Clinical Case
NobelReplace® Conical Connection and NobelGuide®

September, 2012
Dr. Andrew Dawood  
Prosthodontist  
London, England  

Full arch maxilla with prefabricated NobelProcera Implant Bridge  
Male patient  
65 years old  

Implants:  
5 x NobelReplace CC RP 4.3 x 11.5mm  
1 x NobelReplace CC RP 5.0 x 11.5mm  

Surgery date:  
September 4th, 2012  

Time for total treatment:  
4 weeks  

Type of implant procedure:  
NobelGuide guided surgery, flapless  

FDI POS:  
Edentulous maxilla  

“Planning surgery with NobelClinician in combination with guided surgery and NobelReplace Conical Connection, provides a streamlined and predictable planning process, with minimally invasive and accurate treatment, transforming the surgical and prosthodontic stages. In our practice, this leads to improved outcomes and a higher uptake of treatment.”
This fit and healthy patient, who had already experienced implant reconstruction of his lower jaw some 12 years previously wished to find a fixed alternative to his troublesome removable prosthesis. A good volume of bone and of keratinized tissues remained.

Prosthetic planning was straightforward, as the patient had a low lipline, and was very satisfied with the appearance of his existing prosthesis. The prosthesis was relined with hard material to maximise stability, and radiopaque markers placed, to transform the prosthesis into a radiographic guide.
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Digital treatment planning in NobelClinician Software

The original prosthesis forms the basis of the digital planning in the NobelClinician environment. Note ideal planning of screw access channels, and multiple options for anchor pin stabilization.

Preview of surgical template in the NobelClinician Software allows for the template to be visualised before sending order for production.

Courtesy of Dr. Andrew Dawood
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Laboratory steps

Mounting of NobelReplace Conical Connection implant replicas in the surgical template using the Guided Cylinder with Pin Conical Connection to create master cast prior to surgery.

The master cast is used to fabricate a provisional bridge to be inserted at time of surgery.

Courtesy of Dr. Andrew Dawood
Laboratory steps

Planning is “prosthetic-driven”; the patient and technician understand exactly what to expect and prosthodontic treatment is simplified and expedited. Here, the teeth are located onto the master cast, ready for straightforward production of bridgework.

The NobelGuide surgical template is mounted on the articulator to make a surgical index at the same vertical dimension. The surgical index will stabilize and locate the template as it is seated into position.
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Guided Surgery

Guided drill guides are used to control site preparation, until the final implant-specific drill is used directly through the close fitting sleeve of the surgical template. The implants are sequently guided into position on guided implant mounts. The flange on the implant mount controls the vertical positioning of the implant.

The surgical template removed. Use of the new minimally invasive workflow results in cleaner, and more conservative soft tissue preparation, and improves the accuracy of drilling in challenging bony topography.

Courtesy of Dr. Andrew Dawood
It is common practice to prefabricate a provisional bridge in resin alone. However, in this case, as a demonstration of the accuracy that may be achieved with careful execution of the NobelGuide workflow, a definitive NobelProcera Implant Bridge has been prefabricated to fit upon Multi-unit abutments.

The definitive bridge fitted at the time of surgery, here photographed in place 2 weeks post surgery. At this time only one small occlusal adjustment was needed. The prosthetic screws were checked and retightened. The patient was instructed in oral hygiene procedures and maintenance.

Courtesy of Dr. Andrew Dawood
The definitive bridge seated. Only one small occlusal adjustment was needed. The patient must be reviewed, and prosthetic screws retightened 2 weeks after fitting of the bridgework.

The Patient was delighted with the result, and astonished by the speedy and uneventful recovery.

Courtesy of Dr. Andrew Dawood