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CLINICAL PRACTICE GUIDELINES FOR THE PROVISION OF ORAL MEDICINE CARE DURING COVID-19 PANDEMIC

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ABSTRACT

The novel coronavirus disease 2019 (COVID-19) has caused major disruptions in the services of medical and dental care across the world. Routine dental care has been suspended in several countries across the world with only urgent dental care being operated and delivered by emergency dental teams. Closing dental practices during the pandemic may reduce the number of affected individuals, but will increase the suffering of the individuals in need of urgent dental care. It will also increase the burden on hospitals emergency departments. Postponed oral medicine care, delaying non-urgent follow-ups in case of patients because of COVID-19 crisis and limited access to health care can lead to serious consequences for oral and general health. Guidelines for delivery of dental care during the COVID-19 pandemic have been developed in several countries however guidelines for the management of oral medicine emergencies are still scarce. Hence the aim of the study was to review the literature and propose a clinical practice guideline for provision of oral medicine care during and after the COVID-19 pandemic.

Keywords: Coronavirus; COVID-19; pandemic; Oral medicine care; Dental care

INTRODUCTION

On 11 March 2020, the Director-General of the World Health Organization (WHO) declared coronavirus disease 2019 (COVID-19) outbreak a pandemic on a media announcement. Coronavirus disease 19 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) **[1]**. Originating in Wuhan, China, the first COVID-19 case was reported to the WHO country office in China on 31 December 2019.Since the announcement of this pandemic, many countries across the globe have implemented the world's largest and most restrictive home quarantine. It has led to a dramatic loss of human life and exhibits an unprecedented challenge to public health. People have been instructed to stay home, with non-essential businesses and educational institutes closed, travelling being strictly limited and health care limited to emergency only **[2]**.

Patients with COVID-19 can experience a range of clinical manifestations, from no symptoms to critical illness caused by respiratory failure or multiorgan dysfunction **[3]**. The transmission of the virus occurs from the spread of respiratory droplets through coughing or sneezing and close contact between individuals can also result in transmission **[4, 5]**. This also indicates the possibility of transmission in closed spaces due to elevated aerosol concentrations.

The COVID-19 had caused major disruptions in medical and dental care across the world, affecting the primary as well as secondary health care services. Routine dental care has been suspended in several countries across the world with only urgent dental care being operated and delivered by emergency dental teams **[6]**. Therefore, the dental professionals should understand the modes of transmission of SARS-CoV-2, identify potential patients with COVID-19 and understand the needs of extra-protection during their practices to minimise the risk of transmission of SARS-CoV-2 infection **[7]**. Closing dental practices during the pandemic may reduce the number of affected individuals, but will also increase the suffering of the individuals in need of urgent dental care which in turn will increase the burden on hospitals emergency departments.

Postponed oral medicine (OM) care, delaying non-urgent follow-ups in case of patients because of COVID-19 crisis and limited access to health care can lead to serious consequences for oral and general health **[8, 9]**. Deferred diagnosis of a malignant condition when suspected or even dysplasia in oral leukoplakia patients can vastly affect the clinical outcome, influence treatment and prognosis

subsequently **[10]**. Suspended routine care provision for oral medicine patients with other, less severe conditions like hyposalivation, oral lichen planus, oral candidiasis, and recurrent aphthous stomatitis can have a significant impact on the patients' well-being and quality of life. Chronic autoimmune disorders with oral manifestations, such as mucous membrane pemphigoid or pemphigus vulgaris, can be exacerbated as a result of delayed OM follow-ups, dental care and or even interruption of long-term pharmacotherapy **[11, 12]**.

Guidelines for delivery of dental care during the COVID-19 pandemic have been developed in several countries **[13]** however guidelines for the management of oral medicine emergencies are still scarce. This calls for the creation of standard guidelines for delivery of oral medicine care during the worldwide spread of the pandemic and/or local epidemic outbreaks. Hence the aim of the study was to review the literature and propose a clinical practise guideline for provision of oral medicine care during and after the COVID-19 pandemic.

METHODS

To develop guidelines for oral medicine care provision during the pandemic, the factors to be considered are as follows

1. The incubation period of the virus is believed to be up to 14 days and transmission from asymptomatic COVID-19 carriers is possible **[14, 15]**
2. Aerosol and fomite transmission of SARS-CoV-2 is plausible **[16]**.
3. Any patient requesting urgent care should first be consultedvia telephone by a dentist or doctor to assess their clinical urgency, establish their risk for COVID-19 and if possible, offer any interim self-care advice and make an appointment for face-to-face assessment only when needed.
4. It is not clear yet, but COVID-19 recusancy might be possible and certain virus strains can be present in saliva for as long as 29 days **[17-19]**.
5. The risk versus benefits associated with that dental treatment should be analysed before making the decision.

