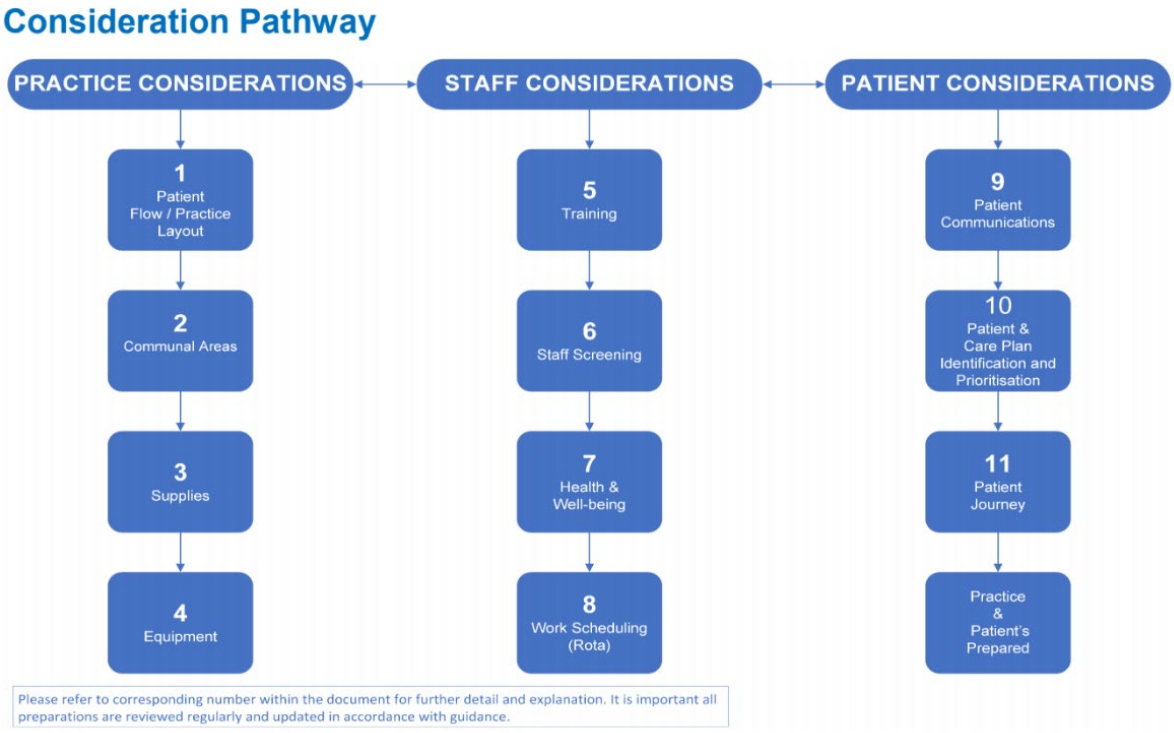
Standard Operating Procedures in the Practice, Staff and Patient Journey Post COVID19

Purpose

The purpose of these standard operating procedures is to systemise the patient journey across practices of Antwerp Dental Group and to promote a COVID secure workplace by considering the following:

- Treat dental patients in a safe manner with adequate infection control procedures to limit the risk of contagion within a dental practice environment
- Protect all personnel who attend the dental clinic from the risk of contagion from each other and from patients
- Update where necessary current best practice in cross infection control
- Continue to embrace and promote advice from Public Health England about social distancing at work.
- Minimise the potential for dental clinic environments to be the source of a community spread of airborne pathogens, particularly in respect of coronavirus
- Minimise wasteful use of PPE to prolong availability of essential protective measures for the dental team and patients

The following SOPs narrative embrace the elements in the 'Prompt to Prepare' Consideration Pathway to address the dilemmas presented by the traditional non-covid practice, staff and patient journey and seeks to continually reflect on the practice pace, proximity and levels of protection.



1. The safety record of dental practice ('Staff Considerations' & 'Patient Considerations')

Dental Practices in England have an outstanding safety record due to stringent regulations around infection prevention and cross infection control. Hitherto there has not been on record any incident where a dental practice in England has been responsible for community spread of disease, particularly air-borne pathogens such as tuberculosis, bordetella pertussis (whooping cough), legionella pneumophila, measles (rubeola virus), mumps virus, rhinovirus (common cold) , influenza virus (causes flu), adenovirus, herpex simplex virus, varizella zoster virus, and coronavirus.

Across the world, including in acute dental emergency clinics during the COVID-19 pandemic, there is no reported occupational spread of coronavirus amongst dental health care workers or their patients. We believe that our dental practices are safe places to visit. Indeed, a droplet modelling video by Aalto University, Helsinky would suggest that risk is increased in some uncontrolled public spaces where there may be a congestion of people, such as supermarkets, with or without social distancing:

https://www.youtube.com/watch?v=WZSKoNGTR6Q

By comparison, dental practices are very risk-controlled environments with significant decontamination processes.

As airborne transmission of infection continues to be a small risk for personnel and patients, Antwerp Dental Group is gradually investing in air purification technology which works in conjunction with germicidal ultraviolet radiation at circa 254 nm and photocatalytic destruction of pathogens. It has to be said that there is very little evidence that air purification does successful reduce the transmissibility of air-borne pathogens. This is because of the current low level of transmission, therefore discerning a difference at a statistically significant level is challenging. Despite the lack of evidence of need or efficacy of such devices in small medical closed spaces, Antwerp Dental Group wishes to consider a clean air policy to protect workers and patients from air-borne pathogens and allergens to encourage healthy living at work, and healthy passage for our patients.

