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Editorial

This edition of Riskwise

We have focused on particular areas of practice that are causing us great concern – the minefield of implant dentistry and short-term orthodontic treatment carried out by non-specialist general practitioners.

Once you have read these articles, a common theme emerges; that of obtaining valid consent. It is essential to convey full information to our patients, crucially checking for their understanding of what has been described and allowing them time to consider what they have heard. This will often mean giving patients time to go away to think about their dental condition and treatment options, to confer with family and friends and then to return to ask questions before then making their decision and proceeding with treatment.

In today's digital world, where patients will oftentimes search the internet to investigate a diagnosis or treatment plan, it is important to give patients a clear description, so that they can search for that specific term. Clearly, the more complex (and perhaps expensive) the treatment is, the more important the opportunity for reflection and questions becomes. It is very unusual for a medical negligence case to reach the highest courts, however in the UK Supreme Court the case of Montgomery v Lanarkshire Health Board1 was decided in April this year. In essence the case sets out the importance of communicating the real choices a patient faced and giving the patient a real choice rather than imposing what the clinician believed to be the best course of action. Although this was an obstetric case, the principle applies that in obtaining valid consent a patient needs to be offered genuine choices with accurate estimates of the costs where appropriate.

A failure to obtain valid consent is a recurring allegation in dental claims and Dental Council investigations, therefore this is an area of communication and record keeping that we need to improve to be in the best possible position to have evidence that valid consent has been obtained.

Membership subscriptions

Rest assured, our membership subscriptions are based on the best actuarial advice available, reflecting the dental claims and case experience in each country. Subscriptions are set to provide prudently for the present and future needs of our members as claims may arise 5,10 or even 20 years after the treatment we provide this year. There is no profit element factored into the subscription you pay us.

We therefore ask you to be sure you are paying the correct subscription for the scope of your practice at all times. Your entitlement to the benefits of membership is likely to be placed at grave risk if you are not.

Future generations

As healthcare professionals, we have a duty to act responsibly towards future generations; hence we have included a timely article on the rising levels of antibiotic resistant bacteria and our duty to think very carefully before prescribing antibiotics. It is no longer acceptable, when faced with the evidence about the consequences of antibiotic resistance in the community, to prescribe antibiotics where they are contra-indicated.

As ever, I look forward to working closely with the HKDA in the delivery of services to our members in Hong Kong.

Best wishes,

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I recently had the pleasure of visiting the Hong Kong Dental Association along with my senior colleague, Jane Merivale in November. We had a very useful meeting in which we discussed the pattern and frequency of cases that arise in Hong Kong. I was able to explain that the mix of cases being reported both in Hong Kong and the rest of the world is gradually shifting so that in future we will see more cases arising from techniques such as implants and adult orthodontic treatment, alongside those that have historically given rise to concern, notably oral surgery and endodontics.

Advances like these accompanied by the new era of digital communication pose new challenges and opportunities for patients and dentists alike. Patients behave more like consumers when seeking, or at times apparently demanding, sophisticated elective treatments to enhance their appearance rather than simply requesting treatment for dental disease.

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1 Montgomery v Lanarkshire Health Board (2015) UKSC 11
Adult orthodontics

Dr Alison Williams describes some of the problems that can arise from treating adults who are short of time

There are three obvious challenges that arise if adult orthodontic treatment is sought:

- Patient may impose constraints upon how the treatment is to be carried out (especially in terms of the type of appliance and its visibility).
- The treatment plan may be complicated by previous orthodontic treatment, missing teeth, the presence of restorations or periodontal disease.
- Failure to meet patient expectations can lead to complaints.

Adult patients who are prepared to commit themselves to orthodontics will generally not do so lightly and may well be highly compliant and co-operative with the treatment. The flip-side to this is that adults tend to become heavily-involved in their treatment, often scrutinising every tooth movement that occurs between appointments.

An inexperienced clinician may have to adapt the original treatment plan as the now “expert” patient becomes more and more aware of their occlusion. These “tweaks” to the original treatment plan tend to lengthen the treatment time, which can be unpopular.

Unless the clinician has sufficient experience there is a temptation to undertake tooth-movements that are clinically contra-indicated, in an attempt to appease a persistent patient. Unfortunately, the problems identified during the treatment-planning stage re-emerge and the objectives of the amended treatment plan are still frustrated.

Clear aligner techniques

The concept of using removable tooth-positioning devices for minor localised tooth movements is not new. Arguably, developments in data technology have facilitated novel techniques for the movement of teeth. These systems are particularly attractive to the “non-specialist”, without any recognised formal training in orthodontics.

Because the treatment plan and a series of aligners are formulated for the practitioner, treatment can be provided with a minimum of training. This means that patients can be treated “in-house” by their own dentist, rather than having to travel to another practice to see a specialist.

A study conducted by Dental Protection in the UK revealed that claims arising from orthodontics have been on the increase, and 20% of the new cases reported in 2010 involved aligner techniques. Significantly, general (ie. non-orthodontics specialist) practitioners accounted for 80-90% of all aligner-related complaints and claims, a worrying development given their increasing popularity with patients and amongst general practitioners who provide orthodontic treatment.

However, closer analysis of the cases reveals that underlying causes were no different to most other orthodontic cases:

- Failures in case assessment, diagnosis and treatment planning
- Deficiencies in the consent process (especially in relation to discussing alternative orthodontic approaches)
- Inexperience and a failure to anticipate and recognise problems
- Failure to recognise the significance of interproximal reduction (interdental “stripping”) as a means of space creation, and the associated risks
- Failure to manage the patient’s expectations – perhaps “over-selling” the obvious benefits of clear aligner techniques without sufficiently stressing the risks and limitations.

