

Errors in periapical radiographs by dentistry undergraduate and graduate students in Brazil

Abstract

Digital radiology is not a reality in all dental offices, although it has been available for many years in Brazil. Analog radiography, with radiographic films and manual chemical processing still prevails. Errors in the positioning of the film, the device and the patient, the density of the radiographic image as a function of the exposure time, are common to both systems. However, imperfections and spots on radiographs are more common to the analog system and density errors due to the time spent in the developer are exclusive to the analog system. Knowing and preventing the occurrence of these errors not only reduces patients' exposure to radiation and costs incurred by the dental surgeon, but also generates better quality images, which results in more accurate diagnoses. This study aimed to do a literature review of articles published in Brazilian journals, from 2002 to 2017, in order to verify the prevalence of radiographic errors made by dentistry undergraduate and graduate students in Brazil and establish its correlation with the term in which the undergraduate students were enrolled. It was found that errors are frequent, regardless of the students' seniority in the program and that unsatisfactory radiographs exceed satisfactory ones. Professors should reinforce this technique and students should pay more attention while performing it; radiographic positioners should be used in all stages of dental diagnosis and treatment; and the time-temperature method for radiographic processing should be correctly executed. These factors can contribute to a significant reduction of radiographic errors.

Descriptors: Dental Radiography. Bitewing Radiography. Dental Digital Radiography. Quality Control.

Araújo MR, Rodrigues CD. Erros em radiografias periapicais cometidos por alunos da graduação e da pós-graduação em odontologia no Brasil. R Odontol Planal Cent. 2020 Jul-Dez;10(2):20-26.