

Perhaps most importantly the mechanism of disease transmission remains, as judged by expert groups, to be predominantly via contact (fomite) and droplet infection with airborne infection judged only a minor contributor. Of note, UK guidance is not notably different from that of the World Health Organization, but is more location specific.

The debate over more widespread use of masks in the community and more widespread use of filtering face pieces in hospitals will continue. It is notoriously difficult to prove lack of risk, but whether the ‘precautionary principle’ is the right one to follow is not a simple decision. Recent reports suggest that those in high-risk areas are disproportionately under-represented in reports of fatalities from COVID-19 but also that healthcare workers are not overall at disproportionate risk of fatality.

The discussion must not distract from ensuring healthcare workers rigorously practice standard infection control procedures and correct transmission-based precautions to protect against known routes of transmission; droplet and contact. The decision on where best to deploy limited stocks of personal protective equipment (PPE) will remain complicated and it is certainly a valid question as to whether there should be wider use of airborne precautions on the wards and within social care facilities. It is likely that the PPE supply issue will be exacerbated by easing of lockdown and use of PPE in industry and the community, so any decision needs to be

carefully considered and should not be to the detriment of those in demonstrably high-risk areas.

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Eye care in the intensive care unit during the COVID-19 pandemic and beyond

Exposure keratopathy is common in critically ill patients, affecting more than half of mechanically ventilated patients in the UK [1]. It may progress to sight loss from devastating ocular surface scarring and may also lead to microbial keratitis. The Royal College of Ophthalmologists (RCOphth), in collaboration with the Intensive Care Society, has endorsed a guideline to prevent exposure keratopathy in the intensive care unit (ICU), [2]. However, there remains significant variability in practice and limited awareness regarding the existence of the guidelines among ICU staff. An audit performed in adult ICUs at St George’s Hospital, London in November 2018, more than a year since the publication of the RCOphth guidelines, showed documentation of eye care in the last 24 hours in 16 of 20 patients (80%). However key aspects outlined by the guideline, including lid closure, were

recorded in just 2 out of 20 patients (10%) and preventative measures undertaken in 4 out of 20 patients (20%).

Exposure keratopathy typically results from a combination of lagophthalmos and tear film defect. Many factors contribute in the unconscious patient, including: sedation; use of neuromuscular blocking drugs; reduced tear production and blink rate; impaired or absent corneal reflex; eyelid oedema; and conjunctival chemosis. Exposure keratopathy is easily preventable in most patients, but with the life-threatening problems affecting patients currently in the ICU, their eye care can easily be overlooked. There is evidence that raising the profile of the condition among ICU staff and introducing a clear protocol for simple preventative measures can radically reduce the risk of exposure keratopathy to <5% [1].

With the ongoing COVID-19 pandemic, although less than 15% of affected patients will require hospital admission [3], a significant number of these will require ventilatory support. As part of the management of acute respiratory distress syndrome, patients whose lungs are mechanically ventilated receive neuromuscular blocking drugs and the resultant reduction in orbicularis muscle tone, combined with patients being nursed in a prone position, will increase patients' risk of exposure keratopathy.

Training ICU staff in recognising risk factors and applying preventative measures, particularly during these challenging conditions, is paramount in order to reduce the risk of long-term sequelae from exposure keratopathy. We have designed a training tool and a simple protocol (online Appendix S1) for eye care in sedated or mechanically ventilated patients, based on the RCOphth guideline [2]. These are available via the Microguide smartphone application under the Moorfields Eye Hospital, Pandemic Eye Care Guide. In a joint effort between ophthalmologists and intensivists, this protocol is being implemented in a number of London hospitals providing care for patients with COVID-19.

We invite intensive care and ophthalmology trainee networks in the UK to collaborate in implementing the protocol for eye care and reach a national consensus of standard of eye care in the ICU.

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Supporting Information

Additional supporting information may be found online via the journal website.

Appendix S1. Eye care in sedated or mechanically-ventilated patients.

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COVID-19 and access to labour epidural analgesia in UK hospitals

Even before coronavirus disease 2019 (COVID-19) had a significant impact on public health in the UK, there were media reports that access to epidural analgesia for women during labour was being restricted in some National Health Service (NHS) hospitals [1]. To determine whether the crisis management of COVID-19 in NHS hospitals was having an adverse effect on the availability of labour epidural analgesia, the Obstetric Anaesthetists' Association (OAA)

surveyed consultant anaesthetists who are service leads for obstetric anaesthesia in their hospital. The link to an online survey was posted on a WhatsApp group, created for consultant service leads for obstetric anaesthesia to share information about COVID-19 disease, and was also emailed to all 209 consultants who the OAA believed to be service leads. The survey comprised questions about the size and location of the participants' hospitals and details regarding