Additional risks are introduced when the clinician is reliant on the computer software and the remote technician who designs and constructs the aligners; effectively taking over the diagnosis and treatment-plan without ever seeing the patient. If that service originates outside your own country the risks associated with teledentistry should be considered (Search for “teledentistry” at dentalprotection.org).

Dentists with minimal recognised training in orthodontics are particularly vulnerable because they are unlikely to have the expertise to recognise if a treatment plan they receive from the “remote” planner, is not in the patient’s best interests. The providers of these planning services inform practitioners that they can reject the first treatment plan if it is unsuitable. But a non-specialist, with little orthodontic training, may not have the knowledge or confidence to “argue with the computer”.

Unmet expectations

Orthodontic treatment as an adult, particularly in middle age, can be costly, uncomfortable, time-consuming and potentially embarrassing. An adult making these sacrifices may have unrealistic expectations of the impact that straighter teeth can have on other aspects of their life; the stakes can be high.

Tooth movements tend to be slower in adults and some are very difficult to achieve. Inexperienced clinicians who don’t have a clear understanding of what can and cannot be achieved with orthodontics in an adult or who skimp on the consent-process may fail to meet patient expectations.
Compliance

Aligner-systems rely on patients wearing their aligners for a prescribed number of hours each day. Patients frequently fail to achieve the target, and so discrepancies can develop between the actual and the predicted tooth movements that each aligner is expected to produce. An experienced clinician will notice the discrepancy and amend the treatment plan. An untrained or inexperienced clinician may continue to fit the next aligner in the sequence not noticing that there is a problem. Complaints can be initiated if the clinician has to backtrack through the aligner sequence, increasing the overall treatment time.

Relapse

A major clinical disadvantage with aligner-treatment is that, in most cases, only the crowns of the teeth are tipped whilst the root moves far less. Cases are therefore prone to relapse if the patient fails to wear their final aligner or a retainer for a significant number of hours each day as retention. Unless suitably skilled, the clinician may not recognise the risk of relapse in the original assessment and treatment plan and may fail to obtain valid patient consent for extended retention or a fixed retainer from the very outset. When the patient is presented with this information, without any warning, at the end of treatment they may complain.

It may also become necessary to go onto a fixed appliance at the end of the aligner treatment, to correct the position of the roots and improve stability. Without the skills to predict this eventuality, there can be disappointment when the patient learns they will have to wear a fixed appliance after all. If the same clinician does not have the skills or materials to finish the case, the patient may have to be treated by another practice which could be both inconvenient and disappointing.

Embarking on aligner techniques as an alternative to developing a proper depth of knowledge and understanding of orthodontics, is inviting problems. Like other dental techniques, there are ever-present dangers when something is a lot easier to “sell” than to do.

Short-term orthodontic techniques

Short term systems frequently include a promise of the length of time to obtain the desired effect in their marketing material. They are based on fixed and/or removable appliances, and are designed for use by dentists with a minimum of training to achieve limited improvements, usually based on straightening the anterior teeth, for their patients.

The choice of brand name used by some systems seem to suggest that the patient will only need to wear the appliance for a specified short time which makes it an attractive proposition to the consumer who has a busy life. These systems focus on improving dental aesthetics alone, which is usually the patient’s main goal, rather than correcting any underlying malocclusion, which might achieve long-term stability.

Short-term systems are attractive to the clinician for the same reasons as aligner-systems, in that treatment can be provided “in-house” with a minimum of training. Dental Protection has seen similar patients’ complaints arising about these systems to those for aligner treatment. Because the systems have been designed and marketed to non-specialists the complaints we see are almost exclusively against non-specialists.

It’s in the name

Any brand name for a treatment system that references a specific period of months will tend to raise patient expectations about treatment time. The consent form provided by the manufacturer can unwittingly compound the problem if it repeats a defined period of time. It is easy to see how patients could make assumptions if the treatment length forms part of the promotion, and how they might feel upset if treatment takes longer.

During the consent process, practitioners are encouraged to use the consent forms and information leaflets provided by the manufacturer but these forms are not patient-specific and may not cover everything that needs discussion.

Short-term orthodontic appliances have the capacity to apply forces to both the roots and the crowns of the teeth. In some patients there is a possible risk of root-resorption. The clinician needs to understand how to assess the risk. This should be discussed separately and recorded in the clinical notes if the literature from the manufacturer is silent on this problem.

On balance

Although the rewards to the practitioner for these two forms of adult orthodontics can be high, there is also an increased risk of a complaint if expectations are not met. Support and advice from a specialist orthodontist or a colleague with greater experience, is one way of helping you to meet the patient’s expectations within a realistic time-frame.
A root in the sinus
Dr Mike Rutherford considers the best way of managing such unexpected situations

Prompted by a recent court judgement that awarded over $US 500,000 for a tooth root displaced into the maxillary sinus, Dr Mike Rutherford considers the best way of managing such unexpected situations

This case is a salient reminder that when things go wrong, it can cause a chain of events that lead a long way from the desired and expected outcome. It is also a reminder that such situations demand an early and appropriate referral for expert treatment of your patient. Timely contact with Dental Protection also ensures expert assistance to help you manage the event.

Where did it go?
The displacement of a tooth root into the maxillary sinus is, unfortunately, one of those adverse outcomes commonly reported to Dental Protection. Although specialist removal of the root is, in most cases, accomplished predictably, it is an incident that needs particularly good clinical and patient management. From the patient’s perspective, having already undergone the anxiety and trauma of tooth removal, they are now being told that they will require further surgery.

