

Interim guidance to enable remote reporting during the COVID19 pandemic

This guidance is intended to support radiologists and services to quickly set up hardware and software to enable remote working for radiologists who are fit for work. This guidance covers both reporting and attendance at multi-disciplinary team meetings.

Process: To set up a home reporting workstation, in the first instance, you must approach your Network/IT staff and your RIS/PACS suppliers. They will need to work together to provide a solution. The system needed for remote working comprises three core elements:

1. The monitor

- a) Ideally this will meet RCR standards set out in [Picture archiving and communication systems \(PACS\) and guidelines on diagnostic display devices, third edition](#)
- b) During the COVID-19 pandemic interim relaxation of display standards as set out in [Remote working for radiologists during the coronavirus \(COVID-19\) pandemic](#) is permissible. Radiologists are recommended to ensure that the system in use passes the calibration tests as set out in [Using a Virtual Desktop Connection for home reporting during COVID-19](#) (PDF). Users must be mindful of the risk of pixel drop out, and pan images to ensure that artifacts seen are not attributable to issues with the monitor.

2. The computer

- a) There are no specific hardware requirements, but it would be prudent to check with your RIS/PACS manufacturer to ensure compatibility. Off the shelf laptop keyboard mouse and monitor or desktop systems can be used for remote reporting, and radiologists can use their own computer hardware if available.
- b) Access to a microphone and voice recognition tools is mandatory, for MDTs a webcam and headphones or speakers will be needed.
- c) For a VPN connection to be possible (see 3) the local Trust IT department will need to configure and encrypt the computer before installing a VPN client and the software usual on an on-site workstation: RIS, PACS, VR, EPR etc

3. Secure Network Connection from home to your hospital RIS/PACS

A secure network connection designed to take your hospital RIS/PACS working environment and bring it to your home will be provided by your NHS Trust. These balance the speed of transmission against image degradation. The commonly used systems are:

- a) A Virtual Private Network (VPN) makes your computer at home part of the hospital network. This requires a good bandwidth and must run on a computer with software installed by the trust.
- b) Virtual desktop connection: brings your hospital applications or desktop onto an application on your computer at home. This uses data compression which degrades

image quality. Your hospital may already have this in place but it is not recommended for reporting in normal circumstances. Settings should be optimised for maximal achievable image quality by reducing compression levels and using the highest number of colours supported.

- c) Other new options such as HTTPS tunneling a cloud based RIS/PACS or web based PACS could be explored with your IT department PACS and RIS vendors.

It is important to recognise that an excellent monitor cannot make up for incomplete transfer of the DICOM images. During the exceptional circumstances of the COVID19 pandemic this rule of not reporting images which have been degraded by compression is being relaxed, but a disclaimer should be included at the end of the report. Suggested wording:

“This provisional report at a time of staffing difficulty has been based on remote review of partial images, subtle but important findings may be missed. If imaging findings are not consistent with the clinical picture please arrange an on-site re-review as soon as feasible, a formal report will be issued when staffing permits.”

MDTM participation from home

Remote attendance at Multi Disciplinary Team Meetings is encouraged to facilitate social distancing. To run an MDT from home the radiologist would need to host using videoconferencing software (MS Teams, Starleaf, Zoom etc), sending an invite to a user in the MDT room and all other participants. Some systems allow a second connection on a smartphone to be used in place of a webcam / microphone. Usually only one screen can be shared.

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