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OMFS moving into the recovery phase of the COVID-19 pandemic – a survey on general practice for elective local anaesthetic procedures

C. Graham *, K.D. Mizen

Hull University Teaching Hospital

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Abstract

The COVID-19 pandemic has meant a halt to elective oral and maxillofacial procedures under local anaesthetic. As oral and maxillofacial departments enter the recovery phase of the COVID-19 pandemic there are many considerations to make regarding standard operating procedures. Thus, this survey was conducted to identify areas of consensus and divergence in practice during the recovery phase of the pandemic for local anaesthetic procedures in oral and maxillofacial units. Our findings show there are some areas of inconsistency of practice particularly in preoperative risk management and self-isolation as well as fallow time between patients for aerosol generated procedures and non-aerosol generated procedures.

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Introduction

COVID-19 is a newly discovered, single stranded RNA virus that causes respiratory illness. This infectious disease has led to a global pandemic that has upturned personal and professional lives. There have been over 11 million reported cases of COVID-19 globally, and more than half a million people have died.¹ On average 4,700 die from illness linked to COVID-19 every 24 hours.² In the UK alone, the total death toll related to COVID-19 is over 44,000 and rising.³ During March and April 2020, there were 12,900 addition non-COVID deaths compared with the average for the same period over the last 5 years.⁴ Thus, indicating that the impact that the pandemic has had on non-COVID deaths. This is thought to be due to reduced access to both urgent and non-urgent care.⁵

The oral and maxillofacial surgery (OMFS) specialty in particular, amongst others such as ear, nose, and throat, and oral surgery, remains one of the highest risk specialties for staff for contraction and spread of COVID-19.⁶ This is due to the transmission of the disease through droplet contamination from the oral and nasal airways of infected individuals, and evidence suggests salivary gland tissue can act as a reservoir for COVID-19.⁷ With the added risk while performing aerosol-generated procedures (AGPs), the OMFS specialty must remain vigilant when planning such high-risk elective procedures.

The COVID-19 pandemic has had significant implications for routine OMFS practice, with barriers to surgery including low levels of staff, lack of access to appropriate PPE and lack of capacity in interdependent service such as diagnostics, anaesthesia and sterile processing.⁸ The fast-changing situation and advice has tested our ability to adapt. OMFS departments have adjusted to ensure continuity of emergency care. However, the backlog of elective procedures remains a
Survey Responses

The development and clarity of SOPs
- Has your unit recommenced or anticipated to recommence elective local anaesthetic (LA)...
- Do you have a standard operating procedure (SOP) in place for when elective LA procedures recommence?
- Does your SOP provide information as to what is categorised as an aerosol generated procedure?

Social distancing
- Has your department formulated plans for facilitating social distancing between patients?

Risk assessment and procedure planning
- Are waiting lists being screened and separated according to priority and as to whether they are AGP...
- Are patients being scheduled accordingly following risk assessment?
- Are patients being risk-assessed for COVID-19 prior to attending their procedure appointments via...
- Are patients required to have a COVID-19 swab test prior to their appointment?
- Is the patient’s temperature being taken on the day of procedure?
- Are patients being asked to self-isolate prior to their appointment regardless of their COVID-19 status?

If yes to "Are patients being asked to self-isolate prior to their appointment regardless of their COVID-19..."
- Does this include members of the patient’s household?
- Has this request to self-isolate had an impact on patients accepting appointments for procedures?

Staff Training and days of service
- Have staff had any extra training in relation to recommencing LA elective procedures?
- Has your unit increased its days of service to accommodate increased waiting list times?

Fig. 1. Survey responses to multiple choice questions for each topical area.
growing concern since NHS England advised they should be postponed as of late March 2020.\textsuperscript{9} As the UK enters the recovery phase of the COVID-19 pandemic there are many issues to consider regarding standard operating procedures for elective local anaesthetic (LA) procedures going forward. A growing body of advice is available from various organisations,\textsuperscript{10–19} however no guidance is directly applicable to elective LA OMFS procedures in secondary or tertiary care. These sources often acknowledge a lack of evidence-based information.\textsuperscript{10,13,14,16}

This survey was conducted to identify areas of consensus and divergence in practice during the recovery phase of the pandemic for LA procedures in OMFS units.

Material and methods

This survey was designed to cover common issues likely to be faced when developing a local standard operating procedure (SOP) for the reintroduction of OMFS procedures under LA. The survey included the main areas of concern that are mentioned in national SOPs in relation to COVID-19 and recommencing activity, including the national SOP for general anaesthetic OMFS procedures by the British Association of Oral and Maxillofacial Surgeons (BAOMS), and SOPs relating to other specialties.\textsuperscript{11–19}

The survey was piloted to the local OMFS team to test and refine questions. Modifications to the questions were made, and the survey was subsequently developed using Microsoft Forms.

