BES COVID-19
Return to Work SOP

Dr Sanjeev Bhanderi (President)
Dr Dipti Mehta (Asst Hon Secretary)
Dr Daniel Vaz De Souza (ESE Representative)
Dr Kunal Patel (Hon Comms Officer)
Dr Noman Athwal (Council member)
Dr Maria Lessani (President Elect)
Dr Alyn Morgan (Vice President Elect)
Dr Will McLean (Hon Treasurer)
Dr Phil Tomson (Hon Secretary)

Version 1.0
8 June 2020

British Endodontic Society

Foreword

"Save lives..... Save teeth!"

On 23 March 2020, the Prime Minister announced the enforced closure of all dental practices as the COVID-19 pandemic took hold of the four devolved countries of the UK. In its place, NHSE advised for the local implementation of pain triage systems and a network of urgent dental care centres (UDCCs) in an attempt to stem the demand for dental care for patients in acute pain until further notice.

Since the 'lockdown', the British Endodontic Society (BES) has been acutely aware of the fact that the majority of urgent cases that have presented to the UDCCs have been due to acute endodontic disease and we published guidelines in April 2020 for the management of such cases. We are also aware that the majority of the affected teeth have been extracted, and that there is now a 'back-log' of patients that require immediate endodontic care in order to stabilise disease and patients are keen to save their teeth.

On 28 May 2020, the OCDO announced that dental services could resume from 8 June. However, we are conscious that national social distancing policy still remains in place and is essential to control the spread of SARS-CoV-2 virus in the general population, but that this is impossible in the dental environment. Therefore, all measures to mitigate the risk of transmission of the virus via AGPs must be taken in providing care and should be of paramount concern to maintain the safety of our staff, patients, and ourselves in the reopening of dental practices during the current 'delayed' phase of the pandemic in the UK.

We have, therefore, developed this document to guide dental professionals through the process of providing endodontic care for patients on their journey from pre-attendance, arrival, in-surgery, and post-treatment and to minimise the number of visits.

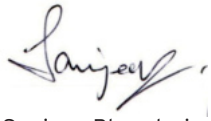
The BES has worked hard to consider the current evidence and the document will remain dynamic to the situation. The advice in the document is on three levels: Essential (based on national guidance); Advised (evidence-based but not essential); Professional judgement (low-level evidence, or anecdotal, or at clinician's discretion). Clinicians should be able to provide endodontic care for symptomatic cases as a priority before treating asymptomatic cases.

Please apply this guidance alongside consideration of your local government advice and national CDO guidance. The guidance aims to allow for the delivery of the correct endodontic treatment safely and effectively to preserve the teeth that are saveable.

We hope that you find it useful.

Keep safe and keep well!

