



G21 The Odontologist Relationship With Medicolegal Death Investigators in the Setting of the Medical Examiner's Office and Their Role in Obtaining Antemortem Dental Records for Identification

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Learning Overview: After attending this presentation, attendees will have an understanding of the importance of identification coordination and the process of obtaining antemortem dental records for comparison to postmortem radiographs for scientific identification.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing a comprehensive overview of identification policies and protocols that can be accepted by other medical examiner offices.

The Maricopa County Medical Examiner's Office is located in Phoenix, AZ. The jurisdiction for the medical examiner's office covers more than 9,200 square miles with a population of 4.3 million people. Maricopa County is the fourth-largest and fastest-growing county, in population, in the United States. In 2018, this office received more than 10,000 reported deaths. The high case load is due to extreme heat, vast desert area, being a border state, large transient population, and winter visitors.

With nearly 700 unidentified cases admitted each year, this office implemented a comprehensive identification policy to ensure the validity of the identifications. Due to the large amount of identification cases, this office has an identification team that consists of the Identification Coordinator/Sr. Medicolegal Death Investigator, Investigator Trainer/Sr. Medicolegal Death Investigator, scene/field Medicolegal Death Investigator, odontologist, anthropologist, and advanced fingerprint technicians. The identification policy is three-fold: the decedent is either admitted as identified, as a.k.a. (tentative identification), or unidentified. The Identification Coordinator or designee assesses each case and will request an odontology consultation for cases in need of postmortem dental examinations. The consultation request is predicated by the scene investigation information. While at the scene, the Medicolegal Death Investigators attempt to locate dental information such as dental appointment cards, medications prescribed by dentists, and even toothbrushes that have a dentist's name. The Identification Coordinator or designee will subpoena the dental radiographs and written records. This is usually done with ease, but complications do occur, such as the dental office not being willing to release their records. Outreach to consular offices is essential and has been successful in obtaining dental study models and records from other countries. Additionally, there has been great success achieved by reaching out to the Arizona State Dental Association for assistance on cases that have no known dental information.

It is policy that a full mouth series of dental radiographs and dental charting is completed on all dental consultation requests. For the past five years, the odontologist has completed more than 200 cases per year. This consists of predominately identification cases, but also age estimation and bitemark cases. This office converted from conventional dental film to digital radiography approximately ten years ago and it has been highly efficient in identification cases. The image software in addition to the hand-held radiation source has been very cost effective for this county. The images are captured on a laptop, then downloaded to the county medical examiner's database. A written dental chart and an odontogram is created and also downloaded to the database.

Upon receiving the antemortem dental records, a dental identification can be made. Once the identification is completed, a formal dental report is sent to the assigned medical examiner and this report, in addition to the antemortem records, are also downloaded to the medical examiner's database. If a case remains as unidentified, these dental records are added to a local database and national database that can be compared to missing persons.

This presentation will showcase study examples of the policy in contacting private practice dentists and obtaining antemortem dental records. The presentation will also show the collaborative effort with the Arizona State Dental Association and consular offices of Mexico and Central America. The importance of having a comprehensive identification policy can be used as a guideline by other medical examiner's offices.

Dental Identification, Identification Coordinator, Medical Examiner's Office