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.

> D. L. Gambon, Groningen, H. S. Brand, Amsterdam, Netherlands

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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). 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%.<sup>2</sup> Furthermore, short root fillings had 3.1% higher odds of being associated with periapical lesions.<sup>3</sup>

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.<sup>4</sup> 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%<sup>5</sup> 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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