Singleton Dental Practice

Standard Operating Protocols Suite

7th June 2020

Contents

1. Scope

This guidance is applicable to all staff and service users of Singleton Dental Practice.

We trust all our healthcare professionals to use their clinical judgement when applying this guidance around patient management in what we appreciate is a highly challenging and rapidly changing environment, especially since the advent of the covid 19 pandemic.

2. Guidance for dental professionals

2.1 Introduction

In March of 2020 the Chief Dental Officer of England advised that all routine dental care should cease in an effort to help control the spread of coronavirus in the population. Whilst many dental practices in the UK closed completely Singleton Dental remained open to care for patients with a reduced range of service focussing solely on emergency and urgent dental care. During the period of government lockdown Singleton Dental was instrumental in keeping people safe from infection and free from pain and discomfort. From 8 June 2020 Singleton dental will expand its range of service and treatments (both routine and urgent) for appropriate patient groups. This includes delivery of both AGP and non-AGP procedures. All care must be delivered in accordance with the infection prevention and control and PPE requirements set out at Appendix 3.

While this will re-introduce significant dental activity to our primary care dental service there may still be pandemic related limitations and challenges (eg PPE availability, staffing issues). Therefore, there may is still a requirement for support from government and the local area team to enable this expanded level of service provision.

Singleton Dental will deliver:

• a clear local message for the public, that advises what to do if people have a dental problem, both in and out of hours.

• remote consultation and triage that includes:

1. risk assessment and triage of the patient
2. this may also include advice, analgesia or antimicrobials where appropriate in line with prescribing guidelines (AAA), or

3. the arrangement of a face-to-face consultation and/or treatment by our dental surgeons and nursing staff if appropriate or by referral to a place of secondary care.

This remote stage will specifically identify those patients who are confirmed or suspected COVID-19 patients or their household contacts, those who are shielded (individuals at the highest risk of severe illness from COVID-19) and patients at increased risk, in order to inform decisions on the most appropriate route and approach for the delivery of face-to-face care if required.

• face-to-face consultation and treatment that will only be provided following the remote risk assessment and triage of the patient by our dental surgeons or nurses within their scope of practice.

Our urgent dental care service will wherever possible, deliver face-to-face urgent care (non-AGP and AGP where the appropriate PPE is available and subject to capacity) for the appropriate patient groups. All other urgent care (including for patients with possible/confirmed COVID-19 and household contacts, when care cannot be delayed) will be referred to a secondary care site.

All services must be delivered using the appropriate personal protective equipment (PPE) for the clinical procedures (AGP and/or non-AGP) to be carried out.

Face-to-face assessment and/or treatment will be delivered in a way that allows appropriate separation (through physical or temporal measures, eg zones, sessions/appointment times) and treatment of all patients. The following patient groups should be considered:

1. Patients who are possible or confirmed COVID-19 patients – including patients who meet the case definition, or those living in their household:

    These patients will be referred to a secondary designated provider sites to reduce the risk of coronavirus from entering the Singleton Dental main UDC site.

2. Patients who are shielded - those at the highest risk of severe illness from COVID-19:

    Significant efforts should be made to ensure that shielded patients in particular are separated from other patient groups. This approach to care should be aligned with local systems and protocols to support shielded patients, eg some shielded patients may require domiciliary care or referral to a Singleton designated shielded UDC site. See Appendix 1 for further information.

3. Patients who are at increased risk of severe illness from COVID-19.

4. Patients who do not fit one of the above categories.

Similarly, consideration should be given to the type of urgent dental care to be provided (AGP or non AGP – see Appendix 3) which will determine the PPE requirements.

- Level 2 PPE is required for non-AGPs.
- Level 3 PPE is required for AGPs

When delivering care, aerosol generating procedures should be avoided if possible.

The range of conditions urgent conditions provided for by Singleton Dental is likely to include, but is not limited to:

- life-threatening emergencies, eg airway obstruction or breathing/swallowing difficulties due to facial swelling.
- trauma including facial/oral laceration and/or dentoalveolar injuries, for example avulsion of a permanent tooth.
- oro-facial swelling that is significant and worsening post-extraction.
- bleeding that the patient cannot control with local measures.
- dental conditions that have resulted in acute and severe systemic illness.
- severe dental and facial pain: that is, pain that cannot be controlled by the patient following self-help advice.
- fractured teeth or tooth with pulpal exposure.
- dental and soft tissue infections without a systemic effect
- suspected oral / health and neck cancer (for referral via the 2 week suspected cancer referral pathway)
- oro-dental conditions that are likely to exacerbate systemic medical conditions.

Urgent dental problems have previously been organised into three categories of need based on level of urgency, as defined by the Scottish Dental Clinical Effectiveness Programme (SDCEP, 2007). Singleton Dental will from 8th June also provide a wider range of dental problems including those which may be considered less urgent.

Each patient will be assessed and managed on their own merit, taking into account the patient's best interests, professional judgement, and the prioritisation of the most urgent care needs.

2.2 Key principles for Singleton Dental provision of urgent dental care

This guidance and SOP recognises the resumption of face-to-face care for appropriate patient groups in the expansion of our services.

• Singleton Dental will communicate where necessary with other providers of primary, secondary and social care, co-ordinated across the wider regional and local COVID-19 response and recovery arrangements.

• We will operate using and adapting existing UDC arrangements within the existing local integrated urgent care system to assist Singleton Dental in caring for our patients

• We will manage referrals effectively between primary and secondary care; secondary care settings will be particularly affected during expected COVID-19 surges and this will have implications for certain areas of urgent provision, eg A&E, oral and maxillofacial surgery, two-week urgent cancer pathways.

• Our patient pathway will comprise of two stages, a remote stage and a face-to-face stage if necessary, as set out in the standard operating procedures (SOPs) in Section 3 below. The pathway is illustrated in Appendix 2.

• Both stages may be undertaken by any dental surgeon with assistance from nursing staff as appropriate. As detailed in section 3, once remote risk assessment and dental triage are complete, the professional judgement of the clinician will determine whether the patient continues to be managed remotely or face-to-face.

• In meeting patient needs, all primary care dental services are now able to provide face-to-face urgent care for appropriate patient groups (subject to capacity and availability of appropriate PPE) as part of the wider UDC system.

• During periods of sustained community transmission of COVID-19, our dental team should use PPE to treat patients based on the type of urgent care they are providing, as set out in Appendix 3.

• Major regulators have issued guidance to support healthcare professionals in these challenging circumstances, encouraging partnership working, flexibility and operating in line with the best available guidance.

• Further information about regulation during the COVID-19 pandemic from the General Dental Council and General Medical Council can be found on their websites.

• COVID-19 information governance advice for health and care professionals can sourced through the gov.uk website.

• A government life assurance scheme launched for eligible frontline health and care workers during the COVID-19 pandemic covers frontline workers within dental services, including dentists, dental nurses, dental hygienists and dental therapists. Details on this may be found on the gov.uk website. Singleton Dental is in no way connected with the provision of this scheme.

• Dental teams may consider referring vulnerable patients to NHS Volunteer Responders where appropriate (see guidance on the Royal Voluntary Service website here), who can be asked to help people needing additional support (eg delivering medicines; driving patients to appointments).

• Dental teams can make referrals via the NHS Volunteer Responders referrers' portal or by calling 0808 196 3382.

• Patients can also self-refer by calling 0808 196 3646 between 8am and 8pm.

3. COVID-19: standard operating procedure for Singleton Dental Urgent Dental Care Site

Our patient pathway for Singleton Dental's UDC consists of two broad stages – remote management and face-to-face management (see Appendix 2)

The initial remote stage is important, particularly to identify possible/confirmed cases (and household contacts) and patients who are shielded or at increased risk, to ensure safe care. In addition, this stage helps with preventing inappropriate attendance, supporting appointment planning, and maintaining social distancing and patient separation. As detailed in section 3.1, once remote risk assessment and dental triage are complete, the professional judgement of the clinician will determine whether the patient continues to be managed remotely or face-to-face.

Therefore, this standard operating procedure has been divided as follows:

1. SOP for remote management stage

2. SOP for face-to-face management stage

For each SOP, key principles are listed, with further details set out beneath.

As well as following these SOPs, dental staff should also ensure they are undertaking the actions expected of all dental services as detailed at Appendix 4.

3.1 SOP for remote management stage

3.1.1 Key principles

1. Our dental team will be aware of this SOP, the current national and local COVID19 guidance (including approaches for managing shielded patients and patients at increased risk – see Appendix 1) and the possible COVID-19 case definition.

2. Keep staff safe through regular risk assessments, following guidance for employers and businesses, and through the measures set out in the 'Keeping staff safe' section of Appendix 4.

• Further information on risk assessment is available through gov.uk, Denplan and BDA websites.

3. We will use information and communications (eg telephone, website, text) to outline the appropriate access arrangements for patients.

4. Remotely (eg by telephone or video link) risk assess and triage those patients contacting the service for urgent dental care, to determine patient group (as per Section 2.1), urgency of dental problem and associated UDC needs.

5. Use clinical judgement to determine whether patient management should continue remotely or face-to-face, based on risk assessment and triage outcomes.

Details on remote patient management and the arrangement of appropriate face to-face care are in section 3.1.1.4.

3.1.1.1 Service information and communications

Effective communications to patients at an early stage should reduce the number of patients contacting the our service inappropriately. Different communications routes will be considered (eg telephone, text, website).

We will display/provide the appropriate information to:

• Prevent patients with possible/confirmed COVID-19 or household contacts entering sites inappropriately

• Signpost and support patients who may turn up without having undergone remote risk assessment and triage, and/or without having an appointment booked.

• Control entry to specific sites and areas, in line with care requirements

• Signpost and support patients who may turn up to closed premises

3.1.1.2 Risk assessment

Patient risk assessment should be conducted remotely (eg telephone, video link) to determine:

• which patient group the patient belongs to

• the associated risk to the patient if they were to contract COVID-19

• whether the patient has COVID-19 related isolation requirements.

This information, together with the degree of urgency of the patient's dental condition (see dental triage, Section 3.1.1.3), will be important in determining the patient management approach.

As part of risk assessment, COVID-19 screening questions should be asked in line with the case definition for possible COVID-19 and isolation requirements.

• Do you or anyone in your household have COVID-19?

• Do you have a new, continuous cough?

• Do you have a high temperature (37.8oC or over)?

• Do you have a loss of, or change in, your normal sense of taste or smell?

• Does anyone in your household have a new, continuous cough, or a high temperature, or a loss of, or change in, their normal sense of taste of smell?

• If you or anyone in your household has, or has had, possible or confirmed COVID-19, are you still in the self/household isolation period?

If the patient answers yes to any of the above, then they belong to the group of patients who are possible or confirmed COVID-19 patients.

If the patient answers no to all of the above, continue risk assessment to determine which patient group they belong to:

• patients who are shielded – those at the highest risk of severe illness from COVID-19

• patients who are at increased risk of severe illness from COVID-19

• patients who do not fit one of the above categories

Patients who are in the shielded group will usually have been informed of their shielded status by their GP. Please note that the cohort of shielded patients will change over the course of the pandemic, based on new diagnoses and/or disease progression and management. Therefore, where necessary, contact the patient's GP or hospital specialist to provide further information on their shielded status.

Patients' records and taking a good medical and social history will identify those at increased risk of severe illness.

In cases where remote management is not possible, consideration should also be given to risk assessing persons who may be accompanying the patient to a face-to-face appointment (eg the parent or carer of a child patient). Patient escorts should be from the same household as the patient as far as possible.

3.1.1.3 Dental triage

Dental triage should be conducted remotely (eg telephone, video link) to determine:

• if the patient has a need for routine non-urgent care (including orthodontics), which should be dealt with outside of urgent care provision

• if urgent dental care needs can be managed remotely (eg patient requires advice only)

• if face-to-face management is required, the most appropriate place and time for the patient to be seen for face-to-face care (in line with patient group and care requirements)

• prioritisation of patients with the most urgent care needs.

The Scottish Dental Clinical Effectiveness Programme (SDCEP) has developed guidance around triage for acute dental problems during the COVID-19 pandemic.

3.1.1.4 Remote patient management

• Each patient should be assessed and managed on their own merit, taking into account their best interests, professional judgement, local UDC arrangements and the prioritisation of the most urgent care needs.

• Based on risk assessment and triage outcomes, use clinical judgement to determine whether care should continue remotely or face-to-face.

• For remote care:

1. Provide advice, analgesia or antimicrobials where appropriate in line with prescribing guidelines (AAA)
2. Further information on remote prescribing protocol can be found at Appendix 5.
3. The Faculty of General Dental Practice (UK) has provided updated information and guidance on remote prescribing and advice during the COVID-19 pandemic.
4. The GDC has set out guidance for remote consultations and prescribing.
5. The dental antimicrobial stewardship toolkit
6. SDCEP guidance on drugs for the management of dental problems during the COVID-19 pandemic.
7. Following initial concerns around the use of ibuprofen in the context of COVID19, the government has published advice here. An expert working group has concluded there is currently insufficient evidence to establish a link between use of ibuprofen and susceptibility to contracting COVID-19 or the worsening of its symptoms.
8. Where face-to-face clinical assessment and/or treatment is required, arrange care at an appropriate time.
9. If the patients needs are considered to be of a routine nature then refer to the standard operating protocol for routine care outlined in section 4 of this document suite.

• For any remote care provided, or face-to-face care arranged, where applicable manage shielded patients and patients at increased risk in line with local approaches and arrangements for these groups (see Appendix 1).

• Shielded patients' lead care co-ordinator will be designated as their registered dental surgeon to support care planning. Where necessary dentists should contact the patient's GP or medical specialist to assist in the plan of care for this group.

• Clinical records should be kept for remote patient consultation. • The Compass e-triage data collection tool should be completed for telephone triage activity. Further advice is available on the NHS BSA website.

• FP17 forms should not be submitted for telephone triage, as per advice given on 15 April 2020

3.2 SOP for face-to-face management stage

Services receiving patients to provide face-to-face care are expected to have also followed the SOP outlined in Section 3.1, to minimise cross-infection risk and ensure safe face-to-face care is undertaken at an appropriate care setting.

3.2.1 Key principles

1. Ensure the SOP as outlined in Section 3.1 has been followed, to promote remote risk assessment and triage, ensure patients can be cared for in a setting appropriate for their specific urgent care requirements, and reduce exposure risk.

2. Dental teams should be aware of this SOP, the current national and local COVID-19 guidance (including approaches for managing shielded patients and patients at increased risk – see Appendix 1) and the possible COVID-19 case definition.

3. Keep staff safe through regular risk assessments, following guidance for employers and businesses, and through the measures set out in the 'keeping staff safe' section of Appendix 4.

Further information on risk assessment is available through:

- NHS Employers: risk assessments for staff
- Risk reduction framework for NHS staff at risk of COVID-19 infection

Resources for staff support and wellbeing are at Appendix 7.

