

## COVID Webinar Questions

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### Virology

*What is the R0 or transmission rate?*

- R0 is the expected number of new cases generated by one case in a population where all are susceptible to an infectious agent. As of March 20, 2020, the COVID-19 R0 value is 1.4 to 3.9, depending upon the population being measured. By way of comparison, the R0 for measles is about 15.

*Any idea how long the virus stays active on a surface?*

- It varies depending upon the type of surface. It does stay alive on all surfaces and probably longest on smooth, impermeable surfaces such as stainless steel or Formica (several days). It likely remains alive for shorter times on absorbent surfaces such as fabric, paper, or cardboard (probably about 24 hours). Additional information about the stability of COVID-19 on surfaces can be found at:

<https://www.niaid.nih.gov/news-events/new-coronavirus-stable-hours-surfaces>

*Does COVID-19 linger like herpes or HIV?*

- The incubation period for COVID-19 is generally about 14 days. However, it can be shorter or longer; the upper limit, reported from one study in China, appears to be 24 days. An infected person is contagious one to two days before symptoms appear. An infected person is presumed to be contagious for seven to 12 days after symptoms appear. Once someone fully recovers from COVID-19, it does not persist.

*Does COVID-19 present any unique risks to pregnant individuals?*

- There is no current information from published scientific reports demonstrating increased susceptibility of pregnant women to COVID-19. Pregnant women do experience immunologic and physiologic changes that theoretically make them more susceptible to viral respiratory infections.

*If novel coronavirus mutates during transmission from person to person, is this the reason behind not being able to have a vaccine?*

- Perhaps. Many RNA viruses mutate rapidly when they transfer among people. Depending upon the extent of the mutation and the part(s) of the virus that are affected by the mutation, structuring a vaccine that is effective against all strains of the virus can be a challenge. In some cases, the mutation results in a virus that is more virulent or harmful. However, in many cases, the mutations result in a less virulent form and contribute to the eventual extinguishing of transmission.

*How close are we to getting a vaccine for COVID-19?*

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- There are currently multiple studies in progress to develop a vaccine. In late February 2020, the World Health Organization said that it did not expect a vaccine against COVID-19 to be available in less than 18 months. As of March 2020, some 30 vaccine candidates are in development.

*For those infected, and subsequently recovered, can they become reinfected again, or are they able to easily become reinfected?*

- There are some reports from other countries suggesting that people who have recovered from COVID-19 have been reinfected. However, U.S. scientists are skeptical about this and believe that these patients may have simply been released from hospitals too early. As with any virus, an infected person recovers due to developing antibodies that protect them. To become reinfected soon after recovery seems unlikely. Some viruses mutate and reinfect people, so there is a theoretical possibility.

*What is the current evidence for asymptomatic transmission?*

- The incubation period for COVID-19 is generally about 14 days. However, it can be shorter or longer; the upper limit, reported from one study in China, appears to be 24 days. An infected person is contagious one to two days before symptoms appear, thus asymptomatic transmission could occur. An infected person is presumed to be contagious for seven to 12 days after symptoms appear.

*What percentage of people getting tested are positive for COVID-19?*

- As of March 25, 2020, approximately 2,000 symptomatic individuals have been tested at the University of Washington Medical Center. These are persons who have one or more symptoms suggestive of COVID-19 infection. Eight percent of them tested positive. This means that most symptomatic people likely have influenza A, influenza B, seasonal allergies, or a common cold. The percentage who test positive is expected to be lower in geographic areas and communities where the prevalence is less than that in the Seattle/King County area.

### **Treatment Protocol**

What is the treatment protocol necessary for minimizing spread of disease during actual treatment?

