



Royal College  
of Surgeons

FACULTY OF DENTAL SURGERY

# Recommendations for Dental Diagnostic Imaging during the recovery phase of the COVID-19 pandemic

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[www.rcseng.ac.uk/dental-faculties/fds/coronavirus/](http://www.rcseng.ac.uk/dental-faculties/fds/coronavirus/)

## 1. Scope of document

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This document provides advice and guidance for the provision of dental diagnostic imaging during the recovery phase of the COVID-19 pandemic and is intended for use by oral healthcare professionals working in England.

## 2. General Principles

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For the purpose of this guidance the patient population is divided into two groups:

1. Known COVID patients
2. Unknown/asymptomatic COVID patients and healthy patients

The means of managing dental radiography for patients may vary between primary care and secondary care settings and will be dependent on the radiography equipment available in any given healthcare facility. The advice below must therefore be considered for each specific centre and may need to be adapted accordingly.

The PPE for dental radiography is the same as that needed for an intraoral examination in each of these groups.

### Group 1

For known COVID patients requiring urgent dental treatment radiography should be kept as simple as possible to minimise staff-to-patient contact, while providing diagnostic quality radiographs.

Sectional or full width dental panoramic (DPT/OPG) radiography should be considered as the first line of imaging, and adequate for managing patients in these acute settings, where only emergency treatment is being provided. Sectional panoramic imaging is appropriate for localised dental pain and/or swelling around one – two teeth or in a single sextant, and full field dental panoramic imaging is indicated for multiple dental problems.

Oblique lateral (extraoral) radiographs may be employed where this facility is available.

Small volume Cone Beam CT (CBCT) may subsequently be considered for complex cases, where available, if panoramic radiography has failed to provide the diagnostic information required. This would be more likely to be the case in the tertiary urgent care setting.

Where extraoral radiographs are not available careful consideration should be given to the use of intraoral radiographs following an appropriate risk assessment. Particular emphasis should be placed on whether a patient reports a strong gag-reflex or has previously struggled with intraoral radiographs. To avoid irritating the airway and inducing coughing or retching, use of periapical radiographs should be limited, and only where patient's co-operation and ability to breathe through their nose is good. Occlusal radiographs may be considered as an alternative to periapical radiographs.

It is advisable to work as a pair, with one operator responsible for positioning of the patient and equipment, while the other operator takes responsibility for pressing the exposure button, and processing the image receptor.

Disinfect surfaces following completion of imaging, in keeping with local infection prevention and control protocols.

## Group 2

The treatment offered to patients in this group is expected to return to the level of care provided prior to the pandemic within the limits set to control further spread of the disease.

Routine intraoral and extraoral radiography can be provided for the majority of patients, but where they have a strong gag-reflex or have previously struggled with intraoral radiographs due patient factors such as respiratory disease the use of intraoral radiography should be limited and the imaging suggested for patients in Group 1 should be considered instead. This may also be more appropriate when treating young children due to the difficulties often experienced in trying to perform intraoral radiographs.

Disinfect surfaces following completion of imaging, in keeping with local infection control protocol.

## 3. Infection prevention and control related to radiographic equipment

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The infection prevention and control protocols should be reviewed in line with local recommendations and should also reflect the manufacturers' recommendations for the equipment being used.

### a. Panoramic and CBCT imaging

It is recommended that all panoramic and CBCT units are barrier wrapped in the regions contacting the patient, and also the control panel.

If the equipment does not use bite pegs that can be autoclaved then barrier wrapping is required.

Where local measures involve a COVID positive patient wearing a face mask a panoramic can be taken with the face mask on, using a chin rest instead of a bite peg, and aligning to the canine prominence or alar line, which can be palpated through the mask and marked on the mask with pen.

Following the examination, the barrier wrapping should be removed, and the areas wiped down with disinfectant according to local infection control protocols.

### b. Intraoral imaging

Use dirty and clean zoning for films/sensors and film holders.

Barrier envelopes around digital sensors/phosphor plates should be used according to the manufacturers' recommendations and local policy. Double wrapping of the sensors and plates may be considered to minimise salivary contamination.

It is important to ensure that infection control is not breached as saliva sometimes passes inside a poorly sealed barrier envelope. Adequate cleaning of the barrier envelope is therefore required using disinfectant, following the recommendations of the manufacturers of both the sensor and the disinfectant. The processing of phosphor plates should be performed either with a no touch technique, or by a second operator who will handle a surface of the plate that has been adequately disinfected.

The critical issue is to ensure that the process of wrapping, cleaning, unwrapping and processing of the sensors or plates ensures infection control is not breached and that the operator, processor, and PC are not contaminated by saliva.

This guidance may be subject to change in light of the changing national guidance.

## Acknowledgements

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