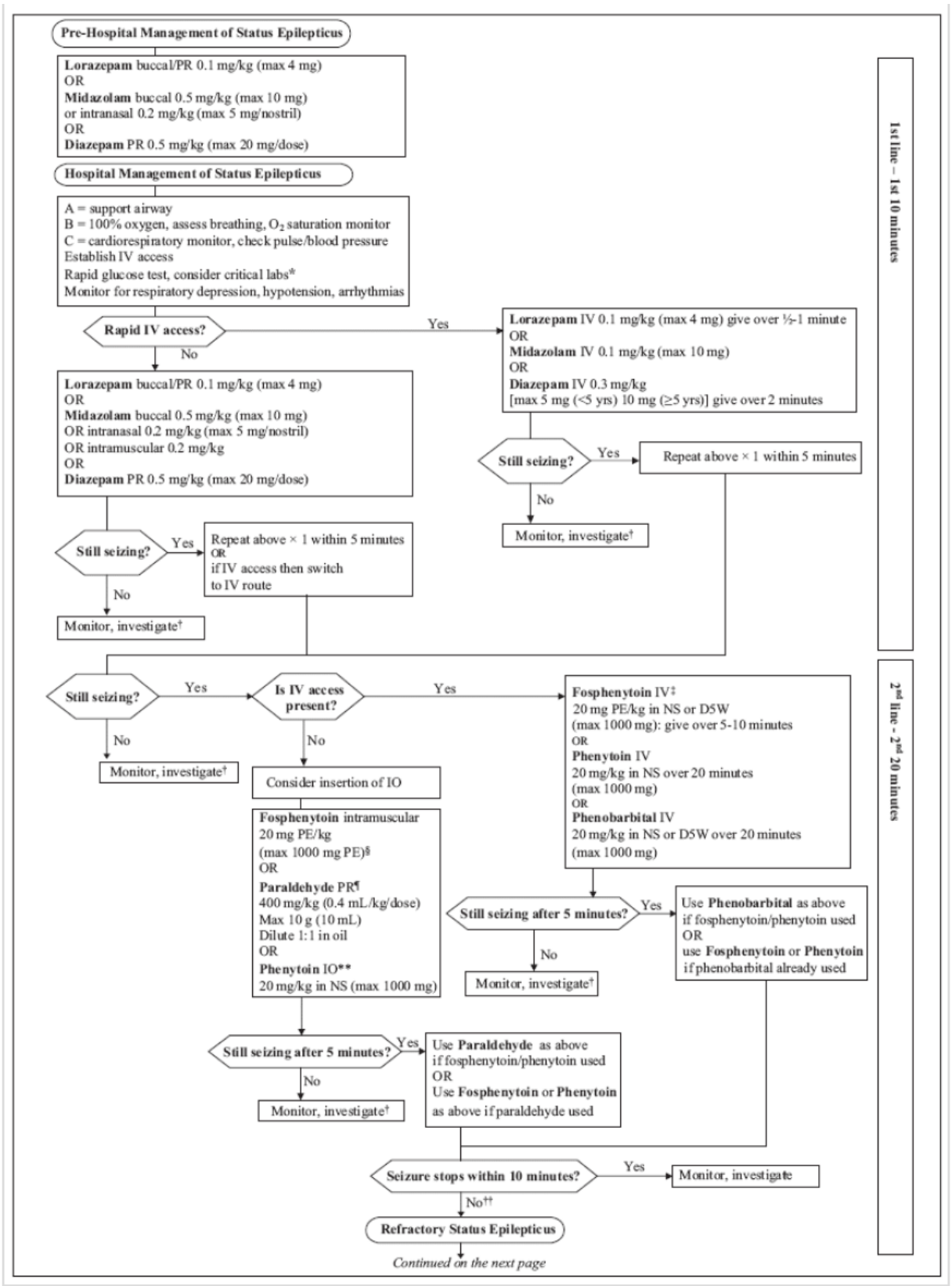
2014 CPS Guidelines for management of Status Epilepticus. Click here for complete article.