4. Where appropriate, repeat risk assessment and dental triage when the patient arrives at the service (in line with sections 3.1.1.2 and 3.1.1.3) in case there are changes, the patient is unaware of their risk status, or the patient has accessed a service inappropriately.

When accepting patients, providers should have regard to the patient group, the likely procedure required and the availability of appropriate PPE.

5. When face-to-face assessment and/or treatment is undertaken:

- Each patient should be assessed and managed on their own merit, taking into account the patient's best interests, professional judgement, local UDC arrangements and the prioritisation of the most urgent care needs.

• Manage the patient's condition with as little intervention as possible to minimise exposure risk.

• If treatment is required, all equipment and materials for treatment should be assembled in surgery before beginning.

• Aerosol generating procedures should be avoided if possible. Where necessary they should only be undertaken at a dental service (primary care dental setting or designated UDC provider site) where level 3 PPE is available.

• If an aerosol generating procedure is necessary, the use of high power suction and rubber dam is recommended where possible.

• Treatment should be completed in one visit wherever possible.

• Follow guidance and local approaches and arrangements for the management of patients who are shielded or at increased risk (see Appendix 1).

Dental care for shielded groups could be managed through domiciliary visits as far as possible, unless this is clinically inappropriate. Dental teams should organise domiciliary visits collaboratively through the patient's lead co-ordinator and with other health and social care teams, using a multi-disciplinary approach to promote holistic care, minimise exposure risk and maximise efficiency in care provision.

• Where domiciliary visits are necessary, these should be appropriately risk assessed and managed.

• Normal Denplan, Private and FP17 type charges should be made for each patient seen in the usual way. Normal patient charging regimes apply.

6. Use robust infection prevention and control procedures in line with government advice (see gov.uk website)

7. Follow PPE protocols in line with government advice summarised in Section 2.2, with further detail at Appendix 3.

8. Prepare for incident management.

PHE has provided COVID-19 guidance for first responders, including information on PPE, cardiopulmonary resuscitation (CPR), providing assistance to unwell individuals and cleaning. First responders include professionals who, as part of their normal roles, provide immediate assistance requiring first contact until further medical assistance arrives.

In line with this guidance, with regards to CPR, chest compressions and defibrillation (as part of resuscitation) are not considered AGPs (see further information here). Therefore, dental staff can commence chest compressions and defibrillation without the need for AGP PPE while awaiting the arrival of other clinicians to undertake airway manoeuvres.

- The Resuscitation Council UK provides an infographic to support CPR protocol in primary care –

- Further detail on preparation for incident management for unwell patients with possible/confirmed COVID-19 is provided at Appendix 6.

3.2.1.1 Patient management: social distancing and separation

- Although it is recognised that dental treatment will require closer contact, social distancing measures should be applied as far as possible throughout the service.
- For all patients, physical (eg separate waiting areas and treatment rooms) and temporal (eg appropriately spaced appointments, sessions for specific patient groups) separation measures should be employed.
- Consideration should be given to both patient group and the type of treatment undertaken (ie increased risk associated with aerosol generating procedures means there are additional PPE and decontamination requirements).
- Appropriate zoning must be adhered to. Sites, areas and facilities are demarcated clearly.
- Additional physical and temporal separation measures should be taken for shielded groups or groups at increased risk where possible, for example:
- The local care delivery protocols for these groups should be followed, noting these patients (especially those shielded) should not come into contact with others unless absolutely necessary.
- These patients could be seen in the morning only, allowing maximum time for air clearance/ventilation overnight.
- Practical considerations for the dental service are advised as follows:
- Patient escorts should only be allowed where absolutely necessary (eg child attending with parent). As far as possible, one escort only should be allowed per patient, and this escort should be from the patient's household to minimise exposure risk.

Consideration should be given to capacity and consent, and how these can be managed appropriately in a way that minimises contact risk. For example, for child patients, if a person with parental responsibility cannot accompany the child due to social isolation, the child could be brought by a responsible adult from their household and the person with parental responsibility contacted by telephone by the dental team.

As far as possible, patients (with necessary escorts only) should not enter the building until the time of their appointment or until a member of staff advises them to do so. For example, they could wait in their vehicle or in a suitable area outside the dental practice.

Patient flow:

1. Minimise the number of patients within the dental service at any one time
2. Minimise potential for patient-patient contact within the dental service, eg in reception areas and waiting rooms
3. Plan and design patient flow throughout the practice – floor markings will facilitate this
4. Consider escorting patients directly into the surgery to avoid waiting in the practice
5. Health Education England, Yorkshire and Humber have created a video which describes the patient care pathway and practice setup for Urgent Dental Care in Yorkshire and Humber during COVID-19. It shares examples of good practice following current guidance and may be of use to support dental services elsewhere in England.

- At the appropriate entry and exit point, all visitors to the dental service should be told to wash their hands or use hand sanitiser, and the appropriate hand hygiene agents made available.
- The number of patients and staff in the waiting room, reception and communal areas should be minimised as far as possible.

• Waiting rooms, reception and communal areas should allow for 2 metre separation, ideally marked on chairs and flooring.

• If staff in reception and communal areas are unable to maintain 2 metre separation with the public, they should wear a fluid-resistant surgical mask for a session.

• As far as possible, keep areas appropriately ventilated, eg opening windows.

Reception:

• face-to-face payment and appointment bookings should be minimised, with consideration given to telephone and online methods

• card payment machines and any tablets for patient use should be cleaned and disinfected after each use.

Staff working arrangements:

• As few staff as possible should be allocated to see patients, particularly those shielded, to minimise contacts without compromising the safe delivery of care.

• Similarly, where possible, staff should work with a limited group of colleagues to minimise contact between individuals or different teams, and, if required, facilitate contact tracing and tracking.

Toilet facilities:

• Control access to toilets. Patients should request access so that environmental cleaning (including handles) can be performed after each use.

• Close the toilet lid when flushing to reduce risk.

• Paper towels for hand drying.

• Waste bins should be provided lined with foot-operated or automated opening.

• When not in use, the toilet door should always be kept closed.

• Signage should be placed to promote good hand hygiene.

Use signage to support social distancing, good hand hygiene and good infection prevention and control practice throughout the service (including clinical and nonclinical areas, toilet facilities and entry and exit points).

3.2.1.2 Patient management: clinical approaches

Further information on remote prescribing protocol can be found at Appendix 5.

Follow SDCEP guidance on drugs for the management of dental problems during the COVID-19 pandemic.

Follow advice from PHE, RCS England, FGDP (UK) and the BDA on prescribing antibiotics for urgent dental care during sustained transmission of COVID-19

Following initial concerns around the use of ibuprofen in the context of COVID-19, the government has published advice here. An expert working group has concluded there is currently insufficient evidence to establish a link between use of ibuprofen and susceptibility to contracting COVID-19 or the worsening of its symptoms.

NHS England has been working with the Faculty of Dental Surgery at the Royal College of Surgeons to develop pragmatic clinical guidance for different specialty areas of dentistry which is applicable to dental teams working in UDC systems in the COVID-19 pandemic. This information is available online.

3.2.1.3 Infection prevention and control and PPE

Follow robust COVID-19 infection control procedures, as set out in government guidance for pandemic coronavirus here. This includes information on PPE, decontamination and waste.

Key points from this guidance, as they apply in a UDC context, have been summarised at Appendix 3. This includes detail around PPE requirements based on the type of urgent care being provided (aerosol generating or non-aerosol generating procedure).

4. SOP for Expansion to routine Dental Care

For patients being considered for provision of routine dental care it is expected that triage through remote care will be followed through the standard operating protocol for remote care outlined in Section 3.1. This is to prioritise patients and to minimise cross-infection risk, ensuring safe and appropriate face-to-face care.

4.1 Key principles

1. Ensure the SOP as outlined in Section 3.1 has been followed, to promote remote risk assessment and triage, ensure patients can be cared for in a setting appropriate for their specific requirements, and reduce exposure risk.

2. Dental teams should be aware of this SOP, the current national and local COVID-19 guidance (including approaches for managing shielded patients and patients at increased risk – see Appendix 1) and the possible COVID-19 case definition.

3. Keep staff safe through regular risk assessments, following guidance for employers and businesses, and through the measures set out in the 'keeping staff safe' section of Appendix 4.

4. If treatment is planned:

- Care planning should focus on achieving stabilisation
- Keep intervention to a minimum, to reduce exposure risk
- AGP should be avoided where possible and only undertaken if the dental service has the appropriate PPE
- Treatment should be completed in the minimum number of visits possible
- When an AGP has been undertaken, it is recommended that the room is left vacant for one hour for a neutral pressure room before cleaning is carried out.
- Follow guidance and local approaches and arrangements for the management of patients who are shielded or at increased risk (see Appendix 1).

Further information on risk assessment is available through:

- NHS Employers: risk assessments for staff
- Risk reduction framework for NHS staff at risk of COVID-19 infection

Resources for staff support and wellbeing are at Appendix 7.

4. Where appropriate, repeat risk assessment and dental triage when the patient arrives at the service (in line with sections 3.1.1.2 and 3.1.1.3) in case there are changes, the patient is unaware of their risk status, or the patient has accessed a service inappropriately.

When accepting patients, providers should have regard to the patient group, the likely procedure required and the availability of appropriate PPE.

Dental care for shielded groups could be managed through domiciliary visits as far as possible, unless this is clinically inappropriate. Dental teams should organise domiciliary visits collaboratively through the patient's lead co-ordinator and with other health and social care teams, using a multi-disciplinary approach to promote holistic care, minimise exposure risk and maximise efficiency in care provision.

- Where domiciliary visits are necessary, these should be appropriately risk assessed and managed.
- Normal Denplan, Private and FP17 type charges should be made for each patient seen in the usual way. Normal patient charging regimes apply.

6. Use robust infection prevention and control procedures in line with government advice (see gov.uk website)

7. Follow PPE protocols in line with government advice summarised in Section 2.2, with further detail at Appendix 3.

8. Prepare for incident management.

PHE has provided COVID-19 guidance for first responders, including information on PPE, cardiopulmonary resuscitation (CPR), providing assistance to unwell individuals and cleaning. First responders include professionals who, as part of their normal roles, provide immediate assistance requiring first contact until further medical assistance arrives.

In line with this guidance, with regards to CPR, chest compressions and defibrillation (as part of resuscitation) are not considered AGPs (see further information here). Therefore, dental staff can commence chest compressions and defibrillation without the need for AGP PPE while awaiting the arrival of other clinicians to undertake airway manoeuvres.

- The Resuscitation Council UK provides an infographic to support CPR protocol in primary care –

- Further detail on preparation for incident management for unwell patients with possible/confirmed COVID-19 is provided at Appendix 6.

4.2.1.1 Patient management in routine dental care: social distancing and separation

- Although it is recognised that routine dental treatment will require close contact, social distancing measures should be applied as far as possible throughout the service.
- For all patients, physical (eg separate waiting areas and treatment rooms) and temporal (eg appropriately spaced appointments, sessions for specific patient groups) separation measures should be employed.
- Consideration should be given to both patient group and the type of treatment undertaken (ie increased risk associated with aerosol generating procedures means there are additional PPE and decontamination requirements).
- Appropriate zoning must be adhered to. Sites, areas and facilities are demarcated clearly.
- Additional physical and temporal separation measures should be taken for shielded groups or groups at increased risk where possible, for example:
- The local care delivery protocols for these groups should be followed, noting these patients (especially those shielded) should not come into contact with others unless absolutely necessary.
- These patients could be seen in the morning only, allowing maximum time for air clearance/ventilation overnight.
- Practical considerations for the dental service are advised as follows:
- Patient escorts should only be allowed where absolutely necessary (eg child attending with parent). As far as possible, one escort only should be allowed per patient, and this escort should be from the patient's household to minimise exposure risk.

Consideration should be given to capacity and consent, and how these can be managed appropriately in a way that minimises contact risk. For example, for child patients, if a person with parental responsibility cannot accompany the child due to social isolation, the child could be brought by a responsible adult from their household and the person with parental responsibility contacted by telephone by the dental team.

As far as possible, patients (with necessary escorts only) should not enter the building until the time of their appointment or until a member of staff advises them to do so. For example, they could wait in their vehicle or in a suitable area outside the dental practice.

Patient flow:

1. Minimise the number of patients within the dental service at any one time
2. Minimise potential for patient-patient contact within the dental service, eg in reception areas and waiting rooms
3. Plan and design patient flow throughout the practice – floor markings will facilitate this
4. Consider escorting patients directly into the surgery to avoid waiting in the practice
5. Health Education England, Yorkshire and Humber have created a video which describes the patient care pathway and practice setup for Urgent Dental Care in Yorkshire and Humber during COVID-19. It shares examples of good practice following current guidance and may be of use to support dental services elsewhere in England.

- At the appropriate entry and exit point, all visitors to the dental service should be told to wash their hands or use hand sanitiser, and the appropriate hand hygiene agents made available.
- The number of patients and staff in the waiting room, reception and communal areas should be minimised as far as possible.

• Waiting rooms, reception and communal areas should allow for 2 metre separation, ideally marked on chairs and flooring.

• If staff in reception and communal areas are unable to maintain 2 metre separation with the public, they should wear a fluid-resistant surgical mask for a session.

• As far as possible, keep areas appropriately ventilated, eg opening windows.

Reception:

• face-to-face payment and appointment bookings should be minimised, with consideration given to telephone and online methods

• card payment machines and any tablets for patient use should be cleaned and disinfected after each use.

Staff working arrangements:

• As few staff as possible should be allocated to see patients, particularly those shielded, to minimise contacts without compromising the safe delivery of care.

• Similarly, where possible, staff should work with a limited group of colleagues to minimise contact between individuals or different teams, and, if required, facilitate contact tracing and tracking.

Toilet facilities:

• Control access to toilets. Patients should request access so that environmental cleaning (including handles) can be performed after each use.

• Close the toilet lid when flushing to reduce risk.

• Paper towels for hand drying.

• Waste bins should be provided lined with foot-operated or automated opening.

• When not in use, the toilet door should always be kept closed.

• Signage should be placed to promote good hand hygiene.

Use signage to support social distancing, good hand hygiene and good infection prevention and control practice throughout the service (including clinical and nonclinical areas, toilet facilities and entry and exit points).

4.2.1.2 Patient management: routine clinical care approaches

Further information on remote prescribing protocol can be found at Appendix 5.

Follow SDCEP guidance on drugs for the management of dental problems during the COVID-19 pandemic.

Follow advice from PHE, RCS England, FGDP (UK) and the BDA on prescribing antibiotics for urgent dental care during sustained transmission of COVID-19

Following initial concerns around the use of ibuprofen in the context of COVID-19, the government has published advice. An expert working group has concluded there is currently insufficient evidence to establish a link between use of ibuprofen and susceptibility to contracting COVID-19 or the worsening of its symptoms.

