

A dental therapist is modernizing dental practices using iTero™ scanner to implement digital workflows, essential for optimal care and practice growth.

Dental therapists play a unique and vital role in dental teams, a role that is often misunderstood and underutilized. For a few years, I found myself in a role that limited my scope to that of a dental hygienist, focusing solely on periodontal care in a single surgery with minimal interaction with other team members. At times, it felt like I was not providing the comprehensive care I was passionate about, as the internal systems did not facilitate the necessary interactions among the dental team members. This setup conflicted with my vision of expanding access to care and providing the best possible services for optimal clinical outcomes.

Dynamics in the oral health space.

Dental practices in the UK must adapt their operational models due to recruitment challenges and financial pressures. Regular staff training and improved patient communication are essential for sustainability.

During ten years of my professional life, I experienced significant frustration in my practice. I typically saw around 20 patients daily, with 30-minute appointment slots and no dental nurse for support. As a result, I needed more time to communicate effectively and educate patients on improving their oral health. This situation was not only disheartening but also burdensome, as I knew these patients would likely return in six months with the same or worsening issues.

Improved collaboration with other clinical team members could have addressed these challenges, especially while the patient was still at the practice. The lack of coordination resulted in missed opportunities for immediate patient care, leaving issues unaddressed for six months or longer.

Driving change – moments of wisdom in the dental chair.

During a training session with the iTero team, I was inspired by the scanner's capabilities for patient education. The clinician's ability to show patients what they can see inside their mouths was incredible. Sadly, I could not use the scanner immediately because it was not considered necessary in the hygiene room.

However, three months later, I noticed the scanner parked in a corner collecting dust, so I grabbed it without asking and moved it into my hygiene room. The first scan I took of a gentleman, I noticed he had had a broken amalgam on the upper right second molar marked on his treatment plan for several years. It was asymptomatic; however, the second I scanned him and showed it to him, he said: "Get that out of my mouth." I said, that is a filling you needed for a few years, and you had not accepted the treatment. It was the patient who prompted me to treat this issue right away. This was a waking moment for me, and it taught me that I needed to scan everyone coming into our practice, including those patients who had never been scanned before and whom I had seen for many years.

Bringing digital dentistry to new practices – maximizing skillsets, technology, treatment acceptance, and practice revenue.

Transitioning to a dental therapist role in London's financial district, I have led a shift to a therapist-led model, significantly improving patient care. I now see up to eight patients daily, from new patients and recall exams to hygiene appointments and restorative care. This model, which maximizes the use of the scanner, has not only increased treatment acceptance but also enhanced the quality of care we provide, empowering patients to make informed decisions about their oral health. This increase in treatment acceptance became a promising sign for the future of our practice.



Cat Edney (UK)

Cat Edney is a dental therapist who qualified from King's College Dental Hospital in 2008 with a distinction in the dual qualification of Dental

Hygiene and Dental Therapy. With over ten years of experience in specialist private practice, Cat has fostered a deep-seated passion for multidisciplinary teamwork in the dental setting. Her commitment to personalized patient care is evident in her holistic approach to dental disease prevention and treatment. Cat lectures across the UK and has developed hands-on therapist courses that provide gold-standard training and ongoing support.

In this role, I work in a highly collaborative environment where my treatment plans involve multiple team members. My responsibility is stabilizing patients and referring them to the hygienist to address their periodontal needs. Once I have addressed any decay, the dentists handle other aspects such as occlusion, tooth movement, and indirect restorative procedures. Team members come to me to coordinate everyone's needs and ensure treatments are completed as planned (figure 1).

