Overview

CDC has developed interim infection prevention and control guidance for dental settings during the COVID-19 pandemic. SARS-CoV-2, the virus that causes COVID-19, is thought to be spread primarily through respiratory droplets. Airborne transmission from person-to-person over long distances is unlikely. However, there is strong evidence of close-range exposure to inhalable infectious particles as a mode of COVID-19 transmission. The virus has been shown to survive in aerosols for hours and on surfaces for days. Infection can be established through eyes, nose, and mouth exposures. There is also strong evidence that people have spread the virus while pre-symptomatic or asymptomatic.

The dentistry practice involves the use of rotary dental and surgical instruments such as handpieces or ultrasonic scalers and air-water syringes. These instruments create a visible spray that contains large particle droplets of water, saliva, blood, microorganisms, and other debris. This spatter travels only a short distance and settles out quickly, landing on the floor, nearby operatory surfaces, dental healthcare personnel, or the patient. The spray also might contain certain aerosols. Surgical masks are fluid resistant and protect the patient from the dental employee’s respiratory emissions. They are not considered personal protective equipment to protect employees from viruses; however, they are part of standard precautions for patient protection.

There are currently no data available that specifically assess the risk of SARS-CoV-2 transmission during dental practice or to determine whether standard precautions adequately protect dental healthcare personnel when providing dental treatment. To date, in the United States, clusters of healthcare workers positive for COVID-19 have been identified in hospital settings and long-term care facilities, but not dental facilities. The Occupational Safety and Health Administration’s (OSHA’s) Guidance on Preparing Workplaces for COVID-19 places dental healthcare personnel in the medium to very high exposure risk category, depending on characteristics of the patient and the treatment provided, as their jobs are those with high potential for exposure to known or suspected sources of the virus that causes COVID-19 during specific procedures. OSHA also has guidance for Dentistry Workers and Employers.

When practicing without Airborne Precautions, the risk when treating known or suspected COVID-19 patients of SARS-CoV-2 transmission during aerosol-generating dental procedures is very high. Most dental practices are not set up for providing care to patients requiring Airborne Precautions. For example, most dental settings do not have airborne infection isolation rooms or single-patient rooms, do not have a respiratory protection program, and do not routinely stock N95 respirators.

What actions should management take?

Create a COVID-19 Workplace Health and Safety Plan

- Assign a qualified workplace coordinator to develop a SARS-CoV-2 exposure control plan.
- Determine how you would operate with a reduced workforce and continue essential functions.
- Institute flexible workplace and leave policies.
  - Develop policies that encourage sick employees to stay at home without fear of reprisals, and ensure employees are aware of these policies.
- Work closely with occupational health and safety and/or occupational medical professionals when possible.
- If applicable, create and use labor-management health and safety working groups and include representatives of authorized unions.
Conduct worksite assessments to identify COVID-19 risks and prevention strategies.

- Although SARS-CoV-2 is not bloodborne, dental procedures are likely to generate blood. Therefore, it is important to keep a robust and up-to-date written Exposure Control Plan to include the requirements of the OSHA Bloodborne Pathogens Standard.

- In addition to work areas, identify other areas that may lead to close contact among employees and patients. For example, waiting rooms, break rooms, cafeterias, locker rooms, check-in areas, and routes of entry and exit.

- Include employees in all job classifications, for example: dentists, dental assistants, dental hygienists, receptionists, office managers, or laboratory technicians.

- Notify employees to avoid car-pooling and high-risk public transportation if they can.

- As part of these assessments, dental offices should collaborate with local and/or state public health authorities, and occupational safety and health professionals in considering the appropriate role for testing and workplace contact tracing of COVID-19 positive employees in a worksite risk assessment, following available CDC guidance.

Follow standard types of hazard controls (“the hierarchy of controls”) when implementing worker infection prevention practices specific to facilities and include a combination of controls noted below.

Elimination of the Hazard

- Require employees who have symptoms or signs (i.e., fever, cough, or shortness of breath) or who have a sick family member at home with COVID-19 to notify their supervisor and stay home.

