EDITORIAL

Editorial: guidelines for oral and maxillofacial radiology

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Dentomaxillofacial Radiology (2016) **45**, 20160034. doi: [10.1259/dmfr.20160034](https://doi.org/10.1259/dmfr.20160034)

Cite this article as: Schulze RKW. Editorial: guidelines for oral and maxillofacial radiology. *Dentomaxillofac Radiol* 2016; **45**: 20160034.

Guidelines become more and more a standard in evidence-based medicine and dentistry. If they are prepared in a thorough, standardized and reproducible fashion, their value cannot be overestimated. In oral and maxillofacial radiology there are also a number of guidelines published (see for example ^{1–3}) which are cited and applied frequently. In the light of a still constantly growing patient dose caused by radiographic imaging in many countries in the world, such guidelines can help to identify those cases that likely profit from a radiographic image. The tendency to use imaging simply since it is easily available is a general one certainly also driven by the human preference for optical impulses. Particularly doses for infants and young adults are a major concern. Guidelines dealing with this patient group are generally of high importance. Just recently, the British Orthodontic Society published the revised fourth edition of their guidelines.⁴ The reason why I specifically discuss these guidelines is their level of detail, their scientifically sound and conservative approach as well as their high-quality elaboration. The authors, including Eric Whaites and Keith Horner, very clearly emphasize the need for justification of the radiographs. Although virtually obvious, this general rational behind radiographic imaging is easily lost in daily routine. One particular emphasis of the revised guidelines lies on the application of CBCT in orthodontics. The authors discuss all aspects of CBCT imaging that could be of interest for an orthodontic application, including typical indications, radiation dose and dose optimization and also reporting on CBCT images. The importance

of the latter is often neglected in that context, although the report represents an essential aspect of the imaging procedure. The authors summarize orthodontic application of CBCT by citing the respective concluding statement from the European guidelines,² that cephalometric and panoramic radiographs appear to be sufficient in most circumstances and should not be replaced with CBCT imaging.² The revised guidelines can be strongly recommended for anyone involved with radiographic imaging in orthodontics. Regarding their level of detail and thorough scientific approach, they could surely function as a role model for other national guidelines.

Guidelines inherently rely on thorough scientific reports, systematic reviews and meta-analyses. Although *DMFR* articles are cited frequently in many guidelines dealing with oral and maxillofacial radiology, a conclusion common to all guidelines is a general lack of scientific evidence. As often emphasized here, this particularly holds true for the diagnostic efficacy of imaging procedures.⁵ The urge for higher efficacy levels remains an issue of eminent importance. Researchers are encouraged and invited to carefully plan and conduct such studies. As a matter of course, *DMFR* warmly welcomes submissions of manuscripts addressing higher levels of diagnostic efficacy. The more of such manuscripts that are published, the better we will understand if and how patients and also society really profits from radiological imaging.

Sincerely,

Ralf Schulze
Editor

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