Version 5, 21st May 2020
Changes to this version in orange

iADH COVID-19 Factsheet

Disclaimer: The aim of this factsheet is to provide an easily consultable list of facts regarding the current COVID-19 pandemic for iADH members. These facts will evolve and change as knowledge grows and therefore cannot be considered definitive or in any way binding. Scientific publications have been sought whenever available, but some information presented here has been sourced from different government or professional guidelines and recommendations. This factsheet is not a substitute for professional medical advice. ***All members must follow their national guidelines as situations will differ greatly between countries and regions.***

The virus

- COVID-19 is the infectious disease caused by the most recently discovered coronavirus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019 (1).
- The new virus is called SARS-CoV-2 (1).
- No medical treatment or vaccine has as yet been found for COVID-19.
- The virus is more contagious than seasonal flu (1).
- The cell receptor for SARS-CoV-2 is angiotensin-converting enzyme II (ACE2), a receptor that is highly expressed on the oral mucosa and tongue (2).
- Coronaviruses are lipid-enveloped, single-stranded, positive sense RNA viruses (37).

Incubation period and recovery period

- The time between infection and experiencing symptoms is estimated at an average of 5 days, with a usual range of 3 to 7 days, and a maximum of 14 days (1).
- Mild cases of COVID-19 have an early viral clearance with 90 percent of patients repeatedly testing negative at 10 days post-onset, by contrast persons with severe COVID-19 have a high viral load and a long virus-shedding period (remain positive at or beyond 10 days post-onset) (3).
- Viral shedding commences 1 to 2 days before the onset of symptoms, persists up to 8 days after onset of symptoms in mild cases and peaks at day 11 in severe cases. Prolonged viral shedding has been reported when tested with nasopharyngeal swabs (up to 37 days after onset of symptoms) (31).
- Viral RNA has been found in faeces, whole blood, serum, saliva and urine of infected patients (31).
- There is a lack of data regarding acquired immunity, but antibodies develop between 6 and 15 days post disease onset (31, 42).

Authors: Denise Faulks and Alison Dougall, in collaboration with Suzanne Krämer, Blanaid Daly and Pedro Diz Dios.
Comments, corrections, additions are welcome: vicechair@iadh.org

Symptoms

- The most common symptoms of COVID-19 are fever, dry cough, tiredness/fatigue and dyspnoea/shortness of breath (4). Some patients may have muscular aches and pains, headache, nasal congestion, runny nose, sore throat, confusion, vomiting, diarrhoea or anosmia (5). These symptoms begin gradually (1, 6).
- Some infected persons will have no symptoms or very mild symptoms but are still contagious (7).
- Around 15% (1 in 6) of infected people will develop severe symptoms, such as acute respiratory distress syndrome, arrhythmia and shock (6).
- Of the 15% with severe disease, it has been estimated that 5% will need intensive care facilities. The mortality rate in intensive care is between 40 and 70% (8).
- In China, the estimated case fatality rate is 1.38% (1.23-1.53), rising to 6.38% (5.70-7.17) in people over 60 years of age (40).

Patient groups

- Persons of all ages are susceptible to COVID-19 (6), even in its most severe forms.
- Children are more likely to have asymptomatic forms
- Groups more likely to develop severe symptoms include (6,9, 41):
    - Persons over 70 years of age
    - History of cardiovascular disease: severe hypertension, stroke, cardiac surgery, cardiac arrest, cardiac failure
    - Unstable insulin-dependent diabetes
    - Chronic respiratory disease
    - Renal failure and dialysis
    - Cancer patients currently undergoing treatment
    - Congenital or acquired immune deficiency disorders
    - Liver cirrhosis
    - Morbid obesity
    - Pregnant women
- It may be useful to consider the entire population as falling into one of four groups:
    - Confirmed cases – positive testing for virus and/or positive CT imaging (these may not be available for many cases or in some countries)
    - Suspected cases – people with an epidemiological history, COVID-19 related symptoms and / or positive CT imaging
    - Recovered cases – sometimes described as two consecutive negative nasopharyngeal swabs collected ≥ 24hours apart (10); or, in the absence of testing, eight days after the onset of symptoms AND resolution of fever AND clinical improvement of all symptoms for at least three days (31).
    - At risk population – everybody not in one of the other groups
- Dentists are advised to take the temperature of all patients on arrival at the surgery (11)

Diagnosis

- The reliability of available tests is unknown but the literature reports that a single negative RT-PCR test result from suspected patients does not exclude infection (6).
- In severe cases of COVID-19 chest imaging can show bilateral pneumonia (6).