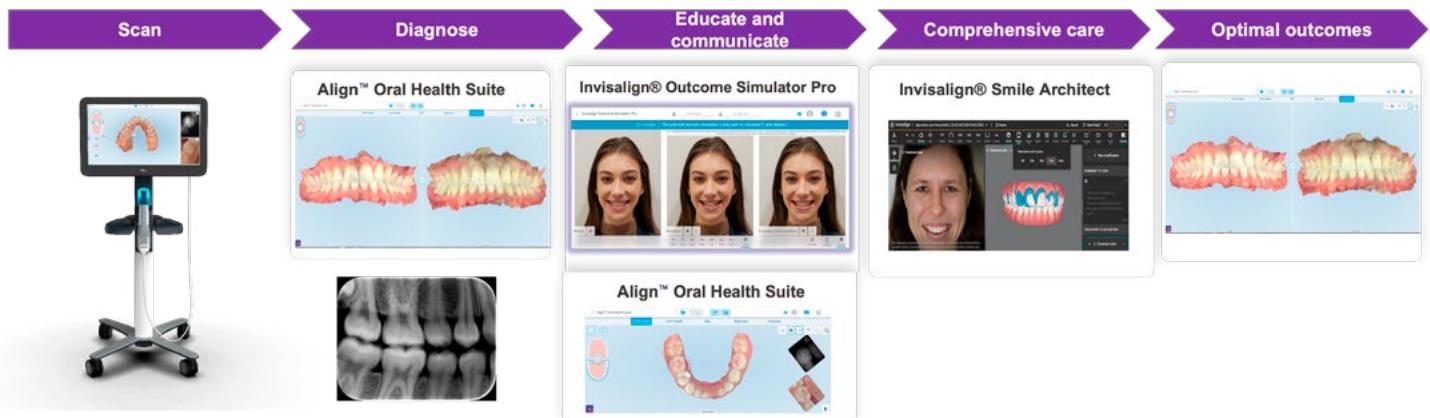


Fig.1 Enhanced workflow shows the scan as an essential tool for aid to diagnose for clinical staff and communicate and educate prospective and established patients with visualizations.

After implementing scanning for every patient, we observed significant changes in how patients embraced our comprehensive treatment plans, including orthodontic care with Invisalign® aligners. Analysis revealed that patients who had not been scanned had an average treatment value of £978, while scanned patients had a treatment value of £2387 – a 145% increase in revenue (figure 2).

This increase in revenue is a testament to the improved quality of care and outcomes achieved when utilizing the right tools to communicate treatment plans, leading to the prevention of discomfort and emergency visits. This has enhanced the quality of life for patients and increased confidence in the effectiveness of the technology. As a result, we increased the number of scans by 167% within six months.

Optimizing the iTero™ scanner tools during consults.

I meet with patients in person to discuss their dental goals and any changes they want to make to their mouths. After our discussion, we scan the patient's mouth to understand its condition better. This helps us diagnose any issues or changes they would like to make. I encourage my patients to watch the screen during the scan, as it often amazes them.

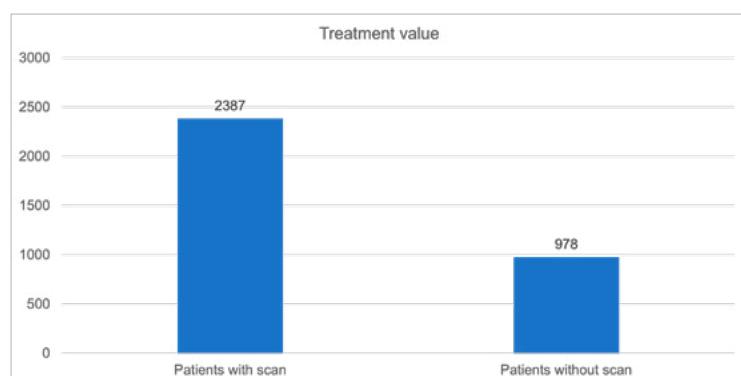


Fig.2 Comparison of revenue realized between patients who were scanned vs. patients who were not scanned during the exam consult.

After capturing a couple of extraoral photographs, we review the scan together. Using the Align™ Oral Health Suite (figure 3), I involve the patient in choosing the condition they want to start with. They often select conditions linked to their priorities, and then we cover other conditions together.

Every condition allows you to activate different tools to highlight findings that facilitate education during the consults. The iTero™ Near Infra-Red imaging (NIRI) technology (figure 4) helps us identify potential interproximal carious lesions, which we then confirm with bitewing radiographs. We also closely examine stone models to assess tooth wear, erosion, and recession areas – prevalent in this community – and the implications if they are not treated. After performing radiographs and vitality testing, I analyze the results to create a treatment plan while the nurse uses the Invisalign® Outcome Simulator Pro for in-face visualization.



Fig.3 Landing page of the Align Oral Health Suite showing the patient's scan in the center and the oral health conditions displayed in the circumference.



Fig.4 The Align Oral Health interface for Tooth Health condition shows the 3D model, the iTero Near Infra-Red imaging (NIRI) technology view, and the integrated intraoral camera view.

