

Consensus statement: Safe Airway Society principles of airway management and tracheal intubation specific to the COVID-19 adult patient group

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To the Editor: We write in reference to the recommendations published by Brewster et al¹ to report our centre's experience with tracheal intubation in adults in Australia with COVID-19. Intubating patients with COVID-19 requires careful balance between providing adequate pre-oxygenation whilst concurrently maintaining staff safety through minimising aerosolisation. Guidelines from the Safe Airway Society,¹ ANZICS,² and overseas³ emphasised rapid sequence induction techniques with the minimisation of bag-mask ventilation. Our institution developed a specific tracheal intubation protocol for the intubation of suspected or confirmed COVID-19 patients incorporating the recommendations of the Safe Airway Society (SAS).¹

Eight patients with confirmed COVID-19 have been intubated in our intensive care unit. The demographics of these patients are similar to those reported internationally,^{4,5} with a male predominance (7 out of 8) and a mean age of 69 years (range 52 to 77 years). Prior to intubation each patient was on high flow nasal oxygenation with flow rates of 15-50L and FiO₂ 60-100%. All patients were pre-oxygenated via bag-valve-mask with a PEEP valve in the assembly as per the SAS recommended circuit set up.¹ Video laryngoscopy using the indirect view was utilised and a full view of the glottis was established for 6 of the 8 cases, and in the other 2 cases only the epiglottis was seen. All patients were intubated successfully on the first attempt with a bougie. During intubation desaturation to SpO₂ 70% or less occurred in 6 of the 8 patients, although the SpO₂ recovered to >90% within 1 minute of being connected to the ventilator in 5 patients and within several minutes in the remaining patient. No patient received manual ventilation, and none of the patients developed haemodynamic instability during the intubation period.

Our centre's experience, whilst modest in number, highlights the significant risk of desaturation during intubation for those with respiratory failure and COVID-19 using a conservative approach to pre-oxygenation and apnoeic oxygenation that minimises aerosolisation. We note the now updated SAS statement¹ saying that "patients with severe disease are likely to require manual ventilation to prevent profound oxygen desaturation." Whether manual ventilation, alternative pre-oxygenation methods, or other strategies such as potentially tolerating desaturation as transient and expected, is the most suitable method for patients with COVID-19 remains to be determined.

References:

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