

October 2011

ADi Newsletter

Association of Dental Implantology UK 98 South Worpole Way London SW14 8ND
T: 020 8487 5555 F: 020 8487 5566 E: info@adi.org.uk W: www.adi.org.uk



President's Welcome...

Implant dentistry has come a long way in a relatively short period of time. Over the past 20 years or so there have been changes of opinion and practice: some techniques and opinions previously advocated are not so today; controversies and conflicts surrounding the practice of implant dentistry have arisen; and what of

the full circle travelled by implant clinicians over a period of time?

These questions formed the basis of the **2011 ADI Team Congress** in Manchester in April. With the theme of **'What We Know, What We Think We Know, And What We Think We Don't Know About Implant Dentistry'**, the congress facilitated some timely introspection and examined these changes of opinion and practice in the world of implant dentistry.

The two-day event featured a high-quality scientific programme along with combined and dedicated streams for the entire implant team. 91% of delegates rated the congress 'excellent' or 'good'. Of course, the congress is extremely well supported by the dental implant industry, and this year saw a sell-out of exhibitor stands. 20% of exhibitors were new to the ADI Team Congress. The congress social event – 'A Hard Day's Night' – took place at the Lancashire County Cricket Club's new event space The Point, and featured a fantastic performance by the Bootleg Beatles. In the following pages you will find reports on the various lectures as well as pictures taken at the event.

The Congress is the corner stone of any President's term of office and it was of great personal delight that this one was a resounding success and further, I look forward to attending the 2013 meeting as a delegate.

At the Congress I was honoured to present an award of outstanding contribution and commitment to the ADI to **Michael Norton** and **Mark Atkinson**, in recognition of the 18 years of tireless work and effort they put into Dental Implant Summaries. At the same time I also had the pleasure of awarding my good friend, **Michael Norton**, ADI Honorary Membership, which will be formalised at the AGM in November. Michael will join Hilt Tatum, Barry Edwards and Mark Atkinson as ADI Honorary Members. Michael's drive and determination was pivotal in pioneering the groundbreaking reorganisation of the ADI, converting it into the respected national association it is today.

At the 2011 AGM and Members' National Forum in November I will have the privilege of awarding Past President **Gareth Jenkins** ADI Honorary Membership. Gareth has been a loyal supporter of the ADI over the years and has contributed greatly to the success of our association, both nationally and in the Wales region. Gareth was in fact the motivational President for the very concept of a Members' National Forum, so it is very fitting, indeed an honour, to present the title to him at this event.

In November last year, following on from his well-received presentation at the 2009 ADI Team Congress, we were delighted to welcome back **Ken Hebel** to present a Masterclass. Entitled 'Treatment Planning Challenges for the Reconstruction of the Partially Dentate Patient using Implants', 160 delegates attended the four-hour Masterclass in central London. Ken is known for his informative, entertaining and interactive style, and his presentation proved to be

highly educational and rewarding. A report on the Masterclass can be found in this Newsletter.

We were proud to launch the ADI **Dental Nurses' Course** in June. This is a one-day course on dental implants catering for the experienced or inexperienced nurse, and aims to increase the understanding of dental implantology to dental nurses. The inaugural course took place in the Wirral and was attended by 12 nurses. The feedback from the day was excellent, and we look forward to the next course to be held in London in October this year. A report on the Wirral course is included in the following pages.

For the first time, the ADI had a presence at two large dental congresses: **The Dentistry Show** in Birmingham in March and the **British Dental Congress & Exhibition** in Manchester in May. The ADI's Director of Education, Mr Bill Schaeffer, led a one-hour presentation at the latter entitled 'Implants in General Dental Practice – How YOU Can Get Involved'. The talk was pitched at younger dentists and GDPs looking to start placing dental implants. A write-up on the presentation is featured in this Newsletter.

The ADI **Study Clubs** have long been regarded as the backbone of the ADI, and meetings are run regularly across the UK. A selection of Study Club reports can be found on the following pages.

In October the ADI launched **Ark**, the web-based education resource that has been uniquely created to provide foundation-level knowledge of implant dentistry. The ADI has drawn on the expertise and experience of top professionals in implant dentistry to author 13 courses.

Implant Logbook (formerly ADIA) is available free to all active ADI clinicians and technicians. With the GDC requirement for practitioners to log all dental implant outcomes, Implant Logbook is a great tool for patient record keeping.

I have enjoyed two memorable years as President of the ADI. It has been a privilege to preside over our great association, and I am sure that the ADI will continue to flourish under the direction and guidance of our next President, **Cemal Ucer**, who takes the presidential reins in November. As I sit here and reflect on these two years, it only seems like a few months since I took over the position and I would like to take this opportunity to thank the Committee for their support and contribution.

Behind the scenes we are very fortunate to have a small and dedicated team who work hard to ensure the ADI functions smoothly. Thank you to all the staff: Tim, Neelam, Kelly, Meryl and Louise.

Finally, I would like to thank all the ADI members for their support and encouragement over the last two years.

I look forward to seeing you all at the **Members' National Forum** in November and at future ADI events.

Stephen Jacobs, President



**Masterclass with
Michael Pikos**

**26 March 2012
London**



Masterclass presented by
Dr Michael A. Pikos DDS

**'Maxillary Alveolar Ridge Regenerative
Strategies: From Extraction Site
Management to Full Arch Reconstruction'**



09:45 - 10:30

Delegate Registration, Tea/Coffee & Trade Exhibition

10:30 - 12:30

Masterclass

12:30 - 13:30

Buffet Lunch & Trade Exhibition

13:30 - 15:30

Masterclass (continued)

15:30 - 16:00

Tea/Coffee & Trade Exhibition

16:00 - 18:00

Masterclass (continued)

**EARLY-BIRD FEES
until 16 DECEMBER 2011:**

£295 for member Clinicians **£245** for member Technicians

£150 for member Hygienists, Therapists, Nurses, Practice Managers, Students

(Non-member rates available)

To book, please visit www.adi.org.uk/masterclass2012

Royal College of Surgeons of England 35-43 Lincoln's Inn Fields, London WC2A 3PE

HOW LEARNING FROM PAST ERRORS CAN GUIDE THE FUTURE OF DENTAL IMPLANTS



TOMAS ALBREKTSSON

Report by Adrian Binney

Professor Tomas Albrektsson was kind enough to speak to the ADI. His remit was how learning from past errors can guide the future of dental implants. He gave a very thorough and complete talk outlining a number of areas where management of implants has changed over the last ten years. Initially, he outlined how over the years overloading has been considered as an option for implant failure and certainly overloading can cause failure. Evidence in the literature that he carefully outlined, indicated that the forces used to cause implant failure was of such a high loading force that it was not clinically relevant. He pointed out that low loading forces should not contribute to implant failure.

Peri-implantitis: He went on to use the 1993 definition, which he referenced accurately and carefully, pointing out depending on how you look at peri-implantitis. The different definitions can also define how many implants are affected and it is therefore very important to have a very clear definition about what we consider peri-implantitis to be and how it is measured.

He also pointed out that bone loss is very common and certainly in the Branemark system pointed out that some 1 mm to 2 mm of bone loss over 14 years would be considered normal and certainly not fall into the category of peri-implantitis. So, initially, a number of studies confused the different features of bone loss around implants. He pointed out that the frequency of implants being effected by peri-implantitis was very dependant on the definition employed.

In the Branemark studies, over 14 years, reported rates of 6.6% were noted and in other studies of 5-20 years 12.4 % were reported. However in certain studies 43% or even up to 85% of implants have been defined as suffering from peri-implantitis. This is obviously not that these implant areas are failing badly but the definition is different.

He went on to outline the difference between teeth and implants and how in certain individuals clearly it can be clustered, i.e. certain individuals are very badly affected. Additionally, the aetiology was discussed. It is very obvious that bacteria is present in all these peri-implant infected areas. However, it is not known whether bacteria is a secondary invader in an area where the bone losses have occurred or is it primarily causing the bone loss. Several studies have been used to help define this area but Professor Albrektsson noted that these studies do not copy the aetiology and progress of human peri-implantitis. Certainly very good studies have indicated that there is higher incidence of peri-implantitis in patients with previous periodontal disease, but looking at 10 studies, 7 found a correlation and 3 did not find a correlation.

Clinically, also Professor Albrektsson pointed out that pus and bleeding on probing although often seen as a very common clinical sign of peri-implantitis, did not co-relate well with active peri-implantitis and active bone loss. Therefore, clinically it was very difficult to define and diagnose. Additionally, he outlined certain studies that looked at infection and overloading together, but these studies could not bring

data which was clinically relevant as there was a significant lack of evidence.

He then went on to compare the healing and adaption theory of the likely cause of bone loss and outlined that poor surgical techniques and surgical skills could cause cell death. Additionally, one of the other big factors would be the host response such as genetics or drugs taken by patients and again these are a major factor. Occlusal forces are also within this theory and indeed smoking, allergies and systemic conditions, all can cause increased bone loss.

With secondary peri-implantitis where implant bacteria has invaded following bone loss, indeed the concern in this area may be that by trying to measure around the implants with pocket probes we infect the area and accelerate the bone loss. This although is not proven.

Following the outline of these different theories and different possibilities with bacteria overloading and host responses, Professor Albrektsson went onto answer the key question of the talk which was how do we learn from the future.

He outlined that bone would stay in position around the implant if the implant is a perfect implant, that surgery is carried out perfectly, the prosthetic is perfect and the patient is perfect. In this situation bone can be guaranteed, but of course we all work in a clinically less than perfect environment and in certain situations if the implant design or surface is incorrect or if the surgery is carried out and the cooling is incorrect or drill sequence has been done incorrectly, prosthetic fit is poor or cement is left then failure or bone loss is inevitable.

He went onto point out one of the biggest factors in implant success and how to improve it in the future, is to look at ourselves and our clinical treatment. We need to ensure we are not carrying out traumatic surgery and that surgery is carried out in the most atraumatic way possible. He outlined this with good examples that the clinician needs to understand, not only the science, but the art of implant surgery.

He backed these comments up by presenting some long-term studies that were carried out in his university for implants and also for hip surgery. All hip surgery in the area around Professor Albrektsson's University and implants were logged over many-many years and certain clusterings of failure were noted. These were noted in certain surgeons independent of the type of the patient they treated or the implants they were using. He used this evidence to back up the point that we as clinicians need to understand not only the science, but it is the art of the procedure that equally is important, how we treat bone, how we treat gums and how we respect the biology of the systems.

He also pointed out that implants are a constantly changing design, materials and surfaces and he pointed out that it is absolutely essential that we use systems that have got good clinical documentation with long-term follow up. Professor Albrektsson pointed out that a number of implants have come and have been used extensively, but then since withdrawn. Corvent in 1991 was withdrawn. IMZ was removed in 1997. Nobel Direct had a third of failures of 3 mm resorption or more at a year and his feeling was that it was a good system, but the protocol for this implant was incorrect. The protocol indicated that the implant could be placed and then prepared. He felt that the micro movement and damage to that interface between implant and bone was the cause of this extensive failure of bone loss at a year.

Having outlined in detail, with good humour these points, Professor Albrektsson went on to answer the key question, what do we learn for the future? He pointed out that we should learn:

1. Understanding the biology of the system, understanding the art of clinically undertaking these procedures.
2. We should understand the healing and adaptation of the problem and how bone reacts to it.
3. We should take what the companies say and be very critical of it. The 'do what you' like philosophy we certainly would not prescribe to it. He emphasised the need for a good long-term follow-up and using systems with very careful and well thought out protocols.

In conclusion, he pointed out that modern implants do appear better than previous designs and certain surfaces and surgical protocols are certainly improved on where we were so many years ago. He speculated where we may go in the future, but our success rates certainly with modern implants he pointed out, when done correctly and with the right art and science can produce excellent results.

He also pointed out that there are a number of patients and failures of unknown reason and certainly this is where we will be able to learn for the future.

Professor Albrektsson gave a very balanced and excellent opening to the ADI national conference, explaining a number of different scientific presentations and putting them in context and how we look back at them over the last ten years. It was interesting that with all the science that we have for implants, that one of the strong themes out of his talk, was that we should understand the art of implantology and respect it and learn this is an important factor in success of our patients, something that every clinician I am sure, will understand and recognise.

AESTHETIC DENTISTRY TODAY – A DISTINCTIVE APPROACH TO NATURE



MICHEL MAGNE

Report by Larry Browne

It was nice to welcome back Michel Magne. His work is clearly thoughtful and researched. He admits to a preference for minimally invasive approach to aesthetic restoration and with the development of ceramic bonding directly to tooth, much has been learned about the naturalness of thin carefully layered and coloured ceramics. As with all of these very talented technicians there is a huge appreciation of the clinical problems and the individual patient situation for each case.

Michel outlined the difficulty of maintaining light transmission through artificial teeth in the presence of metal implants or cast metal based restorations. With implants there is little or no choice and disguising metal in the aesthetic zone is highly demanding. Combining his knowledge of porcelain bonding and light transmission we were shown examples of partial porcelain overlays or veneers used to mask the Zirconia CAD-CAM abutments. Cleverly this partial coverage technique was used to alter the base and reflective colour and produce a more natural fluorescence to which the subsequent final crown is bonded with composite tooth coloured cement.