2. Practice Based Risk Assessments ('Practice Considerations')

A system of risk assessments and measures have been undertaken to ensure that the practice will be able to operate in a manner that will result in low risk patients receiving controlled risk procedures in an environment that is socially distanced, making available suitable barrier techniques to minimise passive and active bio-aerosol, where possible at source, promotion of good ventilation, air quality and workflows to reduce the possibility of transmission-based risks. These risk assessments will be separated into the following areas.

- Personnel risk assessment
- Patient risk assessment
- Access to premises risk assessment
- Environmental Risk Assessment
- Air purity and Aerosol risk management

- DUWLs risk assessment
- PPE, Tools and Equipment risk assessment

Personnel risk assessment

Every morning, all personnel will receive a non-contact thermometer temperature check. It will also be recommended that the whole Antwerp Dental Group work-force sign into the COVID19 NHS contract tracing app. This will identify if any of our members have been in touch with COVID-positive individuals. All staff will be required to 'report in' to the NHS app every morning before attending work. This process will result in a communal responsibility to risk assess each person's ability to work.

Patient risk assessment

Every effort will be made to undertake a telephonic or form based electronic remote triage of patients. This will involve updating a medical history via a link supplied to access the patient's record card within 'Patient Portal'. This will typically occur 24-48 hours before the face to face appointment. This will also enable risk categorisation of the patient (explained later).

Access to premises risk assessment

Practices of Antwerp Dental Group have variable access to a practice car park or convenient adjacent parking. For practices with convenient parking close to the entrance of the car park, patients will be ushered in via a 'runner'. This could be a nurse or a member of our Front of House team.

Where a car park is not near practice premises, patients will be asked to attend with a face covering should they need to wait in a practice waiting room. Subject to availability of supply, patients who do not present with a face covering will be asked to wear a 3-ply mask. Please note – this is NOT a Type IIR mask (which is typically 4-ply) that needs to be reserved for non-AGP procedures. Where patients attend with excessive hand luggage, these patients will be asked to rebook. Patients who have coats or overalls will need to store these in plastic boxes in a designated place. Patients will be asked to ensure that they personally store valuables as the practice will not be able to take responsibility for lost valuables.

Environmental Risk Assessment

All practices of Antwerp Dental Group will have had all waiting room, admin, management and surgical spaces surveyed to ensure that the practice are free of unnecessary surface clutter which could risk 'fomite transmission'. Where possible, unnecessary practice paperwork will be made accessible in digital format.

Such minimisation is to occur in the waiting room and the surgical areas.

Where post it note reminders or other importance governance notes are present in the surgery, the ability to digitise such data must be presented to the Practice Manager or the Operations/Clinical Director

Air Purity and Aerosol risk management

Air quality will be measured by an ambient particle counter and ADG will issue air quality initiatives which will be reviewed every quarter. All treatment spaces will be considered for appropriate air purification devices. Where there is a supplier lead time for acquiring relevant air purification devices, or

repairing/servicing of such devices, treatment rooms will be ventilated by frequent opening of windows and considering appropriate 'fallow' time between different procedures. Guidance on 'fallow times' will be published via group wide document which will be called 'Surgery Fallow Time Update Vx', which will be a version-controlled notification. This may see timings adjusted up or down depending on the prevailing level of risk.

Every effort will be made to use devices that will minimise the generation of aerosol at source.

DUWLs

To limit the extent of pathogens in aerosol, practices of Antwerp Dental Group will have a local policy on frequency of testing of DUWLs, and on use of a suitable frequency of decontaminating dental unit water lines.

Personal Protective Equipment (PPE), Tools and Equipment risk assessment

Each practice will require a volume of PPE, which may include, gowns, head coverings, shoe coverings, gloves, and suitable face masks. The practice will also need to ensure need to ensure the presence and functionality of all aerosol minimising equipment:

- Every week the Practice Manager or designated person will undertake a practice risk assessment on availability of appropriate PPE
- PVC drapes ('ponchos') will need to be decontaminated between episodes of AGP Dentistry by alcohol wipes., or decontamination with germicidal UVC irradiation for 30 minutes, or placing in an oven at 75 degrees for 30 minutes (ideally with moist heat)
- Type IIR surgical masks for non-AGP procedures (non-fit tested)
- An appropriate filtering face piece (N95), a head covering, a fluid resistant full armed gown, a fluid resistant face shield and gloves for AGP procedures
- For Oral Surgery AGP sessions, and FFP3 mask will be the standard of care to comply with guidance from the BAOMS, and BAOS
- Front of House (FoH) staff will wear Type IIR fluid resistant surgical masks and gloves while attending to patients. This policy will be periodically reviewed
- Staff members who are undertaking decontamination of communal areas will wear fluid resistant drapes, a fluid resistant apron, a Type II FRSM, and gloves

For a visual guide on the recommendations from Public Health England, please refer to the following document:

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

- N95 respirators for AGP procedures. 1 x N95 respirators will be supplied to each clinician and nurse per day. To ensure maintenance of the viability of N95 respirators these will need to be covered with a Type IIR surgical mask or a clear visor/face-shield after AGPs to minimise splatter on their surface. When doffed and not in use, this must only occur after careful washing of hands

with soap for 40 seconds, and respirators will need to be stored in breathable sterlisation bags between treatment sessions before re-use.

