Updated Management of Status Epilepticus

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Background: There is wide variability in the management of Status Epilepticus (SE) between institutions due to a lack of data to support one treatment over another. Source: Literature review using PUBMED, protocols of major international epilepsy and intensive care societies as well as expert opinion when evidence-based data are lacking. Definition: Status epilepticus is defined as 5 minutes or more of either continuous clinical and/or electrographic seizure activity or recurrent seizures without complete recovery in between. It is a medical emergency requiring urgent targeted treatment to reduce morbidity and mortality. Result: The aims of management are: (a) to identify and treat precipitating cause of SE (b) stabilize and prevent secondary brain injury (c) screen for and manage systemic complications. Anticonvulsant treatment: First-line: benzodiazepines (diazepam, lorazepam and midazolam). Either intravenous (IV) lorazepam or diazepam is recommended. If there is no IV access, intramuscular (IM) midazolam is recommended. Rectal diazepam can be used if there is no IV line and there are contraindications to IM injection eg coagulopathy. Second-line: IV phenytoin. Major side-effects are hypotension and cardiac arrhythmias. If phenytoin is contraindicated, IV valproate or keppra can be used. Third-line: if seizures persists, intubate the patient. Recommend IV phenobarbitone or IV thiopentone. Alternative agents: high dose IV midazolam, IV propofol, and IV lacosamide. Be aware of potential side-effects. The choice of anti-convulsants in renal and liver dysfunction will be discussed, as well as the role of newer anticonvulsants. Conclusion: Clinicians managing SE should be aware of the therapeutic armamentarium and treat SE promptly and aggressively.