

Oxygenation and Ventilation of COVID-19 Patients

Module 2: Airway Management

In collaboration with



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KJ-1425

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The American Heart Association does not endorse or recommend any specific manufacturer or product.

To show skills clearly, the healthcare providers shown do not always use recommended personal protective equipment (such as gloves, masks, face shields).

Objectives

- ! To review criteria of when to intubate
- ! To review an inventory of items needed to successfully perform an intubation of those with or suspected of having COVID-19
- ! To discuss risk mitigation techniques specific to COVID-19 used to protect healthcare providers
- ! To review manual ventilation devices and filter placement

Escalation to invasive ventilation

- There are several reasons to consider intubation in COVID-19 patients
- If using HFNC of 40 or greater, use the ROX Index to determine when to intubate
 - ROX Index = $(\text{SpO}_2/\text{FIO}_2) / \text{respiratory rate}$
- If using NIV and an $\text{FIO}_2 > 0.6$ cannot maintain a $\text{SpO}_2 > 90\%$
- General on any noninvasive modality
 - Septic shock
 - Worsening oxygenation $\text{PaO}_2/\text{FIO}_2$ or $\text{SpO}_2/\text{FiO}_2 < 150$
 - Hypercapnia/acidosis with a $\text{pH} < 7.3$
 - High work of breathing
 - Altered mental status attributed to respiratory failure

Sample supply list

*These supplies should be taken in **addition to, not instead of**, the arrest bag to all intubations/arrests of patients under investigation (PUI)/confirmed COVID-19 cases*

- High-efficiency particulate air (HEPA) filter
- N95 masks ! 4 (2 small, 2 regular)
- Full face shield (welder mask) ! 2 preferred (surgical face shields ! 2 if no welder mask available)
- McGrath, 3 blade ! 2, 4 blade ! 2 (if not in the standard arrest bag)
- Isolation gown ! 2 (yellow, not waterproof)
- Waterproof (blue) gown ! 2
- Sterile gown ! 1 if available
- Bouffant hat ! 2
- Long "beard" hat ! 1

Note:

- Sterile gloves: 6.0, 6.5, 7.0, 7.5
- Bag for McGrath Handle/battery post-intubation





