

Pharmacy trust

Sir, although dentistry is currently developing its own new 'normal' practice, remote prescribing for emergency supply using AAA (advice, analgesia and antibiotics) is still important, especially for vulnerable and shielded patients.

Our pharmacy colleagues have been flexible in their approach to accept and dispense medication from remote prescriptions. The protocol outlines that we should email scanned prescriptions via nhs.net secure accounts. Following this, we are obliged to post the paper prescription within 72 hours recorded delivery.

Pharmacies are dispensing medications upon receipt of scanned prescriptions, but they can only get paid if they obtain the hard copies. The pharmacist's decision to dispense is reliant on trust between the two professions. From personal experience, in recent weeks, there has been more resistance from our pharmacy colleagues to accept dental prescriptions. At some pharmacies this has escalated to a blanket ban. This is due to physical copies not being posted and therefore, the pharmacies not getting paid.

We should ensure hard copies of prescriptions are posted within 72 hours of sending the remote versions and strive to

maintain the mutual trust between dentists and pharmacists.

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Rubber dam evidence

Sir, we read with interest the correspondence by C. Emery and R. Chate (*BDJ* 2020; **229**: 4–5) advocating the use of rubber dam as an infection control precaution. In response to the COVID-19 pandemic, we undertook a rapid literature review on the effectiveness of rubber dam in reducing the risk of transmission of microbial pathogens during dental aerosol-generating procedures (AGPs).

Six studies^{1,2,3,4,5,6} produced a broad consensus that the use of rubber dam during dental AGPs is effective at reducing the spread of spatter by 33%, as well as reducing surface contamination with bacteria by 80–99% at a distance of up to one metre. One exception⁷ suggested that rubber dam could deflect spatter onto the dentist's head; however, this is unlikely to be of clinical significance provided the dentist wears appropriate personal protective equipment.

Unfortunately, no studies investigated the effectiveness of rubber dam in preventing transmission of viral pathogens. While it might be reasonable for practical purposes

to infer that rubber dam would reduce viral contamination as well, this is clearly a topic that deserves investigation. Using viral transport media for subsequent amplification by polymerase chain reaction, then reporting viral load data, would enable quantification of the impact of rubber dam on viral transmission.

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Pharmacology

Metronidazole and alcohol

Sir, we are writing to draw attention to some interesting research that questions the validity of the disulfiram-like reaction between metronidazole and alcohol. This reaction is the reason the British National Formulary¹ advises to avoid alcohol during and for 48 hours after taking metronidazole. Giving this advice is standard practice amongst most clinicians.

Disulfiram is a drug used to discourage alcohol consumption. Its interaction with alcohol leads to acetaldehyde accumulation causing symptoms such as skin redness, palpitations, nausea, vomiting, headache and in severe cases circulatory collapse.² The disulfiram-like reaction of metronidazole and alcohol is said to be similar, and was traditionally explained by the same mechanism, although this now seems to be incorrect.^{2,3,4} Its frequency is unclear as figures vary between 0 and 100%.⁵

Its validity has been repeatedly questioned in the modern literature. Serious reactions including at least one death have been attributed to it,^{3,5} although at least some of these have been disputed.³ A number of clinical studies and reviews have found evidence of the existence of this interaction to be absent or weak.^{2,3,4,6}

Although we do not seek to promote alcohol intake, the advice to abstain completely will restrict patient lifestyle for that period. There are situations such as alcohol dependent patients where this could be especially problematic, so settling this is important.

Overall the evidence for this reaction appears to be weak at best. It appears likely that the concern attached to it is overstated. The purported reaction could actually be an alcohol-independent side effect of metronidazole, an effect of alcohol, or disease – possibilities not adequately eliminated by the studies.² Furthermore, the term 'disulfiram-like' is a misnomer, at least

in a biochemical sense, as it seems that any such reaction does not occur through the same mechanism as disulfiram. Conversely, no definite evidence is presented that this reaction does not occur – perhaps it occurs only in a small subgroup. The aim of this letter is not to suggest we, as clinicians, stop advising patients to avoid alcohol whilst on metronidazole. Rather all clinicians should be alert to its weak evidence base and be ready to question and reject long-held beliefs and mantras such as this should new evidence emerge.

