Use of non-contact tonometry to measure intra-ocular pressure during COVID-19

This guidance has been developed by The Royal College of Ophthalmologists (RCOphth) and The College of Optometrists (CoO) in response to the pandemic and may be subject to change.

At the beginning of the current COVID-19 crisis, there was significant uncertainty about what ophthalmic procedures would fulfil the Public Health England (PHE) criteria for an aerosol generating procedure (AGP) as the guidance from PHE did not address every specialty in detail. Phacoemulsification surgery and air puff tonometry were thought to pose a potential risk through generating some degree of small droplet spray or aerosol. Advice was given by both The College of Optometrists and The Royal College of Ophthalmologists to avoid the use of air puff tonometry in all clinical settings.

Expert consensus, based on more recent evidence, is that there is a low likelihood of viral particles in the tears and conjunctiva, even in those with active COVID-19 infection or conjunctivitis. Due to this, RCOphth guidance on infection control for phacoemulsification has now been reissued, with advice that it does not pose a significant risk and standard infection control precautions apply. For the same reasons, the measurement of IOP by air puff tonometry is unlikely to pose a significant risk to staff or other patients when undertaken in patients without active COVID-related conjunctivitis. We advise that, for both primary and secondary care settings, it is acceptable to restart the use of air puff tonometry, after undertaking a local risk assessment and whilst continuing to follow infection control and other guidance related to COVID-19 in optometric and ophthalmic settings.

Recommendations

To ensure the theoretical risk of transmission is minimised, we recommend that after each use:

- The instrument head is wiped with an appropriate disinfectant wipe
- Perform three puffs between each patient to clear the tip

All COVID-19 guidance is subject to change. Please visit the RCOphth COVID-19 web page for regular updates.

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