STATUS EPILEPTICUS

The time-critical seizure emergency · treat by the clock

TREAT BY
the clock

DEFINE: ≥ 5 min of continuous seizure OR ≥ 2 seizures without full recovery = treat as status NOW. Refractory = fails 1st + 2nd line. Super-refractory = ≥ 24 h despite anaesthesia.

STABILISE · 0-5 MIN

do these while drawing up the benzodiazepine

AIRWAY / O_2

Position, high-flow O_2, suction; be ready to support ventilation

ACCESS + GLUCOSE

IV access; capillary glucose; thiamine 100-250 mg before glucose if alcohol / malnourished

MONITOR + TIME IT

SpO_2, ECG, BP; NOTE the start time - every drug is timed from it

STAGED THERAPY

escalate on the clock - do not under-dose

1 · 5-20 min

BENZODIAZEPINE

Lorazepam 0.1 mg/kg IV (max 4 mg), repeat once · OR midazolam 10 mg IM · OR diazepam 0.15-0.2 mg/kg IV. Give the FULL weight-based dose.

2 · 20-40 min

SECOND-LINE (ESETT: all equivalent)

ONE of: levetiracetam 60 mg/kg (max 4500 mg) · fosphenytoin 20 mg PE/kg · valproate 40 mg/kg (max 3000 mg), IV.

3 · > 40 min

REFRACTORY → ANAESTHESIA

Intubate + continuous EEG. Midazolam or propofol infusion (thiopental if needed); titrate to seizure control / burst-suppression.

FIND & FIX THE CAUSE

- **Metabolic -** hypoglycaemia, ↓Na, ↓Ca / Mg, uraemia, hypoxia
- **Drugs -** withdrawal (alcohol, benzo), toxins, non-adherence, INH
- **Brain -** stroke, haemorrhage, tumour, infection (meningitis / encephalitis), trauma
- **Other -** eclampsia, hypertensive encephalopathy, autoimmune

NON-CONVULSIVE SE

think of it

- Suspect if not waking after a convulsion stops, or unexplained coma / fluctuating GCS
- Subtle signs: eye deviation, twitching, automatisms, aphasia
- Diagnosis needs urgent / continuous EEG
- Treat like convulsive SE; find the cause

TREAT THE SPECIFIC CAUSE: eclampsia → magnesium sulphate 4-6 g IV + delivery · hypoglycaemia → glucose · alcohol / malnourished → thiamine first · isoniazid overdose → pyridoxine · hyponatraemia → hypertonic saline. Correct the cause or seizures recur.

AFTER CONTROL / ICU: continuous EEG for refractory and non-convulsive SE · start a maintenance antiseizure drug · image and treat the underlying cause · wean anaesthesia slowly under EEG · watch for recurrence and aspiration.

DON'T FORGET: check antiseizure drug levels if already treated · protect the airway (aspiration risk) · consider functional / dissociative seizures in the differential · in pregnancy think eclampsia and give magnesium.

PEARLS & PITFALLS

- Under-dosing the benzodiazepine is the commonest error - give the full weight-based dose, then repeat once.
- Not waking after the fit stops? Assume non-convulsive status and get an urgent EEG.
- Move to a second-line agent by 20 min and anaesthesia by 40 min; the longer it runs, the harder it stops.
- Always check glucose and give thiamine before glucose in the alcohol-dependent or malnourished.

References: AES Convulsive SE Guideline 2016 · ESETT, NEJM 2019 · NCS Status Epilepticus 2012.

Educational aid; verify doses against local protocol and patient factors.