With regards,



Sanjeev Bhanderi
President of the British Endodontic Society

1. Patient triage

2. Patient arrival

3. In surgery

4. After treatment

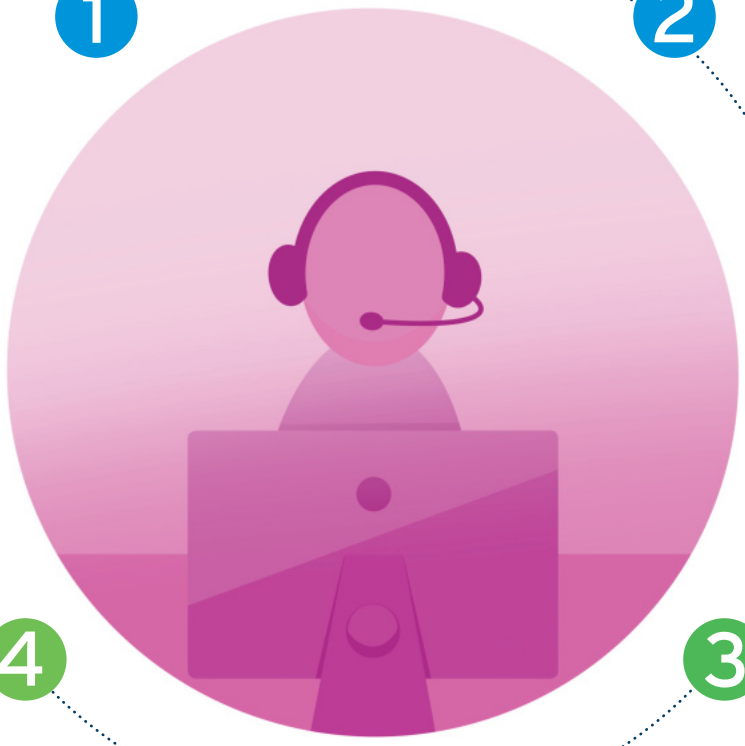
1. Patient triage

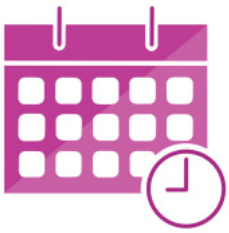
Telephone screening

1

2

Risk and needs assessment





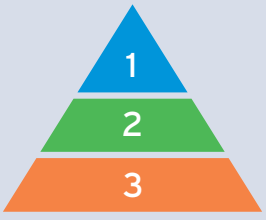
4

Scheduling appointments

Vulnerable/shielded book as the first appointment

3

Remote consultation



INDICATIVE EVIDENCE BASE

1 **ESSENTIAL** Public Health England, NHS England guidance.

2 **ADVISED** Some evidence but not essential.

3 **PROFESSIONAL JUDGMENT** Clinician's discretion due to conflicting, low-level, or anecdotal evidence.

2. Patient arrival

Patient

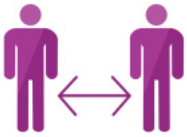
1. Temperature check *

2. Hand hygiene

3. Reconfirm COVID-19 status

4. Consider electronic payments

5. Mask

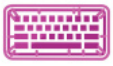


6. Social distancing

* Be aware of pyrexia due to dental infection

Clinical Staff

1. Loupes visor
   Microscope barriers



2. Keyboard barriers to change/ disinfect between patients

3. Hand hygiene

4. Head/foot covering

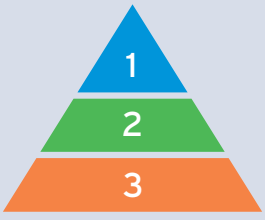
5. Gown

6. FFP3 or FFP2 Mask for AGPs.
   For non-AGP (e.g. consultation, incision/drainage): Type IIR surgical mask, plastic apron and visor. *

7. Goggles/shield

8. Gloves

* https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-andcontrol/covid-19-personal-protective-equipment-ppe



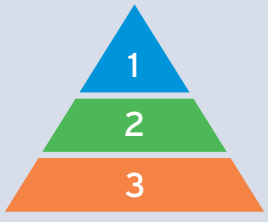
INDICATIVE EVIDENCE BASE

1 **ESSENTIAL** Public Health England, NHS England guidance.
2 **ADVISED** Some evidence but not essential.
3 **PROFESSIONAL JUDGMENT** Clinician's discretion due to conflicting, low-level, or anecdotal evidence.

3. In surgery

Patient

Clinical Staff



INDICATIVE EVIDENCE BASE

1 **ESSENTIAL** Public Health England, NHS England guidance.

2 **ADVISED** Some evidence but not essential.

3 **PROFESSIONAL JUDGMENT** Clinician's discretion due to conflicting, low-level, or anecdotal evidence.

