Hilla University College Journal For Medical Science

Volume 2 | Issue 4 Article 7

2024

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## How to Cite This Article

Karkosh, Zahraa Saad A. and Sabea, Dunia W. (2024) "Measuring Patient Acceptance of Adding Barcodes on Removable Dentures," *Hilla University College Journal For Medical Science*: Vol. 2: Iss. 4, Article 7.
DOI: https://doi.org/10.62445/2958-4515.1042

LETTER TO THE EDITOR

Hilla Univ Coll J Med Sci

# Measuring Patient Acceptance of Adding Barcodes on Removable Dentures

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Dear Editor,

Forensic dentistry is defined as (the branch of forensic medicine that, in the interest of justice, deals with the proper handling, examination, of dental evidence, as the proper presentation of dental findings). The role of dentistry is limited but has major role in identifying victims in case of disasters and can provide clear clues that would be helpful in the justice system [1].

One of the first cases of forensic dentistry was considered in ancient Egypt for their expertise in medicine and dental disorders. Although many mummies were examined, only three mummies had remarkable prosthetic work with a few teeth lost [2].

After death, changes or traumatic tissue injury may lead to the loss of fingerprint records that make the dental and the prosthodontic aspects specifically with means of numerous ways play a crucial role in identifying victims [3].

One of these dental methods is putting a mark or sign on t(he lower lingual posterior and the upper palatal posterior parts) of the dentures, whether they are made from acrylic or chromium-cobalt [4].

According to the American Dental Association, the specific criteria used for denture marking include (the identification should be specific, the technique should be simple, the mark should be fire and solvent resistant, the denture should not be weakened, and the mark should be cosmetically acceptable). Surface marking done in different ways, such as printing patient details on paper using a laser [5].

Other method involves a lead foil with patient information placed inside the acrylic resin denture and identified by X-ray [6]. Another method was using a lens that had the patient's image [7].

Another way was using a barcode with all personal information about the patient, but the opacity of the acrylic resin made scanning the barcode more difficult; therefore, it is better to use a clear type of acrylic resin [5].

While Milward Shepherd success in making a reliable, machine readable coding system through laser printing of two dimensional barcodes [8]. Also, this method done by Coss P. Wolfardt using the inclusion method [9].

Since the barcode method was the most feasible and simple technique, it had been chosen for embedding within two layers of heat-curedacrylic denture base material. The layer beneath the barcode is pink acrylic, while the layer that covers the barcode is clear heat-curedacrylic to allow the barcode to be read. This technique was used for the first time in Iraq.

Fifty-two patients were asked about their acceptance or refusal for inthe incorporation of a barcode on the disto-buccal flange of the the upper denture and the disto-lingual flange of the lower denture, which involved patient information (name, age, address, blood type, and disease if found), the idea had been explained in detail, with a sample barcode on the denture in order to make the idea clear enough.

A descriptive statistics were used by asking 52 patients to accept or refuse adding a barcode within the denture, and the results were that 50 patients agreed to add a barcode, and only two of 52 refused.

Received 23 September 2024; accepted 17 December 2024.
Available online 2 January 2025

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https://doi.org/10.62445/2958-4515.1042

| Number of patient | Agreement | Personal information (age, name, address, blood group, disease) | Causes | Causes |
|---|---|---|---|---|
| 50 | Agree on barcode | personal information | research | Patient identification |
| 2 | Not agree | personal information | research | Patient identification |

*Fig. 1. The picture shown for each patient in order to allow understanding the placement of the barcode.*

The patients who agreed to adding barcodes explained their agreement for many reasons, they always forgets about their medications. It will help other dentists in case they forget where the denture was made, in case of an accident and they didn't hold identifications.

Whilethe patients who refused to put a barcode on their denture, one of them was afraid that the barcode will effect on tissue, despite the explanation that the barcode would be embedded within the denture material. The other didn't refuse the idea but refused to give their personal information, as they had a sensitive job and were not allowed to provide their identification.

The idea of adding a barcode within the denture base material may not only be useful in the identification of victims of a massive disaster, but it may also help patients to remember the medications they have taken, also where and when the denture had been made.

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