G40 Use of the Radiographic Positioning Device Holder in the Postmortem Dental Examination

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After attending this presentation, attendees will better understand why it is practical and desirable to implement the use of the radiographic positioning device holder in the postmortem forensic dental examination.

This presentation will impact the forensic science community by introducing the radiographic positioning device holder and demonstrating the advantages of using the holder during the postmortem dental examination.

In the past, traditional dental intraoral radiographic positioning devices have not routinely been used in the postmortem dental examination. Typical postmortem dental X-ray positioning devices have included items such as gauze, wet paper towels, putty, wax, surgical towels, and hemostats. Radiographic positioning devices that are currently manufactured for antemortem dental radiography have not transitioned into widespread use in the postmortem dental setting because these devices are designed to be held in place by the patient, who either bites on the device or holds the device by hand.

With the development of the radiographic positioning device holder, X-ray positioning devices that are currently manufactured for antemortem bite-wing and periapical dental radiography can easily be utilized during postmortem dental radiography. The holder is practical because it accommodates both traditional film and digital sensor positioning devices. The holder can also accommodate radiographic positioning devices that are designed for use with the paralleling technique or the bisecting angle technique.

When antemortem radiographs are available during the postmortem dental radiographic examination, it is desirable to take the postmortem radiographs from an angle that most closely replicates the antemortem radiograph. When utilizing the holder during digital radiography, the holder retains the position of the sensor while the image is viewed. From this fixed point of reference, any necessary angular adjustments can be made so the postmortem radiograph most accurately replicates the antemortem radiograph.

Use of the radiographic positioning device is desirable because it potentiates adherence to the As Low As Reasonably Achievable (ALARA) radiation safety principle. While the ALARA principle ceases to be relevant to the decedent, it remains a radiation safety principle that is applicable to dental radiographers in the postmortem setting.

The radiographic positioning device holder can be useful during the postmortem dental examination for purposes other than radiography. The holder can accommodate a scale or an identification label during postmortem photography. The holder can also function as a backdrop stand.

In conclusion, this presentation demonstrates that use of the radiographic positioning device holder is practical and desirable in the postmortem dental examination. The holder facilitates the adaptation of traditional dental positioning devices for use during postmortem dental radiography while facilitating adherence to the ALARA principle. The holder is also useful during postmortem photography.

Postmortem, Dental, Holder

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