

not be enough. The use of sedation has its own challenges, especially the use of IV or RA sedation. Not all practices are equipped with this. Sedation is classed as an additional service under current NHS regulations hence GDPs would require separate funding and contractual approval for its use. Parents/carers may not be in a financial position to pay privately for sedation too, especially under the current difficult financial circumstances they may find themselves in. This leaves us with the difficult decision for making a referral and use of antibiotics where appropriately indicated. Not such a clear clinical world is it? Difficult decisions for us GDPs for these difficult times.

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Dental research

Mentors required

Sir, there is limited availability for undergoing research as a dental student. Luckily, I am situated in Manchester, the home of Cochrane Oral Health and where The Manchester Undergraduate Dental Conference takes place every academic year. Others are not so lucky. As a fourth-year dental student, I am aware of the importance of evidence-based dentistry and the crucial role that research plays in bringing new innovative treatment to help our patients. Surely, dental students should be given more opportunities to participate in this research as we are the dentists of the future and will be using the treatment that is being evaluated in research today. Doing research during a global pandemic is hard enough but being a dental student trying to participate in research is harder. This appears to be a global problem as the number of hands-on mentored dental research programmes is diminishing in the United States.¹ Ping found in his questionnaire completed by dental students from a high-ranking school in China, that 31% of students thought that 'the teachers did not guide the students to think and explore actively.'² I suggest that every dental school should have a research mentor in the faculty that can guide students on how to publish an article, write a literature review or carry out an audit. The mentors should help the student come into contact with

other like-minded students across different universities so collectively research can be carried out as a group and the mentor should help give contacts of researchers so the student can collaborate with their work.

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Primary care Romanian dilemmas

Sir, in the last ten years, over 2 million Romanians have migrated to work in EU member states.¹ It is likely that recent migrants will be seen increasingly by UK primary care services. These patients may present with unusual, delayed, and complex needs. In the light of our exit from the EU, many UK dentists may lose the incentive to understand the way dental services are provided and accessed across Europe. Primary care dentists could therefore find themselves ill-equipped to detect and manage dental complexities as they arise.

In Romania, 95% of dental care is delivered privately, and unsurprisingly the primary barrier to access has been identified as cost of treatment.¹ There are limited public resources allocated for preventive dental care and the funds allocated to the oral healthcare of young people rarely covers the cost of treatment. This became evident to us recently when treating an 18-year-old Romanian male recent migrant to the UK who presented complaining of oral pain and poor dental appearance, speaking limited English and requiring an interpreter. Examination and radiographic assessment revealed a fully erupted permanent dentition with the additional presence of erupted bilateral supplemental maxillary incisors, coupled with dental disease and extensively compromised oral health. He had no previous experience in any dental setting but responded well to intense preventive care, followed by restorative and surgical care to manage the crowded anterior maxillary segment.

The late presentation of the anomaly described highlights the importance

of access to routine dental care for the purposes of early detection and intervention, and gives pause for thought with regards to how treatment planning may be challenging when patients have experienced differing levels of access prior to presenting at UK primary care services.

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Oral health

Vitamin gums

Sir, the nutritional supplement market has undergone a change in recent years. Vitamin gums with health claims are conquering the market of nutritional supplements: a gummy bear for shiny hair, a wine gum for stronger nails, bones and teeth. The global market for these vitamin sweets is estimated to increase up to US\$9.3 billion in 2026.¹ In stores in the UK multivitamins, beauty candies, and mommy gummies especially for pregnant woman are lying next to tablets and capsules. The producers of the new (vegan) brand Yummygums claim: 'These are real sweets but healthy!'. Yummygums has announced that they plan to introduce a new candy on the market every three months. The next one: the sleeping gummy. Sweets to sleep?!