- Whereas CDCs recommend doffing of N95s after AGPs this is in relation to contaminated aerosol (bio-aerosol). In the case of a well-controlled AGP and where the N95 respirator surface is protected by a visor or a Type IIR fluid resistant mask, the clinician and assistant will maintain the mask for 2 sessions, which will be an am and a pm session on the same day OR two sessions across two different days before disposal
- When N95 respirators are removed between episodes of dentistry, this will be performed with clean gloved hands and they will be stored in a breathable sterilisation pouch. N95 respirators will be decontaminated in a designated oven at 75 ° C for 30 minutes between sessions as a minimum standard. Where opportunity arises to decontaminate the N95 respirators between patients, this should be performed.
- Due to advice given by the British Association of Oral and Maxillofacial Surgery, an un-valved FFP3 mask or a P3 respirator will be needed for Oral Surgery sessions
- Practices will formally assess availability and type of rubber dam, and informally assess availability of alternative barrier materials
- Practices will evaluate efficacy of high-volume evacuation (HVE) equipment and apply a minimum standard air-flow rate of 60 litres/minute to ensure the ability of dental equipment to capture aerosol generation at source. This standard will be subject to review as the efficacy of tools are tested in their respective working environment.
- Practices will continue to evaluate HVE equipment e.g. Isovac/Isolite/Purevac, extra-oral suction systems to name but a few with view to implement appropriate products/technology that minimise aerosol, preferably at source

The following distillation of aerosol science will identify the potential risk minimisation of transmission risks of airborne pathogens

- Use of effective high-volume evacuation reduces aerosol production by 90%
- Effective use of rubber dam where possible can reduce bio-aerosol by a further 30%-90%
- Regular Type IIR FRSD face-masks filer 60% of airborne particles
- FFP2 and FFP3 masks filter
- Results in a circa 0.4% (FFP2), risk of transmission in the absence of additional air purification technologies

3. Patient Risk Assessment and Prioritisation of Treatment

In accordance with various documents published by Public Health England, patients will be assessed into various risk categories, and these categories will contribute to a patient risk assessment that will inform the clinician on whether a remote assessment, intervention, or non-intervention is the best approach for management of the case. The risk categories are outlined in the table below.

Category 1	Patients who are possible or confirmed COVID-19 patients – including patients with symptoms, or those living in their household
Category 2	Patients who are shielded –those who are at most significant risk from COVID-19
Category 3	Patients who are vulnerable / at increased risk from COVID-19
Category 4	Patients who do not fit one of the above categories

Whereas SOPs will change with time in response top national guidance, value of R and the availability of PPE, Antwerp Dental Group are currently providing care for patients in categories 2,3,4.

This document will follow the typical patient journey detailing procedures and processes throughout that journey.

Lockdown during the COVID19 pandemic has resulted in deferral of essential treatment for many patients. It would be appropriate to prioritise care according to risk assessment and according to need as indicated below:

- Patients with dental emergencies or other dental problems that require urgent assessment and treatment
- Patients with non-painful un-healing ulcers or growths
- Patients who were in the middle of treatment pre-lockdown and who are seeking to complete the prescribed course of treatment
- Patients who are due hygiene appointments, particularly those whose visits were deferred due to the period of closure.

4. Pre-attendance Telephonic Triage (Pre-screen), Remote Assessment & Contemporaneous notes

Where practicable, practices will arrange for a pre-attendance telephonic triage of all patients. A Treatment Coordinator can be used to go through the following:

- COVID19 risk assessment. A new temperature, persistent cough, anosmia, or breathing difficulties
- An appropriately trained Dental Nurse or Administrator will undertake a pre-screen and place a risk category for the patient and will determine the need for a Remote assessment by a dentist. Should there be substantial changes to the patient's medical history, circumstances, or needs then the Front of House member will place the patient's name on the relevant Performer's Task list for the day to enable a remote assessment
- A patient's medical history (this can be completed via a sent link from the Software of Excellence's Patient Portal)

- Exemptions and costs and where possible the patient will pre-pay for treatment prior attending to minimise footfall and reduce the time spent on the practice premises
- Pre-payment is to be collected at this pre-attendance telephonic meeting to minimise traffic within the surgery building on the day of your appointment
- The patient will be sent our 'COVID Secure Code of Practice' to help them understand the measures being taken in the practice to protect theirs and the team's well -being and they will be asked to co-operate with this
- Our COVID Secure Code of Practice requires wearing a mask while waiting on premises (see below) For more in-depth assessment, the treating dentist will need to carry out a remote assessment for all new patients,
- Also, within our COVID Secure Code of Practice we will mention a 'Standard Health Compliance Charge' or an 'Enhanced Health Compliance Charge' for private AGP appointments, and how we will seek to manage emerging waiting lists for NHS AGP or non-AGP appointments
- All new patients will need to have a telephonic assessment by the dentist who will undertake such an assessment. This is currently being undertaken by telephone and where necessary an exchange of pictures.
- In preparation of new ways of working, we are evaluating and assessing the merits of various teledentistry platforms which is likely to be a new direction in dentistry:

  Chairsyde https://chairsyde.com/
  Smilemate https://www.smilemate.com/
  Doxy.me https://doxy.me/
  Dental Monitoring https://dental-monitoring.com/
  Strauman DenToGo https://www.straumann.com/en/dental-professionals/products-and-solutions/orthodontics/dentogo.html
  Smilevirtual https://www.smilevirtual.com/
  We are not sure that all patients will welcome such an approach to dentistry and so we will continue to evaluate teledentistry platforms and patient experiences and expectations and will settle on a Teledentistry policy as more evidence for their usefulness emerges.

