

Scottish Dental Clinical Effectiveness Programme (SDCEP)

Aerosol Generating Procedures in Dental Practice Rapid Review

Scope and terms of reference of the working group

Version 2: 26 June 2020

A rapid review of the evidence related to the generation and mitigation of aerosols in dental practice and the associated risk of transmission of SARS-CoV-2.

Why this review is needed

Dental services have been severely curtailed during the COVID-19 pandemic. Safe remobilisation of dental services relies on addressing the great uncertainty that exists about the use of aerosol generating procedures and the associated risk of transmission of SARS-CoV-2.

What the review aims to do

The aims of this review are:

- to determine which dental procedures constitute aerosol generating procedures (AGPs)*;
- to determine what measures are likely to mitigate the risk of transmission of SARS-CoV-2 via dental AGPs;
- to inform procedures for environmental cleaning between patients following a dental AGP.

* Dental aerosol generating procedures (AGPs) are defined as any dental procedure that results in the production of airborne particles (aerosols).

Aerosols contain two types of particle defined by their size:

- Droplets are larger and heavier particles (greater than 5µm). Droplets can travel up to 1 metre from the source and contaminate surfaces within that range.
- Droplet nuclei are smaller (1-5µm) and can stay airborne for long periods of time before landing and contaminating surfaces.

Questions the review will address

- a) Which dental procedures produce bioaerosols?
- b) Do different AGPs produce different levels of risk?
- c) What current mitigation procedures, alone or in combination and in addition to PPE, are most effective for reducing the risk associated with dental AGPs? To include:
 - i) Mouthwashes
 - ii) Rubber dam
 - iii) High volume suction
 - iv) Any other factors identified
- d) Following dental treatment using an AGP for COVID-19 and non-COVID-19 patients, how long should the 'fallow period' be before environmental cleaning and seeing the next patient?
- e) What environmental mitigation can reduce the 'fallow period' following an AGP?

Questions the review will not address

- Levels of personal protective equipment, which are determined by Public Health England/Health Protection Scotland for various healthcare settings and circumstances.
- The timing of reintroduction of AGPs in dental practice.
- The financial aspects of supporting practices throughout the period of reintroducing AGPs in dental practice.

Target groups

Patients who require dental care that might involve an aerosol generating procedure, including:

- A) those who are not currently suspected to be a possible or confirmed COVID-19 case (no symptoms, not living in a household with a symptomatic person, no positive swab test, not waiting for a test or test results). This includes patients who are at higher risk, though not necessarily shielding, or extremely high risk (shielding) of developing severe illness with coronavirus.
- B) those who have COVID-19 symptoms or who have swab-tested positive for COVID-19 or who have close contact with a COVID-19 case (i.e. in their household) and therefore should be self-isolating.

Members of the dental team involved in the provision of dental care that might involve an aerosol generating procedure.

Target users

The review will be of interest to everyone working in general dental practice, the public/community dental service, the hospital dental service, dental professionals in training and patients. The review will be particularly relevant to policy makers and those involved in dental education.

Method of working

- The project will be coordinated by SDCEP staff who will be responsible for establishing a working group, developmental editing, consultation and publication. Further information about SDCEP is provided at www.sdcep.org.uk.
- Literature searches, based on the questions to be addressed, will be conducted by Cochrane Oral Health (COH).
- Members of SDCEP and COH will constitute methodology team that will screen, appraise and summarise available evidence for consideration by the working group.
- The working group will comprise topic experts from across the UK (including medical virology and aerobiology), representatives of the general, public and hospital dental services and patients. The group will be chaired by Prof. Jeremy Bagg.
- Requirements of working group members will include:
 - applying professional experience and expertise;
 - representing the views of a wider group;
 - drawing on personal experience (e.g. a patient with a relevant condition, a carer);
 - sharing research experience and knowledge of the subject (e.g. caring for patients with a relevant condition, involvement in other relevant projects);
 - maintaining confidentiality throughout the review process and until the review is published.
- The working group will:
 - refine the scope including the key questions provided by the methodology team;

- receive and consider summarised evidence provided by the methodology team;
 - make considered judgements that may inform recommendations;
 - read and comment on drafts of the review and comments and suggestions received prior to publication;
 - approve the final version of the review for publication;
- A draft of the review will be circulated to a wider group of stakeholders, including specialist dental societies, for comment.
- Having considered the comments received from stakeholders, the review will be refined for publication.
- All contributors will be required to declare interests and any competing interests will be managed according to SDCEP's standard process (see www.sdcep.org.uk/about/get-involved-2/).

Format and usage

The review will be published and made freely available for use by other organisations to inform guidance on the use of aerosol generating procedures in dental practice.