This surgery will be more invasive, more expensive (often involving a general anaesthetic with its accompanying risks and costs), and result in more swelling, pain and bruising than the original tooth removal. Instead of the anticipated afternoon or day off work post extraction, several days’ work may now be lost to consultations, day-stay surgery and recovery.

It’s in the sinus?
To the general public, most dental procedures are obscure events that are poorly understood. Considerable time and effort may be required to explain just how a root that was once attached to a tooth came to be in a sinus that most people would not expect to be anywhere near their teeth. A patient distracted by the procedure just abandoned and the anxiety of knowing something may have gone wrong is often a poor listener, and will have difficulty taking in the avalanche of new information presented by a dental practitioner who may well be somewhat traumatised themselves by the predicament.

When did it happen?
Most roots displaced into the sinus come from the first permanent molar, with the second molar following close behind. The palatal root is the most common root to be displaced, and the displacement often occurs following decoronation of a molar and subsequent attempts to remove roots that may have been separated either traumatically or by sectioning.

Anecdotally, most displacements occur in ‘closed’ root removal, that is when a surgical flap and buccal bone removal has not been performed. This may indicate a less successful technique or indicate a less confident operator unwilling to approach surgically. Understandably, relatively less experienced practitioners are over-represented.

Warnings
Information presented before the event is a warning; after the event the same information is often viewed as an excuse or justification.

Forewarned, your patient is more likely to be accepting of this adverse outcome, particularly if it was discussed as a possibility at the outset

Most often the difficulties that lead to the displaced root, and the need to manage the accompanying oro-antral damage, mean that the dentist is running late and is probably keeping another patient waiting. Now is not the time to rush.

Take a deep breath, slow down and spend the time with your patient to explain everything fully.

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When to stop?
There appear to be three key times when assessment of the situation and referral may prevent this unwanted outcome. Unfortunately the willingness of both the patient and operator to stop the procedure usually becomes less likely at each stage.

• The best and most obvious opportunity is on reviewing a preoperative radiograph and assessing the proximity of the sinus. While this may seem self-evident, an honest appraisal of one’s experience and the difficulty of the proposed treatment can be hard and is often prejudiced by our patients’ expectations and demands, and our own self-confidence. Despite this, a timely referral to a more experienced colleague or a local specialist, accompanied by an assurance that it is in your patient’s best interests, is the safest option.

• The next opportunity to reconsider is on decoronation of the tooth during a planned simple extraction, and the realisation that the tooth removal has now turned into a more difficult root sectioning or surgical approach. The practitioner and the patient are now involved in a very different procedure requiring a different skill set of the practitioner. If a surgical approach had been assessed as a possibility, your patient should before warned of this possibility, and the alternative of a referral offered.

• The third opportunity arises when a planned approach has not resulted in the removal of the root, and the practitioner finds themselves ‘reaching’ – that is, retrying techniques with more force, or trying more and more instruments and other approaches not originally planned.

Sometimes other foreign bodies have unintentionally found their way into the maxillary sinus. They require a similar organised response if the patient’s best interests are to be protected.

Occasionally though the result is disaster – an extraordinary number of dentists reporting root in sinus incidents mention the uneasy feeling they had before the disaster – “I knew I should have stopped” is a common comment. We should be acting intuitively and listening to the little warning voice in our head that tells us to “get out of there” – it is the voice of reason. This is the most difficult time to stop, reassess and refer because of the energy and emotion already invested in the procedure by both dentist and patient, but it is also probably the most important time.
A root in the sinus

What next?
A prompt referral to a specialist oral surgeon or an oral and maxillofacial surgeon is essential. Surgical retrieval is beyond the scope of most general dentists and generally should not be attempted. In a few cases, small portions of roots may be left in situ - this should, however, be a decision made by an expert third party and not, at the time, by a general dentist whose decision may perhaps be influenced by wishful thinking.

Referral is part of your duty of care and early referral gives your patient the best chance of a favourable outcome. It also removes the possibility of your patient thinking that they have not been told the whole story or have been inappropriately managed. Specialist surgeons are familiar with these situations and can give your patient an expert opinion from a neutral vantage point. If the explanation and advice offered by the surgeon tallies with that already provided by the dentist, validity of both opinions can be reinforced.

And then...
You need advice from one of Dental Protection’s dentolegal advisers. Apart from the requirement of your indemnity insurance policy to report incidents such as this, our dentolegal advisers have had the experience of working with many practitioners in similar situations. Although this will probably be an unfamiliar process for the practitioner, the adviser can offer advice based on Dental Protection’s wealth of experience in these matters. They offer an independent viewpoint and can advise you how to achieve the best possible outcome for you and your patient, as well as keeping your welfare and reputation in mind.

Full and frank disclosure is essential – an explanation in layman’s terms accompanied by diagrams or the use of pre or intra-operative radiographs will help your patient understand the relationship of the anatomical structures.

Self-reproach is a frequent aftermath of such incidents whilst fear of formal complaint proceedings can stifle a practitioner’s usual rational patient management. Assistance in maintaining contact with your patient during their remedial treatment, choosing the right words to use, help with a letter of explanation to your patient and recommendations on financial arrangements form part of the advice that is available. It is provided with a view to reassuring your patient that they are being cared for, and ensuring that you meet your duty of care obligations.

You can’t undo what has been done, but you can certainly ensure that the management of the situation is as compassionate and professional as possible, looking after the best interests of the patient, whilst Dental Protection looks after you.

We should be acting intuitively and listening to the little warning voice in our head that tells us to “get out of there”. It is the voice of reason.

It happens
If the root has been displaced, excellent clinical and patient management is now essential. Stabilisation of the socket and the accompanying oro-antral communication should be addressed in the first instance using best clinical practice. Once this has been achieved, give your patient and yourself a rest – as previously mentioned you will almost certainly be running late at this stage, but that is very much of secondary concern.

