

Guidelines for the Administration of Buccal Midazolam for Parents and carers.

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What is a prolonged seizure?

A prolonged seizure is defined as a generalised tonic clonic (Grand-mal) seizure lasting 5 minutes or longer , or when there is successive seizures occurring which prevents the individual regaining consciousness fully.

Why intervention is required.

Prolonged seizures demand prompt medical assistance. The longer a seizure persists the more difficult they can be to stop, on occasions they can lead to Convulsive Status Epilepticus. (a potentially life threatening condition were seizures do not stop and brain damage can occur).

Information about Midazolam.

Midazolam is part of a group of drugs called **Benzodiazepines**. Its mechanism is to work on the Central Nervous System as a relaxant and to control seizure activity. It is very effective in controlling recurrent or prolonged seizures and works as effectively and reliably as rectal Diazepam.

The medication comes in a glass bottle containing 5mls of solution (10mg/ml) with a supply of 4 oral syringes.

Midazolam has many uses

- 1) Sedation for medical procedures
- 2) Premedication prior to theatre
- 3) Induction in theatre
- 4) Epilepsy

Side effects include: -

- 1) Drowsiness/dizziness
- 2) Respiratory depression (extremely rare with buccal use)
- 3) Hiccoughs
- 4) Agitation/restlessness
- 5) Dependence but only when given regularly

Storage of midazolam

The midazolam should be stored in a cool cupboard, safely out of the reach of children. Each bottle of midazolam has its own shelf life of 2 years. Any medicine that is out of date **should not** be used.

Procedure for administration.

In the event of a child having a prolonged convulsion:

1. General management of the convulsion

Make the child safe and note the time the convulsion started.

- ◆ Place the child on a flat surface e.g. floor or bed. Do not move the child any more than is necessary.
- ◆ Place something soft under the child's head to protect them from injury.
- ◆ Ensure the child's airway is not obstructed. Turn the child onto his/her side to allow vomit/phlegm to be expelled rather than inhaled. Loosen tight clothing around the child's neck.
- ◆ Do not restrict the child's arms or legs.
- ◆ Ensure there is no furniture or objects close to the child that could injure him/her.
- ◆ Call for assistance if someone else is present.

2. Administration of midazolam.

- ◆ If the convulsion lasts for more than the agreed time, usually 5 minutes, **or** if the child has one seizure after another (a cluster) lasting more than 5 minutes, then either an ambulance should be called **or** midazolam should be administered to the child.
- ◆ The dose to be given should be stated on the prescription for the child.
- ◆ Midazolam should be given as directed overleaf:

Contents of midazolam pack.

1. 1 bottle of midazolam
2. 4 Syringes
3. Instruction leaflet.
4. Gloves.
5. Gauze swabs.

Directions for use.

1. Check that the bottle of midazolam is within expiry date.
2. Open the syringe and open the bottle of midazolam and put on gloves. (optional)
3. Place the syringe into the bottle of midazolam until the end of the syringe is in the fluid.
4. Draw up _____ml of the solution, ensuring that the dose is correct once the syringe is removed. (If the dose is incorrect the fluid can be squirted back into the bottle and withdrawn again.)
5. Insert the syringe gently into the buccal cavity of the mouth. (inside the bottom of the cheek, outside of the teeth)
6. Squirt the contents of the syringe into the mouth very slowly (a drop at a time, over 30-60seconds) then remove the syringe.
7. Support the cheek/lips whilst giving the midazolam and afterwards to reduce the amount of leakage. Use gauze swabs to wipe mouth after.
8. If the seizure lasts any more than five minutes after giving the midazolam then an ambulance needs to be called.
9. **Remember to dispose of all used equipment and bottles of medicine safely out of the reach of children.**

NOTE

If at any time your child's condition gives serious cause for concern medical help should be sought ***immediately*** whether or not midazolam is given.

If you have any worries regarding any aspect of your child's seizures or epilepsy you can contact the epilepsy team on 01925 662101.

NHS Direct phone no – 08 45 46 47.

Medical Guidelines for selection of patients for use.

For use in patients who:

1. Are found to be resistant to the use of rectal diazepam or have side effects.
2. Are of an age and size where the use of rectal diazepam is unacceptable to the child.
e.g.teenagers
3. Are needing rectal diazepam on a regular basis when in school, to enable them to stay at school. (Most mainstream schoolteachers refuse to give rectal diazepam on insurance grounds and hence automatically will call for an ambulance after 5minutes of seizure activity.)

Dosage.

6-12months	2.5mg	
1-4years	5mg	
5-9years	7.5mg	
10years+	10mg	(Guidelines from Birmingham Children's Hospital)

Any child to be commenced on buccal midazolam **must**:

1. Fall into the agreed guidelines for use.
2. Be admitted onto the children's ward for a test dose to be administered under medical supervision. With a minimum stay of ? 2-4 hours post dose.
3. Have a teaching session off the epilepsy nurse specialists on 'The Administration of Buccal Midazolam' before taking the drugs home.
4. If the midazolam is to be used in school then teaching sessions should also be arranged for the teachers and school health advisors prior to commencement of treatment.