F10   An Alphabet Soup of Dental Databases

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After attending this presentation, attendees will become familiar with the dental community, as well as with the multiple dental databases used in the recording of teeth and their restorations.

This presentation will impact the forensic science community by displaying the importance and necessity of using a trained forensic odontologist in the dental database documentation of unidentified and missing persons.

The comparison of a missing person's dental records, models, and radiographs with the dental evidence from unknown remains has stood the test of time as a means of positive scientific identification. Antemortem dental records and dental x-rays are utilized on a daily basis in the identification of unidentified human remains. These records are obtained, generally by law enforcement from the family dentist of the missing individual. In the United States, general dentists utilize the Universal Coding System in their practices. Each general dentist also has their own short hand or abbreviations which they use to describe the procedures that they perform on a routine basis. For proper entry of this information, a forensic odontologist, who is knowledgeable in the varied nomenclature used by dental databases as well as the current dental terminology used today, must correctly interpret the dental records.

At the present time, there are three different dental databases in use for the documentation of dental records. These include the National Crime Information Center (N.C.I.C.), National Missing and Unidentified Persons System (NamUs), and WinID. Law enforcement has been tasked to ensure that entries are made into N.C.I.C. Medical examiners are encouraged to ensure that all unidentified remains are entered into NamUs. Forensic odontologists using the latest dental technology use WinID when charting dental information. WinID has a function to translate its codes into the N.C.I.C. format. Each database has a similar but unique coding system. Entries are made into each database using specific letters to represent a unique dental term. The letter code in one system does not always translate exactly into another system. There is even a difference in some of the symbols used for missing and unidentified remains in one of the systems. These multiple coding systems challenge the forensic community handling unidentified and missing persons to ensure the accuracy of the entries. In this regard, it is imperative that a forensic odontologist trained and familiar with each of these coding systems be involved and responsible for accurate data entry and verification in the different databases.

In order to demonstrate the differences between dental databases, a case study will be presented showing how one individual is coded using each of the different databases. Based on an actual case, a missing person's unique dentition presents a challenge to the forensic odontologist to properly enter information in each system. Some features in this case such as veneers are considered to be routine dental care. Some features such as the number and position of teeth are truly distinctive.

Careful documentation of dental information by trained forensic odontologists would not only ensure accurate dental coding but would increase the number of individuals who could be identified.

Forensic Odontology, N.C.I.C., NamUs