"iTero™ scanners create personalized visualizations to aid discussions in the dental chair, helping to prevent, diagnose, and treat oral health conditions."

We avoid using dental technical language and take advantage of the scanner's visualizations to explain and make the points further. Before they go home, we ensure we have a treatment plan, and by the time they arrive home, we will email them the iTero scan report with the relevant information discussed during their visit.

My favorite ways to use iTero scanner's features.

The iTero™ Near-Infra Red imaging (NIRI) technology is my favorite tool for two reasons:

First, when working with children or patients with small mouths, I can scan and determine whether bitewing radiographs are needed. These radiographs can be uncomfortable, and we want to ensure they have a good experience, especially if this is their first-ever visit. With NIRI, a non-ionizing radiation, you can scan patients more often based on their risk of dental caries, giving you more control to prevent interproximal caries because you can monitor more frequently without radiating the patient.

Bonus section

Clinical case

A six-year-old male patient presented to my clinic for a new patient exam. His mother brought him because she had noticed dark areas on his teeth and the dentist at their previous practice had only applied fluoride and she wanted a second opinion.

Before scanning the child, I explained what a scan was and handed him a wand tip so that he could feel its soft texture and flexibility. In addition, I showed him a scan and invited him to touch the screen and spin the 3D model around. I promised he would do the same once we captured his scan.

Clinical findings

I detected carious lesions in all lower deciduous molars and the upper second deciduous molars. I recommended placing sealants in the upper and lower primary permanent molars to prevent future decay. The upper left central incisor and lower right central incisor were loose, and the lower left deciduous central incisor had recently exfoliated.

This patient presented an anterior open bite due to thumb sucking, and he will be closely monitored to prevent further issues.

The mother accepted all recommended treatments and stated: "Bringing my son to have this examination was a world away from the dentistry we have experienced in the past. He was included in every discussion, and it was clear that he learned a lot on the day. Every child (and every adult!) should have an experience like that."

Lastly, these images help you determine if lesions are present or not when you have gotten bitewings with overlapping surfaces – it is an added tool that could prevent you from having to take additional radiographs because you can go to the scan and move it around to find different angles, which you are unable to do with radiographs.

Secondly, for patients presenting interproximal carious lesions, I can effectively treat them with resin infiltrations. We can scan the patient post-treatment to determine the success of the restoration, which is difficult to determine with radiographs. Generally, I treat these lesions per quadrant, and then I rescan and show the before-and-after with the Align™ Oral Health Suite. I could justify this less invasive treatment because it is cost-effective for the clinic and less invasive for the patients.

Conclusion

iTero scanners create personalized visualizations to aid discussions in the dental chair, helping to prevent, diagnose, and treat oral health conditions. The scanner optimizes workflows and provides information for patients to make informed decisions about accepting comprehensive dental care, leading to increased revenue. It streamlines dental practice processes, improving the patient and staff experience.



Fig. 5 Sequence of the new patient exam with a young child using the iTero scanner and the Align Oral Health Suite to help diagnose, communicate, and educate the patient and his mother, and build a treatment plan.