We were shown demanding cases with thin biotype, light translucent gingival around a metal implant and Michel

demonstrated and explained his innovative techniques for creating the illusion of nature. Recognising the shortcomings of some of our choices for tooth replacement Michel showed stunning examples of natural reproduction and completely undetectable laboratory made replacements.

Everything was carefully planned and carried out with the patient and the clinician in close co-operation. All parties agreed on the outcome, from the beginning of the treatment. A thorough knowledge of the materials available and an appreciation of how to maximise the potential of each is clearly behind Michel's grasp of every demanding case. That balance between natural artistic ability and hard-learned material science is evident in all of the wonderfully aesthetic cases we were privileged to see.

Michel has again shown us what a true master and craftsman he is. The subtlety of his shading and the wonderful match with nature in every case was undetectable. It is what we must all aspire to achieve for our patients.

MANAGEMENT OF THE ALVEOLAR SOCKET



MAURICIO ARAUJO

Report by Mark Diamond

Professor Araujo began by explaining the findings of his and other research into buccal bone resorption following tooth extraction. He discussed Bundle bone, that part of the alveolar process surrounding the tooth which is similar to cementum and is completely tooth and perio ligament dependent. This has no Haversian canal system and therefore only derives blood supply from the adjacent perioligament. Post extraction this bone disappears. Research has shown it to be approximately 0.4mm thick.

Cone beam scan research of buccal alveolar bone thickness on upper 1,2,3 at 1,3,5mm above bone crest showed only 15% of walls were thicker than 1mm and the average thickness was 0.5mm. Bundle bone is 0.4mm thick so this marginal bone will disappear.

Socket healing was then discussed, as was research by Prof Lindhe in Beagle dogs showing loss of buccal bone height with loss of this thin marginal bone. He showed that with flap or flapless surgery you still lose this thin marginal bone. With remodelling osteoblastic and osteoclastic activity this equates to about 2mm loss of buccal bone height meaning possible discoloration or crown lengthening.

He then showed how use of biomaterials (bovine derived) does not prevent loss of this marginal bone but at 6 months post grafting compensated for ridge reduction showing preservation of bone height and thicker mucosa compared to non grafted defects.

In summary – there is lots of long-term research to show that bovine bone can support the healing socket with or without simultaneous implant placement. If there is a thin marginal buccal bone wall it may be the best treatment to maintain existing soft tissue heights.

INTEGRATING THE PROCESS FOR PREDICTABLE AESTHETICS INTO CLINICAL PRACTICE



CLARK M STANFORD

Report by Sunny Kaushal

Professor Stanford gave a clear well-presented lecture. During this time a lot of ground was covered and some of his own cases were used to illustrate the points he was making.

There were no tips and tricks but just a solid underlying tone to the talk emphasising the need for accurate systematic evaluation of all cases while taking all risk factors and parameters into consideration. Long-term predictability and acceptable aesthetic outcomes are the goal.

He started by posing some questions:

- “What defines the aesthetic zone and what is the aesthetic challenge?”
- “What are the patients’ desires, expectations and capabilities?”
- “What are our own expectations?”

He joked that in the Midwest where he is from, the aesthetic zone is typically from canine to canine whereas in California it is usually from 3rd molar to 3rd molar! He commented that we all have our own bias on aesthetic issues but this can be quite different from the patients’ perspective.

It is important to keep in mind that when dealing with predictable aesthetics we are talking about a multi-factorial issue. These can be broken down into the following groups:

- The patient
- The care team
- The hard and soft tissues
- The implant abutment
- The treatment

The Patient

Professor Stanford addressed the patient factor using two distinct terms:

Strategic care management. This takes into consideration the objectives and resources of the patient. How much can the patient afford? How much time does the patient have for a long protracted treatment plan? Is there any impact on the patients’ family?

And

Strategic care thinking.

This is more directly patient centred:

- Age
- Health status
- Biotype
- Periodontal anatomy
- Periodontal history
- Occlusion
- Key teeth
- Recall history of the patient

These patient factors allow the team to judge in advance what

can be reasonably expected. It is important to articulate to the patient up front what the outcomes will be from any proposed treatment.

The Care Team

A team approach is essential during the planning, treatment and monitoring stages to assist in achieving a predictable aesthetic outcome.

The capabilities of the care provider team must be borne in mind before making any promises and it is important that the entire team understands the issues and objectives.

Hard and soft tissues

An accurate and thorough ridge assessment is essential in all cases of implant dentistry. In predictable aesthetics however, the concern after achieving the correct appearance is whether there is a possibility of recession.

So an important question to ask is “Can I identify the patients’ of highest risk of recession and how does that change my care management strategy?”

The three biologic determinants are:

- Thickness of soft tissues
- Distance from the osseous crest to the free gingival margin
- The thinner the plate the greater the risk

The Implant / Abutment

There is an issue in the trans-mucosal environment. This is regardless of implant manufacturer in that there is always an inflammatory infiltrate. The presence of this inflammation can be contributory to a recession process and thus ultimately will have a negative impact on aesthetics. It is associated with the implant/abutment junction.

Professor Stanford commented that:

- a. We can ignore it
- b. We can move it by horizontal offset and platform switching
- c. Or we can minimise it using a conical connection

So attention needs to be made regarding the type of implant to be used and the abutment connection. What are the features then for implant design that can be associated with the process of this peri-implant inflammatory infiltrate?

Abutment/implant connection issues are related to:

- The abutment connection type
- Material of abutment
- Small movements can lead to a special kind of corrosion called threading.

This can lead to and amplify this pro-inflammatory infiltrate that is present in the surrounding tissues.

Further factors to consider are:

- Macroscopic design
- Biomechanics
- The environment the implant finds itself in: (poor OH, smokers, host bio-film, host genetics)
- Surface implant characteristics
- Biomaterials

The Treatment

Total patient care and total patient assessment in a systematic approach is necessary to achieve predictability. Professor Stanford joked that even as a dean of a dental school he still carries out his own wax ups.....occasionally!

Professor Stanford stressed the need to carry out a thorough assessment and diagnosis before embarking on the treatment. He especially advised to:

- Identify risk factors
- Establish the tooth position
- Respect the arch form
- Inspect the periodontium
- Evaluate the position of the cemento-enamel junction
- Consider the influence of the extraction on the treatment sequencing

Professor Stanford described the three tool concept: This is a concept based on past research around which an assessment can be based and is used in the department:

1. Head of implant is to be placed 3mm below the planned C-E junction
2. Implant to be placed 2mm to the palatal / lingual
3. Bone / mucosa response

An adjunct to this is to consider the:

- Mesio-distal position
- Proximity of teeth
- Angulation of adjacent roots

Prefer at least 1.5mm between adjacent tooth and the implant. Ensure the eventual outcome is prosthetically driven, Professor Stanford advised. Use a diagnostic wax up and follow a logical stage-by-stage approach. Use transitional restorations to develop the soft tissue contours and to assist in the construction of the final restoration. Overall, evaluation is the key.

Professor Stanford left with this endnote:

"An education is what is left when your knowledge becomes obsolete. Intelligence is knowing the difference between your knowledge and your education."

IMMEDIATE IMPLANT PLACEMENT: IS IT SAFE AND PREDICTABLE?



STEPHEN L WHEELER

Report by Philip Friel

The first day concluded with a fantastic presentation of a lifetimes' immediate implant placement experience from renowned global lecturer Dr Stephen Wheeler. To summarise:

Whilst the appeal of immediate implant placement may be great in terms of decreased surgical requirement, total procedure time and time in temporaries, it is essential to ensure that any such procedure can be termed safe and predictable in terms of implant survival and aesthetic success.

Bone and soft tissue maintenance and stability represent the long-term requirement of immediate implant placement in the aesthetic zone. However, it is known that bone will be lost in all dimensions after extraction, so how can we safely and predictably maintain it?

It was previously proposed that obliterating an extraction socket with an immediately placed implant would support the buccal bone over time, however, such techniques in time showed poor aesthetic success. From there, immediate placement of implants aimed to preserve buccal bone plate and the blood supply to it by placing immediate implants in a more palatal position, filling the resulting void between implant and buccal plate. There remains debate with regards to the optimum width of this void and indeed what it should be filled with. Buccal plate preservation at extraction in immediate implant placement is now a generally accepted prerequisite for success.

The proposed site in potential immediate load cases must be extensively and comprehensively assessed for success and in addition the skill and experience of the operator plays an important part. Whilst technological advances in both implants and planning may make immediate placement planning more accurate, the learning curve with immediate implant placement can be steep and costly, particularly in the aesthetic zone. If all requirements for successful immediate implant placement are not present, then a staged approach should be followed - in the words of Dennis Tarnow, "lets only attempt to accomplish one miracle at a time."

Is immediate placement safe? Yes it is. Is it predictable? It can be, so long as stringent planning and very strict guidelines are followed with regards to case assessment.

This was a comprehensive evidence based presentation with clear clinical guidelines and useful asides, from a polished presenter.

IMPLANT PAPILLA MANAGEMENT IN THE AESTHETIC ZONE



JOSEPH KAN

Report by Koray Feran

From the outset of his lecture, Dr Kan informed us that he would be discussing that most difficult of clinical cases - the existence of two adjacent implants in the aesthetic zone and its effect on dental papillae. To demonstrate the current level of knowledge in the literature he used 4 separate subjects to demonstrate what was and was not predictable in terms of providing treatment and aesthetic outcomes with adjacent implants.

Three patients had existing implants and were due to have a failing tooth next to one of these implants replaced. A fourth patient had two adjacent failing teeth. In such cases, Dr Kan stated that a lot of the papilla was a common occurrence that was normally managed by creating long dental contacts or some form of attempted surgical regeneration of the papilla.

Dr Kan admitted that the best surgical technique for predictable replacement of the missing papilla was the CS5 procedure, or more commonly known as the latest version of Adobe Photoshop.

There was a ripple of relieved laughter throughout the audience, all of us secretly reassured that our esteemed colleague with an international reputation for papilla management reassured us "in his humble opinion" that it actually could not be done predictably.

But since we still have to deal with these cases on a day-to-day basis, Dr Kan then outlined principles of treatment planning, concentrating on the level of bone present around the existing teeth and implants prior to making clinical treatment decisions.

The first question was how far apical will bone normally present on the facial aspect of existing teeth. Gargiulo's 1967 paper is still an often quoted scientific study on the histological measurements of the attachment apparatus around natural healthy teeth, where the average distance of the gingival margin to the bone was 3 mm. The second was Kois's clinical study on bone sounding on anaesthetised patients that showed that the attachment level could be essentially categorised into three subpopulations, high, normal and low. The normal group was in the 3 mm range found by Gargiulo's average. The low group (where the distance between gingival margin and bone is increased) is associated with greater instability and susceptibility to recession. Tarnow's seminal paper on interproximal bone crest to contact point distances showed that distance exceeding 5 mm would result in lack of predictable papilla. Kois reported that interproximally this distance is approximately 4.5 mm with healthy teeth.

Dr Kan then questioned why the distance between bone and gingival crest was greater interproximally than facially. He explained that there were four main factors that determined the presence and shape of the papilla and outlined what these were using the analogy of the behaviour of a beanbag to demonstrate how papillae behave.

Bone level - this is already discussed above.

Embrasure space created by the adjacent teeth - the supporting curvature of adjacent teeth is necessary to maintain the papillary point. Dr Kan analogised this to 2 people sitting back-to-back on a beanbag and likened the extraction of one of the teeth as one of these people getting up off the beanbag, leading to a slump in its shape. The interproximal papilla then behaves more like a facial papilla such that the tissue depth is reduced from the normal 4.5 to 5 mm distance to closer to the facial 3 mm distance, leading to diminution in papillary bulk and height.

However, Dr Kan also stated that this is not true in all cases and biotype was a third factor that also determined by how much this papillary slump actually occurred. Sadly, the thick biotype required to prevent the slump was only found in about one in five patients.

The fourth factor is the actual dimensions of the biologic width which also varies from patient to patient.

Dr Kan then returned to the beanbag analogy, using the floor of the bone and the people sitting on it back-to-back as the dental units supporting the papilla. The biotype was analogised by the quality of the beanbag cover (better quality less slump) where the biotype was analogised by the quantity of filler (more filler less slump).

Recognition of these four factors and addressing them appropriately are the keys to risk management when dealing with such patients. The trillion dollar question was whether when the person that had got of the beanbag comes back to sit down, the papilla reformed.

Dr Kan reiterated that usually the presence of the papilla around a single implant is maintained by the interproximal bone levels of the adjacent teeth and maintaining an interproximal bone crest around an implant that is consistently coronal to the implant platform was extremely difficult. He also stated that the labial distance of the bone from the gingival margin around an implant was fractionally greater than that the natural teeth, 3.6 mm compared to 3 mm on average.

