The Standard Intubation Procedure

Summary from FoundStab Intubation SOP by Scott Weingart

Equipment

- Ready to use organized box that includes difficult intubation tools
    - Supraglottic airway size 4 (I-gel), scalpel, bougie, 6.5 ETT, 6-0 Trach, back-up direct laryngoscope
- Suction set up
- Bag with PEEP valve (BVM)
- Waveform capnography should be immediately available
    - Attach ETCO2 and PEEP valve to BVM prior to intubation
- Have properly labelled medications at the bedside for intubation, hemodynamic rescue, and post-intubation sedation and norepinephrine
- Place equipment in a table

Preparation for intubation

- If concern for difficult intubation
    - Have bronchoscope and difficult intubation box available
    - Contact anesthesiologists on call for a head-up
- Place patient in optimal positioning
    - Ears to sternal line, face plane parallel to ceiling, +/- slight HOB (20 degree)
- Use an effective preintubation oxygenation optimization strategy (denitrogenation and keep alveoli open/shunt physiology)
    - NIPPV or ventilator attached to NIPPV mask with settings IPAP ≥10, EPAP ≥5, RR ≥10, FiO2 100%
    - BVM at flush rate + NC ≥15 + PEEP valve, bagging during the apneic period
    - Oxylator with a PEEP Valve
    - Patients should have a nasal canula at ≥ 15 lpm in place throughout the intubation procedure (not only provide the O2 but also PEEP)
- Perform physiological and hemodynamic stabilization prior to intubation whenever possible
- Perform a checklist timeout prior to intubation
    - ETT, PEEP valve on the BVM, O2 NC, ETCO2 , suction, meds for pre and post intubation
- Verbalize an airway algorithm
    - Will terminate an attempt if no success after 30 seconds
    - Will do no more than 3 attempts with modifications in between the attempts
    - If fail
        - Will call anesthesiologist on call
        - Will place a supraglotic airway and if O2 Sat acceptable will reattempt with bronchoscope through the supraglotic airway
    - Then, if fail will do surgical tracheostomy

Intubation procedure

- RSI/DSI using Ketamine and Rocuronium (preferred) or Succinylcholine
- Provide gentle ventilation (4-5 breaths) during apneic period unless contra-indicated
    - GI bleed, bowel obstruction
- Consider Bougie with first pass if using a standard geometry video blade
- Perform optimization maneuvers prior to abandoning attempt if patient remains well saturated
    - Bimanual laryngoscopy

    - Lifting head further if necessary
    - Reposition video laryngoscope (pull-back)
- Use large-bore suction catheters – DuCanto

Reoxygenation and failed intubations

- Perform BVM breaths with a two-hand mask grip, oral airway, and ETCO2 confirmation
- Do not perform more than three attempts at laryngoscopy without a cognitive and physiological reset from extra-glottic airway placement
- Perform a surgical airway if laryngoscopy and supraglottic airway placement do not provide ETCO2 waveform and acceptable saturations

Post-Intubation Care

- Confirm placement with waveform ETCO2
- Perform a debrief after airway management