

LETTERS TO THE EDITOR

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SAFETY IN PRACTICE

Sharps injuries

Sir, healthcare workers face dangerous and potentially life-threatening infections, particularly as a result of needlestick and other sharps injuries. Concern about infectious agents such as prions (CJD), bacteria (eg MRSA) and viruses (eg hepatitis viruses or HIV)¹ – let alone others that are rare in the resource-rich world (such as Ebola) – has, for over 25 years, given rise to repeated advice to healthcare workers on infection control, and many reports have highlighted the hazards in dental practice which have been a major issue for dental nurses.^{2,3} Furthermore, the emotional impact of a needlestick injury can be profound, even when an infection proves not to have been transmitted.

Legislation in this area aims to achieve a safe working environment and prevent injuries to healthcare professionals and others caused by all medical sharps, including needle sticks. The prevention of sharps injuries was covered during this period in UK legislation and the Department of Health guidelines HTM01-05.⁴ Safe and effective sharps management has also been a feature of the dental practice inspection regimen and the Care Quality Commission (CQC) has been regulating primary dental care providers – both NHS and private – in England since April 2011. The UK and other Member states of the European Union also had until 11 May 2013 to implement the Council Directive 2010/32/EU Implementing the Framework Agreement on Prevention from Sharps Injuries in the Hospital and Healthcare Sector. Thus, the Health and Safety (Sharp Instruments in Healthcare) Regulations 2013 took effect then. These regulations are made under the Health and Safety at Work Act 1974, and they implement (in part) EC Directive 2010/32/EU as required under European law. It is also clear that employers have a duty to ensure the safety of their employees.²

It is, therefore, most disappointing that, in the 2014 survey conducted by the British Association of Dental Nurses, just

IMPLANT CHECKLIST

Sir, at dental practices that have recently started to offer implants as a treatment option, the risk of human error is higher in comparison to an experienced team familiar with the equipment (a multitude of small and often similar-looking instruments) and sequence of steps. At our teaching institution, we have noted higher error rates amongst trainees and novice implantologists. With a view to improving surgical safety in dental practices, I have modified the *WHO surgical safety checklist*¹ (with permission) and adapted it for dental implant surgery. This checklist

is inspired by those used in the aviation industry.² It is my sincere wish that the personnel of dental practices venturing into implants use this to collectively 'run through' each item, section and coloured column on the checklist to comprehensively address areas of potential omission and to minimise human error.

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over half of dental nurses in the UK and the Republic of Ireland had had a needlestick injury at some stage in their career.⁵ This is probably their major occupational hazard⁶ and a glance at the web shows this point has come to the attention of the legal profession.⁷ A huge body of evidence shows that most of these injuries are avoidable if healthcare workers are provided with the correct readily available protection and procedures.⁸ We have also recently published, in this Journal, a practical compendium of current guidelines on the management of needlestick injuries.⁹

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DENTAL REGULATION

Burden impacting patients

Sir, professional regulation is necessary and ideally should provide optimum protection to the public while imposing the lowest practical burden on dentists. Although there is a body of research on factors affecting the productivity of dentists,¹ there appears to be a dearth of quantitative, financially-oriented research, unlike in medicine.²

A poll recently conducted on GDPK.COM (membership includes UK and non-UK dental professionals) provides some insight into the extent to which regulatory burden impacts on clinical efficiency, and by implication dental care provision and the costs of care to patients. It is hoped that the results, reported below, will stimulate related research which benefits both patients and the profession.

When asked if they 'firmly believe current regulatory demands and their associated risks cause them a higher level of ongoing stress than would occur under

a significantly lower, yet effective and fair level of regulation', 97.8% (n = 89) agreed, while only 2.2% of those who voted did not.

When asked if current regulatory demands and their associated risks have caused dentists 'to restrict the range of care I provide compared with that which I have been trained for and/or am capable of providing', 63.1% (n = 53) agreed, while 36.9% reported that the range of care they provide was unaffected. Had these circumstances made 'a higher number of referrals than I believe I would under a significantly lower, yet effective and fair level of regulation', 50% (n = 39) agreed, while 50% indicated their referral patterns were unaffected.

A fourth question sought to assess the extent to which those voting believed their clinical efficiency would increase under a significantly lower, yet effective and fair, level of regulation. Of those who voted, 10.8% believed that their clinical efficiency would increase by between 0% and <2.5%, 21.7% between 2.5% and <7.5%, 30.1% between 7.5% and <15%, while 37.3% (n = 31) believed it would be by more than 15%.

These responses suggest substantial health and defensive-dentistry costs associated with the current level of regulation over those which could otherwise be achieved. Their associated financial costs to patients are likely to be difficult to calculate accurately but are potentially substantial.

The data from the fourth question were used to try and gauge the full potential benefits to patients of a 'significantly lower, yet effective and fair level of regulation' (it is recognised that achievable gains would be lower). Using HSCIC³ figures for 2014, it is estimated that approximately 4 million additional courses of NHS dental treatment could be provided or the resources allocated to increasing still further the quality of care and dental health education.

In the private dental care sector, it is estimated that the cost of care would reduce by 8.6%, an annual saving to patients of approximately £250 million. (With thanks to GDP UK members who voted.)

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ORAL CANCER

A new therapeutic agent

Sir, because mouth ulceration has a wide range of causes, treatment is most likely to be effective if based on the diagnosis. Aphthous ulceration is common but generally poorly responsive to antibiotics and antipyretics, and the range of agents trialled is testimony to their low efficacy.¹

Some ulceration that clinically mimics aphthae is serious and the differential diagnosis in a patient with oral ulceration and systemic lesions, such as genital ulceration, accompanied by fever, skin rashes and arthritis includes the possibility of aphthous-like ulceration² such as seen in Behcet syndrome³ or other auto-inflammatory diseases.² These are disorders of innate immunity characterised by an exaggerated inflammatory response in the absence of autoantibodies or any identifiable infection which manifest as recurring ulcers but closer scrutiny will reveal episodes of fever and systemic inflammation affecting other mucosae, skin and joints – and with raised inflammatory markers such as the erythrocyte

sedimentation rate.⁴ These disorders may show dramatic responses to systemic anti-inflammatory agents such as corticosteroids, colchicine, thalidomide or biologics⁵ but unfortunately adverse effects – some serious – are possible with these agents.

Now a new agent apremilast, currently used in psoriasis, has appeared to give some hope at least in Behcet syndrome⁶ and has proved effective in treating oral ulcers, the cardinal manifestation of Behcet syndrome. Whether apremilast could be beneficial in aphthous ulceration is unclear as yet but this possible advance, appearing in the medical literature, should also be flagged up to the dental world. Apremilast specifically inhibits phosphodiesterase-4 inhibitor (PDE) that hydrolyses cyclic adenosine monophosphate (cAMP) within immune cells and thus modulates several inflammatory pathways and inhibits spontaneous production of tumor necrosis factor-alpha (TNF). Inhibition of PDE4 blocks hydrolysis of cAMP, thereby increasing levels of cAMP within cells of the immune system and CNS. Adverse effects may include weight loss and depression. More extensive evidence of efficacy in mouth ulceration is keenly awaited.

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