The 21st century practice-builder is Botox

The impressive Bishopsgate dental centre in London's Spitalfields was the venue for the most recent of CODE's hands-on Botulinum Toxin Type A courses. By the end of the day, its principal, Dr Russell McDonald, and four other dentist delegates had acquired the knowledge and experience necessary to start offering facial aesthetics to patients.

The tutor was Dr Tim Eldridge, a boardmember of CODE Association of Facial Aesthetics (AFA) and a dentist in Hereford. With five years worth of experience in the field, he has found BOTOX® provision to be a successful practice builder and he enjoys building confidence in colleagues who, like himself, have patients wanting the treatment.

Dr McDonald said: "I thought the course was very well run and Tim in particular is a very good presenter and demonstrator. By the end of the day I felt very at home with the whole procedure."

The day started with Tim covering all aspects of Botulinum Toxin Type A: the history, the brands and pharmacology, contraindications, patient selection and then he moved on to discuss injection techniques, dosage and injection sites, post-treatment advice, advertising, insurance and pricing. (see box for top tips)

In brief, the bacterium Clostridium Botulinum was first isolated 201 years ago. It wasn't until more than a century later that its benefit for patients with uncontrolled muscular movements such as dystonia, was identified. Botulinum Toxin Type A was first approved for medical use in 1989 – mostly for patients with conditions like strabismus, blepharospasm and then for cosmetic use in 1997. In the UK it is approved for medical use but only the Vistabel brand has a licence for cosmetic use and this is limited to the treatment of glabellar lines. For any other area of the face the UK practitioner is off licence.

However, the protein has a favourable safety record with no studies reporting any severe adverse events. Tim stressed the importance of talking honestly to patients about risks and side-effects as well as the limits to its efficacy. 'Never,' he said, 'imply you can turn back time.'

Botulinum Toxins are biological products and not pharmaceutical preparations and so there can be no generic products. Delegates worked with Dysport, a less condensed type of Botulinum Toxin Type A and Tim made sure his group gained experience in reconstituting the protein accurately by combining with preserved saline to achieve the correct dose and a syringe without bubbles.

Tim also encouraged the delegates to learn about dermal fillers – mostly injected into the lower two thirds of the face – which can be used to good effect in combination with BOTOX®. Because the BOTOX® relaxes muscles – by blocking the release of acetylcholine – the filler particles are not broken down so quickly.

There are 20 more CODE AFA hands-on courses in 2008 and they include dermal fillers, advanced BOTOX®, chemical peels and the next month there is Lip Masterclass. They are held in various parts of England and Scotland and the tutors are members of the CODE AFA advisory board.

Tips for injecting Botulinum Toxin Type A
- Always inject away from the eye
- Keep patients sitting back slightly, not lying down
- Recommended saline dilution is 2.5cc of saline in a 100 unit Botox® bottle or of a 500 unit bottle of Dysport®, 1.25ml saline in a 50 unit bottle of Vistabel® – the more it is diluted, the more it will spread, which is to be avoided
- Make sure you inject 1cm at least away from the orbital rim which is usually below the eyebrow but be aware that in some people the orbital rim is within or above the eyebrow line
- Always lightly touch the area you are about to inject so that the patient knows where to expect the injection
- Always use a new needle when injecting to make it more comfortable for the patient
- Always take photographs before and after treatment and make sure patients are aware of their facial asymmetries before embarking on treatment
- Patients should be informed that injections can activate reciprocal muscles and this may have pros and cons – for instance injections in the corrugator or muscles might make eyebrows more arched which women may like but men would want to avoid
- Men can need higher doses than women but are also more likely to want to retain more lines, illustrating how important it is to ensure patient expectations are fully discussed
- Botulinum Toxin is a prescription drug and cannot be advertised although you can tell your patients you offer wrinkle-reduction treatments

FACEdplan – the payment scheme for facial aesthetics
CODEplan has now launched FACEdplan, a payment scheme for facial aesthetic maintenance treatments. Your own FACEdplan will be tailor made to include the treatments that you provide and can evolve over time as you build up your armouramentarium. Patients will typically pay £600 to £150 per month for their FACEdplan and all skin treatments can be covered. Contact CODEplan on 01449 255551 or info@CODEplan.co.uk or visit www.CODEplan.co.uk for more information.

The day ends with a test for which delegates are well prepared and the result is a CODE AFA certificate confirming competence. Course evaluations confirm that dentists and their team members who accompany their dentists get enough information and experience to start out on a new and rewarding area of practice.

Fig 1: CODE tutor Dr Tim Eldridge demonstrating how to draw up the BOTOX®

Fig 2: Delegates are encouraged to gain experience of drawing up BOTOX® and mixing with a saline solution

Fig 3: Dr Kiran Mongia prepares Dr Paul Abrahams, both delegates on a hands-on course, for BOTOX® injections with Tim Eldridge looking on

Fig 5: Dr Tim Eldridge, CODE tutor, demonstrates one of the injection techniques on Dr Russell McDonald, also a delegate. He explains that the skin should be lightly squeezed prior to the patient knowing where to expect the injection

Fig 6: The day ends with a test for which delegates are well prepared and the result is a CODE AFA certificate confirming competence. Course evaluations confirm that dentists and their team members who accompany their dentists get enough information and experience to start out on a new and rewarding area of practice.
The idea of clinical photography scares many practitioners unnecessarily. With the correct equipment, practice and knowing which photographs to take, it will become one your most useful tools. This will have the knock-on effect of improving the quality of your clinical dentistry, aid in patient communication and enable post-graduate credentialing including that for the British Academy of Cosmetic Dentistry (BACD), www.bacd.com

Which Camera do I get?

