

Category : **Respiratory: airway management/CPAP**

**A48 - Airways management in sars-cov2 related respiratory failure: a prospective observational multi-center study**

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### **Introduction:**

Emergency intubation of COVID-19 patients is a high-risk procedure and a challenge to intensivists. The aim was to determine major adverse events related to tracheal intubation in COVID-19 patients: severe hypoxemia, hemodynamic instability and cardiac arrest.

### **Methods:**

This is a prospective, observational, dual-center study of COVID-19 patients undergoing advanced airway management for respiratory failure and admitted in ICU from November 2020 to May 2021. We reported data about demographics, comorbidities and parameters related to the intubation and expertise. Within 30 minutes from the intubation, we recorded the occurrence of severe hypoxia, cardiac arrest, hemodynamic instability. We collected data about difficult airways, the need of front of neck airways position, death within 30 minutes from the intubation, arrhythmia, esophageal intubation, pneumomediastinum and pneumothorax recognized within 6 hours from the intubation.

### **Results:**

Within 142 patients considered for our analysis, 73.94% experienced at least 1 major adverse peri-intubation event. The predominant event was cardiovascular instability in 65.49% of patients, followed by severe hypoxemia (43.54%) and cardiac arrest (2.82%). First-pass success was achieved for 90.84% of patients. The rate of major adverse events was significantly lower with first-pass intubation success than for 2 attempts. No difference was found in ICU LOS between patients with a major adverse periintubation event and patients without events

### **Conclusion:**

In this observational study of intubation practices in critically ill patients with COVID-19, major adverse peri-intubation events were observed frequently.

### **References:**

Yao W, et al Emergency tracheal intubation in 202 patients with COVID-19 in Wuhan, China: lessons learnt and international expert recommendations. *Br J Anaesth.* 2020 Jul;125(1):e28-e37.

Zhang L, et al Summary of 20 tracheal intubation by anesthesiologists for patients with severe COVID-19 pneumonia: retrospective case series. *J Anesth.* 2020;34(4):599-606.