CREATING A BETTER PATIENT EXPERIENCE USING INTRAORAL SCANNING TO BUILD CLEAR ALIGNERS

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As the use of digital oral scanners has increased in recent years, so too have their capabilities. Dentists and orthodontists are no longer limited in the ways they can use a scanner and aren't confined to only using it for relatively simple procedures like in the past. With the new generation of scanners, clinicians like me are able to integrate the scanner into day-to-day tasks in ways we never imagined. Modern scanners like the 3M™ True Definition Scanner take the place of traditional impressions, saving time and eliminating the likelihood of fabrication errors.

I would like to share with you a specific recent improvement in one of our workflows in my private practice and how both our staff as well as our patients have benefited from it. In the past year, the 3M True Definition Scanner has been validated for use with the Invisalign® Clear Aligner System. Using the scanner, we clearly see a significant reduction in processing time and are able to provide a better overall experience for our patients. For correction with Invisalign, being able to isolate patient issues on-screen without the distraction of their facial features, lipstick or hair has led to better understanding and treatment acceptance on the part of the patient, and is possible with just a few minutes in the chair. With a bit of practice and an open attitude towards embracing new technology, utilizing digital scanning in my office has made a world of difference.

A Change in Workflow for Better Efficiency

My practice has been using the 3M True Definition Scanner for over a year, and it has greatly enhanced the way my staff operates. With multiple staff members trained to use the scanner, I can easily have any one of them scan a patient while I explain what's happening using the integrated screen.

The learning curve was shorter than I expected, and my staff was able to pick it up easily with training provided by 3M. They had fun learning how to master the technique, and they quickly understood how substantial a difference a digital scanner could make in our practice. My practice has a philosophy – while change might be uncomfortable at first, in order to continuously improve and to offer the best possible experience for our patients, we have to go through the necessary steps to adapt to new technology. With our initial adjustment phase behind us, we now use the scanner daily and the Trusted Connections to Invisalign and 3M™ Unitek™ have become indispensable in our workflow.

Since we started using a digital oral scanner, one of the greatest benefits my office has seen is a savings in time. We've seen the time it takes to receive our aligners go from eight weeks down to only four or five. It's amazing to think that because we can send our impressions to the lab in minutes, we're able to start treatment almost a month sooner, and patients love it. People generally don't like to wait for treatment to start and now they don't have to.

The Trusted Connection to Invisalign

Whenever I have a new patient come in to begin treatment, I start them off by taking diagnostic images of their teeth and storing them on our server. I then take a full mouth scan using the 3M True Definition Scanner, which consists of scanning each arch and the bite registration. After the scan is complete, the STL scan files are uploaded into the 3M™ Connection Center. I am impressed that my scan images are almost immediately available on the server so that I can begin to manipulate them as necessary.

At this point, the scan files are seamlessly transferred to the Invisalign® Doctor Site. Here, I can create patient profiles

and "attach" the patient's scan to the online prescription form the labs receive for creation of the aligner. And with the Trusted Connection to Invisalign, I can find all of the labs in my area that are certified to accept digital scans and create the clear aligners in seconds using a drop down menu. Because 3M uses an open model with industry-standard STL files, I'm able to send them to any lab that can accept digital files. This means I no longer need to send labs a physical PVS impression and have them create a stone model from it. With the click of a button, the lab can receive a true 3D image of the mouth and I never have to worry about it getting lost in the mail like with a PVS impression. Just a few weeks ago my shipping service lost a model I sent to the lab and I had to start completely over, which further delayed the start of treatment and resulted in an annoyed patient.

Once I have reviewed and accepted the patient's ClinCheck® treatment plan, I simply wait for the aligner to be manufactured and shipped to my practice. The Trusted Connections are like the icing on the cake for me when it comes to the usability of the machine – just knowing that each connection has been rigorously validated puts me at ease. I know the process is efficient and the outcome will meet or exceed my expectations.

