



E99 Taking the Bite Out of Requesting Antemortem Dental Records

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After attending this presentation, attendees will be able to implement methods of requesting antemortem dental records from a variety of sources and conduct family interviews to assist in the acquisition of antemortem dental information.

This presentation will impact the forensic science community by providing techniques to improve communication between medicolegal death investigators and dental offices for the purpose of requesting comprehensive antemortem dental records in forensic identification, along with methods to assist in family interviews to yield complete antemortem identification information.

Correct identification is one of the primary responsibilities of the coroner or medical examiner. Forensic dental identification is just one of the many tools in that process. Medicolegal death investigators' abilities to quickly and accurately obtain antemortem dental records can expedite this process. Without accurate antemortem dental records, a forensic dental identification is not possible. The first step in acquiring antemortem dental records is conducting a comprehensive family interview. Requesting not only the most recent family dentist contact information, but any additional previous dentists and dental specialists, whether the decedent had military service or had been incarcerated in the department of corrections, in addition to previous employers is also pertinent and can increase the probability of acquiring a multitude of quality dental records.

Basic dental terminology can assist medicolegal death investigators in requesting antemortem dental records. The decedent's previous dentist may only provide a limited amount of previous records unless otherwise specified. When requesting dental records, the most recognized request is for radiographs. Medicolegal death investigators' knowledge of dental radiographs can be very helpful, both to the decedent's previous dentist and to the forensic odontologist. The most widely used types of dental radiographs are panorex, bitewings, and periapical radiographs. A panorex is a radiograph of the entire jaw that extends upward to include the maxillary sinuses and orbital socket and downward to the mandibular jawline and chin. A bitewing radiograph or, as it is sometimes called in layman's terms, cavity detecting radiograph, includes the coronal surface of both maxillary and mandibular arch. A periapical radiograph includes teeth in their entirety including the coronal surface extending to the tip of the root and supporting structures. Along with requesting dental radiographs, it is also extremely important for the forensic odontologist to have access to the written charting, odontograms (a rudimentary depiction of the teeth), ledger, and the medical history. Radiographs only give a one-dimensional picture; having access to written charting and ledgers allows the forensic odontologist to determine restoration surfaces and materials used. The medical history can also yield pertinent decedent information, such as previous medical therapy, surgeries, and implanted devices. Given the digital and electronic age, retrieval of antemortem dental records has become more easily accessible. Entire dental records can be easily emailed to the investigator or forensic odontologist.

Forensic dental identification can be a very quick, accurate, and relatively inexpensive method of identification for the coroner or medical examiner. The accuracy of the medicolegal death investigator in acquiring quality dental records in a timely manner will only expedite this service. It is vital for the medicolegal death investigator to have training in family interviews for the purpose of gaining antemortem dental information in addition to knowledge of the variety of sources of dental records.

Forensic Odontologist, Antemortem Dental Records, Family Interview