- First, screen all patients for:
  - Fever  $\geq 100.0^{\circ}$  F
  - Cough
  - Sore throat
  - Shortness of breath
  - Flu-like symptoms
  - Close personal contact (without PPE) with a suspected or laboratory-confirmed COVID-19 patient in the past 2 weeks

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- International travel history in the past 2 weeks. If “Yes”, was it to or from: China, Iran, Europe, United Kingdom, or Ireland. If none of these countries, treat answer as “No”. Check the CDC web site frequently to see updates to this list of countries: <https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html>
- If the patient screens negative, you may proceed with treatment using all normal PPE.
  - Note: Routine dental care is prohibited by the Governor’s Proclamation until May 18, 2020.
  - If the patient is positive for any item on the screening list, delay elective treatment for 14 days and then re-evaluate. If a patient who responds positively to any item on the screening list requires urgent care, first consider medical management (analgesics, antibiotics) for 14 days. If the patient requires a visit to the office for care, use an N-95 mask and minimize aerosol production with high volume suction. This patient should be treated in an operatory that is reasonably isolated from other treatment areas. If possible, this should be a closed room with negative air pressure and/or HEPA air filtration.

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*Should we be screening for prodromal symptoms?*

- Many people with COVID-19 do not experience prodromal symptoms. We recommend using the following screening questions and obtaining a patient temperature:
  - Fever  $\geq 100.0^{\circ}$  F
  - Cough
  - Sore throat
  - Shortness of breath
  - Flu-like symptoms
  - Close personal contact (without PPE) with a suspected or laboratory-confirmed COVID-19 patient in the past 2 weeks
  - International travel history in the past 2 weeks. If “Yes”, was it to or from: China, Iran, Europe, United Kingdom, or Ireland. If none of these countries, treat answer as “No”. Check the CDC web site frequently to see updates to this list of countries: <https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html>

*Can we do fillings or crowns of teeth with severe decay that if untreated will likely lead to the need for a root canal in the next 3 months?*

The Governor’s Proclamation prohibits “all hospitals, ambulatory surgical facilities, dental, orthodontic and endodontic offices in Washington State from providing health care services, procedures, and surgeries that, if delayed, are not anticipated to cause harm to the patient within the next three months...” There is an exception clause in the Proclamation that provides examples of medical and dental procedures that may be done. The exceptions for dental care are “dental care related to the relief of pain and management of infection.”

*Is there any problem with prescribing ibuprofen for a COVID-19-positive individual?*

- There is conflicting information about the use of non-steroidal anti-inflammatory drugs (NSAIDs) by COVID-19-positive patients. French authorities have warned that NSAIDs might worsen the infection. The World Health Organization does not recommend against the use of ibuprofen. Absent other contraindications, ibuprofen, acetaminophen, and aspirin all appear to be safe for COVID-19-positive patients.

*Why is Tylenol better to use for those patients with COVID-19?*

- There is no evidence that acetaminophen is a better analgesic for patients with COVID-19. All over-the-counter analgesics must be used with caution. Prolonged use of acetaminophen can result in elevated hepatic enzymes. Prolonged ibuprofen use can result in renal damage. Prolonged aspirin use may result in bleeding problems. A thorough review of the patient’s medical history and current medications is essential prior to prescribing any analgesic.

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*I understand that chlorhexidine pre-rinse is ineffective against coronavirus, and H<sub>2</sub>O<sub>2</sub> is effective. Can you confirm that?*

- Chlorhexidine, hydrogen peroxide, and povidone iodine all reduce the bioburden of bacteria in the oral cavity. Their effectiveness specifically against coronavirus is not established. Even if they are proved to be effective against this virus, the effect would be transitory since the patient would continue to salivate and produce other secretions. If you are performing an operative procedure, placing a well-adapted rubber dam and then swabbing the tooth/teeth and dam with one of these agents is wise. Perform the procedure using high-volume suction placed close to the operative area.

*Do concerns exist regarding using nitrous oxide with new/sterile nose pieces but reusable hoses?*

- Not as long as normal disinfection and sterilization protocols are followed. **This question offers a good opportunity to remind providers that it is both the tubing and nose piece that need sterilization. You should be using nose piece and tubing that can be sterilized and ensure sections cannot be shared between patients. Care and attention should be given when using surface disinfectants that they are used, as the CDC advises, according to manufacturer's recommendations. Please pay attention to necessary contact times for the products used.**

*For a child whom you cannot confirm being an asymptomatic carrier, should we still avoid aerosols? [What] if we do not have gowns or N-95s or caps?*

- Most children will be in this category – i.e., you will neither be able to confirm or rule out infection. Children are included in the Governor's Proclamation, so treatment must be limited to that related to relief of pain and management of infection. If your screening of the patient indicates a risk for COVID-19 and you do not have the necessary PPE, you should medically manage the patient and make a referral to the UW Center for Pediatric Dentistry. If a child with special needs requires extensive care, perhaps with sedation and use of an operating room, it would be wise to first obtain a COVID-19 test. You are also welcome to refer this child to the UW Center for Pediatric Dentistry.