At-risk professionals

- Dentists are amongst those health professionals most at risk (12)
- Those who are in close contact with symptomatic and asymptomatic COVID-19 patients, such as healthcare workers and other patients in hospital are at risk (6).
- At the Wuhan University Hospital dental school, using adequate protection measures (see dental treatment section below), 169 staff were involved in the emergency treatment of > 700 patients. Nine staff members contracted COVID-19 (6).

Transmission

- Asymptomatic people and people during the incubation period are also carriers of SARS-CoV-2 (6,7).
- The virus is most frequently spread by droplets (>5µm diameter) and aerosol (<5µm diameter) from the nose or mouth, on talking, coughing, sneezing, laughing etc. (1,2,13). The SARS-CoV-2 virus measures around 0.12 µm (49).
- Infection can occur through mucosa and through ocular contamination (14)
- Droplets landing on objects or surfaces remain contagious for up to 3 hours on dry surfaces and up to 9 days on damp surfaces (15).
- If a person touches a contaminated object/surface and then touches their face (eyes, nose or mouth) they may become infected (1).
- Transformation of saliva, blood and mucosal secretions into an aerosol increases the risk of transmission (e.g when using high-speed dental handpieces, air turbines, air syringes or ultrasonic instruments) (2,16, 43).
- Other aerosol generating procedures include colonoscopy, intubation, suction before and after intubation, non-invasive ventilation, nebulisers, tracheotomy and bronchoscopy (43).
- Airborne transmission has been evoked, in particular in relation to ventilation and air conditioning systems (52).

Hand hygiene

- Hand hygiene is the most critical measure for reducing the risk of transmitting microorganism to the patient. (6)
- Soap and water are effective in destroying the virus (but do not remove bacterial contamination) (20)
- Alcohol-based hand disinfectant is effective in destroying the virus and removing bacterial contamination (20)

Authors: Denise Faulks and Alison Dougall, in collaboration with Suzanne Krämer, Blanaid Daly and Pedro Diz Dios.
Comments, corrections, additions are welcome: vicechair@iadh.org

Prevention through telephone triage

- Patients should be encouraged to phone services prior to coming into emergency services without an appointment (17)
- Where possible treatment of a known COVID 19 patient should be deferred for at least one month (1)
- Emergency treatment for recovered patients is possible at least 3 days following recovery and at least 7 days after first symptoms (17).
- Emergency treatment for asymptomatic confirmed cases is possible at least 7 days after diagnosis if there has been no subsequent illness (17).
- Dental treatment should be avoided whenever possible (6,17) and telephone triage should aim to provide advice and access to prescription rather than treatment when possible.
- Questions aiming to screen for COVID-19 include (2,11):
    - COVID-19 suspected or confirmed?
    - Fever over the last 14 days?
    - Respiratory problems, cough, breathlessness over the last 14 days?
    - Direct contact with a confirmed or suspected patient?
- Online consultation for dental problems may help to regulate demand for services during and after the pandemic (36).

Preventing droplet transmission

- A distance of at least 1 metre (3 feet), preferably 1.5-2 metres (6 feet), should be maintained between people so that if they cough or sneeze they do not contaminate each other (1,16).
- Virus-laden aerosol can be detected up to 4m from confirmed cases in the hospital setting (30).
- Cover your mouth and nose with a tissue or your bent elbow when you cough or sneeze. Dispose of the used tissue immediately into a covered bin. (1)
- Avoidance of use of high-speed dental handpieces or ultrasonic instruments (16).
- If aerosols are generated, it is preferable to use a surgery with negative pressure ventilation or airborne infection isolation room (AIIRS) (53).
- Some countries may require the public to wear simple or improvised facial masks to trap exhaled aerosols and reduce breathborne spread of the virus (54). These masks may help reduce the risk of a contaminated person transmitting the virus in social circumstances.

