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Standard operating procedure **Transition to recovery**

A phased transition for dental practices
towards the resumption of the full range
of dental provision

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Introduction

On 28 May 2020 we wrote to NHS dental practices setting out the arrangements to restart face to face dental services from 8 June. We also published the first version of this Transition to Recovery SOP.

Since then we have seen increasing numbers of practices opening for face to face care recognising some of the challenges that needed to be overcome in terms of restructuring the approach to patient flows to account for a COVID-secure environment and the complexities associated with Infection prevention control and aerosol generating procedures.

I am incredibly grateful to all those who have risen to the various challenges and for their ongoing commitment to patient care.

The dental Transition to Recovery SOP sits within the context of the NHS's phased approach to dealing with the pandemic and on the 31 July NHS England and NHS Improvement published its letter about the third phase of the NHS response to COVID-19, which stated:

'Dental practices should have now mobilised for face-to-face interventions. We recognise that capacity is constrained, but will support practices to deliver as comprehensive a service as possible'

During this phase, the baseline expectation is:

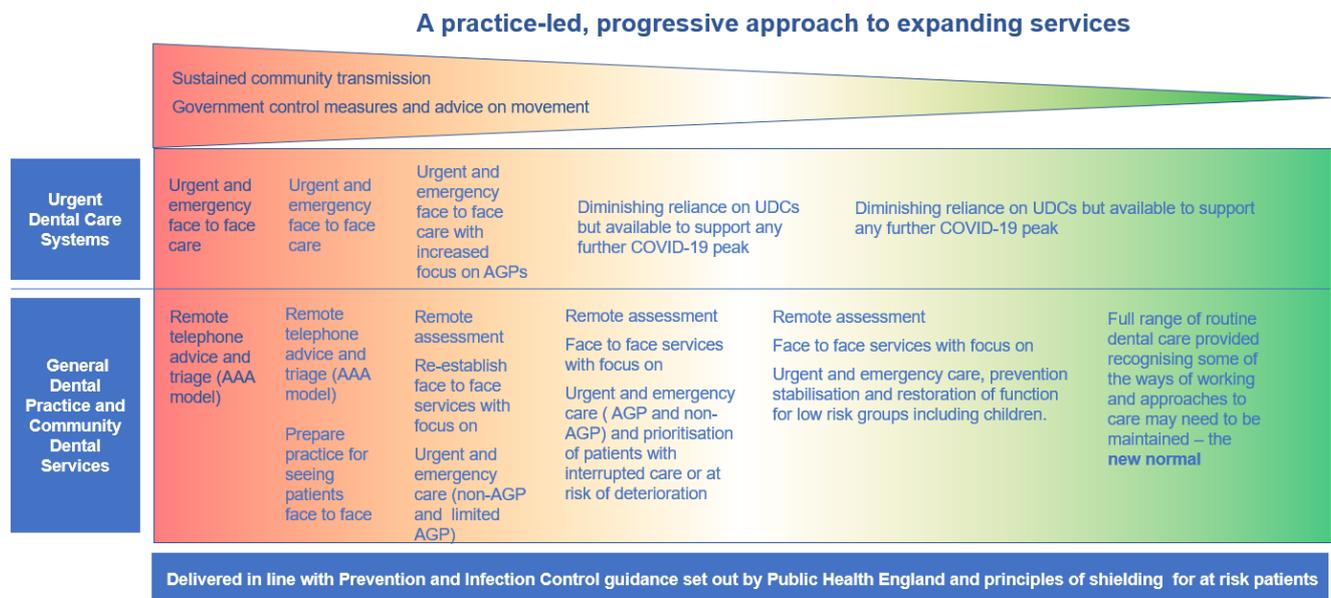
- Practices should be open for face to face care unless there are specific circumstances which prevent this and arrangements should be agreed with NHS commissioners.
- Practices should prioritise urgent dental care (UDC) provision, with flexibility for practices to do what is best for their patients. Detail is covered in the revised standard operating procedures for urgent dental care ([UDC SOP](#)), which should be read in conjunction with this SOP.
- Progression towards the resumption of an increasing range of dental care, including aerosol generating procedures (AGP), risk-managed by individual practices subject to following the necessary IPC and PPE requirements.

We recognise the constraints on capacity associated with the current infection prevention control procedures, and are looking to support practices in this regard, for example the Fit Tester Training programme, and the work across the UK being taken forward by the Scottish Dental Clinical Effectiveness Programme on AGPs and fallow time.

Central to the phased transition of dental services and the resumption of all service provision is the acknowledged clinical judgement of practitioners and their ability to risk manage the delivery of dental care. This document is designed to provide supporting guidance for the initial transition from recommencing face to face care towards the full resumption of dental care services; a practice-led, progressive approach.

In restoring service provision, we have a collective responsibility to:

- Monitor safety and assure the protection of the public, our patients and our dental workforce.
- Remain agile in our response to a re-imposition of public health measures, be it a local or national requirement to mitigate risk of COVID-19 transmission.



We all recognise the necessity for enhanced safety standards, including PPE and IPC. This will impact on tempo of clinical care, practice capacity and prioritisation of patients. The standards for IPC and PPE have been produced by Public Health England and must be adhered to. These standards are included in this SOP ([Appendix 1](#)). They are the national benchmark and minimum expectation for safe practice and the standard expected by the regulators.

In delivering face-to-face dental care, minimising AGPs and the decision to defer functional and reconstructive work will need to be central to treatment planning. In supporting practitioners to adopt the clinically sound option to stabilise ahead of restoration, the principles are summarised and supported by the [Note for Avoidance of Doubt: Provision of Phased Treatments](#)

The limitations in AGPs present an opportunity to re-think our approach to care pathways. The patient-focused, team-delivered minimum intervention oral healthcare philosophy helps in taking on the current challenges in delivering dental care. The philosophy with its four interlinking domains of identifying the problem, prevention & control, minimally invasive treatments and suitable recall strategies dependent upon longitudinal disease susceptibility, underpins all disciplines of dentistry.

While dental teams may use a variety of acceptable techniques to risk manage care, the guidelines for remote consultations, non-AGP periodontal treatment, restorative and paediatric dental care contained in this SOP provide an aide memoire to best practice, minimising AGPs and delivering quality health outcomes.

We will need to support our patients in understanding the rationale behind the dental care management options. With patients and carers fully engaged in the [shared decision-making](#), the opportunity to actively apply minimally invasive oral care brings us a step closer to breaking the “repeat intervention cycle”.

The SOP is designed to support the practice through transition and the shift towards a preventative and minimally invasive clinical approach that meets the current clinical challenges. The SOP will also assist the Dental Team in fulfilling its responsibility with respect to the GDC Standards for the Dental Team¹ and in particular:

Standard 7.1: You must provide good quality care based on current evidence and authoritative guidance

7.1.1 You must find out about current evidence and best practice which affect your work, premises, equipment and business and follow them.

7.1.2 If you deviate from established practice and guidance, you should record the reasons why and be able to justify your decision.

As a framework and evidenced-based approach the intention is to support the provision of high-quality care in a safe clinical environment, in partnership with our patients. The pace of transition, as with the prevention and intervention decisions managed every day, in every dental surgery, will be set by the clinical leadership in each practice.



Sara Hurley
Chief Dental Officer for England

¹ https://www.gdc-uk.org/docs/default-source/standards-for-the-dental-team/standards-printer-friendly-colour.pdf?sfvrsn=98cffb88_2

Section 1: Key Principles

Our shared goal is to deliver the safe and effective provision of the full range of care in all practices. Our enduring priorities are the protection of patients, the dental team and the wider community. It remains a significant responsibility of the whole dental team to ensure that the risk of transmission of COVID-19 between patients, staff, staff and patients, is minimised. The decisions on pace and patient priorities, as ever, sit with the individual practitioner, who is best placed to judge their patient population needs and timing of next steps for their practice.



All dental practices should continue to provide remote consultations with triage and advice as necessary options. This will enable practices to identify patients who are confirmed or suspected COVID-19 cases or household/support bubble contacts, those who are clinically vulnerable and those who are clinically extremely vulnerable, in order to ensure safe care in an appropriate setting.

- Patients and their household contacts/support bubble contacts that are not suspected or confirmed COVID-19 may be offered face-to-face appointments with the primary care dental practice.

From 1 August, government shielding advice is paused. Patients who are clinically extremely vulnerable (previously advised to shield) may be seen for dental care in the same way as other patients. Where possible, without compromising the requirement for access to care in an appropriate timescale, additional efforts should be made to minimise their exposure to risk.

- Given their risk status, it is particularly important that shared decision-making features in the approach to care for this group, so that care plans can be developed in the patient's best interests.
- For clinically vulnerable and clinically extremely vulnerable patients - dental services should take note of care approaches as outlined in Appendix 8.

- Primary dental care providers may carry out both non-AGP and AGP care, subject to availability of the appropriate PPE and in line with infection prevention and control guidance.
- Suspected and confirmed COVID-19 patients and their household/support bubble contacts requiring urgent face-to-face care are to be referred to Urgent Dental Care hubs.
- Patients including COVID-19 and their household/support bubble contacts, need to be identified through an initial remote stage of the dental care pathway followed by a face to face stage at Fig 1.

When scheduling an appointment for face-to-face care:

- Care should be delivered in a dental service/care setting which is appropriate and suitably equipped for the patient's care requirements (eg appropriate PPE available for AGPs).
- Dental services should take into consideration social distancing and physical and temporal separation requirements which may impact appointment planning and/or referrals.
- Robust infection prevention and control procedures in line [with government advice](#) must be adhered to.
- PPE protocols in line with [government advice](#) must be adhered to:
 - For non-AGP care: standard infection control precautions PPE,
 - eye protection, disposable fluid-resistant (Type IIR) surgical masks, disposable apron and gloves should be worn.
 - For all AGPs: to prevent aerosol transmission,
 - disposable, fluid-repellent gown or approved equivalent, gloves, eye/face protection and an FFP3 respirator* should be worn by those undertaking or assisting in the procedure.

*Please note Section 13 of Appendix 1 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.

- 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.

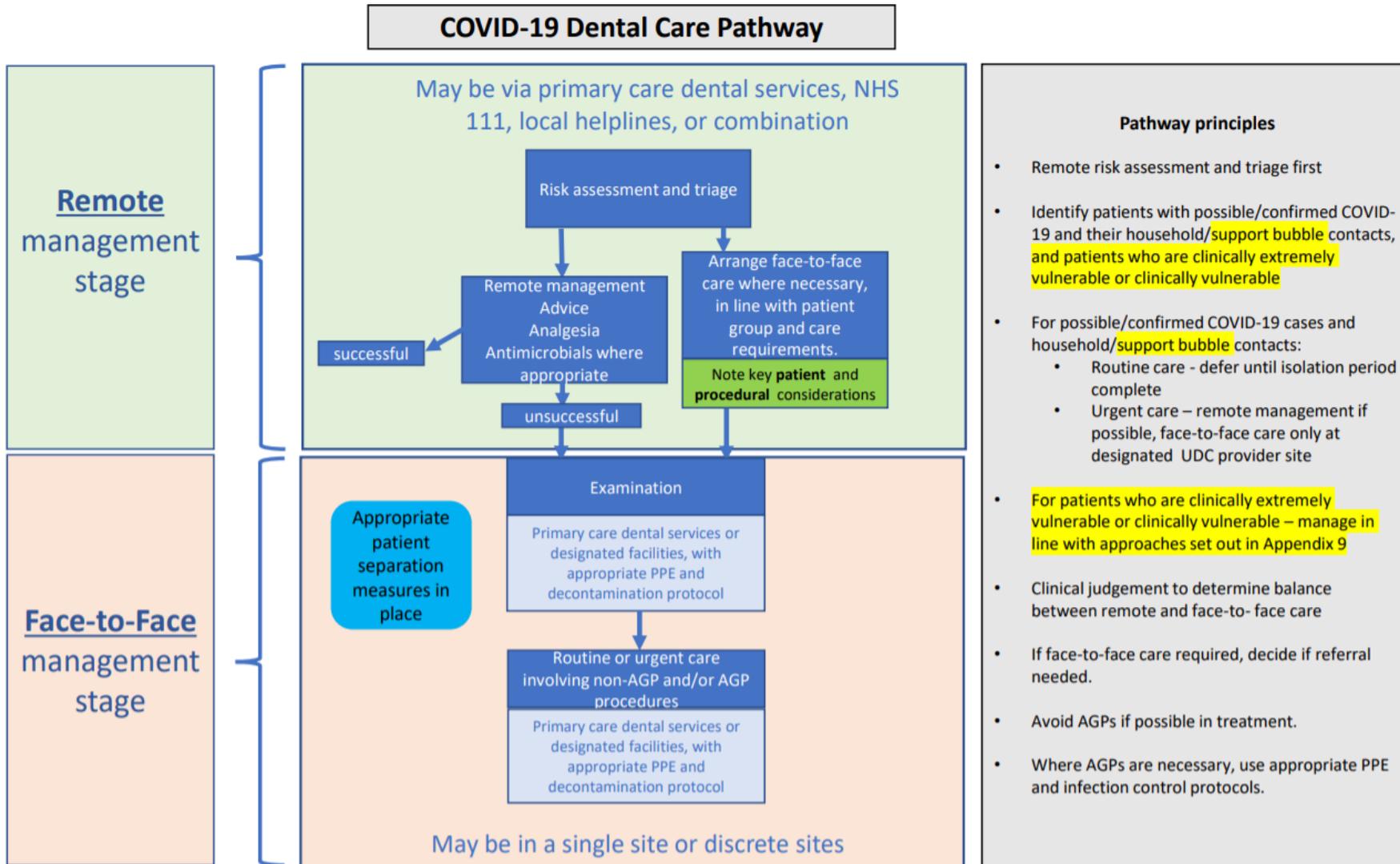
- When an AGP has been undertaken, it is recommended that the room is left vacant for one hour for a neutral pressure room² before cleaning is carried out.

Further IPC and PPE detail is contained in Appendix 1 – Guidance for infection prevention and control in dental care settings.

Appendix 1 provides the standard by which regulators will assess practice compliance in the delivery of safe care.

² Most dental surgeries are neutral pressure rooms. For further see Section 16 of Appendix 1.

