RCH@Home Manual: Caring for a Child with Epilepsy/Seizures

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1. What is epilepsy?

Epilepsy is a brain disorder which leads to a person having repeated epileptic seizures or fits. During seizures, there is uncontrollable electrical activity in nerve cells in the brain. The electrical activity causes the person to convulse, fall, stare or behave in an unusual way to their normal behaviour. It affects each child differently.

Seizures can last for different length of times some may be only a few seconds and some can last for minutes.

2. Causes of epilepsy

In most children with epilepsy, no cause can be found. In some children epilepsy can be linked to the following:

- Structural abnormalities of the brain
- Infections of the brain
- A lack of oxygen to the brain
- A brain injury resulting in scar tissue
- Epilepsy sometimes runs in families and other family members may have epilepsy
- An abnormality of the brain called a Dysplasia

3. Triggers

Sometimes certain things or “triggers” can make seizures more likely to occur for children with epilepsy (see child specific care page). Triggers may include:

- Infections and illness
- Change in sleep pattern or decreased sleep
- Stress
- Temperature change
- Photosensitivity (sensitive to light/sun)
- Menstruation
- Change in medications or missed medications
- Diet

4. Signs and symptoms

Signs and symptoms of seizures vary for each child. The common ones include:

Sensory disturbances:
- Tingling, numbness, changes to what they see, hear or smell or unusual feelings that may be hard to describe

Abnormal body movements:
- child may be limp, stiff, have jerking movements or changes to their breathing

Abnormal behaviour –
- child may be confused or have automatic movements such as picking at clothing, chewing and swallowing or appearing afraid

Loss of consciousness: not responsive to you

Or may include a combination of any of the above
5. Types of seizures

There are many different types of seizures and they can be generally classified into two groups called ‘focal seizures’ or ‘generalised seizures’. The difference between the two types of seizures is where they start in the brain.

5.1 Focal seizures

This is when the seizure activity begins in only one part of the brain, known as the “focal” point in the brain.

Partial or focal seizures usually affect the part of the body which is controlled by that area of the brain.

This type of seizure may affect only one part or side of the body. The child may or may not lose consciousness.

5.2 Generalised seizures

Generalised seizures happen when the seizure activity begins all over the brain and affects the whole body. The child’s level of consciousness is always affected.

Specific types of generalised seizures include:

- Tonic-clonic seizures, convulsive seizures
- Absence seizures, or staring seizures
- Myoclonic, atonic and tonic seizures
- Epileptic spasms (infantile spasms)

6. What to do if the child you are caring for has a seizure

6.1 Basic important steps to remember for all seizures

- Move dangerous objects away from the child and make the child as safe as possible
- Time the seizure
- When the seizure is finished, place the child in the recovery position and monitor their airway and breathing
- Speak calmly and reassuringly during seizure
- If the child is having a gastrostomy tube feed, stop the feed.
- Loosen anything tight around their neck
- Perform DRSABC (see Basic Life Support manual section) if required

Do Not

- Try to restrain the child, as this usually causes injury to the child or the carer
- Put anything in the child’s mouth

6.2 Wheelchair first aid during a seizure

- Leave them in the wheelchair if they are secure and safely strapped in
- Make sure the brakes are on and the wheelchair is secure
- Gently hold their head
- Check whether you need to move any hard objects that might hurt the child
6.3 Wheelchair first aid following a seizure
- Ensure the child’s airway is clear, suction if available, to clear their airway
- If safe to do so, remove the child from the wheelchair at the end of the seizure and place them on their side (recovery position)

7. When to call an ambulance
You don’t have to call an ambulance every time a seizure happens to a child who has epilepsy. Please refer to the child specific care page regarding the individual epilepsy care plan.

You should call an ambulance if:
- You think it is the child’s first seizure or you do not know
- The seizure lasts more than the time allowed on the child specific care page
- The child remains unconscious or has trouble breathing during or after the seizure
- The seizure happens in water
- The child is hurt or injured
- As per the instructions detailed in the child specific care page

8. Common emergency medications used in a seizure
The support worker is responsible for ensuring that the child’s emergency seizure medication is available during the shift.

There are a number of different medications that can be used to stop a seizure. Please refer to the child specific emergency management of a seizure care plan for the correct medication.

8.1 Midazolam
Midazolam is a sedative medication that can be given into the inside of the cheek (buccal) or the nose (intranasal). It works by reducing the child’s abnormal brain activity.