4. After treatment

Patient

1. Hand hygiene

2. Leave practice

Clinical Staff

1. Remove gloves

2. Remove gown

3. Vacate treatment room:
   - A fallow period of 60 minutes* is required from the end of the AGP to allow aerosol settling and air recirculation
   - Mitigated by use of dental dam and HVA

4. Hand hygiene

5. Remove goggles/shield

6. Remove mask

7. Hand hygiene

Dental Nurse

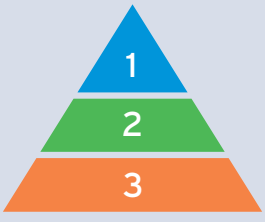
8. Level 2 PPE to disinfect surgery

9. Prepare surgery following HTM01-05 and IPC guidelines

Dentist

8. Clinical notes to be written in a different area

* PHE recommends 20 minutes (negative pressure) or 60 minutes (natural ventilation) fallow time



INDICATIVE EVIDENCE BASE

1 **ESSENTIAL** Public Health England, NHS England guidance.

2 **ADVISED** Some evidence but not essential.

3 **PROFESSIONAL JUDGMENT** Clinician's discretion due to conflicting, low-level, or anecdotal evidence.

Treatment protocol

Root canal treatment should comprise the following:

Magnification and improved illumination are advised.

Pre-op mouthrinse with 1%–1.5% hydrogen peroxide or 0.2% povidone-iodine for one minute

Local anaesthesia as indicated – consider use of Articaine or Mepivicaine in cases of pulpitis

Isolation – Use of dental dam mandatory, ideally single tooth, and placed prior to access in such a way that the entire oral cavity is covered. Use of caulking cement to improve seal (Oraseal/Opaldam)

Decontamination of the operative field (both dental dam and tooth to be treated) with 3% NaOCl or 1.5% Hydrogen Peroxide

Access into pulp chamber

- If possible, limit AGPs to the start of the appointment to minimise fallow period.
- Removal of restorative material / access through enamel with high speed electric or turbine handpiece, reduced coolant can be used.
- High volume aspiration (HVA) is mandatory.
- Removal of dentine to refine access cavity can be undertaken with slow speed handpiece with minimal or no coolant required.
- Avoid use of 3 in 1 syringe, use of NaOCl in Monoject syringe to remove debris favourable.

Orifice location and chemo-mechanical preparation

- Initial coronal flare with Gates-Glidden burs or NiTi orifice shapers.
- Where the tooth has been root treated previously, Gates-Glidden burs and specific retreatment files may be used to remove existing root filling material, with or without solvent.
- Assessment of working length with electronic apex locator.
- Completion of root canal preparation with preferred file system. Irrigation with 1%–5.25% NaOCl throughout chemo-mechanical preparation phase, with activated irrigation once mechanical preparation complete (avoid use of sonic or ultrasonic activation, manual dynamic GP pumping preferred).

Dressing if required

- Dry pulp chamber using high volume aspiration and cotton wool pledget and canal using paper points.
- Place dressing material (preferably Ca(OH)2 into canals, place cotton wool / sterile sponge or PTFE into pulp chamber and hard wearing temporary restorative material (RMGIC / IRM).