General Principles:

1) Every asymptomatic patient should be screened meticulously.
2) Every patient should be considered as a potential asymptomatic COVID-19 carrier.
3) Recently recovered patients should be considered as potential virus carriers for at least 30 days after the recovery confirmation by a laboratory test.

4) The urgent need of the patient should be identified and focused on managing it with minimally invasive procedures.
5) The dental treatment should be prioritised according to the urgency of the required treatment and the risk and benefit associated with each treatment.
6) Non-urgent dental care should be deferred to minimise risk to patients, staff and the public.
7) Aerosol generating procedures (AGP) present with higher risk of virus transmission and should only be undertaken to provide urgent care when no other option is available.
8) Using contact and airborne precautions including proper protective equipment (PPE) for every procedure.

Patient screening:

Tele-screening of the patients is strongly advisable whenever it is possible.During the first point of contact all patients should be questioned about any COVID-19 symptoms, any history of recent contact with confirmed COVID-19 patients and/or recent travel history to disease epicentres **[20]**. For active and recently recovered confirmed patients any direct dental treatment should only be considered after consultation with a primary physician.Any suspected or confirmed COVID-19 patients' dental treatment should be postponed if it's possible or should be performed in airborne infection isolation rooms (AIIRs) or negative pressure rooms ideally at a hospital setting.

Definition of Oral medicine care:

An urgent oral medicine intervention is a situation in which the patient has to be attended for their presenting illness and

1) Solitary ulceration or swelling of the oral mucosa or swelling of the jawbones that has persisted for at least 2 weeks and is unlikely to reflect local trauma and/or dental infection.
2) Severe oral mucosal and/or gingival ulceration/blistering that has persisted and/or become widespread over 2 weeks.
3) Area of paraesthesia/anaesthesia of the trigeminal region that has no obvious local cause (eg trauma or infection).
4) Acute swelling, or progression of pre-existent chronic swelling of a major salivary gland.
5) Severe orofacial pain not responding to over-the-counter analgesics
6) Need for dosage changes or likely untoward reaction to systemic corticosteroids or immunosuppressives prescribed by

an Oral Medicine specialist should be managed by telephone consultation with the prescribing consultant.

Provision of dental treatment to patients: The patients seeking urgent oral medicine care should be screened either through video call or directly by a dentist to assess their clinical urgency, establish their COVID-19 risk and then be decided to receive urgent oral medicine care.Instead of accumulating the patients in the Oral Medicine speciality clinic they should be first assessed by the specialist and offered first line of treatment.