*Are there special regulations for pediatric dentists?*

- No. The same screening and evaluation should occur for pediatric patients. Many children do not exhibit symptoms when they are infected. Pediatric patients are included in the Governor's Proclamation, so treatment must be limited to that related to relief of pain and management of infection.

*Thoughts on providing comprehensive care for kids under general anesthesia who are dentally symptomatic or eminently so if not treated over the next 3 months?*

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requires extensive care, perhaps with sedation and use of an operating room, it would be wise to first obtain a COVID-19 test and then perform as much care as possible for those who test negative. You are also welcome to refer this child to the UW Center for Pediatric Dentistry.

*If we have the untested but asymptomatic COVID-19 pediatric patient in dental pain under general anesthesia, can we provide treatment beyond that related to relief of pain and infection or do we delay that “elective” treatment while they are under?*

- If the patient is asymptomatic and untested, then urgent care can proceed following normal PPE protocol. If the patient is having general anesthesia for care and has active decay that may progress to require further treatment within three months, then it should be addressed during the GA. In light of the upper respiratory effects of COVID-19, you should consider obtaining a test prior to GA.

*Does air abrasion to remove caries generate less of an aerosol without using water versus using a hand piece to remove caries?*

- Probably not. It generates a different type of aerosol but is still aerosolizing patient body fluids.

*How about delivering RPDs and Complete Dentures when a patient needs it?*

- The Governor’s Proclamation prohibits “all hospitals, ambulatory surgical facilities, dental, orthodontic and endodontic offices in Washington State from providing health care services, procedures, and surgeries that, if delayed, are not anticipated to cause harm to the patient within the next three months...” There is an exception clause in the Proclamation that provide examples of medical and dental procedures that may occur. The exceptions for dental care are “dental care related to the relief of pain and management of infection.” Delivery of prosthodontics does not meet these exceptions.

*How about delivering implant crowns that are sitting on the shelf and the patient wants them?*

- The Governor’s Proclamation prohibits “all hospitals, ambulatory surgical facilities, dental, orthodontic and endodontic offices in Washington State from providing health care services, procedures, and surgeries that, if delayed, are not anticipated to cause harm to the patient within the next three months...”. There is an exception clause in the Proclamation that provide examples of medical and dental procedures that may occur. The exceptions for dental care are “dental care related to the relief of pain and management of infection.” Delivery of prosthodontics does not meet these exceptions

*How about crown seats? It is not an emergency, but I don’t think patients can have a temp on that long. I was told that we will open one day to seat all crown patients. Is this considered okay?*

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*Gov. Inslee mandated that we treat only patients who have conditions that will cause the patient more harm if untreated for 3 months. It seems that the governor’s mandate leaves more room for treatment of less obviously urgent conditions. Can you speak more about the types of procedures that are allowed?*

- The Proclamation prohibits “all hospitals, ambulatory surgical facilities, dental, orthodontic and endodontic offices in Washington State from providing health care services, procedures, and surgeries that, if delayed, are not anticipated to cause harm to the patient within the next three months...” There is an exception clause in the Proclamation that provide examples of medical and dental procedures that may occur. The exceptions for dental care are “dental care related to the relief of pain and management of infection.” At UWSOD we have included in this definition:
  - Pain (including chronic ulcerative mucosal disease management)
  - Swelling of gums, face, or neck
  - Signs of infection such as a draining site
  - Trauma to face, jaw, or teeth, including fractures
  - Pre and post-transplant, radiation, or bisphosphonate patients with oral symptoms (evaluate by telephone screening first)
  - Pre-transplant evaluations
  - Referrals made by physicians or other health care providers
  - Potential malignancy
  - Broken tooth
  - Ill-fitting denture
  - Final crown/bridge cementation if the temporary restoration has broken
  - Repair or replacement of a provisional restoration.

