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## Short communication

# The COVID-19 effect: number of patients presenting to The Mid Yorkshire Hospitals OMFS team with dental infections before and during The COVID-19 outbreak

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## Abstract

This paper investigates the effect of the COVID-19 outbreak and closure of dental practices on the frequency and severity of dental infections presenting in our emergency department. We compared the mean number of daily emergency department referrals for dental abscesses in the two weeks prior to and following the Chief Dental Officer's statement advising general dental practitioners to cease routine appointments, the mean number decreased from 1 to 0.37. In contrast, the severity and requirement for admission of these infections rose from 35% to 80%. This highlights the importance of the provision of local urgent dental centres during the COVID-19 outbreak in order to reduce pressure on secondary and tertiary care centres.

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## Introduction

Dental infections make up a significant proportion of the OMFS workload.<sup>1</sup> On the 25th March 2020 the Chief Dental Officer (CDO) for England released a statement calling for primary dental care services to cease all routine dental care.<sup>2</sup> General dental practitioners were advised to provide telephone triage for their patients offering advice, analgesia and antimicrobials where appropriate. Plans were put in place for urgent dental care centres to treat those patients requiring emergency dental treatment, however this was not immediate due to the requirement for strategic planning and personal protective equipment (PPE) provision. Many speculated that this would lead to an increase in the presentation

of dental infections to emergency departments (ED) around the country.<sup>3</sup>

In this paper we have analysed the OMFS on call log to compare the incidence of dental infections presenting to the ED prior to and during the COVID-19 outbreak and closure of general dental practices.

## Methods

We analysed the OMFS on-call log of patients referred to the OMFS team from the ED with a diagnosis of dental/orofacial infection and whether admission was required. Comparison was made between attendances in the two weeks prior to and following the CDO's guidance for dental practitioners to cease routine dental treatment due to the COVID-19 outbreak, whilst the local urgent dental centres were still in the organisational phase.

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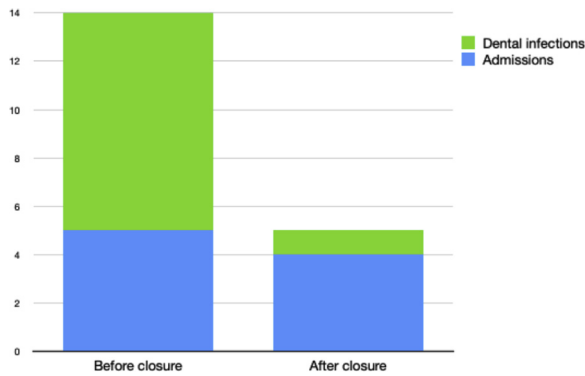


Fig. 1. Shows the number of dental infections and admissions before and after the closure of dental practices due to COVID-19.

## Results

Daily attendances for dental abscesses decreased in the two weeks following the closure of dental practices from 1 to 0.36, a 64% decrease. In contrast the proportion of those abscesses requiring admission increased significantly from 35% to 80% (Fig. 1).

## Discussion

This data shows that whilst the number of dental abscesses presenting to the ED decreased, the proportion of those requiring admission for IV antibiotics and surgery significantly increased. This suggests that whilst there was a reduction in the overall number of abscesses, there was an increase in the severity.

We speculate that this could be due to patient's desire to avoid hospitals because of the fear of contracting COVID-19. Therefore, patients with more mild swellings may be more willing to remain at home and attempt conservative management such as over the counter analgesia.

The cancellation of routine appointments for general dental practitioners and the shift to emergency telephone advice may have led to an increased availability of dentists for patients requiring urgent care. Patient's with pain and infections may now find it easier to get in touch with a dentist and receive telephone advice or an antibiotic prescription if required without the need to attend the ED. Dentists may now also have a lower threshold for antibiotic prescriptions due to the new non-face-to-face measures in place and in an attempt

to reduce the pressures on secondary and tertiary care during these unprecedented circumstances.

However, patients with localised abscesses may be avoiding seeking hospital treatment until symptoms become more severe, this is supported by the increase in proportion of patients presenting with severe infections requiring admission during the COVID-19 outbreak. This may mean that those patients who had previously attended and received simple incision, drainage, and antimicrobials are hesitant to seek help in the first instance. These patients may now be presenting later with severe infections requiring more invasive intervention involving theatre time, anaesthetists, and a hospital bed, thus placing more pressure on an already overstretched service.

## Conclusion

Whilst the number of dental infections presenting in the ED has decreased during the COVID-19 outbreak and closure of general dental practices, the proportion of those having a severity that requires admission has increased significantly.

This highlights the importance of urgent dental centres operating in local areas in order to treat dental infections before they progress requiring hospital admission.

## Conflict of interest

We have no conflicts of interest.

## Ethics statement/confirmation of patients' permission

Not applicable.

## References

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