- The purpose of the remote assessment is to limit the time the patient will need to spend in the surgery and to promote ongoing social distancing. Dentists can discuss generic options for treatment and generic costs pending further radiographic assessment and Extra and Intra Oral examination.
- The telephonic consultation with a dentist or hygienist will occur by appointment to ensure availability of the patient and a clinician at a pre-agreed time. It is understood that a telephonic method of pre-screening and undertaking triage will be challenging but every effort will be taken to minimise the need to undertake unnecessary work within the surgery premises
- Every effort will be made to assess if the patient has mental capacity issues or if possible, treatment of a minor has full consent or whether an interpreter is required at the visit. It will also be ascertained if an accompanying person needs to attend. Patients who seek to attend with mental capacity issues, or are a minor will need the parent, guardian or enduring power of

attorney to have a detailed telephonic consultation with the treating dentist before arriving for treatment

- The Front of House (FoH) member will send the patients our 'Covid Secure Code of Practice' (CSCOP) and the Front of House staff member will ask patients to expect to receive this. This requires sending by e mail, and not be SMS and therefore an e mail should be obtained from the patient before booking to enable patients to see our COVID secure guidelines as there are expectations we have of patients while attending the building. For patients who are unwilling to provide an e mail, these patients will not be directly booked in but will need to be referred to the Practice Manager to facilitate communications and enable a CIVOD secure attendance to the practice. For minors and those with mental capacity issues, the 'Covid Secure Code of Practice' should be sent to a person with parental responsibility or an enduring power of attorney. Where it is not possible to send the CSCOP, the Front of House member will cite the key elements of this and make a note on the electronic record card that this has been completed. There will be a rotation of Front of House Professional who will act as a 'Patient Guide' to facilitate controlled entry within our practices.

5. On Arrival at Practice

For patients who will attend the practice and need to wait in a waiting room, they will be informed of the need to wear a face covering prior to attending if they are in possession of one. If they do not possess a face covering then the practice can supply a 3-ply mask to wear while in transit at the practice.

(a) Patients who attend practice by Car with an adjacent Car Park will be waiting in the Car Park and will be required to come to the door and sign into the practice via a mobile tablet connected with Software of Excellence Patient Portal. If there is a current wait to be seen the patient will be asked to wait in their car and be invited in at the appropriate time

(b) For other patients who attend by foot, bike or use public transport, they will be asked to come to the entrance and sign in but wait outside if it is practical to do so. If it is not practical to wait outside, they will be given a 3 ply mask in a clear ziplock or similar bag and be asked to wear this mask at all times within the building until they need to remove this for dental inspection

When patients approach the practice they will see a roller banner at the door or a banner in the window with a QR code. Patients will scan this QR code on a smartphone, and sign into the 'Patient Portal' and sign into the practice by entering their name.

As patients enter the building, they will be risk assessed by a 'Patient Guide'. The guide will be an appropriately trained member of our work-force who will initially undertake a temperature check using a non-contact thermometer. The Patient Guide will support a 'controlled entry' and a 'guided entry' process. The Patient Guide? will allow an agreed maximum number of patients in the building and where practical, will open and close doors to minimise clasping of handles that will facilitate indirect spread and fomite transmission risk.

Patients who do not possess their own face covering will always be asked to wear a 3-ply mask while on premises including when in the treatment room with the dentist to minimise passive aerosol dissipation

from speech. The runner nurse will explain the need to do this for patient safety and minimise community spread of air borne pathogens, not limited to coronavirus.

(Please note – a 3 ply mask is not the same as a Type IIR surgical mask. Such supply needs to be carefully preserved for patients who require dental examination and treatment and a preservative and responsible approach needs to be taken to provide patients with the correct mask to minimise wasteful use of PPE).

Patients who attend who are below the age of consent or there are mental capacity issues will be allowed one accompanying person to enter the building. If a patient attends with extensive baggage this will not be permitted into the building.

Subject to space, patients may be asked to store large clothing within a sealed plastic tub at our Front of House section and patients will then be directed to sanitisation stations Or the Patient Guide will offer the patient alcohol based scrub via a pump action dispenser.

Key messages that the Patient Guide will provide patients who attend the building:

- Mention that what appears to be excessive measures which are contrary to social norms are in fact being carried out for the best interest of the public and the staff to minimise community spread of disease
- Sanitise hands with > 67% isopropyl alcohol and carefully scrub hands for 20 seconds or wash hands with soap, whichever is more appropriate for the practice at designated santisation station or by pump action dispensers held by the Patient guide.
- Always maintain a face-covering/mask in the building including when going into the treatment room to minimise passive aerosol
- As the patient walks through the building where possible please allow staff to open doors to minimise possibility of fomite transmission
- The patient should seek to avoid touching hand-rails, walls and doors where possible, and where practicable there will be sign-posted one way systems at various practice touch points.
- The patient should do all they can to maximise social distancing within the practice
- Be in expectation that much of the dental team will be 'overdressed' in protective equipment

6. On transit to and within the surgery treatment space

Patients will be called from waiting room spaces and guided to treatment spaces. During transit, dental assistants will hold doors to minimise the need to touch doors, door handles, railings etc. The dental assistant will be mindful to wipe down fomites with alcohol-based disinfectants. During transit the dental assistant will wear a Type IIR FRSM facepiece and the patient should wear a 3-ply mask. Social distancing rules will always be applied.

