

Clinical Guideline

# ANTI-EPILEPTICS FOR PATIENTS THAT ARE NIL BY MOUTH (NBM)

<b>SETTING</b>	Bristol Royal Hospital for Children (BRCH)
<b>FOR STAFF</b>	Nursing & medical staff
<b>PATIENTS</b>	For nil by mouth (NBM) paediatric patients who are on anti-epileptics

## GUIDANCE

**Please note this is general advice. Each patient should be considered individually as to when oral medication can resume & get advice from paediatric neurology if necessary, in a timely fashion.**

**For intravenous preparations see the MEDUSA intravenous monographs.**

**CARBAMAZEPINE** - Switch to PR - increase dose by 25%, then round dose to nearest suppository size. Suppositories available in 125mg & 250mg sizes. [Max dose by rectum 250mg QDS]. Note: diluted oral liquid has been used rectally, which should be retained for at least 2 hours but may have a laxative effect. However suppositories should be first line rectally<sup>1,2</sup>.

**CLOBAZAM** - No alternative. Speak to paediatric neurology for advice.

**CLONAZEPAM** - Speak to paediatric neurology for advice. Can be administered rectally in acute situations; give oral solution undiluted (0.02- 0.1 mg/kg)<sup>2,3</sup>.

**ETHOSUXIMIDE** - No alternative. Speak to paediatric neurology for advice.

**GABAPENTIN** - No alternative. Poor absorption rectally. Speak to paediatric neurology<sup>2</sup>.

**LACOSAMIDE** - Switch to IV at the same as the oral dose<sup>4,5</sup>.

**LAMOTRIGINE** - Switch to PR; dissolve dispersible tablets in water and immediately give via rectum at the same dose as oral. Speak to paediatric neurology<sup>2,6</sup>.

**LEVETIRACETAM** - Switch to IV at the same as the oral dose<sup>7</sup>.

**NITRAZEPAM** - No alternative. Speak to paediatric neurology for advice.

**OXCARBAMAZEPINE** - Consider switch to Carbamazepine PR. Check for any contra-indications to carbamazepine e.g. rash. Reduce oxcarbamazepine dose by one third to oral carbamazepine. Then to convert from oral carbamazepine to carbamazepine PR increase by 25%. [Max dose by rectum 250mg QDS]. Speak to paediatric neurology<sup>4</sup>.

**PERAMPANEL** - No alternative. Speak to paediatric neurology for advice.

**PHENOBARBITONE** - Switch to IV at the same as the oral dose. Injection may be given rectally undiluted, at the same as the oral dose. Caution in young children and neonates unless there is no alternative as it contains propylene glycol<sup>2</sup>.

**PHENYTOIN** - Switch to IV at the same as the oral dose if the patient usually takes **capsules or**

**tablets.** If the patient usually takes **oral suspension or chewable tablets** multiply oral dose by 1.1 to calculate IV dosing. Caution in neonates as injection contains propylene glycol<sup>2</sup>.

**RUFINAMIDE** - No alternative. Speak to paediatric neurology for advice.

**SODIUM VALPROATE** - Switch to IV the same as the established oral dose. If the IV preparation is unavailable, the suspension may be used rectally at the same oral dose and diluted with water & retained for 15 minutes.

**TOPIRAMATE** - Switch to PR; dissolve tablets in water and given rectally. Give the same as the oral dose. Speak to paediatric neurology for advice<sup>8,9</sup>.

**VIGABATRIN** - Switch to PR; dissolve the contents of the sachet in a small amount of water and administer rectally. Use the same as the oral dose. Speak to paediatric neurology for advice<sup>1,2</sup>.

**ZONISAMIDE** - No alternative. Speak to paediatric neurology for advice.

**Note:** It is important that all these patients have their rescue medication prescribed and available on the ward. [E.g. Midazolam buccal needs to be ordered via web tracker CD ordering system].

**For patients requiring rectal medication, there are quills that are available from EROS with the following code:**

EROS FTR2048 MN5 MIXING NEEDLE KWILL 127MM STERILE WITH MOULDED LUER FITTING AND TAPERED DISTAL END.

## REFERENCES

1. BNF for Children 2021-2022
2. Guy's and St. Thomas' Paediatric formulary 9<sup>th</sup> Edition online last published 31/01/2020
3. Clonazepam summary of product characteristics(www.medicines.org.uk)
4. The Epilepsy Prescriber's Guide to Antiepileptic Drugs. Cambridge University Press. 2nd Edition. Philip N. Patsalos, Blaise F.D. Bourgeois
5. MEDUSA.(<http://www.injguide.nhs.uk/IVGuideDisplay.asp>)
6. Relative bioavailability of lamotrigine chewable dispersible tablets administered rectally. Birnbaum AK, Kriel RL, Im Y, Remmel RP. Pharmacotherapy. 2001 Feb; 21(2):158-62.
7. Levetiracetam summary of product characteristics (www.medicines.org.uk)
8. Rectal administration of topiramate in a critically ill patients. Bonwetsch R, Jacobson MP. Epilepsia; 42 (Suppl 7):88 (Abs 1.277) 2001
9. Absorption of rectally administered topiramate. Epilepsia; 42 (Suppl 7):88 (Abs 1.278) 2001

## RELATED DOCUMENTS

**AUTHORISING BODY** Clinical Effectiveness Committee (CEC)

## SAFETY

**QUERIES** Contact paediatric neurology team or paediatric ward pharmacist.