You need your patient to be able to focus on what you are saying, and you will want to be calm and professional in the process. Patients can sense when a dentist appears rushed or anxious. This is a time for your patient to appreciate that you are focused on their welfare and not your next patient.

A patient who may feel aggrieved at the unexpected outcome will undoubtedly feel more so if they perceive a rush to get them out the door. Many a letter of complaint focuses as much on dissatisfaction with the dentist’s perceived lack of care post-incident, as it does on the incident itself.

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In general, there are three approaches to achieve a safe passage through any minefield. The first is to find out exactly where all the mines are located before you start, and then to carefully plan a safe route – and stick to it. The second is to take your time, proceed with extreme caution in small, measured stages and not take any step before knowing for sure that the ground upon which you will be placing your foot is safe. The third (which we do not recommend) is to ignore signs, keep moving and not ask for directions.

Members in the latter group will probably not be reading this article in the first place, but for members in the other two groups it will hopefully serve as a checklist, so that they have a better understanding of the potential pitfalls, and can thereby avoid becoming part of the worrying recent claims statistics arising from implant dentistry.
The minefield of implant dentistry

Before you start
Get proper training

Short courses, perhaps run by manufacturers and distributors of implant systems are an important part of the training “mix” in order that practitioners can properly understand the features of a particular system, but these bespoke courses can never be a replacement for a broader, extended course which goes into more depth and considers many different implant systems and their relative advantages and disadvantages. Some commercially driven courses may be likely to make the procedure sound simpler and easier, and will not necessarily alert you to the limitations and risks. The aim of such courses is often to promote the merits of one particular system, and to encourage the placement of as many implants as possible, in as many sites as possible, for as many patients as possible, as often as possible. This is not a recipe for sound clinical judgement and practice.

The best courses are generally those which involve formal, structured training provided by acknowledged experts in the field, over an extended period of time (such as one to two years). It will take time, effort and commitment and involve a lot of study. If it doesn’t, it invites the question of whether the course is sufficient for its intended purpose. In an ideal world, implant training should involve some kind of examination to demonstrate the attainment of knowledge and competence in the field, and a period of mentoring (i.e. the ability to practise implant dentistry under both direct and indirect supervision, where help is readily at hand if you should need it).

Although the Dental Council of Hong Kong (DCHK) does not provide any specific guidance about implants, the regulator in many other countries does. For example, in the UK the General Dental Council is concerned about dentists who become involved in implant dentistry with relatively little formal, structured training and mentoring. Their existing guidance (see panel above) is clear in stating that dentists should not get involved in treatment for which they do not have the relevant training and in respect of which they are not yet competent.

It is not difficult to see how exposed a young dentist would be if they get involved in implant dentistry quite soon after qualifying, perhaps off the back of a relatively short course undertaken with no proper curriculum or structure, supervision arrangements, quality assurance or opportunity for hands-on mentoring after completing the course. Were such a dentist, with relatively little (narrow) experience of clinical dentistry to undertake a complex restorative case which then goes wrong, this is almost certain to be referred to the Dental Council in the UK, with all the attendant consequences. Any dentist who enters the field of implant dentistry should be prepared to justify the adequacy of any training they have received.

Don’t overestimate (or over-state) your competence

When an implant case has gone spectacularly wrong, it can be painfully embarrassing for a clinician to be confronted (during the course of a negligence claim, or before the DCHK) with the way in which s/he had described their experience and training, skill and expertise in implant dentistry. This can be the result of a genuine lack of insight into the level of their own knowledge and competence, or a wish for commercial or other reasons to appear more skilled or experienced than they really are.

The tools for the job

Having the correct instrumentation to carry out implant dentistry safely and successfully comes at a price. The highest standards of infection control are essential, and so are good chairside facilities and trained nursing support. If you don’t have access to proper imaging (eg. cone beam tomography) in your own practice, establish where and how you can take advantage of this technology if it exists elsewhere (see below). Trying to keep the cost down for a patient by cutting corners, isn’t really helping you or the patient in the long run.

Check you have the right protection

As extraordinary as it might sound, there are still practitioners getting involved in implant dentistry without having protected themselves (and indirectly, their patients) with any kind of professional indemnity arrangements. Other practitioners sometimes overlook their membership renewal date, or decide to save money by choosing an inappropriate membership category that does not fully reflect the extent of their clinical practice, or even by allowing their membership to lapse.

Special categories apply in Hong Kong to implant dentistry and associated procedures such as sinus lifts and bone harvesting from outside the mouth for grafting purposes – it is a member’s personal responsibility to check at every renewal date that the category and rate that they are paying is still the correct one. Because these categories can and do change, simply renewing your membership in the same category as the previous year(s) may be leaving you exposed or even unindemnified for implant dentistry.
Sharing care – when more than one clinician is involved

The need for joint case assessment is critical where the surgical and prosthodontic phases of implant dentistry are being carried out by different people.

In implant dentistry, it is helpful if the clinician who will be undertaking the subsequent restorative/prosthodontic phase is present at the time of the surgical procedures.

Implant fixtures are, of course, a means to an end and not an end in themselves. Consequently, implant dentistry needs to be driven, and led, by the prosthodontist – whether this is a specialist or a general dental practitioner. Problems can arise where the prosthodontist is relatively inexperienced in implant dentistry, and the clinician undertaking the surgical phase is more experienced and perhaps viewed as the 'senior' partner in the relationship.

