Indiana State Department of Health
Epidemiology Resource Center

Emergency Department Airway Management Guidelines

WHAT IS COVID-19?

Coronavirus disease 2019 (COVID-19) is a respiratory illness that can spread from person to person. Patients with COVID-19 have experienced mild to severe respiratory illness, including fever, cough and shortness of breath. The virus that causes COVID-19 is a novel (new) coronavirus. It is not the same as other types of coronaviruses that commonly circulate among people and cause mild illness, like the common cold.

HOW DOES COVID-19 SPREAD?

The virus that causes COVID-19 is thought to spread mainly from person-to-person, between people who are in close contact with one another (within about 6 feet) through respiratory droplets when an infected person coughs or sneezes. It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.

AIRWAY MANAGEMENT IN PATIENTS KNOWN OR SUSPECTED TO HAVE COVID-19

Patients known or suspected to have the novel COVID-19 virus present a unique challenge to emergency physicians, especially with regard to airway management. The public health response to this pandemic has made it imperative that healthcare workers practice with the utmost caution to minimize the spread of this disease. As airway management will be necessary in many of these patients, and intubation presents a significant risk to transmission, these are our guidelines for airway management of emergency department patients known or suspected to have COVID-19:

1. The most experienced operator available should be the primary intubator in all cases of suspected or known COVID-19 patients requiring airway management. EM faculty are free to contact other staff on shift or consult anesthesia to assist. *Avoid trainee intubations for these patients*.*
2. Have a low threshold to intubate these patients early using your clinical gestalt of expected clinical course, worsening exam and increasing supplemental oxygen requirement. These patients:
    a. Can develop “silent” atelectasis and hypoxemia with little signs of respiratory distress, causing an abrupt decline
    b. Require unique preoxygenation and extended preparation (see below)
3. Place or keep the patient in an appropriately isolated room. DO NOT move these patients to the trauma bay to reduce potential exposures.
4. Preoxygenation should be done with nasal cannula or simple face mask (with an overlying surgical mask). High flow nasal cannula (with as low of a flow rate as tolerated, e.g. 15-30 L/min) can be used but should be avoided if possible. Avoid nebulized medications, noninvasive positive pressure ventilation (CPAP and BiPAP) and bag valve mask oxygenation to reduce dissemination of secretions. If further preoxygenation is necessary, an LMA with tape over the gastric port is preferred to BVM
5. Personal protective equipment in line with droplet precautions, including two sets of gloves, blue surgical gowns, N95 mask, face shield and eye protection must be worn by all providers performing intubations.
6. If time and patient safety permits, a detailed pre-intubation exam, including verbalization of difficult airway characteristics, should be performed. Primary and secondary airway plans, including medications used and adjunctive airway devices, should also be verbalized to staff prior to induction.

7. Rapid sequence intubation medications, including a sedative and paralytic, should be used in all patients possible to reduce the risk of coughing and emesis and should be prepared outside the room.
8. Seal all airway equipment in disposable biohazard bags immediately after intubation.

*By having the most experienced operator perform the procedure, this will limit the number of intubation attempts and providers potentially exposed to these patients.

Zucco, L. et al. "Perioperative Considerations for the 2019 Novel Coronavirus (COVID-19)," *Anesthesia Patient Safety Foundation*. Feb, 2020.

Zuo, MZ. et al. "Expert Recommendations for Tracheal Intubation in Critically ill Patients with Noval Coronavirus Disease 2019," *Chinese Medical Science Journal*. 2020

Farkas, J. "COVID-19 Algorithms and Checklists," The Internet Book of Critical Care, EM-Crit.org

ADDITIONAL INFORMATION

Additional information and resources for COVID-19 are available at the links below.

- CDC COVID-19 webpage: https://www.cdc.gov/
- ISDH COVID-19 webpage: https://coronavirus.in.gov