While there are still many film cameras still available, there is no doubt that digital cameras offer the greatest number of advantages. This includes seeing the image instantly, ease of image storage and easy incorporation onto websites, into practice literature and for presentations. When considering which camera to get, there are only two manufacturers that currently meet the needs with respect to clinical dental photography:

1 – Nikon D80 and D200 (older versions include the D70 and D100 which you may be able to pick up second hand but these do not take raw and jpeg images simultaneously) with a 105mm macro lens and SB R1-C1 macro flash (two flash heads and hot shoe collar – this is very good for technicians) or Nikon R1 macro flash.

2 – Canon D400 (Rebel Xti) or 30D (older versions include the D350, 10D and 20D which you may be able to pick up second hand) with a Canon 100mm macro lens and Canon MR14EX ring flash. If you wish to take more artistic photos then the Canon MT24EX twin light is an excellent second choice al-

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though the ring flash is more convenient.

Higher specified camera bodies from these companies are available, for example the Canon 5D, but these are probably overkill unless photography also happens to be your hobby. It is possible to use the 105mm macro lens and EM-140 DG ring flash from Sigma if you want to reduce your costs. But if using a Sigma lens then use a Sigma ring flash rather than trying to mix and match a Sigma product with a Nikon or Canon product. Details and help concerning choices can be found from Photomed (www.photomed.net) or Calumet (www.calumetphoto.co.uk).

All the newer models mentioned have the ability to take pictures in both a RAW and JPEG format. The raw file is essentially a digital negative and cannot be tampered with. This is very important if the case is being submitted for any form of accreditation and is compulsory for BACD accreditation for pre-op and post-op pictures from January 2009.

The JPEG file offers high resolution and is fine for all other forms of clinical photography not related to post-graduate examinations. However it will lose quality each time it is saved as it is in a lossless format rather than non-lossless which is called a TIFF file and need not concern us in this article. The other advantage of JPEG files is they can be easily sent in e-mails, used in presentations and stored, as they do not use as much space on your hard disc as a raw file.

Photographic shots required

This part is divided into three parts, one for the shots for BACD accreditation and these we take for all our new patients together with two additional shots which are also useful for lab communication and any other views which may be required to show other aspects of the patients mouth.

For BACD accreditation:

1.10 full face and natural smile (Fig. 1) - the head should be in full view with the patient exhibiting a full natural smile from their chin to nearly the top of their head without showing the shoulders (Fig. 2) or too little of their head (Fig. 3). The patient's nose should be in the centre of the photograph that is taken directly in front of the patient using a uniform background.
1:2 natural smile including lateral views (Fig. 4) – the patient needs to show a full natural smile to document the number of teeth and extent of the gingivae they normally display when smiling. The incisal plane of the upper teeth should be the horizontal midline of the photo. Focus on the incisors to allow an adequate depth of field so that all visible teeth are in focus. Do not tilt the camera to compensate for canted teeth. For the lateral views, focus on the lateral incisor. The vertical midline of the photo should also be the lateral incisor. This is not a profile view and the contra-lateral central incisor and possibly the contra-lateral lateral incisor should be visible.

1:2 retracted teeth apart including lateral views (Fig. 5) – the retracted shots should be taken with the teeth slightly parted to show the incisal edges and as much of the gingivae should be on view as possible. For the lateral views the same criteria as the un-retracted views apply.

1:1 retracted teeth (anterior) apart including lateral views (Fig. 6) – use the midline to centre the teeth in the frame. The opposing eth should not be visible but the gingiva adjacent to the teeth in the frame should be clearly visible. For the lateral views the lateral incisor should be centred in this view. For all these three views, the retractors and opposing teeth should not be visible, a contrasting device to mask out the background is optional.

1:2 upper and lower occlusal (Fig. 7) – these are the hardest shots to take and do need much practice. Always use a high quality photographic mirror and ensure that the retractors are in place to avoid the soft tissues obscuring the teeth. The central incisors should be visible near the outer frame of the photo and should extend to the mesial of the second molars.

1:1 posterior quadrant (Fig. 8) – as above but ensure the sextant of molars and pre-molar teeth are visible.

Two additional views for lab communication:

1:2 lips at rest, ‘M’ sound (Fig. 9) – enables you see how much tooth is visible when the lips are relaxed and at rest.

1:2 retracted teeth together (Fig. 10) – to give an understanding of how the teeth occlude.

Other views:

1:2 ‘E’ sound (Fig. 11) – ask the patient to say a long lasting ‘E’ sound to show maximum gingival display to help ascertain if the patient is guarding their smile, which will often be the case if they do not like their smile as they do not know how to smile.

1:2 True lateral views (Fig. 12) – these maybe more appropriate for orthodontics or if you want to