

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

**A45 - McGrath\* video laryngoscope versus macintosh\* for intubation in hypoxemic covid-19 icu patients**

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### **Introduction:**

Airway management and intubation are challenging in the ICU especially for COVID-19 patients with severe hypoxemia. Although recommended for Covid-19 patients, because of their capacity to reduce transmission to healthcare providers, there is no evidence that video laryngoscopes improve airway management and reduce time for intubation. The purpose of this study was to compare the McGrath video laryngoscope and the Direct laryngoscope (DL) in COVID-19 ICU patients with acute respiratory failure.

### **Methods:**

Forty patients meeting tracheal intubation criteria for respiratory failure were enrolled and equally randomized into 2 groups according to the used device: McGrath Group and DL group. All patients had pre oxygenation with noninvasive ventilation with FiO<sub>2</sub>=1, PEP and pressure support levels were set to achieve a tidal volume of 6 ml/kg of ideal body weight. Demographic data, difficult intubation criteria were recorded. Our primary outcome was time to intubation defined as the time from the introduction of the blade in patient's mouth until the first efficient breath delivered. Secondary outcomes were the lowest SpO<sub>2</sub> recorded during the procedure, the drop in SpO<sub>2</sub>, the number of attempts, the use of alternative methods for intubation and the experience of the operators.

### **Results:**

The 2 groups were comparable concerning demographic data, BMI and difficult intubation criteria (p=0.091). Time to intubation was shorter in the McGrath group with no significant difference (p=0.597). The Delta SpO<sub>2</sub> and the lowest SpO<sub>2</sub> were similar (p=0.546 and 0.458 respectively). No difference was noticed concerning the number of attempts (p=0.378), the use of alternative methods (p=0.276) and the operator's skills (p=0.076).

### **Conclusion:**

These results show that the DL is as effective as the recommended McGrath video laryngoscope for intubation in Covid patients with severe hypoxemia.