NHS England has been working with the Faculty of Dental Surgery at the Royal College of Surgeons to develop pragmatic clinical guidance for different specialty areas of dentistry which is applicable to dental teams working in UDC systems in the COVID-19 pandemic. This information is available online.

Possible clinical pathways for routine care are outlined in appendix 2A. These are a guide to aid the clinical discretion of our dental surgeons at Singleton Dental.

4.2.1.3 Infection prevention and control and PPE

Follow robust COVID-19 infection control procedures, as set out in government guidance for pandemic coronavirus here. This includes information on PPE, decontamination and waste.

Key points from this guidance have been summarised at Appendix 3. This includes detail around PPE requirements based on the type of care being provided (aerosol generating or non-aerosol generating procedure).

Appendix 1: Approaches for shielded patients and patients at increased risk

Singleton Dental is working in new ways to shield those at most risk of severe illness from COVID-19, protect those at increased risk, and manage the ongoing health and care needs of both groups.

Our service provision is intended to align with local approaches for both groups as appropriate.

• Efforts will be made to minimise contact risk for these groups.

- Shielded patients are at the highest possible risk from COVID-19 and should not come into contact with others or attend dental settings unless absolutely necessary.

• Where face-to-face care is required, Singleton Dental aims to align with any local arrangements for shielded patients or patients at increased risk.

- Consult the patient's GP and/or other dedicated health and social care professionals as necessary to arrange face-to-face care in a way that aligns with the patient's overall care needs and minimises contact risk.

- Where appropriate, urgent dental care may be provided on a domiciliary visit by a dedicated dental team. If there is limited capacity for domiciliary care provision, consideration should be given to prioritising patients at highest risk (ie shielded patients).

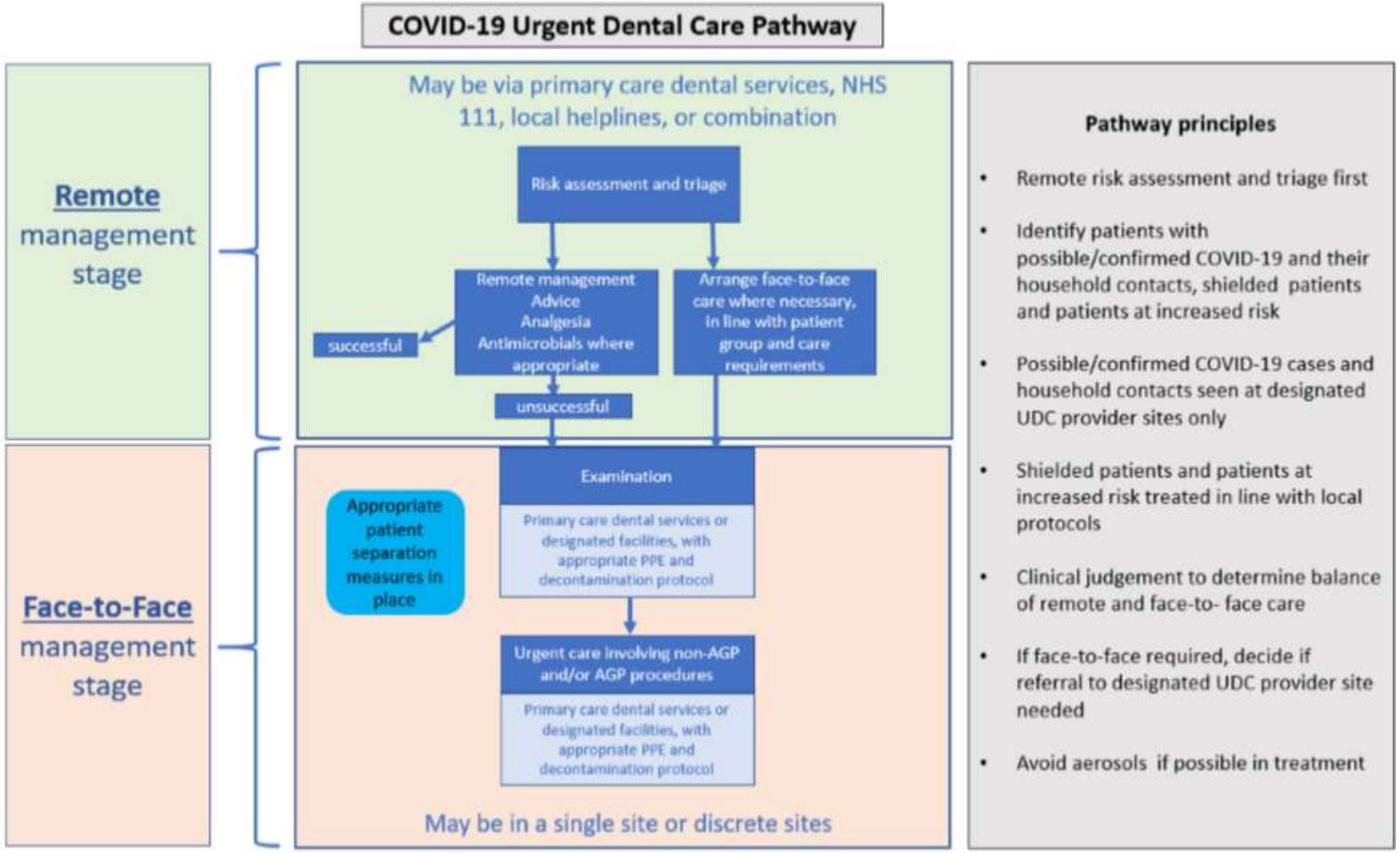
- Dental care for shielded groups should be managed through domiciliary visits as far as possible, unless this is clinically inappropriate. Dental teams should organise domiciliary visits collaboratively through the patient's lead co-ordinator and with other health and social care teams, using a multi-disciplinary approach to promote holistic care, minimise exposure risk and maximise efficiency in care provision.

- Where a domiciliary visit is not possible or clinically inappropriate, Singleton Dental will arrange referral to a secondary provider that will have appropriate measures in place to separate patients from possible COVID-19 cases (eg designated UDC provider site for shielded groups, that does not accept possible COVID-19 cases).

• Strict infection prevention and control measures will be followed at all times for the protection of all patients.

In the event that a Singleton Dental identifies a shielded patient or patient at increased risk as having possible COVID-19 symptoms, we will refer to a medical practitioner for further assessment.

Appendix 2: Patient Pathways



Appendix 2A: Clinical pathways for routine care

Fig 1. The COVID-19 Dental Care Pathway

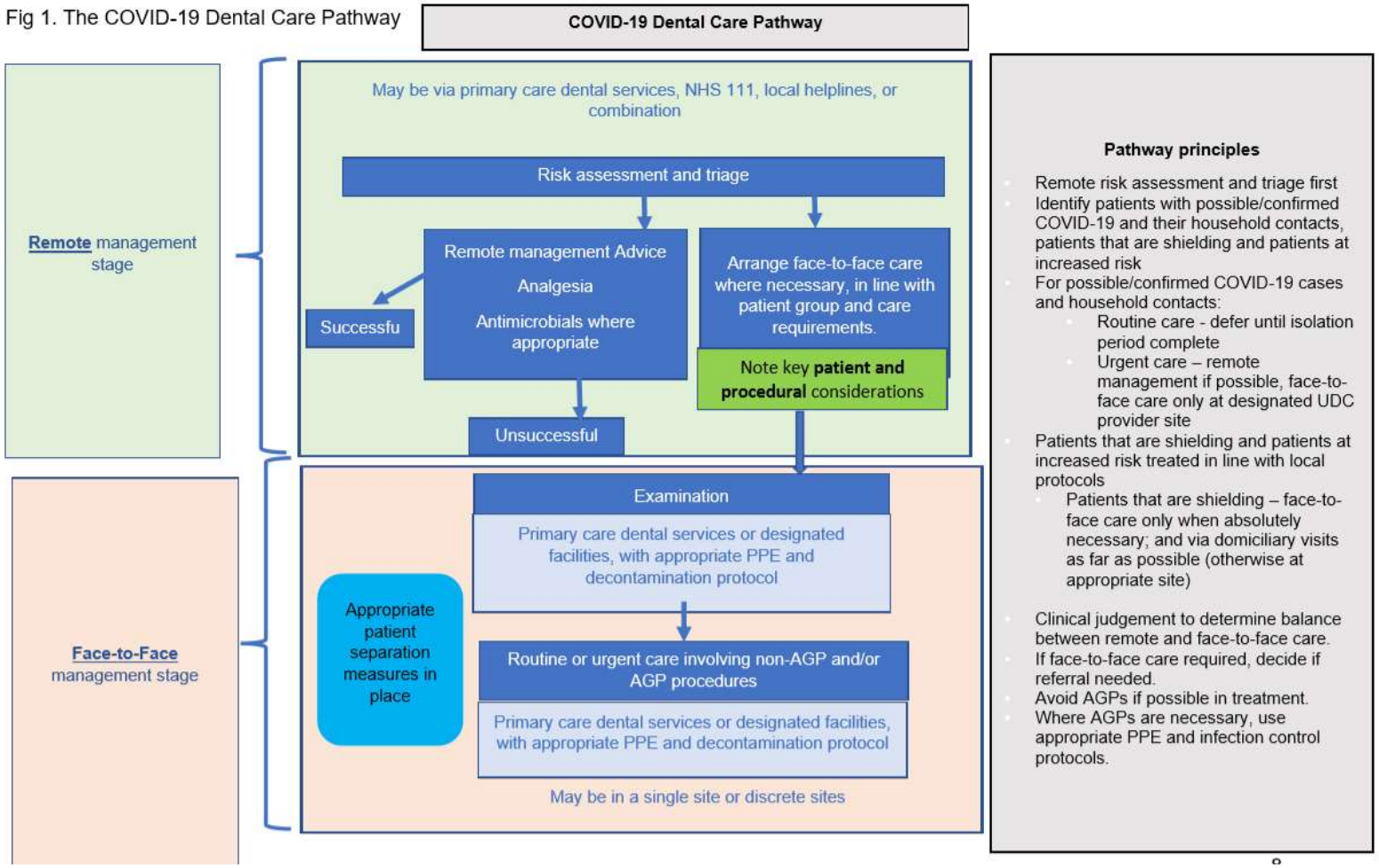
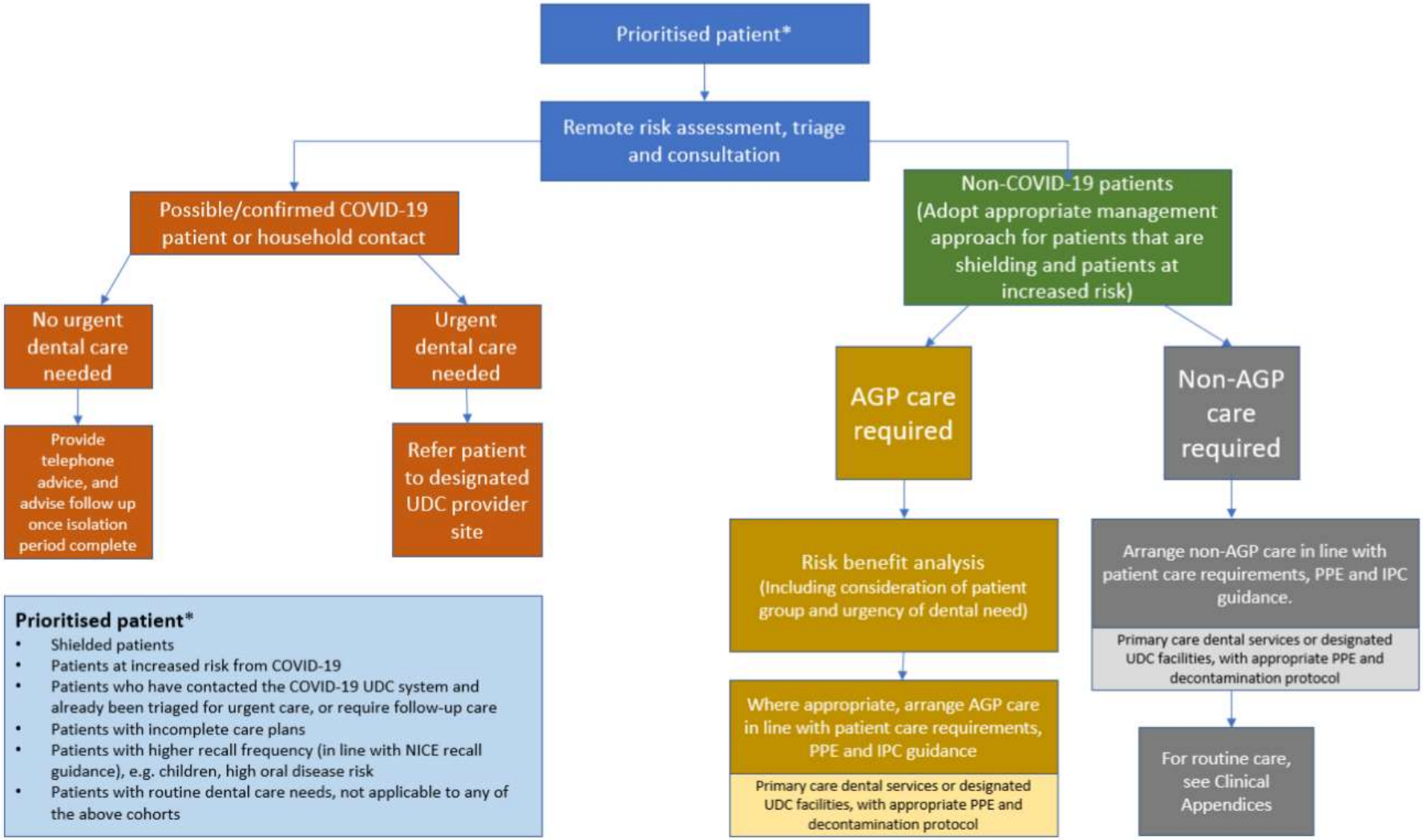


Fig 2. A summary flowchart for the patient pathway is outlined below:



Clinical guideline - Management of periodontal treatment (non-AGP)

This Appendix has been developed by the British Society of Periodontology and Implant Dentistry (BSP) in collaboration with the OCDO team. It focusses on the management of plaque induced periodontal conditions, principally gingivitis and all grades of periodontitis Stages I, II, III, IV (mild, moderate, severe, very severe).

It specifically provides guidance on the provision of periodontal care for patients who are: 1) not known to be COVID-19 +VE or 2) not known to be exhibiting any symptoms of COVID-19.

For COVID-19 +VE patients, those exhibiting symptoms, or residing with people who are self-isolating due to suspected COVID-19, treatment should be delayed where possible for 14 days, or to a point where they are clinically fully recovered and have had no fever for the last five days. Otherwise, this group should be referred to an Urgent Dental Care Centre (UDC) for management.

