A beautiful relationship

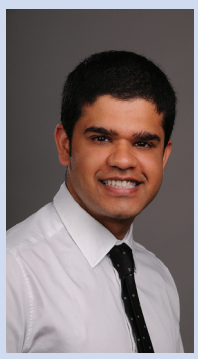
In the third of four articles, Nilesh Parmar interviews his dental technician, Richard Green, on the challenges of implant dentistry and where he sees this growing industry heading

Richard Green has been my implant technician ever since I began my Master's degree in Implant Dentistry at Guy's Hospital. In my opinion, many technicians can create good work, but only a select few create outstanding work. Richard would be one of the latter, he appears to have a natural talent for what he does and his work seems to 'just fit'. Over the last four years – and the hundreds of cases we have completed together – I could count only on one hand the number of issues we have had. No technician or dentist is perfect, which is why I rely upon Richard to make my work look good aesthetically so my patients leave happy and delighted with their treatment.

NP: So Richard, thank you for taking the time to speak to me, I know lab technicians are always short of spare moments. Tell me where it all started for you.
RG: I began my career in dental technology at BSP Dental Laboratory in Harley Street. I started working there straight after leaving school, as I was interested in a skilled, manual job, which would allow me to use my creative side and artistic flair. After a year of working there, I thought I best try working in an office to see if that was for me, but a couple of months down the line, I realised it wasn't and I applied for a job at Guy's Hospital.

So, in 1998, I decided to start all over again. I did the three years at college in which you learn all disciplines including prosthetics, orthodontics and crown and bridge. After qualifying in 2001, I applied for a job in the crown and bridge department at Guy's and worked there until 2009.

During this time, I became an implant specialist technician and, in 2005, after being asked by several dentists if I could work for their private practice, I decided to start my own lab, Implant Design Solutions. I left Guy's Hospital in 2009 to solely concentrate on my business.



Dr Nilesh R. Parmar BDS (Lond) MSc (ProsthDent) MSc (ImpDent) Cert.Ortho has a passion for his work and is famed for his attention to detail and belief that every patient should become a patient for life. Nilesh offers training and mentoring to dentists starting out in implant dentistry. Visit www. drnileshparmar.com, email drnileshparmar@gmail.com.

NP: Your work is primarily focused on dental implants. Is this a growth industry within dentistry at the moment?
RG: Yes, definitely. If you look across the world, we are still only placing a very small number of implants here in the UK in comparison to other countries. As the technology develops – and the cost of the implants decreases – more people are going for this option to restore missing teeth. I've noticed, even in these times of recession, people are still opting for implants as their choice of restoration. Only a few of my clients have reported a decline in implant patients coming through the door, but these are mainly inner-city clients where there is more choice for the patient.

NP: Many dentists are now using newer implant systems. As a lab technician what do you think of the quality of their abutments/lab analogs compared to the more mainstream brands?
RG: I have noticed more of my clients opting for a cheaper implant system, simply to offer the patient another option. When quoting for work they can offer the patient a cheaper alternative to the more mainstream implant systems, this often guarantees the patient accepts the job. In my opinion, this can often come as a compromise as these newer implants systems have not had the same level of research and development as seen with the more established brands.

I haven't noticed a notable difference in the quality of analogues and impression copings but I have on the abutment side. The main problems I have noticed is in the abutments being of a softer grade titanium alloy and when polishing noticing how much softer the titanium is than what is again manufactured by the larger implant providers and the level of polish and lustre that is achievable.

NP: What are the typical challenges you face in implant dentistry?
RG: One of the biggest challenges I face is meeting patients' expectations. The patient often expects the final outcome to be a lot like what they had prior to losing their teeth and the implants being placed but, due to factors such as bone loss and poor oral hygiene, the design of the bridges, with cleansability in mind, do not always appear

how the patient initially expects.

Another problem I often encounter is a poorly placed implant due to lack of planning prior to placing, this if often left down to the technician to resolve and get the dentist out of trouble.

NP: Do you see a difference in implants placed by restorative dentists and oral surgeons?
RG: In my experience of working with oral surgeons, they tend not to use surgical guides and to place the implants where the bone is not really taking into consideration the restorative side. Restorative dentists are often looking to place the implant to get the most aesthetic result and often use surgical guides, diagnostic wax-ups and consult a lot more with the technician to reach a better outcome.

NP: I hope I come into the latter group! Tell me about shade taking, I have started sending you a USB stick with intraoral pictures with a few shade tabs in the photos. Is that the best way to convey a shade to you?
RG: Of course you do! With regards to shade conveyance, you'd be surprised how many dentists still don't provide a photograph for work to be made in the aesthetic zone. The best way to send the photo across is either an email or on a USB stick. It is better to have photographs with the shade tab in shot, both with and without the flash to see how the tooth reacts to the light.