Problems are more likely to arise when there is no over-arching and mutually agreed treatment plan which comprises both the surgical plan, and the restorative plan. The clinician undertaking the surgical phase needs to make it clear what is, and is not possible (or advisable) from a surgical perspective, and the prosthodontist needs to make it clear what is, and isn't possible (or acceptable) from the perspective of the subsequent restorative/prosthetic requirements both in a technical sense, and also in order to satisfy the patient’s functional and aesthetic needs.

The relationship between the specification and positioning of the implant fixtures, and what could be achieved prosthetically once they are placed, is so intimate that these two processes need to be viewed as two aspects of a single process, rather than as two separate processes (as so often occurs).

Getting started

Slow and easy

Suggesting that any implant case is “easy” is probably misleading, but when making for your first foray into implant dentistry, choosing anything other than the least complex case, is asking for trouble. Ideally, taking you time, choosing cases carefully and getting several relatively simple cases under your belt is advisable before attempting anything more ambitious.

Mentoring

The best introduction is to have an experienced mentor to guide and assist you as you take your early steps into implant dentistry.

Planning

Communication with the patient

The right equipment and environment

The surgical and prosthodontic phases are best considered as two aspects of a single process, rather than as two separate processes.
Case assessment and treatment planning
Plan carefully
At least a third of all implant cases that are seen by Dental Protection can be traced back to some kind of deficiency in the case assessment and treatment planning stages like those listed below.

In particular
• Any sense that a clinician has rushed headlong into the placement of implants without allowing time to get to know the patient and/or consider and discuss any other treatment options.
• The absence of an up-to-date medical and medication history or an apparent disregard of any absolute or relative contraindications associated with either of them (e.g., Type 1 diabetes, or any medication affecting bone metabolism or density, the inflammatory response or the tendency to bleed).
• A failure to elicit or act upon relevant features of the patient’s dental history – for example a history of chronic periodontal disease.
• A failure to screen for, assess and manage any relevant risk factors, especially smoking.
• Inadequate preoperative investigations (models, x-rays and other imaging etc).
• A failure to seek and act upon advice from others (including specialists) where appropriate.

Minimise risk and uncertainty
The maxim “Predictability is the key to tranquility” applies to many stages in the provision of implant dentistry, but perhaps especially so in anticipating the potential risks and complications at the site where fixtures are to be placed. Conventional radiographs suffer the disadvantage that they give us a two dimensional image of what is actually a three dimensional situation. We make allowances for this as far as we can, and have developed techniques (such as the parallax technique) to compensate for the limitations of a static view from a single perspective.

Having a 3-D view or a multi-perspective view – by using computerised axial tomography (CAT scans) including cone beam CT or magnetic resonance images (MRIs) - transforms our knowledge base, removes a lot of the uncertainty and guesswork, and sometimes makes us aware of potential hazards that we would otherwise have been unaware of. Fewer surprises for the clinician will generally mean fewer surprises for the patient, which is a good thing.

While there is always a cost attached to new technology, and one must be mindful of the obligations of Radiation Ordinance (cap303) laws of Hong Kong it is not for the clinician to deny the patient the opportunity to decide for themselves whether or not they wish to incur the additional cost of having this additional imaging carried out. Equally, if the patient is unwilling to undergo this further imaging on cost or other grounds, the clinician has the right to decline to provide the treatment.

If an adverse outcome could have been anticipated and avoided by the use of additional imaging, the questions arise of whether a reasonable body of professional opinion amongst those working in the field of implant dentistry would support the view that:

a the additional imaging was (or was not) necessary in the circumstances of the specific case,
b a responsible clinician acting in the patient’s best interests would proceed with placing the implants without the additional imaging being available.

Another example of a step which improves predictability and reduces uncertainty (especially in an edentulous arch) is the use of stents and other forms of surgical guides where appropriate, and in more complex cases, the construction and use of surgical models.

Spend time validating consent
The patient should be aware of the purpose, nature, likely effects, risks, and chances of success of a proposed procedure, and of any alternatives to it. The fact that a patient has consented to a similar procedure on one occasion, does not create an open-ended consent which can be extended to subsequent occasions. Consent must be obtained for specific procedures, on specific occasions.
Some questions to ask yourself to help ensure the patient’s consent is valid

- Is the patient capable of making a decision? Is that decision voluntary and without coercion in terms of the balance/bias of the information given, or the timing or context of its provision?
- Does the patient actually need the treatment, or is it an elective procedure? If an elective procedure, the onus upon a clinician to communicate information and warnings becomes much greater. (Placing an implant in a site where a tooth has been missing for several years, without replacement, would be an example of this).
- What do I think will happen in the circumstances of this particular case, if I proceed with the treatment? Have I communicated this assessment to the patient in clear terms? Can I give an accurate prediction? If not, is the patient aware of the area(s) of doubt?
- What would a reasonable person expect to be told about the proposed treatment?
- What facts are important and relevant to this specific patient? (If I don’t know, then I am probably not ready to go ahead with the procedure anyway).
- Do I need to provide any information for the patient in writing? Has the patient expressed a wish to have written information? (Am I relying upon commercial marketing material produced by manufacturers and/or suppliers? If so, is this information sufficiently balanced in the way it is presented?)
- Do the patient understand what treatment they have agreed to, and why? (by way of illustration, when a general practitioner is proposing a crown to be supported on an implant fixture placed in association with a bone graft, under sedation and local anaesthesia, this requires all the aspects of a proper consent procedure to be covered for each of the six aspects highlighted – because there are risks and limitations, alternatives and other considerations associated with each of them, that the patient needs to understand before proceeding. Some patients may object to certain or any forms of bone grafting on religious or other grounds)
- Have they been given an opportunity to have any concerns discussed, and/or have their questions answered? Do the records support this?
- Does the patient understand the costs involved, including the potential future costs, in the event of any possible complications?
- Does the patient want or need time to consider these options, or to discuss your proposals with someone else? Can you/should you offer to assist in arranging a second opinion?
- If you are relatively inexperienced in carrying out the procedure in question, is the patient aware of this fact? Are they aware, (if relevant) that they could improve their prospects of a successful outcome, or reduce any associated risks, if they elect to have the procedure carried out by a specialist or a more experienced colleague?
- If the technique (or implant system) is relatively untried or of an experimental nature, has the patient been made aware of this? Included here are any procedures for which the evidence base is limited or absent, including systems which trade on the published evidence relating to similar systems without actually being supported by any evidence base of their own.