Non-aerosol Generating Procedure (NAGP), Aerosol Generating Exposure (AGE), Aerosol Generating Procedure (AGP)

Almost every interaction in the dental surgery involves "aerosol generation" i.e. the release of small airborne particles typically under 5 microns in diameter, including breathing, talking, sneezing and

coughing. Procedures that involve use of air or water or air/water combination, or a turbine, or a scaler or piezo device or a hard tissue laser with water generates significant frank aerosol. Even a slow speed handpiece or a soft tissue laser without water creates a dry aerosol. A bio-aerosol is aerosol, with living organisms derived from their host i.e. the patient.

As part of procedure risk assessment, and contemporaneous notes, dentists will designate :

1. Non AGP – Procedures that do not generate aerosol/bio-aerosol
2. AGE – Procedures with the potential to generate aerosol/bio-aerosol
3. AGP – Procedures which will result in frank aerosol/bio-aerosol

As almost every dental activity will generate some aerosol there is a need to be pragmatic and sensible and risk assess every procedure sensibly. It would be normal to consider frank aerosol generation to occur when a power instrument is used with water.

The following tables will summarise the ADG position, and in agreement with other dental forums as to what should be classified as Non-AGP, AGE, and AGP, and confirm the PPE position for those procedures

NAGP – Non Aerosol-Generating Procedure

- Examination of mouth using a dental mirror only
- Taking extra-oral radiographs
- Visual and digital examination of the head and neck
- Facial aesthetic procedures
- Photobiomodulatory procedures with a medical laser - extraoral

PPE required : Type IIR fluid resistant surgical face mask (FRSM IIR), Safety Glasses, Visor, gloves. A disposable apron may be worn. A visor may be replaced by use of a pair of safety glasses with good peripheral seal and a FRSM IIR.

AGE – Aerosol- Generating Exposure

- Taking intra-oral radiographs
- BPE and periodontal charting
- Preventive procedures such as application of fluoride
- Taking impressions
- Simple restorative procedures, including placement of restorations without use of a handpiece
- Non-surgical extraction (after risk assessment)
- Medical management of soft tissue pathology
- Temporomandibular Dysfunction Management
- Denture Procedures, including use of a slow speed handpiece outside of the mouth
- Hand scaling not involving ultrasonic scaler
- Specific AGE Orthodontic procedures as outlined by BOS:

(https://www.bos.org.uk/Portals/0/Public/docs/Advice%20Sheets/COVID19%20FACTSHEETS/Recovery%20Phase%20Advice/AGP/Table%20of%20AGP-Non%20AGP%20v7.pdf)

- Facial Aesthetic Procedures that may involve providing an intraoral anaesthesia
- Laser Aesthetic Medical procedures such as hair removal, or skin resurfacing

PPE required: Type IIR fluid resistant surgical mask (FRSM IIR), Safety Glasses, Visor, disposable/reuseable water resistant drape with disposable apron. A visor may be replaced by safety glasses with good peripheral seal and a FRSM Type II R.

AGP- Aerosol Generating Procedure

- Use of a high-speed turbine within the mouth
- Use of a slow speed handpiece within the mouth
- Use of a Cavitron, piezosonic or other mechanised scalers within the mouth
- Air abrasion and intra-oral sandblasting
- Use of 3:1 syringe within the mouth
- Surgical extractions
- Minor Oral Surgery involving bone removal
- CPR chest compressions using a bag-valve mask
- Facial Aesthetic procedures using blast media, such as microdermabrasion
- Specific AGP Orthodontic procedures as outlined by BOS:

(https://www.bos.org.uk/Portals/0/Public/docs/Advice%20Sheets/COVID19%20FACTSHEETS/Recovery%20Phase%20Advice/AGP/Table%20of%20AGP-Non%20AGP%20v7.pdf)

PPE required: A respirator mask (N95 or above), or P2/P3 respirator, safety glasses, visor, gloves, disposable/reuseable water-resistant drape with disposable apron.

When undertaking examination or treatment the clinician must consider if the procedure is a Non-AGP, and AGE, or an AGP, and don appropriate PPE for the procedure.

Summary of Public Health England Requirements in respect of safe PPE

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

Non AGP	AGP
Eye protection (if needed)	Eye protection, eye shield, goggles or visor
Type IIR FRSM	FFP designated mask (unspecified)
Disposable Apron	Long sleeved fluid repellent gown
Gloves	Gloves

