



Administer Buccal Midazolam in Community and Schools Procedure

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1. Back ground:

Convulsive status epilepticus is common and potentially harmful. Early initiation of treatment of seizures in the community by drugs that can be administered by non-medical staff, may decrease morbidity and mortality [1]. Currently rectal diazepam is the most commonly used medication before hospital assessment.

2. Buccal midazolam as an alternative to rectal diazepam:

Rectal route of administration of medication (diazepam) is not always acceptable and convenient. When a large child is having a generalised tonic clonic seizure, a carer may not be able to remove clothes or bend knees as needed for rectal administration. It may not be easy to administer in wheelchair users and difficult without another pair of hands. Such attempt is problematic in public places. Many parents, teachers and carers are reluctant to administer rectal medication for fear of allegations of sexual abuse [1,2].

Buccal midazolam was observed to be as effective and safe as rectal diazepam in well conducted studies. Parents preferred using buccal midazolam to rectal diazepam for use at homes [1,3]. Buccal administration does not require the teeth to be parted which is again an advantage during a seizure.

3. NICE guidance 2004:

“Buccal midazolam is more acceptable than rectal diazepam and is easier to administer. It should be used according to an agreed protocol drawn up by a specialist and only used following training”

Use of buccal midazolam for treatment of prolonged seizures is yet unlicensed. Parents must be made clear about the license status of buccal midazolam. Indication for use of buccal midazolam must be agreed on an individual basis. In general, any seizure lasting more than 5 minutes duration should be treated.

4. Test dose:

Administering a test of midazolam in the hospital setting prior to community use is highly debatable. Most Paediatric Neurologists do not recommend a test dose [5]. However, The Joint Epilepsy Council of the UK and Ireland recommends a test dose particularly for those with respiratory problems and previous adverse affects to a

benzodiazepine. The prescribing Hospital consultant should make a decision on an individual basis.

5. Care Plan:

Individualised care plan must be given to families and carers. They must be adequately trained for drug administration. Training should be organised by Epilepsy Specialist Nurse based on the guidance provided by the Joint Epilepsy Council of the UK and Ireland [4]

6. Preparation and Dose

Epistatus- Midazolam, sugar free buccal liquid 10 mg/ml

Age of patient	Dose of Buccal Midazolam
1- 6 months	300 micrograms/kg (maximum 2.5 mg)
6- 12 month	2.5 mgs (0.25 ml)
1-4 years	5 mgs (0.5 ml)
5-9 years	7.5 mgs (0.75 ml)
10 years and over	10 mgs (1.0 ml)

7. Monitoring:

Buccal midazolam is as safe and probably more effective than rectal diazepam in seizure control. Like rectal diazepam, Midazolam has a sedative effect and the child may be sleepy for some time afterwards:

- Stay with the child until the care can be handed over to the paramedical team.
- Monitor for shallow or slow breathing after having Midazolam. If this happens, assess airway and breathing and take necessary steps as trained in basic life support.

8. Storage of medication:

- Buccal midazolam should be kept in a container, clearly labelled by pharmacy and kept in a secure place out of reach from children. A copy of this protocol should be kept with the medication.

9. Training:

- The head teacher will arrange for teachers and staff to be briefed on the child's condition and arrange for volunteers to be trained on the administration of buccal midazolam on an annual basis.

10. Replacement of used medication:

- The child's parents will be responsible for replacing any used or out of date medication.

11. Legal aspects:

- Staff indemnity is provided by Merthyr Tydfil /RCT County Borough Council
- A signed copy of this document will be held by the school, the parents, GP, School nurse, Associate Specialist Child Health, Epilepsy Nurse Specialist and Director of Education or nominated officer for information.
- All necessary revisions of this document will be subject to further discussion between all parties involved and the amended version will be circulated for information.

12. School trips:

It is important that children are allowed to develop in the normal way and not stigmatised. The child should be given the opportunity to participate in all school activities. School trips may need a little planning and preparation, together with a meeting with the child's parents to ensure they are satisfied with the plans. At least one person trained in administering buccal midazolam must accompany the party.

13. References:

1. Scott RC, Besag FM, Neville BG. Buccal midazolam and rectal diazepam for treatment of prolonged seizures in childhood and adolescence: a randomised trial. *Lancet* 1999 Feb 20;353;623-6.
2. Homes GL. Buccal route for benzodiazepines in treatment of seizures? *Lancet* 1999 Feb 20;353;608.
3. Wilson MT, Macleod S, O'Regan ME. Nasal / buccal midazolam use in community. *Arch Dis Child* 2004;89:50-51.
4. Working together for epilepsy: A guideline on training standards for the administration of buccal midazolam. www.jointepilepsycouncil.org.uk
5. D Hindley, H Jameson. Buccal Midazolam: is a test dose in hospital needed? *Arch Dis Child* 2006; 91:544-545

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Children's Epilepsy Nursing Service

**BUCCAL MIDAZOLAM (EPISTATUS)
CARE PLAN**

**INDIVIDUAL CARE PLAN TO BE COMPLETED BY OR IN CONSULTATION
WITH THE PRESCRIBING MEDICAL PRACTITIONER (please use language
appropriate to the lay person)**

NAME OF CHILD	
DATE OF BIRTH	PRESCRIBING WEIGHT
SEIZURE CLASSIFICATION AND/OR DESCRIPTION OF SEIZURES WHICH MAY REQUIRE BUCCAL MIDAZOLAM (Record all details of seizures e.g. goes stiff, falls, convulses down both sides of body, convulsions last 3 minutes etc. Include information re. triggers, recovery time etc.)	
1. USUAL DURATION OF SEIZURE.....	
2. USUAL DURATION OF SEIZURE	
3. USUAL DURATION OF SEIZURE	
OTHER USEFUL INFORMATION	
.....	
.....	

