A new system for placing direct composite resin veneers, the Uveneer System (Dental Art Innovations), has recently been introduced. It is a clear template kit that provides the clinician with preformed facial surfaces of maxillary central and lateral incisors, canines, and first premolars (which can also be used as second premolars if needed). The system was designed to make it easier and faster for dentists to create direct composite veneers with predictable shape and symmetry. Uveneer templates come in 2 sizes to better fit the facial profiles of most teeth. The template size is made to match the ideal 80% width-to-length ratio, corresponding to smile design proportion (“golden proportion”) at mesio-distal widths of 1.6 mm central incisor to 1.0 mm lateral incisor to 0.6 mm canine. In addition, due to the precise anatomic “facial tooth contour” of the templates, the final result will yield different thicknesses of composite (less toward the incisal third and gingival areas and greater in the middle of the facial surface). This varied thickness of material creates different effects and values and, as a result, only one shade of composite is needed in many cases to get a natural gradient effect, obviating the need to use different shades using a layering technique.

The creation of freehand composite veneers is still considered one of the most challenging procedures for dentists to perform. With the nuances of facial proximal line angles, proper heights of contour, and facial outline form in the template, the Uveneer technique provides a fast and predictable way to create anatomically beautiful direct composite veneers in a fraction of the time.

CASE 1
The Single-Tooth Solution
The patient in Figure 1 presented with a darkened left central inci-
sor needing an immediate chairside solution because of an important family event (case and photos courtesy of Dr. Husam abu Diab of Qalqilya, Palestine). A single direct composite veneer that would match the adjacent central incisor would be difficult enough to fabricate, but with a dark value in the “background” to be masked as well, this case could be extremely difficult to do correctly and could be time consuming in addition.

After placement of gingival retraction cord, the facial surface was prepared for a full facial veneer. Preparation was required for this case so that the thickness of composite would adequately mask the discoloration. Also, an intracrevicular margin was placed to allow for better aesthetics due to the darkened color of the root. After tooth preparation and placement and curing of the bonding resin (Excite [Ivoclar Vivadent]), composite tints (Shade Modification tints White and Brown + Yellow [SDI]) were placed in the cervical area; each color was separately cured to simulate the cervical coloration of the adjacent tooth (Figure 2). The next step was the selection of the proper template and tooth size from the Uveneer kit (Figure 3), followed by the selection, in this case, of an appropriate shade of a nanocomposite resin restorative material (such as Filtek Supreme Ultra Universal Restorative [3M ESPE]) to match the adjacent central incisor. The composite was then placed on the tooth. Next, the Uveneer template was lined up to coincide with the outline form of the tooth, then placed and pressed into the composite (Figure 4). After light curing through the template, the template was removed, leaving a highly polished surface. The anatomic form of the central incisor was complete by virtue of the template. A minimal excess of composite at the incisal edge was removed, finished, and the restoration was completed (Figure 5). The beautiful direct composite restoration was fabricated quickly and easily using the Uveneer facial template system (Figure 6).

**CASE 2**

**Veneering Old Porcelain Veneers With Direct Composite**

The patient shown in Figure 7 presented with a fractured porcelain restoration on tooth No. 8. In order to get an optimal aesthetic match between the central incisors,
the long-term treatment plan was to replace the porcelain restoration on this right central incisor, and then to also redo the restoration on tooth No. 9 due to gingival recession. However, since he was getting married in less than a week, a more immediate solution was needed. The decision was made to create some space by doing a minimal veneer preparation into the ceramic (Figure 8), and then to overlay the existing restorations and root surface with direct composite. The aesthetic demand was high, but given that the restorations would ultimately be replaced, chair time and economics were prime considerations. When compared to the option of preparing the teeth and placing provisional bisacrylic temporaries, using the Uveneer system would make it possible to more closely match the adjacent porcelain restorations, achieving a nice result in a short period of time for a fair fee.

After selecting the shade of composite resin (Kalore [GC America]) to be used, the prepared porcelain surface was etched and rinsed. Next, silane (Bis-Silane [BISCO Dental Products]) was applied, air-thinned, and then bonding resin (G-ænial bond [GC America]) was placed and light cured. After placing clear matrix strips proximally, composite was then extruded onto the prepared surface (Figure 9). Next, the selected Uveneer template was placed into the composite material and the excess was removed from around the periphery of the template with a plastic composite instrument (Goldstein Flexithin Mini 4 [Hu-Friedy]) (Figure 10). After light curing (Demi Ultra [Kerr]) the composite, the template was removed. It should be noted that these templates do not stick to the surface of the composite and, as mentioned previously, the cured composite surface is shiny due to the lack of an oxygen-inhibited layer. Because of the gingival recession and shade of the root surface, a small additional amount of composite was needed to complete the cervical portion of the restoration. In order to match the incisal translucency and internal effects of porcelain restorations, a cutback was performed on the incisal edges of the composite to place some white staining. After placement of some clear incisal composite over the stained incisal edges, the restoration was finished and polished with rubber abrasives. A finishing strip (ContacEZ) was used to remove excess bonding resin and finish the interproximal surfaces of the restoration (Figure 11). Figures 12 and 13 show the completed Uveneer restorations on teeth Nos. 8 and 9. Our patient was happy and ready for his wedding!