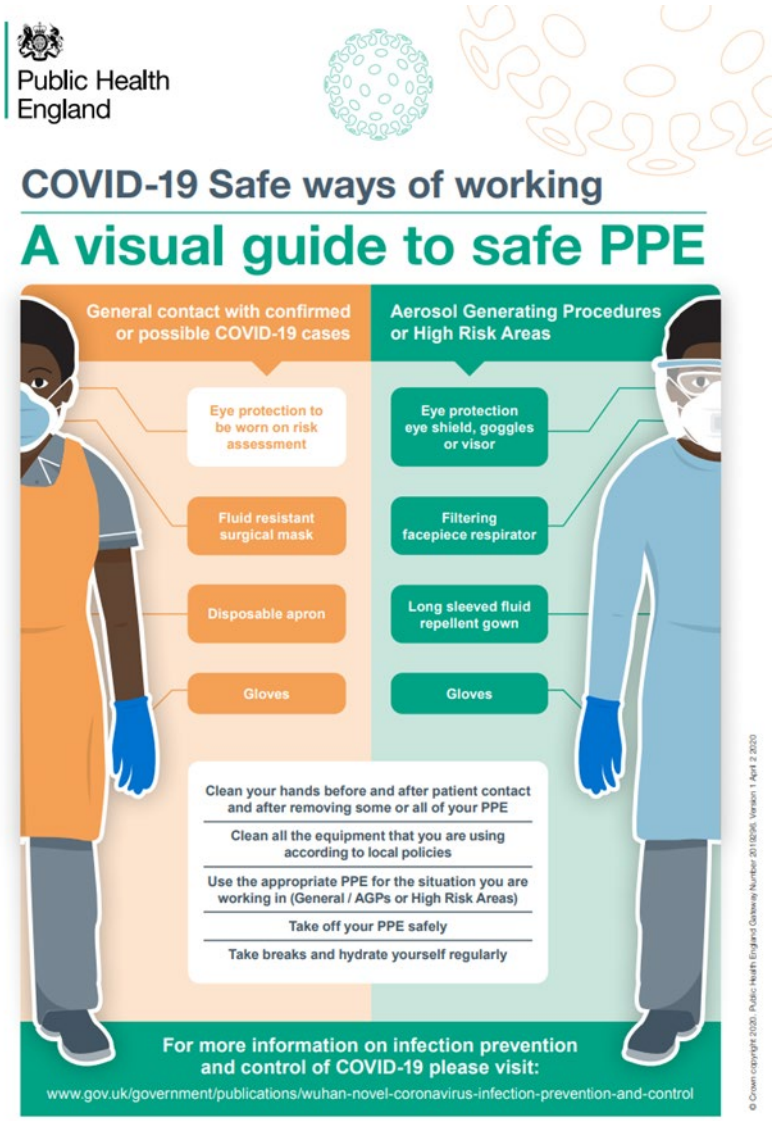
Summary of HSE Requirements in respect of safe PPE

The HSE report that biological agents such as SAR-Cov2 are covered under Control of Substances Hazardous to Health (COSHH) Regulations 2002. Under these guidelines and where the biological agent poses a respiratory risk of infection, use of FFP3 devices represent best practice, however where such is not available then an FFP2 mask may be an acceptable pragmatic compromise.

https://www.hse.gov.uk/news/assets/docs/face-mask-equivalence-aprons-gown-eye-protection.pdf

There are many FFP2 masks (N95 respirators) within the supply chain. Antwerp Dental Group has sourced a supply chain which ensures compliance with any of the following standards:

- CE certification (for N95 masks)
- European standard EN 14683 (for medical masks)
- EN 149:2001 (for respirators)



Every AGP will need to be performed with enhanced PPE. A standard 'health compliance charge' will be applied for all routine AGP procedures. An enhanced 'health compliance charge' will be applied for significant AGP procedures such as extensive one-sitting crown and bridge, extensive oral surgery on a single patient and dental implant procedures. This will be treated as a sundry charge separate to dental charges that will need to be levied to private patients. It will not be possible to levy such charges to NHS patients. To control costs, the appointment diary will be ear-marked into AGP day sessions where a single N95 respirator will be used throughout the day by the clinician and dental assistant.

Minor Oral Surgery procedures are considered to be high risk procedures, and such procedures will require use of an FFP3 mask or a P3 respirator and as such attract an enhanced 'health compliance charge'.

Pre-procedure Donning

All donning of PPE will occur within the designated treatment area and the clinicians and close support staff will don PPE before collecting the patient.

Pre-procedural mouth rinse

When completing initial discussion, the patient must remove his/her mouth covering, and use a pre-procedural mouth rinse. The optimum mouth-rinse will be reconsidered from time to time based on emerging evidence. The currently accepted mouth rinses will consider of oxidising agents such as:

- Stabilised Hypochlorous Acid
- 3 % hydrogen peroxide
- 7.5% povidone-iodine (NB this may stain the mouth and clothes)

The patient will be instructed to rinse for 60 seconds and expectorate back in the cup to minimise aerosol and splatter.

Diaries

Practice Managers will zone treatment diaries into 4 main zones:

- NHS non-AGP/AGE
- NHS-AGP activity.
- Private non-AGP/AGE
- Private AGP

Such zoning will facilitate designated AGP sessions where the correct PPE can be donned and will be agreed locally between practice manager and individual clinicians.

Examinations and other non-AGP activity

When devising a treatment plan and considering an AGP procedure, the appointment sequencing on EXACT must specify 'AGP' to enable Front of House staff to correctly diarise such procedures.

After examinations, treatment plans will be demonstrated and signed on Clinipads and this will be e mailed to patients. Patients will receive treatment guides to facilitate consent by a digital platform known as Flynotes which integrates with SOE EXACT. Whereas a standard repository of consents has been developed, these papers can individually evolve rapidly by request to our Clinical Director, Dr. Raj Wadhwani.

Planning non-AGP/AGE activity

When specifying a treatment sequence for non-AGP activity.on SOE EXACT appointment times for such activity need to be more generous than existed in the pre-COVID era. There will however be no need to consider 'fallow 'time between appointments.

Planning AGP activity

When specifying an AGP appointment sequence on SOE EXACT, the clinician/nurse needs to specify 'AGP' for relevant procedures to sign-post Front of House to diarise appropriately.

The Private AGP appointment sequence will apply a 'health compliance charge' or an 'enhanced health compliance charge' for every separate AGP procedure. The 'enhanced health compliance charge' will apply to oral surgery or dental implant/GBR procedures.

