Base Hospital

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Memorandum

TO	All Paramedics; TMPs
CC	Base Hospital, Department of Education and Training, OCC Staff
FROM	Dr. Bruce Sawadsky, Medical Director/Chair MAC
RE:	Transport of Patients with tracheostomy
MEMO #	BH-MEM-052
DATE	March 18, 2019

Recently we have had a number of transports of patients with fresh tracheostomies and concerns raised by paramedics about appropriate LOC and escorts as well as clinical management in the event of displacement of the tube. The MAC has reviewed this and recommends the following approach (see below and attached). We will subsequently add this to the Medical Directives on the next iteration.

Key points:

1. Risk is much higher on reinsertion of tube into tracheostomy, cricothyrotomy, or laryngectomy site when less than 7 days since creation. Reinsertion may create a false passage with subcutaneous emphysema and fatal hypoxia due to inability to secure the airway.
2. Risk is higher if tube placed for airway obstruction, difficult airway, or laryngectomy (due to inability to manage airway from above).
3. Always bring a spare inner cannula which is size and type (disposable or reusable) specific for patient's tracheostomy tube.
4. Always bring a complete spare tracheostomy tube of the same size plus one size smaller in transport.
5. Ensure tracheostomy ties are snug; i.e. can only fit two fingers between the tie and the patient's neck) prior to transport.

Tracheostomy algorithm:

If chronic tracheostomy and self-managed by patient or family with no nursing care required, may consider PCP LOC.

If tracheostomy tube in place > 7 days AND patient has no history of difficult intubation/airway obstruction in history

- May be transported by ACP or CCP or Paeds team
- Crew should bring two extra tracheostomy tubes from sending for transport – one that is the same size as current and one that is one size smaller plus additional disposable inner cannulas if appropriate for the insitu tracheostomy tube
- If tracheostomy tube comes out during transport and the stoma is patent, medic should attempt reinsertion with replacement tracheostomy tube first and if unable then attempt with a #6.0 cuffed ETT over bougie, confirm appropriate placement with EtCO2 and clinical indicators; if unable to replace, initiate BVM from above (requires occlusion of the stoma with palm of hand) and support with BiPAP and/or reintubation if required

- If tracheostomy tube in place > 7 days AND patient HAS history of difficult intubation/airway obstruction or a surgical laryngectomy
    - May be transported by ACP or CCP or Paeds team **after TMP confirmation with sending that tracheostomy tract is mature and at least one replacement tracheostomy tube has been successfully performed without difficulty post initial establishment**
    - Crew should bring two extra tracheostomy tubes from sending for transport- one that is the same size as current and one that is one size smaller plus additional disposable inner cannulas if appropriate for the insitu tracheostomy tube
    - If tracheostomy tube comes out during transport and stoma is patent, medic should attempt reinsertion with replacement tracheostomy tube first and if unable then attempt with a #6.0 cuffed ETT over bougie, confirm appropriate placement with EtCO2 and clinical indicators; if unable to replace, initiate BVM from above (requires occlusion of the stoma with palm of hand) and support with BiPAP and/or reintubation if required

  If tracheostomy tube in place < 7 days AND patient has no history of difficult intubation/airway obstruction in history
    - **The sending MD must suture the tracheostomy tube in place prior to transport**
    - May be transported by ACP or CCP or Paeds team
    - Crew should bring two extra tracheostomy tubes from sending for transport- one that is the same size as current and one that is one size smaller plus additional disposable inner cannulas if appropriate for the insitu tracheostomy tube
    - If tracheostomy tube comes out during transport initiate BVM from above (requires occlusion of the stoma with palm of hand) and support with BiPAP and/or reintubation if required; if this is unsuccessful and the stoma is patent, medic may attempt reinsertion with replacement tracheostomy tube or #6.0 cuffed ETT over bougie, confirm appropriate placement with EtCO2 and clinical indicators.

If tracheostomy tube in place < 7 days AND patient HAS history of difficult intubation/airway obstruction in history (also applies to laryngectomy tubes)

- **HIGH RISK PATIENT - MANDATORY discussion between TMP and Sending MD. Explicit discussion between TMP and Sending MD required regarding risk/benefit of transport in conjunction with the urgency of transport. The sending MD must suture the tracheostomy in place prior to transport. Utilization of a sending escort who can manage surgical airway issues or deferral of transport until track maturity should be considered if possible**

Tracheostomy Transport Risk Matrix

If the existing tracheostomy tube becomes dislodged:

	Tube in place < 7 days	Tube in place >7 days
No history or airway obstruction or difficult airway	Lower risk. Attempt BVM/Bipap/intubation from above first; if fails consider reinsertion with trach tube	Lower risk. Attempt reinsertion with trach tube first, then bougie with ETT If fails, manage from above.
History airway obstruction or difficult airway or laryngectomy tube	High risk MANDATORY discussion between TMP and Sending MD. Trach tube must be sutured in place by sending. Explicit discussion between TMP and sending MD required regarding risk/benefit of transport in conjunction with the urgency of transport. Utilization of a sending escort who can manage surgical airway issues or deferral of transport until track maturity should be considered	Medium Risk Confirm that at least one trach tube change post initiation has taken place without difficulty. Attempt reinsertion with trach tube first, then bougie with ETT. If fails, manage from above (unless laryngectomy tube).

All MAC and PPAC minutes, resources, manuals, memos and attachments from the Base Hospital can be found on the Base Hospital website https://learn.ornge.ca

Any questions can be directed to AskMAC@ornge.ca