Fig 1. The COVID-19 Dental Care Pathway

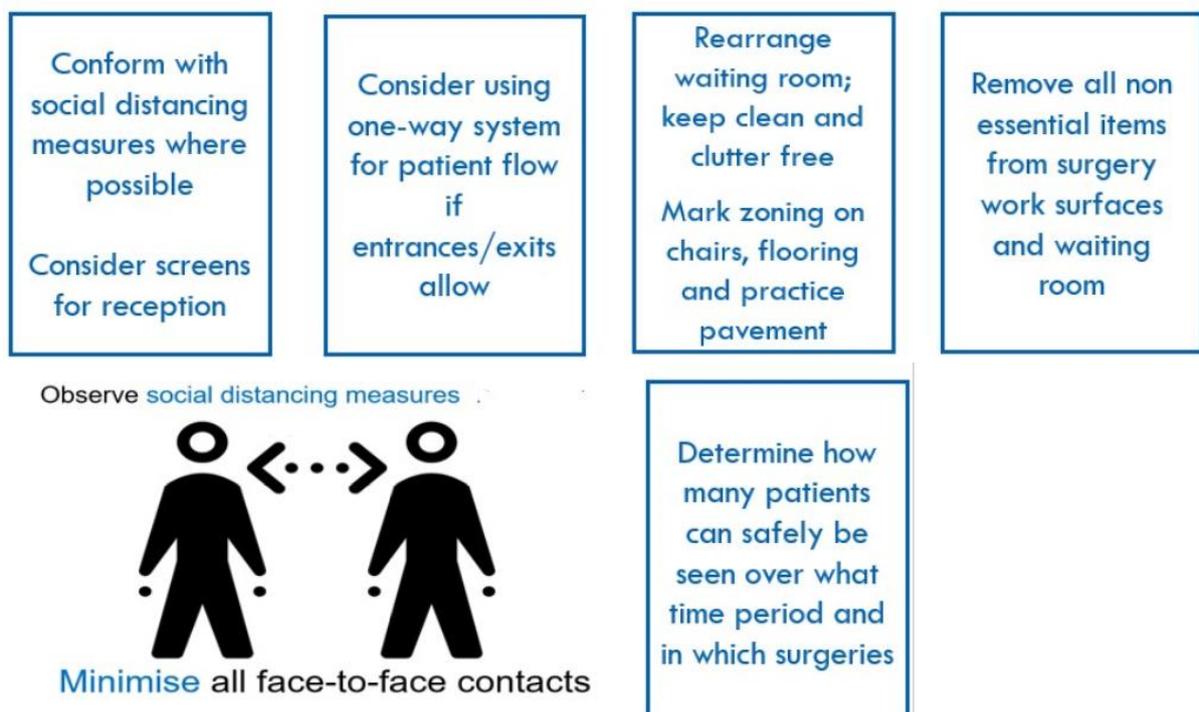


To aid practices in assessing the practice environment and designing risk management procedures a sample check list of practical considerations is included at Appendix 2. Together with a “walk-through” of the potential patient journeys through the practice, the check list will help inform and identify the practical modifications to current facilities and working practices.

A similar “walk through” and risk assessment of staff rooms and communal areas should also be undertaken to support social distancing for team members when not undertaking patient facing practice duties.

Patient flow and practice layout should be considered, in order to comply with social distancing measures throughout the practice. For example:

- Measures to separate and minimise the number of patients in practice at any one time.
- Follow guidance on face coverings in primary and community care settings – [here](#), and hospital settings – [here](#).
- Establishing single entry and exit points for patients, with alcohol hand gel available for patient use.
- Reception interactions:
 - measures to minimise reception use eg digital appointment booking (online, email), receipts
 - consider fitting physical barrier at reception eg perspex shield
 - set up contactless / card payment where possible
- Allow for 2m distancing where possible, ideally marked on floors.
- Where 2 metre separation is not possible, maintain 1 metre with additional precautions.
- Remove unnecessary items (eg magazines, toys, tv remote) from the waiting area.



As a result of these changes, practices will look and feel different to your patients, with new ways of attending and new ways of operating, eg new measures to support infection prevention and control, social distancing, and screening and triage. It is worth considering how the key changes in your practice may be communicated with patients.

For example:

- Information posters throughout practice.
- Drafting a “Welcome back” communication (letter/email/text) to patients.

Section 2: Supporting the Dental Team

Risk Assessment

All Staff

Employers will need to consider detailed risk management approaches to safeguarding the health of their staff and minimise the risk of infection. It is therefore essential that all dental practices undertake risk assessments for all their staff (clinical, administrative and domestic staff), recording the discussion with team members and the agreed actions. Further information is available in the Health and Safety Executive's [working-safely-guide](#). Further guidance is also available through the [Faculty of Occupational Medicine Risk Reduction Framework](#).

- NHS Employers: risk assessments for staff – [here](#)
- Risk reduction framework for NHS staff at risk of COVID-19 infection - [here](#)

Staff who have possible/confirmed COVID-19, or who are living in households or part of support bubbles with possible/confirmed COVID-19, should stay at home and not come into work. They must self-isolate and order a test immediately at [GOV.UK website](#) or call 119 if they have no internet access. If the test is negative, they no longer need to self-isolate. If, however, the test is positive, they must complete the remainder of their 7-day self-isolation and the NHS test and trace service will send them instructions of how to share details of people with whom they have had close or recent contact. Further information on the NHS test and trace service is found [here](#).

See guidance:

- For households with possible/confirmed COVID-19 – [here](#)
- For members of support bubbles developing symptoms, and on support bubbles and isolation – [here](#)

Staff at increased risk from COVID-19 (including clinically vulnerable and clinically extremely vulnerable groups)

These staff, including Black, Asian and Minority Ethnic staff and pregnant women, should be risk assessed so that appropriate measures are put in place to minimise exposure to risk and support safe working. Support from Occupational Health may be required.

Staff members who are pregnant can find further advice from NHS Employers [here](#) and the Royal College of Obstetrics and Gynaecologists [here](#).

For clinically extremely vulnerable staff in particular:

Note that from 1 August, these staff are no longer required to follow shielding advice. They should be consulted with on how they can work safely – this may be from home or on-site at the workplace. Workplaces must be made safe by following [COVID-secure guidelines](#) if they are returning to work on-site. See further information on work, employment rights and statutory sick pay [here](#).

Resilience: supporting the workforce

Our workforce and their resilience remain at the heart of best practice and high-quality patient care. As our primary care and community care dental practices commence the journey back to full operating capability our teams must feel confident that their safety and well-being remains a high priority. To ensure that staff are working safely the pace of the clinical day should be reviewed in order to accommodate regular breaks and rest periods. To maintain social distancing measures in staff areas/facilities consider measures such as staggering breaks and limited use of changing areas/rooms to single occupancy at any one time.

There may also be concerns around an increased chance of infection in the workplace, managing challenging domestic situations as well as other concerns. It is important to understand concerns and provide information about the measures taken and the support available to staff.

The following **mental health and wellbeing resources** are available to staff:

- NHS Employers have resources to support staff wellbeing during the COVID-19 pandemic [here](#).
- The World Health Organization has published [WHO Mental Health Considerations During COVID-19](#).
- [MIND UK](#) and [Every Mind Matters](#) have published specific resources in the context of COVID-19.
- NHS Practitioner Health has developed [frontline wellbeing support](#) during COVID-19.
- BDA members can find further information about access to counselling and emotional support [here](#).
- Domestic abuse helpline [here](#).

Consider the impact that the current unprecedented circumstances could have on the wellbeing of everyone who works in the practice and ensure appropriate support is in place

#LookingAfterYouToo

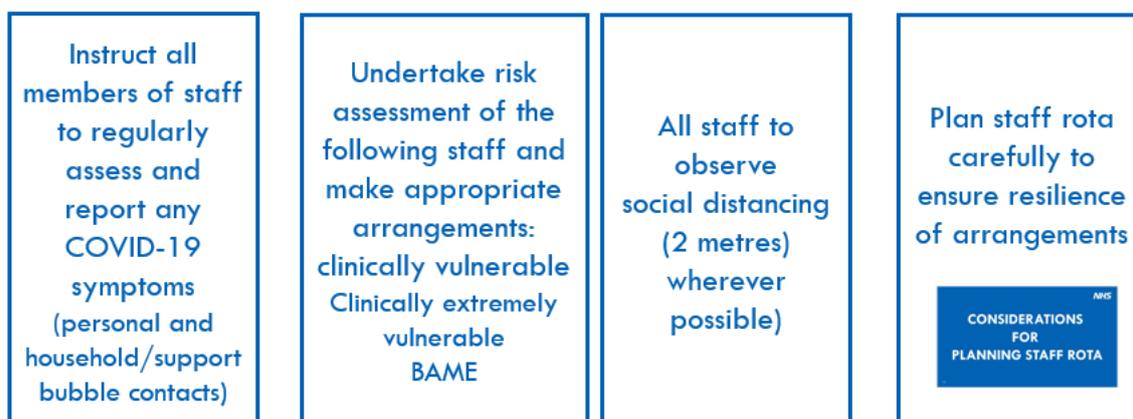
- Provides individual coaching support for primary care staff and can be accessed by video link or telephone with highly trained, experienced coaches
- This support is available to all dental staff and provides opportunities to process experiences, develop coping skills, deal with difficult conversations and develop strategies for self-management in difficult circumstances

Practice Team Responsibilities

Practices should appoint a COVID-19 lead (and deputies if necessary) to ensure:

- Practice is updated with the latest information relating to COVID-19 in dentistry in England.
- Practice has a single point of communication with the Regional NHS England and NHS Improvement (keeping updated and disseminating updates), Local Dental Network and Local Dental Committee.

- Practice activities are co-ordinated to include training, preparation for 'new ways of working' and implementation of this guidance and any subsequent revisions to guidance.
- The development and implementation of practice policies and procedures.
- Queries are directed to local infection control teams and dental practice advisors (DPAs).
- Monitoring of stock levels and ensure PPE is available for the practice, arrange for PPE fit testing as necessary, with local/regional points of contact.



Provide staff training:

- New ways of working: processes, policies and protocols
 - Personal Protective Equipment (PPE)
- Infection Prevention and Control, including hand and respiratory hygiene

Training and development

In our transition back to full operating capability, COVID-19 demands a change in pace, preparation, protection and proximity. This means doing things differently along the whole care pathway from the patient's first interaction with the practice through attendance, waiting, treatment and discharge phases. Implementation of these adaptations will require innovation, training and rehearsal to ensure clarity on roles and responsibilities for each member of staff.

It is essential that all practice staff are aware of the symptoms of COVID-19 infection (see [here](#)). They should also know what to do if they or someone they live with **or within their support bubble** contacts develops COVID-19 symptoms.

All staff must be up to date with [COVID-19: infection prevention and control guidance](#) and should:

- Know what PPE they should wear for each setting and context (see Appendix 1).
- Have access to the PPE that protects them for the appropriate setting and context.
- Be confident and competent in [donning](#) and [doffing](#) of PPE.

Cleaning staff should also be trained in IPC measures and decontamination.

Frequency of cleaning and decontamination needs to be increased

Cleaning and decontamination should only be performed by staff trained in the use of the appropriate PPE. In some instances, **this may need to be trained clinical staff** rather than domestic staff, in which case, clinical staff may require additional training on standards and order of cleaning

Decontamination of equipment and the care environment must be performed using either:

A combined detergent/disinfectant solution at a dilution of 1,000ppm available chlorine

OR

A general purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1,000ppm available chlorine

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

Health Education England e-Learning for Healthcare has created an e-learning programme in response to the COVID-19 pandemic that is accessible for the entire UK health and care workforce [here](#).

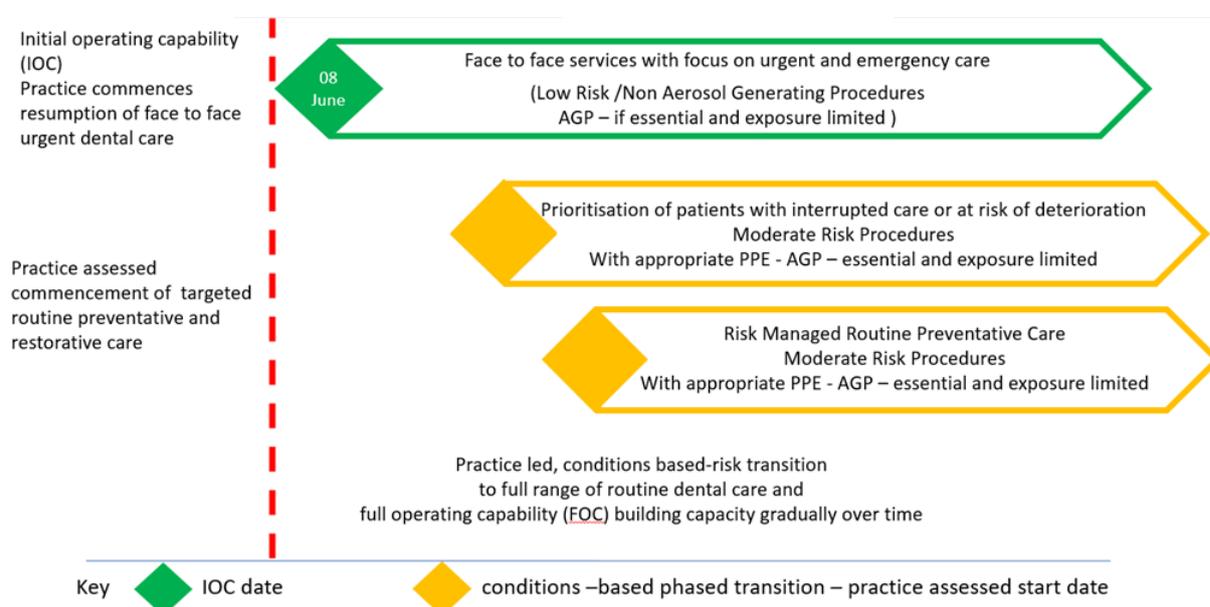
Additional training for staff may be necessary and should be provided prior to recommencing any dental provision. Please consider the below:

- [Rubber dam placement](#).
- [Four handed technique](#);
- [Decontamination and Infection Prevention & Control](#) courses on e-Learning for Health website.
- [Updated resuscitation guidelines](#).
- Scenario-based team training in the practice.
- Remote consultation/triaging.
- Patient prioritisation and determinants.
- Training in new IT software tools eg online medical history software.
- Scenario-based team training of new policies & procedure.

Section 3: Initial Operating Capacity Care Planning

The transition to providing a full range of dental care will take time. A practice-led, progressive approach to expanding services is recommended with the pace of transition subject to a variety of factors, including social distancing, workforce, infrastructure, and availability of PPE. In resuming the provision of face to face care, practices will need to assess capability and capacity, working with their staff to optimise time and resources as well as manage patient expectation. While supporting their current patient base, where capacity allows, new patients should also be seen, particularly those with dental emergencies.

Fig 2. An example of a practice-led transition.



Throughout transition from initial operating capability to full operating capability, remote consultations remain the first point of contact. Remote consultations should include the dental triage and COVID-19 risk assessment (See Figure 1 and below).

