F7 The Development of A Protocol – New York City OCME's Large Scale Initiative to Upload "Cold Cases" to National Databases

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After attending this presentation, attendees will understand the requirements as well as the difficulties with implementing a large scale data and image entry system to transfer Office of the Chief Medical Examiner (OCME) archival data to National databases such as NCIC and NAMUS.

This presentation will impact the forensic science community by demonstrating the importance of strict data entry requirements to assure reliable results. In addition, this presentation will impact the forensic community by helping to provide closure for friends and families of unidentified persons and as an aid for forensic odontologists to participate in the nationwide effort to locate and identify unidentified persons and bodies.

The goal of this presentation is to give an overview of the efforts being made by the New York City's Office of Chief Medical Examiner in the development of procedures to transfer archival "cold case" data of unidentified postmortems to National databases. Through a National Institute of Justice (NIJ) grant in conjunction with the NYC OCME Forensic Odontology, Anthropology, and Biology Units, a pilot program was established to aid in this effort. The goal of this large scale project is to enter complete forensic data and images into the Unified Victim Identification System (UVIS) Dental Identification Module (UDIM). This consortium will optimize future National Crime Information Center (NCIC) and National Missing and Unidentified Persons Systems (NamUs) database analysis.

The grant allowed the NYCE OCME Anthropology team to initiate procedures to analyze 448 unidentified persons from 1998 through 2009 and enter information and data into both NCIC and NamUs databases. After confirming that the remains were human, data files were examined. Any incomplete data required exhuming the body and the necessary data was reentered. The files were then transferred to the Odontology Unit for review of the previously coded dental information.

The Odontology Unit reviewed the data files for dental charting accuracy as well as the accompanying radiographic information. In addition this project was used as an "in-service" that would allow for training of the team on the UVIS/UDIM module. Coding was converted to the UDIM format which uses different modifiers than the traditional WinID codes.

All too often, inaccuracies in interpretation of radiographic data can lead to ambiguities in dental coding. During the presentation some of these ambiguous situations will be enumerated. The protocol that was put in place will be discussed as well as the formation of "coding committee" rules that were set up to insure that interpretation occurred

in a consistent fashion. It is hoped that these rules will be incorporated into future versions of forensic odontology comparison software. This review process validates the premise that a second set of eyes is an asset in coding as it minimizes the possibility of misinterpretations or missing key evidence that is vital to making matches.

Since all the radiographs accompanying these cases were analog (film) format, the need to set up a digitizing protocol was also necessary. The radiographs were scrutinized for their mounting and orientation. Ambiguous or erroneous mountings were corrected. Once corrected, radiographs were scanned utilizing imaging processing software. The formatted images were then imported into the UDIM database to be integrated with the reviewed dental charting. Images were exported as jpegs as both a Full Mouth Series (FMS) and individual images as well, to help in the facilitation of export into NCIC and NamUs.

The next step in the process was to translate the data to NCIC/NamUs compatible codes. It is anticipated that a data export program to convert the data into an acceptable file structure for direct importation to NCIC database would be developed for this project. However, this module will have to be included in a future version of the software. Currently, this process is performed manually.

Additionally, protocols are being developed to upload this information into the National Dental Image Repository (NDIR). The NDIR was established in May, 2005 by the FBI's Criminal Justice Information System (CJIS) to help facilitate the identification of Missing, Unidentified, and Wanted persons. The NDIR permits law enforcement agencies to store, access and supplement dental records which are currently housed in the Missing, Unidentified, and Wanted Persons files in the National Crime Information Center (NCIC) system.

This presentation will conclude with several cases demonstrating examples of the diligence required when documenting and recording information to be used in the identification process.

Forensic Odontology, NAMUS, Unidentified Persons