He stated that simply replacing the embrasure may not be sufficient to push the papilla back into its original position. If everything is favourable, the bone is insufficient height and quality and the biotype sufficient quality then the papilla could usually, on the whole, be predictably reshaped. However with a

slightly less favourable biotype and also to the additional tendency for there to be an amount of bone loss associated with the trauma of extraction, implant placement and possibly bone augmentation, some interproximal bone resorption and remodelling was likely. He stated that tissue loss as a result of narrow biologic width and thin biotype coupled with bone loss as a result of surgical intervention could accumulate to create papilla loss.

The next scenario involved the loss of the actual tooth responsible for maintaining the papilla when adjacent implant was already present. Thin interproximal bone would automatically be lost soon after the tooth is extracted. Even immediate implant placement was inadequate to maintain this bone and site-specific implant designs have proved unsuccessful in the past. The interproximal bone level would automatically stabilise at the level already present on the adjacent implant, leading to loss of interproximal bone height and consequently papilla height.

Dr Kan soberingly then informed us that the orthodontic extrusion that many of us have prescribed to our patients in order to develop sites where teeth are to be extracted was mainly only effective on the facial aspect of the bone and had very little if any influence on the interproximal bone levels achieved post-orthodontics. He questioned whether such orthodontics to develop or maintain interproximal papillae was worth the time and money in many cases.

Dr Kan then suggested that whilst platform switching or abutment connection design may play a role in the maintenance of interproximal bone height coronal to the implant platform, it is by no means consistent and implant design alone was insufficient to counteract the other factors outlined above in the maintenance of hard and soft tissue topography. Multiple factors play a role in the maintenance of inter-implant and interdental hard and soft tissue contour and all of them need to be diagnosed and addressed for the optimum result.

It became obvious that the literature did not support consistent papilla maintenance between two adjacent implants since much of the required interproximal bone support between two adjacent implants tends to be lost with subsequent loss of papillae.

Dr Kan then discussed the options for maintaining submerged roots within the alveolus and adjacent implants to take full advantage of their attachment mechanism and their ability to sustain the interproximal existing bone. This of course is only viable if there is no infection or pathological process associated with the entire root length. He also touched on the possibility of utilising small slivers of remaining dentine and periodontal attachment on the aspect where maintenance of papilla is most crucial. He highlighted the fact that bone still managed to grow between the implant surface and the cut surface of the dentine sliver in the absence of any infection and mobility rather than dentine being left directly against an exposed implant surface. He also acknowledged that if interproximal bone levels were correct, augmentation of absent labial bone was much more predictable and that the replacement of labial bone is much more predictable the replacement of interproximal bone.

On the subject of timing, Dr Kan acknowledged that immediate placement predictably gave results with the minimum tissue change compared to delayed or immediate delayed approaches and should be utilised where possible with good planning to ensure optimal tissue support. This excellent lecture was effective at highlighting basic principles of interproximal tissue maintenance in detail with good scientific backup and relevant clinical cases to highlight shortcomings and benefits of various clinical procedures.

ORAL HARMONY: A SYSTEMATIC WAY TO SUCCESS



OLIVER BRIX

Report by Larry Browne

Oliver Brix was a welcome speaker at the ADI Congress and showed his commitment to excellence with wonderful cases of aesthetic restoration with all ceramic modern materials. Oliver explained his drive to produce, within his Laboratory in Weisbaden Germany, all ceramic restorations without any metal and has achieved this in the past few years using a combination of CAD-CAM materials and designs and Pressable Dysilicate Glass ceramic.

He has recently opened his teaching facility and has become recognised as the master of all ceramic restorations. Oliver explained that a complete understanding and knowledge of these modern materials is fundamental to their successful use. He clearly demonstrated the natural and lifelike reproductions in harmony with his patients needs and in keeping with his clinician's requirements. His simple philosophy of copying nature, but with a master's eye for observation, produced remarkable replacement teeth for each of the cases shown. Great natural harmony with the soft tissues, with perfect emergence and profile made each and every restoration look like it had always been in situ as if created by nature itself.

A full understanding of the patient was essential to the process of a completed restoration. Studying the face and lips, balancing the eye line with the natural smile were all part of the ultimate result. After many years Oliver has arrived at his pathway for success.

All cases begin with good discussion with the clinician and the patient (if possible), then to diagnostic wax up which is the basis for chairside provisionalisation and for demonstrating to the patient the possibilities and a glimpse of the final outcome, right at the beginning. The clinician, patient and technician will have a clear understanding of the desired result and will work together towards realising the final restoration. Preparation of the natural teeth or the placement of implants will be driven by the diagnostic wax-up and the provisional restorations. Treatment planning, done correctly, is the essence of predictable and successful outcomes for the patient and is something on which Oliver will not compromise. All his clinical colleagues are more than happy to commit to this step-by-step predictable method. The results speak for themselves with beautiful restorations, happy and confident patients.

Oliver has recently opened his teaching facility in Weisbaden and in true committed style teaches technicians and clinicians his philosophy of teamwork, mutual communication and planning. Oliver is a very talented technician who has worked hard to develop a real understanding with his clinical colleagues and is convinced that the acceptance of "Backward Planning" is the essential method to allow all parties to know and agree to the final restoration at the beginning of the process.

Nothing new you may say, but of course the commitment and integrity of the process is the basis for success. All parties believe and commit to the clear guidelines and work together to fulfill the patients needs and wants. And in the hands of a gifted and dedicated operator like Oliver Brix a wonderful final outcome is guaranteed.

LATEST STRATEGIES AND TECHNIQUES FOR MAXILLARY SINUS AUGMENTATION



STEPHEN S WALLACE

Report by Simon Wright

What is sinus augmentation?

Well it is a solution to a problem, the problem is of course the loss of bone, and there are two ways to approach it. Firstly the Osteotome technique, and secondly utilising a Lateral Window, with or without the simultaneous placement of implants.

Graft Material

If we look back through the history of sinus grafting we learn that the gold standard was to use autogenous bone. This is because is osseoinductive, osseogenic, osseoconductive and free. As time moved on consensus started to change and in 1996 the Academy of Osseointegration suggests that it may be possible to use allograft and alloplast material for this purpose. However nowadays xenografts are considered to be the standard.

"If autogenous bone is the gold standard then xenografts are the platinum standard."

Xenografts are considered to be ideal as they do not interfere with osseointegration (you never find xenograft material against the implant surface, it is always host bone), they are not completely resorbed (therefore resisting further pneumatization of the sinus), and osseoconductive (typically about 25% new bone).

When using xenograft material a common question is, what is the best particle size for the conduction of new bone? The evidence suggests that there is no statistical difference between large and small size particles, in terms of apposition of new bone. However due to the volume that the material occupies (2g Bio-Oss small particle = 4.2cc, large particle 7.2cc) it is considerably more cost effective to use the large particle size.

Surgical Technique

The lateral window approach may be carried out in one of two ways. Firstly with a bur, known as the Rotary Technique and secondly using Piezo-surgery.

The rotary technique involves cutting a window 3mm from the sinus floor and 3mm from the anterior wall. Lifting the membrane from this area and the medial wall (this gives an increased blood supply to the graft and ease of placement), placing the graft material and then placing a membrane over the window. Placing this membrane increases the survival of the implants by 5% when compared to not placing a collagen membrane.

This is a successful procedure that has few complications. However the most common complications are membrane perforation: 11-56% (average thought to be about 20-25% of cases), perfuse bleeding: 2% (due to posterior superior alveolar artery), and implant loss: 4%.

BONE GRAFTS FOR SITE DEVELOPMENT – THE PAST, THE PRESENT AND THE FUTURE



TARA AGHALOO

Report by Cemal Ucer

Dr Tara Aghaloo is an Associate Professor in Oral and Maxillofacial Surgery at the UCLA School of Dentistry. She has completed her residency in Oral and Maxillofacial Surgery with an MD degree from UCLA and a PhD. in oral biology at UCLA. Her clinical practice is in oral and maxillofacial reconstruction, focusing on hard and soft tissue augmentation and dental implants.

Dr Aghaloo has published extensively in bone biology with an emphasis on bone grafting to improve our current practices and dental implant success. She is also very active in several professional organisations such as the AAOMS, IADR, and AO. Currently, she is Chair of the stem cell group for the Academy of Osseointegration's Silver Anniversary Summit: Impact of Biological and Technological Advances on Implant Dentistry, and is the program chair for the 2011 Academy of Osseointegration meeting.

In her presentation Dr Aghaloo emphasised the importance of bone grafting for implant site development as part of planning and executing treatment for the dental implant patient. She covered the full spectrum of bone grafting from simple procedures such as socket augmentation to more complicated and extensive alveolar ridge augmentation that are indicated in a variety of defects to achieve the desired aesthetic and functional results. In attempt to preserve alveolar bone and avoid the necessity of ridge augmentation prior to implant placement, various materials have been used immediately following tooth extraction to fill and/or cover the socket in preparation for dental implants.

In addition, more significant anterior and posterior alveolar ridge defects often require allografts, autogenous bone harvesting, and the use of growth factors. These materials could be either osteoconductive, or osteoinductive or both. Unfortunately, many of grafting procedures are quite technique sensitive, and do not have adequate literature to support their use.

Dr Aghaloo described the properties of an ideal bone grafting material and reviewed the various bone grafting techniques, and materials including the new development of bone growth factors such as BMP's and their role in implant dentistry. She concluded that the current evidence confirms the successful use of GBR and sinus grafting technique today and suggested that the bone growth factors will certainly play a major role in improving the efficiency of bone grafting techniques in implant dentistry in the near future.

BONE GRAFTS FOR SITE DEVELOPMENT – THE PAST, THE PRESENT AND THE FUTURE



TORSTEN JEMT

Report by Catherine Drysdale

Professor Jemt was honest in stating that it would be extremely difficult to summarise 35 years of clinical experience into a one-hour presentation. He describes that in 1965, the original dental implant treatment concept was controversial and Professor Branemark had to prove that osseointegration of dental implants actually worked.

Professor Branemark made two major contributions to implant dentistry. The first was that he showed that osseointegration of dental implants did work and secondly, Professor Branemark presented his clinical experience in published articles in a systematic way. He presented clinical studies at 10 years, 15 years and 20 years of follow-up. The Branemark concept has been to build up clinical experience based on a strict follow-up protocol reporting on clinical outcomes. This protocol includes a 1 year, 5 year and 15 year follow-up. Thereafter the follow-up is every 5 years.

This is the 25-year anniversary of the Branemark clinic and during that time 9000 patients have been treated with a total of 36,000 dental implant placements. In 1965 the first dental implants are placed in an edentulous mandible to provide a four implant retained fixed restoration. 11 years after the placement the radiograph shows up to 4 mm of bone loss around the implants and associated soft tissue information which we now describe as peri-implantitis. After 25 years in function the follow-up radiograph shows that the progression of bone loss has slowed down and after 35 years in function the bone loss has levelled out into a stable situation. He showed a similar case in an edentulous maxilla where in the early stages of follow-up there is dramatic bone loss of rent implants. After 13 years in function the bone loss is seen to level out and the follow-up after 37 years confirmed continued good function and a good prognosis to the restoration.

Professor Jemt posed the question "what is the meaning and importance of bone loss around implants"?

When the first single tooth dental implant was placed in 1982, the treatment became focused on technique, stability of the screw and aesthetics of the abutments. There was a standardised protocol for single tooth implants which is called the Cera One. The clinical outcomes of these patients were reported in many publications over an 18 year period. In the early 1990s the first customised abutments were seen such as Ti Adapt and Cer Adapt. By the mid-1990s CAD-CAM designed abutments became available and this is now the design technique of choice for all single tooth and partially dentate abutments. Prof Jemt's experience is with now 27 years follow-up of single implants, these restorations remain stable with little recession and soft tissue complications and show predictable long-term function. Cases of infra positioning may indicate that the implant was placed in a growing patient or placed in a patient with an unstable occlusion. His research followed up single implants in the anterior approach all over 15 to 20 years. More males than females were created to be completely stable after 15 to 20 years 60% of single tooth implants are stable with no infra positioning after 15 to 20 years. However, 40% had more obvious signs of infra positioning with a stronger trend for this in female patients. Of interest, there appears to be a risk of infra positioning in a long-faced patient compared with square-faced patients.

Professor Jemt described the many changes today in the implant protocols compared with those of the 1970's for example healing times, bone grafting, implant surfaces, internal connections etc. He posed the question have these protocols resulted in improvements or do we have more complications as a result? The original treatment protocol is based on biocompatibility, predictability and long-term function. Today, the protocol is focused more on speech and aesthetics for example immediate placement, immediate loading and optimal aesthetics.

Professor Jemt then discussed the issue of one-stage versus two-stage surgery. To state that this was based on claims of stability at the surgical site and secondarily Osseointegration.

This establishes improved stability of the implant whilst in one-stage certainly the protocol relies on mechanical stability alone i.e. the clinician is not connecting the prosthesis to an osseointegrated implant. Many larger studies have concluded that the two-stages technique is more favourable. However many small studies show no difference but this is likely to be related to the design of the studies. Professor Jemt believes that it is safer to place implants using a two-stage procedure.