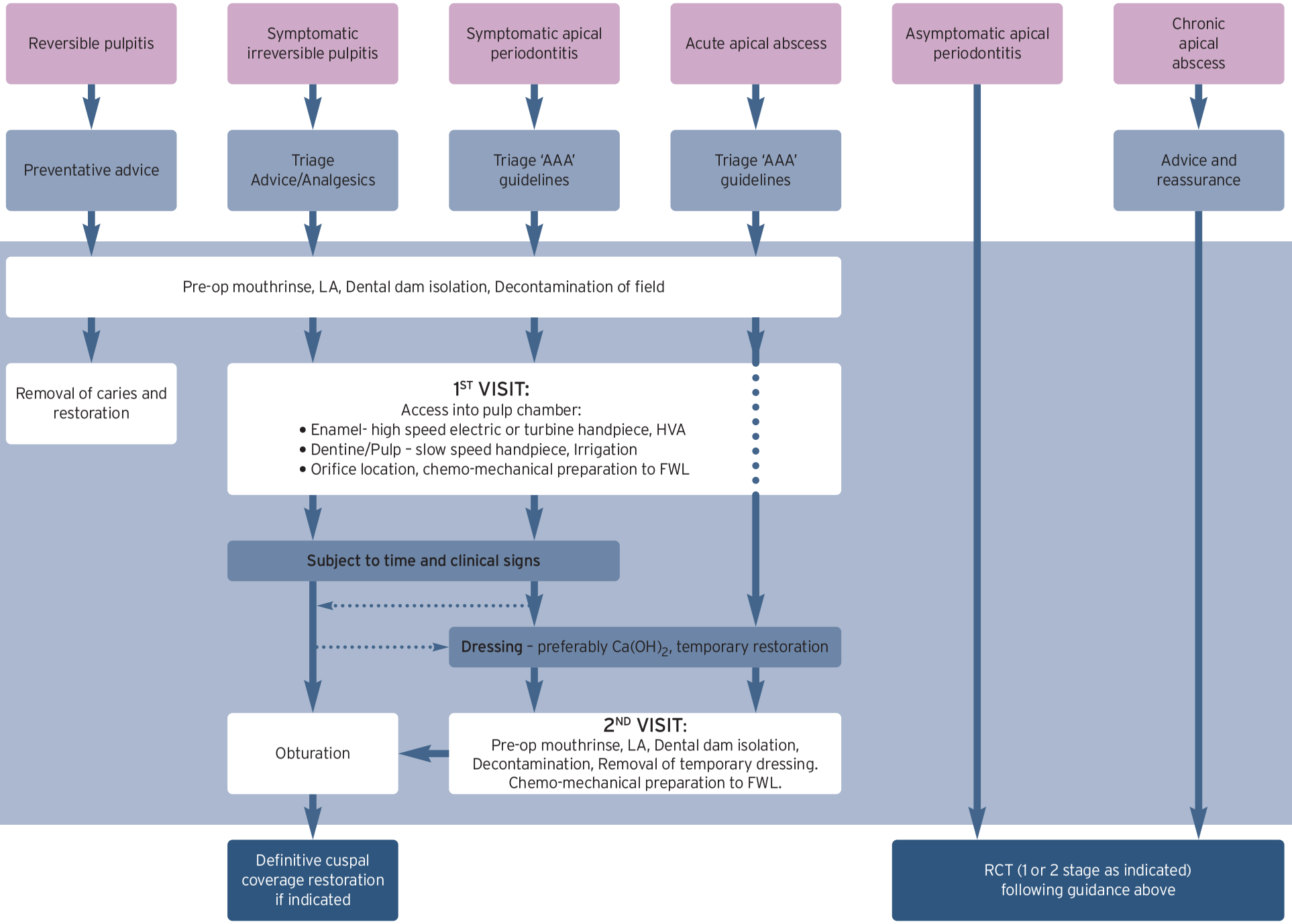
Obturation – dry pulp chamber with cotton wool pledget, dry canals with paper points and use preferred obturation materials and technique of choice. Remove obturation material at orifice level and restore with permanent core restoration.

RE-OPENING FLOW DIAGRAM

URGENT CARE (COVID-19 ALERT LEVEL 5)

PHASED RE-OPENING (COVID-19 ALERT LEVEL 3 AND 4)

ROUTINE DENTAL CARE (COVID-19 ALERT LEVEL LEVEL 1 & 2)