Organisation of the dental clinic

- Unless all patients are considered as being potentially infected, confirmed COVID-19 patients should enter and wait in a separate area and be given surgical face masks (15). Separate toilet facilities should also be provided.
- If absolutely necessary to treat a confirmed COVID-19 patient because they require urgent dental care which cannot be postponed (21), they should be planned as the last patient in the day in order to be able to deep clean and ventilate the surgery. Cleaning may be repeated in the morning in case aerosol has deposited overnight.

Preventing contact transmission from objects/ surfaces – cleaning and disinfection

- Surfaces can be disinfected using 62-71% ethanol; or 0.5% hydrogen peroxide; or 0.1% sodium hypochloride with surface contact time of one minute (18).
- 0.1% sodium hypochloride can be prepared from household bleach at 2.6% concentration. Mix 100 ml (millilitres) of 2.6% bleach with 2.4 litres of water to obtain 2.5 litres of solution. This solution is stable 24 hours (18). Alternatively, dilution of 1:100 of household bleach (if initial concentration of 5%) (35).
- Aerosol in the dental surgery contaminates the dental surgery (chair, surfaces, floor, keyboard and mouse, air outlets…) so careful decontamination and airing of the surgery is necessary between patients (18, 30).
- Contaminated objects or surfaces are termed fomites (37).
- In experimental conditions, the virus remains viable in aerosol form for over 3 hours. Following aerosol, the virus was stable on plastic and stainless steel surfaces up to 72 hours. The half-life of the virus in aerosol was 1.1 to 1.2 hours (19).
- Cleaning and decontamination immediately after a procedure may be ineffective due to later settling of airborne small particles (19). ~~but there is no consensus on the time necessary to ensure effectiveness of cleaning in a well ventilated surgery.~~ It has been recommended that rooms where aerosol generating procedures have been performed need to be ventilated with fresh air for 1-3 hours before cleaning and admitting a new patient (35). However, there is no consensus, and no scientific guidance so far, on the time needed before disinfection of the surgery with recommendations varying between 15 minutes and an hour (51).
- Towels, sheets etc. should be washed at 90°C (35).
- All surfaces in the dental surgery should be cleared of all but essential objects. Required equipment and materials should be anticipated in advance, and drawers and cabinets should not be opened during an aerosol generating procedure (unless the entire contents of the drawer is decontaminated subsequently) (51).
- There are many proposals, but no consensus, regarding ensuring decontamination of the air in the dental surgery following the use of aerosol generating procedures. It has been suggested that air conditioning should be used in extraction mode only and never in recirculation mode (51). Negative pressure air conditioning uses lower air pressure to allow outside air into the room but traps potentially harmful particles within the space (53), so this may be potentially useful to prevent transmission.
- Fogging is a procedure that can be used following treatment whereby specialised equipment fills the surgery with a cloud of ionised water to encourage droplet formation or hypochlorous acid disinfectant ($HClO_2$). The procedure may reduce waiting times between decontamination of the surgery but there is no consensus on this procedure yet.

Authors: Denise Faulks and Alison Dougall, in collaboration with Suzanne Krämer, Blanaid Daly and Pedro Diz Dios.
Comments, corrections, additions are welcome: vicechair@iadh.org