In the early 1990s, the internal connection was introduced to address the problems with loosening abutment screws with external hex implants. Initially in single tooth implants and then of partial and edentulous patients. An additional change in the protocol is the quality of the titanium. Dental implants were originally Grade I and now clinicians routinely use a poorer grade of titanium including Grade V which is an alloy. The internal connection requires a lower grade of titanium because it is stronger at the implant head thereby reducing the risk of fracture. Effect of this may be to introduce a higher risk of corrosion the implant area which could result in inflammation and consequently bone loss. This could be related to a higher incidence of peri-implantitis. He has found a very low incidence of implant fracture with the external hex design (1%).

Professor Jemt described other more recent changes to the implant treatment protocol such as the introduction of the CAD-CAM technique which results in improved prosthetic technique, shorter and fewer appointments but on follow-up, there is no difference in the complications of screw loosening, bone loss etc between the CAD-CAM and the original cast framework. In the last 20 years we have focused more on aesthetic approach rather than the biologic. The original protocol focused very much on access for cleaning but this became aesthetically unacceptable and protocol was therefore changed in the late 1980s for shorter abutments with closer positioning to gingival soft tissues and less visible titanium.

Professor Jemt then discussed the issue of implant surface and questioned whether the medium roughened surface was attributed to increased implant survival. We should look to clinical evidence to establish this and not base treatment principles on animal study results. Studies show only a 2% difference in implant survival of medium rough versus turned surfaces.

With barely placement of implants that is evidence of increased bone loss at five-year follow-up with no significant difference in marginal bone loss of current versus medium rough implants there is evidence that turned implant surfaces are more resistant to inflammation than roughened. There are implants with smooth coronal and successive increased roughness towards the atypical. They may therefore be a link of roughened implant surface to later bone loss and inflammation. Medium rough implants there for half better and quicker osseointegration and 2% improved survival at the early stage but there may be a link to bone loss and infection at a later stage. On the 1.6% of Prof Jemt patients per year have surgical treatment for peri-implantitis and 0.25% of implants are removed per year.

Questions from the floor to Professor Jemt were based mainly on the influence of roughened surface and turned surface implants on the bone and soft tissue in particular in relation to the incidence of peri-implantitis.

COMBINED TEAM PROGRAMME

THE TEAM APPROACH TO IMPLANT DENTISTRY: A BLUEPRINT FOR SUCCESS



ANITA DANIELS

Report by Jennifer White

The morning session was aimed at all members of the dental team. The main point, for me, that was highlighted, was the importance of listening to the patients' views and concerns regarding their initial problems and what their motivation for change was - pain? function? appearance? - and comprehensively tailoring our treatment to meet the patients' end goals.

As a team we must all be aware and confident in discussing treatment sequences, alongside the individual components, to provide reassurance and positive reinforcement of the treatment plan to the patient.

It is so important to be as up-to-date as possible in the ever changing world of implants and two of the recent items to be aware of are:

- 1) Smoking: no longer a barrier to implant placement, but it is still accepted that problems can occur with soft tissue health and healing after treatment.
- 2) I.V Bisphosphonates: these can have an impact on the decision to go ahead with implant therapy or not. The risk level is dependent on dosage and length of time the patient has been taking them.

Understanding the significance of oral care routine change in a patient's daily life following implants should not be underestimated. Some patients will be going from simply taking their full dentures out at night, to a time consuming OH regime, so our patience and support is invaluable in this area.

Lastly, Anita impressed upon us how proud we should be to be involved in the fast moving arena of implant dentistry. Only 20 years ago it was a new, experimental technique. Whereas today it is considered the reliable and accepted treatment of choice for tooth replacement - not a long time to change the face of dentistry!

So a huge thank you to Anita for an interesting, forward thinking and enjoyable lecture. I look forward to many more.



ADI
Association of Dental Implantology UK

Masterclass with
Michael Pikos
26 March 2012
London

Masterclass presented by **Dr Michael A. Pikos DDS**

**'Maxillary Alveolar Ridge Regenerative Strategies:
From Extraction Site Management to Full Arch
Reconstruction'**

To book, please visit www.adi.org.uk/masterclass2012

Tel : +44 (0)20 8487 5555

HYGIENISTS' PROGRAMME

THE ROLE OF THE DENTAL HYGIENIST IN IMPLANT TREATMENT

ANITA DANIELS

Report by Nicola McPherson

Anita Daniels' lecture entitled "The role of the dental hygienist in implant treatment" gave a very interesting and informative insight into the essential role that a hygienist can play in dental implant care. She covered everything from the aetiology of dental disease and suitable patients for implant therapy, to maintenance care for the implant patient from the hygienist's perspective.

It is interesting to know that 65% of all disease in the body is a result of an imbalance in the biofilm. This is significant in the case of the implant patient, as studies demonstrate that periodontal bacteria can seed in implant sites, risking bone and tissue damage.

There are two forms in which dental disease can present associated with the implant patient. Peri-implant mucositis, like gingivitis in the natural dentition, is reversible through periodontal therapy and good home care. Peri-implantitis, on the other hand, is more like periodontitis as it involves bone and / or attachment loss around the implant site.

We learned that the earlier types of implant had a "hydroxyapatite" coating which was prone to breaking down and leaving a roughened surface on the implant. This may give rise to the above-mentioned conditions due to inability to keep the area clean.

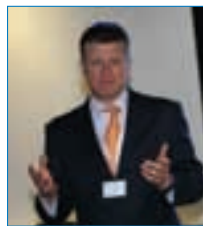
It is of the utmost importance in the implant patient to see the hygienist regularly, as with an implant, there is no periodontal ligament there to act as a shock absorber. This means that bone loss can occur due to traumatic occlusion. Furthermore, peri-implantitis occurs commonly with poor oral hygiene and lack of maintenance visits - hence the importance of hygienist treatment.

The role of the hygienist during the maintenance phase of treatment is to monitor the health of the tissues and identify any potential for peri-implant mucositis and peri-implantitis. We do this by superficially scaling and probing, usually with plastic instruments and selectively polishing with a non-abrasive paste. The patient's oral hygiene status is reviewed at each appointment. Radiographs are a good indicator of bone loss, more so than probing which is controversial due to the risk of damaging any attachment that may be present.

Recall maintenance (or "recare", as described by Anita) appointments are tailored to the needs of each individual, and at these visits appropriate oral hygiene advice can be given and an assessment made as to what recall interval is best for the patient.

PRACTICE MANAGERS' PROGRAMME

RINGING THE CHANGES: TURN EVERY PATIENT ENQUIRY INTO AN APPOINTMENT



ASHLEY LATTER

Report by Sheryl-Ladd Boado

When asked to attend the Ashley Latter lecture in Manchester as part of ADI Congress, I immediately began doing research to get an idea of what to expect both personally and for the practice.

Within minutes into the lecture I found Ashley very refreshing and reassuring. His dynamic approach allowed us to feel his empathy and understanding of the expectations from business owners to what is practically possible during operation. The participation in role-play helped remind us of the patients experience and expectations along with making his course different and enjoyable.

He was able to reassure us that as practice managers, we are doing most things correctly, with a subtle reminder of how to improve.

I certainly took away new ideas that can be personalised to work for our surgery, as well the inspiration and the motivation to act on these new ideas.



ADI Members' National Forum and AGM

King's College University, London
Saturday 12 November 2011

This prestigious event features two parallel programmes, each comprising an extensive selection of surgical, restorative and topical implant-related lectures, presented by ADI members.

The Forum is open to ADI members only.
To apply for ADI membership visit www.adi.org.uk
or call +44 (0)20 8487 5555

**Pre-book your place online:
www.adi.org.uk/forum11**

NURSES' PROGRAMME

ASEPSIS FOR DENTAL IMPLANTS : THE THEORY



HELEN MCVICKER & GEMMA NICHOL

Report by Kara Moody

To open the afternoon session for the nurses' programme Helen McVicker and Gemma Nichol took to the stage to introduce to us the theory side of asepsis control.

The lecture started with definitions of words such as asepsis, sterile, and antiseptic that we take for granted in our working environment every day. This was very refreshing to hear, as it was a reminder as to why we do what we do.

It was good to compare our asepsis techniques in our practice and to hear what we have to do to keep to the HTM0105 recommendations.

I found it very informative watching the demonstration of how to perform a surgical scrub and how to use the runner nurse to help with donning PPE and also to see the step-by-step guide to don your sterile gloves.

There were some handy tips on how to weight the suction so to keep sterility, also a good reminder of how to keep hands in the sterile zone when working. The presentation was very informative and clear. I found it reassuring to know that the way we practice asepsis in our surgery was to the standard of the techniques demonstrated.

EFFECTIVE COMMUNICATION WITH PATIENTS



LOUISE FLETCHER

Report by Helen McVicker

Louise began by explaining how communicating effectively in the dental practice is of utmost importance. Patient trust is what we are hoping to achieve.

Building a rapport with your patient is very important also, and if you can do this you will receive a better uptake on your treatment plans.

As a team we are trying to create a calm friendly environment to make the patient feel at ease. Louise emphasised the importance of us as a dental team realising exactly how we communicate. We use verbal; we talk all the time! Paralinguistic is how you say things; it is your tone and how you speak to your patients. Body language; be aware of this and your facial expressions. Never stand with your arms folded and have a bored expression.

An important factor when communicating is to listen. Listen to what patients are telling us. Treat the patient uniquely. Involve the patient. To ensure the patients expectations are met, we should always try and take it one step further.

HTM0105 AND IMPLANT DENTISTRY



HELEN BATTY, AMY MILLER, HELEN FROST

Report by Simon Wright

Preventing the transmission of disease that results from the use of reusable dental instruments, contaminated by blood and secretions, is one of the most critical steps of infection control in our dental practice. In addition to some potentially fatal body-fluid borne pathogens such as HIV and Hepatitis B, the emergence of variant Creutzfeldt Jacob disease has heightened awareness as to the importance of implementing rigorous infection control procedures. To respond to this heightened state of awareness, over the last decade we have seen dramatic strides in infection control to meet the serious challenges presented by these emerging infections and the ever-broadening spectrum of patients with impaired resistance. One of the most important changes is the emergence of HTM01-05.

This document has very sensible and well laid out objectives, we can easily see the benefits to our practice and our patients.

These are: effective risk reduction, continuous improvement in cross infection protocols, to be-able-to demonstrate consistent processes and outcomes, to make sure that all the equipment and instruments are as clean as possible, and to demonstrate compliance with essential requirements of Medical Devices Regulations 2002 and the Care Quality Commission.

HTM01 05 has two levels of compliance:

- Essential Practice
- Best Practice

Essential practice:

Regardless of the technology used, the cleaned instruments, prior to sterilisation, should be free of visible contaminants when inspected. Instruments should be reprocessed using a validated decontamination cycle including: cleaning / washing (in terms of manual cleaning, this includes having a written protocol); a validated steam steriliser, and at the end of the reprocessing cycle they should be in a sterilised state.

Furthermore, the storage of reprocessed surgical instruments should be in such a way as to ensure restraint of micro-biological recolonisation, including controls on the storage times (60 days for a vacuum type autoclave).

You also need to complete an audit every 3 months, and have a plan in place to demonstrate how you are improving and trying to achieve best practice.



Best Practice:

This is the gold standard that we should all be trying to achieve. It differs from essential practice in that:

- If possible, no more hand cleaning – all cleaning should be done by a validated washer disinfector. Only in very specific circumstances can instruments be disinfected by hand or other methods – this may include the manufacturers specifying that the instrument must be hand cleaned.
- Instruments have to be stored in a room separate to the treatment areas. And more importantly the whole disinfection process needs to be carried out in separate areas.
- The decontamination facilities should be clearly separate from clinical treatment area. This implies the use of a separate room or rooms for the accommodation of clean (output) and dirty (input) work. In these facilities, the room(s) should be used for this purpose only and access should be restricted to those staff performing decontamination duties.



Implant manufacturers are doing very little to guide and help us towards best practice, in terms of how to process the instruments that they manufacture. This is unacceptable and frustrating.

Despite the lack of guidance and absence of market leadership, a number of evidence-based recommendations can be suggested:

1: Avoid manual cleaning of instruments

- Ineffective
- Increases risk of needle stick injury
- Not able to validate
- HTM0105 best practice states:

“manual cleaning should only be considered if the manufacturer specifies that the device is not compatible with autonomic processes”

2: Washer disinfector to be used for instruments and burs

- Elimination of splatter
- Avoids needle stick injury
- High temperature destroys vegetative micro-organisms
- Validated
- Not operator sensitive

But.....

1. Must conform to BS 2745 and HTM 2030
2. Intensive cycle
3. In a cassette that allows the jets to be effective or loose in a basket

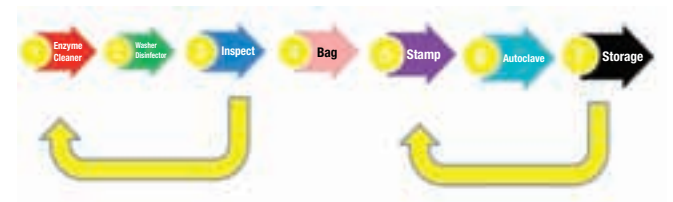
3: Use single use twist drills

- No method is totally effective at removing debris
- Reduces needle stick injury
- Benefits to operator and patient
- No evidence to inform us if washer-disinfectors damages or blunts the twist drills

4: Pre-soak instruments in enzyme cleaner

- Most effective way to clean
- No evidence to inform us if enzyme cleaner damages the instruments
- Most manufacturers state that ‘neutral pH safe to use’

An idea best practice cycle would be:



The key to this process in the validation of the cycle, and to relate this to the patient, via their notes. This is done with a sequential number stamp and a date stamp. The number becomes the DECONTAMINATION NUMBER. This logged is against washer-disinfector cycle, autoclave print out, date and duty officer. This number is entered in the patient’s notes.