Patient Triage Form

	PRE-APPOINTMENT	UPON ARRIVAL
	DATE:	**DATE:**
Do you currently have any of the following symptoms: fever, continuous cough, breathing difficulty, sputum production, flu-like symptoms, lack of smell and/or taste?	☐ YES ☐ NO	☐ YES ☐ NO
Do you currently have COVID-19 or are waiting for a test, confirmed by: • A testing centre • Your General Medical Practitioner • A hospital	☐ YES ☐ NO	☐ YES ☐ NO
Have you had any contact with Coronavirus infected patients in the past 14 days, including those from your own household, within healthcare, or in residential homes?	☐ YES ☐ NO	☐ YES ☐ NO
Have you travelled from a different country in the last 14 days?	☐ YES ☐ NO	☐ YES ☐ NO
Have you been advised to 'shield' *?	☐ YES ☐ NO	☐ YES ☐ NO
Do you have any of the following chronic conditions: heart disease, lung disease (including asthma), liver disease, kidney disease, diabetes, immune disorders, or any form of cancer?	☐ YES ☐ NO	☐ YES ☐ NO
Are you currently experiencing severe tooth pain that does not settle with painkillers?	☐ YES ☐ NO	☐ YES ☐ NO

* Guidance on shielding and protecting people who are clinically extremely vulnerable from COVID-19: https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19#staying-at-home-and-shielding

SIGNED & NAME: _____ DATE: _____

Patient information sheet

CHANGES ON RE-OPENING OF THE PRACTICE

We will be sending you a 'COVID-19' Triage form and new Medical history form via email or text.

For your safety and that of our staff, the practice doors will remain closed and entry will be restricted to patients only, except a carer or parent/guardian of a child patient.

To maintain high standards of infection control, we will minimise clutter so you can expect not to see newspapers or magazines in the waiting area.

In the surgery, we will continue to provide an excellent quality of care whilst employing the highest standards of infection control and PPE possible.

BEFORE YOUR APPOINTMENT

1. We will be sending you a 'COVID-19' Triage and new Medical history forms via email or text
2. We will ask you to complete these forms and return them by email BEFORE we can schedule a new appointment
3. The dentist may call you to discuss any details on these forms by phone
4. Our Reception may ask you to pre-pay for your treatment over the phone when making the appointment to minimise direct contact when you attend

ON THE DAY OF YOUR APPOINTMENT

1. Before you arrive, please hydrate and brush your teeth at home
2. Please bring only essential items, which may be safely stored away on arrival
3. Please call us on arriving and wait in your car or outside the practice. We will call you when we are ready for you to enter the practice
4. Any additional payment required after treatment should be made by credit/debit card (contactless if possible)

References

Ather A, Patel B, Ruparel NB, Diogenes A, Hargreaves KM (2020) Coronavirus Disease 19 (COVID-19): Implications for Clinical Dental Care. *Journal of Endodontics* **46**, 584-95.

British Dental Association. COVID-19 special guidance. Returning to Face-to-Face care. Version 1. Tuesday 2 June 2020

British Endodontic Society (2020) British Endodontic Society Information and Advice on Triage and Management for Primary Dental Care and other healthcare providers during the COVID-19 Pandemic. Advice, Analgesia and Antibiotics. https://britishendodonticsociety.org.uk/wpcontent/uploads/2020/03/BES-AAA-Document-31st-March-v1.1.pdf

British Endodontic Society (2020) Diagnosis and Management of Endodontic Emergencies, a British Endodontic Society Position Paper for Primary Dental Care and other healthcare providers during the COVID-19 pandemic. https://britishendodonticsociety.org.uk/wpcontent/uploads/2020/04/BES-Emergency-Protocol-v3-April-23-1.pdf

Clarkson J, Ramsay C (2020) Recommendations for the re-opening of dental services: a rapid review of international sources. *COVID-19 Dental Services Evidence Review (CoDER) Working Group* **1**

Cochran M, Miller C, Sheldrake M (1989) The efficacy of the rubber dam as a barrier to the spread of microorganisms during dental treatment. *Journal of the American Dental Association* **119**, 141-144.

Dahlke W, Cottam M, Herring M, Leavitt J, Ditmyer M, Walker R (2012) Evaluation of the spatterreduction effectiveness of two dry-field isolation techniques. *Journal of the American Dental Association* **143**, 1199-204.

Diaz KT, Smaldone GC (2010) Quantifying exposure risk: Surgical masks and respirators. *American Journal of Infection Control* **38**, 501-8.

