

Use of bowl perimeters for testing visual field during COVID-19

This guidance has been developed by The Royal College of Ophthalmologists and The College of Optometrists 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 the risk for COVID-19 transmission between patients when undertaking a visual field assessment at a bowl perimeter. Consequently, this investigation was rarely undertaken in many settings. The College of Optometrists' initial advice stated:

“If you need to conduct a visual field test, consider using an enclosed visual field screener rather than a bowl type, because an enclosed visual field screener is easier to disinfect. Only use a bowl type perimeter where absolutely necessary and consider what added value using that equipment will have for that particular patient. Follow the manufacturer's instructions* for disinfecting the equipment. If you need to use a bowl perimeter, to reduce the risk of patients breathing contaminated air into the bowl, ask patients to wear a face covering when using it. Ensure that the face covering does not interfere with the results, for example by altering how the patient's spectacles fit on their face.”

The outside of the perimeter machine and the areas touched by the patient such as chin rest should be disinfected between every patient using disinfectant wipes as used for slit lamp decontamination. Due to its delicate nature, the interior of the bowl may be damaged by commercially available disinfectant wipes, so you must check the manufacturer's instructions on how this may be disinfected. The manufacturer's instructions may suggest that the bowl is sprayed with a solution of denatured 70% isopropyl alcohol to enable a light covering to evaporate from the surface. However this alcohol spray product is proving difficult to source.

The current NHS infection prevention and control (IPC) guidelines for COVID-19 ask clinicians to clean most items between patients. It specifies that electronic equipment, such as mobile phones, desk phones and other communication devices, tablets, desktops and keyboards (particularly where these are used by many people) be decontaminated at least twice daily with 70% ethyl alcohol or products as specified by the manufacturer (<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/reducing-the-risk-of-transmission-of-covid-19-in-the-hospital-setting>).

Advice has been sought from Public Health England (PHE) on disinfection of perimeters and whether an additional time between patients is required to reduce the risk of transmission of the virus by asymptomatic patients. PHE advise that, if it can be sourced, the product advised by the manufacturer would be in line with their advice for decontamination. They recommend a local risk assessment with the local IPC team, particularly where the recommended product is not available.

The external surfaces that are touched by the patient should be disinfected with appropriate wipes.

PHE do not recommend a need for a specific time between patients as perimetry is not an aerosol generating procedure.

We advise that, for both primary and secondary care settings, the routine use of perimetry should be restarted, taking the measures recommended below and undertaking a risk assessment for the local environment and population.

Recommendations

To ensure the theoretical risk of transmission is minimised, we recommend:

- The patient wears a mask or face covering, secured to minimise breath entering the bowl and reduce the risk of respiratory droplets contaminating the inside of the bowl. Spectacles should be worn if required.
- Consider using a transparent screen between the patient and the bowl to reduce the risk of respiratory droplets contaminating the inside of the bowl
- Where a mask or face covering cannot be worn, due to a medical reason, the clinician should assess whether the perimetry can be safely postponed or an alternative method utilised.

After each use:

- Areas of the instrument where patients may touch, particularly the chin and forehead rests and the clicker, are wiped with an appropriate disinfectant wipe between each patient.
- If denatured 70% isopropyl alcohol spray is recommended by the manufacturer, source the recommended product if possible and use twice daily. Use a fine spray onto the internal bowl surface whilst the perimeter lights are on and allow to evaporate. Do not rub or wipe the whole internal bowl surface. Do not allow to drip, as this may damage the equipment.
- If it is not possible to source the recommended product, consider wiping visible dust gently from inside the bowl as required with a clean lens cloth; and cleaning visible droplets gently with a soft tissue with some alcohol on it. You should check with the instrument manufacturer that this is suitable for your instrument type.¹

A local risk assessment by the IPC team should take place that includes clear documentation of the patient wearing face masks or coverings as well as the patient not touching the bowl.

¹ Zeiss do not recommend any cleaning/rubbing of the bowl using a soft tissue with alcohol on it, as this could cause damage to the bowl

All COVID-19 guidance is subject to change. Please visit the [RCOphth COVID-19 web page](#) or the [College of Optometrists COVID-19 web page](#) for regular updates.

***Manufacturers instructions for disinfection as at 30th July 2020:**

Humphrey perimeters <https://www.zeiss.com/meditec/int/med-support-now/disinfecting-ophthalmic-devices.html>

Henson perimeters <https://www.elektron-eye-technology.com/support/>

Octopus perimeters https://www.haag-streit.com/fileadmin/Haag-Streit_Diagnostics/_ALLGEMEINE_BILDER_UND_ICONS/Corona/PDFs/Cleaning_and_Disinfection_of_OCTOPUS_Perimeters_updated.pdf

Medmont perimeters https://www.medmont.com.au/media/52659/medmont-device-technical-bulletin_disinfecting-may-2020.pdf

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