Dental treatment

- Routine dental treatment should be avoided if at all possible (6,17)
- Pre procedural mouthwash with 1% hydrogen peroxide or 0.2% to 0.5% povidone has been recommended (11, 45). Povidine-iodine (PVP-1) (Betadine®) at 0.23% is virucidal in vitro (46,47) but it is suggested that the concentration should be doubled to allow for dilution in saliva (45). Chlorhexidine gluconate has been reported to be ineffective (11, 48).
- Use of rotary instruments creating aerosol should be avoided whenever possible (6)
- Use of the 3-way syringe should be avoided whenever possible (6)
- Extra-oral radiography should be preferred to intra-oral radiography to reduce the risk of provoking salivation and coughing (6)
- If needed use anti-refraction high speed dental handpiece to reduce dental waterline contamination (11)
- Treatment should be performed under rubber dam to reduce contact with saliva (11)
- High volume suction should be used during treatment (6). It has been suggested that a HEPA filter level 13 or higher should be used for the suction system (51)
- Four-handed dentistry should be practised (6)
- In patients with symptomatic irreversible pulpitis with vital pulp (bleeding from canals), pulpotomy may be recommended to shorten treatment time (39).
- The surgery should be well ventilated and then fully decontaminated (all surfaces and objects not forgetting door handles, chairs desks) between patients (6,11).
- If necessary, absorbable sutures are to be preferred (11)

Dental sedation and general anaesthesia

- Concern has been raised regarding the risk of the generation of aerosol on administration of nitrous oxide analgesia, as gas is delivered at a volume that often exceeds 5l/min in a semi-closed circuit. There are, as yet, no studies directly pertaining to this potential problem (26). Clinical guidelines advise the use of nitrous oxide and other forms of conscious sedation if urgent care is required in patients unable to cope otherwise (29).
- Access to emergency dental treatment under general anaesthesia must be maintained where possible for patients whose poor oral health is likely to impact on their pre-existing medical conditions; for patients with behavioural difficulties leading to self-harm or aggression due to dental pain; for patients with dysphagia at risk of aspirating a tooth that cannot be removed under local anaesthesia (29).

Authors: Denise Faulks and Alison Dougall, in collaboration with Suzanne Krämer, Blanaid Daly and Pedro Diz Dios.
Comments, corrections, additions are welcome: vicechair@iadh.org

Personal protective equipment (PPE)

- Surgical masks should be worn at all times by all dental staff (51). Surgical masks filter 80% of airborne particles (53).
- Gloves, goggles or face shield, mask, surgical uniform and gown are necessary during treatment (6) of any suspected COVID-19 patient (in many regions ALL patients may be considered as potentially infected) and dentists are also potential asymptomatic vectors. Caps and overshoes are also recommended (6,11).
- Respirator masks i.e. N-95 masks (National Institute of Occupational Safety and Health) or FFP2 or FFP3 masks (European Union standard Filtering Face Piece), are recommended for routine dental practice (16) of any suspected or confirmed COVID-19 patient (in some regions ALL patients may be considered as potentially infected)
- N-95 / FFP2 and FFP3 masks must be fitted carefully to form a tight-fit seal around the face (38). Facial hair reduces the effectiveness of this seal.
- FFP2 masks filter out 94% of airborne particles (0.3 microns), N-95 masks filter out 95% of airborne particles and FFP3 masks 99% (50). Some countries are now recommending FFP3 masks for aerosol generating dental procedures (50), but most guidance deems FFP2 masks as sufficient (51).
- It has been suggested that staff undertaking cleaning in a room where aerosol generating procedures have been performed wear respirator masks, gowns and gloves (35).
- FFP2 respirator masks cannot be sterilised in an autoclave at 134°C (34).
- Valved respirator masks are not appropriate as they do not prevent release of exhaled particles from the wearer (32).
- Non-medical face masks (cloth or paper) have very low filter efficiency (2-38%) and do not protect against respiratory viruses (32,34).

Self-monitoring for healthcare professional

- Healthcare professionals in contact with patients should monitor themselves for fever by taking their temperature twice a day and remain alert for respiratory symptoms (e.g., cough, shortness of breath, sore throat) (22)
- Healthcare professionals should stay at home if they have any COVID-19 symptoms (17)
- Anyone self-monitoring should be prepare a plan for whom to contact if they develop fever or respiratory symptoms during the self-monitoring period to determine whether medical evaluation is needed. (22)
- Healthcare professionals with patient contact at work should follow guidance to reduce transmission in their homes (23)

Authors: Denise Faulks and Alison Dougall, in collaboration with Suzanne Krämer, Blanaid Daly and Pedro Diz Dios.
Comments, corrections, additions are welcome: vicechair@iadh.org

