IMPLICATIONS OF COVID-19 FOR THE SAFE MANAGEMENT OF GENERAL DENTAL PRACTICE

Synopsis
Objective

The objective of the guidance is to support the Dental Health Care Worker (DHCW) to take a risk and evidence-based approach to providing dental care with regard to the SARS-CoV-2 pandemic. It sets out minimum requirements, based on the perceived risks to ensure the safety of patients, dental personnel and the wider community. It aims to help you identify risks and mitigate them appropriately, and supports the development of specific strategies for your individual practice needs.

This guidance will result in significant changes to the way dentistry is delivered, and effective communication, planning and support will be vital to ensuring the dental team and patients’ confidence and safety.

This executive summary covers some key practical elements within the guidance, but it is recommended that you read the full guidance [click here].
This guidance has been divided into various steps of the patient journey to aid its adoption and utilisation as a framework to identify various risk areas.

**Objective:** To ensure patients are well informed and suitably prepared ahead of their visit to the dental practice, so that F2F / administrative contact and total time spent in the surgery is reduced.

**Objective:** Protection of patients and reception staff, for the period between patients entering the surgery and accessing the clinical area.

**Objective:** Protection of patients and staff due to closer proximity in the clinical surgery area resulting in potentially greater risk of virus transmission. Consideration during treatment falls into 3 main areas:
- PPE
- Procedural risk mitigation
- Decontamination

**Objective:** Ensure the safe exit of current patient and the protection of staff and all subsequent patients.
Objective: to ensure your patients are well informed and suitably prepared ahead of their visit to the dental practice, so that all face to face administrative contact and total time spent in the surgery is reduced.

- Up to date information should be available online and widely disseminated to patients
- Patient communication ahead of dental practice visit is vital
- Digital communication should be encouraged but other methods made readily available
- Administrative tasks should be undertaken ahead of the visit where possible and should include:
  - Triage questionnaire
  - COVID Screening
  - Medical history
  - Patient forms – FP17, estimate, consent
  - Information on payment
  - Information on protocols for safe entry into the building
- Review of digital technology should be considered with appropriate support and training put in place
- Entrance door signage at all alert levels and closed door policy for levels 3-5
- Patients advised to only bring essential items and where possible come alone
Objective: protection of patients and reception staff, for the period between patients entering the surgery and accessing the clinical area.

- Communicate arrangements and protocol for social distancing
- Minimise contamination of public areas by
  - Confirmation of satisfactory completion of pre-attendance screening on entry
  - Appropriate storage of any personal belongings
  - Ensure high level of hand hygiene adopted with the provision of antiseptic hand gel on entrance and exit
  - Clear signage / information displayed to support the patient journey
  - Minimise waiting times in common areas
  - Discourage use of toilet facilities

Adoption of high level of infection prevention and control (IPC)

- Protection of reception staff by social distancing, wearing of appropriate PPE, and or barrier screens
- Appointment times tailored to new ways of working
- Temporal and spatial zoning for all patients, with particular consideration given to care of vulnerable patients
- Ongoing training for all staff
Objective: protection of patients and staff due to closer proximity in the clinical surgery area resulting in potentially greater risk of virus transmission. Consideration during treatment falls into 3 main areas:

1. Personal protective equipment (PPE)
2. Procedural risk mitigation
3. Decontamination

- Aerosol Generated Exposure (AGE) is a potential risk within the dental surgery because it accounts for not only the mechanical aerosol produced by the procedure, but the natural aerosol/droplets from the patient from activities such as coughing, sneezing and respiratory secretions from breathing

- Aerosol Generated Exposure should be considered as high risk/low risk. Various factors may influence this risk including the length of the procedure, level of potential aerosol created, any patient factors and any mitigation measures used

- Standard PPE for low risk exposure as BASIC
- High risk exposure also require FFP2/FFP3/PAPR visor and gown
- Use of rubber dam, high volume aspiration with orifice diameter of ≥8mm and use of 4-handed dentistry are important mitigating measures
- Treatment involving high risk of Aerosol Generated Exposure should be avoided in windowless/non-opening windowed rooms unless additional mechanical ventilation is present
- Insufficient evidence for the use of pre-operative mouth rinses
- Standard IPC protocols apply
Exposure based, risk stratification for dental procedures