To conclude, essential practice is fine for now, but we hope that we have gone some way in presenting some guidance of how best practice HTM0105 can be achieved within implant dentistry. We also hope that we have emphasised the concept of getting our instruments as clean as possible, to reduce the cross infection risk for our patients and in a way that reduces the risk to us as dental professionals.

SINUS LIFTS



KARA MOODY

Report by Louise Fletcher

Kara Moody chose to present on a personally fascinating topic - ‘Sinus lifts’. Kara’s presentation was outstanding. She had captured her audience immediately with her excellent knowledge of what the sinuses are and why sinus augmentation would be required.

We were shown excellent slides of the anatomy of the sinus area.

Kara discussed in excellent detail two different types of sinus augmentation that are carried out, lateral sinus augmentation and internal sinus augmentation. The advantages and disadvantages were described in great detail, with Kara leading on to an overview of both procedures. At this point we were shown periapical radiographs of an upper premolar region, which had 4mm of bone present, she then explained how the implant was placed simultaneously with the sinus augmentation.

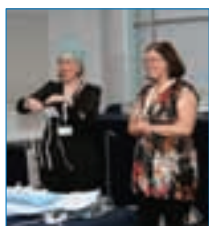
She also showed photographs of a typical tray set up for a sinus procedure, and then described what each instrument was for – which I am sure nurses who are not familiar with this type of procedure would have found hugely beneficial.

We were also given a run through of pre and post op instructions and medications given to the patient, which was very interesting to see how other practitioners vary in this area.

Kara also presented CT scanning and explained thoroughly the benefits of this technology when planning for sinus augmentations.

Kara delivered an outstanding presentation, she was very confident and her wealth of knowledge shone throughout. I thoroughly enjoyed Kara's presentation and I know my colleagues also found it very informative.

WORKSHOP NO 1: ASEPSIS FOR DENTAL IMPLANTS: THE PRACTICAL



HELEN McVICKER AND GEMMA NICHOL

Report by Gemma Nichol

The practical aspect of the aseptic seminar went well. It consisted of a demonstration of tips and techniques for preparing the surgery and the patient for implant placement. The audience were given the option of participating to give the experience of gowning up and laying out of instruments. The aim was to keep it as much fun as possible.

A video was played on a screen in the background to maximise learning potential. This was followed by a questions and answers session.

WORKSHOP NO 2: ADVANCED SURGICAL TECHNIQUES, INSTRUMENTS & PREPARATION



DAVID SPEECHLEY AND HELEN BATTY

Report by Katharine Partington

It was almost a case of "standing room only" as we filed into David Speechley's workshop on 'Advanced surgical techniques, instruments and preparation'. Those who were turned away at the door because they had not booked a place were right to look disappointed.

It was evident from the very beginning that the half-hour session was to be both informative and fun. A quiz sheet replaced the more traditional handout with questions for us to answer throughout. The lure of a prize draw at the end of the session ensured we were all switched on. The workshop kicked off with an introduction to some of the instruments used in advanced surgical techniques including some handy tips on the care and maintenance of implant drill sets. We were made to feel that as nurses we are an integral of the team.

Sinus lifts, both closed and open were next on the quiz sheet. The surgical techniques were explained clearly and the short video clip showing the Caldwell Luc technique brought alive what had only been theory to many of us. This further enhanced our understanding of instruments used such as chisels and sinus manipulation tools. The wonders of Piezo surgery were also touched on. In addition to the sinus lifts we also became familiar with the technique and instruments used in ridge splitting and block grafts.

By the end of the workshop we were buzzing, keen to take this enthusiasm back to our surgeries. The prize draw wrapped up the session and the prize-winners walked away with even wider smiles than the rest of us. Not only did David Speechley present an informative workshop, but he also conveyed the feeling that our role as nurses is vital to the success of implant surgery. This epitomises the ethos that implant dentistry is all about teamwork.

WORKSHOP NO 3: MEDICAL EMERGENCIES IN IMPLANT SURGERY



SIMON WRIGHT, MIKE STOKER, HELEN FROST AND AMY MILLER

Report by Michelle David

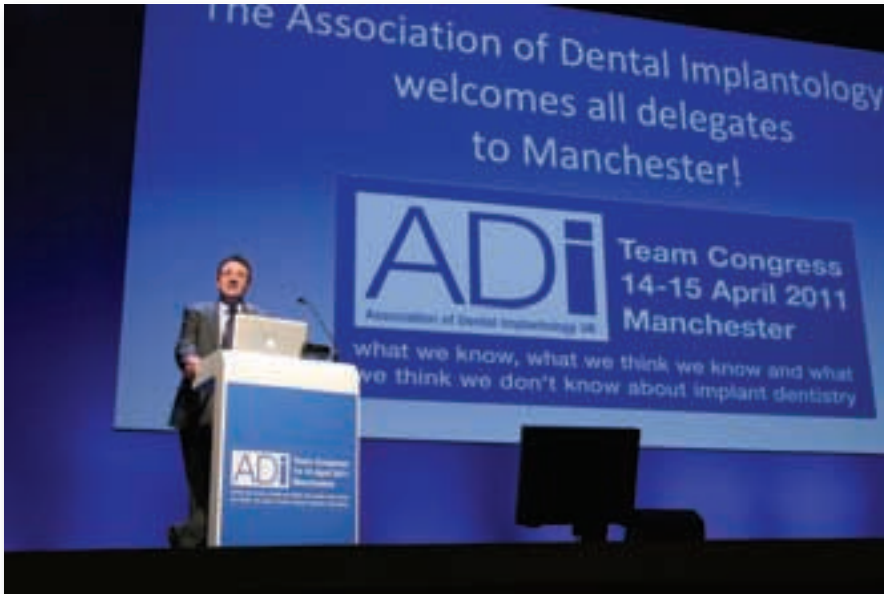
On Thursday 14th April I attended the 'Medical Emergencies in Implant Surgery' workshop for nurses. It was a hands-on workshop split into three sections:

- Prevention and team approach – presented by Helen Frost and Amy Miller This section explained how to prevent medical emergencies in the dental practice and the protocol to follow if one did ever occur. We then split into groups of 4 to rein act this protocol.
- Medical emergency scenario – presented by Mike Stoker. The fun way in which this section was presented got us all involved. We learnt what symptoms the patients may complain about prior to a medical emergency and then what we need to do to stabilise the patient until help arrives. We got to use real equipment from an emergency kit to make these scenarios as close to real life as possible.
- The equipment – presented by Simon Wright. With use of a full emergency drugs kit we were told what each drug does and how to administer them. We each got to practice using a Glucagon Hypokit and loading a syringe of Midazolam. We also watched a demonstration of a defibrillator and were shown a glucose reader.

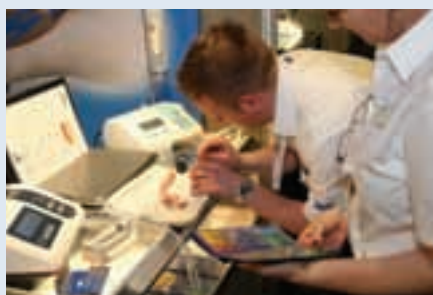
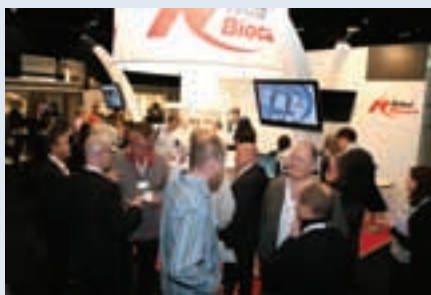
This workshop was excellent in helping us to remember the key factors during all types of medical emergencies. I found it extremely beneficial to be able to practice with real drugs that are used, as it is something us nurses always fear.

**The ADI would like to
thank the committee
members and delegates
who kindly contributed
these reports for the
ADI Newsletter.**

2011 ADI TEAM CONGRESS



2011 ADI TEAM CONGRESS - EXHIBITION



3M ESPE	Tel: 01509 61
A-Dec Dental UK	Tel: 02476 35
Ashley Latter	Tel: 0161 280
Astra Tech	Tel: 0845 450
Avinent Implant Systems	Tel: 01737 76
Bicon Dental Implants	Tel: 01473 82
Bien-Air UK	Tel: 01293 55
BioHorizons	Tel: 01344 75
Biomet 3i	Tel: 01628 82
Bredent Medical UK	Tel: 01246 55
BTI Biotechnology UK	Tel: 01206 58
CAMLOG	Tel: 01223 31
Carestream Dental	Tel: 0800 169
Cendres+Métaux UK	Tel: 01625 41
Clark Dental	Tel: 01268 73
d2d Implants	Tel: 01332 20
Dental Focus Web Design	Tel: 020 7183
Dental Technology Services	
International	Tel: 0141 556
Digital Dental	Tel: 0800 027
DIO Implants	Tel: 0845 123
Foursquare Healthcare	Tel: 01535 65
Geistlich Materials	Tel: 01244 34
General Medical	Tel: 01380 73
Henry Schein Minerva	Tel: 01634 87
Image Diagnostic Technology	Tel: 020 8600
Implant Direct	Tel: 00800 40
Implant Direct Sybron	
International	Tel: 00 41 44
Implantium	Tel: 0845 017
Ivoclar Vivadent	Tel: 0116 284
Kodak Dental Systems	Tel: 0845 834
Lasak	Tel: 00 420 73
Lemonchase	Tel: 01892 75
Megagen UK & Ireland	Tel: 020 8904
MIS Implants	Tel: 01255 42
Morita	Tel: 0845 602
Neobiotech	Tel: 00 82 2 5
Neoss	Tel: 01423 81
Nobel Biocare	Tel: 020 8756
NSK United Kingdom	Tel: 0800 634
Nuview	Tel: 01453 87
PDS Dental Laboratory	Tel: 0113 239
Planmeca	Tel: 01438 75
PrettauLab UK	Tel: 01548 85
Quintessence Publishing	Tel: 020 8949
RA Accountants LLP	Tel: 020 8429
Rocky Mountain Tissue Bank	Tel: 00 1 303
Septodont	Tel: 01622 69
Sirona Dental Systems	Tel: 0845 071
Software of Excellence	Tel: 0845 647
Southern Implants	Tel: 0208 998
Straumann	Tel: 01293 65
Swallow Dental Supplies	Tel: 01535 65
Tandex	Tel: 00 45 473
The Royal College of Surgeons of Edinburgh	Tel: 0131 527
The University of Warwick	Tel: 024 7615
Trycare	Tel: 01274 88
Vatech UK	Tel: 020 8831
Zhermack	Tel: 07870 69

2011 ADI TEAM CONGRESS - EXHIBITION

3 602
0 901
5837
0586
5 400
9 299
0 200
2 560
9 314
9 599
0 160
6 040
9692
3 990
3 146
5 973
8388

www.3mespe.co.uk
www.a-dec.co.uk
www.ashleylatter.com
www.astratechdental.co.uk
www.avinent.com
www.bicon.co.uk
www.bienair.com
www.biohorizons.com
www.biomet3i.co.uk
www.bredent.co.uk
www.bti-implant.co.uk
www.camlog.co.uk
www.carestreamdental.co.uk
www.cmsa.ch/dental
www.clarkdental.co.uk
www.d2dimplants.co.uk
www.dental-focus.com

5619
8393
3996
6 999
7 534
4 990
8 750
3540
30 4030

www.dts-international.com
www.digitaldental.co.uk
www.DIOUK.com
www.4squarehealthcare.co.uk
www.geistlich.co.uk
www.generalmedical.co.uk
www.henryschein.co.uk
www.ctscan.co.uk
www.implantdirect.com

567 8100
6262
7887
0866
31 657 677

www.implantdirect.eu
www.implantium.co.uk
www.ivoclarvivadent.co.uk
www.hulbertdental.co.uk
www.lasak.com

2 305
6191
4 624
4944

www.lemonchase.com
www.megagen.us
www.mis-implants.co.uk
www.cbct.co.uk

82 2885
7 733
3312
1909

www.neobiotech.co.kr
www.neoss.com
www.nobelbiocare.com
www.nsk-uk.com

2 266
3675
8 900
3 996

www.voroscopes.co.uk
www.pdsdental.co.uk
www.planmeca.com
www.prettauilab.com

6087
7474
337 3330

www.quintpub.co.uk
www.raaccountants.com
www.rmtb.org

5 520
5040
0473
0063

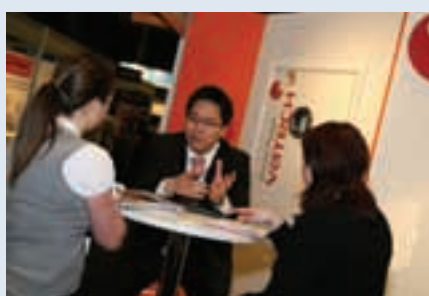
www.septodont.co.uk
www.sirona.com
www.soeidental.com
www.southernimplants.us

1 230
6 312
8 1001

www.straumann.co.uk
www.swallowdental.co.uk
www.tandex.dk

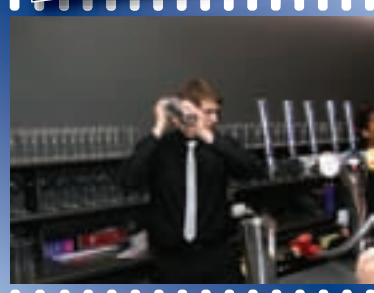
1600
0459
1 044
1660
0 811

www.rcsed.ac.uk
www.warwick.ac.uk/go/dentistry
www.trycare.co.uk
www.vatech.uk.com
www.zhermack.com





AL EVENT 'A HARD DAY'S NIGHT'



ADI AT THE DENTISTRY SHOW AND THE BRITISH DENTAL CONGRESS & EXHIBITION



The ADI had an exhibition stand at two major dental congresses in 2011: **The Dentistry Show** in Birmingham in March and the **British Dental Congress and Exhibition** in Manchester in May. These trade shows were ideal forums in which to showcase the ADI and its substantial membership benefits including training and education for all members of the team in the field of dental implantology.