In addition to vitamins, the vitamin gums also contain other ingredients including sugars and citric acid. We observed that actively sucking on a single piece of Yummygum dissolved it in four minutes. During this period of time, the salivary pH was continuously below 5.5, and even reached values as low as 4.1. Considering the recommended consumption of 2-4 vitamin gums per day, this will introduce a considerable risk of developing erosive tooth wear, while the sugars may increase the risk of caries. Considering the similarity with regular wine gums, it seems conceivable that children might mistake vitamin gums for candy, resulting in overconsumption. This seems quite likely as several cases have been described where children mistook chewable vitamin supplements for candy, resulting in vitamin toxicity.²

NHS guidelines indicate that most people will get all the nutrients they need by having a varied and balanced diet, and only some specific groups may need to take extra vitamin supplements. Therefore, there seems no need for vitamin gums with unsubstantiated health claims but potential risks for oral and systemic health.

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Public health

Syphilis up

Sir, a surprise recent case of primary syphilis diagnosed in our oral surgery department prompted me to research current infection rates. I was shocked to find that new diagnoses of syphilis have increased by 199% in the UK over the last ten years, with a rise from 2,646 new diagnoses in 2010, to 7,900 in 2019.¹ Males constitute 90% of cases with the rates highest amongst men who have sex with men (MSM), and often have co-infection with HIV.² Syphilis rates dropped dramatically in the 1980s after awareness of HIV and campaigns for safer sexual practices but started increasing in 1997 following a series of localised outbreaks.³ National data shows many STI rates are increasing including chlamydia, gonorrhoea and herpes,¹ although thankfully HIV is still on the decline.⁴

This particular gentleman in his sixth decade presented with recurrent ulceration on the lower lip and tongue, presumed traumatic until biopsy showed prominent plasma cells, prompting serological testing for spirochaetal infection. The RDR and VDRL test was positive for syphilis, and suggestive of primary and active infection. The gentleman was referred to sexual health for treatment with IM benzathine penicillin and for full sexual history and partner notification.

Discussing sexual history as part of social history is not commonplace within our profession and in fact most feel uneasy discussing the subject with their patients. But with rates of STIs including syphilis increasing we should consider these as part of our differential diagnoses and perhaps more routinely enquire after sexual partners and practices. Following guidance from our sexual health colleagues we have now begun routinely including HIV testing as a screen for unexplained oral candida infection and oral ulceration.

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Endodontics

Working length determination

Sir, regarding working length determination, the European Society of Endodontology recommends the use of an electronic apex locator followed by confirmation of the canal length with an undistorted periapical radiograph during root canal treatment (usually using a file instrument).¹ Additionally, they recommend use of a master cone radiograph to verify working length but only in 'some cases'. Thus, guidance involving master GP radiographs is open to interpretation.

I completed an in-practice audit which showed that master GP radiographs were taken in 61% of completed RCT cases. When considering cases which met criteria regarding obturation length, master GP radiographs were present 73% of the time. In comparison, master GP radiographs were present only 33% of the time in cases failing to meet standards.

The literature clearly demonstrates the impact obturation length has upon RCT 'success'. For every millimetre not instrumented, there is a 12% reduction in success, meanwhile overextended root fillings reduce success by 62%.² Furthermore, short root fillings had 3.1% higher odds of being associated with periapical lesions.³

The practice provides outreach placements to students at the University of Sheffield and interestingly, both the students and foundation dentists seemed far more likely to obtain master GP radiographs than the associates. This may be explained due to the former coming straight from dental school, where all stages are taught as radiographically required.

Research highlights that apex locators can reduce the need for mid-treatment radiographs, thus reducing the time taken to complete endodontic procedures.⁴ Being subject to increased time constraints may account for why associates may choose not to utilise master GP radiographs. Furthermore, with modern apex locators reporting accuracies as high as 99.85%⁵ some experienced clinicians may wish to avoid exposing the patient to unnecessary radiation.

Despite demonstrating a variety of reasons why master GP radiographs may be deemed unnecessary, the fundamental point stands that collectively, the practice achieved better obturation lengths when using master cone periapical radiographs. Thus, it is certainly worth considering obtaining these as part of normal endodontic treatment protocol.

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