All dental visits will involve risk of exposure to aerosols and droplets, whether they be naturally occurring or produced by mechanical dental interventions. Unlike the term AGP, Aerosol Generated Exposure (AGE) includes the risk from all aerosolization, e.g. coughing and sneezing, not just those which are produced by dental procedures. Assessment of AGE enables an ‘exposure-based approach’ to defining risk and this guidance stratifies risk of AGE based on the following factors:

- Exposure to aerosols and droplets, which can arise from natural sources (coughing, sneezing, talking and respiratory function)
- Type of procedure
- Level of potential aerosol created
- Length of time of procedure
- Utilisation of mitigating factors e.g. high volume aspiration and / or using rubber dam

Table 1: Specific mitigating measures in the context of COVID-19 alert levels

<table>
<thead>
<tr>
<th>COVID-19 ALERT LEVELS 3 – 5</th>
<th>High alert level 3 – 5 / high AGE risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>FFP2 / FFP3 visor, gown</td>
</tr>
<tr>
<td>Conditional</td>
<td>Consider inclusion of head and shoe covers and / or PAPR (failed Fit Test) where deemed appropriate following risk assessment in view of procedural and personal risk (BAME / sex / age / pregnancy / pre-existing co-morbidities)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COVID-19 ALERT LEVELS 3 - 5</th>
<th>High alert levels 3 – 5 / low AGE risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Fluid resistant surgical mask (FRSM), visor, apron (if the risk assessment allows)</td>
</tr>
<tr>
<td>Conditional</td>
<td>Consider inclusion of head and shoe covers and / or PAPR (failed Fit Test) where deemed appropriate following risk assessment in view of procedural and personal risk (BAME / sex / age / pregnancy / pre-existing co-morbidities)</td>
</tr>
<tr>
<td></td>
<td>• Rubber dam should be employed where clinically appropriate and practical.</td>
</tr>
<tr>
<td></td>
<td>• Operator team trained and efficient in four handed dentistry to enhance the effectiveness of HVA. Use of HVA with minimum 8mm orifice aspirator.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COVID-19 ALERT LEVELS 1 – 2</th>
<th>Low alert level 1 – 2 / high or low AGE risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>FRSM, appropriate eye protection</td>
</tr>
<tr>
<td>Conditional</td>
<td>FRSM, visor, apron if deemed appropriate in view of risk to operator/nurse (i.e. BAME / age / sex / pregnancy / pre-existing co-morbidities)</td>
</tr>
</tbody>
</table>

Gloves are recommended for all procedures.

All FFP2 / FFP3 masks should be appropriately Fit tested. Where Fit test fails PAPR can be used. Consider the use of power hood respirators and reusable FFP2 / FFP3 / PAPR where feasible to reduce the environmental impact of waste and religious / cultural considerations (beards / head wear) when choosing their PPE.

DHCWs who feel they may be high risk for having more adverse consequences of a COVID-19 infection should conduct a detailed risk assessment with their medical practitioner and evaluate their suitability for patient facing duties (BAME, sex, pregnancy, co-morbidities, age).

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**Objective:**

Protection of patients and staff due to closer proximity in the clinical surgery area resulting in potentially greater risk of virus transmission. Consideration during treatment falls into 4 main areas:

- PPE
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- Medical Emergencies

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**Table 2: Risk stratification for Aerosol Generated Exposures (AGEs)**

