Defense Health Agency (DHA) Clinical Communities Speaker Series

October 2021 CCSS: Promising Practices in Military Health Care

S03: Impacts of Digital Dentistry Planning

Resource List

The National Institutes of Dental and Craniofacial Research (NIDCR) has a dedicated webpage for the research initiative for Advancing Imaging, Device Production, and Clinical Capabilities in Digital Dentistry (n.d.). The objectives of this initiative are to advance development and optimization of core technologies across the digital dentistry workflow and enhance digital technologies for efficient, personalized treatment and care delivery to improve oral health. This initiate promotes research to advance patient-centered solutions. This initiative is feasible and timely because recent advances in digital imaging, computer-aided design software, and subtractive and additive manufacturing technologies are significantly elevating the standard of care in restorative and reconstructive dentistry.

The American Dental Association (ADA) published Embracing the evolution of digital dentistry (2019) to explore how consumer expectations of digital dentistry, along with the sharing economy of the profession are shaping the future of dentistry. Dental professionals have a moral responsibility to treat patients with the best scientific evidence, clinical evidence, and technology and materials available. The largest increase in dental technology has materialized in the last five years. This articles notes however, that technology does not necessarily make one a better dentist. Remarks from Dr. Miguel Stanley, the keynote speaker of the New Dentist conference are discussed.

The U.S. Food and Drug Administration (FDA) provides a guidance document for Optical Impression Systems for Computer Assisted Design and Manufacturing (CAD/CAM) of Dental Restorations (2018). The FDA is exempting optical impression systems for the computer assisted design and manufacturing (CAD/CAM) of dental restorations from the premarket notification requirements of the Federal Food, Drug, and Cosmetic Act (the Act). FDA is issuing this guidance in conjunction with a Federal Register notice announcing the final rule. This guidance document describes a means by which optical impression systems for CAD/CAM of dental restorations may comply with the requirement of Class II Special Controls. The FDA believes that conformance with this guidance document, when combined with the general controls of the Act, will provide reasonable assurance of the safety and effectiveness of the optical impression systems for CAD/CAM of dental restorations.

The World Health Organization (WHO) published an article, Improving Oral health through use of digital technology (2021), to report the release of an implementation guide for oral health mobile technologies. The new guide provides comprehensive instructions on how to complement existing oral health initiatives and oral health system responses through mobile technologies. Guidance on training for health workers, early detection of oral health conditions, collection of epidemiological date and the monitoring of the quality of patient care is provided. The four modules of this guide are designed as flexible components that can be implemented individually or collectively, according to a country's specific needs.

References

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