**CASE 3**

**Intraoral Mock-Up for a Trial Smile**

Patients often do not know what they want until they see what they don’t want. It is often a challenge to determine exactly what an aesthetically driven...
patient is looking for. Why? Because, often, patients do not actually know what they want. They may bring in pictures of someone they know (or perhaps of a celebrity) because they want “that” smile, but they have no clue if “that” smile is even possible in their unique facial and aesthetic situation. It is really hard to make decisions on tooth shade, shape, and length until the patients see a trial smile with the framework of their own face. Clinicians frequently use the provisional restoration to help make these decisions. However, for many cases, a trial composite mock-up can give the patient and dentist some excellent direction as to where to go with the case. Again, as mentioned earlier, the downside is the additional chair time as well as the artistic ability of the dentist. This is where a system like Uveneer comes in nicely as an option.

Using the Uveneer templates, a dentist can quickly and efficiently mock up a case on a patient’s teeth in a very short period of time. For example, the patient in Figure 14 was seeking a noninvasive approach to her aesthetic situation. She presented with small teeth and with multiple diastemas. Cervical erosion of the posterior teeth had contributed to the lack of presence of her natural teeth in the buccal corridor bilaterally. At 36 years of age, some of her treatment goals were to have larger, brighter teeth that would close spaces and fill out her smile bilaterally.

In this case, a bleach shade of composite was placed in the Uveneer template (Figure 15), pressed onto the dry labial surface, and light cured (Figure 16). Since, in this case, the intent was to have the patient wear her “trial smile” as a provisional restoration, spot-etching and placement of a drop of adhesive resin in the center of the labial surface was done to aid in retention of the composite material. Tooth by tooth, starting with the 2 maxillary central incisors, then followed by the lateral incisors, canines, and finally premolars, the composite veneers were fabricated directly on the patient’s teeth in a similar fashion. Once the trial smile was in place, phonetics were evaluated to determine and adjust (as required) the incisal edge position. The little bit of excess flash was removed with an 8-fluted carbide composite finishing bur (H135.FG.014 [Komet USA]), and the composite surfaces were then polished with rubber abrasives (J jazz Polishers [ss white]) and polishing brushes (jiffy brush [ultradent products]). Figure 17 shows the patient’s trial smile, completed using the Uveneer template system. Remember, this mock-up does not have to be perfect, but it does give the patient a preview of how the finished smile can look. Tooth color, mesiodistal and cervico-incisal heights can be evaluated, as well as how much to build out the facial surfaces of the premolar teeth to help fill the buccal corridor. The darkness of the facial surfaces of the teeth showing through the composite tells the dentist and laboratory technician of the need to use enough opaque ceramic to block out the natural tooth color. This case was “no prep” veneers, so the restorations would be very thin. If the patient likes the mock-up, a polyvinyl impression can be taken and poured up to use as a template for provisional fabrication or as a visual aid to the ceramist to help develop the same perimeters in the ceramic restorations. Figure 18 is a retracted view of the completed ceramic restorations for this case.

CASE 4

Mock-Up As a Template for Fabrication of Provisionals

For many aesthetic cases, the clinician will send a preoperative impression to the dental laboratory team for a diagnostic wax-up. This wax-up is then duplicated in dental stone and a thermoplastic material is used to fabricate a clear stent to be used as a template in fabricating the provisional restorations. For an aesthetic case that does not require major changes in the occlusal scheme or vertical dimension of occlusion, these composite mock-ups can be made very easily by the dentist or dental assistant in the office using darker shades of composite (shades that are often not used clinically), saving the additional laboratory expense of a wax-up.

Figure 19 shows a facial view of a pre-
operative stone model on which a 6-tooth composite mock-up was to be made. The first step was to determine which size of Uveneer central incisor would work best. Next, a flowable resin (BEAUTIFIL Plus Low Flow [Shofu Dental]) was painted on the facial surfaces of the stone teeth (Figure 20) and light cured. (The oxygen inhibition layer makes the composite to be added stick better.) Composite was then placed into the Uveneer central incisor template and pressed to the facial surface of the appropriate tooth (Figure 21). If needed, a diamond rotary instrument or sandpaper disc can be used to refine the shapes. In a very short period of time, using the Uveneer templates, the 6-tooth composite mock-up was completed (Figure 22).

Composite mock-ups can be used directly in a thermoplastic machine to make a plastic provisional stent. A wax-up must first be duplicated in stone before a suck-down can be fabricated. Figure 23 shows the provisional stent with temporary crown and bridge material (Tuff-Temp Plus [Pulpdent]) on the preparations that began the fabrication of the provisional restoration for this case.

Figures 24 and 25 show the completed provisional restoration and ceramic restorations, respectively. Composite mock-ups using the Uveneer system offer the dentist an easy, quick way to mock-up a case, making provisional restoration fabrication proceed smoothly.

**IN SUMMARY**

Several clinical uses for the Uveneer system have been described in the case examples presented herein, demonstrating how this technique can help the dentist more easily create aesthetic facial surfaces of maxillary anterior teeth. This template system can be used to create direct composite veneers as definitive restorations, and in a variety of diagnostic situations that help the dentist and patient get on the “same page” when designing an aesthetic restorative case to meet a patient’s individual goals.

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