Image is everything

Armed with intra-oral pictures, diagnosticians are able to draw up treatment plans. The dentist can then decide with the patient, which plan is the most suitable. Andrew McCance explains.

If a picture paints a thousand words, a radiograph would give you the whole library. Thanks to the imaging solutions available to today’s dentists, it is possible for effective treatment planning that will give dentists, and patients, a range of options when it comes to cutting edge orthodontic treatment.

Orthopantomograms (OPT) are treasure troves of vital data. Covering the upper and lower jaw, they provide the diagnostician with an overview of the patient’s dentition, including: root length, impaction, supernumerary teeth, positioning of teeth, root resorption, root fracture, unerupted and missing teeth. Other information provided by an OPT includes any previous orthodontic or restorative treatment, which can impact on planning.

In order to identify skeletal discrepancies and abnormalities, or note whether anteroposterior movement of the incisors is necessary, the diagnostic team will request a lateral skull radiograph of the patient in the standard intercuspual position.

Image appraisal

Since orthodontic treatment takes into account more than just the aesthetics of the teeth, it is important that treatment planning includes an appraisal of extra-oral patient images. For instance, an image of the patient face-on, smiling with teeth in maximum interdigation, gives a good idea of how the smile can be improved in relation to the patient’s face. Essentially, the diagnostic team has to know what influence the soft tissue has on the case.

Profile pictures are very useful, because they enable an easy appraisal of the maxilla’s position relative to the mandible. The leading system’s diagnostic team will also want to see a full face photograph, and a three quarter profile, as this is the most common way that the patient would be seen in public.

Assessing malocclusions

With the skillful use of cheek retractors and mirrors (warmed in hot water first to reduce condensation), you can capture excellent intra-oral images. These are vital to accurately assess the severity of malocclusions. In order to achieve the right lighting of the area, the diagnostic team recommends the use of a ring-flash. The mirror is used to achieve high-quality diagnostic images of the lower occlusal and upper arch regions, while the cheek retractors are ideal to enable great images of the anterior, left and right buccal regions.

Armed with these images, diagnosticians are able to draw up treatment plans. The dentist and patient can then decide which plan is the most suitable, and move forward to create a healthy and aesthetically pleasing smile.