- Sick employees should follow the CDC-recommended steps. Employees should not return to work until the criteria to discontinue home isolation are met in consultation with healthcare providers and state and local health departments. Waive requirements for medical documentation during the pandemic, as CDC has advised people with mild illness NOT to go to the doctor’s office or emergency room.

- Liberalize sick leave policies to support employees who have to isolate at home.

- Develop a plan and perform enhanced cleaning and disinfection after anyone suspected or confirmed to have COVID-19 has been in the workplace.

- Develop a plan for enhanced routine cleaning and disinfection.

- Worker screening.

- Be sure that personnel with symptoms stay home.

- For those without symptoms, consider having screening protocols in place for personnel at the beginning of the workday for fever and respiratory symptoms.
  - Document shortness of breath, new or change in cough, and sore throat. If they are ill, have them put on a facemask and leave the workplace (CDC dental settings guidance).

- Consider implementing a daily health screening check and log for all employees in the workplace (ADA RTW Toolkit) (NOTE: be sure to comply with OSHA’s Access to Employee Exposure Medical Records standard for confidentiality).

- For larger practice settings, screening may require incrementally staggered employee start times.

- Avoid employees congregating in groups. Employees should practice maintaining a 6-foot distance between each other.

- Screening should be done in a manner such that the privacy of employees is respected.
Returning to Work: Dental Settings

DISCLAIMER: These are meant to be general guidelines to help you re-open your establishment. Always follow local, state, and federal laws and guidelines.

More guidance on best practices for screening workers is given on CDC’s website.

Patient screening

- Telephone screen all patients for signs or symptoms of respiratory illness (fever (> 100.4°F), cough, shortness of breath, and other symptoms listed by CDC). For patients who report signs or symptoms, when possible, delay dental care until the patient has recovered from the respiratory infection.

- Consider implementing an in-office patient screening procedure similar to that described in the ADA’s return to work toolkit. If a patient arrives at your facility and is suspected or confirmed to have COVID-19, take the following actions:
  
  o Defer dental treatment.
  
  o Give the patient a mask to cover his or her nose and mouth.
  
  o If not acutely sick, send the patient home and instruct the patient to call a medical provider.
  
  o If acutely sick (for example, has trouble breathing), refer the patient to a medical facility.
  
  o If emergency dental care is medically necessary for a patient who has or is suspected of having COVID-19, Airborne Precautions (an isolation room with negative pressure relative to the surrounding area and use of an N95 filtering respirator for all persons entering the room) should be followed. Dental treatment should be provided in a hospital or other facility that can treat the patient using the appropriate precautions.

- People with COVID-19 who have completed home isolation clearance and have been symptom-free for 72 hours can receive dental care. This is decided using two strategies: a non-test-based strategy, and a test-based strategy:

  o Non-test-based-strategy: At least three days (72 hours) have passed since recovery (resolution of fever (< 100.4°F) without the use of fever-reducing medications and improvement in respiratory symptoms such as cough or shortness of breath) and at least seven days have passed since symptoms first occurred.

  o Test-based-strategy: People with COVID-19 who have symptoms: Resolution of fever (< 100.4°F) without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath) and negative results of an FDA Emergency Use Authorized molecular assay for COVID-19 from at least two consecutive nasopharyngeal swab specimens collected ≥24 hours apart (total of two negative specimens).

  Persons with laboratory-confirmed COVID-19 who have not had any symptoms: At least seven days have passed since the date of the first positive COVID-19 diagnostic test and have had no subsequent illness.

Engineering Controls

- Avoid aerosol-generating procedures whenever possible. Avoid the use of dental handpieces and the air-water syringe if possible. The use of ultrasonic scalers is not recommended during this time. Prioritize minimally invasive/atraumatic restorative techniques (hand instruments only).

- If aerosol-generating procedures are necessary, use four-handed dentistry, high evacuation suction, and dental dams to minimize droplet spatter and aerosols. (CDC Dental Settings Guidance).

  - In general, use professional judgment to employ the lowest aerosol-generating procedures when delivering any type of restorative or hygiene care. (ADA RTW Toolkit found in Resources section below).
- High-velocity evacuation should be employed whenever possible. (ADA RTW Toolkit).