This SOP embraces the European S3-level treatment guidelines published in May 2020. BSP currently endorse these guidelines and are in the process of adapting them to the UK and Irish context, through a formal process, and anticipate publishing an updated version in July 2020.

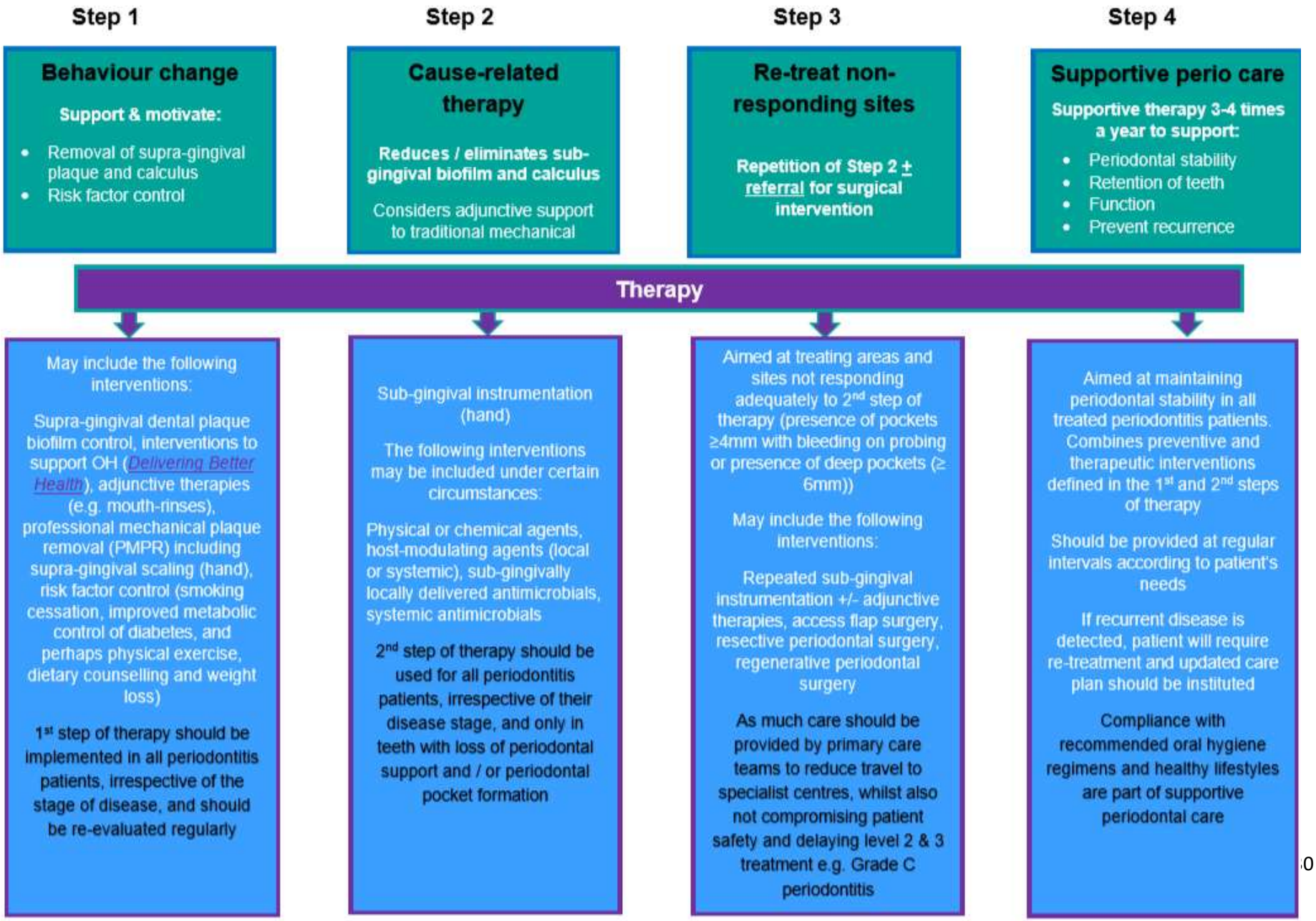
Table 1: demonstrates the stepwise sequence for treatment of periodontitis and gingivitis.

Steps 1, 2 and 4 are sufficient to stabilise periodontal health in the majority of sites and in the majority of patients, and the evidence-based guidelines demonstrate that there is no difference in outcome from employing non-AGP instruments (hand scaling and root surface therapy using hand curettes) as opposed to AGP instruments such as sonic/ultrasonic scaling devices.

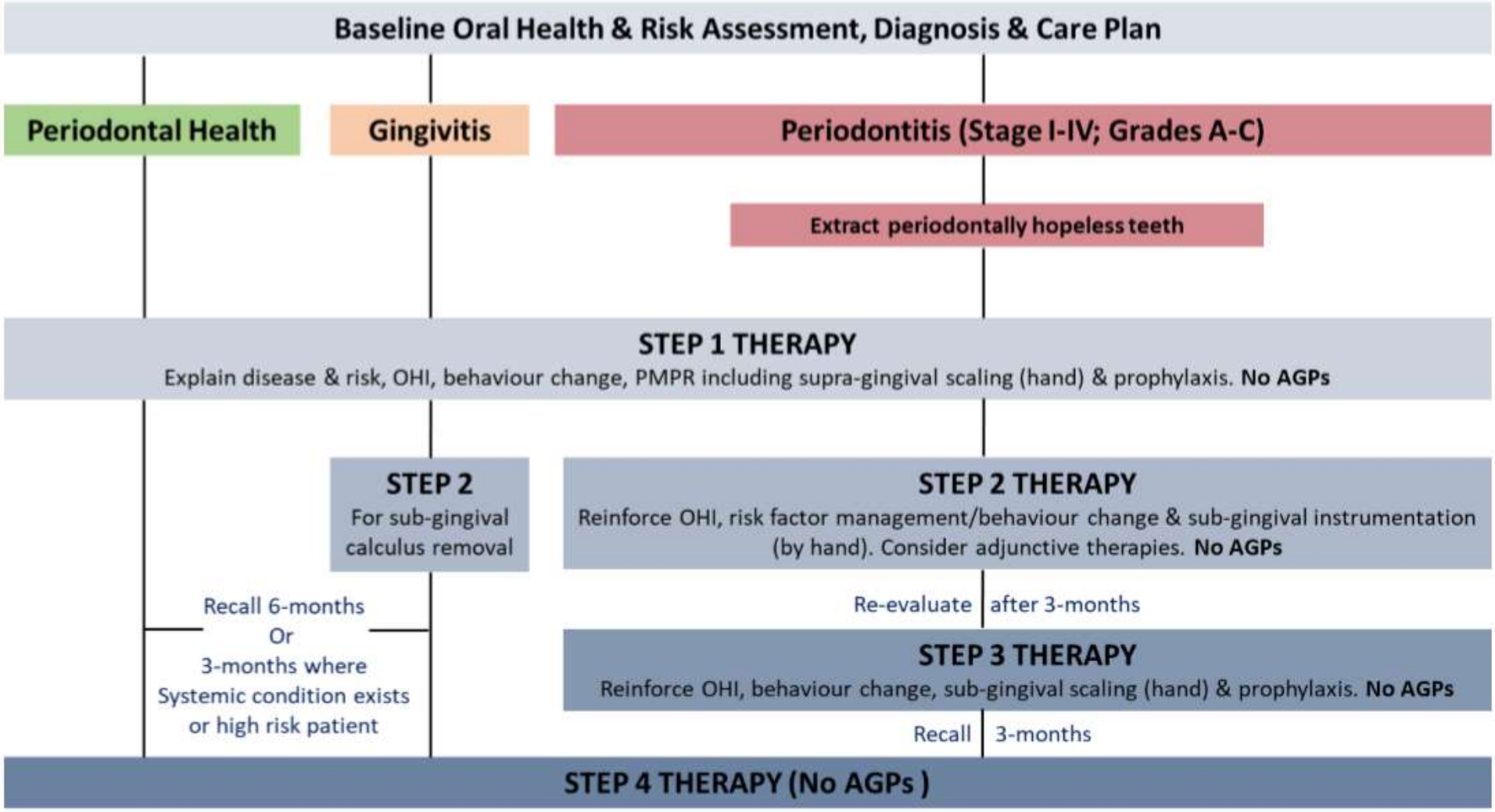
Until more robust research evidence emerges on the safety and most appropriate protocols, periodontal care can continue without AGP, and should be regarded as an essential health procedure. For surgical aspects of Step 3, care requires specialist level 2/3 enhanced skills.

Step 3 procedures involving non-AGPs (re-instrumentation of non-responding sites by hand) may also be performed with the appropriate level of PPE recommended.

Table 1: Flow Chart



Flow Chart of Steps of Minimally-Invasive Periodontal Treatment (without AGP)



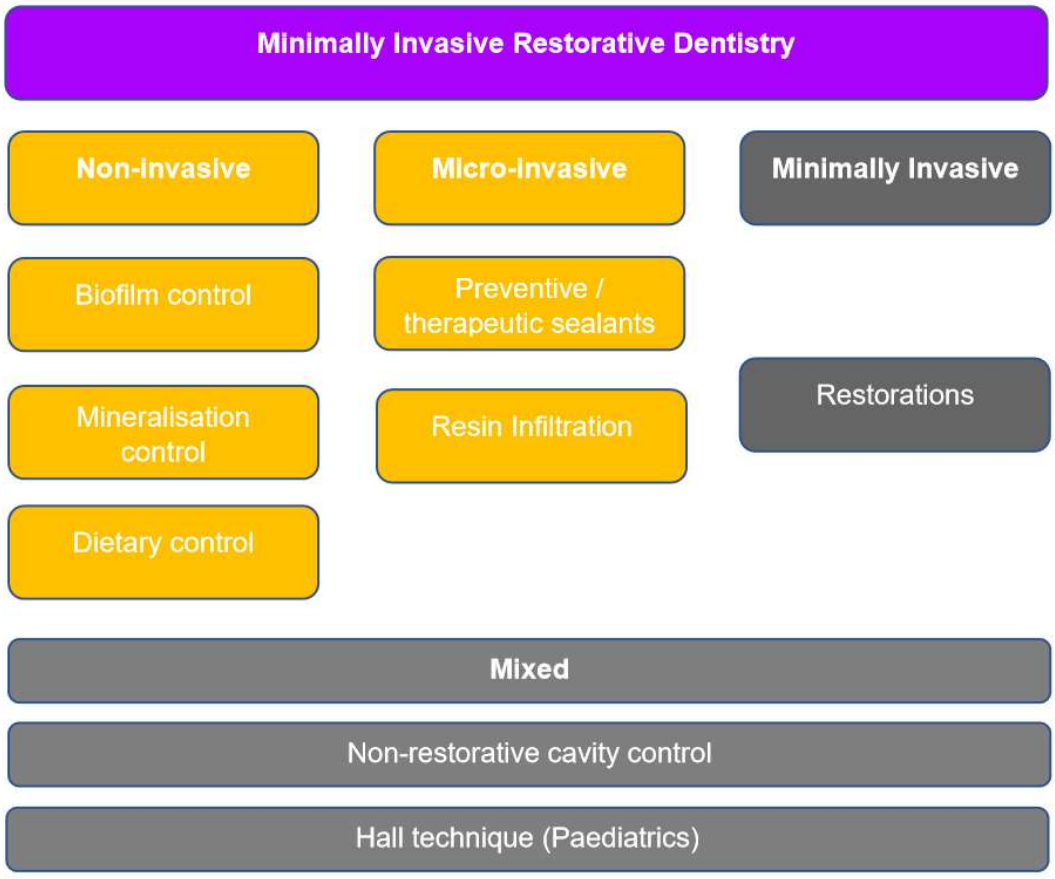
Clinical guideline - Advanced Minimally Invasive Restorative Dentistry (AMIRD): caries management

We recognise dental teams may use a variety of acceptable techniques, and a shift towards a preventative and minimally invasive clinical philosophy is a journey to best practice that should be supported by appropriate support and training.

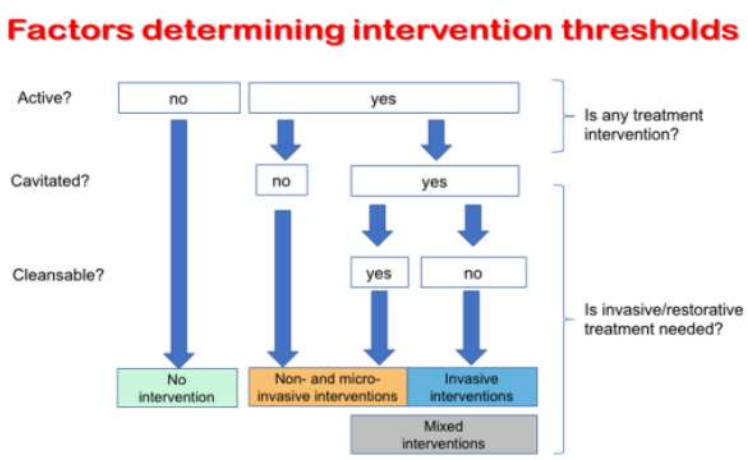
This Appendix outlines three distinct areas of advanced minimally invasive restorative dentistry (AMIRD) in managing dental caries, prevention and self-care: • non-invasive prevention: inactive carious lesions, focusing on susceptibility assessment, non-AGP preventative measures;

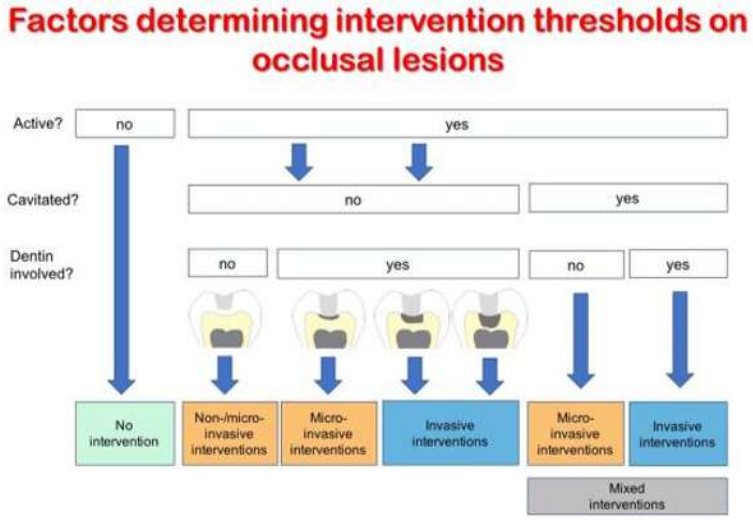
• micro-invasive management: for early, non-cavitated, active carious lesions, non-AGP, preventive / therapeutic sealants and resin infiltration;

• minimally invasive restorations: Risk-managed AGP, MI restorative management of patients with active cavitated, deep carious lesions;



Factors determining caries intervention





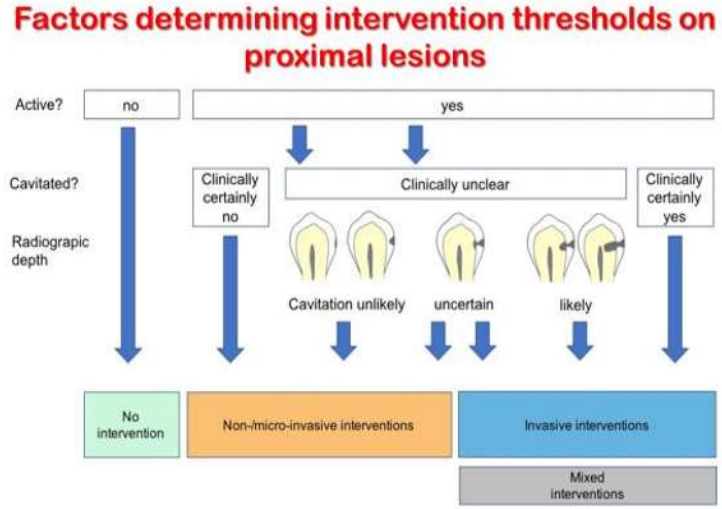


Figure 1. Factors determining when to intervene in the caries process. Is the lesion active, cavitated, cleansable?