<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>LOW RISK (aerosol exposure)</th>
<th>HIGH RISK (aerosol exposure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral hygiene instruction</td>
<td>Maintaining social distance or wearing PPE</td>
<td>X</td>
</tr>
<tr>
<td>Tooth Polishing</td>
<td>Minimal use of prophy paste / reduced speed revolutions / tooth isolation / high volume suction. Avoid if possible at high alert levels, due to risk of splatter</td>
<td>Avoid tooth polishing if unable to mitigate risk of splatter, during high alert levels, unless already using enhanced PPE.</td>
</tr>
<tr>
<td>Extra-oral radiography / CBCT</td>
<td>Maintaining social distance or wearing PPE</td>
<td>X</td>
</tr>
<tr>
<td>Intra-oral radiography (Risk assess the need in relation to COVID-19)</td>
<td>Those without a cough reflex / adult, well tolerated only</td>
<td>Poorly tolerated (e.g. cough reflex or paediatric pts)</td>
</tr>
<tr>
<td>Dental photography</td>
<td>Extra oral. Intra oral (if unlikely to trigger cough reflex)</td>
<td>Intra oral (if likely to trigger cough reflex)</td>
</tr>
<tr>
<td>Clinical examination</td>
<td>Avoiding 3-in-1 syringe</td>
<td>With 3-in-1 syringe</td>
</tr>
<tr>
<td>Direct restoration of a tooth</td>
<td>Provisional restoration without use of high-speed handpieces but with appropriate isolation 3-in-1 syringe – irrigation function only followed by low pressure air flow</td>
<td>Definitive restoration if using high-speed handpieces (rubber dam and high-volume aspiration should be used to mitigate risk)</td>
</tr>
<tr>
<td>(Re) cementation crown or bridge</td>
<td>Provisional (re) cementation without use of powered instruments but with appropriate isolation 3-in-1 syringe – irrigation function only followed by low pressure air flow</td>
<td>Definitive cementation</td>
</tr>
<tr>
<td>Removable prosthodontics</td>
<td>When well tolerated for all stages</td>
<td>When poorly tolerated for all stages</td>
</tr>
<tr>
<td>Adjustment and repair of removable prosthesis</td>
<td>With disinfection of prosthesis and use of appropriate PPE</td>
<td>X</td>
</tr>
<tr>
<td>Extraction of tooth</td>
<td>Non-surgical extraction</td>
<td>Surgical extraction involving bone removal / sectioning</td>
</tr>
<tr>
<td>Restoration or repair of implant retained prosthesis</td>
<td>Restoration or repair NOT requiring high-speed handpieces</td>
<td>Restoration or repair requiring high-speed handpieces</td>
</tr>
<tr>
<td>Surgical implant placement</td>
<td>X</td>
<td>Avoid complex surgery (especially involving the maxillary sinus) during high alert levels.</td>
</tr>
<tr>
<td>Endodontic procedures</td>
<td>Simple access to carious broken tooth with hand excavation and dressing</td>
<td>Rubber dam isolation and high-volume suction</td>
</tr>
<tr>
<td>Periodontal procedures</td>
<td>Periodontal debridement with hand instruments using high volume aspiration</td>
<td>Using ultrasonic scalers</td>
</tr>
<tr>
<td>Fissure sealants</td>
<td>Fissure sealants where the tooth can be adequately isolated and adequate moisture control is obtained</td>
<td>X</td>
</tr>
<tr>
<td>Minimally invasive restoration</td>
<td>Avoiding use of high-speed handpieces, rubber dam placed, 3-in-1 syringe – irrigation function only followed by low pressure air flow</td>
<td>X</td>
</tr>
</tbody>
</table>

This should not be considered a comprehensive list but is simply included for illustrative purposes. High risk of AGE should be avoided during a high alert level (4-5) where possible. The 3-in-1 should be used with caution and combined use of air and water avoided. Treatment offered should be based on risk assessment of patient, operator, time and difficulty of procedure.
After treatment

Objective: ensure the safe exit of current patient and the protection of staff and all subsequent patients.