The surgical phase - placing the implant fixtures

Give appropriate pre-operative advice
Follow accepted procedures
Stay within the limits of your training and competence.
Recognise when things are not going to plan
Take appropriate steps to recover the situation which in some cases may involve referring the patient for specialist advice and care.

Give appropriate postoperative advice and warnings
Inform the patient about the need for early reporting of any indications of possible nerve injury. In these cases speed is of the essence and the longer you spend keeping the situation under review with the fixtures still in situ, the worse the prognosis.

Review the patient
Choose appropriate intervals following the procedure and especially in the days immediately following the placement of the implant(s)

Regular monitoring of the bone height and soft tissues adjacent to the restored portion of the implant will alert you to the first signs of peri-implantitis
The minefield of implant dentistry

The prosthodontic stage
It is beyond the scope of this article to cover all the variations of fixed and removable prosthodontics that can be supported upon implant fixtures, nor all the considerations regarding immediate or deferred loading. Many of the potential complications attributable at first sight to the prosthodontic stage (aesthetics, function, soft tissue problems at the “neck” of the implant, maintenance problems etc.) can be avoided if sufficient time and attention is applied to the case assessment and treatment planning stages.

Perhaps the best generic description of the root cause of many of the problems, is that inexperienced clinicians will sometimes wrongly assume that supporting crowns, bridges and appliances on implant fixtures, is essentially the same as placing them on natural teeth.

Follow up and monitoring
It is essential that patients should be helped to realise that implants need to be looked after just as carefully as natural teeth. Meticulous oral hygiene, with techniques adapted to the specific needs of each patient, and (where applicable) continued encouragement to maintain smoking cessation, are crucial ingredients of implant maintenance.

Patients must understand that attendance as recommended for review purposes will help to minimise problems in the months and years following implant placement. They must also accept responsibility for the potential consequences of not doing so.

Keep your eye on the ball
Implants, once placed, are a long-term commitment for both the patient and the clinicians who are responsible for their ongoing care. The condition becoming known as “Peri-implantitis” is a growing problem not just for the clinicians who originally placed the implants or placed restorations or appliances upon them, but sometimes for others who had no part in the original treatment, but end up caring for the patients in the years following the provision of that implant dentistry. This includes both dentists and dental hygienists.

Peri-implant mucositis is an inflammatory condition which in its early stage is reversible. There will be redness, swelling, inflammation and the tissues around the fixture will not look healthy. At this point there is no bone loss. Improved oral hygiene and better care of the implants will usually reverse or improve the condition. There is an abundance of evidence to suggest that the presence of keratinised gingival tissue at the “neck” of the implant at the point of emergence into the oral cavity is a desirable, protective situation which makes the initiation and further progression less likely.

Left uncontrolled, the inflammatory condition can progress to peri-implantitis and loss of crestal bone, often creating a characteristic dish-shaped bony defect which is clearly visible on radiographs. Careful comparison of such radiographs over time allows the situation to be assessed. Once peri-implantitis has become established, it is very difficult to treat.

A failing implant will continue to fail if no proactive attempt is made to rectify the situation. Clinicians who played no part in the placement or restoration of the implant can wrongly assume that they cannot be held responsible for the failure – but they can be held responsible both for failing to identify the signs that the implant is failing, and the failure to seek advice from colleagues who have more experience in implant dentistry.

Summary
Meticulous records
In implant dentistry, every stage of the process needs to be very carefully recorded. Especially important here are records of what the patient was led to expect, what information was provided to the patient, what warnings they were given etc.

Your records must meticulously document every detail of the histories taken, the exploration of any possible risk factors that might affect the prognosis, any tests and investigations carried out, any liaison with professional colleagues, and all discussions with the patient.

Detailed records also need to be kept to demonstrate the meticulous monitoring of the status of the implants (both hard and soft tissues) in the months and years following their placement.

Stay up to date
Implant dentistry continues to be a dynamic and evolving field. Ensure that you keep your knowledge and skills up to date and be prepared to adjust your approach when necessary.
Endodontic instruments

Dr Shreeti Patel explains why patients need to know instruments can break

Despite the increased flexibility of the new generation endodontic rotary instruments and a single use protocol, Dental Protection still receives a significant number of requests to assist with complaints about broken or fractured instruments (instrument separation)

For many years, the potential for fracture was considered an accepted complication of root canal therapy (RCT) and not in itself negligent. Times change and in many jurisdictions case law, in respect of consent, now requires the clinician to inform the patient about any material risk of their treatment to which they would attach significance.

With this in mind, instrument separation should be regarded as one of the risks patients would need to understand before they could consent to endodontic treatment together with the possibility of root perforation or failure of the treatment due to persistent infection.

Sometimes, it can be difficult to know just how much information our patients should be offered.