Store at room temperature (below 25°C), protect from light (in a box or wrapped in foil), and keep out of the reach of children.

The plastic ampoules are labelled “for slow or IV or IM injection” but can be administered in the mouth or nose.

The most common side effects of midazolam are:
- Drowsiness (which is also common after a seizure)
- Slowed or shallow breathing
- Headache
- Feeling sick (nausea)
- Vomiting
8.2 Diazepam

Diazepam (Valium) is a medication that helps to relax muscles and slow brain activity to help stop seizures. It is stored at room temperature and can be given in the mouth (orally) and in the bottom (rectal).

The most common side effects of diazepam are:

- Slowed or shallow breathing
- Tiredness
- Drowsiness
- Dizziness
- Loss of memory

8.3 Clonazepam

Clonazepam (Rivotril) is a medication which relaxes the muscles and helps stop a seizure. Clonazepam is given orally as a tablet or is measured in drops and can be stored at room temperature.

The most common side effects of clonazepam are:

- Slowed or shallow breathing
- Drowsiness
- Dizziness
- Loss of memory
- Inattentiveness
- Confusion
- Headache during recovery
- Slurred speech
- Unpleasant dreams
- Increased saliva
9. How to administer emergency Buccal Midazolam (syringe method)

Image 1: Example of opening a plastic ampoule

Step 1
Open the plastic ampoule of medication by twisting off the top.

Image 2: Example of drawing up medication from plastic ampoule

Step 2
Insert the syringe into the ampoule and hold the ampoule and syringe upright with the ampoule higher.
Withdraw the amount of medication needed into the syringe.
Remove syringe from the ampoule. Push out any big air bubbles and check the amount of medication in the syringe.
If you need more medication reconnect the syringe and ampoule and repeat until correct amount of medication is in the syringe.

Image 3: Example of administering medication buccally

Step 3
Lay the child on their side in the recovery position.
Open their lips and trickle the medication from the syringe into the inside of the cheek lowest to the ground, between the lips and side teeth.
There is no need to open the child’s jaw. The solution does not need to be swallowed.
10. **How to administer emergency oral Clonazepam drops**

1. Count out the amount of drops prescribed onto a soft (silicone or plastic) spoon. Do not give the medication directly from the bottle to patient as you can easily give too much.

2. Lay the child in the recovery position.

3. Using a 2nd spoon open their lips and trickle the clonazepam from the spoon into the inside of the cheek lowest to the ground, between the lips and side teeth. The solution does not need to be swallowed.

4. Monitor the child’s breathing and seizure activity while they remain lying on their side in the recovery position.

5. Write down the time that the seizure started, when medication was given, when the seizure stopped and any other details you feel are important.

6. Contact the child’s parents and explain the situation.
11. How to administer emergency Intranasal medication

Intranasal medication is given in the nose where it is absorbed directly into the bloodstream.

**Image 4: Example of opening a plastic ampoule**

**Step 1**
Open the medication plastic ampoule by twisting off the top.

**Image 5: Example of drawing up medication from plastic ampoule**

**Step 2**
Insert the syringe into the ampoule and hold the ampoule and syringe upright with the ampoule higher.

Withdraw the amount of medication needed into the syringe. Remove syringe from the ampoule.

Push out any big air bubbles and check the amount of medication in the syringe.

If you need more medication reconnect the syringe and ampoule and repeat until correct amount of medication is in the syringe.
**Image 6: Example of attaching Atomizer to syringe**

Attach atomizer to syringe.

**Step 3**

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**Image 7: Example of administering Midazolam via Atomizer**

Position the child so that their face is up and their head is tilted back slightly. This may mean rolling the child onto their back or side, away from the normal recovery position.

When using an atomizer, spray a small amount into each nostril, alternating sides until all the prescribed medication is given.

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12. **What to do after giving emergency medication for a seizure**

- Follow DRSABC as required
- Position the child, to make sure their airway is open and clear
- Suction the child if available and needed
- Watch for any further seizure activity
- Stay with the child, reassure child by touching and talking to them
- Write down the time you gave the emergency medication

12.1 **If you have called an ambulance:**

When the ambulance arrives tell them:

- The time the seizure started
- If the child has a history of epilepsy or if it is their first known seizure
- The type of medication given
- The time of medicine given
- The dose of medicine given
- If the medicine had any effect