Broken jaws in the COVID era

Sir, we are already seeing the effects of a 'tsunami' of treatment need with a transference of most hospital resources to managing COVID-19 patients and a consequent diminution of resources for even the most urgent dental, medical and surgical conditions.[1]

One significant finding about the virus' behaviour is that health professionals, notably those working in ITU, dentistry, oral and maxillofacial surgery, ophthalmology and ENT, are particularly susceptible to severe infections which, in combination with a lack of protective equipment, reduces the active NHS workforce. This knowledge has been synthesised into position statements on NHS staff protection and working practice in the time of COVID-19. The British Oral and Maxillofacial (BAOMS) and oral surgeons (BAOS) have produced didactic guidance about risk and protection (https://www.baoms.org.uk).

At present there is no certainty about the pandemic timescale and the ability of NHS services to manage patients with COVID-19 and patients with other serious problems such as facial injuries. Also, in OMFS practice we must minimise cross infection from COVID patients to facial injury patients. The management of facial injuries has evolved over the last 100 years to our current evidence-based practice of anatomical reduction and internal fixation of complex facial injuries. This allows early mobilisation and rapid return to full jaw function, without the historical obligatory four to six weeks' rigid intermaxillary fixation (IMF) with wires.

However, cross-infection risk and the BAOMS and BAOS guidance about avoiding exposure, rapid hospital discharge, and simplifying and shortening surgical procedures has already resulted in abbreviated surgical treatment with older techniques such as IMF and potentially with follow-up delegated to the patient's dentist or doctor.[2] There are three problems with GP or GDP follow up. Firstly, primary care practitioners must know how to manage the patient during the recovery period and remove intra-oral wires when the fractures have healed; they must also have the equipment and lighting to do this. They must also be remunerated satisfactorily for this work. Many dentists have closed their practices but it is likely that they will reopen once they are given proper protective equipment.

The wires around the teeth and jaws (IMF) remain until the jaw has healed.[3] They make tooth cleaning difficult causing poor periodontal health. The GDP's weekly follow-up should include jaw fracture assessment and care of the periodontium. GDPs may need new skills and regular advice so we will provide learning and advice modules at: https://www.baoms.org.uk/professionals/omfs_and_COVID-19.aspx.

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Telephone triaging and possible sepsis?

Sir, the guidance from the Chief Dental Officer dated 25 March 2020 outlined changes in general dental and community practices with cessation of all routine, non-urgent dental care during this COVID-19 pandemic.[1] The guidance informs that practices should provide a telephone triage service for advice, analgesia and antimicrobials (where appropriate) or refer patients to their Local Urgent Dental Care System for emergency dental care.

Telephone assessments will add a degree of complexity to patient assessment as visual signs will be lost. We wish to bring to attention the importance of vigilance for sepsis, one of the most common causes of death and disability in adults and children worldwide[2] which can arise from a dental infection. Sepsis is defined as a 'life-threatening organ dysfunction caused by a dysregulated host response to infection'.[3] Symptoms can vary but some hallmark signs include a core temperature <36°C or >38.5°C, abnormal heart rate (tachycardia or bradycardia) or tachypnea.[4,5] Altered mental state is another important red flag sign (such as new onset confusion, sleepiness, lethargy or agitation).

A high degree of vigilance is needed for patients who may have communication challenges such as those with learning disabilities, impaired consciousness and cognitive disorders. Dental practitioners may wish to devise a *pro forma* to ensure all relevant information is recorded during telephone consultations including a sepsis screen. Questions should include inquiry for local factors such as swelling, trismus, difficulty in breathing or swallowing and wider systemic factors such as hypothermia or fever, reduced urine output and changes in the skin such as cyanosis or non-blanching rashes.

May we please signpost readers to NICE clinical knowledge summaries, which provides useful information on sepsis diagnosis and management for patients seen in primary care?[6]

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Education in infectious disease transmission

Sir, it is widely accepted that dental schools need to teach curricula based on the principles of evidence-based dentistry. For many of us that instruction also includes teaching dental students the fundamentals of epidemiology and the basics of research methodology and study design. Increasingly, infectious disease outbreaks are receiving more attention due to the potential impacts of epidemics on an expanding global population and the fact that information in general is now disseminated much more rapidly than it was in 2003 when we had the Severe Acute Respiratory Syndrome (SARS) outbreak.