Consent and explaining the risk

“One size does not fit all” if the clinician is to ensure that they have obtained valid consent from the patient sitting in the chair about to consider endodontic treatment. Naturally, all the preoperative considerations that are discussed should be detailed in the clinical records. The records should also include the clinical and radiographic assessment of the tooth, the degree of root curvature, and patency or sclerosis of canals, which could increase the likelihood of file separation. If you anticipate the possibility of such a risk materialising, then an explanation as to how the situation would be managed should be offered to the patient in advance and a note made.

Informing patients in a manner that maintains their trust is of utmost importance. As with all risk management, communication is the key. The difficulty arises in describing the likelihood of the event. One might argue that, in the hands of a specialist endodontist, the incidence of file separation may be less than in the hands of a dentist who is using a new endodontic file system with less “hands-on” experience. But regardless of specialisation, the incidence of file breakage can be minimised by careful pre-operative assessment of the tooth.

Should you refer all endodontic treatment to a specialist?

Ideally, the following situations could be considered for referral to a more experienced colleague with enhanced skills and equipment:

- patient with limited mouth opening
- tooth with a crown disguising the original anatomical landmarks
- A root with curvature greater than 30 degrees or an “S”-shaped canal.

Protect yourself

In the absence of thorough record keeping, a complaint or claim can only be defended if the information has been given to the patient and more importantly, they have understood it. A signed consent form in the absence of discussion will not suffice for purposes of consent. Inviting the patient to ask questions can indicate if they have understood the risks and note this in your records.

Minimising the occurrence

- Updating clinical skills, and understanding of the limitations of new endodontic systems.
- Using magnification, achieving straight line access and adequate canal lubrication
- Limiting file use, following manufacturer’s instructions.

Management of a broken file

- Tell the patient and record this in the clinical notes
- Discuss the options for management, which will include removal of the separated piece, by-passing or leaving the fragment in situ, filling root canal to coronal level of the segment or surgery.
- Risk assessing the clinical situation eg. the presence of apical disease, may reduce the prognosis in the presence of file fracture.
- Note the stage of canal preparation when file separation occurs, especially in infected cases and consider how much disinfection has been achieved.
- In the absence of apical disease and symptoms, leaving the file in situ may not reduce the prognosis.
- Specialist referral should be considered, magnification and expertise is usually required
- The decision-making process for the management should be discussed with the patient in an honest and sympathetic manner. Don’t be pressured into trying to retrieve the fragment without adequate expertise and equipment, as the complications arising from this may be even more detrimental to the outcome and could lead, for example, to root perforation.

Summary

Assess and adequately discuss then document the chances of file separation prior to treatment in each case. Information given before the procedure constitutes a warning whereas the same explanation after a file separates is likely to be interpreted by the patient as an ‘excuse’.

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1. Montgomery v Lanarkshire Health Board (2015) UKSC 11
Resistancerules
In a bid to slow the global shift towards antibiotic resistance, it is vital that dentists ensure they prescribe responsibly.

With every decade that passes, we discover new ways in which technological developments can impinge on the quality of life – directly or indirectly – sometimes for generations not yet born; a by-product perhaps of our desire for an easy fix to life’s challenges.

Global warming, for example, serves to highlight the dilemma posed by weighing up the benefits to a population with a desire for unlimited access to energy against the resulting impact on the environment.

Medicine is no exception. Since Fleming discovered penicillin (considered the first true antibiotic) in 1928, the world has seen drug resistance become a significant and undesirable feature of modern life – with the number of alternative antimicrobials effective in treating infections limited.

And so, as antibiotic effectiveness is challenged, clinicians need to be mindful of the fact that, by encouraging limited and appropriate antibiotic use in primary care, they can help to stem the tide of rising levels of antibiotic-resistant bacteria. Therefore, in the absence of a diagnosis, practitioners are always advised to think very carefully before prescribing antimicrobials.

International rescue
There has been an international move to address this growing public health problem which arises because, while the number of infections due to antibiotic-resistant bacteria continues to grow, the pharmaceutical industry’s supply of new antibiotics does not look promising. It certainly presents a bleak outlook on availability of effective antibiotic treatment for the future.

According to the World Health Organisation, the overall uptake of antibiotics in a population – as well as the way in which antibiotics are consumed – has an impact on antibiotic resistance.

Experience from some countries suggests that reduction in antibiotic prescribing for outpatients has resulted in concomitant decrease in antibiotic resistance. Unnecessary antibiotic prescribing in primary care is a complex phenomenon, but is probably related to factors such as misinterpretation of symptoms, diagnostic uncertainty, time and perceived patient expectations.

Short on time?
In dentistry, the patient in pain is sometimes offered a prescription for antibiotics when there is insufficient time to fully investigate the problem in the hope the pain will respond.

Dental Protection has noticed that whilst entries in patient record cards may well describe the treatment given for acute pain or swelling, there is often a gap in the logical diagnostic process.

The patient’s complaint and symptoms are documented, together with any tests that have been undertaken; the treatment similarly described. However, in dental infections the clinical signs and symptoms require a proper assessment of the cause, extent and nature of the infection (localised or spreading) and whether the patient is unwell. Very often, the diagnosis on which the treatment has been based is missing.

Possibly, the emergency patient has been treated on the basis of a provisional diagnosis prior to a subsequent longer appointment to review the situation. When time is short – and with the pain of early onset – in the absence of an obvious infection it is questionable that an antimicrobial prescription will be of benefit. An analgesic is more likely to provide pain relief until such time when a longer appointment is available.

We know that the inflammatory process involved in pulpitis does not respond to antimicrobials, but will respond to an analgesic. On the other hand, the pain from an acute dental abscess will respond very quickly if the abscess can be drained by extraction, root treatment or incision, regardless of any prescription that might subsequently be given.

In a busy dental surgery, it can be difficult to undertake the definitive treatment on the day that the patient presents, but patients with a spreading infection need a definitive treatment even when time is short. Not to do so could lead to additional complications that could leave the clinician vulnerable to criticism.