Eggers M, Eickmann M, Zorn J (2015) Rapid and effective virucidal activity of Povidone-Iodine products against Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and Modified Vaccinia Virus Ankara (MVA). *Infectious Diseases and Therapy* **4**, 491-501.

Eggers M, Koburger-Janssen T, Ward L, Newby C, Muller S (2018) Bactericidal and virucidal activity of Povidone-Iodine and chlorhexidine gluconate cleansers in an in vivo hand hygiene clinical simulation study. *Infectious diseases and therapy* **7**, 235-247.

Farzan A, Firoozi P (2020) Which mouthwash is appropriate for eliminating Coronavirus? A mini literature review. *Regeneration, Reconstruction and Restoration* **5**(1).

Harrel S, Molinari J (2004) Aerosols and splatter in dentistry: a brief review of the literature and infection control implications. *Journal of the American Dental Association* **135**, 429-37.

Hinds W (1982) Aerosol technology: Properties, behaviour, and measurement of airborne particles. 2nd edn; pp. 6-8. New York: Wiley

Hurley, S, Neligan M (2020) NHS England Resumption of dental services in England. https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/Urgent-dental-careletter-28-May.pdf

Izzetti R, Nisi M, Gabriele M, Graziani F (2020) COVID-19 Transmission in Dental Practice: Brief Review of Preventive Measures in Italy. *Journal of Dental Research*, DOI: 10.1177/0022034520920580.

Kampf G, Todt D, Pfaender S, Steinmann E (2020) Persistence of coronaviruses on inanimate surfaces and its inactivation with biocidal agents. *Journal of Hospital Infection* **104**, 246-251.

Manfredi M, Figini L, Gagliani M, Lodi G (2016) Single versus multiple visits for endodontic treatment of permanent teeth. *Cochrane Database of Systematic Reviews*.

Meng L, Hua F, Bian Z (2020) Coronavirus Disease 2019 (COVID-19): Emerging and Future Challenges for Dental and Oral Medicine. *Journal of Dental Research* **99**, 481-7.

Mentel R (1977) Virus inactivation by Hydrogen peroxide. *Vopr Virusol* **6**, 731-3.

NHS England and NHS Improvement (2020) COVID-19 guidance and standard operating procedure. Delay phase. https://www.england.nhs.uk/coronavirus/wpcontent/uploads/sites/52/2020/04/C0282-covid-19-urgent-dental-care-sop.pdf

Office of Chief Dental Officer, England (2020) Resumption of Dental Services in England. 28 May 2020.

Office of Chief Dental Officer, England (2020) SOP of Dental Services in England. 4 June 2020 https://www.england.nhs.uk/coronavirus/publication/dental-standard-operating-procedure-transition-to-recovery/

Office of Chief Dental Officer, England (2020) A Prompt To Prepare. https://bda.org/advice/Coronavirus/Documents/CDO%20A%20Prompt%20to%20Prepare.pdf

Peng X, Xu X, Li Y, Cheng L, Zhou X, Ren B (2020) Transmission routes of 2019-nCoV and controls in dental practice. *International Journal of Oral Science* **12**, 9.

Public Health England (2020) Guidance COVID-19 personal protective equipment (PPE) Updated 21 May 2020. https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infectionprevention-and-control/covid-19-personal-protective-equipment-ppe

Public Health England (2020) 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

Samaranayake L, Reid J, Evans D (1989) The efficacy of rubber dam isolation in reducing atmospheric bacterial contamination. *Journal of Dentistry for Children* **56**, 442–444.

Wei, Yuguo L (2016) Airborne spread of infectious agents in the indoor environment. *American journal of infection control* **44**, s102-s108.

Yee K, Bhagavatula P, Stover S, Eichmiller F, Hashimoto L, MacDonald S, Barkley G (2018) Survival Rates of Teeth with Primary Endodontic Treatment after Core/Post and Crown Placement. *Journal of Endodontics* **44**, 220-225.