- Use of nitrous oxide: use disposable nasal hood; tubing should either be disposable or if reusable, sterilized. (ADA RTW Toolkit).

- Modify or adjust workstations to minimize close contact (defined as 6 feet) of employees with other employees, patients, or others when possible.

- Use methods to physically separate employees and patients in all areas of the facilities when possible, including areas such as break rooms, and entrance/exit areas.
  - Use visual cues (e.g., floor markings, signs) to encourage physical distancing.
  - Space chairs at least 6 feet apart. Use barriers (like screens), when possible.

- Remove communal objects like reading magazines, remote controls, and toys from office areas (ADA RTW Toolkit).

- Cover the keyboard of the computer with a disposable, flexible, clear barrier (e.g., plastic wrap) and change between patients if used in a treatment area. (ADA RTW Toolkit).

- Consider providing new pens to patients who need to fill out paperwork, rather than reusing.

Cleaning/Disinfection/Sanitation

- Clean and disinfect the room and equipment according to the Guidelines for Infection Control in Dental Health-Care Settings - 2003 and Guidelines for Disinfection and Sterilization in Healthcare Facilities - 2008.
  - Clean, disinfect, and/or discard instruments, supplies, or equipment in dedicated areas to reduce cross-transmission. If a dedicated processing area is not available, perform processing in a room by a single staff person.

- Use products with EPA-approved emerging viral pathogens claims - refer to List N on the EPA website for EPA-registered disinfectants that have qualified under EPA's emerging viral pathogens program from use against SARS-CoV-2.

- Be sure to follow the products’ instructions for use (IFUs) carefully to determine the product’s compatibility with the surface type and whether additional PPE is needed for those using them.

- For high-touch surfaces, it may be useful to use pre-moistened wipes to avoid the use of sprays and mixing chemical components to avoid aeration of chemical hazards.

  - If multiple employees use instruments – disinfect or sterilize between shared use.
  - If pens are reused, disinfect between each use. Do not share pens between personnel and patients.
  - Conduct targeted and more frequent cleaning of high-touch surfaces of shared spaces (e.g., tables, chair arms, doorknobs, light switches, hangers, and anything else with which people come in contact).
  - Clean and disinfect chairs between each patient.

Administrative Controls

- Minimize employees working in each treatment room throughout the day.

- Limit persons accompanying patients to the minimum necessary. Consider closing waiting areas – patients can remain outside or in their cars until they are called or texted to come inside for their scheduled appointment. When patients do not arrive in personal vehicles, consider separating waiting room chairs as far apart as possible for the anticipated volume.

- Ask employees to consider the following if they commute to work using public transportation:
  - Use other forms of transportation.
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- Wash their hands immediately upon entering the facility and/or as soon as possible after their trip.
- Change into scrubs/work clothes.
- Ensure dental healthcare personnel practice strict adherence to hand hygiene, including handwashing with soap and running water:
  - Before and after contact with patients.
  - After contact with contaminated surfaces or equipment.
  - After removing PPE.
- Provide employees adequate time and access to soap, clean water, single-use paper towels for handwashing.
  - Remind employees to wash their hands often with soap and water for at least 20 seconds. If soap and water are not available, they should use hand sanitizer with at least 60% alcohol.
- Post signs and reminders at entrances and in strategic places providing instruction on hand hygiene, respiratory hygiene, and cough etiquette. This should include signs for non-English speakers, as needed.
- Provide a hand sanitation area for patients and visitors upon entry into your facility, with appropriate signs posted to remind people to use it before entering the rest of the office.
- Use no-touch waste receptacles when possible.
- Remind employees to avoid touching their face.
- Remind employees to cover their mouth and nose with a tissue or use the inside of their elbow when they cough or sneeze. Throw used tissues in the trash and immediately wash hands with soap and water for at least 20 seconds. Learn more about coughing and sneezing etiquette.
- Eliminate handshaking.
- Remind employees that people may be able to spread SARS-CoV-2 even if they do not show symptoms. Consider all close interactions (within 6 feet) with employees, patients, ven, and others as a potential source of exposure.
- When not performing patient care, employees should wear a cloth face covering to cover their nose and mouth in all areas of the office.
  - Cloth face coverings are generally recommended as an addition to social distancing. They are especially crucial for source control when social distancing not possible or feasible based on working conditions. Additional information on cloth masks can be found here.
  - Ask all patients to wear a mask or cloth face-covering except while having dental treatment. Masks or cloth face coverings may prevent people who do not know they have the virus from transmitting it to others.
  - Masks or cloth face coverings should (1) allow for breathing without restriction; (2) be kept as clean as feasible, and (3) be replaced when dirty.
  - Employees should receive training on the proper way to put on and take off items such as face coverings to minimize contamination, as well as training on methods to clean these items.
- Personal Protective Equipment (PPE)
  - Use the highest level of personal protective equipment (PPE) available for suspected or known COVID-19 positive patients:
    - Wear gloves, a gown, eye protection (i.e., goggles with side shields or a disposable/reusable face shield that covers the front and sides of the face), and an N95 respirator or higher-level respirator during dental care for patients. (Note: for patients that are well, and procedures do not generate aerosols, follow OSHA guidelines for Dentistry Workers and Employers and use a surgical/face mask.)
Disposable respirators should be removed and discarded after exiting the patient’s room or care area.