Dentists have to find enough time to take a history, examine the patient and make an appropriate assessment of the patient’s condition, before making a diagnosis on which the treatment can be based. The diagnosis is essential if the best use of antimicrobials and analgesics is to be achieved.

This contribution to reducing the escalation of antimicrobial resistance serves the best interest of patients and forms part of a bigger picture, in which clinicians are being asked to create a sea-change by reversing a worldwide problem that also constitutes a major threat to public health.
A flow chart for the management of acute pain may help ensure best practice in cases where the initial diagnosis is provisional. So, be sure to:

- Allocate sufficient time to form a diagnosis
- Record the diagnosis and the treatment indicated
- Educate the patient on your approach if antibiotics are not prescribed, particularly if they had originally requested them
- Schedule an appointment for the definitive treatment
- Audit your prescribing to see the correlation between the prescriptions and the conditions diagnosed.

Antibiotics: handle with care

World Antibiotic Awareness Week aims to increase awareness of global antibiotic resistance and to encourage best practices among the general public, health workers and policy makers to avoid the further emergence and spread of antibiotic resistance.

A global action plan to tackle the growing problem of resistance to antibiotics and other antimicrobial medicines was endorsed at the Sixty-eighth World Health Assembly in May 2015. One of the key objectives of the plan is to improve awareness and understanding of antimicrobial resistance through effective communication, education and training.

The theme of the campaign, Antibiotics: Handle with Care, reflects the overarching message that antibiotics are a precious resource and should be preserved. They should be used to treat bacterial infections, only when prescribed by a certified health professional. Antibiotics should never be shared and the full course of treatment should be completed – not saved for the future.

WHO is encouraging all Member States and health partners to join this campaign and help raise awareness of this issue.

Key facts

- Antibiotic resistance is one of the biggest threats to global health today. It can affect anyone, of any age, in any country.
- Antibiotic resistance occurs naturally, but misuse of antibiotics in humans and animals is accelerating the process.
- A growing number of infections—such as pneumonia, tuberculosis, and gonorrhoea—are becoming harder to treat as the antibiotics used to treat them become less effective.
- Antibiotic resistance leads to longer hospital stays, higher medical costs and increased mortality.

References

www.who.int/drugresistance/en/
Antimicrobial prescribing for General Dental Practitioners - available from www.fgdp.org

Sir Alexander Fleming celebrated on a stamps from the Faroe Islands
Difficult patient interactions
Dr Mark Dinwoodie investigates how the perception of difficulty can affect interaction with the patient

Depending on how regularly you work in the same dental practice or clinic, a brief scan through the list of names of patients on your morning list may reveal a few that are familiar. For those that you recognise you are likely to form a very quick assessment as to the likely challenge of the forthcoming clinical encounter, largely based on your previous contact with the patient. For many on the list this will provoke a neutral or positive feeling.

However it is natural to predict that some of these encounters will be more challenging. This can be for a variety of reasons that might be clinically related – but in some cases it may be because you have already labelled the patient as “difficult”, largely based on behaviours they exhibited or attitudes that they expressed when you last saw them. Preconceptions and assumptions are therefore already being formulated in your mind, based on this label – even before the patient has been seen.

On meeting the patient you make further rapid judgements. Negative perceptions can occur quickly, often subconsciously, fuelled by previous experience and triggered by words, behaviours and visual cues. It becomes easy to quickly stereotype or label a patient and make assumptions about them, both at a clinical and interactional level. In your mind you might be thinking: “This is a typical patient with condition A, characteristic B, behaviour C or attitude D.”

One image may have made you feel more uncomfortable than the other. It is extraordinary how quickly perceptual judgements around difficulty are made and, in this case, simply based on the facial expression. It is this feeling of discomfort that can translate into a judgement about the patient’s level of difficulty, i.e., this looks like a potentially “difficult” patient. It’s also interesting that the patients that one dental team member describes as “difficult” are often different in someone else’s opinion.

This variation and the example above suggests that it is our perception of the interactional difficulty that results in us labelling the patient as “difficult”: it may reflect past experience with this or similar patients, our training and any underlying prejudices we have.

But does this matter?
Evidence suggests that once a healthcare professional judges a patient to be “difficult”, their verbal and non-verbal interactional behaviours can shift into a style that is higher risk. This increases the chance that the patient may indeed respond in an unhelpful manner, be less satisfied and more likely to complain (White 2005).

Our perception of difficulty can affect our:
• Greetings: less warm/friendly/no smile
• Non-verbal messages: lack of eye contact; preoccupation with their dental record or something other than the patient; closed body language
• Degree to which we listen: less active listening with frequent interruptions; increase in closed or leading questions; talking over the patient
• Information we provide: less verbal information and explanation offered
• Involvement of patient in decision-making: more directive; less exploration of patient values, concerns and preferences; fewer options discussed

Such behaviours can lead to a downward spiral. The consultation is a dynamic interactive process and patients and healthcare professionals will respond to each other’s behaviours in ways that will either help or hinder the interaction (Krebs et al 2006).

Difficult interactions can make healthcare professionals feel frustrated, resentful, angry and sometimes helpless or overwhelmed. They can also contribute to long term stress

(Bodner 2008)
Difficult interactions can be distressing for both patients and members of the dental
team. They can be a catalyst for complaints and claims, and dealing with them effectively can lead to a better outcome for patients and members of the dental team.

Our Mastering Difficult Interactions workshop allows greater exploration of these challenges and offers skills and strategies to minimise the risks involved. For more information and booking, please visit dentalprotection.org/hong-kong

References
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