At the British Dental Congress and Exhibition, the ADI supported a presentation by **Mr Bill Schaeffer** – the ADI's Director of Education – entitled **Implants in General Dental Practice – How YOU Can Get Involved**. Bill's lecture, which formed part of the plenary programme, was pitched at younger dentists and GDPs looking to start placing dental implants.

Bill started by looking at the statistics of implant placement in Europe – which places the UK at the bottom of the table - and followed this up by addressing a number of common objections

to and misconceptions of dental implants, e.g. that they are too expensive, or that they take too long. He then embarked on three options available to the GDP looking to get involved in implants: 1) have someone else place and restore, 2) have someone else place and you restore, and 3) you replace and restore. Bill suggested how best to select cases, and also touched on issues relating to indemnity cover. He referred to the **Training Standards in Implant Dentistry** document published by the FGDP, and emphasised the need for the GDP to maintain a detailed portfolio of implant training as well as to audit all implant activity outcomes. Bill also explained the importance of mentoring. He concluded his presentation by looking at the different implant course options available. During the talk Bill spoke about the benefits of ADI membership, including access to the online Implant Logbook and to mentors. He also promoted **Ark** as an invaluable education resource.

SAVE THE DATE

FOR THE 25TH ANNIVERSARY 2013 TEAM CONGRESS

25th ANNIVERSARY



Team Congress
1 - 3 May 2013
Manchester

How long do implants last?
Complications, risk management and prognosis



KEN HEBEL MASTERCLASS

FRIDAY 12 NOVEMBER 2010 CAVENDISH CONFERENCE CENTRE, LONDON



**Masterclass
with Ken Hebel**
12 November 2010
London

'TREATMENT PLANNING CHALLENGES FOR THE RECONSTRUCTION OF THE PARTIALLY DENTATE PATIENT USING IMPLANTS'



KEN HEBEL BSc, DDS, MSc
Report by David Offord

On Friday 12 November 2010 following our London AGM, **Dr Ken Hebel**, Canadian prosthodontist, delivered an ADI Masterclass to over 160 delegates entitled '**Treatment Planning Challenges for the Reconstruction of the Partially Dentate Patient using Implants.**'

Dr Hebel began his lecture explaining the core concepts of treatment planning. He emphasised to 'do the simple things well' and that generally not enough time was spent by dentists on treatment planning for straightforward cases.

He believed the use of animated video helped explain the treatment to the patients rather than the traditional form of consultation, as words tended to be ineffective.

Dr Hebel advised to involve the whole of the dental team in the consultation, as enthusiastic reception staff in particular tended to put patients at ease. He deemed it an essential part of the consultation to offer clarity of prognosis of the treatment advised to the patient in terms of expectancy of longevity: less than five years, five to 10 years, or more than 10 years. There was always a 'gap' between how the patient presented and the optimum. This was particularly highlighted in a patient's disease-state – your ability to close this gap determined success or failure in treatment. There were two types of success with treatment planning:

- Patient is happy when they look in a mirror = aesthetic success
- Set the patients' expectations and manage them downward



Dr Hebel proposed 'Baby Boomers' were dentists' number-one market – they had the need, motivation and money.

Dr Hebel presented his systematic approach to selection of implant diameter and implant positioning, which he developed with Reena Gajjar and the Hands On Training Institute.

Dr Hebel explained four concepts which guided ideal implant positioning. Concepts 1 & 2 offered a minimum and ideal distance



between the centres of two adjacent implants. Concepts 3 & 4 offered a natural and a safe distance for implant placement next to a natural tooth. Critical to adopting this approach was the ability to measure accurately, and he recommended Mitutoyo digital callipers.

He presented three tables. Tables 1 & 2 gave recommendations for implant diameter based on the anatomy of the tooth that was to be replaced, maxilla and mandible. Table 3 gave the standard average distance between the centres of implants as a guide for implant placement. The tables listed the mesial-distal dimensions of each tooth in both jaws at three positions: the crown, the CEJ and the CEJ – 2mm, with the recommended implant diameter for the Nobel Replace system listed for each tooth position.

He explained that it was possible to perform model surgery in advance with this technique to enable an accurate acrylic guide to be made to take to surgery. Before the coffee break, the audience had to engage the brain with a series of exercises, calculating accurately ideal and safe implant positioning from Dr Hebel's charts.

After the break, Dr Hebel asked the question 'What is treatment planning?' He considered it to be the single most important driving force in your practice. He believed all aspects of treatment planning were important. Dr Hebel asked the audience how long they spent on treatment planning and concluded that it wasn't enough! A great examination led to great planning.

He suggested we stop offering patients options 1, 2, 3 etc, but rather say, 'the recommended treatment is...' He advocated custom abutments which are colour-matched to the cement-retained crown, so the abutment becomes part of the restoration. (Incidentally he likes cement in his screw holes!)

Dr Hebel recommended aiming for a mutually protected occlusion:

- When the front teeth touch, back teeth don't
- When the back teeth touch, front teeth don't

Dr Hebel then ended the Masterclass with a step-by-step guide to restoring the failed dentition, starting with establishing the occlusal plane, and restoring the lower teeth first.

- Occlusal plane = from a point 2/3 up the retromolar pads on the mounted study casts (does not change through life) to an anterior point on the lower incisors, established clinically.
- The mandibular component of aesthetics is usually with the lower incisor edges 1.5mm above the relaxed lower lip – this is a dynamic relationship. Ask the patient to count 1 – 10.
- Learn to look at the holes between teeth last, sort out the lower jaw, then you will require less preparation of the uppers.

Dr Hebel then fielded a number of questions from the floor before the vote of thanks by Mr Bill Schaeffer.

Ark

ADI education resource

ONLINE

Dental Implant Learning

Only £1,995

EDITORIAL BOARD

Professor Cemal Ucer
BDS MSc PhD

Dr Anthony Bendkowski
BDS LDS RCS DPDS DipDSed
M Surg Dent RCS

Professor Ian Brook
BDS MDS PhD FDS RCS (Eng)

Mr Chris Butterworth
BDS (hons) MPhil FDS RCS FDS
(Rest Dent) RCS (Eng)

Professor Nikos Donos
DDS MS FHTEA FDS RCS (Eng) PhD

Dr Philip Freiberger
BDS (Lond) MFGDP (UK)

Mr Bill Schaeffer
BDS MBBS FDS RCS MRCS

Professor Damien Walmsley
BDS MSc PhD (VU Manchester)
FDS RCPS (Glasgow)

COURSES AND AUTHORS

The Foundations of Implant Dentistry
Professor Cemal Ucer BDS MSc PhD

**Legal & Ethical Considerations
of Dental Implant Treatment**
Kevin Lewis BDS LDSRCS FDSRCS(Eng) FFGDP(UK)

**Essential Treatment Planning
for Implant Dentistry**
Koray Feran BDS MSc(Lond) FDSRCS(Eng)

**The Fundamentals of Biology for
Implant Surgery**
Professor Nikos Donos DDS MS FHTEA FDS RCS PhD
Maria Retzepi DipDS MSc, PhD, CertClinSpec(Perio)

Implant Surgery in Practice
Ashok Sethi BDS DGDGP(UK) MGSRCS(Eng)
DUI(Lille) FFGDP

**Understanding the Essentials of
Bone Augmentation**
Dan McKenna BDS(QUB) MGSRCSI MFDGDP(UK)
FDSRCS(Ed) FFGDP(UK) FICD DiplImplantDentRCS
Mark Diamond BDS FDS (RCPS)

Understanding Soft Tissue Management
Jonathan Lack DDS Cert, Perio, FCDS (BC)

Medical & Pharmacological Considerations
Michael Martin MBE BDS BA PhD FRCPath
FFGDPRCS (UK), Nigel Robb TD PhD BDS FDSRCS(Ed)
(Rest Dent) FDSRCS ILTM

Removable Implant Prosthetics
Catherine Drysdale BDS MSc FDSRCS

Fixed Implant Prosthetics
Stephen Jones BDS MSc MGSRCS MRDRCS

The Role of the Implant Laboratory
Mark Oborn MDTA LBIDST Dip Mgmt (open)
Larry Browne FBIDST LCGI RDT

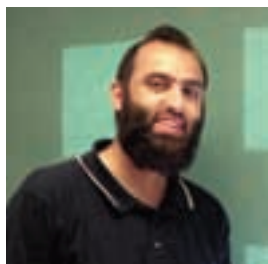
**Complications, Failures & Maintenance
of Dental Implants**
Edwin Scher BDS(Lond) LDSRCS Eng DGDGP RCS

**Managing & Marketing a Successful
Implant Practice**
Simon Hocken BDS ACC



www.adiark.org.uk

DIARY OF AN ARK LEARNER



SAQUIB AZIZ

Why have you chosen to study dental implants through Ark?

I have been on several courses since embarking on my implant training. Most of the courses I chose had a major practical element. Having placed implants for over a year now, I felt there was a need to further my knowledge in the field of implant dentistry from the basics to more complicated issues, hoping to fill gaps in my existing knowledge. Ark allows me to learn in my own time at my own pace. Being an online course I can access the courses at work and at home. The flexible learning was key to me choosing Ark.

Why do you think Ark is a good educational tool?

Ark provides a purely academic aspect to implant dentistry. It covers an array of excellent topics (courses) ranging from foundations of implantology to implant marketing, 13 in total. Being an online course it provides the clinician flexibility to access and work through the courses at any time, without the need to take time off work. Each course has been prepared by experienced professionals relevant to that course and covers the topic in great detail, including literature review in order to complete sections of the course. Therefore the course is designed not just as a knowledge base but to stimulate and challenge the learner to apply the knowledge. I have completed several courses and have found them to be comprehensive, challenging, extremely beneficial and supplemental to my implant career.

What course are you studying at present?

The Fundamentals of Biology for Implant Surgery

MONDAY

I have begun a new course today: 'The Fundamentals of Biology for Implant Surgery'. I feel that this may be a course which will be quite academic and with lots of terminology to learn. The courses are split into modules each with a Knowledge, Application, Reflection and Quiz section. I am well into the Knowledge section and although I have come across the terminology previously, it has been really good to put it all together in perspective. I've learnt about the structure of bone, anatomy of bone, the histology and how bone is formed. It may be academic but it is vital information considering as implantologists we abuse bone and expect so much from it! I managed to fit today's session (60 minutes) between appointments and lunch, and will continue the Knowledge section in due course.

TUESDAY

I'm at home, the kids are asleep and I have an hour or so to Ark! I am continuing from where I left off yesterday, although I did a quick recap of the first part of the Knowledge section just to familiarise myself with the terminology I learnt yesterday. The Knowledge section moves on to bone formation and resorption, what factors affect this and osseous healing. It is really interesting to learn that there are so many mediators in the body which affect bone remodeling, including hormones and growth factors. I have always read and heard about clinicians introducing mediators to aid bone generation, e.g. platelet-derived growth factors, and now can see why there is so much research being carried out on it. I have now completed the Knowledge section and hope to carry on tomorrow.

WEDNESDAY

I didn't manage to spare any time for Ark.

THURSDAY

I spent half an hour or so including lunch break at work. I began the Application section. This is more of a revision section. It asks you to summarise certain aspects from the Knowledge section. After completing the Knowledge section you may have understood everything but not necessarily have learnt it. This Application section really does help in retaining the information from the Knowledge section.

FRIDAY

I'm at home with an hour to spare and am continuing the Application section. There is an interesting article to read about the healing of an extraction socket, again so key in an implantologists' planning. This would have not made any sense if it hadn't been for the prior Knowledge section. This article has a great practical relevance in implant placement timings, etc. This completes the Application section.