Q1:	Q2:	Q3:	Q4:	Q5:
Do you or anyone in your household or support bubble have any symptoms of COVID-19, including: <ul style="list-style-type: none"> - A new continuous cough; or - A high temperature (37.8°C or higher) - A loss of or change in sense of smell or taste? 	If you, anyone in your household, or anyone in your support bubble have, or have had, possible COVID-19, are you still in the self/household isolation period?	If you, anyone in your household, or anyone in your support bubble have tested positive for COVID-19, are you still in the self/household isolation period?	If you have been notified by NHS Test and Trace that you've been in contact with a person with COVID-19, are you still in the isolation period? (See isolation requirements here)	If you have entered or returned to the UK in the last 14 days, are you required to self-isolate?
IF A PATIENT ANSWERS 'NO' TO ALL OF THE ABOVE QUESTIONS THEY CAN BE REGARDED 'NON-COVID-19 PATIENT'				
IF A PATIENT ANSWERS 'YES' TO ANY OF THE ABOVE QUESTIONS THEY SHOULD BE REGARDED AS 'SUSPECTED/CONFIRMED COVID-19 POSITIVE PATIENT'				

Note: A patient who has recovered from COVID-19 or who has completed a period of self isolation, can be regarded as **ASYMPTOMATIC**. Even though the coronavirus infection has cleared, a cough may persist for several weeks in some people and the loss of, or change in, sense of smell or taste may also linger. As long as they have completed the period of self-isolation of 7 days, they can be regarded as **ASYMPTOMATIC**.

Practices need to allow for local outbreaks of COVID-19, and any outbreak control measures (eg locally declared lockdown) instituted by national direction or local systems.

Primary care dental practices are not expected to provide face-to-face care for patients who have COVID-19 symptoms, who have swab-tested positive for COVID-19, or who have close contact with a COVID-19 case ie living in the same household/support bubble and should therefore be self-isolating or has been notified as a close contact by NHS Test and trace. Where the practice is unable to or cannot accept a patient based on their patient group and/or care needs, that patient should be referred to the appropriate part of the local UDC system. Consideration should be given to liaising (with patient's consent) with the patient's general medical practitioner.

Remote Consultation

As a means of reducing footfall and non-essential face-to-face contact within the dental environment, remote contact should be made with all patients prior to appointments at the dental practice. Guidance is given in Appendix 3.

There are a number of [remote video conferencing applications](#) that are currently being used within the NHS. While these may not yet have been disseminated within the primary dental care sector, there are many alternatives that would suffice during this transition period. NHS Digital has guidance on [approved video consultation systems](#) that could be utilised, and alternatives for those settings who are in need of a video consulting system as a short-term measure where approved NHS systems may not be easily accessible.

Where video may not be possible as a first line measure, use of the telephone may be adequate. Where a point of contact takes place via video, they should provide equivalent (or better) facilities than those obtainable by a standard telephone call.

For all remote points of contact, [General Data Protection Regulations \(GDPR\)](#) must be followed as per current guidelines during the pandemic.

The General Dental Council (GDC) has set out principles and [guidance for remote consultations](#) and prescribing. The Faculty of General Dental Practice (UK) has also provided updated information and guidance on [remote prescribing and advice](#) during the COVID-19 pandemic.

Urgent Care

In providing urgent dental care, primary care dental teams should refer to the [standard operating procedure for urgent dental care](#) which sets out details around the UDC system approach, the UDC patient pathway, and operating models applicable to primary care dental providers.

Primary care providers of urgent dental care:

- Where there is a need for AGPs, this may be carried out with the appropriate PPE and IPC measures in place and under rubber dam isolation, where appropriate, within the practice.
- Where this is not possible and for all other urgent care requiring AGPs this should take place at specific UDC provider sites designated by local commissioning teams as part of the locally organised system approach

Urgent dental care centres (UDCCs) will be available to see patients:

- On referral for urgent or emergency treatments involving AGPs while AGPs are being resumed in general practice.
- With or suspected to have COVID-19 who require emergency or urgent dental care (including household/support bubble contacts).

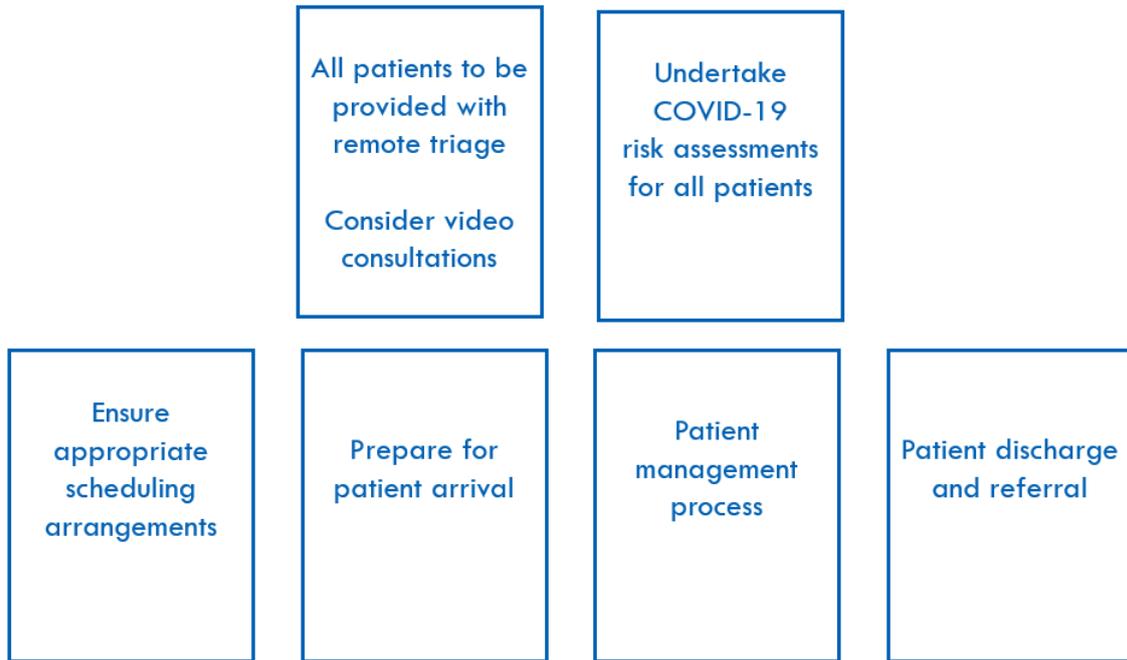
Routine dental care

As services resume and practice capacity increases there will be a demand for a broader range of clinical activities. Remote consultations should remain the first point of patient contact and should include the dental triage and COVID-19 risk assessment.

In identifying and prioritising patients, consider methods for logging practitioner/practice time and resources expended on patient record triage together with the outcome of any “remote” patient consultation and pre-appointment screening.

Within the available capacity, recommencing deferred courses of treatment, recall and re-assessments will need to prioritise groups with the greatest need. Practices should consider prioritising patients:

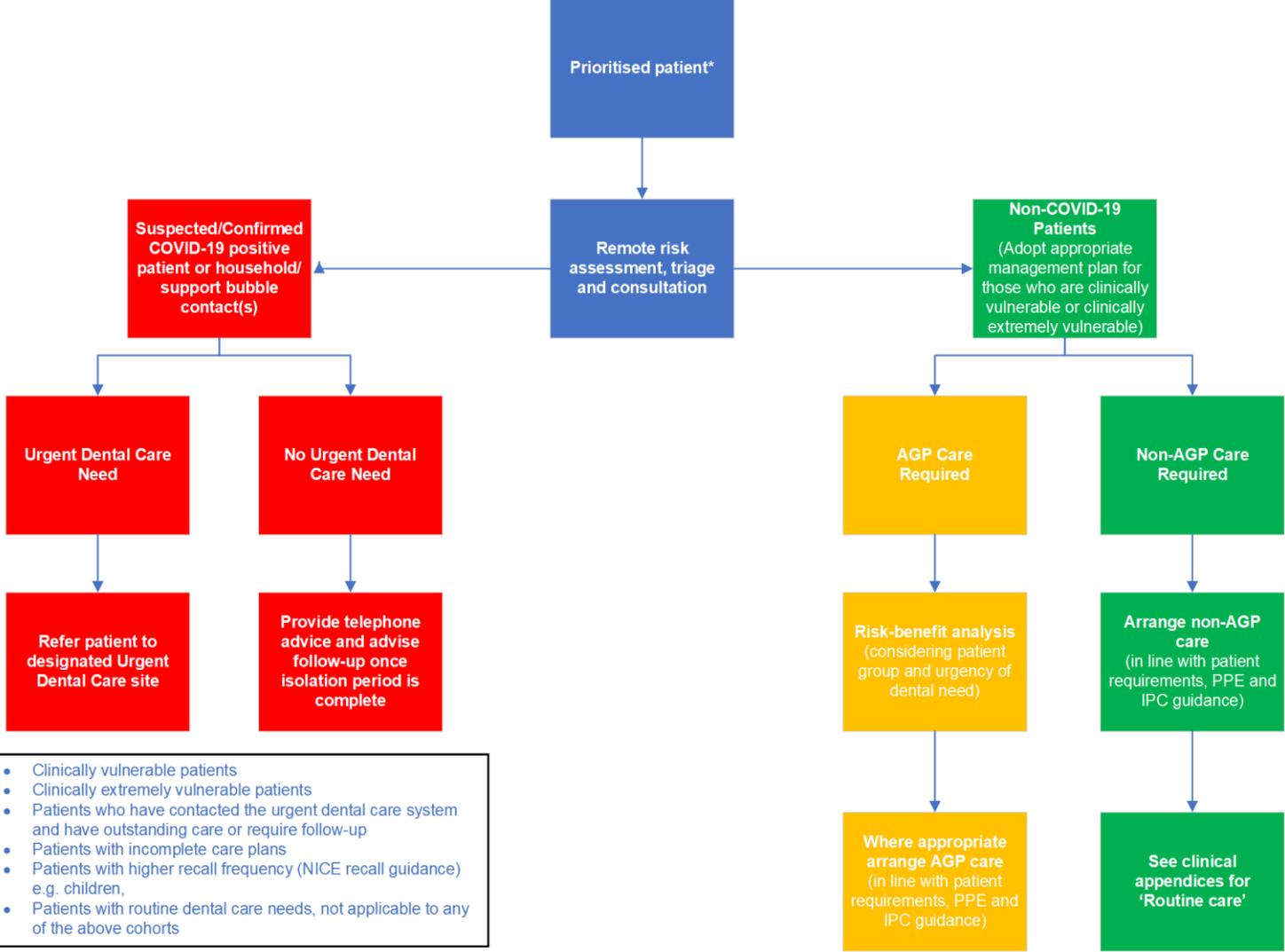
- Who have contacted the COVID-19 UDC system and already been triaged for urgent dental care and/or require follow up care.
- With incomplete care plans.
- With frequent recall according to NICE recall guidelines eg children, high oral disease risk, those patients whose oral health impacts on systemic health and those who have been through stabilisation and need review.
- With routine dental care needs, not applicable to any of the above cohorts.



In sequencing and scheduling of patients the aim will continue to be the need to minimise the risk of transmission of COVID-19 between staff, patients, patients and staff.

Efforts should be made to ensure that patients that are clinically vulnerable or clinically extremely vulnerable are separated from other patient groups.

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



Face to Face Care

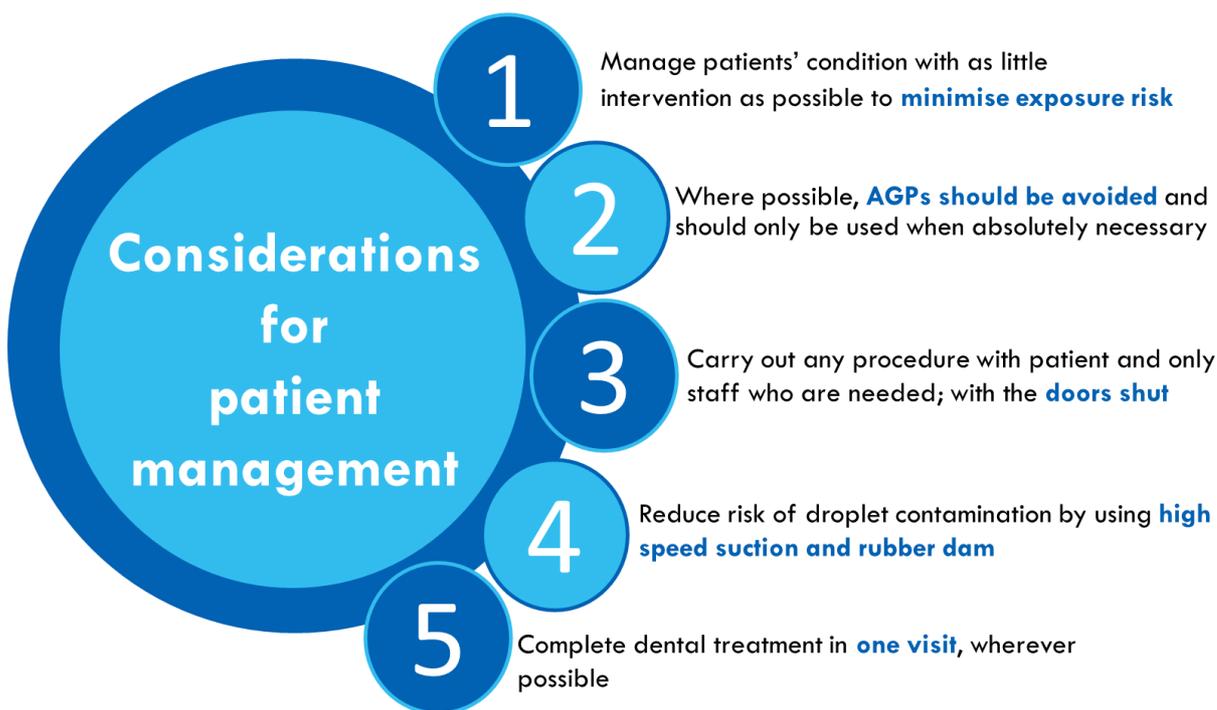
Prioritisation of patients to be seen face-to-face will depend upon the clinical judgement and expertise of the practitioner once information has been gathered from the remote point of contact.

When care planning, [shared decision making](#) is important to weigh up the benefits of dental treatment against exposure risk, and plan care in the patient's best interests. This is of particular importance to clinically extremely vulnerable patients at the highest risk from COVID-19.

Following an oral health care assessment, care planning should focus on achieving stabilisation, with care limited, where judged suitable, to non-AGPs. Deferring functional and reconstructive care remains a viable treatment option under current circumstances. Clinical guidance is contained in Appendices 4-7. Practitioners should exercise their clinical judgement to manage the associated risks with the unique clinical proximity and AGPs involved in dental care.

The focus on stabilisation should be delivered in line with the principles outlined in the [Avoidance of Doubt: Provision of Phased Treatments](#) and complemented with a strong focus on prevention of disease progression, including periodontal management, oral health prevention including fluoride applications (ie [Delivering Better Oral Health](#)).