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Oral surgery

New MRONJ guidance

Sir, there has been guidance for dentists on the prevention of medication-related osteonecrosis of the jaws (MRONJ) for several years.¹ Although this guidance also included information for prescribers and dispensers, it does not appear to have been widely disseminated. Indeed, only 4% of general medical practitioners in a Birmingham study were aware of MRONJ guidelines.² I therefore welcome the publication by the Royal College of Physicians for the multi-disciplinary team.³

MRONJ is defined as exposed bone, or bone that can be probed through a fistula, in the maxilla or mandible, that has been present for more than eight weeks.⁴ It is an adverse side effect of anti-angiogenic or anti-resorptive medication.^{1,3} The incidence of MRONJ in patients who take these medications is reported as 1% in cancer patients and 0.1% in patients with metabolic bone disease.¹

There have been instances of MRONJ occurring spontaneously, but it is most common following a dental extraction.^{1,3,4} Prevention of MRONJ involves pre-treatment screening, extraction of teeth with poor prognosis, adjustment of prostheses and education, including oral hygiene instruction and controlling risk factors such as smoking and alcohol. This has been shown to reduce the incidence of MRONJ by up to 50%.⁵

Dentists have reported poor communication with other healthcare professionals and often rely on patient recall for their medical history.⁶ The new guidance introduces dental alert cards which are to be carried by patients and shown to their dentists.³ Referral and reply letters between oncology, dentists and maxillofacial/oral surgeons have also been produced.

We should welcome and familiarise ourselves with these new methods of communication and remember to report all cases of suspected MRONJ to the MHRA.⁷ Reducing the incidence of MRONJ will have

financial benefit for the NHS, as this is a difficult condition to manage, and for severe cases may require surgery for debridement or resection.⁴

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Dental education

Undergraduate research

Sir, I read with interest a colleague's letter on the subject of getting published.¹ I believe that research experience is an area in which many dentists including dental core trainees (DCTs) do not have any substantial experience. Although the importance of research is touched upon at undergraduate level, there are few opportunities and most of the research activity in dental schools is carried out by postgraduate students. Many dental students would benefit from a further insight into research or opportunity to carry out small research projects at an undergraduate level supervised by senior staff. This would also give them a good foundation for future projects at a postgraduate level.

At a DCT level academic clinical fellow posts address this ability for trainees to be able to carry out research; however, these are few and far between. Some DCT posts may provide an insight into research such

as critical appraisal, however, I feel there should be more scope to incorporate further research opportunities into these posts. Many trainees would be willing to assist senior colleagues in established projects or like the chance to complete small projects of their own with guidance and assistance to provide good learning opportunities as well as supporting portfolios.

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Periodontology

Periodontal therapy and cell adhesion

Sir, periodontitis is a chronic infection and inflammation of the periodontium.¹ A relationship between periodontal therapy (PT) and reduction in risk of cardiovascular diseases has been reported.² One hypothesis is that PT reduces the expression of cell adhesion molecules that are pivotal in the pathogenesis of vascular inflammation and atherosclerosis.³ This first meta-analysis included eight studies (three randomised control trials, one prospective non-randomised study, and four retrospective). The main outcome was change in the levels of cell adhesion molecules (soluble endothelial selectin s-E-selectin-1, soluble intercellular adhesion molecule-1 s-ICAM-1, and soluble vascular cell adhesion molecule-1 s-VCAM-1) following PT. Standardised difference in means (SDM) was used for effect size (ES) measurement. An ES of 0.2-0.5 is considered small, 0.5-0.8 is medium, and more than 0.8 is large.

Of the 797 patients (445 in PT, 352 in control), men formed 62.3% (497) with 69.8% (311) and 52.8% (186) in the respective groups; the mean age of patients was 51.9 and 55.89 years respectively. PT included oral hygiene instructions, scaling and root planing, antibiotics, chlorhexidine mouthwashes, tooth extractions and surgical PT. The control group received no treatment. Patients had moderate to severe periodontitis. Follow up varied between 3-6 months. PT showed a positive and medium effect size (SDM 0.52, 95% CI 0.10-0.94) on decreasing s-E-selectin values at follow up. PT did not show a statistically significant effect size on lowering s-ICAM-1 (SDM 0.41,