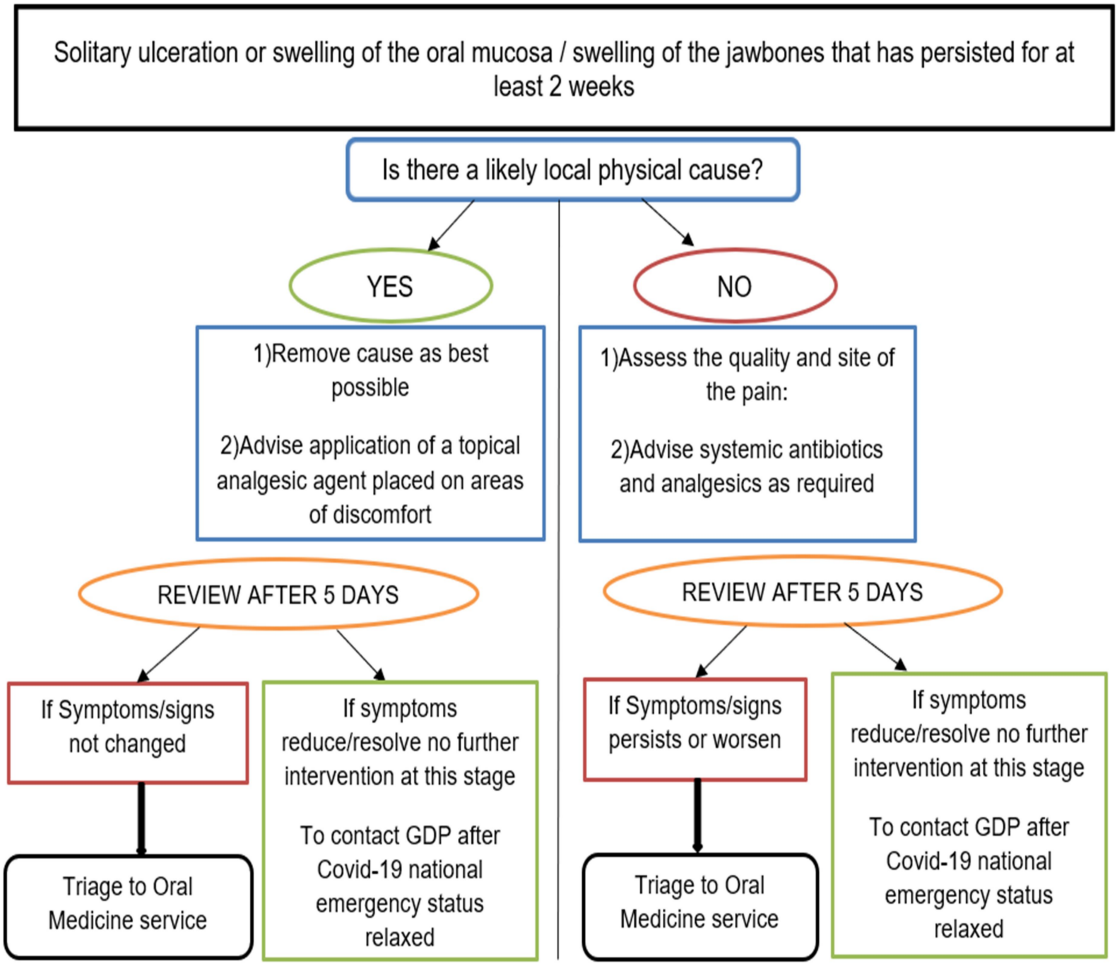

Figure 1: Flowchart showing the steps to be followed when a patient reports with an ulceration or swelling of the oral mucosa or swelling of the jawbones persisting for more than 2 weeks

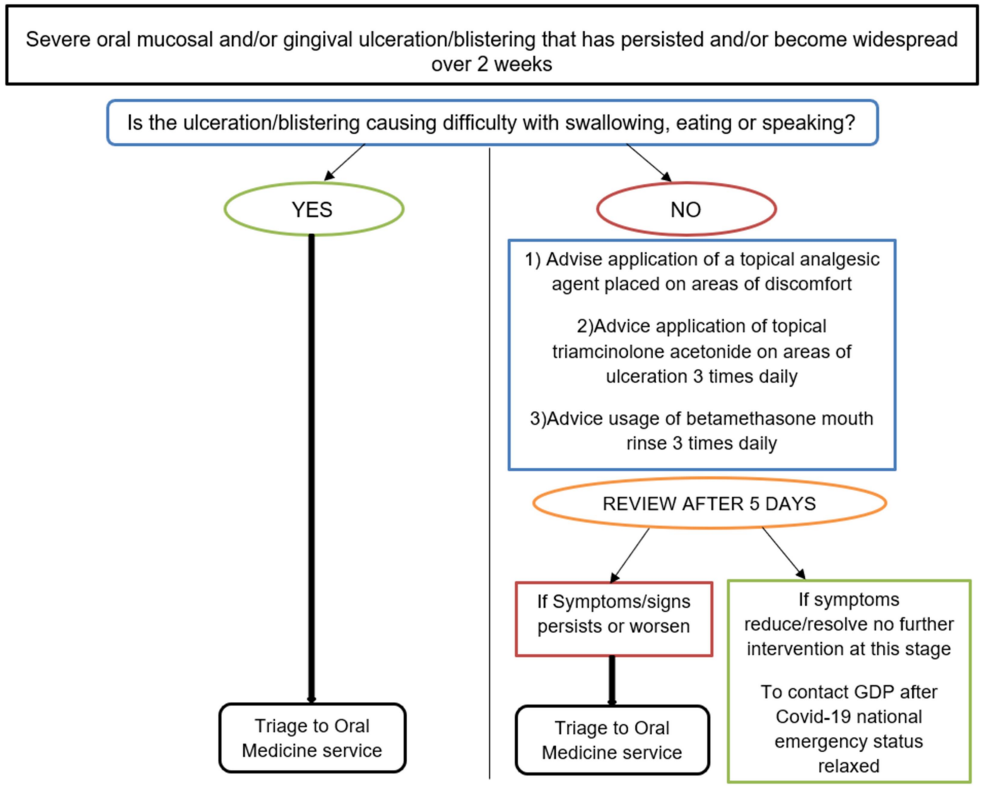

Figure 2: Flowchart showing the steps to be followed when a patient reports with severe oral mucosal and/or gingival ulceration or blistering that has persisted and or become widespread over 2 weeks

