



G5 Utilizing Custom Spreadsheets for Age Assessment Cases

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After attending this presentation, attendees will have gained a basic knowledge of how to utilize Excel® spreadsheets to aid forensic odontologists in the calculation of estimated age for their cases.

This presentation will impact the forensic science community by teaching the forensic odontologist the basic principles related to a spreadsheet constructed to allow the forensic odontologist to precisely and accurately calculate the estimated age of an unknown individual utilizing established data and methods from prior published studies.

The forensic odontologist is often called upon by agencies to estimate the age of deceased or living individuals. Many methods used to estimate age have been based on the dentition and its developmental stages. To calculate the estimated dental age, the forensic odontologist commonly utilizes published studies that provide a method to analyze the dentition of the unknown individual and typically apply a mathematical formula and/or a table of reference data.

This study has developed custom Excel® spreadsheets called Draft Age Estimation Quicksheets™ for many of the studies that forensic odontologists might utilize for the particular cases they are investigating. This presentation will review the custom spreadsheets and educate attendees on how to properly input the measured variables based on the specific study being used. The spreadsheet will then utilize the data and formulas contained in the particular study and the entered variables to calculate the estimated age, associated rate of error, and age range automatically.

The main goal of utilizing the custom spreadsheet method is to increase the speed of the calculations for the forensic odontologist and reduce the need to access and reference the original study. The spreadsheet will also help reduce common mathematical errors and increase the accuracy of the calculations made for age estimation cases. The results of the calculations in the spreadsheets may also be utilized directly in the forensic odontologist's reports by importing the appropriate fields into the report.

The Draft Age Estimation Quicksheets™ were previously presented to the Odontology Section at the American Academy of Forensic Sciences (AAFS) meeting in Las Vegas, NV. The spreadsheets have been further developed and refined since the last presentation. This presentation will explain in greater detail the application of the spreadsheets and also preview what is being worked on next.

In conclusion, this presentation will demonstrate custom Excel® spreadsheets, which can be utilized for age assessment cases. Attendees will also be provided with copies of the custom spreadsheets via email for interested forensic odontologists to utilize.

Age Assessment, Spreadsheet, Odontology