Return to work after COVID-19

- Healthcare professionals should follow personalised medical advice as to their ability to return to work.
- Some regions or countries prohibit return to work until at least 3 days (72 hours) have passed since recovery (resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms) and at least 7 or 8 days after any symptoms first appeared (10, 31).
- Other countries or regions rely on testing and advice waiting for two consecutive negative nasopharyngeal swab specimens collected ≥24hours apart (10) AND at least 8 days after onset of symptoms (31).
- On return to work, it has been suggested that healthcare professionals should wear a facemask for 14 days and contact with severely immunocompromised patients (e.g., transplant, haematology-oncology) may be restricted until 14 days after illness onset (10).

Resuming dental services following lockdown (51)

- Recommendations vary between countries but all the precautions to limit viral transmission cited above should remain in place.
- There is consensus that aerosol generating procedures should be avoided if at all possible, whilst the provision of non-emergency, non-aerosol generating, elective treatment is becoming gradually accepted as lockdown measures are gradually lifted in some countries. Minimally invasive procedures are encouraged.
- The provision of elective dental procedures must depend on the availability of PPE supplies.
- Patient appointments should be spaced to allow for thorough disinfection of the dental surgery.
- Patient appointments should be staggered to ensure that social distancing rules can be respected. Patients should wear masks and hand sanitiser should be provided. Access to patient toilets should be regulated.
- All unnecessary objects should be removed from waiting rooms (magazines, toys etc).

People with long-term conditions and national emergencies

- People with long-term conditions are at risk of being neglected during national emergencies (24)
- Risk is described in relation to disruption of health care resources; interruption to routine care; interruption to medication supply; increased stress; changes in food supply; changes in activity level; disruptions in transport (24).
- People living in deprived areas are at increased risk and there is interaction between long term conditions and deprivation level (24).
- Guidelines designed to aid clinical decision making in times of scarce resources may include value judgements as to the quality of disabled peoples' lives (27, 28).

Authors: Denise Faulks and Alison Dougall, in collaboration with Suzanne Krämer, Blanaid Daly and Pedro Diz Dios.
Comments, corrections, additions are welcome: vicechair@iadh.org

Changes in Oral Pathology during the COVID19 pandemic

- Global health emergencies have a psychological impact on the general public and can lead to changes in the incidence of different oral diseases (25). The incidence of idiopathic and/or stress-related symptoms may increase, such as recurrent aphthous ulcer, oral lichen planus, burning mouth syndrome, temporomandibular joint disorder, bruxism, atypical odontalgia etc.
- Online consultations can be considered for these patients, to help reduce the anxiety and feeling of helplessness (25).

People with disability during the COVID-19 pandemic

- People with disability may be at greater risk of contracting COVID-19 because of difficulty implementing handwashing or social distancing; because of the need to touch objects for support or for information gathering; because of barriers to public health information (44).
- People with disability are more likely to have underlying health conditions rendering them vulnerable to the virus and are more likely to have difficulty accessing medical services (44).
- Health professionals should work with disability organisations in order to ensure that public health information and communication is accessible (e.g captioning, easy-read formats, images, braille etc..) (44).
- Consideration should be given to the delivery of home-based consultations for people with disability and/or telehealth if possible (telephone consultation, video conference etc… (44).
- Professionals should be aware of the potential for increased violence, abuse and neglect against people with disability because of social isolation and disruption to daily routines (44).
- Some patients with conditions such as intellectual disability, autism, Down syndrome, or dementia for example, may show delayed or altered expression of pain, complicated for certain patients by a lack of verbal communication. Caregivers need to be attentive to behavioural manifestations of dental pain (55).

