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Penn Medicine

Intubation guidelines for patients on Airborne and Droplet precautions

1. Intubation is considered a procedure with high risk of secretion aerosolization and should be performed in an airborne infection isolation room (AIIR) whenever possible.

2. Ensure bacterial/viral high efficiency hydrophobic filter interposed between facemask and breathing circuit or between facemask and resuscitation bag at all times.
3. Please review the material and use appropriate isolation precautions. Plan ahead as it takes time to apply all the barrier precautions. Prior to intubation, review and practice donning and doffing the appropriate respiratory protection, gloves, face shield, and clothing. Pay close attention to avoid self-contamination.
4. Practice appropriate hand hygiene before and after all procedures
5. Wear a fit-tested N95 respirator or PAPR, and face protector such as a shield, gown and gloves.
6. Limit the number of healthcare providers in the room where the patient is to be intubated.
7. Standard monitoring, i.v. access, instruments, drugs, ventilator and suction checked.
8. Avoid awake fiberoptic intubation unless specifically indicated. Atomized local anesthetic might aerosolize the virus. Consider using a video laryngoscope
9. Plan for rapid sequence induction (RSI). RSI may need to be modified, if patient has very high alveolar-arterial gradient and is unable to tolerate 30 seconds of apnea, or has a contraindication to succinylcholine. If manual ventilation is anticipated two-handed mask ventilation (with a viral filter in place) should be used to optimize seal.
10. Five minutes of preoxygenation with oxygen 100% and RSI in order to avoid manual ventilation of patient's lungs and potential aerosolization of virus from airways. If already initiated high-flow nasal cannula (HFNC) with oxygen increased to 100% may be continued under the patient mask until the time of airway management at the discretion of the care team.
11. Intubate, immediately inflate cuff, attach viral filter to the endotracheal tube and confirm correct position of tracheal tube using $ETCO_2$ (colorimetric disposable detector if possible).
12. Minimize circuit disconnects. When disconnects are necessary disconnect proximal to the filter whenever possible.
13. Institute mechanical ventilation using lung protective ventilation and stabilize patient.
14. All airway equipment must be decontaminated and disinfected according to appropriate hospital policies.
15. After removing protective equipment, avoid touching hair or face before washing hands.
16. Practice hand hygiene before and after all procedures
17. Complete the high-risk extubation screen. If airway edema is noted on intubation or other high-risk extubation criteria are met the patient should be labelled as a high-risk extubation.

Penn Medicine
Critical Care Committee
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Intubation Guidelines for Patients with known or suspected COVID-19 disease

Please review the material and use appropriate isolation precautions. Plan ahead as it takes time to apply all the barrier precautions.

BEFORE

1. **Prior to intubation:** **Review and practice donning and doffing the appropriate respiratory protection, gloves, face shield, and clothing.** Pay close attention to avoid self-contamination.
2. **Before and after all procedures:** Practice appropriate hand hygiene.

DURING

3. **Clothing:** Wear gown, gloves, and a PAPR or fit-tested N95 respirator + face protector such as a shield.
(PAPR: powered air-purifying respirator)
4. **Staffing:** Limit the number of healthcare providers in the room where the patient is to be intubated.
5. **Monitoring:** Check standards, i.v. access, instruments, drugs, ventilator and suction

6. **Considerations:** **Avoid awake fiberoptic intubation** unless specifically indicated. Atomized local anesthetic might aerosolize the virus. Consider using a video laryngoscope.
7. **Plan for rapid sequence induction (RSI):** RSI may need to be modified, if patient has very high alveolar-arterial gradient and is unable to tolerate 30 s of apnea, or has a contraindication to succinylcholine. If manual ventilation is anticipated, small tidal volumes should be applied.

8. **Oxygenation:** 5 minutes of preoxygenation with oxygen 100% and RSI to avoid manual ventilation of patient's lungs and potential aerosolization of virus from airways.
9. **Check filter:** Ensure bacterial/viral high efficiency hydrophobic filter placed between facemask and breathing circuit or between facemask and resuscitation bag.

10. **Intubate:** Intubate and confirm correct position of tracheal tube.
11. **Ventilate:** Institute mechanical ventilation and stabilize patient.

AFTER

12. **Clean equipment:** All airway equipment must be decontaminated and disinfected according to appropriate hospital policies.
13. **Remove protective equipment:** **Avoid touching hair or face before washing hands.**
14. **Before and after all procedures:** Practice appropriate hand hygiene.