Reusable eye protection must be cleaned and disinfected according to the manufacturer’s reprocessing instructions before reuse. Disposable eye protection should be discarded after use.

Change gown if it becomes soiled. Remove and discard the gown in a dedicated container for waste or linen before leaving the patient room or care area. Disposable gowns should be discarded after use. Cloth gowns should be laundered after each use.

If a respirator must be used because of your hazard assessment findings, you must comply with regulatory requirements for a complete respiratory protection program in accordance with the OSHA Respiratory Protection standard (29 CFR 1910.134). Healthcare Providers should be medically cleared and fit tested if using respirators with tight-fitting facepieces (e.g., a NIOSH-approved N95 respirator) and trained in the proper use of respirators, safe removal and disposal, and medical contraindications to respirator use.

If a disposable N95 respirator is not available, consider using an N99, N100, elastomeric reusable respirator, or a powered air-purifying respirator. See the NIOSH guidelines.

If no respirator is available, follow OSHA Enforcement Guidance for Respiratory Protection and the N95 Shortage Due to the COVID-19 Pandemic and/or contact local OSHA Area Office.

Face shields can serve as both PPE and source control.

If helmets for surgery are being used, use face shields designed to attach to helmets. Face shields can provide additional protection from both potential process-related splashes and potential person-to-person droplet spread.

Safety glasses may fog up when used in combination with masks.

Face shields are not acceptable substitutes for eye protection (such as safety glasses) that are used for impact protection.

Face shields can help minimize the contamination of masks.

If used, face shields should be cleaned and disinfected after each shift and, when not in use, should be kept in a clean location at the dental office.

- If adequate PPE is not available, do not perform any dental care. Refer the patient to a dental facility that has the appropriate PPE.
- Provide appropriate PPE training and education.
  - Use videos and in-person visual demonstrations of proper PPE donning and doffing procedures. (Maintain social distancing during these demonstrations).
  - Emphasize that care must be taken when putting on and taking off PPE to ensure that the worker or the item does not become contaminated.
  - PPE should be: (1) disposed; or (2) correctly disinfected and stored in a clean location when not in use.
  - PPE worn at the facility should not be taken home.
- Stress hand hygiene before and after handling all PPE.
- Scrub uniforms and lab coats should not be worn home after a shift. Encourage personnel to change into street clothes after a shift, if possible.

**Contingency and Crisis Planning**

- Major distributors in the United States have reported shortages of PPE, especially surgical masks and...
respirators. The anticipated timeline for return to routine levels of PPE is not yet known. CDC has developed a series of strategies or options to optimize PPE supplies in healthcare settings when there is a limited supply and a burn rate calculator that provides information for healthcare facilities to plan and optimize PPE’s use for the response to the COVID-19 pandemic. These policies are only intended to remain in effect during the time of the COVID-19 pandemic.

• During severe resource limitations, consider excluding dental healthcare personnel who may be at higher risk for severe illness from COVID-19, such as those of older age, those with chronic medical conditions, or those who may be pregnant, from performing dental care.

