University Hospitals Sussex
NHS Foundation Trust

# Treatment of Convulsive Status Epilepticus in Adults

**(16 years and over)**

**Status Epilepticus (SE); a life-threatening medical emergency, defined as tonic-clonic seizures**

- ☐ lasting ≥ 5 minutes
- ☐ 2 or more seizures without return to consciousness
- ☐ 3 or more tonic-clonic seizures within a 1-hour timeframe

**Initial management**

- ☐ Maintain airway, resuscitate and administer oxygen
- ☐ Assess cardio-respiratory function
- ☐ Institute regular monitoring:
  - Neurological observations + BP, T, HR, $SaO_2$, **BMs**
- ☐ Establish IV access in largest vein possible

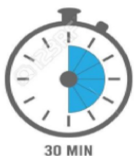
**Manage hypoglycaemia:**

Give 150-200mL 10% glucose IV stat

If blood-glucose remains <4mmol/L commence 10% glucose infusion at 100mL/hour

If suspected alcohol excess or malnutrition, give 1 pair Pabrinex IV

- ☐ **Start treatment without delay – most common causes of treatment failure are underdosing and delays to treatment initiation**




## 5-10 minutes: Initial treatment

**Action: Start benzodiazepine treatment ASAP – DO NOT DELAY**

**If patient has reduced respiratory rate, is hypoxic or cyanosed call MET team (#2222) immediately**

**IV access**

Lorazepam 4mg IV bolus

2mg STAT + 2mg PRN may be appropriate in frailty and renal impairment on advice of consultant

Monitor and give 2nd dose after 10 minutes if seizures continue

**IV access – Lorazepam shortage**

Diazepam 10mg slow IV injection

Maximum rate of injection 1mL (5mg) per minute
Diazepam IV is available as solution and emulsion – dose and rate of injection are equivalent*

Monitor and give 2nd dose after 5 minutes if seizures continue

**No IV access**

Diazepam 10mg PR, **or**
Midazolam 10mg buccal, **or**
Midazolam 10mg IM (ITU only)

Monitor and give 2nd dose after 10 minutes if seizures continue

- ☐ Consider whether any pre-admission benzodiazepines have been given (if seizure occurred out of hospital)

10 MIN

**Investigations (after IV meds started):**
- ABG
- ECG
- FBC, U&E
- LFTs
- $Ca^{2+}$, $Mg^{2+}$
- Clotting screen
- Anti-epileptic drug serum levels

## 10-30 minutes: Established status epilepticus – risk of long-term brain damage

**Action: Call MET team (2222) - Start emergency IV anti-epileptic drug (AED) therapy ASAP**

Both sodium valproate and levetiracetam are unlicensed, but are non-inferior in terms of efficacy and safety compared to phenytoin, and have practical advantages. **For further guidance regarding drug choice, see table overleaf**.

- ☐ **Treatment options:**
  - Levetiracetam 60mg/kg IV infusion (max 4500mg)
  - Sodium valproate 40mg/kg IV infusion (max 3000mg)
  - Phenytoin 20mg/kg IV infusion (max 2000mg)
- ☐ **Inform anaesthetist/request airway support if patient is still in Status Epilepticus after 50% of infusion has been administered**

30 MIN

## 30 minutes onwards:

**If seizure resolves:**

**Actions checklist:**

- ☐ **Reinstate existing anti-epileptic medication (via PO/IV/NG route)**
  - Ward/on-call pharmacist or on-call neurologist can advise if alternative formulations or route of administration is required
- ☐ Monitor neurological observations and GCS every 30 minutes and if patient does not regain consciousness within 1-2 hours, call for senior help
  - Continue neurological observations 4-hourly for the next 12 hours
- ☐ Establish aetiology, identify and treat medical complications

**If seizure continues:**

**Transfer to HDU/ ITU**