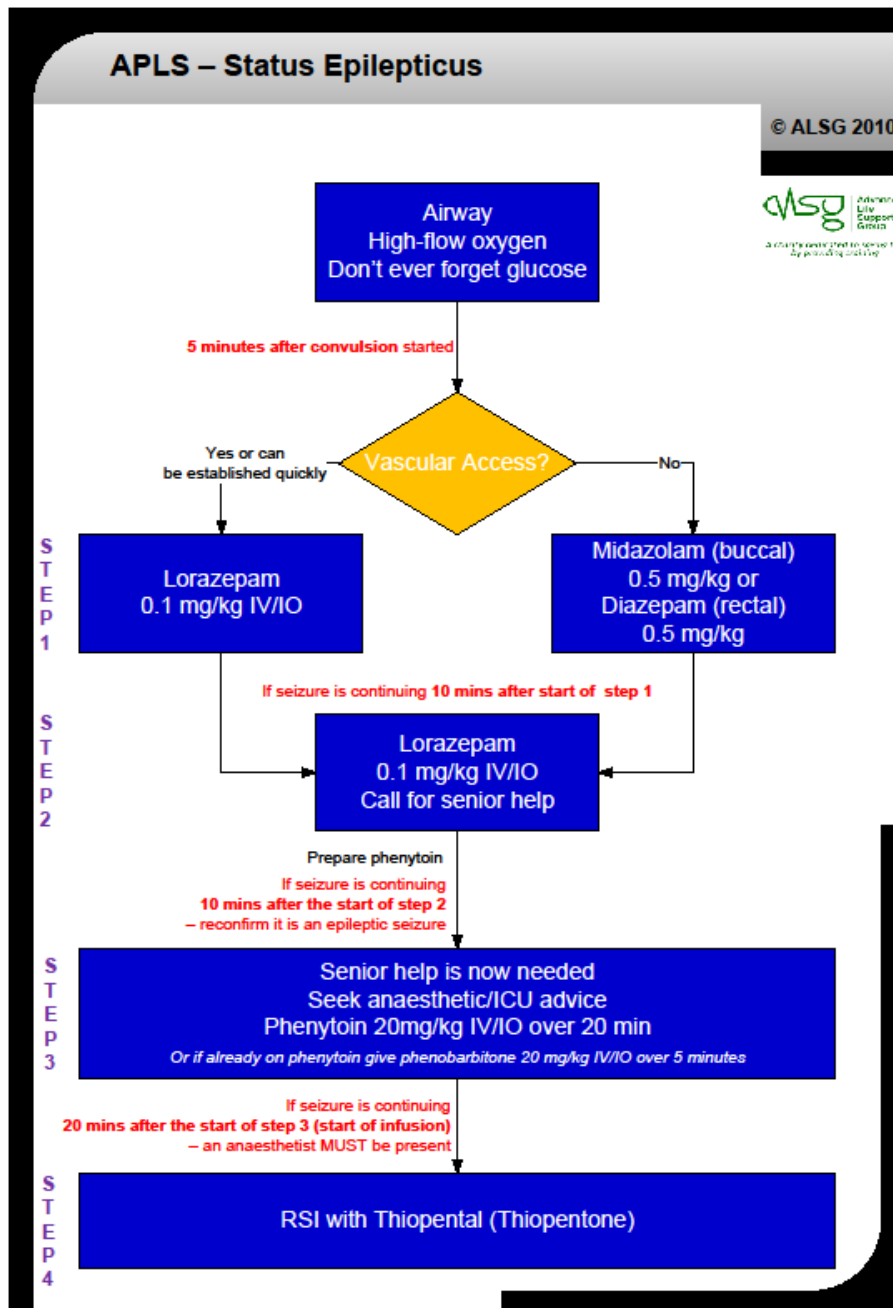
	1 month – 11 years: 100 micrograms/kg (max 4mg) 12 –17 years: 4mg		100mcg/ml Over 1 month: Dilute 4mg/1ml injection in 3ml 0.9% sodium chloride for injection to give a total of 4ml. This gives 4mls of a 1mg / ml solution. Calculate dose required		stored in the fridge. Avoid small veins. Use immediately after dilution.
Diazepam (solution) or Diazemuls (emulsion) Use as an alternative to Lorazepam	Neonate: 300-400 mcg/kg Child 1 month – 11 years: 300 – 400 mcg/kg (max dose 10mg) Child 12 – 17 years: 10mg	IV / IO	No further dilution required	Give over 3-5 minutes The dose can be repeated once after 10 minutes if necessary.	Diazemuls are preferable; they cause fewer reactions at injection site. Not to be used for children with egg allergy.
Paraldehyde	0.8ml/kg of prepared solution MAX 20ml	Rectal	Use the paraldehyde in olive oil 50:50 preparation: Cut the tube provided to a total length of about 10cm and attach to a disposable or glass syringe. Calculate the volume of paraldehyde required. Ensure the preparation is well mixed. Expel any air so that the tube is primed and the correct dose is given.	Administer immediately the required volume per rectum, gently inserting the tube 2-4cm into the rectum, depending on the size of the child.	Confirm the child isn't allergic to olive oil prior to administration. Take precautions to avoid contact with the eyes and skin and prepare in a well-ventilated area. Return any unused solution to pharmacy for disposal.
Phenytoin	Loading dose: 20mg/kg	IV/IO	Use the 250mg in 5ml ampoule:	Administer over at least 20 minutes using the in-line	With blood pressure and ECG monitoring.