A series of multiple-choice and open-ended questions was included. Answers to some questions branched to additional follow-up questions. A respondent could be asked up to 17 questions.

The survey was aimed at OMFS clinicians who are involved in the organisation and/or delivery of elective LA procedures in OMFS departments in secondary or tertiary care.

The survey was distributed by email to BAOMS OMFS COVID-19 leads in the UK, who were invited to further distribute it to their OMFS teams.

The survey questions covered the following topical areas:

1. The development and clarity of SOPs
2. Social distancing
3. Risk assessment and procedure planning
4. Staff training and days of service
5. Fallow time between AGP and non-AGPs.

Results

38 anonymous responses were collated from 3rd July 2020 to 17th July 2020 from the Microsoft Forms platform. Results are shown in Figs. 1 and 2, and Table 1.

![Fig. 2. Survey responses to the number of days patients are asked to self-isolate prior to their appointment.](image)

| Table 1 | Results of fallow time between AGPs and non-AGPs. |
|---------|--------------------------------------------------|
|         | Surgery fallow time for non-AGPs                 |
| Minutes | Percentage of responses                         |
| 0       | 24.30%                                           |
| 5       | 2.70%                                            |
| 10      | 21.60%                                           |
| 15      | 27.00%                                           |
| 20      | 18.90%                                           |
| 30      | 2.70%                                            |
| 45      | 2.70%                                            |
| 60      | 61.10%                                           |

1 answer given as unknown

| Table 1 | Results of fallow time between AGPs and non-AGPs. |
|---------|--------------------------------------------------|
|         | Surgery fallow time for AGPs                     |
| Minutes | Percentage of responses                         |
| 10      | 2.80%                                            |
| 15      | 2.80%                                            |
| 20      | 8.30%                                            |
| 30      | 22.20%                                           |
| 45      | 2.80%                                            |
| 60      | 61.10%                                           |

1 answer given as unknown and 1 ambiguous answer

Discussion

The response rate for this survey was difficult to establish due to the distribution method being very broad. However, the response of 38 surveys was considered likely to be representative of the 16 UK training regions that received the survey.

The development and clarity of SOPs

Most responses indicated a return or an anticipated return to elective LA procedures and 32 out of 38 had a SOP in place to do so. This indicates a readiness and adaptability for OMFS departments in this unprecedented climate.

The process of performing AGPs is recognised as a risk factor for the spread of COVID-19 and poses an increased risk to staff, with an longer fallow time between patients.\textsuperscript{20} BAOMS has established a list of what is classified as an AGP versus non-AGP. Most of this classification depends on the use of high-speed devices and high-speed cutting. Although this document provides useful guidance, our results conclude
local SOPs categorise AGPs in 29 out of 38 responses. This highlights the importance of clarity.

Social distancing

Social distancing remains a key to reducing the risk of transmission of COVID-19. Most responses acknowledged plans for facilitating social distancing between patients (36 out of 38). The waiting room layout may need to be reorganised and unnecessary items removed. Individual departments may find reorganisation a challenge depending on departmental layout, staffing and spacing. It is important to consider patient and staff flow, the separation of hot and cold sites (if treating COVID-19 positive patients), infection control, and personal protective equipment (PPE). Zoning for procedure rooms and donning and doffing areas should be clearly demarcated. Examples of practice set up for urgent dental care is available as a guide and could be used to assist in OMFS practice set-up for elective LA procedures.

Risk assessment procedure planning

Most responses stated that patients were being screened and separated according to priority and as to whether they are will be AGP or non-AGP (31 out 38 responses).

With an increase in demand for elective services, this reorganisation and surgical prioritisation seems rational moving forward in the pandemic. Difficulty may arise in the surgical prioritisation of patients as it may be more subjective for elective surgery. Sieving through waiting lists may require extra resources and time to conduct the prioritisation. However, doing so should reduce the risk of harm to patients awaiting elective surgery. Consideration of medical history, risk of harm from disease progression, severity of symptoms and waiting list breach time should factor into the level of surgical prioritisation.

A total of 33 out of 38 responses stated that consideration and action was being taken when booking vulnerable patients for their procedures to avoid risk of contact with higher risk patients. Many of our patients will likely fall into a clinically vulnerable or extremely vulnerable group, as defined by Public Health England. Planning for these patients when they attend for elective procedures must be considered carefully. For example, vulnerable patients might be offered the first appointment of the day, and patient flow in to and out of the department may be managed to reduce their risk of exposure to COVID-19.