The Patient "Wow" Factor

My patients' reactions have demonstrated how valuable an investment digital impressioning has been to my practice.

When a patient comes in expecting to take a traditional impression they're often dreading it, but when I pull out the wand, the most common reaction I hear is, "wow." Once the scan is complete, my staff lets the patient manipulate and play with their scan image on the touch-screen. Patients are able to be fully involved in the process and their experience becomes even more enjoyable. I want my patients to go and tell their friends about my practice and how impressed they were with their experience. The word of mouth marketing my practice receives helps position us as a tech-savvy practice and brings people in the door who actually ask about digital impressions.

Another significant advantage is that patients don't have to sit through additional PVS impressions when refinements are needed to their case. I can tell the patient that we can do it quickly with a digital scanner, and they are thankful for that every time – especially if their initial impression was analog.

To help promote the digital scanning technology we use, we have hung a large screen TV in the main area that shows information about the scanner and displays what a scan looks like. Having this information in view of everyone in the office fosters communication between my staff and the patient while also creating a great opportunity for a patient to ask about what they're seeing. I often scan curious patients at no cost to create another chance to answer any questions they have, and these conversations are often the ignition to start treatment immediately. The 3M True Definition Scanner has brought fun and excitement back to our office with a fervor. I can't think of a better marketing tool; it truly benefits the patients and simultaneously grows our practice. Join my staff and me as we lead the charge in digital dentistry! ∎

Dr. Neil Warshawsky attended the University of Illinois where he earned a total of 5 college degrees culminating in his Orthodontic Certificate. Today he divides his time among the three pillars that support his practice. He leads a world class staff at Get It Straight Orthodontics in Chicago, Illinois - with 4 locations spread across the city and suburbs. Dr. Warshawsky is an Associate Professor of Orthodontics at the Craniofacial Center at the University of Illinois Health Center, and lectures 40+ times per year on subjects including clear aligners, lingual orthodontics and the use of fixed skeletal anchorage for more efficient mechanics.