- Standard HTM 01-05 decontamination procedures should be followed
- Standard infection prevention and control for low risk of Aerosol Generated Exposure
- High risk of Aerosol Generated Exposure requires appropriate doffing, with mask retained and removed outside the surgery
- 60 minute fallow period based on PHE Guidance
- Fallow period based on a room with 6 air changes / hour. Mitigating measures may be implemented to reduce fallow time by increasing the air changes per hour
- Any reduction in fallow period should be based on a risk assessment supported by guidance and justification documented in the patient record
- Floor cleaning should be ideally undertaken after each high-risk Aerosol Generated Exposure. For low risk of Aerosol Generated Exposure standard infection prevention and control protocols apply
- No paper records should be retained in the surgery during high risk of AGE or during the fallow period
- Scrubs must not be worn outside the practice. They should be changed daily and washed at the highest possible temperature in a reduced load wash to ensure maximal dilution. “The solution to pollution is dilution”
Management

Objective: have systems, support and protocols in place to ensure the safety of all staff, patients and visitors. These should be reviewed and adjusted in line with risk assessment and alert levels

- Protocols reviewed regularly and reflect the level of risk
- Identify members of staff to fulfil specific duties:
  - Management / governance lead
  - Health and wellbeing lead
- Facilities prepared to support social distancing with appropriate signage / demarcation
- Risk assessment of staff prior to recommencement of work
- Locum staff to be assessed prior to attendance and aware of local protocols
- Access to occupational health support available for staff with clear guidance for staff on sickness reporting
- Appropriate training in place, including medical emergencies in line with Resuscitation Council (UK) guidance
- Stock control reviewed and ensure appropriate PPE available
- All premises areas to be kept clean, tidy and free of waste at all times
- Clinical and non-clinical waste sealed and disposed of in appropriate colour coded bags. Hand hygiene must be performed after waste disposal
- All IT equipment e.g. phones, keyboards, mice etc to be cleaned after each use
- Create local protocol for interaction with external visitors e.g. delivery drivers, engineers etc
- Face coverings should be worn where indicated by government guidance.
**AFTER TREATMENT**

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**PRE-APPOINTMENT PATIENT ATTENDANCE**

In order to help you adopt this guidance as framework to help identify risk areas in your routine and specific work environment, it has been divided into the various steps of the patient journey:

**Management / Governance Tasks**

Risk assessment of clinically vulnerable patients

<table>
<thead>
<tr>
<th>People at high risk (clinically extremely vulnerable)</th>
<th>People at moderate risk (clinically vulnerable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have had an organ transplant</td>
<td>Age 70 and over</td>
</tr>
<tr>
<td>Having chemotherapy or antibody treatment for cancer including immunotherapy</td>
<td>Are pregnant</td>
</tr>
<tr>
<td>Having intensive course of radiotherapy (radical) for lung cancer</td>
<td>Have a lung condition that’s not severe (e.g. asthma, COPD, emphysema or bronchitis)</td>
</tr>
<tr>
<td>Having targeted cancer treatments that can affect the immune system (e.g. protein kinase inhibitors or PARP inhibitors)</td>
<td>Have heart disease (e.g. heart failure)</td>
</tr>
<tr>
<td>Have blood or bone marrow cancer</td>
<td>Have diabetes</td>
</tr>
<tr>
<td>Have had a bone marrow or stem cell transplant in past 6 months or are still taking immunosuppressant medicine</td>
<td>Have chronic kidney disease</td>
</tr>
<tr>
<td>Been told by doctor they have severe lung condition (e.g. cystic fibrosis, severe asthma or severe COPD)</td>
<td>Have liver disease (e.g. hepatitis)</td>
</tr>
<tr>
<td>Have condition that means they have a very high risk of getting infections (e.g. SCID or sickle cell)</td>
<td>Have a condition affecting the brain or nerves (e.g. Parkinson’s disease, motor neurone disease, multiple sclerosis or cerebral palsy)</td>
</tr>
<tr>
<td>Are taking medicines that make them more likely to get infections e.g. high dose steroid or immunosuppressant medicine</td>
<td>Have a condition that means that they are at high risk of getting infections</td>
</tr>
<tr>
<td>Have a serious heart condition and are pregnant</td>
<td>Are taking medicine that can affect the immune system (e.g. low dose steroids)</td>
</tr>
<tr>
<td></td>
<td>Are very obese (BMI of 40 or above)</td>
</tr>
</tbody>
</table>