Figure 2. The factors specific for occlusal lesions.

Figure 3. The factors specific for proximal lesions.

Table 2. Non-invasive prevention principles and techniques.

Non-invasive, non-AGP procedures	
Biofilm control	• Oral hygiene - Delivering better oral health • Relevant oral hygiene procedures • Toothpastes with fluoride • Mouthwashes • Rotating/oscillating brushes and flossing
	• Instructed by all clinical oral healthcare team members
Mineralisation control (based on caries susceptibility assessment and at-risk tooth surfaces)	• Application of fluoride varnishes • CPP-ACP (casein phodphopeptide-amorphous calcium phosphate, products containing Recaldent) containing pastes • β-TCP (beta-tricalcium phosphate) containing agents and other remineralisation agents • CHX (chlorhexidine) / Silver Diamine Fluoride in adults (no / limited evidence) • Silver Diamine Fluoride in paediatric patients (UK licence for treating dentine sensitivity)
	Delivery by dentists and dental hygienists & therapists
Dietary control	• Advice on dietary control
	• Delivery/instruction by all clinical oral healthcare team members

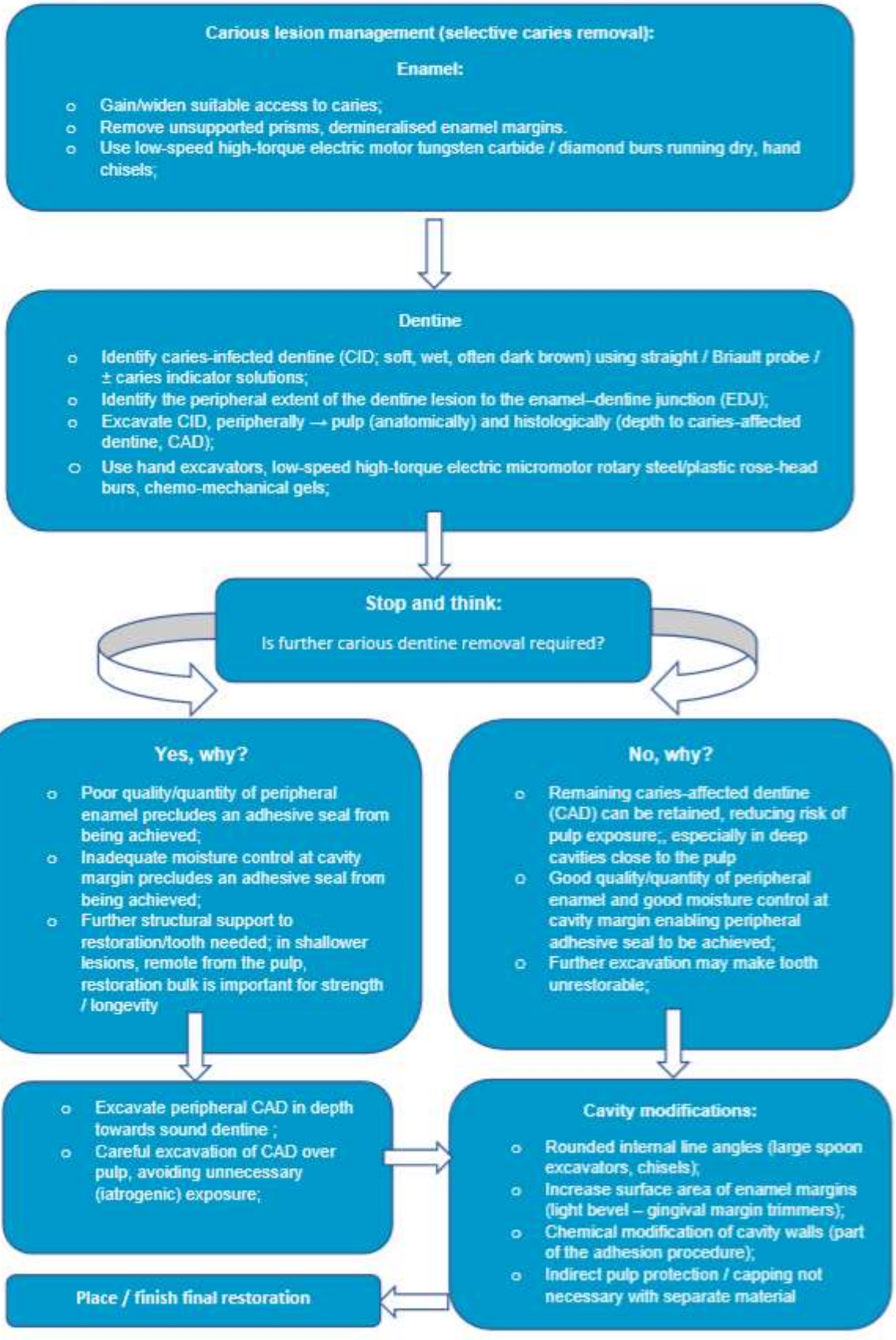
AMIRD - Micro-invasive caries management

Table 3. Micro-invasive dentistry; principles and techniques for early carious lesions.

Micro-invasive, non-AGPs	
Sealants: Caries sealing is a procedure that may be used where active early carious lesions are detected in: 1) Accessible non-cavitated surfaces (including occlusal surfaces), confirmed through clinical ± radiographic examination	• Preventative & therapeutic* fissure sealant using proprietary sealants: o Flowable resin composite o Glass-hybrid, GIC (glass-ionomer cement) / RM-GIC (resin modified glass-ionomer cement) (where moisture control is not optimal) **Resin composite:** **Adhesion**: Composite: 37% orthophosphoric acid-etch enamel fissures (20 secs), wash and dry (10 secs) using separate low pressure water / air streams or wet / dry cotton wool pledgets **Restoration**: flowed into fissure pattern, light cure (470nm for 20 secs); check occlusion pre-isolation and after its removal **GIC / RM-GIC:** **Adhesion:** 10% polyacrylic acid conditioning of enamel fissures (15 secs), use separate low pressure water / air streams to wash and dry tooth surfaces or wet / dry cotton wool pledgets / paper points (10 secs) **Restoration:** application into fissure pattern, auto-cure / light cured (470nm for 20 secs); check occlusion pre-isolation and after its removal. *in therapeutic fissure sealing, micro-cavitated fissures may require widening

	Delivery by dentists and dental hygienists & therapists
Resin infiltration For accessible smooth surface, early non-cavitated enamel lesions	Same as for sealants Follow standard published protocols but limit/no use of 3-1 air-water syringes
	Delivery by dentists and dental hygienists & therapists

AMIRD - Minimally invasive restorations, risk-mitigated AGP principles



Management of caries for the paediatric patient

Management of dental caries, prevention and self-care 0-16 year olds.

Prevention and self-care

Every child and young person should continue to receive tailored oral health advice in line with Delivering Better Oral Health. Clinicians should document the exact advice given in order to fulfil contractual obligations. For example, “Advised to stop bottle use and introduce an open top or free-flow cup, to move from brushing once daily to twice daily, emphasised the importance of brushing last thing at night.” It will not suffice to write “prevention given”. Oral health advice can be given as part of a remote consultation.

Patients should be encouraged to perform optimal self-care in order to minimise the development of new disease. Use of digital health tech can be used to deliver and reinforce key prevention messages. The following videos deliver key information in line with Delivering Better Oral Health and can be freely distributed and placed on practice websites or social media pages if used in their entirety:

0-3 video https://youtu.be/owbp5F0K45c 3-6 video
https://www.youtube.com/watch?v=lQE4xxk1r5g 7+ video
https://www.youtube.com/watch?v=GHS27DHyIi0

Clinicians may also wish to signpost to oral health apps listed in the NHS Apps Library such as Brush DJ [www.brushdj.com]. Health technology has been shown to motivate positive behaviour change.

Primary Dentition

Management of caries in the primary dentition should favour minimally invasive oral healthcare including consideration of the use of less invasive measures such as silver diamine fluoride (SDF) and Hall crowns, and where appropriate considering extractions over traditional conservative approaches.

The success of placing a preformed metal crown via the Hall Technique requires careful and appropriate case selection, excellent patient management and long-term monitoring. For guidance on the indications, effectiveness, and step-by-step guide on how to place a Hall Crown, refer to the Hall Technique - A minimal intervention, child centred approach to managing the carious primary molar.

Permanent Dentition

Management of caries in the permanent dentition may favour temporisation and stabilisation for a six-month period to minimise an AGP. Clinicians should refer to the recently published Scottish Dental Clinical Effectiveness Programme (SDCEP) guidelines on management of caries in children.

Management of (non-AGP) Endodontics

This document details proposed workflows for the management of endodontic problems in the phased return to dental treatment provision. Triaging of patients to assess individual risk of COVID-19 transmission is essential prior to appropriate scheduling of any endodontic care. The aim of these proposals is to relieve symptoms, minimise (where possible) the number of visits to complete treatment, whilst at the same providing the favourable outcomes that are associated with contemporary endodontic therapy and reduce unnecessary loss of teeth.

The document uses diagnostic terminology currently adopted in most dental schools in the UK and described in the AAE Consensus Conference Recommended Diagnostic Terminology in 20091. As an aid for those unfamiliar with this terminology, Table 1 offers a description of symptoms associated with the common diagnostic terms.

Table 1

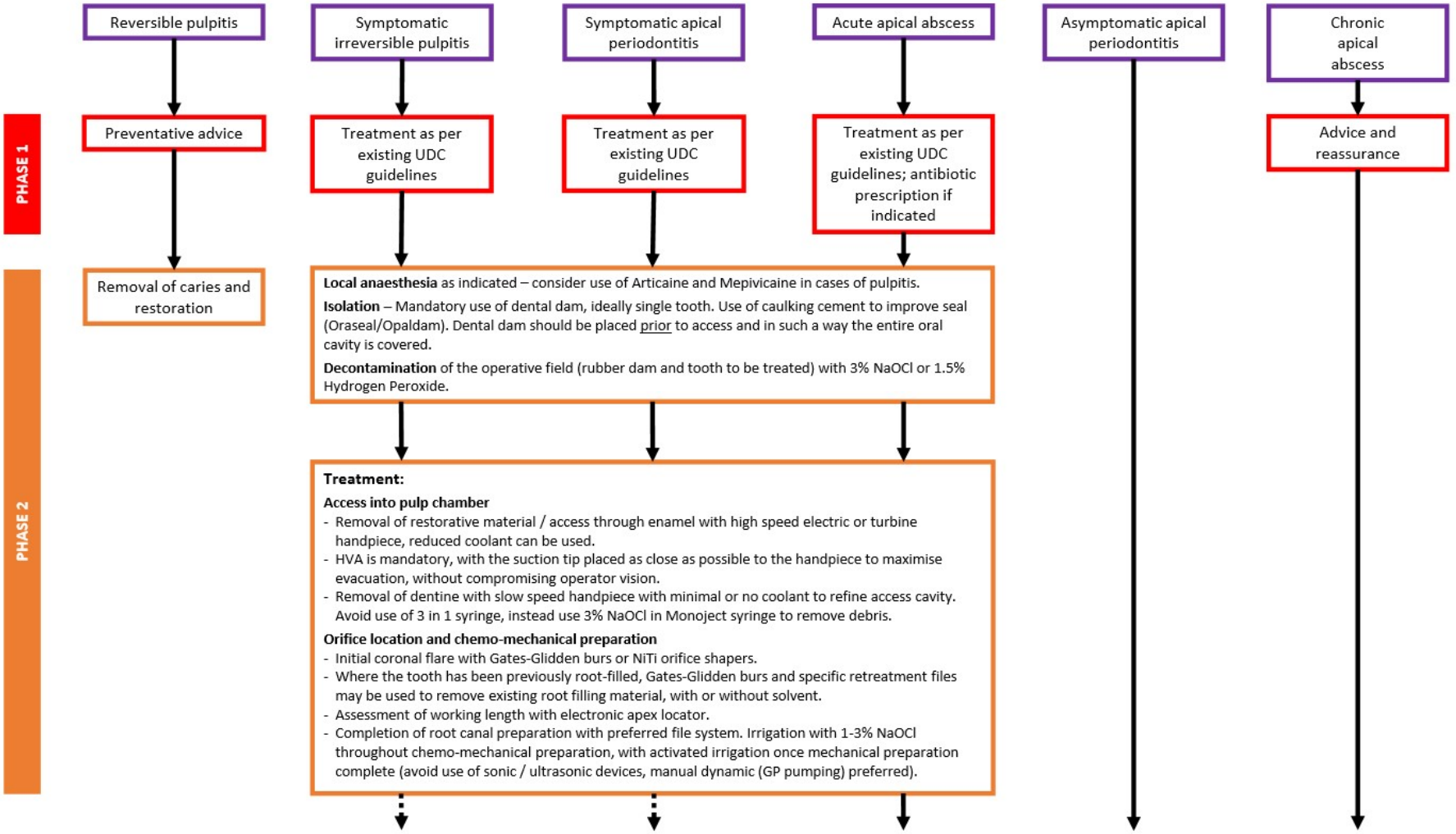
Symptoms	Pulpal/Apical Diagnoses	Treatment
Short duration sharp pain Not spontaneous in onset Cold stimulus worse than hot	Reversible Pulpitis	Caries management, restoration with vital pulp therapy if required
Pain on thermal stimulus Spontaneous pain Lingering pain Referral of pain Postural affects Analgesics ineffective	Irreversible Pulpitis	Root canal treatment
Unresponsive to sensibility testing Tenderness to palpation/ percussion Possible periapical changes on radiograph	Symptomatic Apical Periodontitis	Root canal treatment
Spontaneous pain Extreme tenderness Swelling Possible fever, malaise and lymphadenopathy	Acute Apical Abscess	Incision and drainage, consider antibiotic therapy if indicated Two stage root canal treatment advised
Unresponsive to sensibility testing No symptoms Periapical radiolucency on radiograph	Chronic Apical Abscess	Root canal treatment