SATURDAY

I didn't manage to spare any time for Ark.

SUNDAY

It's early morning and I'm eager to complete the first section of this module. I'm onto the Reflection section now, which again is revision and at times requires reading around the topic in order to complete some scenarios. I'm glad this Reflection section was a revision of anatomy and local / systemic factors influencing bone remodeling, as there was a lot of new terminology and information provided in this 'Biology' module.

At the end of each module there is a Quiz – multiple-choice questions - to see if you've been paying attention. To be honest, if you've completed all previous sections carefully, then the quiz is usually no problem and straightforward compared to the end-of-course 'Revision Questions' which are very challenging indeed, requiring an 85% pass rate!

With the first module completed and having learnt about the anatomy of bone, remodeling and mediating factors, I look forward to moving onto the next modules in the course which will cover the biology of osseointegration and guided bone regeneration.

ADI DENTAL NURSES' COURSE

THE ADI'S ONE-DAY COURSE ON DENTAL IMPLANTS FOR DENTAL NURSES



Report by Kelly Emerson

On the first Saturday in June, 12 dental nurses, three dentists plus their three nurses, four implant company representatives and an ADI representative descended on Glencairn Dental Practice in Wirral for the ADI's first of many one-day dental nurse courses.

The ADI created the Dental Nurses' Course to further educate any dental nurse, irrelevant of experience, on all aspects of dental implant treatment. When planning the content of the course, the ADI deemed it important that nurses were taught on an all-encompassing level to include the full role a dental nurse plays in implant treatment, from consultation to the final review appointment.

The day began in the purpose-built lecture theatre with a talk about the history of dental implantology by Simon Wright.

Following Simon's lecture, the nurses were divided into three surgeries to have a typical surgery set-up demonstrated. The role of the clean and dirty nurse, and aseptic techniques including gowning and gloving were led by Simon's nurses Helen Batty, Helen Frost and Amy Miller in their separate surgeries. The nurses were given the opportunity to ask questions and be involved throughout the demonstration.

Simon then led a very informative lecture on patient selection and treatment planning. The nurses' role in taking a relevant medical and social history, the diagnostic tools used and the indications for immediate, early, delayed or late placement were all referenced as important and essential for the success of implant treatment.

After lunch, the nurses were back in the lecture theatre to watch live implant surgery. The commentary was led by David Speechley and Helen Batty, highlighting the role of the nurse and explaining the different steps of the treatment.

At the time of booking, the nurses had been asked which implant system they used in practice, or which one they would like further training in. Of the 12 nurses who registered, the three companies requested were Astra Tech, Straumann and Implantium. On the day, the nurses were split into their specified groups and had the opportunity to learn how to use the implant kits by placing an implant into a model led by the company representatives.

Back in the lecture theatre, Helen, Helen and Amy presented the well-received lecture they gave at the 2011 ADI Team Congress in April 'HTM0105 and Care of the Kit'. During the break, the nurses were shown the practices' decontamination and sterilisation rooms.

The restorative lecture was led by David Speechley who covered all the options of restoring dental implants and the indications for each treatment.

The nurses were again split into their implant-system groups to be taught how to use the restorative kits. Winding up the day, Phil Brown gave a talk about post-operative care and maintenance including any possible complications that may occur at any stage of implant treatment.

The ADI would like to take the opportunity to thank Simon, David and Phil for delivering fantastic lectures and for keeping the group stimulated all day; the implant company representatives - Victoria Burton (Astra Tech), Janice Pimlott (Straumann) and Emma Williams (Implantium) - for providing all the props the nurses needed for the practical elements of this course; and finally, without Helen, Helen and Amy and their impeccable organisational skills and knowledge, the course would not have been anywhere near as successful as it was.

Some quotes from the delegates were:

'The venue was great. The presenters were nice and friendly. The course covered all the basics, and I feel very confident in assisting in implant surgery following the course.'

'I really enjoyed it...would love to attend any other similar courses.'



WHAT'S HOT ON THE FORUM?

The online Members' Interactive Forum is a key benefit of ADI membership and is increasingly used to pose clinical questions. The following is just a selection of some of the topics that have been discussed in recent months. Access to the forum is via the ADI website adi.org.uk.

ADI Forum	Views	Replies	Last Reply
Welcome Welcome to the new style ADI Members' Forum - this area gives the administrator's advice on using the Forum. Members go!	14	13	No reply yet 19 Aug 2012 11:40
Clinical questions (non-surgery) An area for you to post specific clinical questions you would like to discuss.	315	209	No answer yet 22 Aug 2012 07:46
Keys An opportunity for you to upload your own case notes to be reviewed by fellow members.	41	138	No updates yet 21 Aug 2012 19:57
Course feedback This section allows members to post feedback and any useful information on any courses attended.	24	22	No updates yet 29 Mar 2012 08:51
ADI Membership News A section for ADI office updates and information.	22	20	No updates yet 23 Mar 2012 14:21
Members A forum for ADI approved members. Members: Kelly, Heather	1	1	No updates yet 11 Mar 2012 22:28
Commercial A forum for companies to post their product information with agreed discounts for fellow members.	12	10	No updates yet 20 Jul 2012 14:58
ADP An area for (and other) business - are adverts that strike you as interesting from advertising job vacancies to selling your ADI implant brand?	78	284	No updates yet 17 Aug 2012 20:22
Nurses A forum dedicated to dental nurse members.	0	0	No posts

WHICH SCREWDRIVER DO I NEED?

Geoffrey Sharpe asked:

A patient was referred to me today with what appears to be a loose abutment screw affecting an implant in position 21 (UL1). I noted a very slight but definite movement in the crown and there was certainly evidence of toothwear affecting the opposing lower incisors. Further questioning revealed a bruxism habit that the patient was aware of but there were no other obvious occlusal issues.

The implant was placed and restored in South Africa approximately five years ago but the patient was not given the details of the implant system and she has lost the contact details for the original dentist.

I think this looks a little like a Biomet 3i implant fixture but I would really value the opinion of others on the forum. It has been restored with a cement-retained crown that I could not retrieve at her initial consultation, so I plan to see her again to remove the crown and hopefully access the abutment screw. Here at Dubai London Clinic I use the Astra Tech implant system, so this is the only screwdriver I have available at the moment.



I know it's a long shot, but I wondered if the same Astra hex screwdriver would fit? If not, I will have to do some further detective work and source the correct instrumentation.

I will ask the referring dentist to provide an occlusal splint once I have dealt with the implant.

Responses to date:
11 replies posted - 211 views

SEVERE BONE LOSS

Sam Pugh asked:

This lady is coming to see me this week, the rad being forwarded by the GDP. Until i see her i dont know much about the current occlusion but have been told that the patient has very good oral hygiene, has really looked after the implant and the GDP doesn't feel the occlusion is particularly interfering with the crown.



Seems like a lot of bone loss to me. Why is it so different distally to mesially? Does anyone have any good data from their own cases like this that warrants grafting and trying to save the implant or in your esteemed experience is this one for the bin??

Responses to date: 9 replies posted - 231 views

POSSIBLE CASE BPPV FOLLOWING SUMMER'S LIFT

A Fennell asked:

I performed a Summer's lift and simultaneous implant placement on a patient 2 days ago. The surgery went as normal. However, the patient has suffered from dizzy spells and one bout of vomiting since then. I suspect Benign Paroxysmal Positional Vertigo and I will be referring to ENT if symptoms persist. Has anyone else ever had a similar post op complication and if so what did you do about it. Any other advice?

Many thanks.

Responses to date: 6 replies posted - 210 views

WHAT'S HOT ON THE FORUM?

NAME THAT IMPLANT

A Pirie asked:

I need help identifying this implant! Does anyone recognise the THREAD pattern. The placing dentist drilled the fixture head!



The abutment and crown have been lost.
Many thanks in anticipation.

Responses to date:
22 replies posted – 304 views

PLASMA RICH IN GROWTH FACTORS (PRGF) – SOCKET GRAFTING

W Haq asked:

I have illustrated a case below of socket grafting using PRGF (Plasma Rich in Growth Factors) which utilises the patient's own growth factors obtained from their venous blood in a technique developed by BTI (Biotechnology Institute). This forms an ideal biomaterial for the accelerated regeneration of bone and soft tissue in post extraction sites and is particularly useful for diabetics and immunocompromised patients.

Would expect to see sufficient quantity and quality of bone within apx 8-12 weeks for implant placement in such a case based on current research by Dr Eduardo Anitua, Spain (BTI)

Responses to date:
6 replies posted – 226 views

GET INVOLVED TODAY!

Why not log on and post your own topic, or contribute to one of the existing threads?

This is a great way to network and interact with fellow members whether you are new to implantology or have many years experience.

Don't forget the dedicated **Nurses' Forum**, where ADI nurse members can post topics and ask questions of other nurse members.

ADI E-UPDATES

Each month members are emailed an electronic update of what is going on in the world of the ADI. Features include Study Club reports, interviews and diary dates.

ADI e-update
April 2011

ADI Team Congress 14-17 April 2011 Manchester

ONLINE DENTIST LEARNING
Only £1,997

BOOK NOW

SCIENTIFIC PROGRAMME

DENTAL IMPLANT TALKS PROGRAMME

ADI e-update
April 2011

Members' Interactive Forum - Hot Topics

ONLINE Dental Implant Learning
Only £1,997

ADJ STUDY CLUB COMPELLING DEBATE

Members' Interactive Forum - Hot Topics

ADI MENTOR REGISTER

In 2008 the GDC published “[Training Standards in Implant Dentistry](#)”. Within this document it stated “before undertaking implant treatment, a dentist should be familiar with the procedures involved in clinical assessment, treatment planning and the placement and restoration of implants in conjunction with an experienced mentor, as part of a training course in implant dentistry”.

With this in mind the ADI recognised there needed to be an impartial mentor register available to dentists who wanted to embark on this ever-growing field of dentistry. This relationship between the mentor and mentee can be established, assisting the mentee in developing their skills as an invaluable stage in learning.

The ADI started the [Mentor Register](#) in 2008 and to date 110 members have managed to successfully fulfill the criteria for inclusion on this list. To become a mentor the ADI stipulates that the applicant must have one of the following:

- [A higher degree or qualification in implant dentistry](#)
- [Documentary evidence of completion of a structured implant training course which includes a minimum of 70 hours in total of verifiable contact learning](#)
- [Documentary evidence of substantial clinical experience or teaching in implantology](#)

If the criteria are successfully processed after submitting the form (available on the ADI website), the applicant will be required to attend a mentor training day at Salford University.

Professor Cemal Ucer, the next President of the ADI, runs this one-day specially discounted training course. This course specifically teaches ‘competence-based’ and ‘reflective practitioner’ models of supervision. These styles of teaching propose the training is all student-centred and assists in defining the role of a mentor.

The Mentor Register is a concise list, which includes all the details of the mentor, the implant systems they are happy to teach, as well as their location, so potential mentees can search the most appropriate mentor for them using some or all of these search options. Due to the continued support of this register, it has grown to become the largest implant mentoring scheme in the UK.

If you would like to be included on the [ADI Mentor Register](#), and believe you fulfill any of the criteria, please do submit your application via the ADI website or contact the ADI office for guidance.

With the launch of [Ark](#) - the ADI education resource based on online learning - emphasis has been placed significantly on employing the services of a mentor as part of completing the full programme.

With this in mind, it is predicted the Mentor Register will be relied heavily upon to further support the learner in the hands-on learning aspect of the courses.

IMPLANT LOGBOOK

IMPLANT LOGBOOK (formerly ADIA) is the ADI’s logbook software available free to member clinicians and technicians.

CAN YOU REALLY AFFORD NOT TO BE LOGGING YOUR IMPLANT CASES?

Implant Logbook is a must for all members involved in providing implant treatment whether it be for only a few or for many hundreds of cases a year.

- Available **FREE** to all active ADI member clinicians and technicians
- Runs alongside existing systems for patient record keeping
- Allows dual data sharing and dual data entry for implant surgeon and prosthodontist
- Allows implant dentists to track results at the click of a mouse
- Provides recall facilities for patient management
- Enables simple identification of placed and unloaded implants for patient management
- Offers detailed patient search facilities



HOW TO USE

- Log on to your ADI member site <http://www.adi.org.uk/members/index.htm>
- Click **Implant Logbook** and enter your **ADI username** and **password**
- Enter Implant Logbook site and click on top toolbar **MY DETAILS**
- Start recording your information

OVID SP

OvidSP is a platform that allows users to search for articles across a wide range of journals using a keyword facility.

Member can access OvidSP via the dedicated members' area on the ADI website.

OvidSP is easy to use. Just enter the **keyword(s)** into the box and click 'search' which will bring up a list of articles based on the keyword(s) supplied. The list can also be filtered by journal, author and year. Abstracts are available to view. To access the full content of the article there is a 'pay per view' option that allows users to purchase the article in a pdf format.

