Clinical Guidance

Paediatric Critical Care:
Extubation at DGH post rapid sequence induction (RSI) for status epilepticus

Summary

Guideline for the management of extubation of patients intubated using rapid sequence induction following treatment for status epilepticus (SE).

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Paediatric Critical Care:

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For management of status epilepticus (SE) See STRS Status epilepticus guideline

Indications for intubation:

- Refractory convulsive status epilepticus (CSE)
- Airway compromise/ inadequate respiratory drive
- GCS < 8 after seizure termination
- To facilitate safe transfer to CT scan

Modified rapid sequence induction of anaesthesia: intubate and ventilate. Use short acting muscle relaxant (**bolus** rocuronium or atracurium, avoid suxamethonium).

If child has required intubation, consider extubation if ALL of the following criteria are met:

- Uncomplicated intubation
- No concurrent significant respiratory concerns/ CXR changes
- No signs of encephalopathy preceding intubation
- Seizures terminated
- CT scan (if indicated) is normal or unchanged from any previous scans
- No signs of raised ICP (on scan or clinically)
- No indication for neuroprotection
- Significant electrolyte abnormalities corrected
- Appropriate staff and location to recover patient

Aim to assess for extubation within 1 hour:
Allow neuromuscular blockade to wear off (or reverse).
Stop ALL sedation

Assess:

Airway and breathing:

- Spontaneously breathing with minimal work of breathing
- Minimal ventilatory requirements

Circulation:

- Haemodynamically stable – not requiring inotropic support

Disability:

- Seizures terminated
- No focal neurology
- Airway reflexes present (cough and gag)
- Child waking and responding appropriately (at baseline for child)
- Pupils equal and reactive
- Normal posture

YES to **ALL** of the above -> suitable for extubation at DGH. Maintain communication with STRS.

NO to **ANY of** the above -> child is likely to be unsuitable for extubation at DGH. Discuss further with STRS.

Management post extubation:

- Usual post extubation care
- Maintain surveillance for repeat seizures in appropriately monitored ward environment

References:

- Children's Acute Transport Service, Status Epilepticus Clinical Guideline, January 2024
- WATCh – Management of children in status epilepticus in the DGH, September 2022