

I hope we all stay physically and mentally healthy in these strange times.

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## Mental health training

Sir, the awareness of the importance of our mental health within the dental profession has increased recently, which is amazing and vital but this alone is not enough. We know dentistry is a stressful career and a challenging university course, and our mental health can be significantly affected. Also, being healthcare professionals, we have a duty of care to patients who could have a range of mental health diagnoses or who could present in a crisis – for example having suicidal thoughts.

This leads to the question: why aren't we undertaking regular mental health and suicide training? Mental Health First Aid courses are available which should be compulsory to complete alongside physical first aid and medical emergencies training.<sup>1</sup> Zero Suicide Alliance offers a free 20-minute training course on suicide awareness which highlights three key aspects: SEEing the signs of suicide; SAYing, speaking about suicide and whether someone has suicidal thoughts; and SIGNPOSTing people to the correct services, eg GP, Samaritans.<sup>2</sup>

If a colleague or patient is struggling with their mental health, we need to talk openly about suicide and whether they are having or have had suicidal thoughts. This can be difficult to do but is imperative to their safety and wellbeing. It does not 'put the idea into their head', but instead protects them and allows people to tell you how they feel.<sup>3</sup>

We need to urgently integrate this training into both the student curriculum and professional CPD cycles. Not only mental health training, but also thorough interactive equality and diversity training (eg by E&D UK),<sup>4</sup> since discrimination has a huge impact on mental health and is so prevalent in our society.

As we normalise talking about suicide, we should be using the correct terminology. For example, 'committed suicide' is a term that should be avoided as it implies it is a crime and adds to the stigma. Instead we can say 'died by suicide' or 'took their own life'.<sup>5</sup>

We must also question: why is there a barrier to dental professionals seeking help for their mental health? More attention is needed on mental health within the profession to save lives. If you need someone

to talk to or are experiencing suicidal thoughts, call Samaritans on 116 123, who are available 24/7.

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## Medical emergencies

### Three things

Sir, I write further to an article published in the *BDJ* on 25 September entitled *Management of odontogenic infections and sepsis: an update*.<sup>1</sup>

Firstly, while recommending incision placement, the authors mention making the same on healthy skin or mucosa. It would be important to include here that skin incisions must be made as aesthetically as possible, keeping them parallel to (or in) existing skin tension lines.<sup>2</sup> This would not only serve the purpose of the procedure but also enhance cosmetic outcomes.

The dimensions of the incision must allow for adequate access of the haemostat. An adequately sized incision enhances irrigation and avoids excessive build-up of pressure within the abscess cavity.<sup>2</sup>

Secondly, the authors recommend opening the haemostat 'at the depth of penetration'; a more specific way to ascertain this is to insert the haemostat till the resistance of healthy tissue is felt.<sup>2</sup> Apart from a microbiological swab, a syringe can also be utilised to obtain a sample of the drainage. This should ideally be sent for culture sensitivity testing (CST). The article describes dentists being guardians against antibiotic resistance, especially due to the fallout from the pandemic. This makes recommending CST even more important in cases where the abscess has clinically worsened in follow up appointments and antibiotic treatment is necessitated.

Thirdly, the authors have also mentioned wrong antibiotic choice and/or dosage as a cause for treatment failure. Utilising CST would help to circumvent this and move away from protracted empirical regimens and their associated issues.

Finally, the authors make the correct suggestion of never closing a haemostat while it is inside the wound. It would be informative for readers to know that the reason behind this is to avoid damaging any vital structures in the vicinity. Knowing the reason and its gravity would serve to underscore such a suggestion.

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## Sepsis and COPD

Sir, I write further to the excellent poster: *Medical emergencies in the dental practice*.<sup>1</sup>

With medical emergencies the risk of mortality multiplies with co-morbidities, especially so in managing sepsis, when organ dysfunction follows the deregulated response to infection.<sup>2</sup> Undoubtedly in patients with both sepsis and COPD (chronic obstructive pulmonary disease) time management is critical.

Such patients demonstrate greater risks of acute exacerbation, pneumonia and mortality compared to those with one condition.<sup>3</sup> While a single Red Flag Sign triggers blue light transfer, one sign: *Needs oxygen to keep Sp O<sub>2</sub> 92% (88% in COPD)* is noteworthy when managing the patient at risk of sepsis, but who has COPD. Discussion with the authors revealed the following:

1. The Sepsis Trust Screening Tool follows NICE Guideline NG51 (1.4.2): high sepsis risk follows the need to maintain oxygen saturations more than 92% or more than 88% where COPD is known.<sup>4</sup> This guideline is followed for medical but not dental practices, where SpO<sub>2</sub> is to be kept at specific saturation levels<sup>1</sup>
2. With sepsis and COPD, pragmatic rather than dogmatic approaches are vital, the oxygen dissociation curve shifts left, partial oxygen pressure decreases and haemoglobin's oxygen binding increases.