In appreciating that the clinical treatment options and approaches to care may be unfamiliar to some patients, fully informed consent will be important, as will any decision by the professional not to offer a particular treatment because of a wider risk assessment. Recording valid consent and detailing any risk assessment supporting a treatment plan remains a high priority.



Non-AGPs are listed below:

- Remote consultations
- Oral health assessment



Urgent dental care, including examination, taking radiographs, using hand instruments, extractions and suction, are not classed as AGPs so universal precautions that prevent droplet contamination should be used.

- Preventative and self-care measures delivered in line with [Delivering Better Oral Health](#), non-AGP aspects
- Hand instrumentation/scaling (Appendix 4 – non-AGP periodontal treatment)
- Simple dental extractions
- Caries excavation with hand instruments (Appendix 5 –AMIRD)
- Caries removal with slow speed and high-volume suction (Appendix 5 - AMIRD)
- Placement of restorative material (Appendix 5 - AMIRD)
- Orthodontic treatment
- Removable denture stages (if patient has normal gag reflex)
- Paediatric oral health including stainless steel crowns (Hall crown) and **silver diamine fluoride** applications (Appendix 6)

AGPs can increase the risk of transmission of infection to healthcare workers and therefore should be avoided where possible

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



Using high-speed drills to open an access cavity or surgical high-speed drills to undertake surgical extraction of a tooth/root will necessitate use of additional PPE as for AGPs.

When an **AGP** has been used, it is recommended that the **room is left vacant with the door closed** for 20 minutes in a negative pressure isolation room or **one hour for a neutral pressure room before performing a terminal clean**. Windows to the outside in neutral pressure rooms can be opened

Respirators for AGP (further detail on PPE is contained in Appendix 1)

- FFP3 (filtering 98% of airborne particles) respirators are advised for all AGPs to prevent inhalation of aerosols.
- 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.
- Operators who are unable to wear respirators eg due to facial hair, religious head coverings should wear alternatives such as hoods

All respirators need to be fit tested and checked.

Appendix 1: Guidance for infection prevention and control in dental care settings – authored by Public Health England (PHE)

This appendix is an updated was updated in line with IPC guidance COVID-19: Guidance for the remobilisation of services within health and care settings Infection prevention and control recommendations that was published on 21st August 2020.

This guidance is correct at the time of publishing. However, as it is subject to updates, please use the hyperlinks to confirm the information you are using is accurate. For the latest version of the guidance click [here](#)

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.

2. Evidence base for PPE guidance

This Appendix is a summary of relevant parts of the UK Government's COVID-19 [infection prevention and control](#) guidance³. 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)⁴ inform the guidance. The guidance is updated regularly, in line with emerging evidence.

This guidance will be updated in line with service need and as the evidence evolves.

3. Patient assessment and considerations

Clinically extremely vulnerable patients are still at the highest risk of severe illness if they catch coronavirus. When care planning for patients who are clinically extremely vulnerable, shared decision making with the patient is important. The benefits of dental treatment need to be weighed up against the exposure risk. Where possible, additional physical and temporal separation measures should be taken

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/ [part of a support bubble](#) with someone with symptoms.

³https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/893320/COVID-19_Infection_prevention_and_control_guidance_complete.pdf

⁴ <https://www.gov.uk/government/groups/new-and-emerging-respiratory-virus-threats-advisory-group>

Confirmed or suspected cases of COVID19 should be discouraged from attending but where they have urgent care needs that cannot be treated by remote means, there should be separation in space and/or time between them and other patients.

Consider allocating a designated surgery and use of separate entrances and waiting areas for suspected/confirmed cases where possible. If this is not possible suspected or confirmed cases of COVID-19 should be placed at the end of the list.

Guidance should be followed on face masks/coverings in primary and community care settings – [here](#), and hospital settings – [here](#).

In common waiting areas, it is recommended that suspected or confirmed COVID-19 cases, should be provided with a surgical mask to wear if this can be tolerated

Patients/carers should decontaminate their hands with alcohol-based hand rub when entering and leaving care services.⁵

4. Practice settings

Waiting rooms and reception areas should allow for 2 metre physical distancing between patients and staff, wherever possible. Otherwise 1 metre separation should be maintained with additional precautions eg physical barrier separation and wearing of face masks.

Staff should also adhere to social distancing (2 metres) wherever possible in non-clinical areas and when not wearing PPE close contact between staff over prolonged periods should be minimised; by avoiding congregating at central work stations, restricting the number of staff on ward rounds, conducting handover sessions in a setting where there is space for social distancing, moving to 'virtual' multi-disciplinary team meetings, and considering staggering staff breaks to limit the density of healthcare workers in specific areas.

The care environment should be kept clean and clutter free with all non-essential items including toys, books and magazines removed from reception and waiting areas.

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

Ideally all treatment should be carried out with the door closed. For those patients who require treatment involving aerosol generating procedures, the door should remain closed throughout the duration of the treatment, unless there is an urgent reason for staff or patient to leave the room. Any deviation from the guidance should be documented.

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 HTM 01-05 and NICE on infection prevention and control and decontamination should be used by all staff, in all settings, always, for all patients.

⁵https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/886216/Best_practice_hand_rub.pdf

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 ($>5\mu\text{m}$) 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 ($\leq 5\mu\text{m}$) 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. **Dentists and dental care professionals need to undertake 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 aerosols⁶ which create widespread environmental contamination and therefore a risk of transmission of infection to healthcare workers so AGPs should be avoided where possible **while there is sustained community transmission.**

⁶ https://hpspubsrepo.blob.core.windows.net/hps-website/nss/2893/documents/1_tbp-lr-agp.pdf

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

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

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 manoeuvres⁷.

8. Hand and respiratory hygiene

- Washing hands thoroughly with soap and water for at least 20 seconds is essential to reduce the transmission of infection⁸. All dental staff and patient/carers should wash their hands or decontaminate their hands with alcohol-based hand rub⁹ (70% ethyl alcohol) when entering and leaving dental care services. See Figures 1a and 1b below.
- For staff, hand washing 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

All staff should have a risk assessment for work. Some staff are at increased risk from Covid-19. Staff from clinically vulnerable and clinically extremely vulnerable groups, pregnant women, those over 70, obese or from Black, Asian and Minority Ethnic (BAME) background, should be risk assessed so that appropriate measures are put in place to minimise exposure to risk and support safe working (eg taking up an alternative role; adjusting working patterns). Support from Occupational Health may be required.

⁷ <https://www.gov.uk/government/publications/novel-coronavirus-2019-ncov-interim-guidance-for-first-responders/interim-guidance-for-first-responders-and-others-in-close-contact-with-symptomatic-people-with-potential-2019-ncov>

⁸ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/886217/Best_practice_hand_wash.pdf

⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/886216/Best_practice_hand_rub.pdf

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.¹⁰

Members of staff who are pregnant and worried about coronavirus, can get advice from the [Royal College of Obstetricians and Gynaecologists](#).¹¹ Every member of the dental staff that is pregnant, should have a risk assessment with their manager, which may involve occupational health.

Dental staff with symptoms or who have tested positive for COVID-19 should self-isolate for at least 10 days from onset of symptoms. The following [link](#) will take you to a flowchart describing return to work of a symptomatic worker following a SARS-CoV-2 test. The following [link](#) will take you to a flowchart describing return to work of an asymptomatic worker following a SARS-CoV-2 test. Staff living in a household or part of a support bubble where someone has symptoms should stay at home for 14 days from the onset of household/support bubble contact's symptoms. However, if the member of staff becomes symptomatic during the 14 days isolation, they should isolate for 10 days from the date of symptom onset.¹²

Dentists and dental care professionals who have symptoms or are self-isolating are eligible for coronavirus antigen testing (swab test). The [self-referral portal should be used](#) to book a test. Currently it is not known how long any immunity to COVID-19 might last. If staff become unwell again, they should self-isolate and 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](#).

The antibody test (blood test) differs to antigen tests (swab tests) as it checks if staff have already had the virus. A positive antibody test will let the health professional know whether they have previously had the virus that causes COVID-19 and that their body has produced an immune response. There is no strong evidence yet to suggest that those who have been proven to have had the virus and to have produced antibodies are immune. A positive antibody result does not mean that the health professional has immunity or cannot pass on the virus to others. Therefore, they cannot ignore social distancing measures or advice on appropriate PPE¹³.

A comparison of the different tests by the Department of Health and Social Care can be found [here](#).

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. Dentists and dental care professionals have a responsibility to take care of their own health and wellbeing, their colleagues and their patients. There are resources in the main body of the SOPs signposting where dental

¹⁰ <https://www.fom.ac.uk/wp-content/uploads/Risk-Reduction-Framework-for-NHS-staff-at-risk-of-COVID-19-infection-12-05-20.pdf>

¹¹ <https://www.rcog.org.uk/en/guidelines-research-services/guidelines/coronavirus-pregnancy/covid-19-virus-infection-and-pregnancy/>

¹² <https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection>

¹³ <https://www.gov.uk/government/publications/coronavirus-covid-19-antibody-tests/coronavirus-covid-19-antibody-tests>

teams can find help to do this. Resources can be found on page 11 and also in Appendix 7 of the UDC SOP [here](#).

Dentists and 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 dentists and 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](#)) and resources such as videos and posters are available.^{14,15}

Posters and videos demonstrating PPE requirement for both AGP and Non-AGP can be found [here](#) and [here](#)

The wider dental team, including laboratory technicians and engineering support, should have access to appropriate PPE according to the task they are performing.

Cleaning staff should also be trained in standard infection control precautions and cleaning and decontamination and understand the requirements in HTM 01-05.

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

Uniforms and workwear guidance for NHS employers can be viewed [here](#)

Personal items, eg mobile phones, should not be taken into the clinical area.

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

¹⁴ <https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-non-aerosol-generating-procedures>

¹⁵ <https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-aerosol-generating-procedures>

11. Personal protective equipment

The [IPC guidance](#) published on 21st August 2020 defines care pathways as high, medium and low risk. All dental patients having AGPs are classed as part of the high risk care pathway. Most other dental patients will fall into the medium risk pathway.

High-Risk COVID-19 Pathway Section 10: SICPs & TBPs	Medium Risk COVID-19 Pathway Section 9: SICPs & TBPs	Low Risk COVID-19 Pathway Section 7: SICPs
<p>Any care facility where:</p> <p>a) untriaged individuals present for assessment or treatment (symptoms unknown) OR</p> <p>b) confirmed SARS-CoV-2 (COVID-19) positive individuals are cared for OR</p> <p>c) symptomatic or suspected COVID-19 individuals including those with a history of contact with a COVID-19 case, who have been triaged/clinically assessed and are waiting test results OR</p> <p>d) symptomatic individuals who decline testing</p>	<p>Any care facility where:</p> <p>a) triaged/clinically assessed individuals are asymptomatic and are waiting a SARS-CoV-2 (COVID-19) test result with no known recent COVID-19 contact OR</p> <p>b) testing is not required or feasible on asymptomatic individuals and infectious status is unknown OR</p> <p>c) asymptomatic individuals decline testing</p>	<p>Any care facility where:</p> <p>a) triaged/clinically assessed individuals with no symptoms or known recent COVID-19 contact who have isolated/shielded AND have a negative SARS-CoV-2 (COVID-19) test within 72 hours of treatment and, for planned admissions, have self-isolated from the test date OR</p> <p>b) Individuals who have recovered from COVID-19 and have had at least 3 consecutive days without fever or respiratory symptoms and a negative COVID-19 test OR</p> <p>c) patients or individuals are regularly tested (remain negative)</p>

Examples of patient (individual) groups/facilities within these pathways: these lists are not exhaustive

<ul style="list-style-type: none"> • Designated areas within Emergency/Resuscitation Departments • GP surgeries/walk in centres • Facilities where confirmed or suspected/symptomatic COVID-19 individuals are cared, for example <ul style="list-style-type: none"> ○ emergency admissions to in-patient areas (adult and children) ○ Mental health ○ Maternity ○ Critical Care Units ○ Renal dialysis units 	<ul style="list-style-type: none"> • Designated areas within Emergency/Resuscitation, GP surgeries and walk-in centres • Non elective admissions • Primary care facilities, for example general dental and general practice • Facilities where individuals are cared, for example in-patients; adult and children, Mental health, Maternity, Critical Care Units • Outpatient depts. including Diagnostics and Endoscopy • Care homes* • Prisons 	<ul style="list-style-type: none"> • Planned/elective surgical procedures including day cases • Oncology/chemotherapy patients and/or facilities • Planned in -patient admissions (adult and children), Mental health, Maternity • Outpatients including Diagnostics/Endoscopy • Care homes* • Prisons
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*This guidance does NOT apply to Adult Social Care settings in England

The PPE required for these pathways is summarised in [Table 1](#).

Dentists and dental care 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 IIR) 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 a respirator (please see section 13 for further details)** should be worn by those undertaking or assisting in the procedure.

HTM 01-05 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.

Dental technician and laboratory workers should continue with their usual infection prevention and control measures in the laboratory and should follow the same guidance as dental practices in terms of hand and respiratory hygiene and social distancing.

Engineering support workers for dental practices should adhere to their usual PPE requirements and only work on equipment and rooms that have been decontaminated.

The application of the IPC guidance with regard to PPE is summarised in Table 1 of this document.

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

	Waiting room/reception	Dental surgery	Dental surgery
	No clinical treatment	Non AGP Treatment (medium risk pathway)	Treatments Involving AGPs (high risk pathway)
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
Respirator**	No	No	Yes
Eye protection***	No	Yes	Yes

*Disposable fluid repellent coveralls or long-sleeved gowns must be worn during AGPs. If non-fluid-resistant gowns are used, a disposable plastic apron should be worn underneath.

**see section 13

***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), **cleaning and decontamination of the environment and equipment and segregation/separation of suspected Covid/Non-COVID-19 patients** are the main mitigating factors to reduce the transmission of COVID-19.

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

Air from high speed suction emerging from the compressor to adjacent areas will be highly diluted and is not considered to be a risk.

Aerosols can be reduced from the 3:1 syringe by using the irrigation function first followed by low pressure air flow with high-volume suction.

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, should be used where possible rather than ultrasonic scalers.

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

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

All **disposable** 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. **HSE guidance can be viewed [here](#).****
- 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 valved/non-fluid resistant respirator is used. (A full-face visor will provide an additional physical barrier between the patient and any exhaled breath/droplets from the dental worker and protect the mask from droplets).
- 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 during AGPs and so may be used if FFP3 respirators are not available. FFP3 and loose fitting powered hoods provide the highest level of protection and are recommended when caring for patients in areas where high risk aerosol generating procedures (AGPs) are being performed. Where the risk assessment shows an FFP2 respirator is suitable, they are recommended as a safe alternative. N95 respirators are tested against different standards but are broadly equivalent to a FFP2. All respirators need to be fit tested and checked.