Authors: Denise Faulks and Alison Dougall, in collaboration with Suzanne Krämer, Blanaid Daly and Pedro Diz Dios.
Comments, corrections, additions are welcome: vicechair@iadh.org

REFERENCES:

1) WHO Q&A on coronaviruses (COVID-19). Available at: https://www.who.int/news-room/q-a-detail/q-a-coronaviruses Consulted 27/03/2020.
2) Ge ZY, Yang LM, Xia JJ, Fu XH, Zhang YZ. Possible aerosol transmission of COVID-19 and special precautions in dentistry. Journal of Zhejiang University Mar 2020 Available at https://link.springer.com/content/pdf/10.1631/jzus.B2010010.pdf
3) Liu Y, Yan LM, Wan L, Xiang TX, Le A, Liu JM, Peiris M, Poon LLM, Zhang W. Viral dynamics in mild and severe cases of COVID-19. The Lancet March 19 2020 https://www.thelancet.com/action/showPdf?pii=S1473-3099(20)30232-2
4) Chaoqun Ma, Jiawei Gu, Pan Hou, Liang Zhang, Yuan Bai, Zhifu Guo, Hong Wu, Bili Zhang, Pan Li, Xianxian Zhao. Incidence, clinical characteristics and prognostic factor of patients with COVID-19: a systematic review and meta-analysis. medRxiv 2020.03.17. Available at https://www.medrxiv.org/content/10.1101/2020.03.17.20037572v1
5) Lüers JC, Klußmann JP, Guntinas-Lichius O. [The Covid-19 pandemic and otolaryngology: What it comes down to?] Laryngorhinootologie. 2020 Mar 26. Article in German. doi: 10.1055/a-1095-2344. [Epub ahead of print]
6) Meng L, Hua F & Bian Z. Coronavirus disease 2019 (COVID-2019): Emerging and future challenges for dental and oral medicine. Journal of Dental Research 2020 https://doi.org/10.1177/0022034520914246
7) Rothe C, Shunk M, Sothmann P et al. Transmission of 2019-nCoV infection from an asymptomatic contact in Germany. N Engl J Med. 2020; 382:970-971. Doi:10.1056/NEJMc2001468
8) Ministère des solidarités et de la santé (France). Message d'alerte rapide sanitaire. Besoins en reanimation et réponse capacitaire. 20 mars 2020.
9) Haut Conseil de la santé publique (France). Avis relative à la prise en charge des patients à risqué de forme sévère de COVID-19. 14th March 2020.
10) Centers for Disease Control and Prevention. Coronavirus Disease 2019. Criteria for return to work for healthcare personnel with confirmed or suspected COVID-19 (interim guidance). https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/hcp-return-work.html
11) Peng X, Xu X, Li Y et al. Transmission routes of 2019-nCov and controls in dental practice. Int J Oral Sci 2020; 12,9 https://doi.org/10.1038/s41368-020-0075-9
12) Gamio L. The workers who face the greatest coronavirus risk. The New York Times, 15th March 2020. Available at: https://www.nytimes.com/interactive/2020/03/15/business/economy/coronavirus-worker-risk.html
13) Bourouiba L. Turbulent gas clouds and respiratory pathogen emissions – potential implications for reducing transmission of COVID-19. Journal of the American Medical Association March 26 2020. https://jamanetwork.com/journals/jama/fullarticle/2763852
14) To KK, Tsang OT, Chik-Yan Yip C et al. Consistent detection of 2019 novel coronavirus in saliva. Clin Infect Dis 2020 pii: ciaa149, in press
15) Kampf G, Todt D, Pfaender S, Steinmann E. Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents. J Hosp Infect 2020; 104:246-251.
16) Wei J, Li Y. Airborne spread of infectious agents in the indoor environment. Am J Infect Control 2016,44:S102-S108.
17) Centers for Disease Control and Prevention. Coronavirus Disease 2019. Interim infection, prevention and control guidance for dental settings during the COVID-19 response. https://www.cdc.gov/coronavirus/2019-ncov/hcp/dental-settings.html
18) Haut Conseil de la santé publique (France). Avis relative au traitement du linge, au nettoyage, d'un logement ou de la chamber d'hospitalisation d'un patient confirmé à SARS-CoV-2 et à la protection des personnes. 18 February 2020.
19) Van Doremalen N, Bushmaker T, Morris D et al. Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. New England Medical Journal, march 17 2020. Doi:10.1056/NEJMc2004973
20) Fermer R. Hand disinfectant and COVID-19. Centre for Evidence Based Medicine Oxford. March 17th 2020. Available at: https://www.cebm.net/covid-19/hand-disinfectant-and-covid-19/