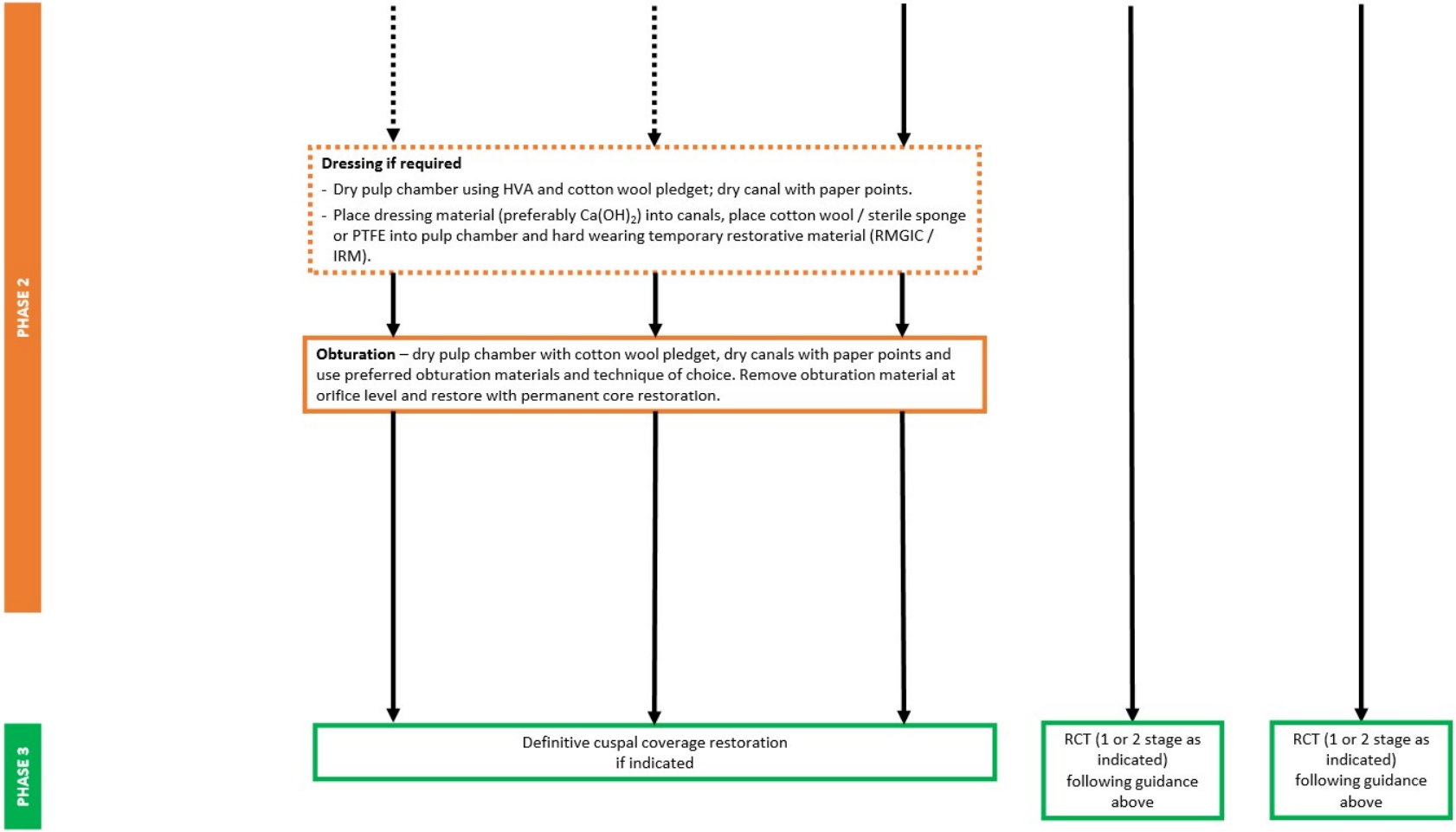
Unresponsive to sensibility testing Sinus tract +/- pus discharge Minimal or no pain Periapical radiolucency on radiograph	Asymptomatic Apical Periodontitis	Root canal treatment

*If tooth has been **Previously Treated** or has had **Previously Initiated Treatment** decision should be based upon apical diagnosis.

Table 2 shows a flowchart of proposed actions for all common endodontic diagnoses (dento-alveolar trauma is not included in this table), along with the suggested treatment protocols for management, based on the existing ESE quality guidelines for endodontic treatment[2].

Table 2:


Reversible pulpitis
Symptomatic irreversible pulpitis
Symptomatic apical periodontitis
Acute apical abscess
Asymptomatic apical periodontitis
Chronic apical abscess
PHASE 1
Preventative advice
Treatment as per existing UDC guidelines
Treatment as per existing UDC guidelines
Treatment as per existing UDC guidelines; antibiotic prescription if indicated
Advice and reassurance
PHASE 2
Removal of caries and restoration
Local anaesthesia as indicated – consider use of Articaine and Mepivicaine in cases of pulpitis.
Isolation – Mandatory use of dental dam, ideally single tooth. Use of caulking cement to improve seal (Oraseal/Opaldam). Dental dam should be placed prior to access and in such a way the entire oral cavity is covered.
Decontamination of the operative field (rubber dam and tooth to be treated) with 3% NaOCl or 1.5% Hydrogen Peroxide.
Treatment:
Access into pulp chamber
- Removal of restorative material / access through enamel with high speed electric or turbine handpiece, reduced coolant can be used.
- HVA is mandatory, with the suction tip placed as close as possible to the handpiece to maximise evacuation, without compromising operator vision.
- Removal of dentine with slow speed handpiece with minimal or no coolant to refine access cavity. Avoid use of 3 in 1 syringe, instead use 3% NaOCl in Monoject syringe to remove debris.
Orifice location and chemo-mechanical preparation
- Initial coronal flare with Gates-Glidden burs or NiTi orifice shapers.
- Where the tooth has been previously root-filled, Gates-Glidden burs and specific retreatment files may be used to remove existing root filling material, with or without solvent.
- Assessment of working length with electronic apex locator.
- Completion of root canal preparation with preferred file system. Irrigation with 1-3% NaOCl throughout chemo-mechanical preparation, with activated irrigation once mechanical preparation complete (avoid use of sonic / ultrasonic devices, manual dynamic (GP pumping) preferred).


PHASE 2
PHASE 3
Dressing if required
- Dry pulp chamber using HVA and cotton wool pledget; dry canal with paper points.
- Place dressing material (preferably $Ca(OH)_2$) into canals, place cotton wool / sterile sponge or PTFE into pulp chamber and hard wearing temporary restorative material (RMGIC / IRM).
Obturation – dry pulp chamber with cotton wool pledget, dry canals with paper points and use preferred obturation materials and technique of choice. Remove obturation material at orifice level and restore with permanent core restoration.
Definitive cuspal coverage restoration if indicated
RCT (1 or 2 stage as indicated) following guidance above
RCT (1 or 2 stage as indicated) following guidance above

References

1. AAE Consensus Conference Recommended Diagnostic Terminology. Journal of Endodontics,

35, 1634, 2009. 2. Quality guidelines for endodontic treatment: consensus report of the European Society of

Endodontology. International Endodontic Journal, 39, 921–930, 2006. 3. British Endodontic Society. 2020 https://britishendodonticsociety.org.uk/wpcontent/uploads/2020/03/BES-AAA-Document-31st-March-v1.1.pdf

Appendix 3: PHE guidance for infection prevention and control in dental care settings

Appendix 1 Guidance for infection prevention and control in dental care settings – authored by PHE

1. Background

COVID-19 disease is caused by SARS-CoV-2 which is from the family of coronaviruses. Where SARS-CoV-2 is circulating in the community at high rates, dental staff may be subject to repeated risk of contact and droplet transmission during their daily work. It is important that the infection prevention and control (IPC) measures contained within this guidance are followed to reduce that risk.

The guidance on PPE in this Appendix is for all Dental Care Professionals who have direct patient care regardless of their role.

PPE for dental practices has been allocated to dental wholesalers for practices to purchase. The dental wholesalers that have this stock are Henry Schein, DD Group, Wright Health Group and Try Care Ltd. PPE for dental practices will include equipment necessary for aerosol generating procedures including coveralls and FFP2 respirator masks as recommended by the World Health Organisation as well as the Health Safety Executive and UK Government PPE guidance.

2. Evidence base for PPE guidance

This Appendix is a summary of relevant parts of the UK Government's COVID19: infection prevention and control guidance4. The UK Government guidance on IPC for health professionals was developed by health protection and infection prevention and control experts in collaboration with clinicians.

Expert reviews and advice from the Department of Health and Social Care's New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG)5 inform the guidance. The guidance is updated regularly, in line with emerging evidence.

The advice is based on the reasonable assumption that the transmission characteristics of COVID-19 are like those of the 2003 SARS-CoV outbreak.

As SARS CoV-2 is a novel virus, evidence is still emerging so further updates to this Appendix may be made as new evidence emerges.

3. Patient assessment and considerations

Significant efforts should be made to ensure that patients that are shielding are treated separately to other patients, and while there is sustained community transmission urgent care only should be offered.

Patients without symptoms should be treated separately in space or time to those who have COVID-19, or are suspected cases, or are in household isolation with someone with symptoms.

Confirmed or suspected cases of COVID19 should be discouraged from attending but where they cannot be treated by remote means and have urgent care needs, there should be separation in space and/or time between suspected and confirmed individuals with COVID-19.

Suspected or confirmed cases of COVID-19 will be placed at the end of the session list where feasible.

The public is advised to consider wearing face coverings in enclosed public spaces including dental practices. In common waiting areas, symptomatic patients may be given a surgical face mask to minimise the dispersal of respiratory secretions and reduce environmental contamination.

Patients/carers should decontaminate their hands with alcohol-based hand rub when entering and leaving care services

4. Practice settings

Our waiting room should allow for 2m separation between people where possible. If this is not possible patients should wear a face mask.

The care environment should be kept clean and clutter free.

Any procedures should be carried out with a single patient (and carer if necessary, e.g. with child) and only those staff who are needed to undertake the procedure present in the room with the door(s) shut.

5. Standard infection control precautions

All dental practices should follow standard infection control precautions (SICPs) necessary to reduce the risk of transmission of infectious agents from both recognised and unrecognised sources.

Guidance from HTM01-05 and NICE on infection prevention and control and decontamination should be used by all staff, in all settings, always, for all patients.

6. Transmission-based precautions

In addition to SICPs, transmission-based precautions (TBPs) are applied when SICPs alone are insufficient to prevent cross-transmission of an infectious agent. TBPs are additional infection control precautions required when caring for a patient with a known or suspected infectious agent and are classified based on routes of transmission:

• Contact precautions: used to prevent and control infection transmission via direct contact or indirectly from the immediate care environment. This is the most common route of infection transmission.

• Droplet precautions: used to prevent and control infection transmission over short distances via droplets (>5µm) from the patient to a mucosal surface or the conjunctivae of a dental team member. A distance of approximately 1 metre around the infected individual is the area of risk for droplet transmission which is why dental teams routinely wear fluid resistant surgical masks (FRSM) and eye protection for treating patients. However, a distance of 2 metres has been defined as the area of risk. Thus, distancing of 2 metres should be facilitated wherever this is possible. This includes all staff adhering to social distancing wherever possible, particularly if not wearing a facemask or visor and when in non-clinical areas such as communal areas and during work breaks.

• Airborne precautions: used to prevent and control infection transmission via aerosols (≤5µm) from the respiratory tract of the patient directly onto a mucosal surface or conjunctivae of one of the dental team without necessarily having close contact. If an aerosol generating procedure (AGP) is being undertaken then airborne precautions are required in addition to contact and droplet precautions.

The transmission of COVID-19 is thought to occur mainly through respiratory droplets generated by coughing and sneezing, and through contact with contaminated surfaces. Interrupting transmission in the dental surgery needs to be by undertaking contact, droplet and aerosol precautions.

7. Aerosol-generating procedures (AGPs)

Aerosol generating procedures (AGPs) are defined as any medical and patient care procedure that results in the production of airborne particles (aerosols).

AGPs can produce airborne particles less than 5 micrometres in size which can remain suspended in the air, travel over a distance and can cause infection if inhaled. Therefore, AGPs create the potential for airborne transmission of infections that may otherwise only be transmissible by the droplet route.

AGPs include medical procedures such as intubation, extubation, and tracheostomy procedures.

High-speed devices such as those used for surgical and dental procedures have consistently been shown to generate aerosols which create widespread environmental contamination and therefore a risk of transmission of infection to healthcare workers so AGPs should be avoided where possible.

Instruments powered by air compressor have a high risk of creating aerosols.

Dental AGPs have been described as:

- Use of high-speed handpieces for routine restorative procedures and high speed surgical handpieces
- Use of ultrasonic or other mechanised scalers
- High pressure 3:1 air syringe

NB. Prudent use of PPE is vital at times of sustained community transmission for the sake of the whole health and social care economy. Enhanced PPE to use a 3:1 syringe for examination alone should not be deployed. Use of standard infection control measures can be employed by using the irrigation function followed by low pressure air flow from the 3:1 air syringe and all performed with directed high-volume suction.

Chest compressions and defibrillation (as part of resuscitation) are not considered AGPs so dental staff can commence chest compressions and defibrillation without the need for AGP PPE while awaiting the arrival of other clinicians to undertake airway manoeuvres.

Inhalation sedation is not considered an AGP and may be a suitable alternative to general anaesthesia for children needing dental care

More information on AGPs can be found at :
https://hpspubsrepo.blob.core.windows.net/hpswebsite/nss/2893/documents/1_tbp-lr-agp-v1.pdf

8. Hand and respiratory hygiene

Washing hands thoroughly with soap and water for at least 20 seconds, is essential to reduce the transmission of infection7. All dental staff and patient/carers should wash their hands or decontaminate their hands with alcohol-based hand rub8 (70% ethyl alcohol) when entering and leaving dental care services. See Figures 1a and 1b below.

For staff, hand hygiene must be performed immediately before every episode of direct patient care and after any activity or contact that potentially results in hands becoming contaminated, including donning (putting on) and doffing (removing) PPE, equipment decontamination, and waste handling. If arms are bare below the elbows, and it is known or possible that forearms have been exposed to respiratory secretions (for example cough droplets) or other body fluids, hand washing should be extended to include both forearms. Wash the forearms first and then wash the hands.

