

Category : **Respiratory: airway management/CPAP**

A86 - Evaluation of extubation practice and risk perception at a paediatric cardiorespiratory intensive care unit

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Introduction:

Extubation requires disciplined practice to sustain patient safety during de-escalation from artificial support. We aim to evaluate extubation practice and risk perception around extubation to plan our implementation of extubation care bundle.

Methods:

Retrospective analysis of electronic notes for procedural documentation and post-extubation complications from two 3-month periods in 2019-2020 was conducted. Paediatric intensive care staff survey on extubation practice was reviewed.

Results:

Of 114 extubation events for 106 children (median age 6 months, range 1day-16years), procedural documentation present in 75% (n=85) medical and 96% (n=109) nursing notes. 68% (n=77) extubations occurred daytime (09:00h-19:00h) and 13% (n=15) night-time (22:00h-07:00h). Unplanned extubation rates were 1.7 and 0.9/100 endotracheal tube days for 2 periods, with 2 events of resuscitation for emergent re-intubation.

Incidence of post-extubation stridor requiring treatment was 31% (n=36), and 12% (n=14) for desaturation over 10% from baseline. 38 extubations transitioned to non-invasive ventilation, of which 4 (11%) escalated to invasive ventilation by 12 hours. 48-hour freedom from re-intubation was 94% (n=107).

36 (47% nursing, 53% medical) staff completed questionnaires. Stridor and desaturation were perceived as “often-to-always” events by 16% and 8% staff respectively. Staff rated unorganised or chaotic experience as “often-to-always” related to resource factors (readiness of airway management equipment,71%, or verbalising failure plan,37%) or team factors (communication,74%, role clarity,69%, or night-time extubation,26%).

Conclusion:

Post-extubation complications appeared less infrequent than perceived and risk perceptions are a critical determinant of change in clinical practice. Hence, we are targeting interventions that will engage and change risk perceptions to produce subsequent positive changes in extubation practice.