## Medical emergencies

### NEWS2: potential pitfalls

Sir, we read with great interest the recent article by Jevon and Shamsi regarding the use of National Early Warning Score (NEWS) 2 in the dental practice.[1] From our combined experiences of working within hospital medicine and general dentistry we write with great perturbance that NEWS2 might open a Pandora's box of cognitive shortcuts, confusion and increasing medico-legal claims against dentists.

Whilst we recognise and agree with the article that the use of NEWS2 in the community can be a useful tool in communicating with emergency services and potentially help to improve triage, the potential problems and risks associated with this are paramount and should not be ignored. The authors highlight that the NEWS2 can improve the objective assessment of patients with suspected sepsis, asthma attack and anaphylaxis. However, it does not consider how commonly these issues are encountered in a primary dental care setting. A general dental practitioner will on average experience a medical emergency at least once every two years, the most common medical emergency being vasovagal syncope.[1,2,3] There is no mention of how the NEWS2 score may be applied in such a scenario. Rather, in such a scenario and for more fatal emergencies such as a cardiac arrest, it is imperative that practitioners apply the Resus Council Life support algorithm.[4] In contrast, implementation of a NEWS2 score may confuse practitioners about whether they should calculate a NEWS2 score or start resuscitation, with the latter being critical.

The authors comment that a completed NEWS2 observation form is an excellent documentation record, providing the dental team with justification for their actions. However, it may also create a culture of fear of 'failure to act'. In a hospital setting NEWS2 has a pre-specified response, however, this may be difficult to replicate in a primary dental care setting. Therefore, failure to take appropriate action may be grounds for a negligence claim. Furthermore, the evidence provided regarding benefits of NEWS2 is limited to GP practices where medically-trained professionals are available to interpret this score alongside clinical experience and judgement. This is most certainly absent within a dental practice.

The issue of NEWS2 scores in primary care is complex and ongoing, and it is likely to continue throughout our medical and dental careers. Whilst we acknowledge the benefit in communication and urgency of transfer, NEWS2 is best used as an adjunct to clinical judgement with its sole use being limited by the posed associated risks.

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## Dental education

### Personality traits and learning

Sir, we write in response to a recent paper on understanding the personality traits of dental students and creating a supportive student culture.[1] We totally agree that certain personality traits tend to correlate with academic and clinical success through the various stages of educational experience of a student in a professional programme. Moreover, we would like to further highlight how certain personality traits affect the learning of an individual.

Personality traits can be articulated through different learning styles (auditory, visual, read/write, kinaesthetic) which facilitate a student for better understanding and learning, aiming to achieve the desirable learning outcomes or goals. Conscientiousness is also associated with work discipline, generating interest in the subject, attentiveness and considering studying as relatively easy.[2] Students using the planned approach are good at work organisation, time management and believe in putting hard work in their studies as they have already set clear goals. Openness is linked to critical thinking, analysing problems, a logistical approach and correlating along with building on their existing knowledge. Students with this trait are self-motivated, focussed on their self-development and they look for personal comprehension independent of the programme syllabus.[3]

Neuroticism is associated with a lack of attentiveness, anxiety of failure and experiencing studying as always stressful. It can be linked to the surface learning style which focusses on mugging-up and memorising content without any understanding as the main concern is to only pass the examination.[3,4] Hence, personality traits play a major role in the overall development and academic performance of a professional student.

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### Open-book exam support

Sir, the recent article on open-book exams reminded me of when I was a dental student at New York University College of Dentistry (1967 to 1971).[1] It was not an option then but with hindsight after almost 50 years of clinical dentistry I wish it could have been as it would have greatly lowered stress levels and improved my learning experience. The authors reported that students disagreed with open-book exams for several reasons such as 'did not feel there were any rewards' and 'concern on their preparedness in subsequent years' but I have found after all my years as a clinical dentist that these are not valid.

My experience has been that regular use of information is a better teacher than memory, which can be flawed. The exponential growth of data and research assures that whatever was learned in dental school will be obsolete within a short time after graduation, which is the reason for mandated life-long learning. In addition, online computer resources for facts, technical data, and clinical technique demos are available to all dentists with the click of a button. Therefore, the focus of dental school education should be on teaching students to think and analyse, not memorise, and create a comfortable atmosphere to use information from any reputable source with repetition the essential ingredient.