21) SDCEP Management of Acute Dental Problems During COVID-19 Pandemic**.** 30 March 2020. Available ath April 2020. t http://www.sdcep.org.uk/wp-content/uploads/2020/03/SDCEP-MADP-COVID-19-guide-300320.pdf
22) Centers for Disease Control and Prevention. Coronavirus Disease 2019. Interim US guidance for risk assessment and public health management of healthcare personnel with potential exposure in a healthcare setting to patients with coronavirus disease (COVID-19). https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assessment-hcp.html
23) Centers for Disease Control and Prevention. Coronavirus Disease 2019. Cleaning and disinfecting your home. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html
24) Hartmann-Boyce J, Mahtani KR. Supporting people with long-term conditions (LTCs) during national emergencies, Centre for Evidence Based Medicine Oxford. March 25th 2020. Available at: https://www.cebm.net/covid-19/supporting-people-with-long-term-conditions-ltcs-during-national-emergencies/
25) Qu X, Zhou XD. [Psychological intervention in oral patients in novel coronavirus pneumonia outbreak period] Zhonghua Kou Qiang Yi Xue Za Zhi. 2020 Feb 22;55(0):E003. Article in Chinese. doi: 10.3760/cma.j.cn112144-20200213-00053. [Epub ahead of print]
26) Souza RFC, Costa PS, Costa LR. Dental sedation precautions and recommendations during Covid-19 pandemic. Brazilian Journal of Dentistry, 2020;77:e1788.
27) NICE National Institute for health Care Excellence, COVID-19 rapid guideline: critical care in adults. 20th March 2020. www.nice.org.uk/guidance/ng159
28) Ryan F. It is not only coronavirus that risks infection our society – our prejudices do, too. The Guardian, 9th April 2020. www.theguardian.com/commentisfree/2020/apr/09/nice-guidelines-coronavirus-pandemic-disabled
29) Royal College of Surgeons of England, Recommendations for Special Care Dentistry during Covid-19 pandemic. April 2020. www.rcseng.ac.uk/dental-faculties/fds/coronavirus/
30) Guo ZD, Wang ZY, Zhang SF et al. Aerosol and surface distribution of severe acute respiratory syndrome Coronavirus 2 in hospital wards, Wuhan, China, 2020. Wwwnc.cdc.gov/eid/article/26/7/20-0885_article
31) European Centre for Disease Prevention and Control. Guidance for discharge and ending isolation in the context of widespread community transmission of COVID-19 – first update. 8th April 2020. Stockholm: ECDC; 2020.
32) European Centre for Disease Prevention and Control. Using face masks in the community. 8th April 2020. Stockholm: ECDC; 2020.
33) Green K, Graziadio S, Turner P, Fanshawe T, Allen J. Molecular and antibody point-of-care tests to support the screening, diagnosis and monitoring of COVID-19. Centre for Evidence Based Medicine Oxford. April 7th 2020. https://www.cebm.net/covid-19/
34) European Centre for Disease Prevention and Control. Cloth masks and mask sterilisation as options in case of shortage of surgical masks and respirators. 26th March 2020. Stockholm: ECDC; 2020.
35) European Centre for Disease Prevention and Control. Disinfection of environments in healthcare and non-healthcare settings potentially contaminated with SARS-CoV-2. March 2020. Stockholm: ECDC; 2020.
36) Yang Y, Zhou Y, Liu X, Tan J. Health serviceprovision of 48 public tertiary dental hospitals during the COVID-19 epidemic in China. Clinical Oral Invetsigations, April 2020 doi.org/10.1007/s00784-020-03267-8.
37) Teller R, Li Y, Cowling BJ, Tang JW. Recognition of aerosol transmission of infectious agents: a commentary. BMC Infectious Diseases 2019, 19: 101 doi.org/10.1186/s12879-019-3707-y
38) Chan KH, Yuen KY. COVID-19 epidemic: disentangling the re-emerging controversy about medical facemasks from an epidemiological perspective. International Journal of Epidemiology, 2020, 1-4 doi:10.1093/ije/dyaa044
39) Yu J, Zhang T, Zhao D, Haapasalo M, Shen Y. Characteristics of endodontic emergencies during COVID-19 outbreak in Wuhan. Journal of Endodontics in press June 2020. www.aae.org
40) Juvet LK, Laake I, Vestrheim DF. Epidemic case fatality rate COVID-19. Oslo: Norwegian Institute of Public Health. April 2020.

