indirect approaches to anaesthetising the IAN, namely the Cow Gates injection and the Vazirini-Akinosi injection.[1] These approaches have the great advantage that the injection is given some way away from the IAN and lingual nerve and so are much less likely to lead to NI. I think it is essential that every dental student graduating from a UK dental school should be proficient in giving these injections. They carry a high success rate but do take longer to take effect than the traditional direct approach.

Wherever possible, it is important not to give repeat, direct IANBs. A second injection can be responsible for further trauma and/or ischaemia to the lingual nerve or IAN and this might lead to a permanent NI. If it is felt that a second direct IANB has to be given, it is essential to use a brand new needle as the tip of a 27 gauge needle blunts the moment it penetrates the mucosa and so repeated use of the same needle could also lead to significant trauma to the tissues and the nerves.

The role of the vasoconstrictor in local anaesthesia should be investigated. For example, does ischaemia play a part in the causation of NI? Would it be better to use a plain local anaesthetic for a direct IANB rather than one containing a vasoconstrictor? Finally, I cannot understand why we continue to use 2.2 ml cartridges in the UK. Surely we should use the MINIMUM amount of a drug to achieve the desired effect and 1.7 ml or 1.8 ml is perfectly adequate. There is always a tendency for dentists to administer the entire contents of the local anaesthetic cartridge when giving an IANB. Reducing the amount of the drug by 23% might be helpful in reducing neurotoxic effects of the higher concentration local anaesthetic solutions.

There is no escaping the fact that permanent NI can occur as a result of a direct IANB injection and Professor Renton raises the point of warning patients about this potentially devastating complication. How can we do this in a potentially anxious patient with an acute irreversible pulpitis, where a high level of analgesia is required for root canal treatments? I think a discussion needs to be entered into on this topic with dentists, researchers, teachers, the defence organisations and our patients. Hopefully we can come up with a sensible protocol that warns patients but does not unduly frighten them.

N. Foot, Newbury

1. Malamed S F. *Handbook of local anesthesia*, 5th ed. Mosby, 2004.

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HOT TOOTH

Sir, we read with interest Professor Renton's letter regarding the risk of nerve injuries (NIs) in relation to local anaesthetic (LA).[1] Professor Renton had previously reported that LA is the second most frequent cause of NIs.[2] Since endodontics is the fourth most frequent cause of NIs after LA and implants, we wish to share the results of a recent cone beam computed tomography study on the anatomical relationship between mandibular second molars and the inferior alveolar nerve (IAN) in which we found that 54.8% of root apices were within 3 mm of the IAN. The clinical implication is that endodontic treatment of mandibular second molars may pose a more significant than previously thought risk of IAN injury. This is in addition to LA-related NI risk with inferior dental blocks especially if the mandibular second molar also happens to be a 'hot tooth'.

A. Quinn, S. K. Sidhu, B. S. Chong, London

1. Renton T. Inadequate knowledge. *Br Dent J* 2012; **213:** 197.
2. Renton T. Minimising and managing nerve injuries in dental surgical procedures. *Faculty Dent J* 2011; **2:** 164–171.

DOI: 10.1038/sj.bdj.2012.994

INTERPRETATION CONSIDERATION

The Editor-in-Chief would like to personally apologise to Dr Arman Maqbool for any confusion regarding his commendable letter titled *Interpretation consideration* (*BDJ* 2012; **212:** 304).

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ETHICS OF HEALTH SCREENING

Sir, I wish to add to the views expressed by Geddis (*Systemic health screening; BDJ* 2012; **213:** 146). The mindset of screening of medical conditions at dental clinics is intriguing, but it also raises important ethical and methodological questions that should not be overlooked.

For example, as dental professionals have traditionally focused on oral conditions, often not regarded by the patients as medical, dental patients are not primarily focused on general health issues when visiting a dental practice. However, the same patients may consent to participate in a general health screening if one is offered in conjunction with the dental visit.

If the screening test turns out to be negative for a certain marker that might indicate a general health problem (eg a certain blood sugar level for diabetes), the patient will probably leave the dental clinic without further thoughts, believing everything is all right. But, if the screening test result turns out to be positive, the patient will leave the practice with a tentative diagnosis. Although feeling perfectly well a moment ago when entering the dental practice, the patient is now probably worried about his or her health.

To this it should be added that screening tests are generally limited in their accuracies by imperfect sensitivities and specificities. Therefore, the interpretation of the test result may lead to wrong conclusions in both directions. Thus, if the test is falsely negative, the patients will consider themselves healthy, when being ill. And vice versa, if the test result is falsely positive, a healthy patient will leave the practice with a false diagnosis that may take some time to prove wrong. This may of course have a negative effect on the individual's quality of life.

Considering both the ethical issues and the limitations of the screening test methods, one might ask: is it justified to screen individuals for medical conditions at dental practices when the individuals do not feel unwell and do not ask for medical care?

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