### **Office Protocol**

*Doesn’t New York have more testing going on than Washington?*

- It may now. The response and access to testing changes daily. The rate of testing per capita is difficult to precisely estimate. However, Seattle and King County have been

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most active in testing. The same is likely true for the more densely populated areas of New York. New York is experiencing an explosion of cases, and that is reflected in the number of tests performed there. Also, the University of Washington Medical Center and Public Health King County recently launched an at-home testing program.

<https://www.seattletimes.com/seattle-news/health/new-coronavirus-surveillance-program-launched-in-seattle-based-on-home-test-kits/>

*Do we have any idea when dental offices start fully functioning again?*

- Governor Jay Inslee's amended Proclamation has suspended all non-urgent medical and dental procedures through May 18, 2020. It is certainly possible that suspension of elective care could extend beyond that time,

*What is the possibility that the governor will keep prolonging the return date?*

- It is unknown. May 18, 2020 seems like a reasonable amount of time to determine if the pandemic is continuing to expand, remaining stable, or diminishing. Some predictions are being made based upon the epidemiology of the pandemic in other countries (China, Italy). Those data must be interpreted cautiously because the public health efforts to contain the pandemic vary among all countries.

*Shouldn't we be concerned with aerosols anyway?*

- Yes. Dental practices generate aerosols and we need to think about the amount, distribution, quality, and content of those aerosols. Whether we are dealing with a new virus or ordinary influenza or colds, we need to address aerosols. The amount of potentially harmful aerosol can be reduced by use of high-volume suction and rubber dams (for certain procedures). The distribution can be limited by use of individual treatment rooms and disposable drapes. The quality of aerosols generated by high speed hand pieces and ultrasonic units is much finer than that from a cough or sneeze and may remain airborne longer. Treatment rooms with good air flow and exchange are important. Finally, the content of aerosols generated in dental procedures is not the same as a cough or sneeze in that we are aerosolizing saliva, crevicular fluid, and blood. Our surface disinfectants need to be effective against microorganisms in these fluids on a variety of surfaces.

*When we return to work, before we have a vaccine, will we need to avoid aerosols for all patients? Especially in the dental hygiene appointment like coronal polish, ultrasonic, or air polisher?*

- No. It is expected that returning to normal dental practice will be allowed as soon as there is good epidemiologic evidence that the pandemic is moving toward extinction. It is likely that normal practice will continue to implement patient screenings and sound infection control protocols that reduce risk from COVID-19 and any future viruses that may evolve.

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*Would it help if we spray down with alcohol after each patient?*

- All operatory surfaces that are not covered with an impermeable barrier should be cleaned first to remove debris and then sprayed or wiped with an acceptable surface disinfectant that is left in place for the time prescribed by the manufacturer. A list of disinfectants that meet the EPA's criteria for use against the virus that causes COVID-19 infection is available at <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

What are the panel's thoughts on a chemist who states that soap and water is more effective in cleaning the hands than hand sanitizer? He goes on to describe the molecular advantages of soap and water.

- Both are effective for sanitizing hands. Soap and water, used correctly for a scrub of 20 seconds or longer, is effective. Many hand sanitizers contain some form of soap as a surfactant for increased efficiency. Use soap and water when they are available. Use hand sanitizers in other situations. CDC recommends the use of alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol.

### PPE

*Looking ahead, due to the nature of this virus and how it is being compared to tuberculosis, do you think that there will be new protocols from the CDC and OSHA for different PPE when it comes to the nature of our profession?*

- Advances in PPE and revised protocols for its use are almost certain to arrive. However, PPE is just one element in the prevention of infectious/contagious agent transmission. Identifying those at risk, isolating, and containing are critical. Identification starts with careful screening for symptoms and risk factors. That should be done telephonically or via teledentistry. Isolating moves patients who are at increased risk or known to be infected into appropriate treatment rooms. Containment prevents infectious/contagious agents from escaping the treatment area.