Administer Buccal Midazolam in Schools Procedure

MIDAZOLAM TREATMENT PLAN	
1. WHEN SHOULD BUCCAL MIDAZOLAM BE ADMINISTERED? (Note here should include whether it is after a certain length of time or number of seizures)	
2. INITIAL DOSAGE: HOW MUCH BUCCAL MIZAZOLAM IS GIVEN INITIALLY? (Note recommended number of milligrams for this person)	
3. WHAT IS THE USUAL REACTION(S) TO BUCCAL MIDAZOLAM?	
4. IF THERE ARE DIFFICULTIES IN THE ADMINISTRATION OF BUCCAL MIDAZOLAM. WHAT ACTION SHOULD BE TAKEN?	
5. CAN A SECOND DOSE OF BUCCAL MIDAZOLAM BE GIVEN? YES/NO	
6. WHEN SHOULD 999 BE DIALLED FOR EMERGENCY HELP? (Please tick appropriate box) IF THE FULL PRESCRIBED DOSE OF MIDAZOLAM FAILS TO CONTROL THE SEIZURE? <input type="checkbox"/> OTHER (please give details) <input type="checkbox"/>	
7. WHO SHOULD WITNESS THE ADMINISTRATION OF BUCCAL MIDAZOLAM?	
8. WHO/WHERE NEEDS TO BE INFORMED? PRESCRIBING DOCTOR TEL: PARENT/GUARDIAN TEL: OTHER TEL:	
9. PRECAUTIONS – UNDER WHAT CIRCUMSTANCES SHOULD BUCCAL MIDAZOLAM NOT BE USED? (E.g. other medication already administered in the last minutes)	
ALL OCCASIONS WHEN BUCCAL MIDAZOLAM IS ADMINISTERED MUST BE RECORDED (see back page)	
THIS PLAN HAS BEEN AGREED BY THE FOLLOWING:	
PRESCRIBING MEDICAL PRACTITIONER (BLOCK CAPITALS)	Signature Date:
<p>For enquiries regarding this care plan please contact the Sian Watkins Children’s Epilepsy Nurse Specialist 07768926814</p> <p>A record must be kept of all persons trained to administer buccal midazolam</p>	

Administer Buccal Midazolam in Schools Procedure

AUTHORISED PERSON(S) TRAINED TO ADMINISTER BUCCAL MIDAZOLAM:	
NAME (BLOCK CAPITALS)	Signature Date
NAME (BLOCK CAPITALS)	Signature Date
NAME (BLOCK CAPITALS)	Signature Date
NAME (BLOCK CAPITALS)	Signature Date
NAME (BLOCK CAPITALS)	Signature Date
NAME (BLOCK CAPITALS)	Signature Date
NAME (BLOCK CAPITALS)	Signature Date
NAME (BLOCK CAPITALS)	Signature Date
NAME (BLOCK CAPITALS)	Signature Date
CLIENT/PARENT/GUARDIAN (BLOCK CAPS)	Signature Date
EMPLOYER OF THE PERSON(S) AUTHORISED TO ADMINISTER BUCCAL MIDAZOLAM	Signature Date
HEAD OF SCHOOL/UNIT (BLOCK CAPS)	Signature Date
COPIES TO BE HELD BY	
DATE FOR REVIEW OF PLAN	
COPY HOLDERS TO BE NOTIFIED OF ANY CHANGES BY	
This form should be updated every 12 months or when dosage is changed	

Administer Buccal Midazolam in Schools Procedure

RECORD OF USE OF BUCCAL MIDAZOLAM

Date				
Recorded By				
Type of Seizure				
Length and/or Number of Seizures				
Initial Dosage				
Outcome				
Second Dosage (If Any)				
Outcome				
Observations				
Parent/Guardian Informed				
Prescribing Medical Practitioner Informed				
Other Information				
Witness				
Re-order Buccal Midazolam				
Name of Person Re-Ordering				
Date				

Appendix B – Multi Agency Agreement Forum

A multi-agency form must be completed for each child.

We the involved parties, agree to and understand the following responsibilities in accordance with the foregoing:

- The provision of medication:** Parents
- Storage of medication:** The head teacher for school
- Preparation of protocol:** Associate Specialist Child Health, liasing with Consultant Paediatrician and Epilepsy Nurse Specialist
- Training School staff:** Associate Specialist Child Health, Epilepsy Nurse Specialist, Clinical Nurse Specialist for special needs and Special Needs School Nurses
- Under taking of Procedure:** Local Educational Authority

Signed: Associate Specialist Child Health *Date:*

Signed: Epilepsy Nurse Specialist / Clinical Nurse Specialist for special needs / School Nurse *Date:*

Signed: Head Teacher *Date:*

Signed: On behalf of Director of Education *Date:*

I as Parent / Guardian of give my permission for the members of staff mentioned to administer the afore-mentioned treatment.

Name: Signature: Date: