

COVID-19 Putting Patients at Increased Risk of Unplanned Extubation (UE) While UE and Reintubation Putting Providers at Increased Risk of Contamination

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- **Healthcare providers have an increased risk of exposure to COVID-19, both during intubation and extubation.**
Caregivers conducting procedures on ventilated patients, including intubation and re-intubation, are at high risk of contamination due to aerosolized virus from COVID-19 patients.
- **Healthcare providers also have an increased risk of exposure to COVID-19 during unplanned or accidental extubation.**
Caregiver exposure is also a mounting concern in cases of UE where agitated or restless patients suddenly and forcibly remove their ETT, aerosolizing viral particles and further exposing providers during the emergency reintubation process. Unplanned extubation occurring while providers are not wearing full personal protective equipment (PPE) further increases exposure.
- **COVID-19 related ARDS patients are at increased risk of UE during "proning".**
Seriously ill COVID-19 patients with ARDS require repetitive cycles of prone ventilation to improve oxygenation. The process of turning a patient between supine and prone positions ("proning") dramatically increases the risk of UE. A recently released DoD COVID-19 Practice Management Guide recognizes proning maneuvers as the leading risk factor for UE.
- **Increased patient surge and inadequate provider to patient ratios increase the risk of UE**
Optimal provider to patient ratios (<1:2 when caring for critically ill mechanically ventilated patients) are not feasible during COVID-19 surge. Adding to the known shortfall in the availability of mechanical ventilators, fewer critical care trained healthcare providers are available to manage the increased numbers of intubated COVID-19 patients, thereby increasing the risk of accidental extubation, provider contamination, and both provider and patient morbidity and mortality.
- **Medical providers responsible for the care of critically ill COVID-19 patients need optimal personal protective equipment (PPE).**
COVID-19 viral particles spread freely during aerosolization from the patient's airway. Any procedure that places the healthcare provider in proximity to the patient places them at increased risk. These providers must wear PAPRS (Powered Air Purifying Respirators) or face shields, N95 face masks, gowns, and gloves for their safety and therefore must be a high priority in the distribution of available personal protective equipment.
- **Healthcare workers providing airway management of COVID-19 patients should use extreme caution to prevent personal exposure from unplanned extubation and subsequent reintubation.**
Unplanned extubation is known to cause aerosolization of viral particles. Forced extubation likely increases the travel distance and spread of these particles. Any healthcare provider responding to a call for emergency resuscitation (i.e., a "Code Blue"), especially one concerning an unplanned extubation, must don full personal protective equipment and should use extreme caution to prevent exposure of themselves and reduce the likelihood of subsequent spread of infection to others. PPE should be donned during all patient care, especially procedures at higher risk of UE, such as placing in the prone position or patient transport.

**Thank you to all healthcare workers for all you are doing
to care for your fellow Americans despite risking your lives**

Patient Safety Movement Foundation Actionable Patient Safety Solutions (APSS) 8B Unplanned Extubation
<https://patientsafetymovement.org/actionable-solutions/challenge-solutions/airway-safety/unplanned-extubation/>



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