N.B: Some experts recommend moving directly to midazolam infusion (below) before using Phenytoin/ Phenobarb

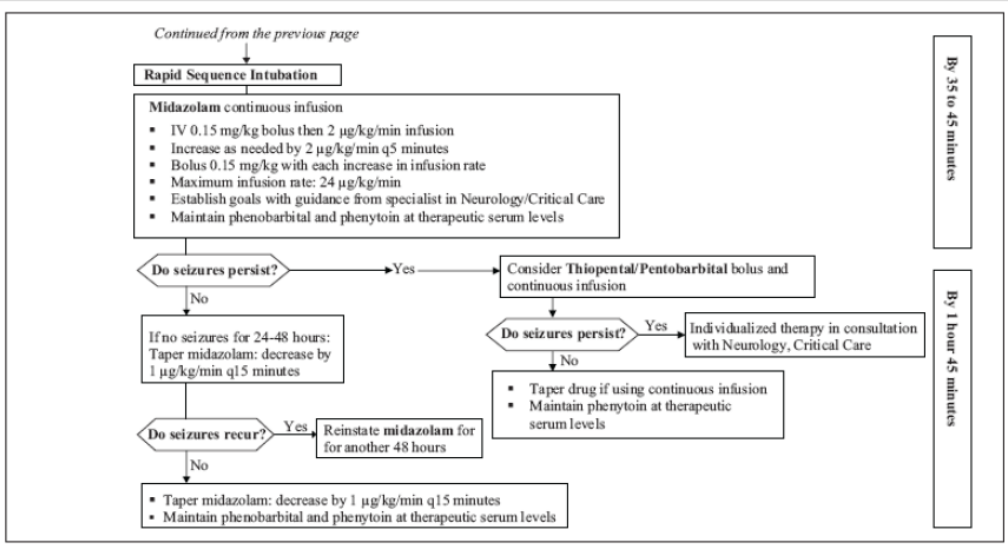


Figure 1) *Guidelines for emergency department management of convulsive status epilepticus (CSE) in infants (older than one month of age) and children. *Consider critical laboratory tests (labs): includes electrolytes, glucose, blood gas and calcium. Consider complete blood count/differential, anticonvulsant levels, liver function tests, toxicology screen, metabolic screen and blood culture when appropriate. For further detail, see the section entitled, "Diagnosis and initial therapy of life-threatening causes of CSE"; †Investigate, monitor: see section entitled, "Diagnosis and initial therapy of life-threatening causes of CSE"; ‡Fosphenytoin (if available) is preferred as the initial loading dose. Otherwise, use phenytoin unless the patient is already on phenytoin maintenance or a neonatal patient, in which case phenobarbital should be considered first; §Maximum (max) dose per intramuscular (IM) site is 3 mL (if child is heavier than 30 kg, IM dosing may not be practical because multiple IM sites are required); ¶Paraldehyde is available through Health Canada's Special Access Programme but, currently, is only used in a few parts of the country; **Intraosseous (IO) phenytoin 20 mg/kg in normal saline (NS) (max 1000 mg) is an option, but evidence for safety and efficacy is scant; ††In children younger than 18 months of age, consider a trial of intravenous (IV) pyridoxine (vitamin B_6) 100 mg initially, then 50 mg IV or by mouth twice a day. D5W 5% dextrose water; PE Phenytoin equivalent; PR Per rectum; q Every; yrs Years. Adapted from The Hospital for Sick Children (Toronto, Ontario) and BC Children's Hospital (Vancouver, British Columbia)*

TABLE 2

Anticonvulsant drug therapies for convulsive status epilepticus

Drug and route	Dose	Maximum	Rate	Repeat	Risks	Comments
First-line treatments						
Lorazepam (IV, IO, buccal, PR)	0.1 mg/kg	4 mg	<2 mg/min (IV over 0.5–1 min)	Every 5 min ×2	Hypotension, respiratory depression, sedation	Use sublingual tablets for buccal route. For PR route, dilute injection to 2 mg/mL in D5W or NS
Midazolam						
Buccal	0.5 mg/kg	10 mg		Every 5 min ×2	Hypotension, respiratory depression, sedation	
Intranasal	0.2 mg/kg	5 mg/nostril				
IM	0.2 mg/kg					
IV	0.1 mg/kg					
Diazepam						
IV	0.3 mg/kg	5 mg (<5 yrs) 10 mg (≥5 yrs)	<2 mg/min (IV over 2 min)	Every 5 min ×2	Hypotension, respiratory depression, sedation	
PR	0.5 mg/kg	20 mg				
Second-line treatments						
Fosphenytoin (IV, IM)	20 mg/kg phenytoin equivalents	1000 mg	IV over 5–10 min (in NS or D5W)		Decreased risks compared with phenytoin	Expensive
Phenytoin* (IV)	20 mg/kg	1000 mg	1 mg/kg/min (over 20 min in NS)		Hypotension, bradycardia, arrhythmia	Must be given in nonglucose-containing solution
Phenobarbital†	20 mg/kg	1000 mg	1 mg/kg/min		Respiratory depression (especially if	First choice in neonates, or if