OUMC Adult Airway Management Protocol

I. The recent global pandemic of novel coronavirus disease (i.e., COVID-19, SARS-CoV-2) is associated with bilateral interstitial pneumonia, acute respiratory distress syndrome, and fulminant respiratory failure.
   a. While we are still learning about the exact mechanism of transmission, the rapid intercontinental spread of COVID-19 has been attributed to a combination of droplet and airborne particles, making it highly contagious from person-to-person and environment-to-person.
   b. Based on observational and retrospective data from high-volume centers around the globe, the viral load remains significantly elevated in the airway of infected patients. Thus, it is critical to secure the airway as quickly and uneventfully as possible to minimize aerosolization of viral particles.
   c. Based on what we currently know about the nature of this virus and its spread, the following recommendations are adapted from international guidelines for any patient within OU Medical Center who requires invasive airway management.

II. Personnel: Airway management should be performed primarily by the most experienced provider available, preferably with an experienced assistant.
   a. The OUMC Department of Anesthesiology is working to staff the Airway Phone 24/7 in order to facilitate availability of an Attending Anesthesiologist to perform all intubations within OUMC. This direct number is 405-271-0094.
   b. Providers will be instructed to call the Airway Phone primarily, followed by the Board Runner phone (405-271-0721) if no answer.

III. Rapid sequence induction: All patients should undergo rapid sequence induction to minimize bag mask ventilation and time to airway securement.

IV. Video laryngoscopy: Similarly, video laryngoscopy should be utilized on the first attempt for all intubations to minimize time to airway securement and contact with oropharyngeal contents.
   a. Preoxygenate with FiO₂ 1.00 on non-rebreather facemask for 3-5min if feasible.
   b. Administer rapid sequence induction and proceed with video laryngoscopy upon cessation of spontaneous ventilation.
   c. Immediately following ETT placement and confirmation of color change with qualitative capnography, initiate mechanical ventilation with closed circuit as soon as possible.
      i. Utilize HEPA filter on BVM apparatus to minimize aerosolized particle release into the environment.
      ii. If unable to intubate on first attempt, place supraglottic airway (e.g., LMA) immediately and close the circuit (BVM with HEPA filter) while considering next attempt (e.g., change equipment, patient position, adjuncts, etc. as indicated). Do not leave the airway exposed to the environment any longer than is absolutely necessary!
   d. Situations involving known difficult airways, need for fiberoptic intubation, etc. should be considered on a case-by-case basis. Please feel free to reach out to members of the Anesthesia Task Force for assistance (405-271-0721).

V. Supplies/Equipment: In order to minimize unnecessary waste in the face of multiple national shortages, the provider charged with managing the airway shall determine which supplies/equipment are needed from the airway bag and remove those prior to entering the room.
   a. The airway bag itself – with the remaining supplies – must be kept in a clean area outside the patient’s room and disinfected prior to return to the anesthesia supply room.
   b. Please include a patient sticker with the bag in order to facilitate charges for supplies/equipment.
Checklist for Adult Airway Management

Providers

☐ Most experienced provider available in charge of securing airway (preferably Anesthesia Attending or Emergency Medicine Attending for patients in ED)
☐ At least one experienced assistant at the bedside (second attending, CRNA, or resident)
☐ Respiratory therapist and/or Bedside RN
☐ Any additional team members must be discussed with an attending

Medications

☐ Rapid sequence induction agents (determined by Anesthesia Attending, please have all available to minimize preparation time):
  ☐ Propofol, etomidate, ketamine
  ☐ Rocuronium, succinylcholine
  ☐ Phenylephrine, epinephrine
☐ Multiple saline flushes at the bedside

Equipment

☐ Nonrebreather facemask for preoxygenation
☐ Suction with Yankauer
☐ Video laryngoscope (McGrath or Glidescope) and appropriately-sized blade
☐ Bag-Valve-Mask apparatus + HEPA filter
☐ Qualitative capnography indicator (i.e., “color change“ indicator)
☐ Appropriately-sized endotracheal tubes
☐ Oropharyngeal airway (90mm, yellow)
☐ Bougie airway catheter
☐ Supraglottic airway (size 3, 4, or 5)

Order of Donning for Appropriate PPE

☐ Remove jewelry and secure freely hanging items (badge lanyards, long hair, etc.)
☐ Sanitize/wash hands
☐ Shoe covers, PAPR belt (motor/battery)
☐ N95 mask +/- surgical mask
☐ Cap, isolation gown
☐ Gloves (first pair)
☐ PAPR hood (alternatively, full-face visor or protective goggles if PAPR is unavailable)
☐ Protective gown (second isolation gown if unavailable)
☐ Gloves (second pair, consider adding third pair to be discarded immediately following airway instrumentation)

Order of Doffing for PPE (please refer to video references for demonstration)

☐ Gloves (remove from inside out, avoid snapping gloves to prevent aerosolization)
☐ Gown (avoid touching the front/exposed portions, pull down and roll inside-out)
☐ PAPR hood or eye protection (hand these to a gloved/masked assistant for disinfection)
☐ Cap, shoe covers
☐ Leave room with N95 mask ON (grasp back elastic ties and pull forward, being careful to avoid touching the front portion of the mask)
☐ Sanitize/wash hands

This protocol developed by the Anesthesia Task Force from the OU Department of Anesthesiology. If there are any questions/concerns, please do not hesitate to reach out to Dr. Schoaps directly: Robert-Schoaps@ouhsc.edu, 405-606-1202.