

procedures (AGPs) we have been avoiding the use of a surgical handpiece where possible, removing bone with rongeurs, bone chisel/osteotome (with a mallet) and bone files and using chisels to divide teeth (with a mallet).¹ The importance of a good pre-operative clinical and radiographic assessment as well as fully informing the patient of potential treatment and risks involved is essential. These older techniques are useful to avoid additional PPE issues and environmental issues associated with AGPs.

M. Dingle, H. Irshad, S. McKernon, K. Taylor, Liverpool, UK

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Antibody testing

Sir, now that Roche's SARS-CoV-2 antibody test has been approved by Public Health England, might it be reasonable for dental practice generally and SDCEP in particular to take this into consideration?

A patient who has tested positive could be viewed as reasonably safe for AGPs, with normal PPE. I do understand that we have a lot still to learn, but we need some decent working hypotheses. In the larger picture, we might be able to help roll out broader testing, take the load off our medical colleagues and help the public and especially the NHS and carers get back to work safely. This is in line with Scottish Government policy.¹

Dental patients could also be tested on their examination appointment by the dentist; results are rapid and follow up could be quickly organised to book positive patients in for AGPs. Dentists will need some phlebotomy training. Many of us have experience in this but may need updating and being taught the specific requirements of the Elecsys Anti-SARS-CoV-2 serology test; others do not have such experience and will need a somewhat more extended course. Perhaps the practicalities of such training could be investigated by NES.

In Scotland a mechanism for reimbursement already exists within the SDR; 3601 – Taking of material for pathological examination: per course of treatment £14.00 (£11.20). This would be a good mechanism for reporting results via practitioners' services, to the wider NHS and

researchers. I imagine that the fee would be about right for the practice, but that the test itself would be funded through local pathology services. The implementation of this is within the gift of practitioner services or failing that the CADO or failing him, the minister. At the moment, while we are on 'benefits' it would cost the treasury nothing.

It is a little distressing that private companies (like Sodexo at Edinburgh Airport) have been given public funds to do antigen testing, while dentists are sitting at home and currently being supported by the NHS, when they could be doing this work.

D. Chong Kwan, Dunfermline, UK

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Undergraduate uncertainty

Sir, I would like to share my thoughts and experiences on how COVID-19 has affected me as a year 13 student, applying to university to study dentistry this September.

Unfortunately our A-level examinations have been cancelled this summer. This means that instead of receiving our final grades, determining meeting our offers for university, our results will be based on grades predicted by our teachers based on past exams and schoolwork. If we are not satisfied with our predicted grades on A-level results day, we have the option to appeal and sit alternative exams during the autumn or next year. Therefore, we were advised by our schools to continue revising to complete the specification of our subjects in case the appeal process is necessary. This circumstance of a retake will probably void our current university offers.

I am majorly concerned about being successfully admitted to dental school this September, having already battled through the incredibly competitive personal statement, interview process and securing my offer. My fellow students and I are experiencing a number of difficulties. We are also troubled about our early dental school career possibly being spent in lockdown instead of in university, as I understand the importance of being orientated with the introduction of the course and the onsite facilities available. This is particularly essential for first year students.

I feel lost and uncertain about my future and the status of my university application.

I hope this time of uncertainty does not disadvantage me and my year group from excelling in our future dental studies. Although I understand that we are currently experiencing unprecedented times, I am hopeful in the near future things will settle and we will have learnt many invaluable lessons.

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COVID-19 in Madrid

Sir, the region of Madrid (population 6.6 million) is one of Europe's regions most affected by COVID-19 with around 60,000 cases officially reported (beginning of May). On 14 March 2020 the Spanish Government decreed a state of alarm under which the whole population was subjected to compulsory home confinement. A few days later, the General Dental Council of Spain advised that due to a general shortage of PPE, practices which do not have this equipment available would immediately cease to operate, including cases involving dental emergencies. Consequently, only 5% of the dental clinics remained open for urgent dental care.

We present a preliminary analysis of some aspects of urgent dental care performed by a dentist in this region (17 March–3 May) who was on call 24 hours a day, six days a week, with the support of an assistant. Before an appointment patients underwent a telephone interview by the dentist; none reported COVID-19 symptoms nor contact with infected persons. Following this protocol, patients were then seen at the practice within one hour. Some 25% were treated between midnight and 6 am. The time span between the presentation of symptoms and the request for urgent consultation was usually over ten days. The majority of patients (75%) had received treatment involving only the usual medication. At all times, the dentist used appropriate PPE, minimising the use of aerosol generating procedures.

Total patients seen were 187 (98 women; 89 men; aged 20 months–87 years). Seven were children under the age of 12 and 12 were over 75. The most common diagnosis (50%) was acute periapical periodontitis, with associated abscess (19% of cases), irreversible pulpitis (13%), complications of third molar pericoronitis (7%), periodontal abscesses

(6%), vertical fractures (5%), horizontal fractures (5%) and other pathologies.