Establishing a probable AGP from a non-AGP in surgical planning of elective lists may also help with the utilisation of surgeries and improve the flow of patients and staff to other areas during a known fallow time.

In our survey, 30 out of 37 responses stated patients are being risk-assessed for COVID-19 by telephone, prior to attending procedure appointments (with one answer left blank), and 28 out of 38 responses stated taking the patient’s temperature on the day of procedure. Guidance for elective OMFS general anaesthetic procedures suggests a range of questions to establish a patient’s risk of having COVID-19. These include asking about prior COVID-19 testing and establishing symptoms, such as a new continuous cough or high temperature and loss of sense of taste or smell.

The need for patients to self-isolate prior to their elective local anaesthetic procedure remains unclear. Guidance for general anaesthetic states patients and others in the same household should be willing to self-isolate for 14 days preoperatively. Our survey found 17 out of 38 responses were asking their patients to self-isolate prior to their appointment, regardless of COVID-19 status. Of those, 14 ask patients to self-isolate for 14 days and two ask them to do so for seven days (1 answer was ambiguous; Fig. 2). Household members were asked to self-isolate in 11 responses. 12 responses stated that the new need for self-isolation has had an impact on the likelihood of patients accepting appointments, and therefore has an impact on the waiting list for elective LA procedures. 17 out of the overall 38 responses said they were not asking patients to self-isolate, and 4 did not know. These results highlight a disparity and split in practice between OMFS units.

Thirteen respondents answered “yes” when asked if patients are required to have a COVID-19 swab test prior to their appointment, with the remaining answering “no” or “unknown”. Similarly, this shows a split in practice among OMFS units.

Clear guidance is required as to whether it is necessary or practical to request patients and their household members to self-isolate or to have a COVID-19 swab test preoperatively for an elective procedure which in most cases may only be a short procedure. Taking a patient’s temperature on the day seems more practical, however does not guarantee clarity in a patient’s COVID-19 status due to asymptomatic infection.

Staff training and days of service

Our survey asked participants about whether any additional staff training had been implemented for recommencing LA elective procedures. Twenty-one out of 38 responses confirmed that extra training was in place during the recovery phase. Many departmental changes will occur in light of COVID-19, including changes to departmental layout and flow, patient and staff risk assessment, PPE, and infection control. Staff turnover and redeployment may also mean certain staff members are unfamiliar with the day-to-day running of the department or aware of the local SOP. Extra staff training would facilitate any transitions of practice, improve the utilisation of the department and improve the safety of patients and staff.

Our survey also asked if OMFS units were increasing their days of service to accommodate increased waiting list times. The majority of responses (31/38) indicated that units are not currently planning to increase service days. NHS England and local data have shown a decrease in secondary care referrals, indicating a probable backlog in referrals to
the service. Departments should anticipate a subsequent increase in demand on the service as general dental practitioners return to service and referral numbers increase. Referrals may surpass past pre-COVID levels, as dental conditions have gone untreated during the months where primary care was not available.

Fallow time between AGP and non-AGPs

The number of air changes per hour will determine the required fallow time between procedures. Factors such as room size, ventilation, and air filtration can have an effect, but consideration of a patient’s COVID-19 status and if an AGP is performed will determine if this time for air change is necessary. Limited evidence is acknowledged in guidance relating to this. Our survey identified large variation in fallow times between non-AGPs, with responses ranging from 0 minutes to 60 minutes. Similarly, there was large variation in fallow time between AGPs, ranging from 10 to 60 minutes (Table 1). Two participants in the survey had stated the same fallow time for non-AGPs and AGPs (10 minutes and 45 minutes). Respondents stated that the ventilation of the room influenced the time allocated for an air change.

Further research is ongoing in this area, particular in AGPs in dentistry, which may lead to more consistent air change practice in the future.

Conclusion

This survey highlights the areas of common and inconsistent practice in the recommencing of OMFS elective LA procedures. Our findings show there are some areas of divergent practice in preoperative risk management and self-isolation as well as fallow time between patients for AGPs and non-AGPs. This may be due to variations in available guidance, some of which may not be directly relatable to the specialty or for departmental use and LA procedures. It is challenging to keep up to date with the latest evidence, guidance and best practice in these highly uncertain and rapidly changing circumstances. The results of this survey suggest that a national SOP on the return of OMFS elective LA procedures in OMFS would help to standardise practice across units.

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patients’ permission

Not applicable.

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