Royal College of Anaesthetists

Introduction of a national infection prevention and control (IPC) manual for England: implications for anaesthetists and intensivists

NHSEI has published a national infection prevention and control manual for England. Although there were some conflicts with a simultaneously published update of established IPC guidance, this latter document has been withdrawn such that the IPC Manual remains the definitive, national guidance on IPC.

The manual aims to make it easy for staff to apply effective infection prevention and control (IPC) precautions, reduce variation in IPC practices, help decrease the risk of healthcare associated infections, and allow harmonisation of IPC guidance between different care settings. Its remit is broad and does not relate solely to COVID-19. This is the first such manual for NHS England. It is intended to be an evidence-based resource that will be subject to updates as evidence changes,

The manual contains several important statements that have implications for current care, including evidence-based changes to the list of aerosol-generating procedures (AGPs) that are considered to be a high risk for transmission of airborne pathogens.

Aerosol-generating procedures

The list of AGPs has been revised and contracted. The document provides a *'list of medical procedures that are considered to be aerosol generating and associated with an increased risk of respiratory transmission'*:

- Awake[1] bronchoscopy (including awake tracheal intubation).
- Awake[1] ear, nose and throat (ENT) airway procedures that involve respiratory suctioning.
- Awake[1] upper gastro-intestinal endoscopy.
- Dental procedures (using high speed or high frequency devices, for example ultrasonic scalers/high speed drills).
- Induction of sputum.
- Respiratory tract suctioning[2].
- Surgery or post-mortem procedures (like high-speed cutting/drilling) likely to produce aerosol from the respiratory tract (upper or lower) or sinuses.
- Tracheostomy procedures (insertion or removal).

[1] The term 'awake' includes light sedation but excludes anaesthetised and sedated patients with a tracheal tube in place.

[2] *'The available evidence relating to respiratory tract suctioning is associated with ventilation. In line with a precautionary approach, open suctioning of the respiratory tract regardless of association with ventilation has been incorporated into the current (COVID-19) AGP list. It is the consensus view of the UK IPC cell that only open suctioning beyond the oro-pharynx is currently considered an AGP, that is oral/pharyngeal suctioning is not an AGP'*.

This means the following procedures are **not** now considered to be AGPs:

- Manual facemask ventilation.
- Tracheal intubation and extubation.
- Non-Invasive ventilation – including CPAP and Bilevel (BIPAP).
- High-Flow Nasal Oxygenation.
- Flexible bronchoscopy in an anaesthetised/paralysed patient.
- Supraglottic airway insertion, use and removal[3].

Although not considered in the IPC manual, there is evidence that cough, sneeze and natural exertional respiratory activities, e.g. talking, shouting, deep breathing, exercise and - by implication – dyspnoea, can be associated with significant aerosol generation (see references below). In the context of anaesthesia and critical care involving close or prolonged contact with a patient who may be infected with a disease that is wholly or partly spread by airborne transmission, e.g. SARS-CoV-2, a risk assessment is likely to conclude that personal protective equipment (PPE) that includes respiratory protective equipment (RPE) is required, and particularly if the patient is coughing, sneezing or dyspnoeic.

Personal protective equipment

Regarding **RPE**, the document states that '*a filtering face piece (FFP) must be considered when a patient is admitted with a known/suspected infectious agent/disease spread wholly or partly by the airborne route'*. However, although it subsequently states that the '*RPE for healthcare workers while a patient is considered infectious*' is '*Fluid resistant surgical mask (FRSM) for routine care and FFP3 or Hood for AGPs*' (Appendix 11a: table), we interpret the overall advice as indicating that FFP3 masks are likely to be indicated for anaesthetists and other healthcare workers when delivering care that involves being in close proximity to patients known or suspected to have COVID-19 who may emit aerosols through respiratory activities such as those listed above, and when undertaking the AGPs in the revised list above. The document stresses the importance of decisions about PPE being based on individual patient risk assessments such that, for instance, it might be reasonable for an FRSM to replace an FFP3 when caring for a COVID-19 patient whose trachea is intubated, sealed with an inflatable cuff and attached to a breathing circuit that includes filters.

Regarding **eyewear,** the guidance states that the '*ocular route of transmission for pathogens spread by the droplet/airborne route while plausible lacks scientific evidence. This lack of evidence includes having very little certainty about what the incremental benefit of using eye protection routinely when using a FRSM/FFP3 respirator. Eye protection is considered to be necessary and worn if there is a risk of spraying or splashing of blood/body fluids from patient contact or procedure, and always when used with respirators during the performance of AGPs*'.

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[3] These were not in the original AGP list but are included here for clarity.
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