



Quality, innovation and choice

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i-view™ and tracheal intubation for patients with COVID-19

Introduction

During the current pandemic there has been much discussion regarding the best way to manage the airway of patients who are confirmed to have COVID-19 or whose COVID-19 status has not been established and so still represent a potential transmission risk.

Of particular concern for Health Care Workers (HCWs) are those airway management techniques designated as Aerosol Generating Procedures (AGP). Not all AGPs will be of the same risk, but intubation is consistently rated as high risk¹, and therefore the optimal way to conduct the procedure has been subject to particularly close examination.

Guidelines

The World Federation of Societies of Anaesthesiologists (WFSA) were quick to publish guidance from a number of sources for anaesthesia and perioperative care providers dealing with COVID-19. Their recommendations for high-risk procedures included advice to, 'Consider video laryngoscopy to minimize close exposure between anaesthesiologist and patient respiratory aerosols.'²

As the pandemic has progressed, further guidance has been provided by a number of professional organisations. In the UK, the Difficult Airway Society (DAS), Association of Anaesthetists (AoA), Intensive Care Society (ICS), the Faculty of Intensive Care Medicine (FICM) and the Royal College of Anaesthetists (RCOA) recently published 'Consensus Guidelines for managing the airway in patients with COVID-19'. These guidelines include the recommendation to use techniques that are known to work reliably across a range of patients, including when difficulty is encountered. Whilst practices may differ according to product availability and training, use of videolaryngoscopy for tracheal intubation is highlighted and recommended. Point 8 of the section on, 'Fundamentals of airway management for a patient with suspected or confirmed COVID-19', confirms that the airway manager, should, 'Use techniques that are known to work reliably and across a range of patients, including when difficulty is encountered.' Point b is, 'Videolaryngoscopy for tracheal intubation.'¹

Why video-laryngoscopy?

For the patient who needs to be intubated, use of a direct laryngoscope brings the clinician very close to the patient's head, increasing their risk of exposure to patient respiratory aerosols. A video laryngoscope allows the clinician to view the anatomical structures on an LCD screen, positioning them further away from the face of the patient, thereby potentially reducing this risk.

For emergency tracheal intubation, it is also recommended that laryngoscopy should be conducted with the device that has the best chance of providing first pass success. For most fully trained airway managers, 'this is most likely to be a video-laryngoscope.'¹

What benefits are provided by a single use video-laryngoscope?

When selecting which video laryngoscope to use during the current pandemic, it seems clear that a video laryngoscope that is single use and fully disposable would be ideal, as it eliminates the need for any decontamination and reprocessing procedures and the potential risk this may introduce if these procedures are not carried out correctly, or the appropriate facilities are not immediately available on-site.

Further support regarding the potential benefit of a single use disposable video laryngoscope in high risk cases comes from the Association of Anaesthetists (AoA) in the form of their guidance document; 'Guidelines - Infection prevention and control 2020', (published before the COVID-19 outbreak) which confirms that, 'Single-use video laryngoscopes minimise any chance of cross contamination and would be ideal, but many single-use video laryngoscopes have reusable components that need to be decontaminated after each use.'³ Presumably they were not aware of i-view when this guidance was published.

Why i-view™?

The Intersurgical i-view is single use, fully disposable, and has no reusable components, therefore no decontamination is required. This makes it ideal for use during the current pandemic, particularly as there is currently no other one adult size, single use video laryngoscope option available. i-view also requires no accessory screens, cables or power source, so it is ready for use seconds after removing from the packaging. The ergonomic design makes it comfortable and instinctive to use and the integral LCD screen provides an optimal view in a variety of light conditions.

What evidence is there to support the use of i-view?

Whilst there are not any robust randomised controlled trials (RCTs) evaluating the performance of different video laryngoscopes during the current pandemic, particularly when wearing Personal Protective Equipment (PPE), a recent RCT published in April assessed visual grading of the glottis and hemodynamic response to laryngoscopy for the i-view compared to another video laryngoscope in patients with a BMI >50kg/m². This concluded that, 'both devices allowed for safe and effective intubation'⁴ The study was conducted by Dr Tomasz Gaszynski, President of the Polish Airway Management Society and published in the Journal of Clinical Monitoring and Computing. This study was completed before the current pandemic and did not include the use of PPE.

What about intubation during cardiac arrest/resuscitation?

The European Resuscitation Council COVID-19 Guidelines for Advanced Life Support in Adults, confirm that, 'Experienced airway staff should insert a supraglottic airway or intubate the trachea early so that the period of bag-mask ventilation is minimised. Consider video-laryngoscopy for tracheal intubation by providers familiar with its use – this will enable the intubator to remain further from the patient's mouth.'⁵

Conclusion

During the current COVID-19 pandemic, ensuring safe and effective airway management is essential for both the patient and the clinician. Whilst no one device can provide an absolute solution to managing the airway in such challenging circumstances, as a single use and fully disposable video laryngoscope, i-view can make an important contribution to reducing the potential risk of transmission during intubation. Whilst a number of hospitals, clinicians and airway managers are already aware of i-view, many more may never have seen the device or be aware of its availability. As a result, it is important we ensure that whilst there is a heightened awareness and concern regarding infection control, i-view is highlighted as a potential option for intubation procedures during the current pandemic with all the benefits described above.

Note: It is important clinicians follow appropriate hospital, local, national or international guidelines related to COVID-19 and Infection Control. Any potential user of i-view needs to be competent with regard to its use, and i-view must always be used in accordance with the Instructions For Use supplied with the device. It remains a clinical decision as to the best device to use in any specific case and patient.

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For further product information please visit
www.intersurgical.com/info/iview

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