Other respirators can be utilised by individuals if they comply with Health and Safety Executive (HSE) recommendations. [The HSE has produced guidance on respiratory protective equipment at work.](#)

Disposable respiratory equipment should be used wherever possible however re-usable respirators can be used including for AGPs in dentistry. Advice on suitable decontamination arrangements should be obtained from the manufacturer, supplier, or local infection control.

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

Plastic aprons and gloves should be changed between patients and performing hand hygiene. They are single use per patient.

All PPE used for patients who are clinically extremely vulnerable should be single use.

Disposable gowns are recommended as they are easily disposed of at the surgery and require no additional processes. [After use disposable gowns should be disposed of as infectious waste.](#)

Where there is a shortage of disposable gowns, reusable gowns may be used. After use, reusable 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-dried^{16 17}.

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 and can be used on a sessional basis 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 HTM 01-05. 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 conform to EN standard 14476 for viricidal activity and only be used following the advice of the IPC team.

Products must be 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 eg dedicated mops should be colour coded according to HTM 01-05 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 is available [here](#).

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 and air conditioning

Post AGP downtime or 'fallow period' only applies after the operator has undertaken an AGP.

Post AGP downtime is not required if the patient has tested negative for COVID-19 within the last 72 hours and has self-isolated (IPC guidance – Low Risk Pathway)

¹⁶ <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/managing-shortages-in-personal-protective-equipment-ppe>

¹⁷ <https://www.gov.uk/government/publications/decontamination-of-linen-for-health-and-social-care>

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 (ACH), the sooner any aerosol will be cleared.

As a guide, most dental surgeries are neutral pressure rooms

- In a single room with 6 ACH, 60 mins post AGP downtime is recommended.
- In a single room with 10-12 ACH, 20 mins post AGP downtime is recommended.

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.

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.

Air cooling for AGP and non AGP treatments.

Evidence indicates overheated staff are clinically less effective.

Fans may be used but will not cool staff who are wearing water repellent PPE. It may be beneficial to move air towards windows and mechanical extract.

Fans will create turbulence that dilutes the most concentrated aerosols. In these environments, it may be beneficial to move air towards windows and mechanical extract points. Fans should not be directed towards doors, driving air into other rooms. Fans should be cleaned regularly to remove visible soiling.

Planned preventative maintenance, and cleaning of fans and their blades should continue.

Fixed air conditioning units (for example, wall or ceiling mounted recirculating air coolers - split units) and portable air conditioning, which do not recirculate to other rooms, can be used. Where there is poor air circulation within a room, it may be beneficial to mix air so as to dilute aerosols. These types of air conditioning will cool staff wearing water repellent PPE.

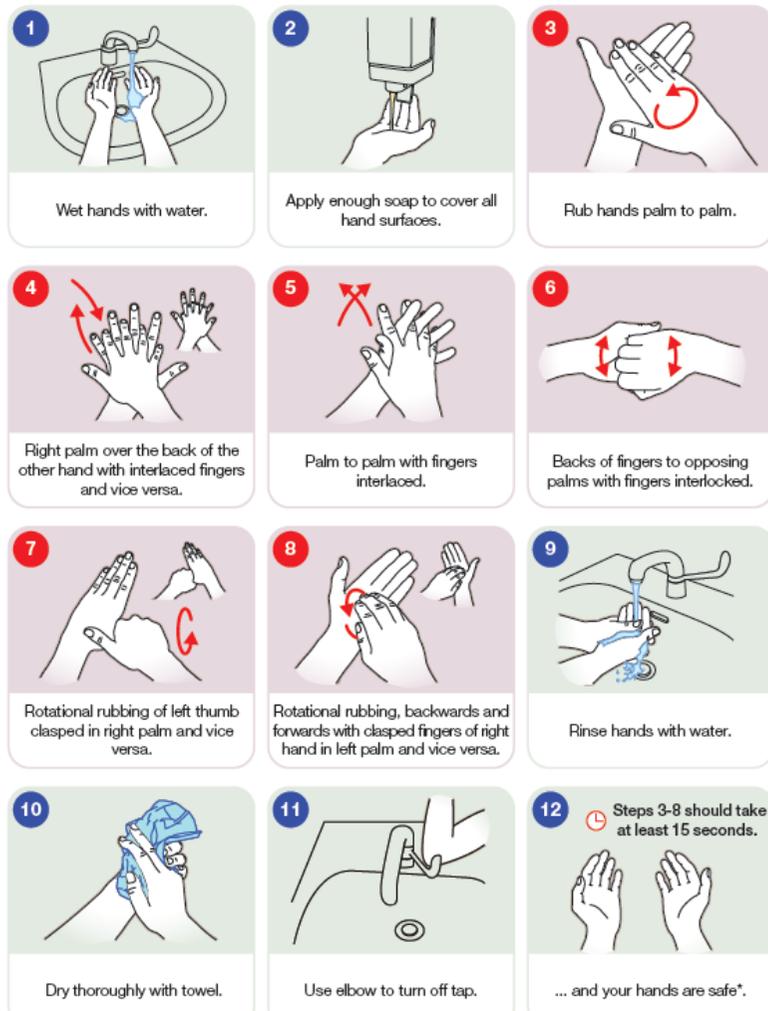
Portable air conditioning should not be directed towards doors, driving air into other rooms, nor should any pipework or cables impede fire doors. Portable air conditioning should be used cognisant of any risk of legionella (HTM 04 - 01) and risk from bacteria in condensate water when emptying the reservoir. Daily emptying of the reservoir should be recorded. Planned maintenance should be carried out on the device following manufacturer's guidance and should be recorded. Do not use portable air conditioning that incorporates humidifiers.

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

Steps 3-8 should take at least 15 seconds.



Best practice: How to hand rub

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/886216/Best_practice_hand_rub.pdf



FIGURE 2: Best practice – donning and doffing PPE

Guidance on putting on (donning) PPE for aerosol generating procedures (AGPs), and a video showing how to safely don (put on) PPE specific to COVID-19 for AGPs and which should be used in conjunction with the quick guide to donning PPE and local policies - can be viewed here.

<https://www.gov.uk/government/publications/COVID-19-personal-protective-equipment-use-for-aerosol-generating-procedures>

Donning

Public Health England COVID-19

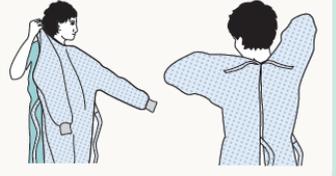
Quick guide – gown version
Putting on (donning) personal protective equipment (PPE) for aerosol generating procedures (AGPs)

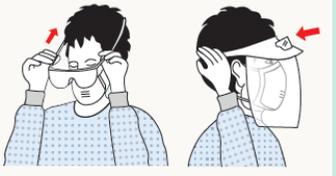
This is undertaken outside the patient's room.

Pre-donning instructions

- ensure healthcare worker hydrated
- tie hair back
- remove jewellery
- check PPE in the correct size is available

Perform hand hygiene before putting on PPE

- 1 Put on the long-sleeved fluid repellent disposable gown**

- 2 Respirator**
 Perform a fit check.

- 3 Eye protection**

- 4 Gloves**


Public Health England

Putting on (donning) personal protective equipment (PPE) including coveralls for aerosol generating procedures (AGPs)

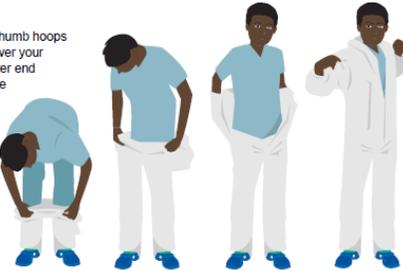
Use safe work practices to protect yourself and limit the spread of infection

- keep hands away from face and PPE being worn
- change gloves when torn or heavily contaminated
- limit surfaces touched in the patient environment
- regularly perform hand hygiene
- always clean hands after removing gloves

Pre-donning instructions

- ensure healthcare worker hydrated
- tie hair back
- remove jewellery
- check PPE in the correct size is available

Putting on personal protective equipment (PPE). The order for putting on is coverall, respirator, eye protection and gloves. This is undertaken outside the patient's room.

- 1 Don the coveralls**
 - Step into coveralls
 - Pull up over waist
 - Insert arms into sleeves, if thumb hoops available then hoop these over your thumbs, ensure sleeves cover end of gloves so no skin is visible
 - Pull up over the shoulders
 - Fasten zip all the way to the top

Do not apply the hood of the coverall as there is no requirement for airborne transmission.

Steps 2 to 4 overleaf >

Doffing

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**




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

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.

This is to reduce the risk of the healthcare worker removing PPE and inadvertently contaminating themselves or the patient while doffing.

The FFP2/3 respirator should be removed in the anteroom/lobby. In the absence of an anteroom/lobby, remove FFP2/3 respirator in a safe area (e.g., outside the isolation room). All PPE must be disposed of as infectious clinical waste.

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 of the ungloved hand under the remaining glove at the wrist
Peel the remaining glove off over the first glove and discard

Clean hands with alcohol hand gel or rub



Steps 2 to 6 overleaf >

COVID-19: personal protective equipment use for non-aerosol generating procedures. Guidance on the use of personal protective equipment (PPE) for non-aerosol generating procedures (AGPs) can be found [here](#).

This [video](#) shows how to safely don (put on) and doff (take off) the personal protective equipment (PPE) for non-aerosol generating procedures (AGPs), specific to COVID-19. This guidance outlines infection control for health and social care settings involving possible cases of COVID-19.

 Public Health England

Putting on personal protective equipment (PPE) for non-aerosol generating procedures (AGPs)*

Please see donning and doffing video to support this guidance: https://youtu.be/-GncQ_ed-9w

Pre-donning instructions:

- Ensure healthcare worker hydrated
- Remove jewellery
- Tie hair back
- Check PPE in the correct size is available

- 1** Perform hand hygiene before putting on PPE.

- 2** Put on apron and tie at waist.

- 3** Put on facemask – position upper straps on the crown of your head, lower strap at nape of neck.

- 4** With both hands, mould the metal strap over the bridge of your nose.

- 5** Don eye protection if required.

- 6** Put on gloves.


*For the PPE guide for AGPs please see: www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-aerosol-generating-procedures

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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.

*Adapted from The US Centers for Disease Control and Prevention, The National Personal Protective Technology Laboratory (NPPTL), NIOSH. Facial Hairstyles and Filtering Facepiece Respirators. 2017. Available online at <https://www.cdc.gov/niosh/ncptl/respiratorinfoGraphics.html>. Accessed 26/02/2020.

A visual guide to safe PPE. View at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878056/PHE_COVID-19_visual_guide_poster_PPE.pdf

Public Health England

COVID-19 Safe ways of working

A visual guide to safe PPE

General contact with confirmed or possible COVID-19 cases	Aerosol Generating Procedures or High Risk Areas
Eye protection to be worn on risk assessment	Eye protection eye shield, goggles or visor
Fluid resistant surgical mask	Filtering facepiece respirator
Disposable apron	Long sleeved fluid repellent gown
Gloves	Gloves

Clean your hands before and after patient contact and after removing some or all of your PPE

Clean all the equipment that you are using according to local policies

Use the appropriate PPE for the situation you are working in (General / AGPs or High Risk Areas)

Take off your PPE safely

Take breaks and hydrate yourself regularly

For more information on infection prevention and control of COVID-19 please visit:

www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control

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Appendix 2: Practice Checklist

Practice layout	TICK
Assess and design patient flow allowing for social distancing and minimising patient-to-patient contact	
Design appointment scheduling to minimise number of patients within the practice at any one time	
Utilise floor markings – indicating flow and social distancing requirements	
Considered process for remote payment and appointment scheduling	
Facility to accept card/contactless payment	
Placement of COVID-19 and hand/cough etiquette signage	
Place physical barrier at reception	
Remove unnecessary items from waiting and reception areas	
Plan ventilation of all areas	
Hand sanitising stations at point of entry and exit	
Staff considerations	
Ensure social distancing within staff areas/facilities	
Process for laundering staff uniforms	
Risk assess staff for return to work	
Consider staff scheduling (rota)	
Process for reviewing staff health and well-being	
Devise a protocol for all staff to follow if they, or someone they live with, develops COVID-19 symptoms, including whether they should apply for a COVID-19 test	

Putting tools in place to facilitate effective staff communications while working in “clinical, where individual staff members always work with the same colleagues to limit contact between the teams and, if required, contact track and trace	
Making staff aware of available resources eg mental health, resilience, self-care	
Check if there is information relevant to this phase or return available from your indemnity provider	
Review and update continuity plan with required amendments	
Supplies	
Paper towels for hand drying (preferred)	
Personal Protective Equipment supplies sourced	
Medical emergency drugs checked and in date	
Hand hygiene products: sanitisers, soap, paper towels	
Stabilisation materials eg restorative materials	
Rubber dam kit and supplies	
Restore contracted services eg laboratory staff and clinical waste services	
Single use stationary or means to disinfect	
Check dental materials for expiry date and order as required	
Reprocess instruments prior to returning them to use	
Equipment	
Organise engineer visits for maintenance and testing as required	
Check all equipment is functioning and fit for purpose, including washer disinfector, steriliser, ultrasonic bath, reverse osmosis machine	
Reconnect compressor as per manufacturer’s instructions. Turn on mains electricity, close drains, turn compressor on. Perform any housekeeping and maintenance testing	
Carry out safety and quality assurance checks in radiographic equipment	

Test the Automated External Defibrillator (AED)	
Ensure rechargeable items are fully charged and operational	
If the practice has a drinking water dispenser for staff use, recommission as per manufacturer's instructions	
Check for and install computer software updates	
Check operation of chair and light functions. Open air and water lines to unit	
Flush dental unit water lines with biocidal as per manufacturer's instructions	
Clean and lubricate couplings and air motors then reconnect, as per manufacturer's instructions	
Test hand pieces for functionality	
Test suction system. Run cleaning solution through hoses. Check that the cup fill, bowl flush and spittoon have water flowing	
Appropriate Portable Appliance Testing is carried out	
Personal Protective Equipment & Infection Prevention & Control	
Staff are aware and familiar with PPE recommendations	
Designate area identified for donning and doffing of PPE	
Staff are aware and familiar with IPC guidance	
Process in place for cleaning and disinfecting regularly touched items eg reception desks, card machines, door handles, chair arms	
Rota for cleaning and disinfection of toilet after each use	
Training	
Staff know how to don and doff PPE	
Infection prevention and control	
Decontamination processes	
IT training, eg tele-dentistry software and use of any triage custom screens or templates	