Potential Exposure Guidance

• Even when dental healthcare personnel screen patients for respiratory infections, they may treat a dental patient who is later confirmed to have COVID-19.

• Dental healthcare personnel should institute a policy to contact all patients who received dental care in the dental setting 48 hours after receiving care. Dental healthcare personnel should ask patients if they are exhibiting any signs or symptoms of COVID-19. If a patient reports signs or symptoms of COVID-19, refer the patient to their medical provider for assessment and follow CDC’s Healthcare Personnel with Potential Exposure Guidance.

Provide worker infection prevention information and training for all employees and supervisors

• Communication/training should be easy to understand, in languages appropriate to preferred language(s) spoken or read by the employees and include accurate and timely information.

– Emphasize the use of images (infographics) that account for language differences.

• Topics including, but not limited to: signs and symptoms of infection, staying home when ill, social and physical distancing, PPE, hand hygiene practices, use of face coverings, and potential routes of transmission (and how to minimize them) at work, at home, and in community.

• Training should be reinforced by the use of signage (preferably infographics) placed in strategic locations that direct employees how and when to use face coverings, how to report signs and symptoms of infection, and remind them how to wash their hands properly.

Take action to create a healthy office for employees and your patients

• Follow CDC Guidance for Building Water Systems to ensure the safety of the building water system and devices after a prolonged shutdown.

• If an employee is confirmed to have COVID-19 infection, employers should inform fellow employees of their possible exposure to COVID-19 in the workplace but maintain confidentiality as required by the Americans with Disabilities Act (ADA). The employer should instruct fellow employees about how to proceed based on the CDC Public Health Recommendations for Community-Related Exposure.

– Follow federal, state, and local recommendations for reporting and communicating cases, while remaining compliant with regulations and guidelines pertaining to protecting private health information. See the OSHA for guidance on reporting workplace exposures to COVID-19.

• Understand that some employees may be at higher risk for serious illness, such as older adults and those with severe underlying medical conditions. Consider minimizing face-to-face contact for these employees if possible. This could include those with
administrative duties like billing, benefits, scheduling, etc.

- Implement and inform employees of supportive workplace policies:
  - Flexible sick leave policies that are consistent with public health guidance. Providing paid sick leave is an important way to encourage employees to stay home when sick.
  - Consider not requiring a positive COVID-19 test result or a healthcare provider’s note for employees who are sick to validate their illness in order to qualify for sick leave. If you do require a doctor’s note from your employees to verify that they are healthy and able to return to work, be aware that healthcare provider offices and medical facilities may be extremely busy and not able to provide such documentation in a timely manner. Get more information related to the Americans with Disabilities Act during the COVID-19 pandemic.
  - Flexibility to stay home to care for a sick family member.
  - Human resources policies consistent with public health guidance and state and federal workplace laws. For more information on employer responsibilities, visit the Department of Labor’s and the Equal Employment Opportunity Commission’s websites.
  - Employee assistance program and community resources to help employees manage stress and receive support.
  - Encourage employees at increased risk for severe illness to request special accommodations to safely perform their job duties while also protecting sensitive employee health information.

Resources

- American Dental Association Return to Work Guidance Tool Kit
- AADOM (Association for Dental Office Management)
- Numerous wellness questionnaire examples are available online (e.g., South Dakota Department of Health’s COVID-19: Employee Screening Questions and Guidelines)
- The EPA has developed a list of disinfectants for use against SARS-CoV-2.
- AIHA’s Indoor Environmental Quality Committee developed these guidance documents about reopening and cleaning buildings after closures due to COVID-19: Recovering from COVID-19 Building Closures and Workplace Cleaning for COVID-19.
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Occupational health and safety (OHS) professionals (also known as industrial hygienists) practice the science of anticipating, recognizing, evaluating, and controlling workplace conditions that may cause workers’ injury or illness. Through a continuous improvement cycle of planning, doing, checking and acting, OHS professionals make sure workplaces are healthy and safe.

Get additional resources at AIHA’s Coronavirus Outbreak Resource Center.

Find a qualified industrial hygiene and OEHS professionals near you in our Consultants Listing.

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