41) Brurberg K, Fretheim A. COVID-19: the relationship between age, comorbidity and disease severity – a rapid review. Oslo: Norwegian Institute of Public Health, March 2020.
42) Flodgren GM. Immunity after SARS-CoV-2 infection. Rapid review. Oslo: Norwegian Institute of Public Health, April 2020.
43) Brurberg K, Fretheim A. Aerosol generating procedures in healthcare and COVID-19. Rapid review. Oslo: Norwegian Institute of Public Health, March 2020.
44) World Health Organisation. Disability considerations during the Covid-19 outbreak. 2020. https://www.who.int/who-documents-detail/disability-considerations-during-the-covid-19-outbreak
45) Kirk-Bayley J, Combes J, Sunkaraneni VS, Challacombe S. The use of Povidine Iodine nasal spray and mouthwash during the current COVID-19 pandemic may reduce cross-infection and protect healthcare workers. DRAFT version available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3563092
46) Kariwa H, Fujii N, Takashima I/ Inactivation bof SARS coronavirus by means of povidone-iodine, physical conditions and chemical reagents. Dermatology (Basel, Switzerland) 2006;212 Suppl: 119-23. Doi:10.1159/000089211
47) Eggers M, Kobeurger-Janssen T, Eickmann M, et al. In vitro bactericidal and virucidal efficacy of povidone-iodine gargle/mouthwash against respiratory and oral tract pathogens. Infectious Diseases and Therapy. 2018;7:249-59. Doi:10.1007/s40121-018-0200-7
48) Kawana R, Kitamura T, Nagagomi O et al. Inactivation of human fviruses by povidone-iodine in comparison with other antiseptics. Dermatology (Basel, Switzerland) 1997;195 Suppl:29-35. Doi:10.1159/000246027
49) Coulthard P. Dentistry and coronavirus (COVID-19) – moral decision-making. British Dental Journal 2020;228:503-505.
50) Ali Y, Alradhawi M, Shubber N, Abbas AR. Personal protective equipment in the response to the SARS-CoV-2 outbreak - A letter to the editor on "World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19)". Int J Surg. 2020 Apr 23. doi: 10.1016/j.ijsu.2020.04.051
51) COVID-19 Dental Services Evidence review (CoDER) Working Group, Recommendations for the re-opening of dental services: a rapid review of international sources. 7th May 2020, available at: https://oralhealth.cochrane.org/sites/oralhealth.cochrane.org/files/public/uploads/covid19_dental_review_16_may_2020_update.pdf
52) Correia G, Rodrigues L, Gameiro da Silva M, Gonçalves T. Airborne route and bad use of ventilation systems as non-negligeable factors in SARS-CoV-2 transmission. Medical Hypotheses, 141 (2020) doi: 10.1016/j.mehy.
53) Fathizadeh H, Maroufi P, Momen-Heravi M et al. Protection and disinfection policies against SARS-CoV-2 (COVID-19). Le Infezioni in Medicina, 2, 185-191, 2020.
54) Pleil JD, The scientific rationale for the use of simple masks or improvised facial coverings to trap exhaled aerosols and possibly reduce the breathborne spread of COVID-19. Journal of Breath Research. 2020, 14 030201
55) Hennequin M, Morin C, Feine JS. Pain expression and stimulus localisation in individuals with Down's syndrome. Lancet. 2000 Dec 2;356(9245):1882-7. doi: 10.1016/s0140-6736(00)03259-1.

Authors: Denise Faulks and Alison Dougall, in collaboration with Suzanne Krämer, Blanaid Daly and Pedro Diz Dios.
Comments, corrections, additions are welcome: vicechair@iadh.org