



F23 Removable Prosthesis – How Can We Label With Patient Acceptance?

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Following this presentation the attendee will be familiar with: a) the incidence and prevalence of individuals wearing full dentures in the U.S. and U.K., b) problems with current denture marking systems, c) previous research in this area, and d) possible new techniques for marking dentures with increased patient acceptance.

The decrease in caries experience and the commensurate increase in oral hygiene standards in the Western World have led many to believe that the provision of complete dentures was soon to become of historical interest only. However, the true picture is different; in the U.K. alone, 650,000 patients per year get their first dentures. 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 pacemaker, other prostheses, etc., identification may prove very problematic.

A series of cases will be presented illustrating the difficulties of identification in non-marked, full denture wearers. Within the U.K. there is no legal obligation to have dentures marked, although a fee item does exist on the NHS payment scale. Patients are often unwilling to have their dentures marked due to: a) cost, b) aesthetics, and c) lack of understanding of the benefits. Within a general practice setting, denture wearers gave aesthetics as the most common reason for refusing to have their dentures marked. Common methods of denture marking will be illustrated.

Research was conducted to determine methods of uniquely marking dentures that would comply with the following prerequisites:

- a) Were aesthetically pleasing to the patient, or un-detectable
 - b) Were cost effective
 - c) Were resilient to postmortem changes
 - d) Were resilient to denture cleansers
 - e) Did not effect the fit, comfort or strength of the denture
- Several techniques were employed a) restoring one or two posterior teeth with composite resin in a unique cavity design visible radiographically, b) placement of an 'invisible marker' detectable only under certain lighting conditions, c) placement of gold leaf under denture teeth in a unique configuration, visible radiographically, and d) placement of paper roll under denture teeth visible radiographically.

Each of these techniques was tested on mandibular and maxillary full dentures and then subjected to a range of challenges including:

- a) cleansing overnight with proprietary denture cleansers, b) exposure to heat, c) exposure to saliva, and d) exposure to maxillary forces. Each of the methods worked well, and examples of each will be illustrated. The simplest and cheapest method was the use of a specially designed marker pen, currently used for marking property. The drawback to this solution is the requirement for a UV light source and that there is no means of indicating which dentures have been marked. The radiographic techniques suffered from the effects of angulation, although all were uniquely marked. It was difficult to include name and date of birth; instead a reference number could be used, such as an individual's social security number. The restoration method was simple and highly aesthetic but would require an antemortem record to enable a comparison.

While full dentures continue to be a treatment option, it must be ensured that they carry a feature unique to that patient, which would most usefully be their name and date of birth. Encouraging patients to have their dentures marked, and encouraging dentists to offer such a service economically, is an important role for odontologists.

Odontology, Identification, Dentures