Section 9 Radiology Hygiene

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Radiology Procedures

Taking Radiographs

Personal protective equipment including gloves, gown, and safety glasses must be worn when taking intra-oral radiographs.

Use protective coverings to prevent contamination of X-ray equipment. Fresh coverings are to be used for each patient.

- Cover the X-ray tube head, arm, and cone with one plastic bag.
- Cover the control knob and button with plastic wrap.
- Cover the chair in the usual manner.

Film packets that have been placed in the mouth must be handled in a manner to prevent transmission of infection.

If only 1 or 2 films are to be taken, each film is placed into the film holder and the combination is wrapped in plastic wrap. The result, when the film is aseptically removed from the holder, is an uncontaminated film.

If many films are taken, they may be loaded into the film holder without additional wrapping and, after exposure, placed into a plastic water cup. Avoid touching the outside of the cup with contaminated hands. This procedure will result in contaminated films in a cup that is uncontaminated on the outside.

Remove gloves and discard in regular trash.

Using one of the methods described above, expose films in the proper manner and process as described below.

All film holders and devices used in the mouth (i.e. XCP equipment) must be heat sterilized.

Film Processing

All film processing is performed in such a way as to not contaminate the processor.

Processing Radiographs in a Daylight Loader

- Place a piece of plastic wrap on the bottom of the bin.
- Place the cup with contaminated films on one end, an empty cup in the center, and another empty cup at the other end.
• Put on gloves.
• Put your hands through the armholes.
• Aseptically open the packets, drop the exposed films into the cup in the center, and place the debris in the third cup.
• When all films are in the center cup, pick up the original cup and push it into the third cup, thus compacting the debris.
• Grasp these two cups with one gloved hand and close your fingers around the cups, crushing them into the palm of your hand.
• Using the second hand, aseptically remove the glove from the first hand, pulling it over the cup and debris.
• Hold this packet in the palm of your second hand and aseptically remove the second glove, again pulling it over the first glove and debris. The outside of this glove-waste packet is now uncontaminated with patient material, since the contaminated side is on the inside.
• Place the uncontaminated films into the developing slots.
• Pull your ungloved hands out of the loader.
• Open the top of the loader, wrap all trash in the plastic wrap, and discard in a regular trash receptacle.
• Wash your hands.

**Processing Radiographs in a Darkroom**

• Turn on safelight and turn off other lights.
• Place a plastic-backed napkin and a paper towel on the bench.
• Put on gloves.
• Aseptically open the packets, drop the films on the paper towel, and place the debris on the napkin.
• Discard all debris in a regular waste receptacle.
• Remove and discard gloves in a regular waste receptacle.
• Process films.
• Wash hands.
Panoramic Radiography

The bite guide must either be covered with a disposable cover or sterilized following patient use or disposed of in a proper trash receptacle in the case of single use disposable bite guides.

Digital Radiography

With digital radiography heat sterilize components that are heat resistant and use barriers and disinfect the semi-critical components that are not heat sterilizable. In this instance both barriers and disinfecting are required. A barrier does not replace disinfection in this instance due to the high rate of failure with the barriers in association with the digital sensors.