Applying a health compliance charge to patients will not be permitted in the case of NHS appointments. To minimise the cost of PPE, NHS AGP clinics will have protected slots. This may result in an NHS AGP waiting list. This will be managed by local agreement with the Clinical Director and Operations Director.

Undertaking AGP Treatments

Performing an AGP treatment should never be undertaken 'on the hoof' unless the dentist/nurse team have already donned the appropriate PPE. All AGP procedures should be planned. In the case of a non-AGP/AGE procedure changing to an AGP procedure, the clinician needs to undertake a risk assessment before continuing. The clinician must evaluate the risk and practicality of donning enhanced PPE versus rescheduling the procedure to a AGP diary slot. The clinician will articulate all requirements for the clinical procedure to the dental assistant **pre-operatively** to avoid the need to rummage through drawers while the procedure is being undertaken.

Using aerosol minimisation techniques during AGPs

When a restorative AGP procedure is being undertaken this needs to be performed under rubber dam and high-volume aspiration to limit generation of bio-aerosol. Rubber dam will be carefully secured with winged Tiger ™ clamps, Hala ™ clamps, SoftClamps ™, Wedgets ™ or floss ligatures or similar to minimise failure of the dam and risk aerosolising the treatment zone.

The dental nurse and clinician will work 4 handed to limit aerosol generation at source. Where a nurse is not available the clinician needs to be mindful of careful use of high-volume aspiration and avoiding descending his/her face into the treatment space of the patient which is centred above the oral cavity. Where available, and particularly when a dental nurse is not available for the procedure, additional measures can be used to minimise aerosol inhalation such as dual suction, use of dual function retractors such as Purevac ™, use of isolation tools such as Isolite ™, or Isovac™ or extra-oral suction devices.

Process	Settle time	Fallow Time	Surface Clean down begins after a total of
Non AGP	0 minutes	0 minutes	0 minutes
AGE	5 minutes	0 minutes	5 minutes
AGP	15 minutes	15 minutes	30 minutes

After culmination of non-AGP procedures there is no need for fallow time, however appointment sequencing should be more generous than the pre-COVID era.

After culmination of an AGE procedure, there should be 5 minutes of 'settle' time before work surfaces are wiped down. Instruments however can be processed for decontamination straight away.

After culmination of an AGP procedure there should be 15 minutes of 'settle' time before work surfaces are wiped down. Please note, the 'settle' time commences from the end of the AGP procedure and not when the patient leaves the room. Instrument processing can commence as soon as needed.

The above will ensure that the next patient will not attend a treatment space within 30 minutes of an AGP procedure being completed.

AGP treatments should be sequenced early in the appointment space with a view to allow 15 minutes settling time before the surgery is cleared up and decontaminated. After the AGP procedure and post operative instructions, the patient can be discharged and the clinician can write notes and sequence additional treatment during the 'settle' and 'fallow' period.

In the absence of air purification, a settle time of 15 mins will be applied before surgery surface decontamination is performed. In the presence of air purification technology and technology to remove aerosol at source, the settle time and fallow time will reduce to 5 minutes.

During this 'settle' time the clinician can continue to provide post-operative instructions and write clinical notes while continuing to wear his/her respirator:

During the 'settle' time the dental assistant can reprocess instruments however cannot wipe down work surfaces or the floor. Work surface and the floor will be decontaminated after 15 minutes of 'settle' time.

For surgeries with air-purification technology a risk assessment will be performed by the Clinical Director or the Operations Director to confirm if the additional technology, appropriate work-flow and the R value will reduce settle time and fallow time.

Use of single and multiple surgery spaces

Where surgery logistics permit, clinicians can operate an AGP diary between two different surgeries without fallow time, thus allowing one surgery aerosol to settle for 15 mins before decontamination of that surgery. During the settle time the nurse and clinician will rotate into another surgery and this rotation will facilitate continued working between surgeries without operational settle and fallow time.

During AGP procedures, and in the absence of air purification technology, surgery windows will need to be kept open where possible to facilitate ventilation and airflow and to avoid stagnation of aerosol.

Extensive AGP Procedure

Where an extensive aerosol procedure has been undertaken in a single surgery, such as an extended appointment of full arch debridement, multiple crown and bridge preparations, the above settle and fallow times should be followed. The surgery surfaces and floors should also be fogged with stabilised hypochlorous acid after clean-up. When the surgery is fogged, all windows and doors need to be kept shut. It is vitally important that fogging is kept well away form all forms of electronic equipment to prevent failure of the same.

Discharge, Post procedure Surface cleaning, floor cleaning and Doffing

After culmination of any dental procedure and discharge the patient will re-wear their facial covering or 3-ply mask while travelling out of the building.

The clinician will not doff until the settle time of 15 mins from when the end of the AGP has elapsed. After 15 mins settle time of an AGP the Dental Assistant will finalise clean-up of surgery work surfaces and a wipe over surgery floors with sodium hypochlorite before she cleans her hands and doffs in the same room.

7. On exit from surgery, Further bookings and Payment arrangements

Ideally the patient has pre-paid for dental treatment to avoid traffic at the Front of House. A member of the dental team will be able to phone up and schedule further appointments while the patient is not in the building. Any necessary post-operative instructions can be sent to the patient via the practice e mail system. Should the patient still need to pay for treatment then a contactless payment system should be used such as apple pay, google pay etc. For a simple rebooking, this can be undertaken directly at front of house. For a complex sequence of bookings, it is better that this is undertaken remotely. For complex bookings or for where a patient would prefer to book remotely, the Front of House member will place the patient's name in the Task Manager and nested under the relevant Performer.

