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• 160

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Simple Airway Tips For The Occasional Intubator

Airway Tips for the Occasional Intubator…and how not to make easy airways difficult

Set-Up

Don't neglect the set-up: it prevents many future problems!

1. Manage your stress response: use tactical breathing, visualization & cognitive aids.
2. Consider placing difficult airway algorithms, intubation checklists & drug dosages on the wall in your ED.
3. Start pre-oxygenation early.
    a. 10-15LPM oxygen with a good facial seal will optimize pre-ox and denitrogenation.
    b. Non-rebreather face mask with underlying nasal prongs, both at 15LPM is 2nd best.
    c. Use a sniffing position, jaw thrust, oral & nasal airways, a PEEP valve, and a two-person / two-hand bagging technique if BMV is needed.
4. Check your equipment is present, functional & in arms reach.
5. Have IV visibly running and monitors in view.
6. Review your airway plans & backups, *including surgical airway*.
7. Review your drug plan & have post-intubation sedation & vasopressors immediately available.
8. Brief your team.

Intubation:

***As a general rule: If a something isn't working, you MUST try something different: different position, equipment, technique, intubator.**

1. Start with the patient in a "sniffing" position (neck flexed, head extended).
    a. Add a shoulder ramp & a head-up slope to the bed for obese patients
2. Lube your laryngoscope blade & ETT tube and stylet.
    a. Keep the stylet straight to just before the cuff, then
        i. Bend it 30-40° for direct larygoscopy
        ii. Bend it 60-70° for video laryngoscopy
3. Keep laryngoscope midline. If necessary, move the tongue away to the left, once in the mouth.
4. Use the AIME approach EVLI:
    a. **Epiglottoscopy—**
        i. search for the epiglottis 1st, it marks the glottic opening.
    b. **Valleculoscopy—**
        i. slide the blade tip gently into the vallecula. You are in the right place if gentle upward pressure raises the epiglottis. Needing a lot of pressure usually means you need to advance; the epiglottis dropping into your field of view means you need to retreat slightly.
    c. **Laryngoscopy—**
        i. manipulate the larynx and lift the head to optimize your view if using direct laryngoscopy.
        ii. Ensure the glottic opening is in the upper part of the screen and occupying no more than the upper half, if using video laryngoscopy.
        iii. Reach for a bougie if your view is still poor.
            1. Slide the bougie around the posterior epiglottis in the midline
            2. Advance until you feel "clicks" from the tracheal rings, or until you reach *gentle* hold up at 30-40cm.
            3. Leave the laryngoscope in place and gently advance the ETT over the bougie.
    d. **Intubation—**
        i. If you have pre-glottic hold up, twist LEFT.
        ii. If you have post-glottic hold up, use your thumb to slide the stylet out of your ETT 2-4cm; this will soften the tip of the ETT.
            1. Twist RIGHT if the tube still does not advance.

Physiologically Difficult Intubations

Hypotension—
Start fluid resuscitation & vasopressor before intubation if possible.
Reduce induction drug dosages (also reduce for elderly or frail patients)
Increase paralytic dosages

Hypoxia / Hypercarbia—
If non-responsive to pre-oxygenation & assisted ventilation, avoid apnea & paralytics if possible. Balance risk of apnea with risk of regurgitation.

Selected Resources

The Basics
Vortex Approach to Airway Planning: http://vortexapproach.org
AIME approach to tracheal intubation: http://aimeairway.ca/userfiles/Algo_1.pdf

Difficult Airway
Difficult Airway Society: https://www.das.uk.com
AIME curated algorithms: http://aimeairway.ca/algorithms

Hands-On Training & Text Reference
AIME Airway: http://aimeairway.ca
AIME Airway On-line Text: http://aimeairway.ca/book#/

Summaries
AIME Airway Intubation Summary: https://www.youtube.com/watch?v=TU_p8pDIvBU
Ventilation by EMUpdates on Vimeo: https://vimeo.com/34883844

Checklists
EMUpdates Intubation Checklist: http://emupdates.com/2012/07/08/emergency-department-intubation-checklist-v13/
EMCrit Intubation Checklist: https://emcrit.org/racc/emcrit-intubation-checklist/

Drug Dosing
RSI & Drug Dosages: https://lifeinthefastlane.com/ccc/rapid-sequence-intubation/
UpToDate Induction Agents: https://www.uptodate.com/contents/induction-agents-for-rapid-sequence-intubation-in-adults-outside-the-operating-room

Physiologically Difficult Airways
Mosier JM (2015). The Physiologically Difficult Airway. http://doi.org/10.5811/westjem.2015.8.27467
EMCrit Laryngoscope as a Murder Weapon Series: https://emcrit.org/racc/intubation-patient-shock/
EM Ottawa Blog: https://emottawablog.com/2017/09/approach-to-the-physiologically-difficult-airway/

Further Reading / Watching:
EMCrit Suction Assisted Laryngoscopy: https://emcrit.org/racc/having-a-vomit-salad-with-ducanto/
Airway Jedi: https://airwayjedi.com
Airway Cam: http://www.airwaycam.com

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