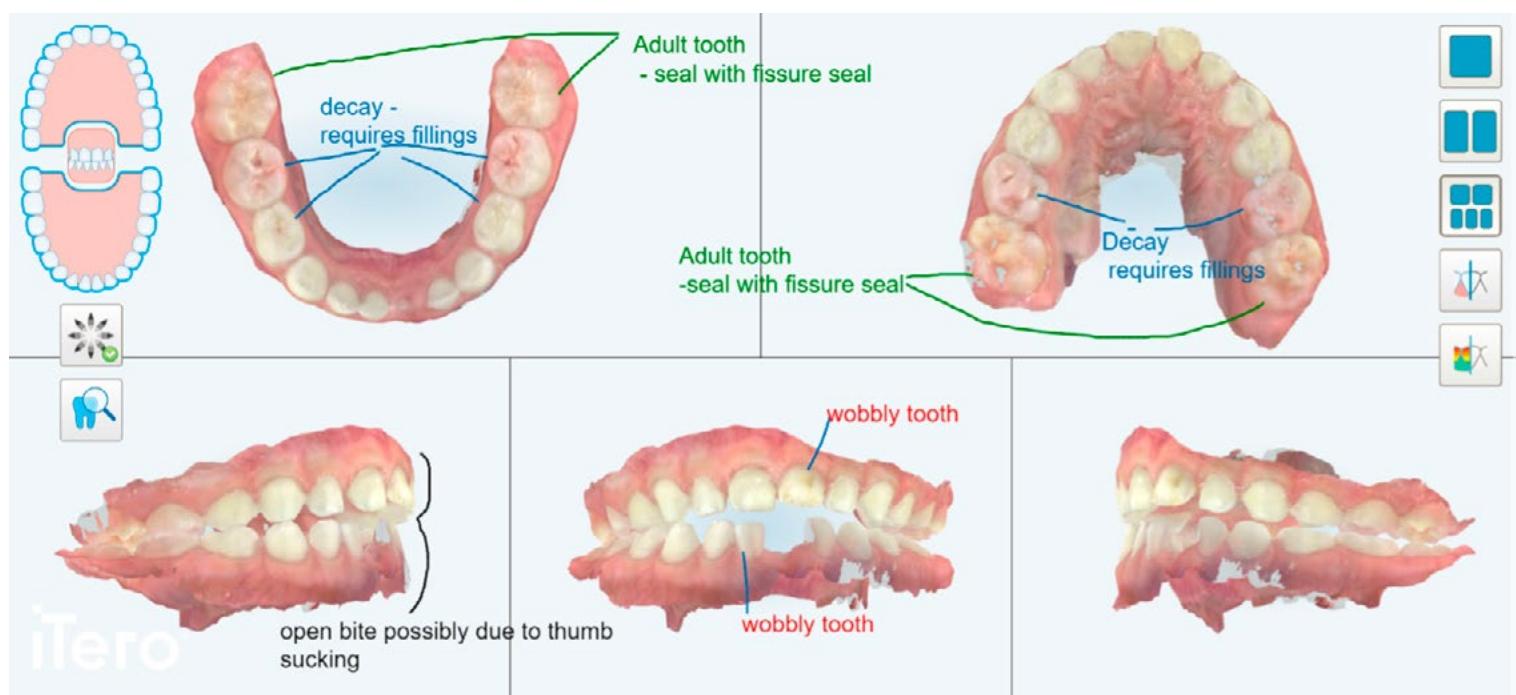


Fig. 6 An image of the iTero™ scan report with annotations and markings of the clinical findings discussed during the consult. This report is shared with the patient via e-mail at the end of the visit.

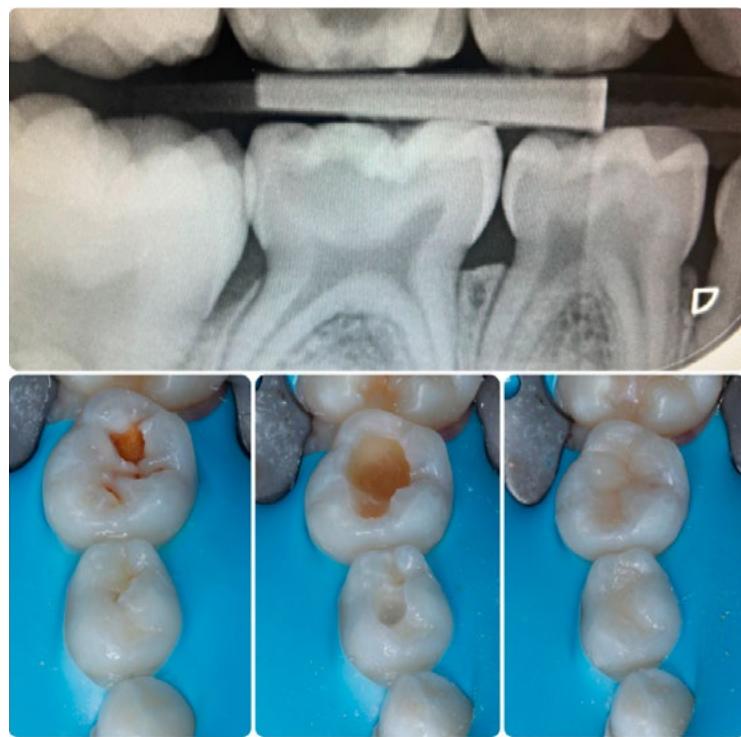


Fig. 7 Images from a bitewing radiograph and preparations and final restorations on deciduous molars during the restorative phase.

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