In This Issue:
- TEAM approach to implant therapy.
- Implant Protocol.

"I work closely with Gardali from treatment plan to seating. A high level of communication and collaboration of our individual expertise guarantees case success even with the most complex cases"

Stephen Passalacqua, DDS
Utica, NY

Doctor,
Welcome to the Gardali-EstheticZONE™!

EDUCATION ZONE:
As we experience the continued growth in implant supported therapy we have also uncovered some challenges. In addition, to the ever-changing clinical theories, materials and technology available there seems to be an ever-growing disconnect between implant placement and restorative outcome. In other words, the heavily lectured TEAM approach does NOT seem to the ‘The Norm’. Often times, we receive cases that have implants placed in non-ideal locations and angles for the restoration desired. I.E. Patient expects a screw-retailed, fixed hybrid restoration. Due to implant site(s) placement, the patient has to settle for a removable over-denture. Ultimately, leaving the patient & GP dissatisfied.

A timely, TEAM based treatment plan including the restorative Doctor, Surgeon, Implant representative AND laboratory implant technician would eradicate poorly planned cases such as this one. This is ONE example of many challenges we face. In support of this view please read the article below.

Team Gardali

Dental Implants’ Future:
The Need for a Team Approach.

Donald S. Clem, DDS, Guest Editor.

Long-term success of dental implants is linked to well-trained implant surgeons and restorative dentists working together with the most advanced treatment modalities. General dentists are challenged to identify early in the diagnosis patients who are at greatest risk for developing complications and partner with specialists in formulating treatment plans. Introduced in the United States in the early 1980s, osseointegrated implants as a treatment option for edentulous patients have been considered possibly one of the most significant advancements in dentistry.

While they have become highly predictable, implants have been somewhat controversial with regard to treatment protocols, training, site development, and long-term maintenance. In considering the current state-of-the-art in implants, it is important to take pause and contemplate several issues. First, when the author reflects on how osseointegrated implants were incorporated into his dental practice in 1984 compared with how dental implantation is executed 30 years later, it is striking to note how some concepts have remained the same, how some have drastically changed, and how some clinical predictions have mostly remained unfulfilled. Clearly, one thing has remained constant over this timespan: long-term success of dental implants is linked to well-trained implant surgeons and restorative dentists working in a team approach with the most advanced treatment modalities for the benefit of patients. It should be stated that the surgeon/restorative dentist can, indeed, be one in the same person. However, when exploring the range of surgical and restorative options now available, one can conclude that it is certainly a daunting task to maintain such a wide range of expertise in both surgical and restorative aspects of dental implants. The Best Abilities of Each There is an expression that one quickly learns with implant dentistry: “Implants are easy…until they are not.”

(Continued on page-2)
Dental Implants’ Future: The Need for a Team Approach. (Continued)

The clinician should approach implant dentistry with both confidence and caution. The restorative result, from an esthetic and functional perspective, is dependent largely on the surgical result. While high rates of integration have become achievable, integration in and of itself as the goal ought not be the standard for success. Particularly in the esthetic zone, most clinicians have witnessed terrible failures in the reconstruction of a smile while the implant itself is deemed “successful.”

The team approach, with implant surgeons working together with restorative colleagues, provides the patient with the best abilities each member can bring to the treatment. Additionally, specialty education in the United States not only seeks to train, but major advancements in implant dentistry, both surgical and restorative, have come from the research protocols of that system. Indeed, this is the dual purpose of specialty training educate to a very high level and develop the art and science with an evidence-based approach. This system brings advancements to surgical specialists, restorative dentists, dental hygienists, and the entire dental team. To some, implant therapy has been distilled to a universal approach of drilling a hole in bone and placing the implant, and then just taking an impression and cementing a crown. This approach is simple, until, of course, “it’s not.” Clearly, the future demographic of the US’ aging population will be associated with an increased need for implant therapy. It is a population that is living longer, taking more medications, and living with more chronic diseases than ever before.

This indisputable fact is the most compelling reason the team approach should continue to be embraced in the coming years. The patient population is becoming more complex, while treatment protocols have become simplified. Concurrently, general dentists are continuing to increase their participation in both surgical and restorative implant dentistry.

One may question if this is a contradiction. The answer is that risk assessment will, as it has in other areas of healthcare, drive dental care and the relationship between general dentists and specialists. Patients will have a team of dentists, much like they have a team of physicians. The challenge for general dentists will be to identify early in the diagnosis those patients who are at greatest risk for developing complications and partner with specialists in developing treatment plans and execute them for the maximum patient benefit. Expanding Treatment Protocols Treatment protocols have been developed in a manner that has facilitated both convenience and controversy. For example, in the past the standard protocol was to allow implant integration to proceed unloaded for 6 months in the maxilla and 3 months in the mandible as minimal healing time. Now the industry is seeing protocols that allow for loading at 3 weeks and, indeed, immediately at the time of implant installation. What was once a “universal” protocol has now been transformed into a number of protocols dependent on implant design, surface, and validation through prospective and retrospective studies. The clinician must proceed with caution when attempting to translate data from one implant system/protocol to another, as they are not universally translational.

