



# RCPATH advice on the use of double-headed or multi-headed microscopes during infectious disease outbreaks

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Use of microscopy is a vital part of teaching and training in many pathology specialties. The traditional use of double-headed or multi-headed microscopes poses increased risk of infection during infectious disease outbreaks, such as SARS-CoV-2. However, it is important that arrangements can be made to facilitate ongoing learning via shared microscopy sessions with a trainer.

The approach to this includes the requirement to follow guidance which may be issued by UK<sup>1</sup> or devolved nations<sup>2</sup> governments, local employing body or local training body.

Employers have a duty to reduce workplace risk to the lowest reasonably practical level by taking preventative measures.<sup>1</sup>

In this context, there is risk of infection from contact with droplets and production of aerosols.

## RCPATH advice

The basics of hand washing and surface cleaning should be increased.

Adhere to social distancing requirements (currently two-metre distancing).

Adhere to relevant guidance on the wearing of a face mask.

Working from home does not preclude teaching microscopy – it can be facilitated by digital pathology and the use of video conferencing technology.

Use of technology is the best way to reduce close contact and reduce the risk of infection. Digital pathology is ideal, where available, as two or more people can be looking at the same image while not in the same room.

Use of a microscope camera can be coupled with either viewing on a screen set at a two-metre distance, or use of screen sharing via MS Teams/Skype/Zoom or other video conferencing software (thus allowing two people to interact while not in the same room).

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Where social distancing guidelines cannot be followed in full, mitigating actions can be taken, including:<sup>1</sup>

- increasing the frequency of hand washing and surface cleaning
- keeping the time involved as short as possible
- using screens or barriers to separate people from each other
- not working face to face
- reducing the number of people each person has contact with.

A physical screen can be employed across a microscope.

Double-headed microscopes which place the teacher and learner face to face should be avoided.

Large multi-headed microscopes may allow for achievement of 2-metre distancing.

Wearing a face mask as the sole mitigation while working at a double-headed microscope should be the last resort if none of the above measures are available. Microscopy teaching tends to involve prolonged time at a microscope and therefore more protective measures should be employed.

Microscopes, including eye pieces and surrounding equipment, desks and frequently touched points, should be cleaned after use with a detergent-based clinical wipe.

## References

1. HM Government. *Working safely during COVID-19 in labs and research facilities*. May 2020. Available at: [www.gov.uk/guidance/working-safely-during-coronavirus-covid-19](https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19)
2. Welsh Government and Shared Services Partnership. *Operational guide for the safe return of healthcare environments to routine arrangements following the initial COVID-19 response*.