

Checklist for endotracheal tube tolerance

Tolerance is a subjective, multifaceted concept: in favor of a higher value (health), a lesser competing value (ETT) is accepted. Usually, most patients accept the ETT in favor of a faster recovery.

In some conditions, clinicians may interpret signs of tongue movements or biting on the ETT as intolerance, and increase sedation. Contrary, only a few patients want deep sedation when having an ETT – being sedated means losing control of one's thinking (e.g., sedation is frequently associated with delirium or confused thinking).

In general, ETT tolerance may be increased by:


1. Appropriate assessment and management of pain, anxiety, delirium;
2. Explaining to the patient regarding their situation and purpose of ETT;
3. Offering the ability of expression of thoughts/emotions (e.g., letter boards, pen/paper, electronic devices);
4. The presence of devices for orientation (e.g., clock, calendar);
5. Distractions (family presence, television, tablets, radio/music);
6. Rehabilitation (e.g., in-bed-exercises, sitting in a chair, walking);
7. Offering patients the opportunity to express their desires for how care is delivered when appropriate (e.g., yes/no, visual-analog scales, rating scales, forced choice*);
8. Soft ETT;
9. Early shift to pressure support ventilation; adjusting patient trigger for ventilator assistance;
10. Comfortable tube securement.

Limitations

- In case of serious patient-ventilator dyssynchrony, call for a physician and consider interventions
- For specific populations, early extubation and followed by non-invasive ventilation may help as well.

*Forced choice is a limited set of options presented to the patient and may take the forms of multiple choice, this or that, choosing of objects presented, etc.

Thanks to Terri Hough, Harborview Medical ICU, Washington, Thomas Strøm, University Hospital, Odense, Denmark; Martin B. Brodsky, Therese Cole, Megan Hosey, Dale M. Needham, Johns Hopkins, Baltimore, and the German Network for Early Mobilization. April, 2016.

The breathing tube in my mouth ...	
is uncomfortable, but I can cope with it	<ul style="list-style-type: none"> • Provide encouragement to patient and continue assessing frequently • Sometimes a simple explanation/short dialogue is best: If appropriate, allow the patient to express the discomfort
hurts	<ul style="list-style-type: none"> • Sometimes patients' tongues are not comfortably situated. Sometimes the tube or tape is pinching, sticking, catches a lip: Reposition, then reassess • Assess pain, adapt analgesia • Consider bolus analgesia before suctioning • Consider analgesic spray in the mouth
makes me feel anxious	<ul style="list-style-type: none"> • Assess anxiety, inform the patient about their situation, reassure them that you are here to take care of them • Allow family presence, consider a phone call to family (hold phone on patient's ear, translate mimic), • Assess preferred distraction methods (TV, music, reading, prayer, meditation, rehabilitation, mobilization)
makes me restless and/or confused	<ul style="list-style-type: none"> • Assess delirium frequently and initiate delirium management (mobilization, sleep during night, reduce frequency of vital signs checks, family presence, appropriate medications, etc.)
I don't understand it	<ul style="list-style-type: none"> • Repeat information about the patient's situation • Ask family to be present and to inform patient about critical illness. • Show patient with a mirror, guide patient's hand to ETT for better understanding, show pictures, explain purpose and function of tube
too much suctioning	<ul style="list-style-type: none"> • Decrease duration and frequency of endotracheal suctioning • Manage fluid balance to decrease secretions
makes me short of breath	<ul style="list-style-type: none"> • Ask patient for his perception of depth and frequency of breathing • Adapt ventilator settings and assess anxiety (as per above)
I can't talk	<ul style="list-style-type: none"> • Offer communication aids: letter boards, pen/paper, electronic devices, etc. • Ensure they have eye glasses or hearing aids if needed. If patients are unable to move their arm, develop a consistent and deliberate yes/no (avoid unclear responses like eye blinks).
makes me feel dependent	<ul style="list-style-type: none"> • Provide encouragement and ask patient for if they have any requests and provide a sense of control (e.g., regarding position in bed, light, noise, pillow comfort, mobilization, consider letting them schedule mobilization times etc.) • Consider "guided suctioning": place patient's hand on your forearm, so that the patient can stop suctioning 
makes too much pressure in throat	<ul style="list-style-type: none"> • Assess cuff pressure, ask patient for evaluation • Assess depth of ETT to determine appropriate placement • Consider analgesic spray in the mouth
I can't swallow	<ul style="list-style-type: none"> • Consider suctioning • Assess cuff pressure, ask patient for evaluation • Consider medication to reduce saliva
ETT holder is uncomfortable	<ul style="list-style-type: none"> • Offer patient different position of ETT • Consider different type of fixation or adjust fixation to be more comfortable • Consider pinching of skin/tissues and placement of the tongue
ETT keeps moving	<ul style="list-style-type: none"> • Ask patient for tolerance • Reposition of ETT (avoid ETT contact on uvula, faucial arches, posterior pharyngeal wall)