In 58% of cases an extraction was performed, in 6% a scale and root planing of the pathological area and in 10% of cases only pharmacological treatment was indicated. Other procedures performed were first stage of root canal treatment, root canal treatments of monoradicular teeth, cementing fixed dentures and removal or repair of orthodontic appliances. Only three patients were referred to emergency hospital services. An estimated 80% of treatments provided a permanent resolution of the pathology and in the remaining cases it was possible to offer a partial or temporary solution.

In conclusion, the urgent dental care provided was undoubtedly strenuous, but it was also a source of great satisfaction for the dentist, both personally and professionally. Moreover, the patients greatly appreciated his degree of availability and the importance of the work achieved. After this period the dentist was tested for SARS-COV-2 antibodies and a negative result was received.

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Skill mix alive and well

Sir, your correspondent E. Gordon (*The end of skill mix*; *BDJ* 2020; **228**: 655) derides the term 'skill mix' as 'an egalitarian fantasy supported only by salaried academic elites'.

The existence of Gateway Dental Practice in Abergavenny, which became an Employee Owned Trust (similar to the John Lewis Partnership) in October 2016, contradicts this view. This innovative dental practice ownership model is doing its part in building a motivated and sustainable dental workforce. In addition to promoting skill mix, the model also promotes social sustainability in its ethos of collaborative working, alongside the encouragement of entrepreneurial activity, training and development for the employees. It reflects the fact that dental practices are assets to the communities they serve, such as in providing employment opportunities to local residents, as well as providing vital healthcare services. I encourage practice owners considering disposal of their practices to read the recent paper by Allen and Karki.¹

I would agree, however, that there is a need for regulatory reform, both to bolster

skill mix throughout dental practices and to improve access for those in need. The COVID-19 pandemic is stimulating contract reform significantly throughout the UK, with commissioners of dental services having to re-evaluate provision and monitoring.

H. Hutchison, Abergavenny, UK

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<https://doi.org/10.1038/s41415-020-1731-3>

Loss of taste and smell

Sir, on 26 April 2020, the US Centers for Disease Control and Prevention included 'New loss of taste (dysgeusia/ageusia) and smell (anosmia/hyposmia)' in its list of symptoms of COVID-19 disease.¹

In the absence of any comprehensive analysis of the subject, we reviewed the published literature on COVID-19 associated early dysgeusia and anosmia, finding a total of five studies from the European community, China, Italy, USA, and Iran.^{2,3,4,5,6} These yielded a total of 10,847 COVID-19 patients; 8,816 (81.27%), and 8,119 (74.85%) presented with/developed dysgeusia and/or anosmia, respectively indicating these symptoms in almost three-quarters of COVID-19 patients.

However, there are knowledge gaps. The simultaneous presence of both symptoms in the prodromal or presenting stages of COVID-19 is unclear as is the temporal association of these with other critical symptoms. Some described anosmia prior to hospitalisation followed by symptoms of dysgeusia afterwards, and others the reverse. Also, the question of how long before the definitive early symptoms of COVID-19 such as fever, sore throat, etc does dysgeusia and/or anosmia appear, particularly in otherwise asymptomatic ambulatory patients, is unresolved.

If these two symptoms were relatively reliable harbingers of COVID-19, then there are multiple clinical, community interventional strategy and disease spread implications. Both are simple for self-awareness and without medical consultation could enormously expedite self- or tele-diagnosis of COVID-19. This would be particularly pertinent in overcrowded and resource-meagre communities in the developing world, and in refugee camps. In the event, community education of these

symptoms through media broadcasts, leaflets, and public notices could significantly reduce the disease spread and burden. Finally, if dysgeusia and anosmia were reliable and valid premonitory symptoms of the disease, then dental, medical and para-medical services may in future include a question on the acute loss of taste and smell in all pre-treatment patient history questionnaires so as to diagnose potential, or otherwise asymptomatic, COVID-19 patients.

L. Samaranyake, K. Sadir Fakhruddin, C. Panduwawala, Sharjah, United Arab Emirates

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<https://doi.org/10.1038/s41415-020-1732-2>

Virus-spreading procedures

Sir, the current pandemic highlights the need to consider alternative evidence-based treatments that involve no virus-spreading procedures to prevent transmission. For example, non-cavitated dental caries lesions involving up to outer third of dentine can be managed by preventive measures including fissure sealant and proximal sealing, with minimal risk of aerosol production.¹ Cavitated shallow to deep carious lesions that do not involve pulp can be managed using selective caries removal and atraumatic restorative treatment (ART), without the use of rotary instruments.^{2,3} Heavily broken-down teeth can be temporarily restored by using stainless steel crowns with no preparation required.⁴ Minimally invasive endodontic treatments