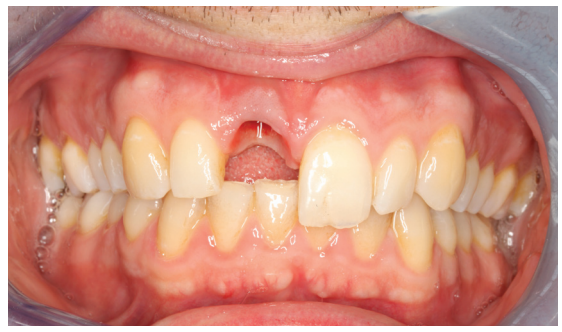
Alternatively, if this can be taken outside or near a window with natural light this produces a more accurate photograph. This is probably the best way to get the most accurate shade map across to the technician without actually having him come to the practice and map out the colour and effects in the natural tooth itself.

NP: What about impression materials, which works best for implants in your opinion?
RG: Impregum is my material of choice, initially it is hydrophilic in a moist environment that gives void-free impressions and has excellent flow properties which not only picks up fine detail, but also flows fully around the impression copings. This enables a good stable impression, which is the beginning of any good restoration.

NP: Open or closed impression techniques?
RG: I don't mind either way whether it's open or closed, but some manufacturers have a better closed tray system in which the analogue is able to re-engage into the impression more accurately without any movement. Ultimately, it's dependent on the dentist and which material he/she uses. Both can be as accurate as each other and obviously each has its own use for different patients and different situations. However, if I had to really pick one, I prefer an open tray impression using a customised impression tray made in the lab.

NP: There has been a big push towards Zirconia cam abutments with all-ceramic crowns on top. What do you think about their long-term prognosis?
RG: When I first started working on implants, back in 2002, I produced a few Zirconia stock abutments and there had been fracture issues due to the manufacturing process. I think this gave negative press towards them and dentists steered away from them for a while.

However, 10 years on and the materials have progressed, the Zirconia is a lot stronger and often you get a full 10-year guarantee with the abutments for any fractures or damage that could occur. They can often give a far greater aesthetic result with an all-ceramic crown on top but again they have their limited uses and each patient has to be assessed whether an all-ceramic crown and Zirconia abutment is right for them due to their occlusion and interferences.



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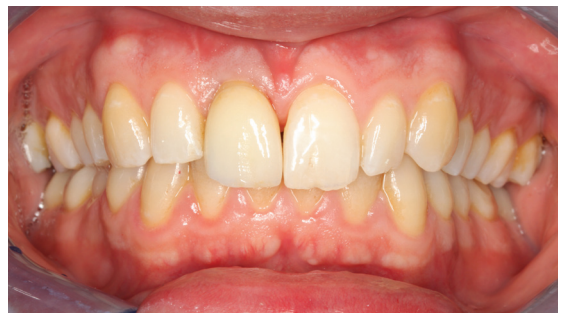

After

"Even in these times of recession, people are still opting for implants as their choice of restoration"

NP: Do you think implant manufacturers overcharge for their products, primarily the lab side of things?
RG: Some of the big companies I use are expensive for their abutments and products. When you look into the research that has been put into design, manufacturing by compatibility, etc, you have to understand that this money has to come from somewhere and this is from the final product. However, it does seem strange when you can now find abutments from new cheaper implant systems for about a tenth of the cost, obviously the research and development hasn't gone into these but essentially it is the same product at the end, especially on the abutment side.

NP: Where do you see it all heading over the next 10 years?
RG: I see it heading towards digital dentistry. There will be digital impressions – with no messy impression-taking in the mouth with conventional impression materials. New cameras for intraoral photography will turn images into 3D images and will be designed and manufactured in the lab on computer and milled from a milling machine. At the moment, this doesn't seem to be geared up on the implant side, but there are certain manufacturers which are heading that way and I can't see it being too long before we are there with that. In doing this you could increase turn around times, cut postage costs, check impressions on the computer sent from the dentist to the lab to check all the data, and all without costly re-impression taking while saving practice time without having to reschedule an appointment with the patient.

CAD/CAM abutments are being used a lot more and a number of the implant companies are looking to manufacture abutments in a non-precious alloy to lower the cost as often an implant crown can have upwards of £40 of bonding alloy inside, and that's on one of the smallest crowns.

NP: I look forward to the digital revolution, thanks for your time Richard.

Richard Green is the owner of Implant Design Solutions based in Romford, Essex. His work is primarily aimed at assisting in the surgical planning and restoration of dental implants. Richard is familiar with all the mainstream implant systems and can be contacted at rtg111@hotmail.com.