Weaning and decannulation flow chart

This is an example of a weaning and decannulation flowchart, that can be used by your hospital or LHD. You should follow your local approved procedure and guidelines that are in place.

Northern Sydney Local Health District Tracheostomy weaning and decannulation guideline

This guideline should be used to support decisions to wean and remove a tracheostomy tube unless otherwise ordered by a Senior Medical Officer (SMO)

Requirements when a new intervention is performed (first cuff deflation, first capping or phonation valve, decannulation)
- Medical Officer/Nurse Practitioner order
- Consultation with ENT, ICU or RRT specialist
- Speech Pathologist notified (first cuff deflation or phonation valve)
- Clinician presence for 30 minutes
- Observations as per Table 2

During every step of weaning monitor for:
- Deterioration
- Increased secretions/sputum load
- Signs of aspiration
- Signs of respiratory decompensation

Patient haemodynamically stable and off ventilator for 24hrs → assess ORAL and PULMONARY secretions

**ORAL SECRETIONS**
Assess patient for ability to adequately swallow oral secretions
- Consider Speech Pathology review – formal swallow assessment

**PULMONARY SECRETIONS**
Assess patient for ability to cough and mobilise pulmonary secretions

**PATIENT APPROPRIATE FOR TRIAL OF CUFF DEFLATION**
Ongoing Speech Pathology management
Refer Tracheostomy MDT or SMO → tailored weaning plan
Review every 24 hours

**CUFF DEFLATION TRIAL**
Clinician presence for 30min post-deflation. Observations as per Table 2.
If signs of decompensation (Table 1) → re-inflate cuff.
If no decompensation leave deflated for 24h

Patient tolerates 24h cuff deflation with no decompensation (Table 1)

**DIGITAL OCCLUSION TRIAL**
Patient tolerates 5min digital occlusion with no decompensation (Table 1)

**CAPPING TRIAL**
Clinician presence for 30min post capping. Observations as per Table 2.
If signs of decompensation (Table 1) → remove cap
If no adverse signs leave capped for 24h

**DECANNULATION**
Clinician presence for 30min post decannulation. Observations as per Table 2.

**PATIENT TOLERATES DIGITAL OCCLUSION TRIAL AND CAN MANAGE PULMONARY SECRETIONS**

**PATIENT MANAGING PULMONARY SECRETIONS**
Increased physiotherapy
Optimise humidification
Treat infection
Treat bronchoconstriction
Treat fluid overload
Refer to Tracheostomy MDT or SMO for tailored weaning plan
Review every 24h

Table 1 - Signs of decompensation
- Absence of audible airflow
- Stridor
- Sudden increase in airflow when occlusion removed
- Significant secretions
- Poor cough
- Tachycardia
- Anxious, restless, sweaty, clammy
- Increased work of breathing
- Tachypnoea
- Decreased oxygen saturations
- Increased supplemental oxygen requirements
- Accessory muscle use, nasal flaring
- Sternal notch retraction
- Decreased GCS

Table 2 - Observations after new intervention (first cuff deflation, first capping or phonation valve placement, decannulation)
- Continuous pulse oximetry for 24 hours
- A complete set of vital signs hourly for the first 4 hours, then 4-hourly for 24 hours

Intensive care NSW
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Note: not all sites undertake a capping trial prior to decannulation.

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