CASE STUDY

For this case, a patient presented with the goal of attaining a straighter and more esthetically pleasing smile. Based on the patient's desire for it to not feel like she was wearing "traditional braces," Invisalign clear aligners were chosen. I began the case by taking diagnostic images and photos of the patient. A full mouth digital impression was then completed and I began entering the patient information into the Invisalign Doctor Site.
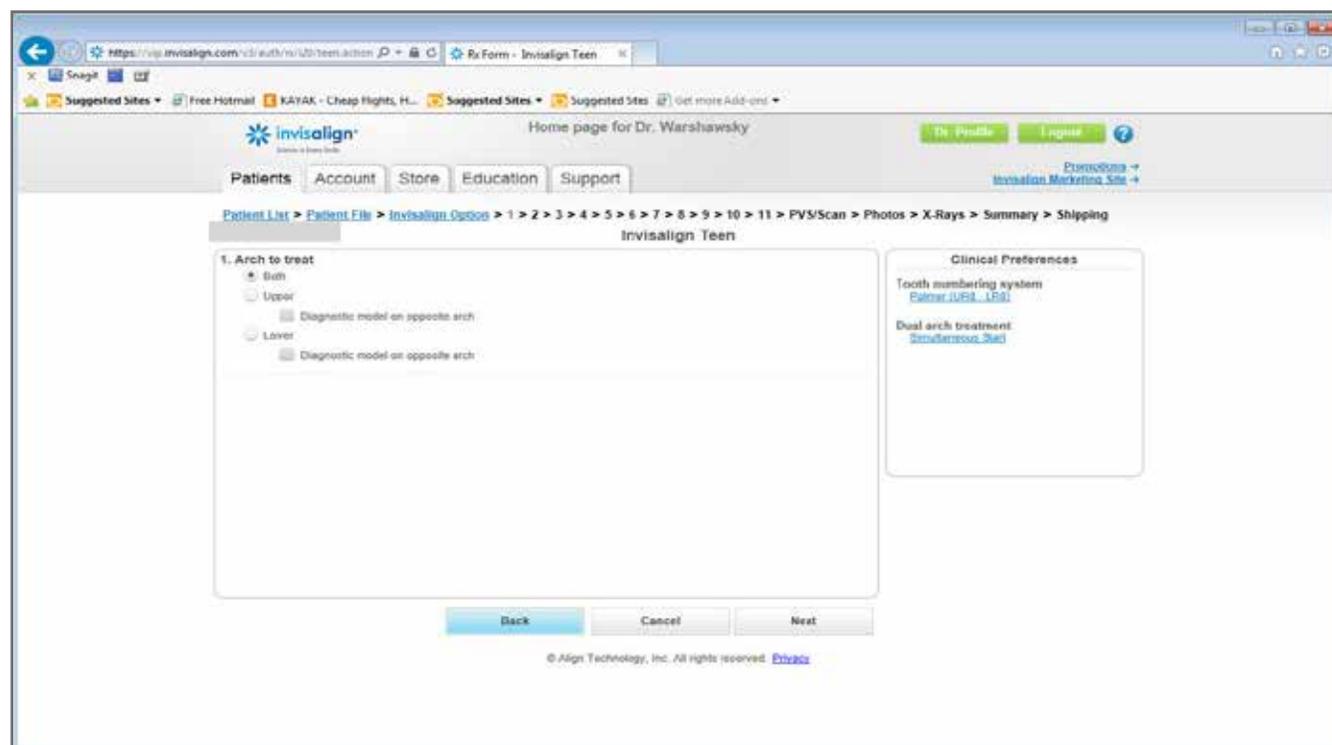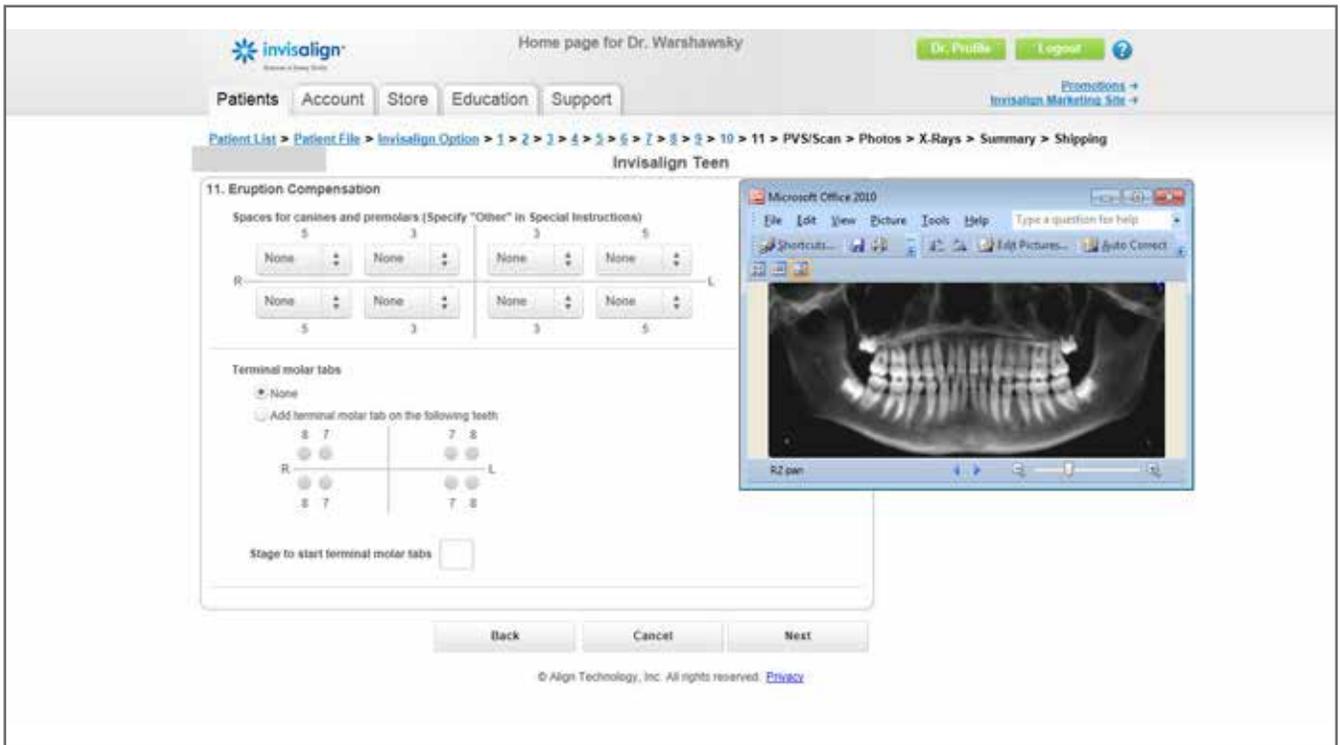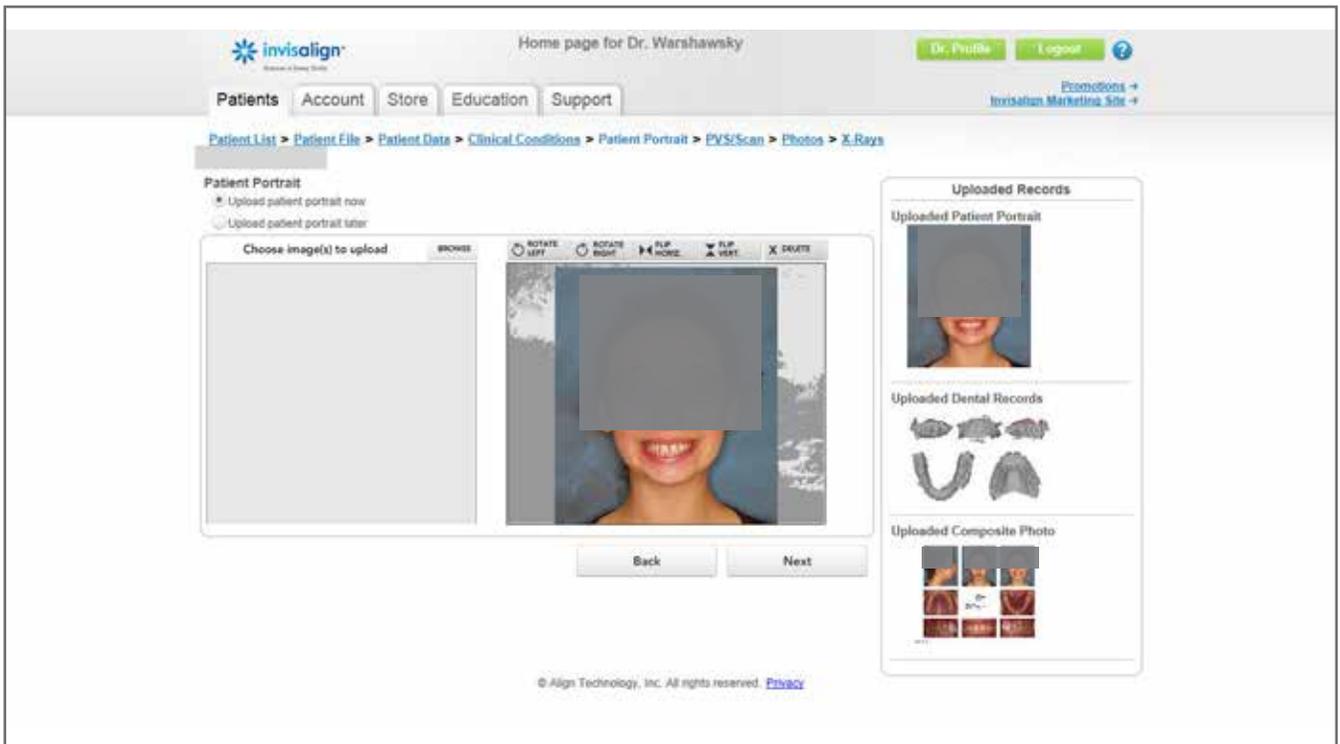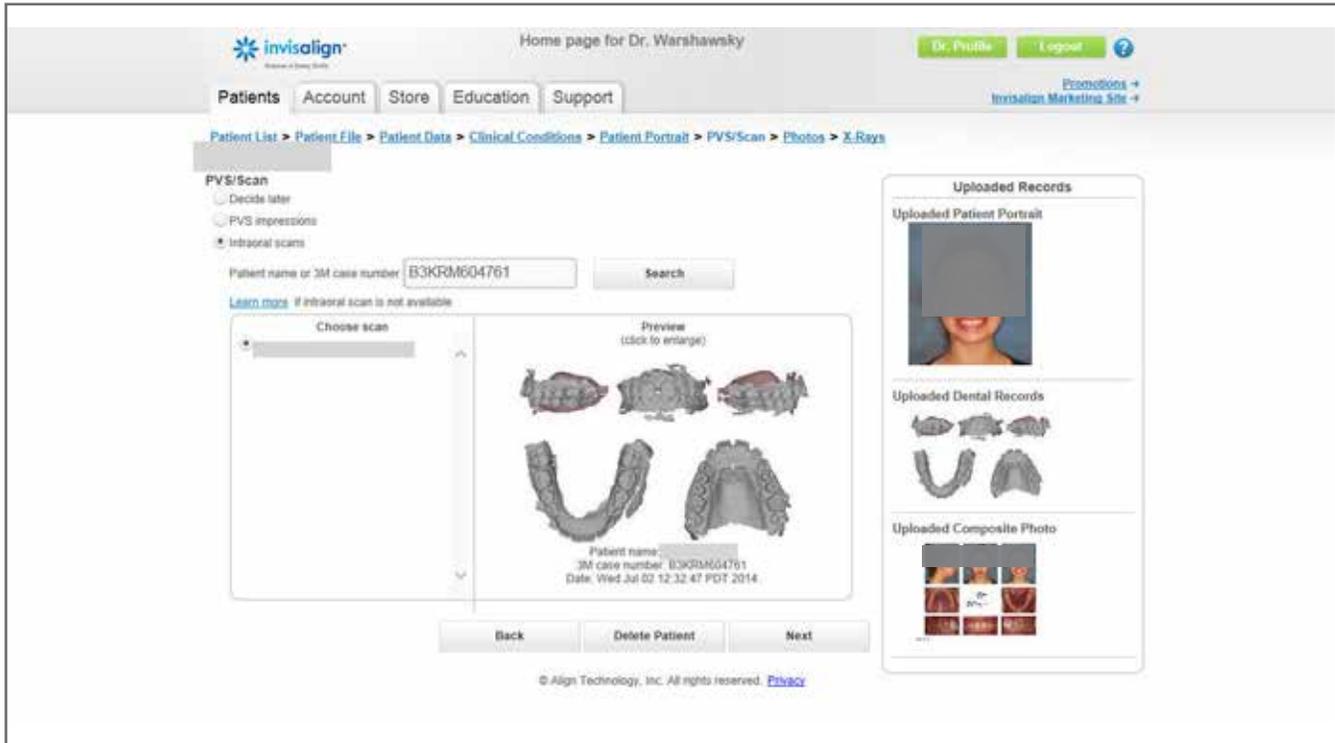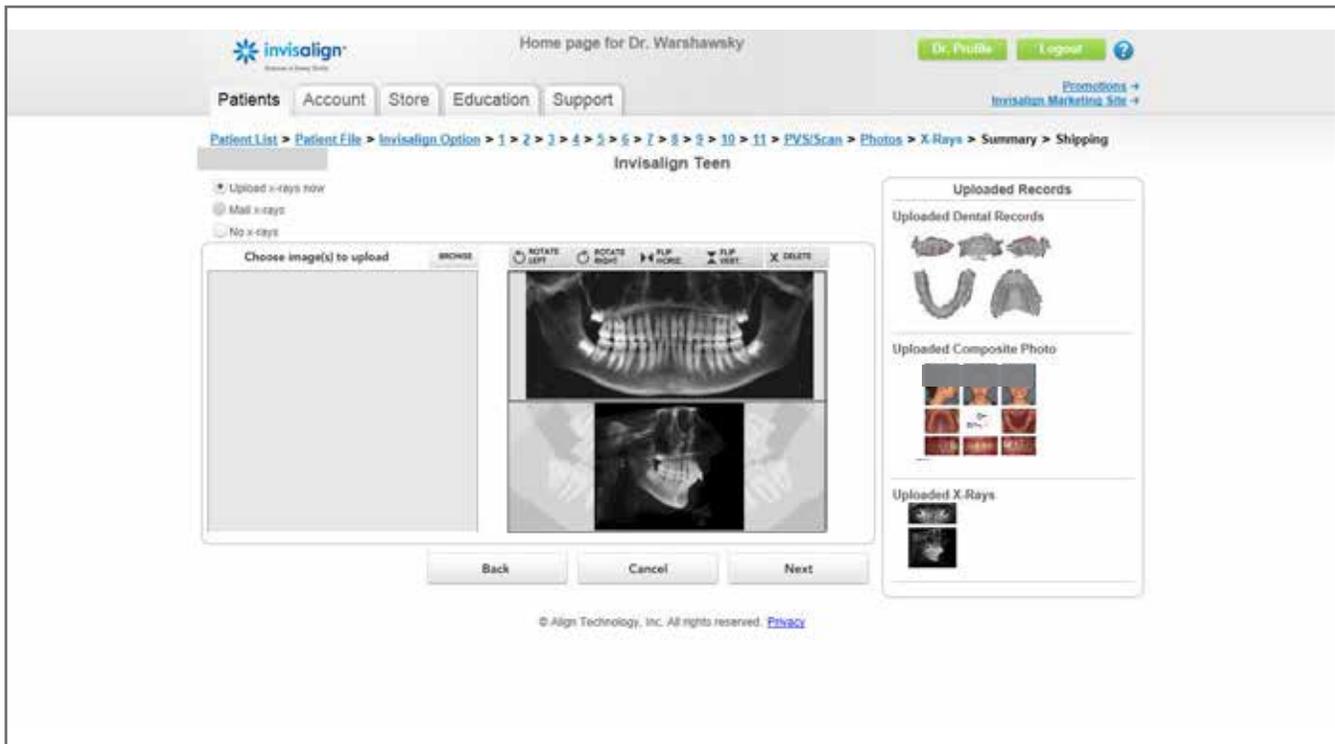

Figure 1.

Figs. 1-2: The technical information for the aligners is entered. This information includes selecting the arches requiring alignment, basic spacing issues needing correction, and several other factors that affect the fit and overall effectiveness of the treatment. The interface clearly prompts for any information that's needed, and options are provided in pull-down menu format, so there is never confusion on the lab's end due to misspellings or unclear writing.

Figure 3: After entering all of the aligner specific information, the patient photos are inserted. This process was designed to be easy; it just requires a drag and drop to the correct locations.

Figure 4: The digital impressions are "attached" to the patient's file. Again, this process is highly automated and takes just seconds. The top navigation bar shows progress through the process, and what's coming next.

Figure 5: The final pieces of information are added, including the digital panoramic x-rays.