



Barcoding and Aligners: Will they make a difference in Forensics?

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Forensic science plays a crucial role in crime investigations, body identification in mass disasters, historical and archaeological investigations, and legal proceedings.¹ Forensic odontology, or forensic dentistry, is significant where dental evidence is involved. Dental records and dental characteristics are often used to identify individuals in cases where other forms of identification (like fingerprints or DNA) may not be available or viable. Dental records can be compared with dental features found on remains to establish identity.² Aligners have revolutionized orthodontic treatment by offering a more discreet, comfortable, and convenient alternative to traditional braces. These provide a convenient, comfortable, and aesthetically pleasing orthodontic treatment option that addresses both functional and cosmetic concerns (Fig 1), making them a preferred choice for many patients seeking to improve their smile.³ Several companies have emerged to provide aligners, each offering unique features and technologies. These companies incorporate various identification features in aligners, such as proprietary material compositions, 3D scanning and printing technologies for precise fitting, customizable treatment plans based on dental assessments, and digital monitoring tools to track progress remotely.⁴

These companies have already started placing their brand logos (Fig. 2) on custom-fit aligners, which can be useful for orthodontists, dental professionals, and patients to identify the origin of the aligners being used. These logos can aid in



Figure 1: Custom fit aligners

maintaining accurate treatment records and documentation.⁵

Barcoding, which initially started as a method for tracking non-living items⁶, has become an essential component for personal tracking in modern times. Its role and significance in forensics, especially in identifying individuals, cannot be denied. Akhtar et al⁷ incorporated 2-D barcodes into various orthodontic appliances and found this technology to be efficient in revolutionizing forensic odontology by providing a more accurate way to identify individuals.

Future aspects: incorporated 2-D barcodes into various orthodontic appliances and found this technology to be efficient in revolutionizing forensic odontology by providing a more accurate way to identify individuals.

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Figure 2: Aligner with imprinted company Logo

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