The screenshot displays the OvidSP search interface. At the top, it shows the Wolters Kluwer Health logo and the OvidSP logo. The user is logged in as 'evidppv'. The main search area includes a search bar with the text 'implants.mp.' and a 'Search' button. Below the search bar, there are options for 'Basic Search', 'Find Citation', 'Search Fields', 'Advanced Search', and 'Multi-Field Search'. The search results are displayed in a table with columns for 'View', 'Title', 'Citation', and 'Abstract'. The first result is titled 'Fiducial registration with SPGR MRI enhances the accuracy of STN targeting.' and includes authors Ben-Haim, Sharon MD; Gologorsky, Yakov MD; Monahan, Ann BS; Wetz, Donald PhD; and Alzerman, Ron L MD. The result is categorized under 'Neurosurgery' and is marked as '[RESEARCH-HUMAN-CLINICAL STUDIES: PDF Only]'. The AN number is 00006123-900000000-99220. The publication date is 'Publish Ahead of Print, POST ACCEPTANCE, 05 May 2011'. There is a 'View Abstract' link and a 'PDF (Pay Per View)' option.

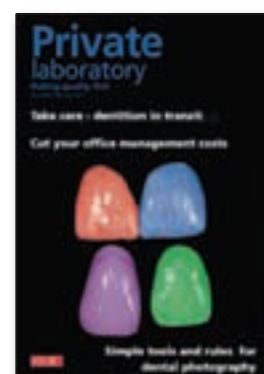
DISCOUNTED PUBLICATIONS FOR ADI MEMBERS

ADI members are entitled to **15% discount off subscriptions to Aesthetic Dentistry Today, Private Dentistry, Implant Dentistry Today and Private Laboratory.** **Discount code: ADI15.** Please contact FMC on 01923 851 771 or visit their website fmc.co.uk.

PLEASE NOTE: Current subscribers can renew with this offer. Offer cannot be used in conjunction with other FMC offers or sales, and is non-refundable.

ADI members are also entitled to **10% off Quintessence journals and books.** **Discount Code: ADI 10%**

Please visit the Quintessence website quintpub.com



ADI STUDY CLUBS

STUDY CLUBS have become the backbone of ADI education since their inauguration in the 1980s. For the past two decades, over 800 meetings have been held. Initially based in London, the format, encouraged by active members, quickly spread to Wales, Northern Ireland, Scotland, Yorkshire and the rest of England. Today ADI members volunteer their own time to host Study Clubs in 12 regional locations throughout the UK. The ADI constantly sources quality speakers and new topics to ensure the continuation of this popular facility. The Study Club speakers have given their time freely to the ADI and over the years, thousands of professionals have benefited from participating.

Study Clubs can be booked online at www.adi.org.uk. In addition, attendees can now download their certificate of attendance once they have completed an online evaluation form.



KENT/SUSSEX

Date:
27 January 2011

Speakers:
Mark Haswell
and John Costello

Subject: The Successful Short and Long Term Management of Combined Orthodontic/Implant Restorative Cases

Exhibitor: Biomet 3i

Mark Haswell, a prosthodontic specialist and John Costello, an orthodontic specialist, are both well-known in the South East region and they were kind enough to speak at the ADI Study club there on the 27th January 2011. Though working in separate businesses, they work very closely together for the treatment of combined orthodontic and implant cases.

Throughout their excellent presentation they repeatedly emphasised the need for good communication between the clinicians involved in these combined cases and the necessity for seeing the patients in combined clinics at the outset of their treatment.

The first part of the evening was devoted to the combined treatment of adolescents with missing teeth. John explained that these were often the hardest group of patients to treat as their orthodontic treatment might be finished by the age of 14 but implant treatment couldn't be started until their growth had ceased many years later.

Mark explained that the earliest age when implants could be safely placed ranged from 18-22 years for boys and 16-19 years for girls and they used common-sense questioning to assess whether a patient's growth had stopped.

A clear visualisation of the final desired outcome is essential at the outset of treatment with the orthodontist knowing exactly what the implantologist will need when the patient is finally ready to have their implants. This is particularly important when it comes to the finalisation of the root position and the space required for implants and the space should be checked by the implantologist BEFORE the brackets are removed.

Mark pointed out that any implant placed in an adolescent had a long lifetime of use ahead of it and therefore one needed to ensure that the implant was wide enough to be strong enough to last over that time. Once again, early joint assessment with the orthodontist is essential to ensure appropriate space is provided.

They explained that because such combined treatments can take many years to complete it is necessary to ensure that both patients and parents are educated as to exactly what the treatment plan is and why it will take so long.

The length of time between the completion of orthodontics and when implants can be placed also creates a problem with temporisation. Not only do the gaps need to be filled but the surrounding teeth also need to be prevented from drifting and creating orthodontic relapse. The most common temporary restoration they used were adhesive bridges but often with slightly unconventional designs to help hold the other teeth in place.

Mark emphasised the need to prevent bone loss whenever possible and advised that socket grafting should be carried out whenever a tooth was removed in an adolescent in a site that was planned for a later implant. Preventing or minimising bone loss was much easier than reconstructing a bony defect later on.

The latter part of the presentation beautifully demonstrated a large number of adult cases that combined orthodontic and implant treatment. These included conventional implants being used for orthodontic anchorage as well as the use of Temporary Anchorage Devices, or TADs.

Overall, the main take-home message from this excellent lecture was that early and clear communication between both the orthodontist and the implantologist was essential for the combined treatment of these cases.

Bill Schaeffer



SCOTLAND

Date:
Thursday 2 September 2010

Subject:
Treatment Planning Evening

Exhibitor:
Southern Implants

Quotes from attendees:

- Very enjoyable and informative evening
- First class event, great that all the dental team could work together
- Excellent format which allowed great interaction, open discussion and really productive outcomes
- Great night. I hope this style of evening will be repeated in the future

On Thursday 2 September the Scottish Study Club group broke with the usual format and had a treatment planning evening. We left our usual auditorium venue at Perth Royal Infirmary in favour of a spacious hotel suite with room for six caberet-style tables. We asked six eminent implant dentists to chair a table of members; three or four dentists and one technician per

table. Our six chairmen were Crawford Gray, Kevin Lochhead, Paul Stone, Grant Mathieson, Phil Friel and Stephen Jacobs.

Each member brought a case that they were struggling to plan, or a completed case that they felt could have gone better. They brought four pieces of information: a smile line photo, radiographs, models and details of what the patient wanted. They each had 15 minutes to present their case and get advice from the chair. This took one hour, then I asked each chairman to come to the front and share with the room the treatment planning issues they had been addressing at their table.

The five recurring themes from the tables seemed to be:

1. the need to massively improve communication between dentist and technician
2. slow down - consider more provisionalisation, take your time, don't try to cut corners
3. in complex cases involve your technician from the start in staging your treatment
4. manage patient expectations downwards
5. the tooth v. titanium dilemma

It was great to see guys from across the country who did not know each other talking and sharing. The interaction with the technicians was the stand-out success of the evening. It is incredible how little contact technicians often have with clinicians, and yet, arguably, they are the most important member of the team.

David Offord



CORNWALL

Date:
Thursday 24 March 2011

Subject:
**Interdisciplinary
management of implants in
the aesthetic zone: the key
to predictability and success**

Speaker: Tidu Mankoo BDS

Exhibitor: Sirona Dental Systems Ltd

The Cornwall/Devon Study Club were delighted to welcome Tidu Mankoo to Exeter on Thursday 24th March 2011. Tidu's presentation was "Interdisciplinary Management of Implants in the Aesthetic Zone : the Keys to Predictability and Success."

In just two hours, Tidu presented a comprehensive overview of both the surgical and prosthetic principles which will ensure a predictable aesthetic outcome of anterior implant restorations. Parameters of aesthetic "success" or "failure" were described.

Detailed coverage of the literature set the scene for understanding the clinical philosophy which Tidu uses in his practice. Careful diagnosis and treatment planning of all cases will avoid unpredictable results.

Tidu is a very experienced surgeon as well as a gifted prosthodontist: confirmed very clearly by the quality of the treatment outcomes he presented. The clinical photography alone was a pleasure to look at.

Tidu's interdisciplinary approach to treatment ensures that his patients have the optimal surgical and prosthetic restoration. Management of the bone, soft tissue and prosthetic contours was well described and illustrated. Tidu constantly stressed the importance of respecting the biological factors which will have an influence on the stability of the soft tissue in the longer

term. This includes sound knowledge of the material science behind the various implant components and how this has an impact on the tissue it has contact with, both epithelial and connective tissue, in the mucogingival complex.

Soft tissue grafting was beautifully illustrated both in detailed sequence of images as well as by video demonstration. He believes that if you raise a flap, you must augment! He also advocates designing screw retained restorations posteriorly and believes that in anterior implant restorations, great care should be exercised if cementing crowns to abutments is planned. In these cases, cement can be the enemy!

Tidu favours exclusive use of custom Zirconia abutments within the aesthetic zone and follows a strict protocol of abutment design and handling of the materials which will be in contact with the mucogingival tissues. These abutments are designed with almost supragingival margins which ensures minimal cement issues and consequently no recession of tissue over a number of years.

Tidu describes six key factors which will optimise soft tissue aesthetics around implants:

- Correct three dimensional positioning of the implant
- Adequate stable bone volume & architecture
- Adequate soft tissue thickness at transmucosal connection (biologic seal)
- Early placement of final abutment, customised (chairside)
- Transmucosal form, contours and material of the abutment and prosthesis
- Development & maintenance of appropriate soft tissue contours

The feedback from the attendees has been exceptional which is hardly a surprise!

Catherine Drysdale

**2012
Study Club dates
to be announced
very soon**

ADI CONTINUING POSTGRADUATE EDUCATION

STUDY CLUB DATES 2011

*ADI meetings provide verifiable CPD certificates.

***ADVANCE BOOKING FEE IS DISCOUNTED**

*You can now register online for events between September-December 2011

Cardiff - Host: Mr Adrian Binney

Thursday 17 November **Mr Robert Oretti**
"Are Predictable Aesthetic Results Achievable with Immediate Implants"

Cornwall/Devon - Host: Mrs Catherine Drysdale

Thursday 17 November **Dr Andrew Denny**
"Co-Discovery when Assessing, Planning & Coordinating Implant Care with your Patients"

Essex/Hertfordshire - Host: Dr Aase Larsen

Monday 3 October **Mr Robert Dyas**
"Help it's all gone wrong - The Aetiology, Prevention and Treatment of Dental Implant Complications"

Kent/Sussex - Host: Dr Bill Schaeffer

Wednesday 23 November **Dr Abbad Toma**
"An Endonasal View of the Maxillary Sinus"

London - Host: Dr Koray Feran

Tuesday 22 November **Dr Maria Retzepl**
"Diabetes Mellitus and its Impact on Dental Implant Treatment"

Newcastle - Host: Dr Anthony Cooper

Wednesday 16 November **Dr Mark Diamond**
"Running a busy Dental Implant Clinic - Hints and Tips from Referral to Follow up"

Preston - Host: Dr Simon Wright

Wednesday 16 November
Mr John Wibberley & Dr Bob McLelland
"Restoration of the Full Arch - A Technician's & Clinician's Perspective"

Scotland - Host: Dr David Offord

Thursday 3 November **Mr Geoffrey C Pullen**
"Risky Business"

Warwickshire - Host: Dr Sunny Kaushal

Wednesday 30 November **Dr Nigel Jones**
"Immediate Implant Placement and Loading with Simultaneous Augmentation"

Yorkshire - Host: Dr Robert Dyas

Tuesday 29 November **Mr Larry Browne**
"Occlusion, but not as you know it!"

BOOK ONLINE at www.adi.org.uk

HAVE YOU CHANGED YOUR CONTACT DETAILS?

So that you do not miss out on important ADI news and updates, please ensure we have your up-to-date contact details.

You can update these on your **Membership Profile Page** at www.adi.org.uk.

Alternatively, please let the ADI office know on **+44 (0)20 8487 5555** or at info@adi.org.uk.

ADI OFFICE STAFF

TIM COLLARD
Executive Director

NEELAM BHANOT
Operations Manager

KELLY EMERSON
Education Manager

MERYL QUINN
Membership Manager

LOUISE KING
Marketing Manager

ADI Members' National Forum

and AGM

King's College University, London
Saturday 12 November 2011



08:30 - 09:30	Delegate Registration
09:00 - 09:10	President's Welcome
09:10 - 10:40	Forum A & Forum B
10:40 - 11:00	Tea/Coffee
11:00 - 12:30	Forum A & Forum B
12:30 - 13:15	Lunch
13:15 - 13:45	AGM
13:45 - 15:15	Forum A & Forum B
15:15 - 15:30	Tea/Coffee
15:30 - 17:00	Forum A & Forum B

Event open to ADI members only

FEES

Clinician, Technician - **£175**

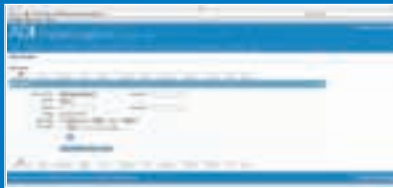
Nurse, Hygienist, Therapist, Practice Manager, Student - **£100**

There will be three plasma screens during the breaks demonstrating:

Members' Interactive Forum



Implant Logbook



Ark



To book, please visit www.adi.org.uk/forum11 or call +44 (0)20 8487 5555