Cranmore –
Using CBCT 3D for excellence in patient care

By Cranmore

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Cranmore Dental Practice in Belfast is one of the most recent dental practices in Northern Ireland to install a 3D Cone Beam System (CBCT). Dr David Nelson, the clinical director at Cranmore, launched the practice in 2011 and since then has directed its growth through considered investment in technology.

“At Cranmore” says David, “Our key focus is that we deliver excellence in dentistry to our patients”.

Dr David Nelson himself was the first dentist in Northern Ireland to obtain a Masters Degree in Dental Implantology. His commitment to education is demonstrated in his role as an Undergraduate Tutor at Queens University, Belfast as well as establishing Cranmore as the official Irish Training Facility for the University of Central Lancashire Postgraduate Masters Degree in Implant Dentistry. He is also a Fellow of the International Team for Implantology (ITI).

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Until the beginning of last year when a 3D view was recommended, David had been referring patients for a medical CT scan. However he had also been researching the advantages that CBCT was bringing to implantology resulting in his decision to invest in his own site CS 9000 3D System (CS was previously branded Kodak).

David explains, “At Cranmore it is our protocol to use a CT scan for sinus graft procedures. Previously we would send the patient for a hospital spiral CT scan. However we now carry these out in house on our own CBCT scanner. This is more convenient and

Fig. 1
Dr David Nelson positions a patient for a 3D scan on the CS 9000 3D System.
time efficient for the patient, combined with quicker diagnosis and commencement of treatment. Not only is the imaging exceptionally clear but the dose to the patient is significantly reduced compared to the spiral CT scan.

This particular case shows how important it is to have a CBCT scan available rather than to only have a 2D OPT.

On the pre-op OPT (pathology and decay treated before more complex treatment commenced) from the initial assessment we can see that sinus augmentation will be required on both sides with a lateral approach on the left and a crestal approach on the right. What the OPT does not show is that there is pathology in both the left and right maxillary sinus. The left sinus appears to have a retention cyst and the right sinus is more occluded. This pathology needs referred for definitive diagnosis and treatment as required. My sinus pathology is referred to Eiad Qudairat, a Consultant Maxillofacial Surgeon.

In this case the pathology on the left was a retention cyst which was not treated and the right pathology was treated using a conservative medical approach initially. If this did not work then a FESS procedure may have been required.

The other benefit of the CS 9000 CBCT scan is that its field of view is relatively small and can be set up not to take orbits and cervical spine. This is important as it means that the dentist does not have to read and diagnose possible pathologies in structures that they may not be comfortable doing.

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Cranmore’s CS 9000 3D System was supplied and installed by Simon Shawe of Dentaquip, Ireland. Dentaquip has been supplying the Dental industry with products and services for over 50 years. Included in their customer base are the Royal Victoria, Belfast City and Altnagelvin Hospitals and Queens University.

Initially David attended 3D application training at another CS 9000 3D site, Clinic B6 in Oxford. David, in partnership with Dentaquip and Carestream Dental, is now running his own 3D training events at Cranmore Dental Practice.

These 3D training sessions demonstrate the growing co-operation between Dentists, Dealers and Suppliers in coming together to share their knowledge and experience of new technology with the aim of providing better and safer patient treatment.