			<p>Draw up the calculated dose.</p> <p>Dilute the calculated dose to a total of 5 times its volume in 0.9% sodium chloride for injection.</p> <p>This gives a 10mg / ml solution.</p>	<p>filter provided.</p> <p>MAX rate 50mg / minute (i.e., give doses >1g more slowly)</p> <p>Flush before and after with sodium chloride 0.9%.</p>	<p>Do not use if the solution is cloudy, or precipitate can be seen.</p> <p>Preferably administer into a large vein as an irritant.</p> <p>Complete the infusion within one hour of preparation.</p>
Phenobarbitone	<p>Initial dose: 20mg/kg</p> <p>MAX 1g</p>	IV/IO	<p>Use the 200mg in 1ml preparation:</p> <p>Draw up the calculated dose.</p> <p>Dilute the calculated dose to a total of 10 times its volume in water for injection.</p> <p>This gives a 20mg / ml solution.</p>	<p>Administer over 20 minutes.</p>	
Thiopentone	<p>Neonate 2mg/kg</p> <p>Child 4mg/kg</p>	IV/IO	<p>Reconstitute 500mg of thiopentone in 20ml of water for injection.</p> <p>This gives a 25mg / ml solution.</p> <p>Draw up the calculated dose.</p>	<p>Administer as a bolus over at least 10 – 15 seconds.</p>	<p>Only to be used by trained practitioners experienced in the use of this drug.</p>

IV= Intravenous

IO= Intra osseous

Appendix 2



Appendix 3: Preliminary Equality Analysis

This assessment relates to: Preparing Anticonvulsants for Children and Young People (09064)

A change in a service to patients		A change to an existing policy	X	A change to the way staff work	
A new policy		Something else (please give details)			
Questions					
1. What are you proposing to change?		Full Review			
2. Why are you making this change? (What will the change achieve?)		3 year review			
3. Who benefits from this change and how?		Patients & Clinicians			
4. Is anyone likely to suffer any negative impact as a result of this change? If no, please record reasons here and sign and date this assessment. If yes , please complete a full EIA.		No			
5. a) Will you be undertaking any consultation as part of this change? b) If so, with whom?		Yes Refer to pages 1 & 2 consultation			

Preliminary analysis completed by:

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	Claire Fitzgerald		Women's & Children's Pharmacist		

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