REHAB GUIDELINE

EARLY REHAB WITH NEW TRACHEOSTOMY

Children's MINNESOTA

Aim: To support surgical outcomes by limiting loss of strength, conditioning, and communication skills following new tracheostomy placement.

Assumptions

- Provider (MD/APP) order in EMR for Physical Therapy (PT), Occupational Therapy (OT), and Speech Language Pathology (SLP) consults
- Actions described herein are cleared by all medical teams involved (Critical Care Team, ENT, Pulmonology, Trauma, Ortho, Neurosurgery, Surgery, etc.)
- RN/RT available in immediate environment to suction vent or trach
- C-spine immobilization, if appropriate, is in place as ordered for changing positions in bed and during transfer
- Patient will be awake/alert enough to actively participate; no rocuronium
- Patient is consistently monitored for hemodynamics, pain, and perceived exertion

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POD #1:

- Elevation of head of bed to minimum 45–90 degrees by nursing. Minimum goal of 30–60 min, 1x/day progressing as tolerated to maximum of 60 min 3x/day.
- If patient is awake and alert, complete SLP eval to introduce augmentative and alternative communication (AAC) options. If not appropriate, complete on subsequent days when able.

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POD #2: Bed mobility

- RN performs scheduled elevation of head of bed to 45–90 degrees, goal of 3–4x/day for 60 minutes
- Progress to dangle sit at edge of bed or positioning in Tumbleform with rehab therapist monitoring for adverse reactions
- Considerations include: marked increase in tone/posturing, marked dystonia, drug withdrawal (compliance/agitation), baseline motor skill status prior to admission (non-ambulatory prior/no head control)
- PT/OT consult with specific treatment plan developed addressing positioning, exercises (initially, passive range of motion with progression to active strengthening).

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POD #3: First transfer out of bed

- Option 1: Stand pivot transfer with therapist assist as indicated
- Option 2: Dependent transfer with mechanical lift or staff transfer dependent on patient size
- Patient stratified to the lift strategy based on manual muscle testing, ability to follow commands, patient insight to safety, and therapist experience. See below for additional considerations for patients under 2 years of age.
- Nursing and/or Respiratory Therapist must be immediately available if there is any evidence of airway compromise. The transfer can be terminated for clinical cause by any of the staff participants.

PT/OT will assess and provide optimal alignment of patient once in seated position

First out of bed sitting goal: 60 min as tolerated, with reclining wheelchair option if recline needed

Return to bed transfer accomplished first day with PT/OT/RN assistance, in reverse of bed to chair transfer

Exclusion guidelines:

Patients **excluded** from this guideline*:

- HALO present
- BMI greater than 30 or condition featuring an abnormally short neck
- Ongoing pulmonary instability with PEEP requirements greater than 10 and/or FiO2 greater than 0.5 or cardiovascular instability requiring ongoing use of pressors
- A known difficult airway, as determined and indicated by ENT surgeon
- NICU admission

*Patients may be considered for this guideline if cleared to do so by attending MD and rehab team

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POD #4–6: Daily PT/OT treatment plans implemented with progression to sitting edge of bed to standing edge of bed, aide involvement as needed. PT/OT will educate nursing staff and nursing to perform bed to wheelchair transfer to allow positioning out of bed 3x/day.

After First Trach Change:

- OT/PT will progress patient mobility as appropriate to individual patient, with ongoing education and training of nursing staff and family/caregivers. Expect to increase standing time and ambulation progression. Ambulation requires immediate presence of RN/RT for equipment and patient needs.
- SLP to trial Passy Muir Valve (PMV) as appropriate.
- See Sample Mobility Progression below.

Sample Mobility Progression

Patient > 2 years old

Yes

Progression of **child-adolescent** mobility following out of bed transfer:

- **POD #2:** Edge of bed sitting, 1–2 person assist with 10 min sitting tolerance goal
- **POD #3:** See above for bed to chair transfer
- **POD #4–6:** Increase tolerance to standing: sit to stand, standing pivot transfer, bed to wheelchair assisted as needed and progressed as able. PT will educate nursing staff and family to allow this multiple times daily.
- **After First Trach Change:**
  - Example: PT will progress patient ambulation (or wheelchair mobility) out of room, with assist or device as needed; progress distance as able to support discharge demands. PT will educate staff/caregivers to allow assisted mobility more frequently during waking hours. Stair mobility and/or alternative will be determined and addressed to meet home requirements.
  - Once ambulating — need RN/RT assist to walk (or with wheelchair mobility and wheelchair rides) with ventilation equipment; have emergency supply bag/suction at all times
  - PT will progress treatment plan as appropriate and update goals, education, determine equipment needs, and involve social worker/ care manager to assure appropriate equipment for discharge subject to Policy 214.00.

No

If patient **is <2 years old, and cleared by attending and rehab team**, progression of treatment follows same daily plan with the following adjustments based on age and skill level:

- **Out of Bed Transfer:** to parents' arms or Tumbleform
- To floor mat, with developmental progression determine by PT/OT based on clinical and standardized assessment. RN/RT available for suctioning and/or vent adjustment concerns; hemodynamic stability monitored consistently.

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