*Is the guidance for the N-95 FOR confirmed/suspected COVID or all? This is a point of confusion in some of the guidance documents.*

- N-95 masks should be used for suspected or confirmed cases of COVID-19. Patients who screen negative for COVID-19 should be treated using regular PPE.

*We don't have N-95 masks. Is a Level 3 mask fine to use instead?*

- Level 3 masks are considered "high barrier". When providing treatment that generates an aerosol, a Level 3 mask used in conjunction with a face shield that wraps around the temples may provide a higher level of protection. Combined with careful screening of patients prior to treatment, there is additional risk reduction.

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*Do we need surgical nets for our hair?*

- It is wise to use disposable surgical hair covers whenever you are performing a procedure that generates an aerosol. This is the case for all patients, not just those suspected of having an infectious/contagious disease.

*Due to the national shortage of N-95 masks, you mentioned that surgical masks can be just as effective. Is using a facial shield with the mask just as effective in preventing a health care worker from being exposed to COVID-19 aerosols?*

- A regular surgical mask that is well adapted to your face, along with a face shield that wraps around the side of your eyes, is very effective. However, for an identified or suspected COVID-19 patient, an N-95 mask should be used.

*ASTM 3 does not block this virus and since it lives in the air for as long as it does, how are we to prevent our patients in our practice from contracting it?*

- Level 3 masks are considered “high barrier”. When providing treatment that generates an aerosol, a Level 3 mask used in conjunction with a face shield that wraps around the temples may provide a higher level of protection. Combined with careful screening of patients prior to treatment, there is additional risk reduction.

*I need loupes or I can't work. How can I isolate my face with loupes?*

- There are some face shields that provide sufficient space for loupes.

*When do you think the PPE shortage will be over?*

- Not for a while. All PPE manufacturers in all countries were caught off guard by the sudden demand and were not prepared to increase production to the levels currently needed. They are working very hard to increase production but this will take some time.

*Do we assume everyone is infectious even the patient's screening is negative and they have no symptoms? Then maximum PPE is expected?*

- No. If the patient's responses to all the screening questions are negative, then obtain a temperature. If the temperature is  $<100^{\circ}\text{F}$ , you may treat the patient using regular PPE.

*At the UW drive-through COVID-19 testing places, are the health care personnel using shoe coverings?*

- We do not believe that shoe coverings are being used at these sites. All other PPE is used. The University of Washington Medical Center and King County Public health recently launched an at-home testing program.

<https://www.seattletimes.com/seattle-news/health/new-coronavirus-surveillance-program-launched-in-seattle-based-on-home-test-kits/>

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*Once this COVID-19 crisis is over, do you recommend that we continue using the same PPE that we are talking about for all future patients forever, just like in the '70s people did not wear gloves until the HIV crisis and now gloves have been standard of care since the early '80s?*

- That will likely be the recommendation from the CDC and other public health authorities. We should anticipate some modifications to what are now considered to be effective universal body substance precautions.

### **Miscellaneous**

*Overlapping with the opioid epidemic, are the methadone clinics informed of “social distancing”?*

The Governor’s Proclamation regarding social distancing apply to all facilities in the state.

*Are pediatricians limited to not providing well-child checks and immunizations, like dentists are?*

- The Governor’s Proclamation prohibits “all hospitals, ambulatory surgical facilities, dental, orthodontic and endodontic offices in Washington State from providing health care services, procedures, and surgeries that, if delayed, are not anticipated to cause harm to the patient within the next three months...” There is an exception clause in the Proclamation that provides examples of medical and dental procedures that may occur. The exceptions for dental care are “dental care related to the relief of pain and management of infection.”

*What does waiting two weeks [accomplish] if there are other chances for exposure during those two weeks?*

- A person with confirmed or suspected COVID-19 infection must self-quarantine for 14 days. An infected person is presumed to be contagious for seven to 12 days after symptoms appear. In addition, a person should wait an additional three days after symptom resolution (which ever of these two suggestions is longer).