As a result, the implant surgeon and the restorative dentist need to be well versed in a number of protocols, as the “universal” approach may be considered a vestige of the past. Instead of putting the implant “where the bone is,” implants are being placed in a restoratively driven approach. How can clinicians, through surgical expertise, place implants to allow for screw-retained restorations, cemented restorations, and prosthetic attachments in a manner that complements the restoration instead of complicates the restoration?

The industry has evolved from surgical guides to computer-generated guides to guided surgery. All of these options for guiding implant position will likely become outdated. The most significant advance is in navigation—not “guided”; that is, the ability for the surgeon to know in real-time where the implant is located in space in relation to the proposed restoration and vital structures. Early attempts at these devices proved cumbersome and impractical, and they are no longer available in the US. Technology is advancing, however, and will soon lead to a true surgical navigation in real-time with feedback regarding bone quality and position and location of adjacent teeth and vital structures. Loading protocols have been shortened, largely due to enhanced surface treatments. Micro surfaces promoting early integration have been responsible for shorter integration times. Implant geometry has fostered enhanced stability on insertion for immediate loading protocols. These advancements have more to give, however. Newer surfaces that are treated with nano surface technology and growth factors perhaps specific to individual patients may be in the future. In fact, research is currently underway to explore the genetic predisposition of patients both from the standpoint of potential tooth loss and their ability to form bone. In other words, one day it may be possible to tap into a patient’s genetic code to assess his/her individual ability to form bone and increase tissue quantity and quality. This, ultimately, is the unfulfilled future that is yet to be. Currently, other fields such as oncology are using a patient’s genetic information to not only identify their risk, but also to customize treatment based on that particular patient’s genetic predisposition to respond to a specific treatment. This concept of identifying risk and treatment response may also be important in identifying those patients who are more susceptible to peri-implant breakdown. Dentistry’s current approach to diagnosis, treatment, and maintenance has been largely through observational assessments via both clinical examination and advanced imaging. In the future, diagnosis will be driven as much by laboratory/genetic testing as it currently is by clinical examination. Based on this information, choosing the most predictive treatment may one day include changing the patient’s healing potential through the addition of specific growth factors and other biologics to enhance an otherwise compromised patient or site. Until the dental profession is able to do this, clinicians will continually face limitations and complications that go largely unsolved. New Ways In going forward, dentistry must incorporate new ways of managing the host response fabricating restorations with ease and accuracy, and incorporating effective maintenance protocols to minimize failure. It is difficult to imagine how any one individual can accomplish all of these undertakings on all patients. Ultimately, risk assessment will drive patient-specific treatment and specialized teams of clinicians, because all patients are not the same!

For References and to see related articles visit: https://www.dentalaegis.com
**Four (4) steps and technique for restoring a Maxillary or Mandibular Implant Overdenture Restoration.**

1. **DOCTOR:**
   - Take full arch, rigid tray alginate impression of the healing abutments.
   - Take impression of opposing / POUR MODEL and review.

   **GARDALI:**
   - Fabricate base plate and rims.
   - Fabricate custom tray for final impression.
   - Check status of implant impression posts.

2. **DOCTOR:**
   - Take bite with wax rim over healing abutments.
   - *Unscrew healing abutments, place impression posts and take a final impression with the custom tray.
   - Replace healing abutments.

   **GARDALI:**
   - Pour master model. / Mount healing cap model with wax rims. / Fabricate set up on healing abutment model.
   - *Fabricate verification jig.

3. **DOCTOR:**
   - Try in setup, if good return to lab or take a new bite and return.
   - Try in verification jig.

   **GARDALI:**
   - Remount if required or take a check bite of the good setup and opposing.
   - Transfer setup to master model and mount to opposing.
   - Make labial index.
   - Fabricate Bar / Remove bar and place setup on master model to set the pin at the correct vertical. / Replace Bar.
   - Keep pin set on articulator / Block out and duplicate a setup model and a process model.
   - Place blocked out master model back on the same articulator and take a bite.
   - Mount setup model to opposing / Transfer setup to a blocked out setup model.
   - Send final try in and bar try in to the Doctor.

4. **DOCTOR:**
   - Try in bar .
   - Try in setup over bar.
   - If good, return to lab or take bite and return for adjustments.

   **GARDALI:** If good, mount process model and transfer setup to process model. Process and deliver case.

NOTE: *Gardali must remove the HEX (Top) of transfer coping to fabricate verification jig.
Contact Us

Gardali
Advanced Restorative Solutions
401 Court St.
Utica, NY 13502

(315) 732-8204
Paul@GardaliLab.com
GardaliLab.com