Administrative asks including any changes to payment methods and appointment protocols	
Performed scenario-based training on patient flow and new COVID-19 alterations	
Basic Life Support and CPR update	
Rubber dam/Four handed technique training (if required)	
Considered any further individual/team training requirements	
Screening	
Develop a process for screening of both staff and patients	
Means for recording and logging screening results (staff and patients)	
Patient communication	
Develop a process for communicating COVID-19 related changes to patients	
Update website and answer machine messaging if required	
Devise a method for tracking patient progression with treatment, so that you can monitor those awaiting AGPs	
Place a sign(s) on door/window stating that patients suspected or confirmed COVID-19 should not enter the practice and indicating that the practice is only open for patients with a pre-arranged appointment. Include details of how to contact the practice	
Care plan organisations	
Prioritise patients into recommended cohorts OR Review the list of patients that contacted the practice during closure and begin to book appointments, prioritising these on the basis of clinical need and available treatments	
Check NHS e-mail accounts daily for updates from UK government, health board or other organisations. Ensure any updates are communicated to patients and staff as appropriate	
Practice procedures	
Patient movement/journey through practice	
Patient appointment booking	

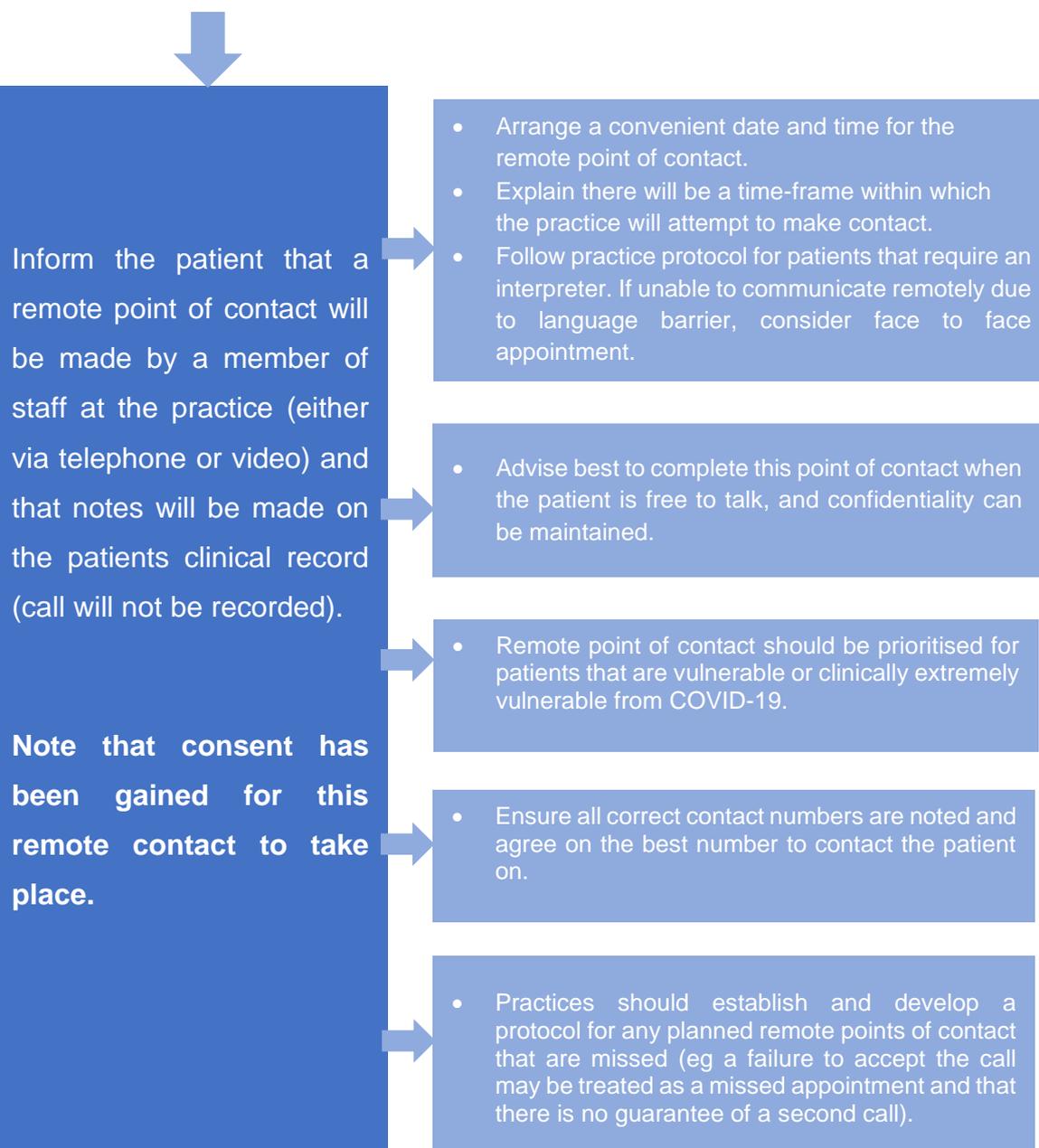
Remote patient triage prior to attendance	
Medical history completion	
COVID-19 assessment	
PPE	
Treatment protocols	
Cleaning procedures: <ul style="list-style-type: none"> • Environmental cleaning • Standard infection control precautions • Transmission based precautions 	
Treatment payment options	
Use of toilet facilities	
Staff working patterns	
Team communication	
Team reporting of COVID-19 status	
Dealing with known or suspected COVID-19 symptoms in practice	
Laundry	
CPR	
External	
Inform external providers, eg insurance company, indemnity provider, waste contractors, IT provider, pharmacy, suppliers, maintenance contractors, dental laboratories, utilities and telecoms of practice reopening date	

Appendix 3: Arranging a remote point of contact

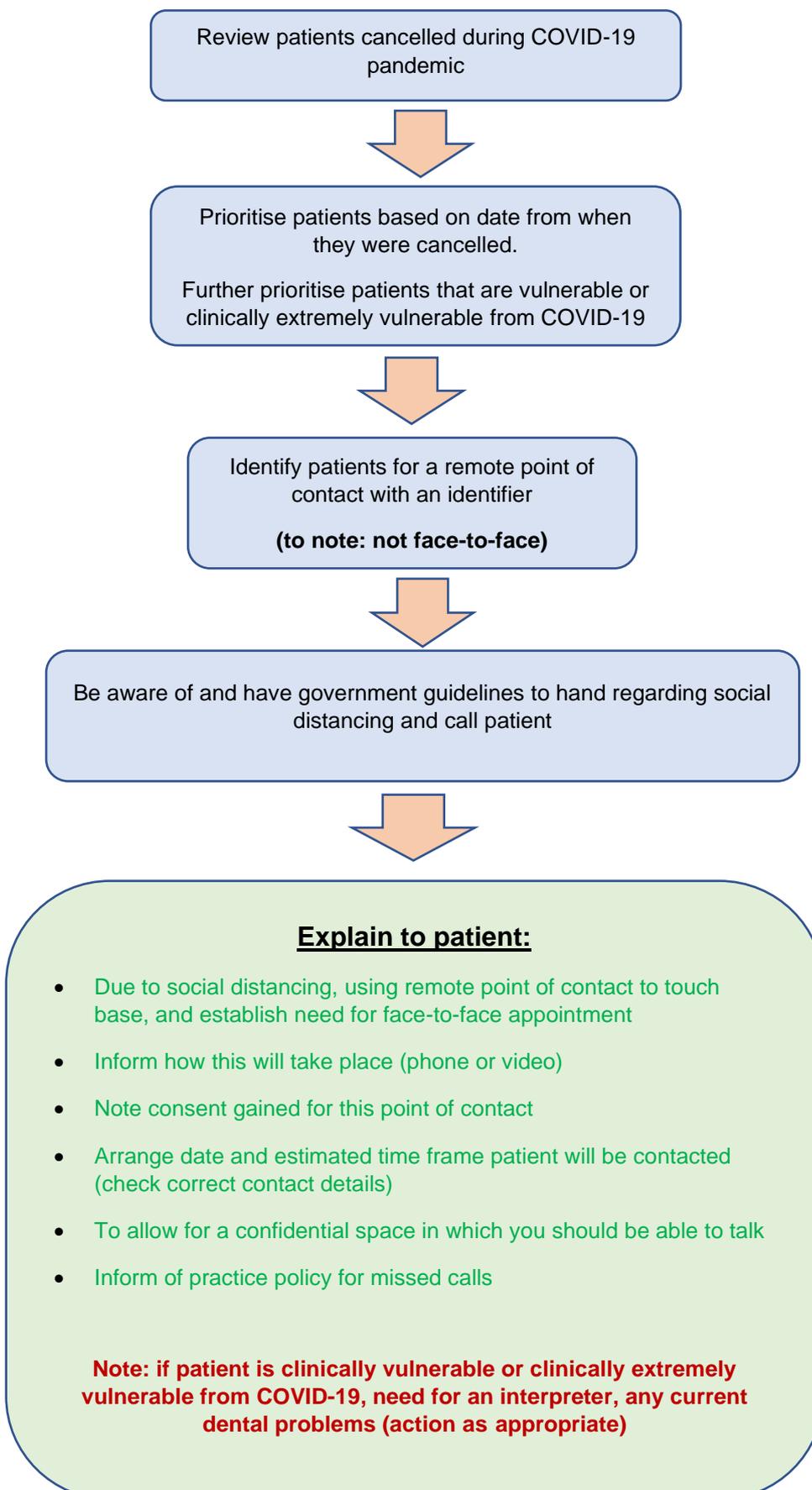
Explain to the patient that due to:

- Government guidelines on social distancing
- By way of trying to reduce the spread of infection

Patients will be remotely contacted by the practice to enable future dental care to be planned appropriately.



Flowchart for arranging a remote point of contact



3.1 Completing a remote point of contact

a. Before contacting patients		✓
<ul style="list-style-type: none"> • Prepare to contact patient via telephone or video • If remote point of contact away from clinical setting ensure: <ul style="list-style-type: none"> - You have access to the patient record - Appropriate environment where confidentiality can be maintained 		
<ul style="list-style-type: none"> • Ensure you are familiar with and have the most up to date Government COVID-19 guidance to hand 		
<ul style="list-style-type: none"> • Check patient's medical and dental history • Note if patient is clinically vulnerable or clinically extremely vulnerable (may need to be checked with patient or their GP/medical specialist) • Note any oral health related risk factors • Check factors that may influence point of contact eg language barrier/disabilities (these should have been noted at the time of booking) • Ensure no sensitive information is on display before calling the patient <p>Prior to starting the consultation, it is important to let the patient know that:</p> <ul style="list-style-type: none"> - The call will not be recorded - Reasons for remote point of contact <p>Ensure that this conversation has been documented</p>		
b. Establishing a technical connection		
<ul style="list-style-type: none"> • Ensure high quality call where the connection will not be lost due to poor connectivity • Check you are both able to hear and speak to one another clearly • Record the patient's phone number to ensure you are able to call back if the connection is lost 		
c. Beginning the remote point of contact		
<ul style="list-style-type: none"> • Confirm the identity of the patient (name/ date of birth) • Try to speak with the patient directly <ul style="list-style-type: none"> - For children or those lacking capacity, when speaking on patients behalf record name and relationship to patient 		
<ul style="list-style-type: none"> • If the patient does not pick up the call, follow practice protocol for re-booking 		

<ul style="list-style-type: none"> • Explain the purpose of your call (check how the patient is and establish the need for face-to-face appointment) 	
<ul style="list-style-type: none"> • If urgent dental care is needed, arrange to see the patient face to face and treat urgently, if required, follow local protocol to refer to appropriate service (UDC/A&E) 	
d. Taking a history	
<ul style="list-style-type: none"> • Establish the impact of COVID-19 on the patient and their family <ul style="list-style-type: none"> - make a note of any potential implications from a social, medical and (where appropriate) financial perspective 	
<ul style="list-style-type: none"> • Identify patients who may require additional separation measures or possible referral to an appropriate care setting: <ul style="list-style-type: none"> ○ Patients with possible/confirmed COVID-19 and their household/support bubble contacts ○ Patients that are clinically vulnerable or clinically extremely vulnerable 	
<ul style="list-style-type: none"> • Take a history: <ul style="list-style-type: none"> - making note of any dental problems that have arisen during lockdown) - change in self-care during lockdown 	
<ul style="list-style-type: none"> • If there were any items being kept under review, discuss these to check the current status 	
e. Remote oral assessment	
<p><u><i>*It is not expected that a definitive diagnosis will be reached from a remote point of contact*</i></u></p>	
<ul style="list-style-type: none"> • Ask the patient to describe their general health and the health of their mouth. If any specific problems are reported, ask for details 	
<ul style="list-style-type: none"> • If video consultation, make a note of the patient's demeanour and note any obvious extra-oral facial swellings or asymmetry 	
<ul style="list-style-type: none"> • If further assessment is needed (eg visual, special tests, radiography) consider arranging a face-to-face appointment 	
<ul style="list-style-type: none"> • If unable to gain enough information remotely, make a note and decide if the patient needs to be seen imminently given the current scope of practice which dental services are currently able to provide 	

f. Red flags

- Red flags may be raised where there are any signs, symptoms or factors that indicate a patient needs an urgent face-to-face assessment

Red flags may include, but not be restricted to any patients with:

- Suspicious oral lesions that merit further investigations
- Severe infection or spreading infection
- Safeguarding concerns

Relevant practice protocol for each of these red flags should be followed.

g. Outcomes

Once a provisional/differential diagnosis has been made, or if further face-to-face assessment is required, this will result in any of the following outcomes:

i. Any appropriate patient advice and information

NOTE:

- What advice has been given?
- Why was this given?
- Any resources that have been recommended

ii. Arrange face-to-face appointment for routine dental care

See re-starting dental services.

iii. Arrange face-to-face urgent dental care, eg general practice, designated UDC provider, secondary care (please see [UDC SOP](#) for further guidance)

Follow local protocol for referral to UDC provider.

h. Clinical records

- Clinical record should be kept as usual noting that a remote point of contact due to the COVID-19 was made

Appendix 4: Clinical guideline 3 - 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](#).

The S3-treatment guidelines do not support superiority for ultrasonic / sonic instruments over hand instruments, and strongly recommend either may be used for sub-gingival treatment, either alone or in combination.

