



### F9 Antemortem Records of Forensic Significance Among Edentulous Individuals

*Raymond Richmond, MPhil\*, and Iain A Pretty, DDS, PhD, Manchester Dental School and Hospital, Dental Health Unit, 3A Skelton House, Lloyd Street North, Manchester Science Park, Manchester, M15 6SH, United Kingdom*

Following this presentation the attendee will be familiar with a) the problems of identifying edentulous individuals with case examples; b) materials that can be of use when identifying edentulous individuals from dental prostheses or examinations; and c) the incidence of these materials in dental records.

Individuals with complete dentures continue to represent an identification dilemma. This presentation will impact the forensic community by reminding odontologists of the additional materials available to them for such cases, but will provide evidence that such materials are rarely available in the dental records.

**Introduction:** Over 300,000 patients in the UK alone will be rendered edentulous this year. Dental identifications are requested for found human remains where visual identification is no longer possible or desirable. Many elderly people (a large cohort of those persons wearing full dentures) die alone in their own homes and are not discovered for some time. In such cases, the Coroner will request the services of the forensic dentist to identify the individual based upon a tentative lead. In cases where dentures are not marked and no other method for identification is possible, i.e., fingerprints, serial number on pace-maker, other prostheses, etc. identification may prove very problematic. There is however, a role for the odontologist in these cases. The presence of, for example, a panoramic radiograph taken prior to the complete denture construction, may provide sufficient information for a comparison to be conducted.

**Materials:** The range of materials used in such identifications will be presented with examples of each given from case work to demonstrate their value:

- a) Post extraction DPT films
- b) Photographs
- c) Study models
- d) Cranial imaging techniques demonstrating the frontal sinuses
- e) Bony pathologies or other anomalies
- f) Comprehensive written notes

A case example is provided where the use of a photograph of a denture wearer was superimposed over the denture found at a murder scene. The victim was a wealthy antiques dealer who had been attacked with a large kitchen knife. The body, along with that of his wife's, were left in the family home for six weeks before discovery. The unusual diastema and natural placement of the anterior teeth enabled a positive identification to be made.

**Study:** A total of 200 subjects' receiving complete dentures at the University Dental School of Manchester were examined using a proforma. All materials that were deemed useful in the identification process were recorded and duplicated.

**Conclusions:** There is a paucity of effective antemortem information available in the dental records of edentulous individuals. This must be addressed by educating dentists on the importance of accurate and detailed record taking. This lack of effective material for identification strengthens the case of those asking for denture marking to be made compulsory.

#### Odontology, Edentulous, Identification