# Recommendations for Airway Management in a Patient with Suspected Coronavirus (2019-nCoV) Infection

Liana Zucco<sup>1, 2</sup>, Nadav Levy<sup>1,2</sup>, Desire Ketchandji<sup>3</sup>, Mike Aziz<sup>3</sup>, Satya Krishna Ramachandran<sup>1</sup>
1.Beth Israel Deaconess Medical Center Dept Anesthesia, Critical Care & Pain Medicine, Boston, USA
2. Healthcare Quality and Safety (MHQS), Harvard Medical School, Boston, USA
3. Oregon Health & Science University, Department of Anesthesiology & Perioperative Medicine, Portland, Oregon, USA

## General

**Your** personal protection is **the** priority. Personal protective equipment (PPE) should be available for all providers to ensure droplet/contact isolation precautions can be achieved. Providers and organizations should review protocols for donning and doffing PPE. Careful attention is required to avoid self-contamination.

#### Patients with confirmed or suspected 2019-nCoV infected cases:

- Should NOT be brought to holding or PACU areas
- Should be managed in a designated OR, with signs posted on the doors to minimize staff exposure.
- Should be recovered in the OR or transferred to ICU into a negative pressure room. Ensure a high quality HMEF (Heat and Moisture Exchanging Filter) rated to remove at least 99.97% of airborne particles 0.3 microns or greater is placed between the ETT and reservoir bag during transfers to avoid contaminating the atmosphere.

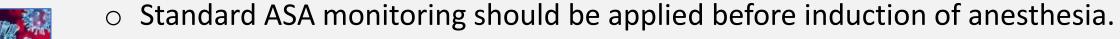
#### Plan ahead:

- For time to allow all staff to apply PPE and barrier precautions
- Consider intubation early to avoid the risk of a crash intubation when PPE cannot be applied safely.

# **During Airway Manipulation**

#### **Apply**

 Disposable mask, goggles, footwear, gown and gloves. Consider adopting the double glove technique.



 N95 mask at a minimum should be utilized. PAPR devices may offer superior protection when manipulating an airway of an infected patient.

### Assign:

 Designate the most experienced anesthesia professionals available to perform intubation, if possible. Avoid trainee intubation for sick patients.

#### Avoid:

 Awake fiberoptic intubation, unless specifically indicated. Atomized local anesthetic can aerosolize the virus.

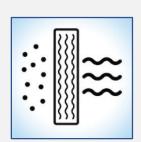


# Prepare to:

- Preoxygenate for 5 minutes with 100% FiO2
- Perform a rapid sequence induction (RSI) to avoid manual ventilation of patient's lungs and potential aerosolization of virus from airways.
- Consider using a video-laryngoscope.

#### RSI:

O Depending on the clinical condition, the RSI may need to be modified. If manual ventilation is required, apply small tidal volumes.



#### Use:

 Ensure there is a high quality HMEF (Heat and Moisture Exchanging Filter) rated to remove at least 99.97% of airborne particles 0.3 microns or greater placed in between the facemask and breathing circuit or between facemask and reservoir bag.



#### Dispose:

- Re-sheath the laryngoscope immediately post intubation (double glove technique)
- Seal all used airway equipment in a double zip-locked plastic bag. It must then be removed for decontamination and disinfection.

#### Remember:

 After removing protective equipment, avoid touching your hair or face before washing hands.