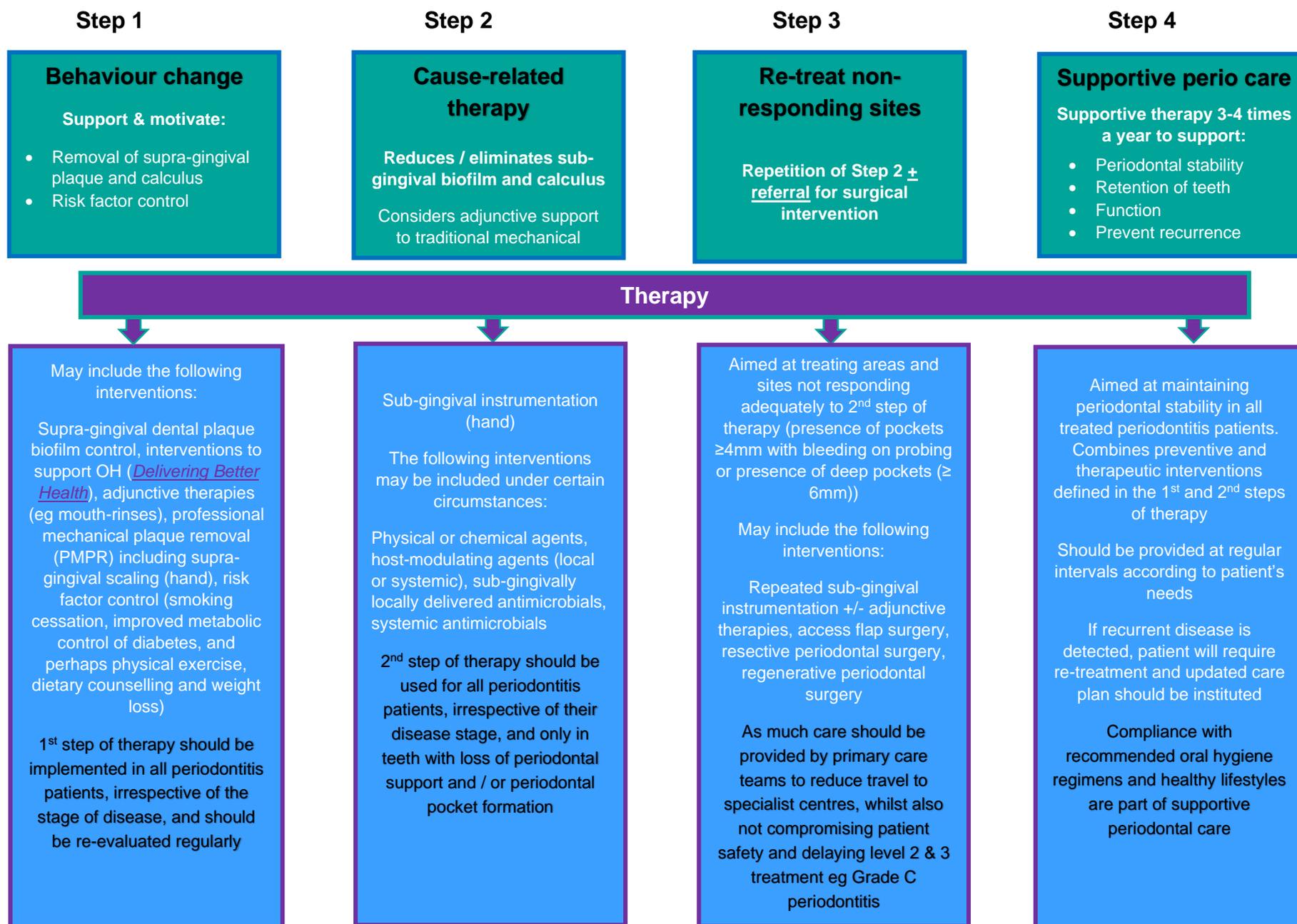
New World Workshop Classification (WWC)

We are aware that a number of dental teams within NHS commissioned services are concerned about the perceived complexity of the WWC, due to the manner in which it has been taught in some areas. We would reassure those teams that the BSP implementation plan is extremely simple and being adopted by other countries for this reason. However, we recognise the need for time to adapt to such changes and the desire of some teams to continue to use the extant classification system.

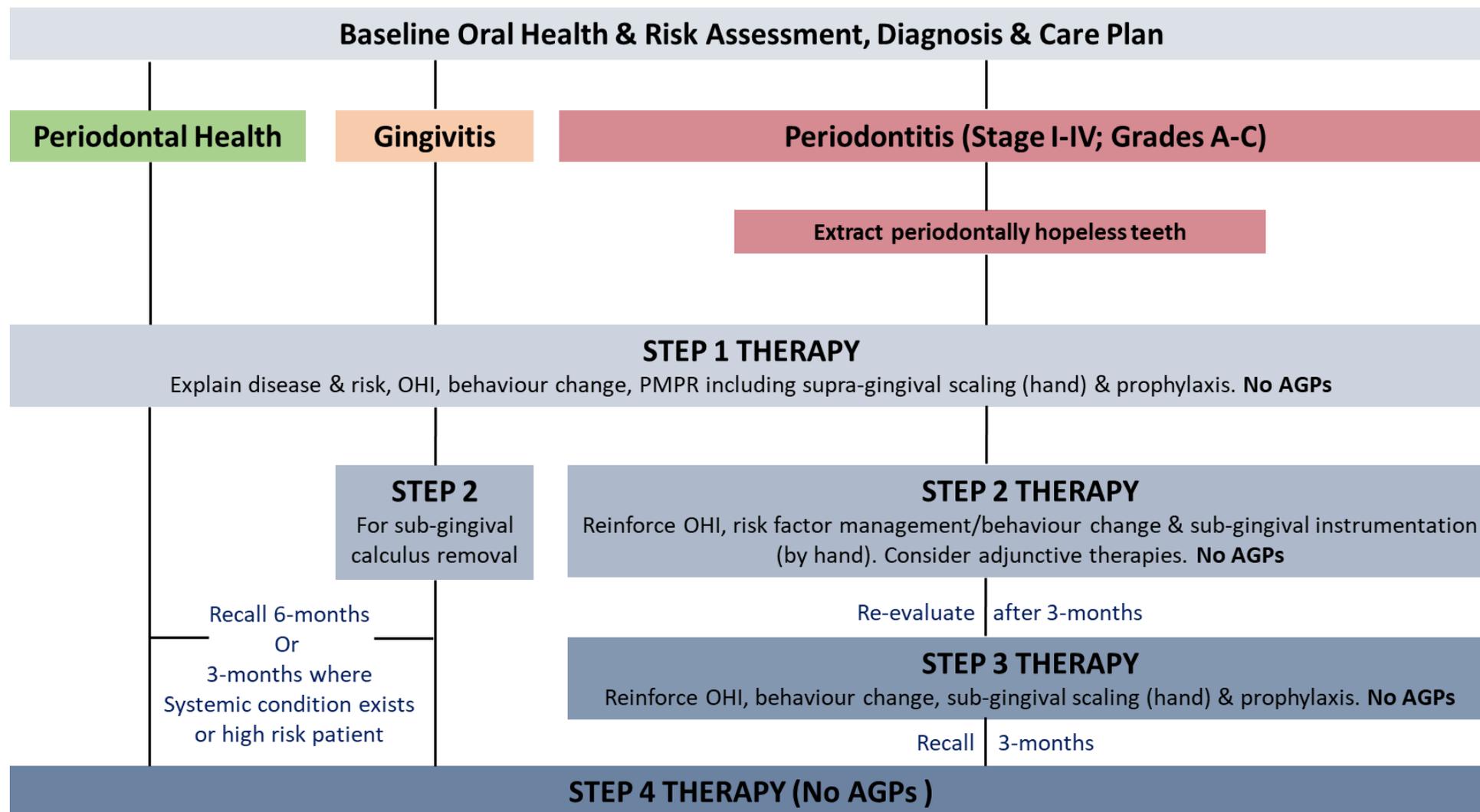
Therefore, we would like to reassure front line clinical teams that in the interim, NHS England's commissioned services can continue to use the existing (extant) classification system, while acquainting themselves with the principles of the BSP WWC implementation, if they find this easier to deliver.

Effective care can be delivered using either system in the presence of appropriate examination, risk assessment and treatment planning (and hence a failure to immediately transition should not be considered poor practice). The existing BPE system and associated BSP WWC will form the basis for future care pathway and commissioning development.

Table 1: Flow Chart



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



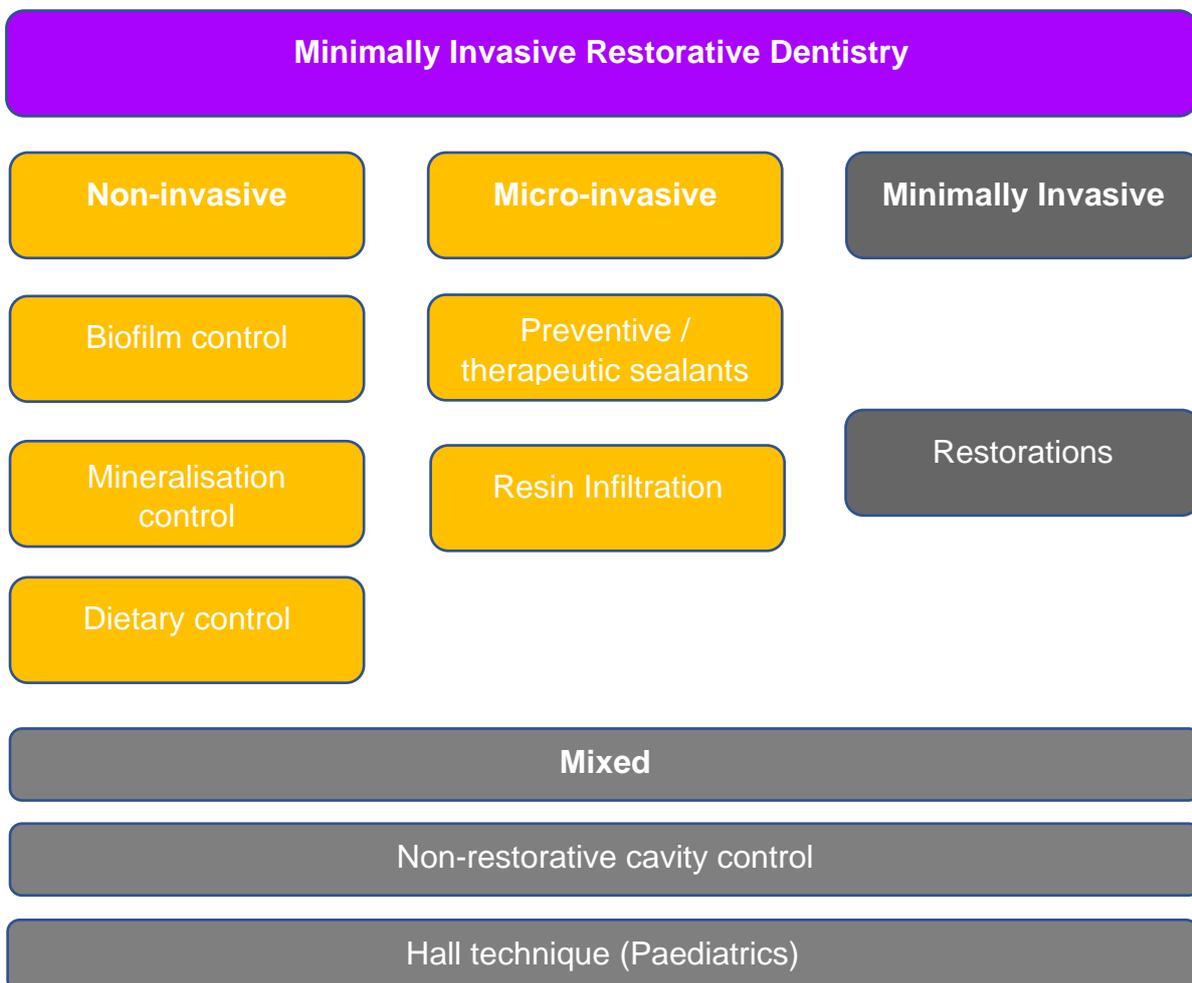
Appendix 5: Clinical guideline - Advanced Minimally Invasive Restorative Dentistry (AMIRD): caries management

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;

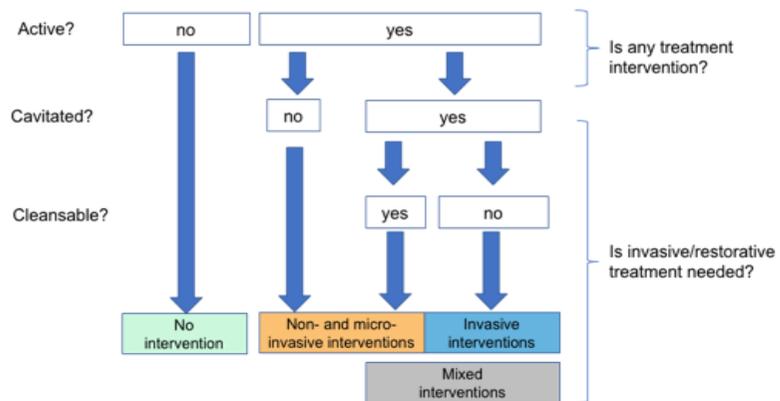
Flowchart 1. When to intervene in the caries process? An expert Delphi consensus statement.¹⁸



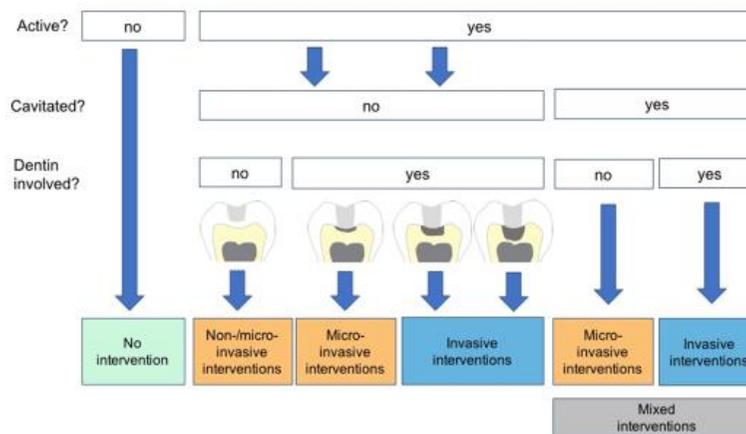
¹⁸ Clinical Oral Investigations 2019; <https://doi.org/10.1007/s00784-019-03058-w>

5.1 Factors determining caries intervention

Factors determining intervention thresholds



Factors determining intervention thresholds on occlusal lesions



Factors determining intervention thresholds on proximal lesions

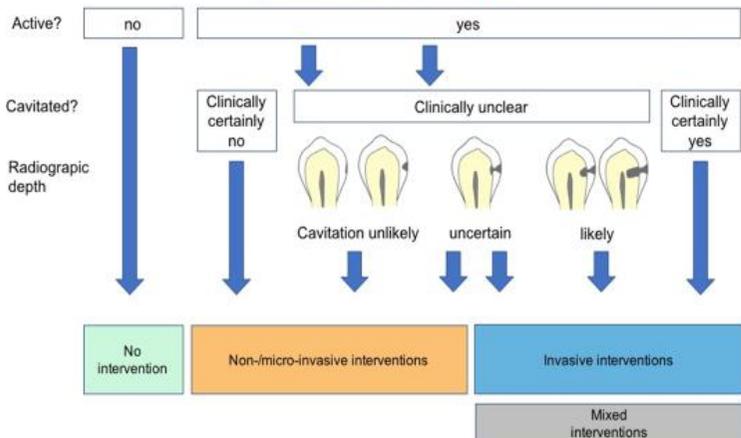


Figure 1. Factors determining when to intervene in the caries process. Is the lesion active, cavitated, cleansable?

