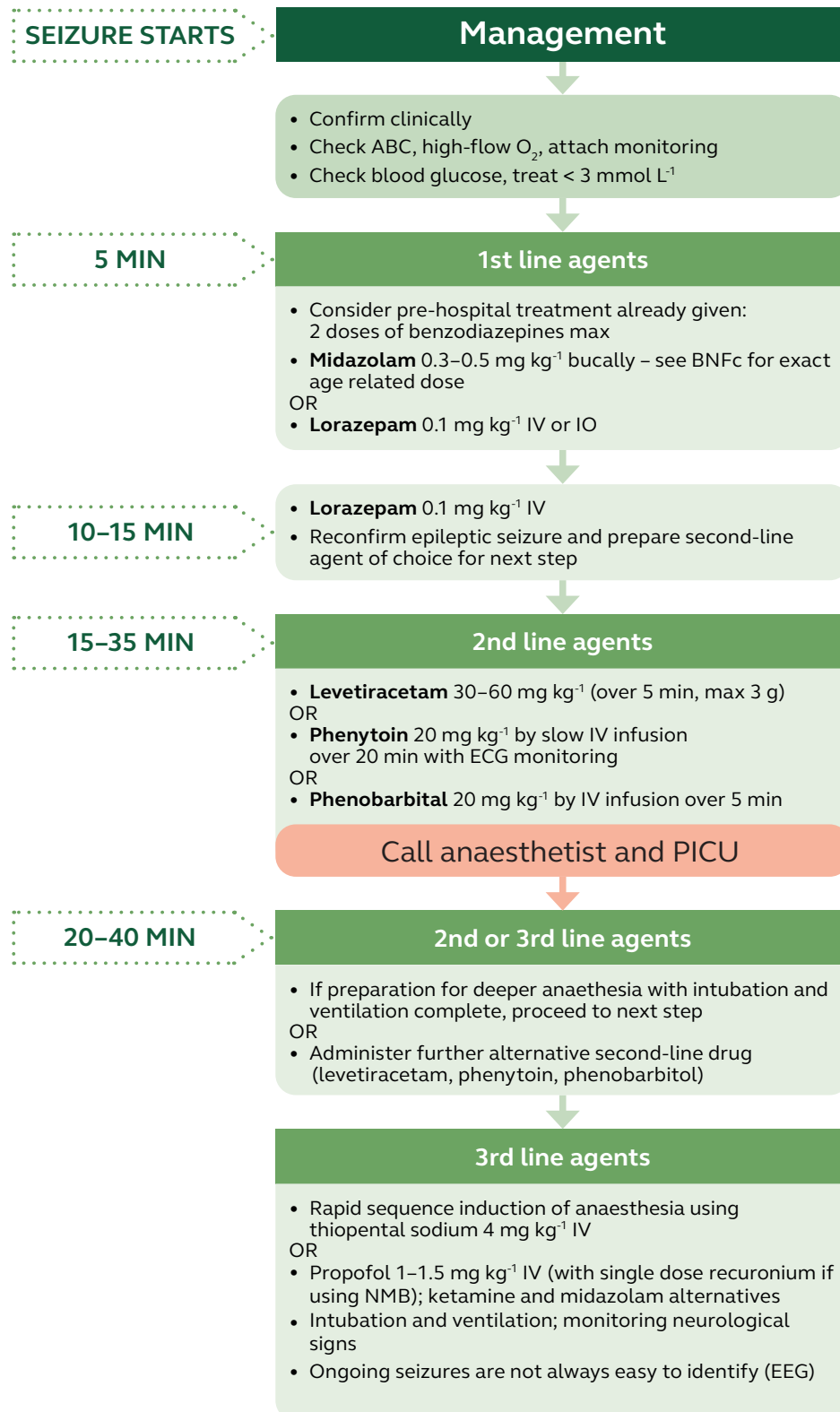


# Treating convulsive status epilepticus in children



- Definition of convulsive status epilepticus (CSE) is a seizure that continues for greater than 5 min, so treatment usually starts once seizure has lasted > 5 min
- After 5 min seizures are unlikely to spontaneously terminate
- The risk of a seizure becoming refractory increases with increasing seizure duration.
- \*ESETT/\*\*ECLIPSE/\*\*ConSEPT trials showed equal potency for phenytoin, levetiracetam and valproate
- Levetiracetam has a good safety profile and is easy to administer
- Children who frequently have seizures or CSE usually have an individually tailored guideline.
- Do not give phenytoin too rapidly as it will cause bradycardia and/or asystole.
- In sepsis consider measuring calcium and magnesium levels as they are sometimes low.
- Monitor glucose aim for 4–8 mmol L<sup>-1</sup>
- Measure serum sodium and treat if < 125 mmol L<sup>-1</sup> (3 mL kg<sup>-1</sup> 3% sodium chloride)
- Consider temperature control measures if hyperthermic
- Consider meningitis, encephalitis and Raised ICP
- Consider CNS haemorrhage if signs of trauma
- There is no evidence for the ideal third line agent: thiopentone, propofol, ketamine and midazolam may all be used

\* Kapur et al. Randomized Trial of Three Anticonvulsant Medications for Status Epilepticus. *N Engl J Med* 2019;381:2103–2113.doi:10.1056/NEJMoa1905795

\*\* Lyttle M, Pereira M et al. Levetiracetam versus phenytoin for second-line treatment of paediatric convulsive status epilepticus (ECLIPSE): a multicentre, open-label, randomised trial. *Lancet*, Volume 393, Issue 10186, 2125 – 2134

\*\*\* Dalziel SR, Borland ML et al; PREDICT research network. Levetiracetam versus phenytoin for second-line treatment of convulsive status epilepticus in children (Concept): an open-label, multicentre, randomised controlled trial. *Lancet*. 2019 May 25;393(10186):2135–2145