**ILI / COVID-19 Airway Management Best Practice Considerations**

**Preparation**

1. **PPE:** Don full PPE including N95 respirator, goggles or face shield, gown and gloves. Proper application of PPE should be verified by an observer prior to patient contact.
2. Early airway assessment for predictors of difficulty and consultation as necessary.
3. Consider early, controlled intubation—patient trajectory and clinical judgment are important. Avoid NIV, HHHFO and other AGMP as able.
4. Minimize staff exposure:
   a. Minimize personnel in the room as able
   b. **Negative pressure room with anteroom if available (or neutral pressure room with door closed)**
   c. Ensure HMEF is between the mask and BVM at all times
5. **Intubation should be performed by an experienced practitioner to optimize first pass success**
6. Prepare necessary equipment and drugs **OUTSIDE** of room and communicate intubation plan.

**Suggested Roles and Organization**

**Intubation Plan**

- Optimize patient and intubator positioning; consider need for Troop pillow.
- Optimize pre-oxygenation using nasal prongs with 5L/min O₂ (up to 15L/min as necessary) AND tight seal BVM with ≥ 15L/min O₂ to keep reservoir inflated and PEEP valve = 5 cm H₂O.
- Reserve 2-person 2-handed BVM manual ventilation for situations when O₂ delivery is failing.
- Video laryngoscopy recommended as Plan A to keep intubator further from the patient.
- Best induction pharmacotherapy determined by MRHP on case-by-case basis to minimize chance of cough and aerosol generation.
- If no contraindications, Modified RSI (avoid coughing and facilitate first pass success) and leave nasal prongs with O₂ in place for apneic oxygenation:
  - Use higher mg/kg dose of muscle relaxant to relax to ensure rapid onset of optimal intubating conditions (allow 1 minute for onset of adequate muscle relaxation):
    - Rocuronium 1.5 mg/kg (IBW) or Succinylcholine 1.5 mg/kg (TBW)
- If SpO₂ < 70% begin 2 person 2 handed BVM manual ventilation with an OPA.
- Wait until cuff inflated post-intubation before ventilating.

**Post-Intubation**

- Confirm ETT position with ETCO₂ and CXR
- Closed suction system; avoid circuit disconnections and clamp ETT for planned disconnections.
- Lung protective ventilation strategy (6-8 mL/kg VT IBW; Pplat < 30 cm H₂O; Optimal PEEP).
- Strategies for failing gas exchange: deep sedation and paralysis; permissive hypercapnia; prone positioning.
- Follow PPE doffing procedure using a spotter.
- Maintain droplet and contact isolation and PPE as per IP&C.

AGMP = aerosol generating medical procedures; BVM = bag valve mask; HHHFO = heated humidified high flow oxygen (AIRVO, Optiflow); HMEF = heat moisture exchange filter; IBW = ideal body weight; MRHP = most responsible healthcare provider; NIV = non-invasive ventilation; OPA = oropharyngeal airway; RSI = rapid sequence intubation; TBW = total body weight. This is a living document. Watch for new versions. The materials can be viewed as Level C evidence (expert consensus). Revised April 9, 2020. Contact jgaudet@ucalgary.ca or tonia.laerz@ahs.ca