With erythrocyte membrane deformation and disordered microvasculature leading to multi organ failure in sepsis, the consequences following inaccurate arteriolar oximetry are seldom less than catastrophic<sup>2</sup>

- Maintaining SpO<sub>2</sub> as a sign of sepsis is novel, but requires a pulse oximeter, which not every dental practice has. NICE helpfully recommend maintaining 40% FiO<sub>2</sub> (inspired oxygen fraction) as a sepsis-sign.<sup>4</sup> FiO<sub>2</sub> is calculated by adding the volume of 100% O<sub>2</sub> given, to the volume of air inspired: 21% O<sub>2</sub> (each breath being: 0.7 X body weight in Kg) and dividing these by total volume of O<sub>2</sub> and air
- Being cool, calm, collected then calculating in an emergency is a rare skill. Thankfully, patients with COPD at risk of hypercapnic failure carry alert cards and colour-coded Venturi high flow oxygen filters, commonly: Blue (24%) and White (28%).<sup>5</sup> Should a dental patient at risk of sepsis with COPD become hypoxic, ascending from Blue, to White then the Red (40%) Venturi visibly declares an emergency and an ambulance is called
- With the Red Venturi, the patient's respiratory demand is safely exceeded with a titrated high-flow ventilation volume of 12 L/min O<sub>2</sub> (50 L/min O<sub>2</sub>; air volume), matching higher ventilatory demands, reducing immediate risks from tissue hypoxaemia, delaying risks from atelectasis, pulmonary vasoconstriction and pulmonary perfusion:ventilation mismatch causing respiratory acidosis.<sup>5</sup>

Certainly, giving oxygen in a dental practice is neither free, nor free from risk, especially in patients who may have both conditions. The decision to use oxygen at 15 L/min reduces the risk from sepsis, but may present a risk to those with COPD. Decisions in any emergency are based on evidence, experience and not least respiratory medical practices being developed during the COVID crisis.

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## Clinical audit

### Avoiding a 'tick-box' exercise

Sir, as a dental core trainee (DCT) it is mandatory to have completed an audit for successful completion of the training year, and also two-cycle audit completion is assessed during the application process for speciality training.

The Care Quality Commission outlines certain mandatory audits for dentists working in primary care, including audits related to infection prevention and control, radiographs and accessibility to facilities.<sup>1</sup> Hospital trusts also have specific mandatory audits which must be completed.

Due to the short amount of time DCTs spend in their training posts, audits and service evaluation projects are often limited or restricted to these mandatory projects, or as an alternative, a second cycle completion of a previous audit. This is severely restricting to a DCT in terms of completing two-cycle audits, and also less likely that a completed project would be suitable for poster presentations which are also essential for career progression.

I would request that as well as the mandatory audits, if possible, dentists and dental care professionals could consider other audits, perhaps of a more novel and unique nature.

Potential audits and research projects to consider could include:

- Assessment of mental capacity and compliance with the Mental Capacity Act
- Management of dental trauma and compliance with the up-to-date dental trauma guidelines
- Management of medical emergencies
- Proportion of two-week wait referrals that were for patients that actually had malignant pathology.

Audits and service evaluation projects should result in improved clinical quality and efficiency. In the General Dental Council's *Standards for the dental team*, Principle Seven states that members of the dental team must 'provide good quality care' and 'update and develop professional knowledge and skills.'<sup>2</sup> These projects are one way of achieving this.

It is important that health professionals have a positive attitude towards such projects, and avoid limiting clinical audit to the mandatory topics, to avoid box-ticking.

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## Emergency dentistry

### Simple measures

Sir, we recently completed an audit assessing the appropriateness of patients presenting to the adult emergency department (ED) at the Bristol Royal Infirmary with pain and/or facial swelling of dental origin.

Mayor stated that one in every 140 visits to the ED is for dental issues.<sup>1</sup> The following conditions warranted emergency dental care:

- Uncontrollable dental haemorrhage following dental extractions
- Rapidly increasing swelling around the throat or eye of dental origin, and may be associated with acute systemic illness and/or trismus
- Injuries to the face, mouth or teeth.<sup>2,3</sup>

These were used as the audit gold standard and 134 patients presented to the ED with a dental complaint during the two-month audit period: 24% (32/134) were deemed to be appropriate and met the emergency dental/oral care criteria set above. The majority presented with toothache (45%) and facial swelling (26%) and 66% attended between 08:00–20:00 when dental and out-of-hours facilities are typically open, suggesting barriers to accessing dental care. The ED managed 38% of cases; the oral and maxillofacial surgery (OMFS) team managed 35% of cases with 12% managed by the ED but with an opinion obtained from the OMFS team. The remaining 15% of patients self-discharged post registration. Interestingly, 60% of patients were managed by a combination of analgesia, antibiotics and advice.

Most patients were seen by clinicians or healthcare professionals who were not dentally qualified in ED, a setting where definitive care