If most practising dentists are like me, they will have had a hard time passing the original exams in dental school, using extensive and stressful memorisation. Today, I take continuing education courses regularly and consider myself able to do dentistry and enjoy dentistry better than in my previous 50 years. My ability to do great dentistry and achieve excellent results for my patients is my reward. I only wish I could do dentistry for another 50 years.

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## Paediatric dentistry

### Analgesia – the colour purple

Sir, we write further to the recent paper on local anaesthetic administration for the paediatric patient.[1] In an era where, as Robson[2] illustrates in his recent letter, children and young people (CYP) are waiting substantial periods of time for hospital dental extractions, this paper illustrates how dental professionals can develop their clinical and behavioural management techniques to minimise pain experienced during injections.[1]

Rather than a blind 'unwillingness' *per se* to carry out extractions in primary care, we feel it is more likely to be a reluctance resulting from lack of confidence, as well as access to sedation, to administer comfortable analgesia. This in turn may result in complete loss of compliance, fostering negative memories resulting in the child or adolescent avoiding all future care in that setting. Students are actively encouraged to gain experience of analgesia administration in CYP, so they become adept and confident in its use.

Patient age should not be a contraindication for local analgesic use, even for mandibular blocks in children, where some clinicians advocate the 'Rule of Ten' should be considered: the primary tooth to be anaesthetised is allocated a number according to position in the arch (central incisor = 1, second molar = 5); this number is then added to the child's age (in years); if 10 or less, an infiltration is most appropriate; if greater than 10, an inferior dental block (IDB) is likely to be more effective.[1,3]

Shorter needles, such as the Ultra Safety Plus 30G Extra Short [Septodont, France] are suitable for infiltrations, IDBs and long buccal anaesthesia in children.[1] These are easily recognisable by their short 10 mm needle and unique purple cap. Despite the paucity of evidence on dental phobia and needle length, it could be hypothesised that needle phobia may increase with needle length, hence, a needle shorter than the average fingernail may help.

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### American recommendations

Sir, we (two dentists and two paediatricians) would like to bring to your readers' attention the recent American Academy of Pediatrics (AAP) Section on Oral Health guidance on *Fluoride use in caries prevention in the primary care setting.*[1]

AAP state that 'fluoride varnish application is now considered the standard of care in pediatric primary care'. They recommend paediatricians and dentists in USA apply fluoride varnish, recommend the use of fluoride toothpaste, know how to determine the concentration of fluoride in a child's primary drinking water and determine the need for systemic supplements and advocate for water fluoridation in their local community.

Of course, American healthcare provision is different from that in the UK where paediatricians cannot apply fluoride varnish. But the other recommendations are relevant in a British context. AAP argue that community water fluoridation (CWF) continues to be 'a controversial and highly emotional issue' even though the concerns of those opposed to CWF have been shown to have no reliable scientific basis. Scientifically undertaken opinion polls carried out in the UK for the last 40 years, using samples properly representative of the population, have consistently shown that the majority of the population support CWF. Opponents are good at 'getting their vote out' during formal public consultation on implementing new schemes. Proponents of fluoridation need to be more effective in getting the silent majority to register their support.

In the UK, as a result of the COVID-19 pandemic, access to dental care has become difficult and NHS hospitals are postponing routine operations. The most common routine operation for children is dental extraction due to dental caries.[2] These extractions under GA are being delayed and children are suffering prolonged toothache. Reducing the need for carious teeth to be extracted would not only benefit the children involved but also release capacity for other hospital care.

The UK government was elected on a policy of 'levelling up' the North and South of England. Dental caries prevalence is highest among deprived children in the North. We should be pushing at an open door to implement CWF in these areas. Is it not time that dentists speak out more vociferously on this issue and enlist the support of our paediatrician colleagues? Should we not jointly be stressing that the science is overwhelming, and there is a safe and effective public health intervention? Controversy and emotion are not acceptable excuses for failure to implement CWF to protect the public health of all and especially vulnerable children.

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## Geography

### Northern Ireland

Sir, as a lifelong member of the BDA living in N. Ireland I was very disappointed and unimpressed to see Ballymena referred to as 'Ballymena in Ireland'.[1] It is not – there is no political country called Ireland. Ballymena is in Northern Ireland and the *BDJ* is the journal of the British Dental Association and should know better. I would have expected this 'error' of the *Irish Dental Journal* (which I also subscribe to) but not the *BDJ*. It matters and shows a distinct lack of understanding of NI.

*R. Crutchley, Ballymena, Northern Ireland, UK*

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