One of the most critical issues regarding 2019 nCoV patients is the transitory phase between initial symptoms and potentially severe evolution requiring critical care, while taking into account the comorbidities. The choice of supplementary oxygen delivery interface and the decision to provide invasive ventilatory support is crucial.

These decisions have the potential to impact outcome and may lead to consequences (such as oxygenation of critical care beds). Non-invasive support methods (CPAP, BIPAP, NIV, HFNO) might correct hypoxemia and counterbalance respiratory failure (though univocal data are missing), and may delay the need for surgical intervention or intubation (with potential complications and effects on outcome). Nevertheless, data from the SARS epidemic provide evidence showing that those ventilatory techniques might favor the risk of airborne viral spreading. Given the nature of nCoV in terms of contagiousness, should the patient require, or be expected to necessitate invasive ventilator support, an elective endotracheal intubation should be preferred or even anticipated, rather than waiting for an emergency procedure (in the precipitating patient) as to minimize complications of intubation itself and also to reduce both the risks of procedural errors and the contamination of healthcare providers.

Adoption of early warning scores (EWS), shared and predefined strategies, multidisciplinary team training and simulation of possible scenarios are highly recommended, taking also into account the available levels of care and feasibility of critical care levels of assistance in a non-ICU environment.

The decisional elements for airway management, oxygenation and invasive ventilator support thus include competencies and organization and available human and environmental resources. Vigilance in prevention, strict adhesion of donning/doffing of PPE, preparedness for the care of infected patients remain priority and of utmost importance.

### CLINICAL CHECKLIST (wearing PPE)

- **COMPLETE EVALUATION OF AIRWAYS AND OXYGENATION** (accept difficult airway management risk overestimation)
- **HEMODYNAMIC EVALUATION ➤ PRE-EMPTIVE HEMODYNAMIC OPTIMIZATION**

### AIRWAY INSTRUMENTATION

- **HEPA FILTER ON EVERY OXYGENATION INTERFACE**
- **SUCTION: CLEARED SYSTEM**
- **ANTIFOGGING**
- **MEDICATIONS: PREPARED AND DOUBLE-CHECKED**
- **EMERGENCY CART READY (DISPOSABLE devices preferable)**

### AWARE INTUBATION NOT INDICATED:

- **PREOXYGENATION**
  - 3min’ at TV FIO2=100%
  - 1min’ at FVC B breaths FIO2=100%
  - or CPAP/PSV 10 cmH2O + PEEP 5 cmH2O FIO2=100%

- **RSI in all patients**
  - Limit BMI unless unavoidable and apply Cricoid Pressure only in case of ongoing regurgitation
  - NASAL PRONGS 1-3 (FIO2=100% FOR APNOEIC PHASE (NODESAT))

- **FULL DOSE NEUMUSCULAR BLOCK**
  - RESPECT onset time for laryngoscopy
  - 1° LARYNGOSCOPY ➤ VIDEOLARYNGOSCOPE with separate screen ➤ endotracheal tube pre-loaded on introducer
  - Re-oxygenate with low TV pressure between attempts - Early switch (after failed second attempt) to supraglottic airways (prefer second generation - intubable SADs)
  - INTUBATION THROUGH SUPRAGLOTTIC AIRWAY DEVICES: flexible endoscope with separate screen (prefer DISPOSABLE)
  - EARLY CRICOTHYROTOMY IF CI-CO

### AWARE INTUBATION INDICATED (only if really mandatory):

- **AIRWAY TOPICALIZATION: no aerosol/vaporization**
- **TITRATED SEDATION (INFUSION PUMP) - sedation depth monitoring**
- **FLEXIBLE ENDOSCOPE WITH SEPARATE SCREEN (PREFER DISPOSABLE)**
- **RESCUE: INTUBATION THROUGH SUPRAGLOTTIC AIRWAY DEVICES (see above)**
- **EARLY CRICOTHYROTOMY if CI-CO**

### ENDOTRACHEAL TUBE POSITION CONTROL - PROTECTIVE VENTILATION

- **CAPNOGRAPHIC CURVES** repeated and with standard morphology (if in doubt take it out)
- **AVOID** useless circuit disconnections (if needed: ventilator on stand-by/clip endotracheal tube)
- **CONSIDER** indications for advanced techniques: ECMO - experts advise

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**Reference**


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**PPE DONNING**

- Donning and after PPE donning, hands hygiene mandatory
- Donning/doffing observer externally checking, individual doffing
- Waste disposal