Status Epilepticus -1-

Refer EARLY to KIDSNTS for advice - 0300 200 1100

Definition:
- **Status epilepticus (SE)** is a condition resulting either from failure of the mechanism responsible for seizure termination or from the initiation of mechanisms, which lead to abnormally prolonged seizures (>5mins).
- **SE** is a condition, which can have long-term consequences including neuronal death, neuronal injury and alteration of neuronal networks, depending on the type and duration of seizures.
- Management of non-convulsive status epilepticus and super refractory status epilepticus are beyond the scope of this guideline.

Common Causes:
Known Epilepsy, Febrile convulsions, CNS Infections, Hypoxia, Metabolic (hypoglycaemia, hyponatremia, hypocalcemia, hyperammonaemia, hepatic encephalopathy), Trauma (NAI), toxicology, systemic hypertension.

SE flow chart:

Follow APLS algorithm on management of the convulsing child
See following page for the latest algorithm
(follow individual emergency plan if the child has one)

General Management Principles:
- Termination of the convulsion whilst supporting airway, breathing, circulation.
- **Beware cardiovascular instability if child is febrile/septic and/or considering giving medications that cause predictable cardiovascular instability such as phenytoin/thiopentone/propofol.**
- Treat fever; Antibiotics and Aciclovir if infection suspected.
- Detect and treat correctable causes urgently.

Investigations:
- Bloods: Gas inc. glucose and Na; UEs, Ca, Mg, LFTs; FBC/CRP; consider ammonia; consider tox screen.
- Imaging: CT brain if atypical or aetiology unknown, raised ICP, focal neurology etc. (consider if contrast or CTV required)
- LP likely to be contraindicated in acute phase (i.e abnormal neurology/ongoing seizures).

Call KIDS NTS if progressing to Rapid Sequence Induction (RSI) and/or further specialist advice needed:
- Post intubation KIDS NTS will discuss the ongoing plan for **local extubation vs. retrieval to a tertiary centre**.
- Decision making around this plan will include consideration of current A/B/C status, the underlying cause of SE, neurological status +/- ongoing seizures, results of imaging if required.
- Consider shorter acting sedation (i.e propofol 1-4mg/kg/hr) if transfer to CT required or whilst respiratory function is optimised.

If seizures are ongoing post RSI:
- Specialist neurology consultant advice may be sought if required.
- Re-check for reversible causes (i.e glucose and sodium levels).
- Consider further medical treatments such as re-loading with 10 mg/kg phenytoin or 10 mg/kg of phenobarbitone.
- Consider starting a midazolam infusion - bolus 0.1-0.5 mg/kg (max dose 10mg) and start an infusion at 2 micrograms/kg/min.
- Beware hypotension and avoid paralysis where possible for assessment of seizures.

Author - MR - Jun '22. Review Jun '25.

Status Epilepticus -2-

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2022 APLS (7th edition) flow chart for "Management of the convulsing child":

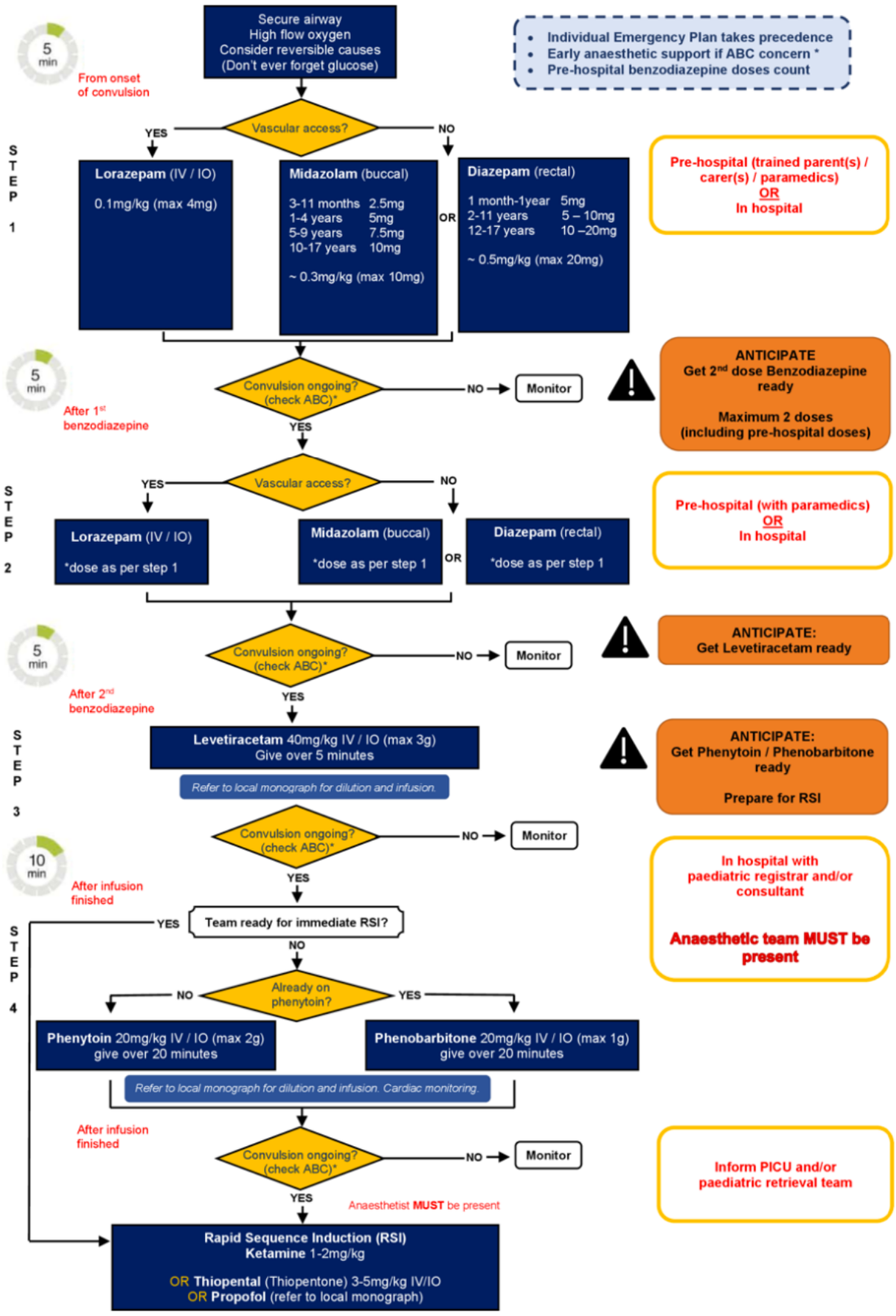

Figure 1 New Advanced Paediatric Life Support (APLS) algorithm on management of the convulsing child. ABC, airway, breathing, circulation; IV/IO, intravenous/intraosseous; RSI, rapid sequence induction; PICU, paediatric intensive care unit.

References - 1) APLS 7th edition, 2) Bacon M, Appleton R, Bangalore H, *et al. Arch Dis Child Educ Pract Ed* Epub ahead of print.

Author - MR - June '22. Review June '25.