Respiratory and cough hygiene should be observed by staff and patients/carers. Disposable tissues should be available and used to cover the nose and mouth when sneezing, coughing or wiping and blowing the nose – 'Catch it, bin it, kill it'.

9. Staff health

Members of staff who are clinically extremely vulnerable9 to coronavirus (with specific serious health conditions) should not be returning to work at this time. They should keep themselves safe by staying at home and avoiding all contact with others, except for essential medical treatment or support.

Those aged 70 and over, those with specific chronic pre-existing conditions, those who are seriously overweight, and pregnant women, are clinically vulnerable, meaning they are at higher risk of severe illness from coronavirus. As restrictions ease, this group should continue to take particular care to minimise contact with others outside their household.

Vulnerable members of staff should undertake a risk assessment with their line manager and may need support from Occupational Health. Some members of staff may need to be redeployed to non-clinical activities.

The Faculty of Occupational Medicine has produced a Risk Reduction Framework for NHS Staff which takes into consideration age, ethnicity, pregnancy, sex and underlying medical conditions:

https://www.fom.ac.uk/wp-content/uploads/Risk-Reduction-Framework-for-NHS-staff-atrisk-of-COVID-19-infection-12-05-20.pdf

Members of staff who are pregnant and worried about coronavirus, can get advice from the Royal College of Obstetricians and Gynaecologists at:

https://www.rcog.org.uk/en/guidelines-research-services/guidelines/coronaviruspregnancy/covid-19-virus-infection-and-pregnancy/

Dental staff with symptoms or who have tested positive for COVID-19 should self-isolate for at least 7 days from onset of symptoms. After 7 days, or longer, if dental staff still have symptoms other than cough or loss of sense of smell/taste, they must continue to self-isolate until they feel better. Staff living in a household where someone has symptoms should stay at home for 14 days from the onset of household contact's symptoms. However, if the member of staff becomes symptomatic during the 14 days isolation, they should isolate for 7 days from the date of symptom onset. 10

All members of staff who are self-isolating are eligible for coronavirus testing and should be offered the opportunity if they wish to be tested. Use the self referral portal to book a test. Staff may require evidence that they are no longer infectious prior to working with extremely vulnerable people, subject to local policy. Currently it is not known how long any immunity to COVID-19 might last. If staff become unwell again, they should self-isolate and may need to be retested. Please note that this Guidance for Healthcare workers is subject to change and live links to the document should be kept. Members of staff can also be signposted to the NHS Website: What your coronavirus test result means.

Dental care professionals should be trained in all aspects of IPC and fully familiar with HTM01 05 for decontamination.

It is recognised that all staff may have increased anxiety and stress due to operating during the COVID-19 pandemic, and as a result of general measures such as social distancing and isolation from family and friends. There are resources in the main body of the SOP signposting where help can be found. Dental care professionals have a responsibility to take care of their own health and wellbeing, their colleagues and their patients.

10. Other staff considerations

All dental care professionals should have access to and know what PPE they should wear for each setting and context. Training should include donning and doffing PPE for AGPs and non-AGPs. See Figure 2 below. See footnotes for links to resources such as videos and posters. 11,12

Cleaning staff should also be trained in IPC measures and decontamination and understand the requirements in HTM01 05.

It is best practice to change into and out of uniforms at work and not wear them when travelling; this is based on public perception rather than evidence of an infection risk.

Uniforms and workwear should be transported home in a disposable plastic bag. The plastic bag should be disposed of into the household waste. Uniforms and workwear should be laundered: separately from other household linen, in a load not more than half the machine capacity and at the maximum temperature the fabric can tolerate, then ironed or tumbled-dried.

To ensure that staff are working safely they should social distance when not in PPE and take regular breaks and rest periods.

11. Personal protective equipment

The Infection Prevention and Control guidance for all health professionals includes advice for dental teams during sustained community transmission. Where there is sustained community transmission of COVID-19 there is an assumption that all patients present a risk of transmission of the virus.

Dentalcare professionals should choose the appropriate PPE depending on whether the treatment includes aerosol generating procedures (AGPs) or not. This is because during AGPs there is an increased risk of aerosol spread of infectious agents irrespective of the mode of transmission (contact, droplet, or airborne), and airborne precautions must be implemented when performing aerosol generating procedure (AGPs).

• Non-AGP treatment of all patients requires standard infection control procedures. This will ensure there is no contact or droplet transmission of COVID-19. Eye protection, disposable fluid-resistant (Type llR) surgical masks, disposable apron and gloves should be worn.

• For all AGPs, to prevent aerosol transmission, disposable, fluid-repellent gown, gloves, eye/face protection and an FFP3 respirator should be worn by those undertaking or assisting in the procedure.

NB. FFP3 respirators offer a slightly higher level of protection than FFP2/N95 respirators. Please note Section 13 of this Appendix which includes information on FFP2 and N95 respirators which may be used for AGPs. FFP3/FFP2/N95 applies where FFP3s are referred to throughout this text.

HTM01-05 guidance, states that appropriate PPE should be worn during decontamination procedures. PPE includes disposable clinical gloves, household gloves, plastic disposable aprons, face masks, eye protection and adequate footwear.

Operators may be concerned at the 'splatter' that is created by dental procedures, however, this is droplet contamination which standard infection control precautions will protect against.

For provision of domiciliary (non-AGP) care in a household setting, disposable plastic aprons, fluid repellent surgical masks, eye protection and disposable gloves should be worn.

The application of the guidance is summarised in Table 1 of this document:

Table 1: Personal protective equipment (PPE) for COVID-19 dental care settings

	Waiting room/reception	Dental surgery	Dental surgery
	No clinical treatment	Non AGP treatment	Treatments Involving AGPs
Good hand hygiene	Yes	Yes	Yes
Disposable gloves	No	Yes	Yes
Disposable plastic apron	No	Yes	No
Disposable gown*	No	No	Yes*
Fluid-resistant (type IIR) surgical mask (FRSM)	Yes	Yes	No
Filtering face piece (FFP3) respirator**	No	No	Yes
Eye protection***	No	Yes	Yes

* Fluid-repellent gowns must be worn during aerosol generating procedures (AGPs). If nonfluid-resistant gowns are used, a disposable plastic apron should be worn underneath.

**If wearing an FFP3 mask that is not fluid-resistant, a full-face visor must be worn. Operators who are unable to wear a FFP3 mask due to facial hair, religious head coverings or other reasons should wear alternatives such as a positive pressure 'hood'.

***Eye protection ideally should be disposable. Re-usable eye and face protection (such as polycarbonate safety glasses/goggles) is acceptable if decontaminated between single or single sessional use, according to the manufacturer's instructions or local infection control policy. Regular prescription glasses are not considered adequate eye protection.

12. Risk mitigation

Appropriate use of PPE, effective donning and doffing, following IPC and decontamination guidance (including social distancing, hand and respiratory hygiene) are the main mitigating factors to reduce the transmission of COVID19

Risk reduction of aerosol contamination can be achieved by using high-speed suction and use of a rubber dam.

Particular care should be taken to avoid surgical extractions at this time. Where it is necessary to remove bone, slow handpieces should be used with irrigation to reduce the risk.

In times of sustained community transmission hand instruments, e.g. scaling instruments, should be used where possible rather than ultrasonic scalers

Physical measures such as plexiscreens, distancing markers, demarked zones can help segregation and isolation

13. Filtering face piece respirators (FFP3/FFP2/N95)

All respirators should:

• be well fitted, covering both nose and mouth

• be specifically fit-tested and fit-checked for the specific make and model of the respirator on all staff undertaking AGPs to ensure an adequate seal/fit according to the manufacturers' guidance

• be fit-checked (according to the manufacturers' guidance) by staff every time a respirator is donned to ensure an adequate seal has been achieved

• not be allowed to dangle around the neck of the wearer after or between each use

• not be touched once donned

• be compatible with other facial protection used such as protective eyewear so that this does not interfere with the seal of the respiratory protection

• be disposed of and replaced if breathing becomes difficult, the respirator is damaged or distorted, the respirator becomes obviously contaminated by respiratory secretions or other body fluids, or if a proper face fit cannot be maintained

• be removed outside the dental surgery where AGPs have been generated in line with the doffing protocol

• be worn with a full-face visor if a non-fluid resistant respirator is used. (Note that valved respirators are not fully fluid-resistant unless they are also 'shrouded')

• cleaned according to manufacturer's instructions if re-usable

FFP3 (filtering 98% of airborne particles) respirators are advised for all AGPs to prevent inhalation of aerosols. This is because FFP3 respirators offer a slightly higher level of protection than FFP2 respirators and advice aims to offer the greatest protection. However, the HSE has stated that FFP2 and N95 respirators (filtering at least 94% and 95% of airborne particles respectively) offer protection against COVID-19 and so may be used if FFP3 respirators are not available. These respirators offer protection against AGPs, are recommended by the World Health Organization and are used routinely in other countries by dentists for AGPs. All respirators need to be fit tested and checked.

Other respirators can be utilised by individuals if they comply with HSE recommendations. Reusable respirators should be cleaned according to the manufacturer's instructions.

It is important to ensure that facial hair does not cross the respirator sealing surface and if the respirator has an exhalation valve, hair within the sealed mask area should not impinge upon or contact the valve.

Operators who are unable to wear respirators due to facial hair or religious head coverings or other reasons should wear alternatives such as positive pressure hoods. These deliver clean air through a High Efficiency Particulate Air filter using a fan mounted on the wearer's belt. Hoods have integral visors.

14. Sessional use of PPE

Gloves and aprons are single use with disposal after each patient.

All PPE worn for patients that are shielding must be single use.

Disposable gowns are recommended as they are easily disposed of at the surgery and require no additional processes. However, where there is a shortage of disposable gowns, reusable gowns may be used. After use, gowns should be transported in a disposable plastic bag. The bag should be disposed of into the household waste. Reusable gowns should be laundered: separately from other household linen; in a load not more than half the machine capacity; and at the maximum temperature the fabric can tolerate, then ironed or tumbled-dried14 15.

Fluid resistant (type IIR) surgical mask and eye protection can be used for a session of work rather than a single patient or resident contact.

FFP3/FFP2/N95 respirators have a large capacity for the filtration and retention of airborne contaminants. Sessional use can be used in dental practice. A full-face visor changed between patients will protect the respirator from droplet/splatter contamination.

Although good practice, there is no evidence to show that discarding disposable respirators, facemasks or eye protection in-between each patient reduces the risk of infection transmission to the health worker or the patient.

The rationale for recommending sessional use in certain circumstances is to reduce risk of inadvertent indirect transmission, as well as to facilitate delivery of efficient clinical care.

15. Decontamination

Decontamination of equipment and the environment following dental treatment should follow HTM01 05. Decontamination of equipment and the care environment must be performed using either:

a combined detergent/disinfectant solution at a dilution of 1,000 parts per million available chlorine (ppm available chlorine (av.cl.)); or a general-purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1,000ppm av.cl

If alternative cleaning agents/disinfectants are to be used, they should only on the advice of the IPC team and conform to EN standard 14476 for viricidal activity.

Products are prepared and used according to the manufacturers' instructions and recommended product 'contact times' must be followed.

Dedicated or disposable equipment must be used for environmental decontamination and disposed of as infectious clinical waste. Disposable products are preferred at this time, but where it is safe to

do so, items may be reused e.g. dedicated mops should be colour coded according to HTM01 05 for each area according to the guidelines.

Specific information and resources to help prevent Legionella infections in water systems following a sustained dental practice closure can be found here:

https://www.gov.uk/government/collections/oral-health#healthcare-public-health

Dentures or any laboratory work should be disinfected before transport to the laboratory and should be disinfected before being returned to the patient.

16. Environmental decontamination after AGPs

The rate of clearance of aerosols in an enclosed space is dependent on the extent of any mechanical or natural ventilation and the size of the droplets created – the greater the number of air changes per hour (ventilation rate), the sooner any aerosol will be cleared.

When an AGP has been undertaken, it is recommended that the room is left vacant for one hour for a neutral pressure room before cleaning is carried out.

Most dental surgeries are neutral pressure rooms.

Windows in neutral pressure rooms should be opened, or extractor fans that vent to the exterior should be used as air passing externally will be highly diluted and is not considered to be a risk.

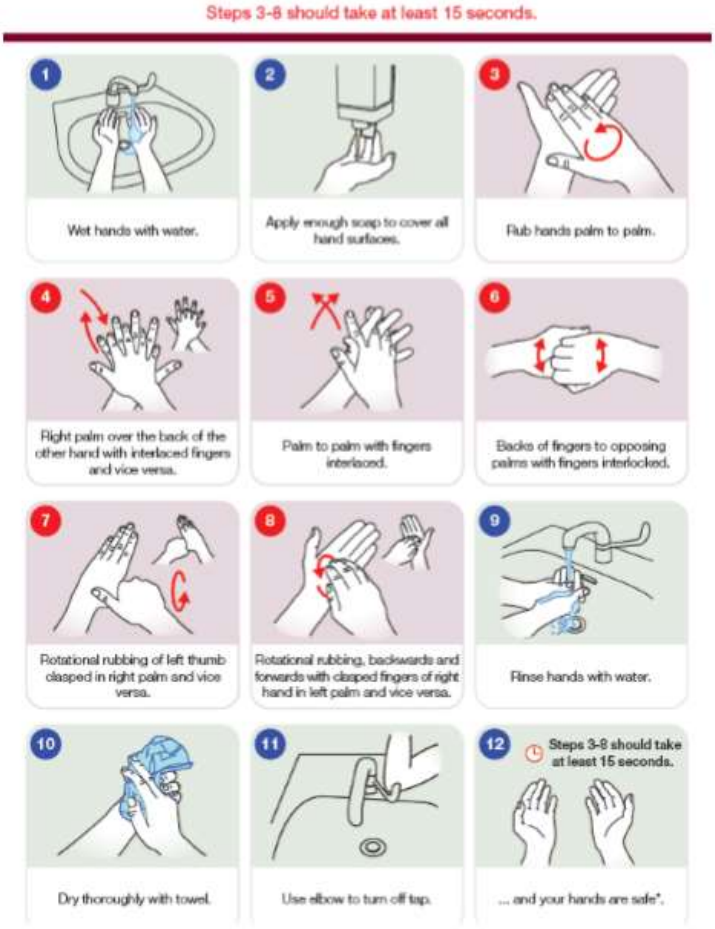
There is currently insufficient evidence to indicate transmission of viable virus through air vent and air conditioning systems.

