Acute Seizure and Status Epilepticus

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Status Epilepticus: Definitions

1981 (ILAE, Gastaut, Roger, Lob, 1967)

...whenever a seizure persists for a sufficient length of time or is repeated frequently enough that recovery between attacks does not occur.

Duration necessary

....30 minutes (1970-), 20/10 min (1983-), 5 minutes ?

Pathophysiology of tonic-clonic SE – progressive changes

Biphasic pattern of physiological change

 Switch from compensated →decompensated state = 30-120 minutes in convulsive SE (an approximation, dependant on site, nature, severity of the SE)
Window of opportunity for treatment

• *Risk of cerebral damage increases with time after* 30-120 mins – 'time is brain'

• Treatment failure increases with time

Key points in emergency drug treatment of seizures

- Drug treatment needed only for long convulsive seizures (>5 mins or longer than the habitual seizure for any individual), or where seizures are likely to be repetitive or expected consequence of repeated seizures is serious
- Drugs needed which act RAPIDLY so conventional oral therapy or intramuscular therapy ineffective

Electroclinical Classification of SE in Practice: Overall Prognosis

Severity

