

User Case Abstract

Top quality images

Prophylaxis assistant Sabine Hiemer describes her experiences with intraoral X-rays using the Xios XG Supreme intraoral sensors from Dentsply Sirona.

Methods

Sabine Hiemer trains practice teams, which includes working with the Xios XG Supreme intraoral sensors from Dentsply Sirona.

To provide legally admissible diagnostics, dentists require reproducible orthoradial X-rays which display all structures undistorted one to one. These can be created with the correct use of parallel X-ray technology with a suitable holder system. When taking X-rays with films or imaging plates, the anatomical characteristics in the posterior and anterior tooth regions largely allow images with the semi-angle technique, which does not always result in realistic representations of the tooth. In the case of narrow jaws, high or flat palates as well as flat mouth bases, films or imaging plates often lead to slight distortion of the mesial and distal tooth roots in the posterior region or the anterior teeth are shown either lengthened or shortened. If the sensor is positioned correctly, a better orthoradial image quality can be achieved for these examples.

Result

A new technique always requires a period of familiarisation to adapt to previous workflows, but the desire of the clinician for innovation and optimisation of workflows allows overcoming starting difficulties, for example, due to the size of the sensor and the new positioning options, quickly.

Compared with the imaging plate or tooth film, the sensor is wider, rigid and not flexible. It is positioned centrally in the oral cavity, not against the row of teeth as accustomed to, and is fixated between the mouth base, the tongue and the roof of the palate. The rounded lateral areas increase the contact surface. There are no sharp edges as with the film or imaging plate. Patients therefore regard the sensor as being pleasant and comfortable.

The Supreme sensor has a theoretical resolution of 33 LP/mm and thus achieves an outstanding image quality. By using the dynamic sharpness control, the images can be processed additionally in terms of sharpness, brightness and contrasts and thus optimised in diag-



Fig. 1: Know-how is everything: During training, the practice team learns how to place digital intraoral sensors conveniently with the aid of a special holder.



Fig. 2: Quick and simple: Digital intraoral sensors allow an efficient workflow in the dental practice.

nostics according to individual requirements. At low irradiation doses, this results in images with an image quality unsurpassed so far.

In terms of time management and economic proficiency, the development and scanning equipment, the scanning process as well as the conversion time of the imaging plate or tooth film are eliminated. The X-ray is available immediately for diagnostic, evaluation and planning purposes. If required, additional images can be created without waiting and further work processes, so that the treatment period can be used effectively.

It is recommended to use holders specifically intended for XIOS XG Supreme sensors. Dentsply Sirona recommends a suitable single-use holder system for risk patients and two multi-use holder systems. The cable of the Xios XG Supreme sensors is easy to replace.

Summary

The innovative sensor adds values to the practice: the results are easy to communicate which makes giving advice to patients easier. Furthermore, the representation of tissue and tooth structures with excellent and convincing image quality allows legally admissible diagnostics and documentation.



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