It is difficult to make general recommendations for devices that remove viable microbes from air, either by filtration or microbicidal action. This is because: there is variability in the rate they pass air through the device, the removal or inactivation will vary according to filtration or microbicidal efficacy, and over time filters will become progressively blocked. Microbicidal treatment such as UV can get obscured by a build-up of dust and the spectrum of UV emission, critical for microbicidal efficacy, can change over time.

FIGURE 1: Hand hygiene

Best Practice: How to hand wash

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/886217/Best_practice_hand_wash.pdf



Best practice: How to hand rub

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ploads/attachment_data/file/88621

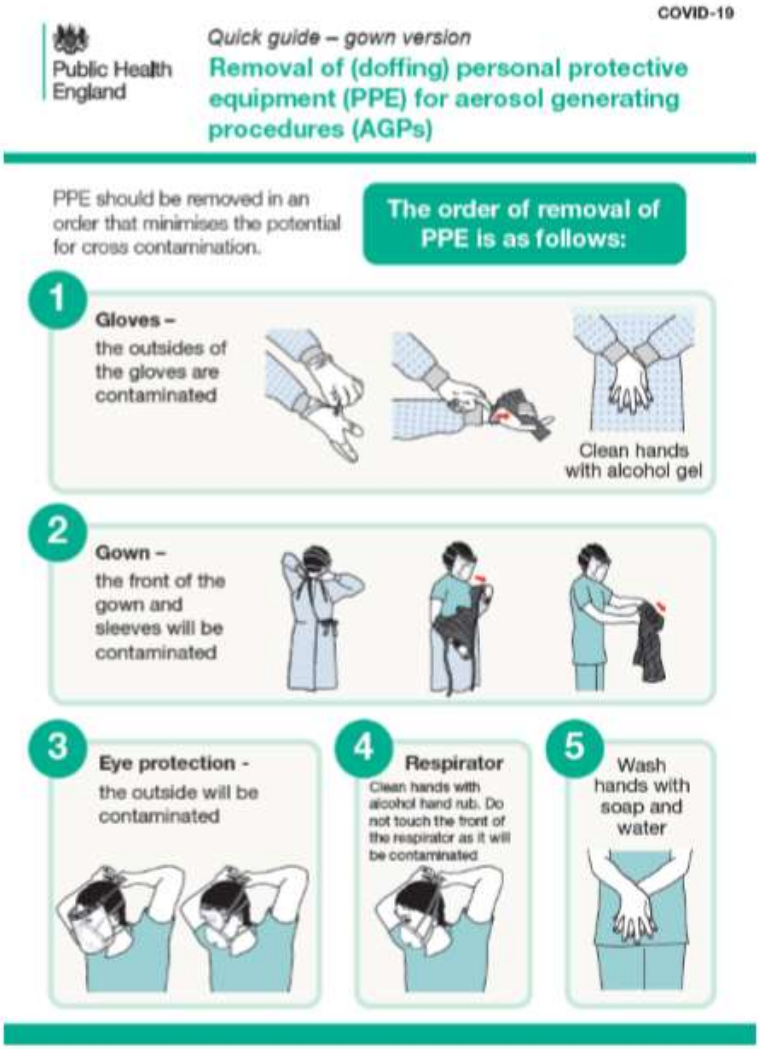
FIGURE 2: Best practice – donning and doffing PPE

Guidance on putting on (donning) PPE for aerosol generating procedures (AGPs), and a video showing h
to COVID-19 for AGPs and which should be used in conjunction with the quick guide to donning PPE and

https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-aerosol-gen

Donning

Doffing



COVID-19

Public Health England

Quick guide – gown version

Removal of (doffing) personal protective equipment (PPE) for aerosol generating procedures (AGPs)

PPE should be removed in an order that minimises the potential for cross contamination.

The order of removal of PPE is as follows:

1. **Gloves –** the outsides of the gloves are contaminated

Clean hands with alcohol gel

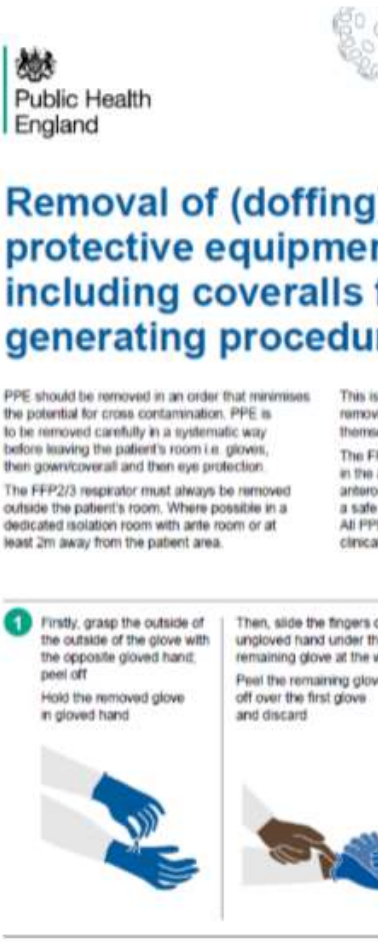
2. **Gown –** the front of the gown and sleeves will be contaminated

3. **Eye protection -** the outside will be contaminated

4. **Respirator**

Clean hands with alcohol hand rub. Do not touch the front of the respirator as it will be contaminated

5. Wash hands with soap and water



Public Health England

Removal of (doffing protective equipmer including coveralls generating procedu

PPE should be removed in an order that minimises the potential for cross contamination. PPE is to be removed carefully in a systematic way before leaving the patient's room i.e. gloves, then gown/coverall and then eye protection.

The FFP2/3 respirator must always be removed outside the patient's room. Where possible in a dedicated isolation room with ante room or at least 2m away from the patient area.

1 Firstly, grasp the outside of the outside of the glove with the opposite gloved hand; peel off

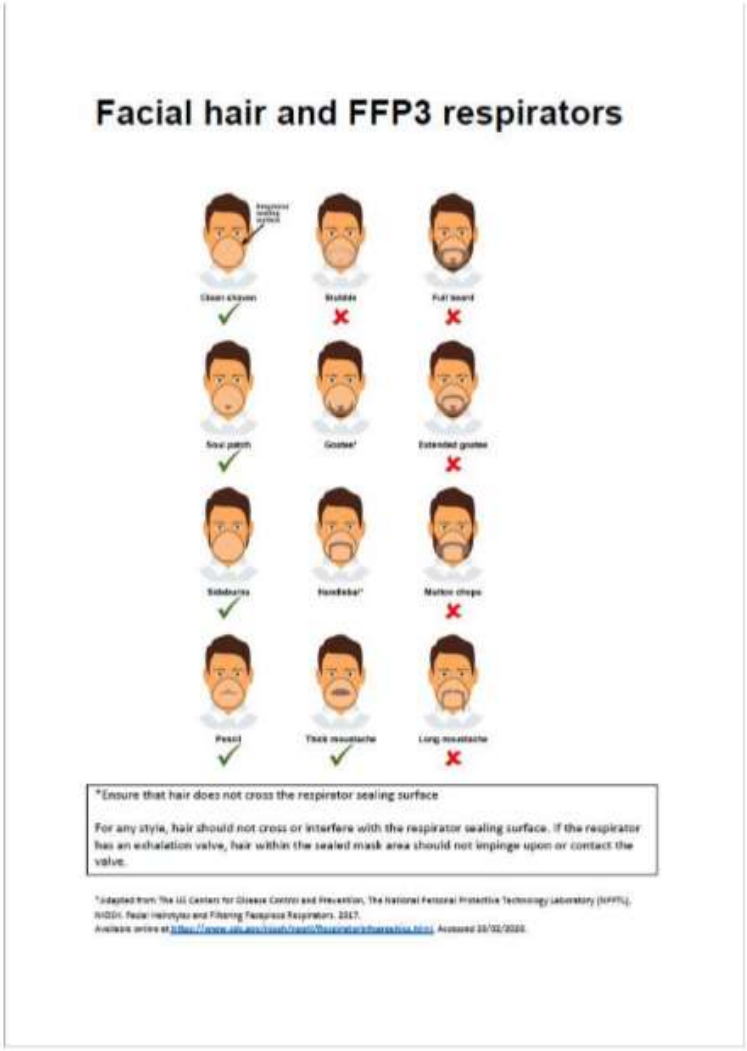
Hold the removed glove in gloved hand

Then, slide the fingers ungloved hand under th remaining glove at the

Peel the remaining glov off over the first glove and discard

Facial hair and FFP3 respirators. View at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877532/Facial_hair_and_FFP3_respirators_220320.pdf



Facial hair and FFP3 respirators

*Ensure that hair does not cross the respirator sealing surface

For any style, hair should not cross or interfere with the respirator sealing surface. If the respirator has an exhalation valve, hair within the sealed mask area should not impinge upon or contact the valve.

A visual guide to safe F

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19_visual_guide_poster_

Appendix 4: Further Considerations in relation to Covid 19

Dr. Robert Banks is lead for the co-ordination of activities within Singleton Dental for training, preparation and implementation of SOPs and any subsequent revisions to guidance. Mrs. Judith Peirson-Webber is second lead co-ordinator. Dr. Robert Banks and Mrs. Jayne Hatton are tasked with communication with the dental team and regular communication with any other parts of the local UDC system as necessary (eg the commissioning team or collaborating services).

Keeping staff safe

1. Government guidance for business and employers may be found through the gov.uk web pages.

2. All staff will be risk assessed on an ongoing basis to protect them and keep possible/confirmed cases, household contacts, staff who should be shielded, or those at increased risk, away from work. This may include but is not limited to daily temperature checks and health screening.

3. In line with government advice, it is recommended that as part of risk assessment, dental services review resource requirements for service operations and commitments. Where appropriate, Singleton Dental may require staff to work from home or at other locations as appropriate.

4. COVID-19 guidance around social distancing and good hygiene practice will be promoted in the workplace.

5. Staff testing:

- Essential workers with symptoms of COVID-19, or who live with someone with symptoms of COVID-19, can access testing via the GOV.UK website.

6. Resources to support staff and promote mental health and wellbeing are at Appendix 7. These can be shared with dental teams.

Staff with symptoms of COVID-19 and household contacts:

Staff with symptoms of COVID-19, or who live with someone with symptoms, should stay at home as per advice for the public. Staff who are well enough to continue working from home should be supported to work from home.

If staff become unwell with symptoms of COVID-19 while at work, they should stop work immediately and go home. Decontamination should be carried out as for a patient with symptoms of COVID-19 – for further information see here. No additional precautions need be taken for patient and staff contacts unless they develop relevant symptoms.

If a staff member tests positive for COVID-19, no additional precautions need be taken for patient and staff contacts unless they develop relevant symptoms.

Staff exposed to someone with symptoms of COVID-19 in healthcare settings

Guidance for healthcare workers who have been exposed to someone with symptoms of COVID-19 in healthcare settings is available on the GOV.UK website.

Staff at increased risk from COVID-19 (including staff in shielded groups)

The government has issued guidance on:

- shielding for people at highest risk of severe illness from COVID-19
- stringent social distancing for people at increased risk of severe illness from COVID-19

Staff who fall into these categories should not see patients face to face, regardless of whether a patient has symptoms of COVID-19 or not.

Staff at highest risk (shielded) should not come into work. They should stay at home and, if possible, work from home with all possible support in place.

Remote working should also be prioritised for staff at increased risk. However if they are not able to work from home, dental providers should support these staff to follow stringent social distancing requirements (e.g. staying more than 2 metres away from others).

Employers liability and respirator fit testing

Fit testing of PPE may be performed by dental staff with appropriate training, or third party contractors that specialise in such services.

Dr. Robert Banks is a certified Fit2Fit face fit tester for particulate respirators and has been appointed as in-house fit tester for Singleton Dental.

All staff undertaking aerosol generating procedures are required to be fit tested for appropriate PPE.

Informing the public and commissioners of service status

To provide accurate information to the public, Singleton Dental will:

- update their messaging and websites
- communicate with other agencies as appropriate to advise of changes to services provided.
- keep aware of updates, alerts and communications

Appendix 5: Remote prescribing protocol

Singleton Dental will endeavour to work with pharmacy colleagues and align with the local approach and local arrangements for remote prescribing.

Shielded patients

Pharmacies are required to act as a 'backstop' for delivery of medicines for shielded patients and therefore, the following can be advised to them:

• Where patients currently have prescriptions delivered to them, or collected for them by a nominated carer, friend or volunteer, they should continue to do this.

• If the patient does not currently have their prescriptions collected or delivered, they can arrange this by:

- asking someone who can pick up their prescription or medication from Singleton Dental this includes asking a volunteer (this is the best option, if possible)

- contacting their pharmacy to ask them to deliver for them. An NHS Home Delivery Service has been commissioned from community pharmacies to ensure delivery of medicines to shielded patients.

Non-shielded patients

Pharmacies are not required to act as a 'backstop' for delivery of medicines to non-shielded patients including those self-isolating with possible COVID-19. Normal arrangements apply, where patients make their own arrangements, which includes in some cases the pharmacy delivering to them.

Patients with possible or confirmed COVID-19 and their household contacts should not go to community pharmacies. Singleton Dental will advise patients who require a prescribed medication that this should collected by someone who is not required to isolate themselves due to contact with the patient, eg neighbour or relative not in the same household, or a volunteer, and delivered to the patient's home.

Appendix 6: Preparation for incident management for unwell patients with possible/confirmed COVID-19

Singleton Dental will use established methods for dealing with medical emergencies in practice, as the incident management principles are the same:

- We will develop and rehearse our COVID-19 triage protocols and isolation procedures:
- We will continue to develop our approach for each stage of medical emergencies
- Dental surgeons lead in the clinical management of emergencies with the assistance of nursing staff
- The senior member of staff present is de facto incident manager for discussions with patients and emergency services
- Singleton Dental rehearses regularly the management of different scenarios of medical emergencies

Appendix 7: Staff support and wellbeing

We recognise the impact the COVID-19 response is having and will continue to have on dental teams, and it is important to support them as much as possible during their continued commitment to patient care.

Mental health and wellbeing resources

The government has issued guidance for the public on the mental health and wellbeing aspects of COVID-19.

All staff have access to a range of support through these points of contact:

• a free wellbeing support helpline 0300 131 7000, available from 7.00 am – 11.00 pm seven days a week, providing confidential listening from trained professionals and specialist advice - including coaching, bereavement care, mental health and financial help

• a 24/7 text alternative to the above helpline - simply text FRONTLINE to 85258 • online peer to peer, team and personal resilience support, including through Silver Cloud, and free mindfulness apps including Unmind, Headspace Sleepio and Daylight These services can be used in addition to the support available from your own NHS organisations. Please email feedback to nhsi.wellbeingc19@nhs.net.

Denplan provide well being support to our dental staff, access information through the Denplan website.

Health Education England e-Learning for Healthcare has created an e-learning programme in response to the COVID-19 pandemic that is free to access for the entire UK health and care workforce – found here.