Figure 2. The factors specific for occlusal lesions.

Figure 3. The factors specific for proximal lesions.

AMIRD - Non-invasive prevention

Table 2. Non-invasive prevention principles and techniques.

Non-invasive, non-AGP procedures	
Biofilm control	<ul style="list-style-type: none"> • Oral hygiene - Delivering better oral health • Relevant oral hygiene procedures • Toothpastes with fluoride • Mouthwashes • Rotating/oscillating brushes and flossing
	<ul style="list-style-type: none"> • Instructed by all clinical oral healthcare team members
Mineralisation control (based on caries susceptibility assessment and at-risk tooth surfaces)	<ul style="list-style-type: none"> • Application of fluoride varnishes • CPP-ACP (casein phosphopeptide-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)
	<p>Delivery by dentists and dental hygienists & therapists</p>
Dietary control	<ul style="list-style-type: none"> • Advice on dietary control
	<ul style="list-style-type: none"> • 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	
<p>Sealants:</p> <p>Caries sealing is a procedure that may be used where active early carious lesions are detected in:</p> <p>1) Accessible non-cavitated surfaces (including occlusal surfaces), confirmed through clinical ± radiographic examination</p>	<ul style="list-style-type: none"> • Preventative & therapeutic* fissure sealant using proprietary sealants: <ul style="list-style-type: none"> ○ Flowable resin composite ○ Glass-hybrid, GIC (glass-ionomer cement) / RM-GIC (resin modified glass-ionomer cement) (where moisture control is not optimal) <p><u>Resin composite:</u></p> <p>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</p> <p>Restoration: flowed into fissure pattern, light cure (470nm for 20 secs); check occlusion pre-isolation and after its removal</p> <p><u>GIC / RM-GIC:</u></p> <p>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)</p> <p>Restoration: application into fissure pattern, auto-cure / light cured (470nm for 20 secs); check occlusion pre-isolation and after its removal.</p> <p>*in therapeutic fissure sealing, micro-cavitated fissures may require widening</p>

	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

Carious lesion management (selective caries removal):

Enamel:

- Gain/widen suitable access to caries;
- Remove unsupported prisms, demineralised enamel margins.
- Use low-speed high-torque electric motor tungsten carbide / diamond burs running dry, hand chisels;



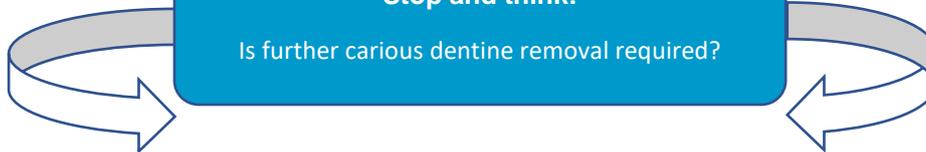
Dentine

- Identify caries-infected dentine (CID; soft, wet, often dark brown) using straight / Briault probe / ± caries indicator solutions;
- Identify the peripheral extent of the dentine lesion to the enamel–dentine junction (EDJ);
- Excavate CID, peripherally → pulp (anatomically) and histologically (depth to caries-affected dentine, CAD);
- Use hand excavators, low-speed high-torque electric micromotor rotary steel/plastic rose-head burs, chemo-mechanical gels;



Stop and think:

Is further carious dentine removal required?



Yes, why?

- Poor quality/quantity of peripheral enamel precludes an adhesive seal from being achieved;
- Inadequate moisture control at cavity margin precludes an adhesive seal from being achieved;
- Further structural support to restoration/tooth needed; in shallower lesions, remote from the pulp, restoration bulk is important for strength / longevity

No, why?

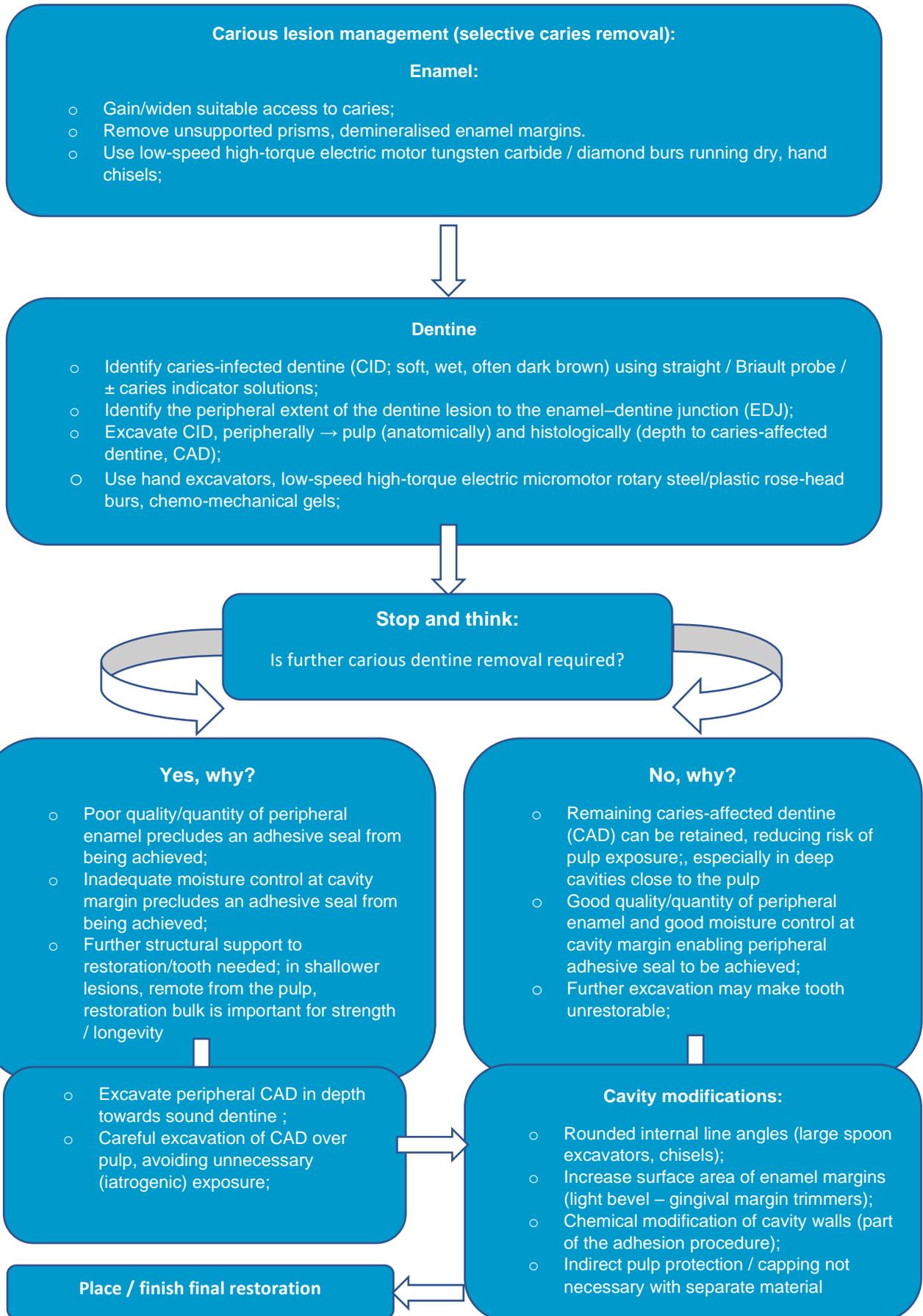
- Remaining caries-affected dentine (CAD) can be retained, reducing risk of pulp exposure; especially in deep cavities close to the pulp
- Good quality/quantity of peripheral enamel and good moisture control at cavity margin enabling peripheral adhesive seal to be achieved;
- Further excavation may make tooth unrestorable;

- Excavate peripheral CAD in depth towards sound dentine ;
- Careful excavation of CAD over pulp, avoiding unnecessary (iatrogenic) exposure;

Cavity modifications:

- Rounded internal line angles (large spoon excavators, chisels);
- Increase surface area of enamel margins (light bevel – gingival margin trimmers);
- Chemical modification of cavity walls (part of the adhesion procedure);
- Indirect pulp protection / capping not necessary with separate material

Place / finish final restoration



Appendix 6: 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=IQE4xxk1r5g>

7+ video <https://www.youtube.com/watch?v=GHS27DHyl0>

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.](#)

Appendix 7: Management of (non-AGP) Endodontics

This Appendix has been developed by the British Endodontics Society (BES) in collaboration with the OCDO team. This document details proposed workflows for the management of endodontic problems in the graduated 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, while 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	Chronic Apical Abscess	Root canal treatment

No symptoms Periapical radiolucency on radiograph		
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.

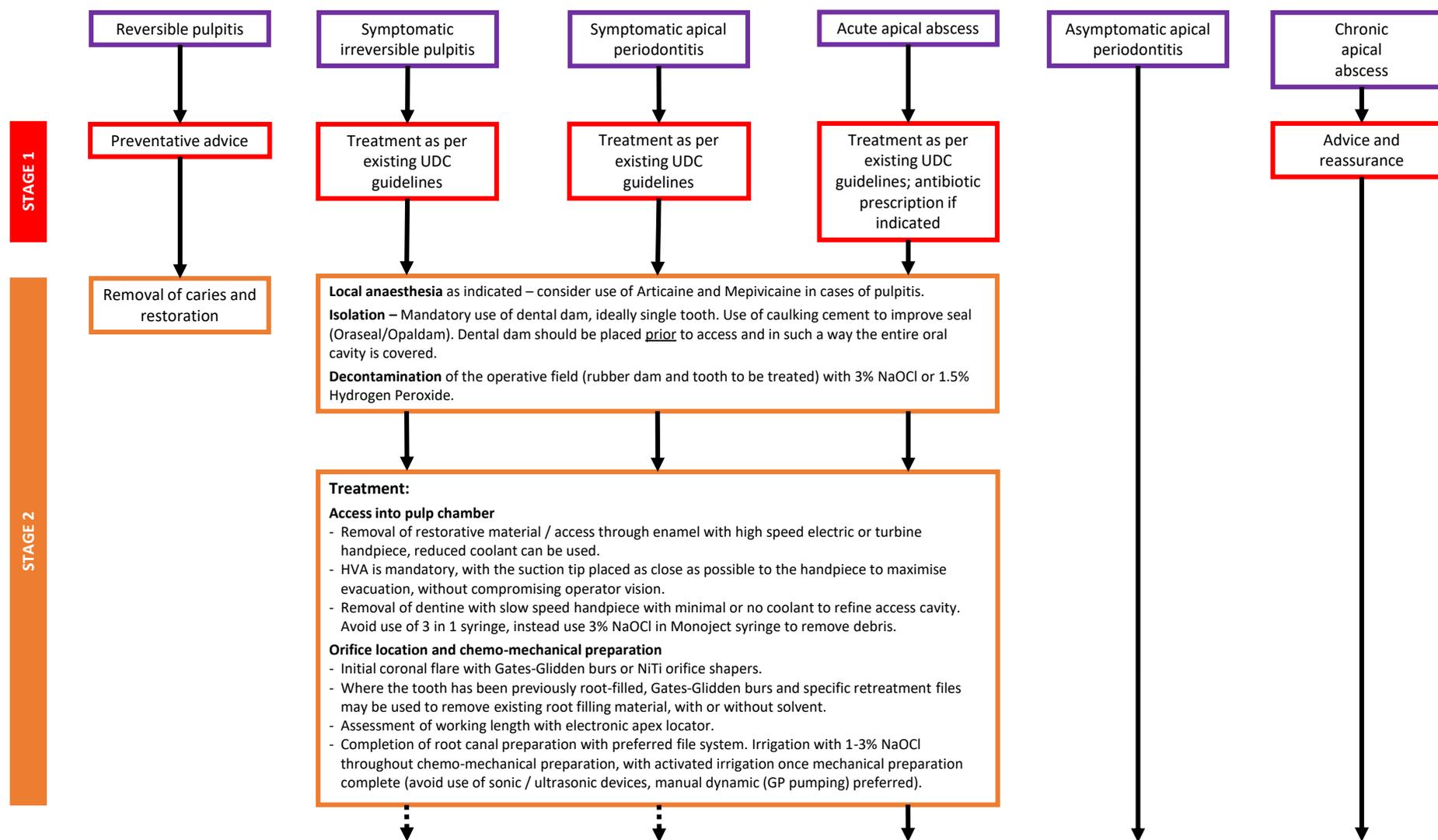
Table 2 shows a flowchart of proposed actions for all common endodontic diagnoses (dento-alveolar trauma is not included in this table), along with the suggested treatment protocols for management, based on the existing ESE quality guidelines for endodontic treatment²

Stage 1 (**red**) - refers to urgent dental care treatment.

Stage 2 (**amber**) - refers to treatment in primary care for managing endodontic problems.

Stage 3 (**green**) - refers to treatment that should be deferred to a later stage.

Table 2:



STAGE 2

Dressing if required

- Dry pulp chamber using HVA and cotton wool pledget; dry canal with paper points.
- Place dressing material (preferably $\text{Ca}(\text{OH})_2$) 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

STAGE 3

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/wp-content/uploads/2020/03/BES-AAA-Document-31st-March-v1.1.pdf>

Appendix 8: Approaches for clinically vulnerable and clinically extremely vulnerable patients

- Patients CEV and CV should be identified in the remote management stage of the patient pathway.
- Clinically extremely vulnerable patients may be seen for dental care in the same way as other patients, as government shielding advice has been paused.
- When care planning, [shared decision making](#) is important to weigh up the benefits of dental treatment against exposure risk, and plan care in the patient's best interests. This is of particular importance to clinically extremely vulnerable patients at the highest risk from COVID-19.
- The patient's GP or wider health and social care professional(s) may be consulted to plan care as necessary, taking into account overall care needs, medical history and exposure risk, as is usual practice.
- When face-to-face care is required - where possible, without compromising the requirement for access to care in an appropriate timescale, additional physical and temporal separation measures should be taken for these groups (see section 3.2.1.1).
- Dental services may wish to link to local arrangements put in place to support these groups (eg local volunteer networks may be able to organise collection of prescription items)
- Follow any additional precautions introduced to protect these groups during a local outbreak, as issued locally.

In the event that a dental team identifies a patient who is clinically vulnerable or clinically extremely vulnerable as having possible COVID-19 symptoms, refer to a medical practitioner for further assessment.