Where necessary a patient will retrieve their boxed clothing and the relevant task box will be fogged with stabilised hypochlorous acid.

Cleaning and fogging of communal areas

Every day, the manager will designate one member of the team to inspect all communal areas for cleanliness.

Lavatories – the lavatories will remain for emergency use and patients will be reminded to use restrooms at home before using public restrooms.There will be a mid-morning, a lunch time, a mid afternoon and an end of day check to ensure there are no spills, or splatter. The lavatory will also be fogged with stabilised hypochlorous acid.

Front of House, waiting areas and corridors will be inspected and fogged at lunch time and at the end of the day. Any areas of identified splatter will be cleaned up the individual wears a Type IIR surgical mask, a fluid resistant drape, eye protection, rubber gloves and sodium hypochlorite.

Staff welfare facilities – these areas will be fogged at the beginning of the day, after lunch and at the end of the day as part of the surgery set down regime.

During any fogging activity staff members will be wearing a fluid resistant drape and a type IIR fluid resistant face mask.

Daily Practice Routine

Practices will operate wide opening hours from 7.40 am to 8.20 pm

The early morning shift (Team A) will be from 8.00 am to 2.00 pm with a 30-minute break at 11.30 am. The first patient will be seen at 8.00 am, and the last patient of this session will leave at 2.00 pm. Members of Team A will need to arrive 20 minutes before the scheduled time of the first patient to prepare surgery.

The late afternoon shift (Team B) will be from 2.15 to 8.00 pm with a 30-minute break. The last patient of this session will leave at 8.00 pm. Members of Team B will need to arrive 20 minutes before the scheduled time of the first patient to prepare surgery.

Before the am or pm shift the manager will do a 5 minute debrief of the whole team to facilitate any relevant handovers between the am team and the pm team. Such a debrief may include, but will not be limited to:

- Patient appointments follow up (the pm FoH team will need to rebook patients from the am, and the am team will need to rebook patients from the previous day's pm appointments)
- Patient payments follow up
- Discuss anything relevant on the patient list and team roles for the day

The practice manager and members of team A or team B will need to provide patient specific handover notes using the SOE 'Task Manager' module.

Staff Training

As a minimum, all staff will need to have read the group Standard Operating Procedures and have reviewed the links enclosed to prepare them for the post COVID19 era. The staff will continue to follow an e mail sequence of training resources provided by the Clinical Director to ensure preparedness for the post COVID era.

From time to time the Clinical Director will host a webinar to train staff members or specify group learning materials where such materials or references will be sent to all staff members e mail accounts to ensure full access to relevant learning to support professional careers and supporting safety for patients, the dental team and themselves.

Pastoral Matters

The effect of the COVID-19 pandemic and the possibility of ongoing local outbreaks will have a longer term impact on employee's mental and emotional welfare. This may be due to the operational impact of an altered way of working, and recent or imminent bereavements. Antwerp Dental Group will designate

an appropriate person from time to time for staff to liaise with should they be suffering from anxiety, stress, depression or any other form of mental illness.

Where an individual staff member does not feel supported or are struggling to implement standard operating procedures for any reason then this must initially be brought to the attention of your practice manager. Where this does not resolve the matter then this will need to be referred to the Clinical Director, Raj Wadhwani immediately.

Useful References

1. **Working safely during the coronavirus outbreak**

https://www.hse.gov.uk/news/assets/docs/working-safely-guide.pdf

2. **COVID-19 Infection prevention and control guidance**

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/886668/COVID-19_Infection_prevention_and_control_guidance_complete.pdf

3. **Rapid Evidence Review**

Delivered by HSE for the Government Chief Scientific Adviser

https://www.hse.gov.uk/news/assets/docs/face-mask-equivalence-aprons-gown-eye-protection.pdf

4. **COVID-19. A guide to facemasks**

https://www.dental-nursing.co.uk/news/covid-19-a-guide-to-face-masks

5. **N95 mask re-use strategy (SAGE – Society of American Gastrointestinal and Endoscopic Surgeons)**

https://www.sages.org/n-95-re-use-instructions/

6. **Can we disinfect and reuse N95 masks Dr. Franz Wiesbauer**

https://www.youtube.com/watch?v=FGEd3LVUFVU

7. **Use FFP3 masks without a mask during Oral Surgery Procedures**

https://www.baoms.org.uk/_userfiles/pages/files/professionals/covid_19/baoms_baos_ppe__avoid_using_ffp3_masks_with_valves_for_close_patient_interactions_may_2020_updated.pdf

8. **Technical Aspects of Aerosols in Dentistry by Marcel Donnet**

Effective reduction of Aerosol in the Dental Clinic by Faye Donald

Is there a connection between oral health and complications arising from COVID-19?

https://www.ems-dental.com/en/prevent-protect-virtual-dental-summit-recorded

9. **Guidance documents from the BAOMS and BAOS**

https://www.baos.org.uk/wp-content/uploads/2020/04/BAOS-BAOMS-22-April-2020-Statement-on-Re-using-FFP3-and-advice-as-we-move-from-emergency-to-urgent-care-provision.pdf

https://www.baos.org.uk/wp-content/uploads/2020/05/15-May-BAOS-and-BAOMS-FFP3-masks-with-Valves.pdf

10. **Healthcare Associated viral and bacterial infections in dentistry**

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375115/pdf/JOM-4-17659.pdf