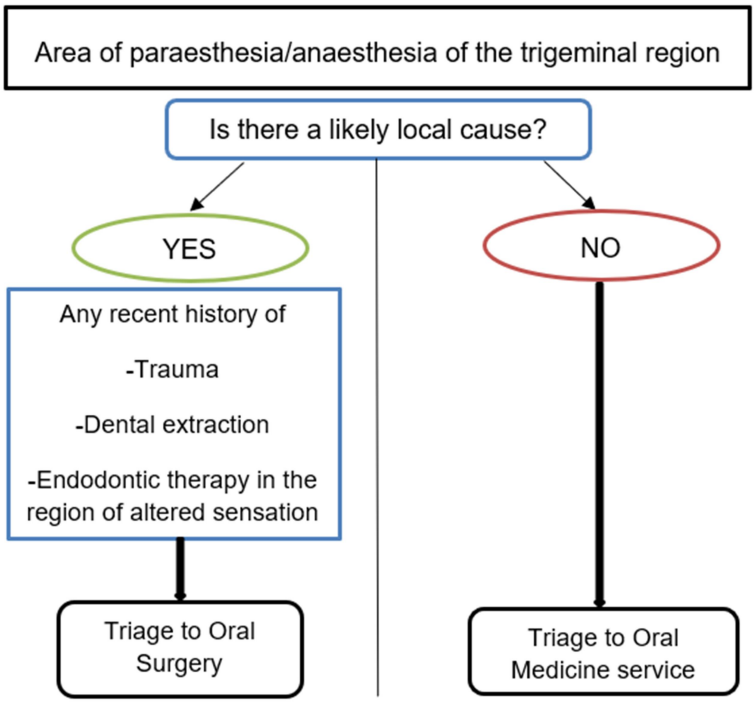

Figure 3: Flowchart showing the steps to be followed when a patient reports with an area of paraesthesia or anaesthesia of the trigeminal region

