DBTH Adult Treatment Guidelines for Convulsive Status Epilepticus

See over leaf for additional information for each stage of management
Based on guidance from Sheffield Teaching Hospitals NHS Foundation Trust

Early status (0 – 20 minutes)

- Note the time
- Secure the airway and give **oxygen** via mask (15L/min)
- If alcohol abuse suspected, consider giving IV Pabrinex 10ml (1 pair = ampoule 1 + ampoule 2) diluted with 50-100ml 0.9% sodium chloride or 5% glucose over 30 minutes
- Check blood glucose. If less than 4.0mmol/L give 100ml IV 20% glucose over 5 – 10 minutes
- Give **IV lorazepam** 4mg diluted with 4ml 0.9% sodium chloride or water for injections (NB the elderly may respond to lower doses and half the normal dose may be sufficient)

If seizures persist **after 10 minutes** from onset:

- Refer to General Medicine
- Repeat **IV lorazepam** 4mg

If seizures persist **after 20 minutes** from onset:

- Consider dissociative (non-epileptic) seizures. Monitor and record every 5 minutes: heart rate, BP and oxygen saturations
- Give **IV bolus levetiracetam** 30mg/kg (max 4.5g) in 100ml 0.9% sodium chloride or 5% glucose over 15 minutes then 1g every 8 hours (1st line choice)
- OR
- Give **IV bolus sodium valproate** 30mg/kg (max 3g) over 5 – 10 minutes then 100mg/hr by IV infusion via a pump

If seizures persist **after 40 minutes** from onset

- Consider dissociative (non-epileptic) seizures
- Discuss with Neurologist
- Discuss with DCC if general anaesthesia would be appropriate

Authors: DBTH Drug and Therapeutics Committee
Issue date: January 2018
Review date: January 2020

Early Status (0-20minutes)

- Assess and monitor; heart rate, pulse, BP, temperature, oxygen saturations, blood glucose
- Secure airway, give oxygen by mask (do not insert anything into the mouth)
- Venous access (2 sites), resuscitate
- Consider causes: hypoglycaemia, alcohol withdrawal, metabolic disturbance, infection (including meningitis/encephalitis), stroke, neoplasm, subarachnoid haemorrhage, drug overdose, inadequate anticonvulsant levels, drug toxicity
- Blood tests: U&E, LFT, Ca^{2+}, Mg^{2+}, glucose, FBC, clotting, anticonvulsant levels (where appropriate). Consider toxicology (blood and urine), arterial blood gases
- Consider Pabrinex if alcohol abuse suspected (10ml of IV Pabrinex over 30 minutes in 50-100ml 0.9% sodium chloride or 5% glucose). Give Pabrinex before IV glucose (if required)
- If BM <4.0mmol/L then give 100ml glucose 20% IV
- Obtain witness history
- Give **IV lorazepam 4mg** (if no venous access then consider 10mg diazepam PR or 4mg lorazepam IM or buccal midazolam 10mg)
- Refer to General Medicine
- If seizures continue 10 minutes after first dose, repeat IV lorazepam 4mg (Maximum 2 doses in 24 hours)
- Consider treating acidosis if pH <7.0

Established status (20 – 40 minutes)

- Reassess diagnosis (many patient resistant to lorazepam are having non-epileptic attacks)
- Establish ECG, BP and oxygen saturations readings every 5 minutes
- Give **IV bolus levetiracetam** 30mg/kg (max 4.5g) over 15 minutes in 100ml 0.9% sodium chloride then 1g every 8 hours
- If levetiracetam is not appropriate or unavailable then give **IV bolus sodium valproate** 30mg/kg (max 3g) over 5 – 10 minutes then 100mg/hour by IV infusion via a pump. AVOID if possibility of pregnancy (teratogenic) and contraindicated in mitochondrial disease. There is a low risk of respiratory depression.
- Consider discussion with neurology at RHH via switchboard
- Consider further investigation: CT head and CSF examination (particularly if no history of seizures)

Refractory Status (usually over 40 minutes)

- Refer to critical care
- Consider IV phenobarbital 10-20mg/kg (rate 100mg/min) – significant risk of respiratory depression OR consider IV phenytoin 20mg/kg undiluted solution at a rate of 50mg/min with filter, ECG and BP monitoring
- Consider general anaesthesia after discussion with critical care team
- Continue or adjust maintenance anticonvulsant therapy after discussion with neurology by IV cannula or via NG tube if patient unable to swallow
- Continue anticonvulsant medication on discharge and refer to outpatient neurology clinic.

Authors: DBTH Drug and Therapeutics Committee
Issue date: January 2018
Review date: January 2020