

## Seizure management in the palliative care setting

Development of seizures at the end of life can often be distressing for patients, their families and healthcare staff. These need to be treated promptly as is the case for any patient.

Please follow the guidelines below which aim to help you manage such situations. IF IN DOUBT liaise with the Specialist Palliative Care Team. Out of hours, specialist palliative care advice is available via the local hospice or contact the medical registrar on call.

### Antiepileptic use for patients receiving palliative care with previous controlled seizures

For those patients who have previous controlled seizures but who have lost the ability to take their usual anti-epileptic drugs (AED's) orally, consider the following:

- If a NG tube is present then ascertain whether their usual AED's can be crushed, or are available in syrup form (discuss with pharmacy).
- If IV access is available ascertain whether the patient's usual AED's are available in intravenous form, and discuss with pharmacy (even on-call) for accurate oral:IV dose conversion. Examples include levetiracetam (Keppra), sodium valproate.
- **NB:** It will not be appropriate to insert a NG tube or IV line in a dying patient, however it may be appropriate in a consenting patient who is unable to swallow.
- If neither of the above is possible or appropriate, the use of a continuous subcutaneous infusion of midazolam to provide continued seizure control is appropriate. Usual starting dose is 30mg/24hours via syringe pump. Consider 20mg/24hrs if patient is frail or has impaired renal function with eGFR <10.
- Ensure PRN midazolam 5-10mg SC is available (and reason clearly indicated on drug chart) for any breakthrough seizures. This dose can be repeated after 10 minutes if necessary.
- Occasionally sodium valproate and levetiracetam (Keppra) can be administered via a continuous subcutaneous infusion as an alternative to midazolam in the patient who is not imminently dying, but this must only be done with the guidance of the Specialist Palliative Care Team.
- Whenever sedative medication is commenced, separately consider the need for clinically assisted hydration and nutrition

### Use of antiepileptics for a dying patient with seizures

#### **Initial management:**

- IV ACCESS PRESENT - lorazepam 2-4mg i/v STAT
- NO IV ACCESS - midazolam 5-10mg s/c STAT

### **Ongoing management:**

- Usual starting dose of midazolam is 30mg/24hours via continuous subcutaneous infusion. However, if the patient is large or has poorly controlled seizures in the recent past then consider a higher dose such as midazolam 60mg/24 hrs
- Ensure you have also prescribed midazolam 5-10mg s/c PRN for breakthrough seizures as a continuous infusion can take approximately 4 hours to become fully effective
- The patient will need frequent review.

### **Refractory seizures/Status Epilepticus**

**If the above fails** then seek advice from the Specialist Palliative Care Team regarding second line management. Whilst you are contacting them, advise the ward nurses to urgently order phenobarbital from pharmacy (200mg/mL ampoules x10). Out of hours, this can be sourced from ITU (both sites) or via the on call pharmacist (who can be on site within an hour to dispense if necessary).

### **Second Line management:**

- If the above fails to terminate seizures consider phenobarbital 200mg IM STAT loading dose (can be given undiluted, but must be IM due to irritant nature of injection)
- This must be followed by a maintenance dose of 10-15mg/Kg (maximum of 1g) per 24 hours via continuous s/c infusion. Always use a 20mL syringe and always dilute with water for injection to the maximum capacity of the syringe
- PRN midazolam 10mg s/c first line and phenobarbital 200mg **IM** second line must always be available for any breakthrough seizures
- The patient requires frequent review
- The phenobarbital subcutaneous infusion site must be monitored for evidence of tissue necrosis/inflammation and must be re-sited if this occurs – please contact the Specialist Palliative Care Team if this happens.

### **Third line management:**

If the above fails to bring seizures under control, medical SpR input and ITU support may be appropriate for titration of an IV midazolam infusion in the ward setting.

**Remember:** Prescribing advice is available from the ward pharmacist, the Specialist Palliative Care Team and OOH from the local hospice.