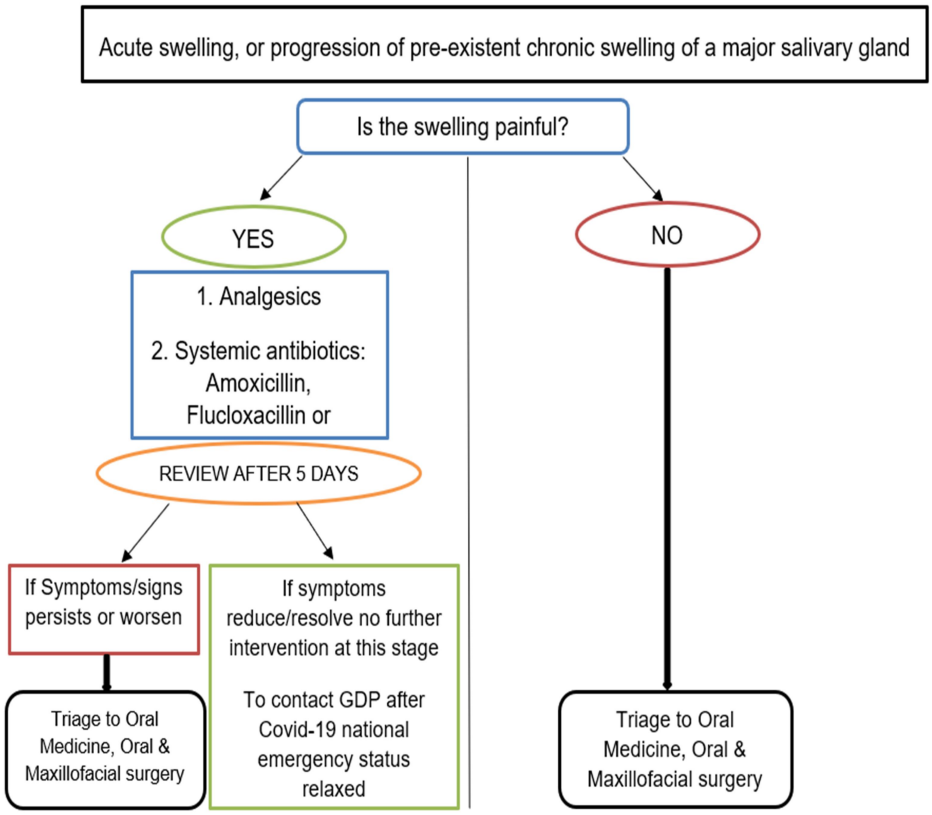

Figure 4: Flowchart showing the steps to be taken when a patient reports with an acute swelling or progression of a pre-existent chronic swelling of a major salivary gland.

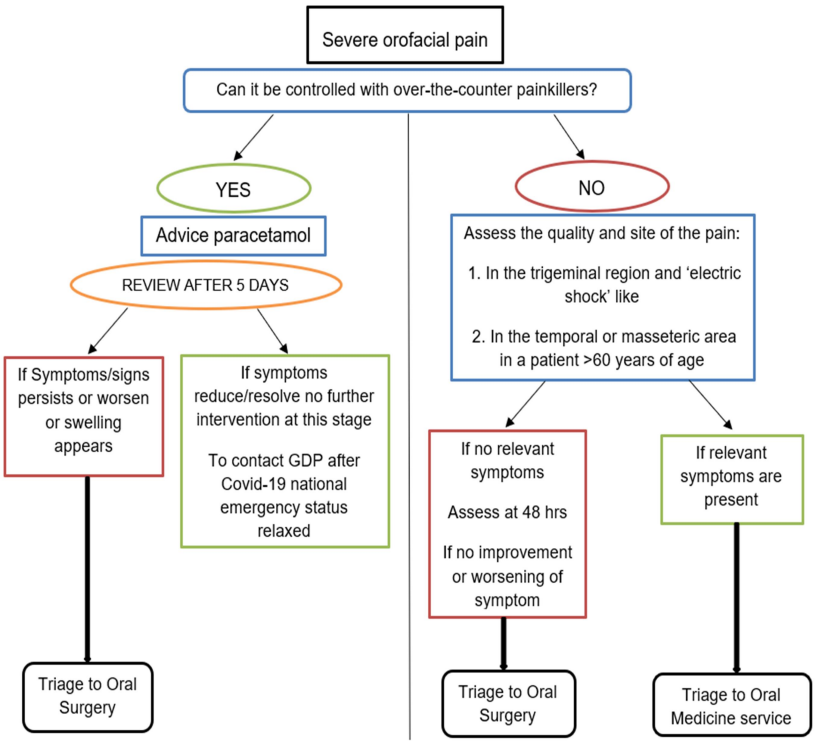

Figure 5: Flowchart showing the steps to be followed when a patient reports with a severe orofacial pain

DISCUSSION

Till date no specific protocol or guidelines are available for the delivery of oral medicine care to active or suspected COVID-19 cases. In fact, no universal guidelines are available for provision of oral medicine care during the times of any epidemic, pandemic, national or global disaster. Due to that lack of a standard protocol, oral medicine care provision has either been completely stopped or significantly decreased or interrupted in the countries affected by COVID. In addition to rising cases of COVID-19, the suffering caused due to interrupted or unattended urgent oral medicine care will also incense the burden on emergency departments of the hospitals. This lack of proper standard guidelines can also increase the risk of nosocomial COVID-19 spread through dental health care facilities. The guidelines developed in this work are general guidelines and the final decision will always be based on the practitioner's judgment.

CONCLUSION

The COVID-19 pandemic is not over yet. With several cases rising over the states across the country and also across the globe, the situation only upsurges. Hence by strict adherence to the proposal of "stay home and save lives" by all responsible individuals can help in together fighting the virus. Emergencies related to oral medicine should be carefully evaluated by specialists and discussed with the patients via video conferencing or phone contact whenever possible to avoid risks of transmission to both the patient and clinician. Only after proper screening, analysis of the disease status and weighing the risk vs harm associated with that dental procedure, any dental treatment should be provided. It is hoped that the guidelines proposed in this work will help in the provision of oral medicine care around the world during and after this COVID-19 pandemic and provide a proper base for further healthcare guidelines development.

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CONFLICTS OF INTEREST

Nil

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