Coronavirus Disease 2019 (COVID-19)

Dental Settings

Interim Infection Prevention and Control Guidance for Dental Settings During the COVID-19 Response

Key Concepts

- Dental settings have unique characteristics that warrant additional infection control considerations.
- Postpone elective procedures, surgeries, and non-urgent dental visits.
- Proactively communicate to both staff and patients the need for them to stay at home if sick.
- Know steps to take if a patient with COVID-19 symptoms enters your facility.

What's New

Revisions were made on April 27, 2020

- To address asymptomatic and pre-symptomatic transmission, implement source control (require facemasks or cloth face coverings) for everyone entering the dental setting (dental healthcare personnel [DHCP][1] and patients), regardless of whether they have COVID-19 symptoms.
- Actively screen everyone on the spot for fever and symptoms of COVID-19 before they enter the dental setting.
- Actively screen DHCP on the spot for fever and symptoms before every shift.

During the COVID-19 pandemic, dental emergencies[2] will arise and may require treatment by DHCP. DHCP should regularly consult their state dental boards or other regulating agencies for requirements specific to their jurisdictions, as information is changing rapidly. The following dental-specific recommendations should be used with CDC's Interim Infection Prevention and Control Recommendations for patients with COVID-19 and the Interim Additional Guidance for Outpatient and Ambulatory Care Settings: Responding to Community Transmission of COVID-19 in the United States. This information supplements, but does not replace, the general infection prevention and control recommendations for COVID-19.

Background

SARS-CoV-2, the virus that causes COVID-19, is thought to be spread primarily through respiratory droplets when an infected person coughs, sneezes, or talks. Airborne transmission from person-to-person over long distances is unlikely. However, COVID-19 is a new disease and **we are still learning about how it spreads** and the severity of illness it causes. The virus has been shown to survive in aerosols for hours and on some surfaces for days. There are also indications that patients may be able to spread the virus while pre-symptomatic or asymptomatic.

The practice of dentistry 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, DHCP, or the patient. The spray also might contain certain aerosols. Surgical masks protect mucous membranes of the mouth and nose from droplet spatter, but they do not provide complete protection against inhalation of airborne infectious agents.

There are currently no data available to assess the risk of SARS-CoV-2 transmission during dental practice or to determine whether DHCP are adequately protected when providing dental treatment using Standard Precautions. 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 no clusters have yet been reported in dental settings or personnel. The Occupational Safety and Health Administration's Guidance on Preparing Workplaces for COVID-19 places DHCP in the *very high exposure risk* category, 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.

When practicing **in the absence of** Airborne Precautions, the risk of SARS-CoV-2 transmission during aerosol generating dental procedures cannot be eliminated. Caring for patients requiring Airborne Precautions is not possible in most dental settings as they are not designed for or equipped to provide this standard of care. 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.

Recommendations

Postpone Elective Procedures, Surgeries, and Non-urgent Dental Visits

Services should be limited to emergency visits only during this period of the pandemic. These actions help staff and patients stay safe, preserve personal protective equipment and patient care supplies, and expand available health system capacity.

Stay at Home if Sick

Implement sick leave policies for DHCP that are flexible, non-punitive, and consistent with public health guidance, allowing employees to stay home if they have symptoms of respiratory infection. Ask staff to stay home if they are sick and send staff home if they develop symptoms while at work.

Telephone screen all patients for signs or symptoms of respiratory illness (fever[3], cough, shortness of breath). If the patient reports signs or symptoms of a respiratory illness, avoid dental care. If possible, delay emergency dental care until the patient has recovered from the respiratory infection.

Contact Patients Prior to Emergency Dental Treatment

Telephone triage all patients in need of emergency dental care. Assess the patient's dental condition and determine whether the patient needs to be seen in the dental clinic. Use teleconferencing or teledentistry options as alternatives to in office care. If dental treatment can be delayed, provide patients with detailed home care instructions and any appropriate pharmaceuticals.

Provision of Emergency Care to Patients with COVID-19 During the COVID-19 Pandemic

If a patient arrives at your facility and is suspected or confirmed to have COVID-19, take the following actions:

- Defer dental treatment
  - Give the patient a mask to cover his or her nose and mouth.
  - If not acutely sick, send the patient home and instruct the patient to call a medical provider.

- If acutely sick (for example, has trouble breathing) refer the patient to a medical facility.

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 disposable respirator for 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.

Provision of Emergency Care to Patients Without COVID-19 in a Dental Clinic During the COVID-19 Pandemic

If a patient must be seen in the dental clinic for emergency care, systematically assess the patient at the time of check-in. The patient should be asked about the presence of symptoms of a respiratory infection and history of travel to areas experiencing transmission of COVID-19 or contact with possible patients with COVID-19. If the patient is afebrile (temperature < 100.4˚F) and otherwise without symptoms consistent with COVID-19, then emergency dental care may be provided using appropriate engineering controls, work practices, and infection control practices.

Engineering Controls and Work Practices

- Avoid aerosol generating procedures whenever possible. Avoid the use of dental handpieces and the air-water syringe. 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 for emergency care, use four-handed dentistry, high evacuation suction and dental dams to minimize droplet spatter and aerosols. The number of DHCP present during the procedure should be limited to only those essential for patient care and procedure support. Visitors should not be present for the procedure.

Infection Control Considerations

As part of source control efforts, DHCP should wear a facemask **at all times** while they are in the dental setting.

- When available, surgical masks are generally preferred over cloth face coverings for DHCP because surgical masks offer both source control and protection for the wearer against exposure to splashes and sprays of infectious material from others.
- Cloth face coverings should NOT be worn instead of a respirator or facemask if more than source control is required.
- Some DHCP whose job duties do not require PPE (such as clerical personnel) should continue to wear their cloth face covering for source control while in the dental setting.
- Other DHCP (such as dentists, dental hygienists, dental assistants) may wear their cloth face covering when they are not engaged in direct patient care activities and then switch to a respirator or a surgical mask when PPE is required.
- DHCP should remove their respirator or surgical mask and put on their cloth face covering when leaving the facility at the end of their shift.
- DHCP should also be instructed that if they must touch or adjust their mask or cloth face covering they should perform hand hygiene immediately before and after.
- Dental facilities should provide DHCP with job-specific training on PPE and have them demonstrate competency with selection and proper use (putting on and removing without self-contamination).

Because cloth face coverings can become saturated with respiratory secretions, DHCP should take steps to prevent self-contamination:

- DHCP should change the coverings if they become soiled, damp, or hard to breathe through.
- Coverings should be laundered daily and when soiled.

- DHCP should perform hand hygiene immediately before and after any contact with the cloth face covering.
- Dental facilities should provide DHCP with **training about when, how, and where cloth face coverings can be used** including frequency of laundering, guidance on when to replace, circumstances when they can be worn in the facility, and the importance of hand hygiene to prevent contamination.

PPE use during clinical care

Employers should select appropriate PPE and provide it to DHCP in accordance with OSHA PPE standards (29 CFR 1910 Subpart I). DHCP must receive training on and demonstrate an understanding of:

- when to use PPE
- what PPE is necessary
- how to properly don, use, and doff PPE in a manner to prevent self-contamination
- how to properly dispose of or disinfect and maintain PPE
- the limitations of PPE

Dental facilities must ensure that any reusable PPE is properly cleaned, decontaminated, and maintained after and between uses. Dental settings also should have policies and procedures describing a recommended sequence for safely donning and doffing PPE.

The PPE recommended for DHCP when providing **emergency dental care to patients without COVID-19** includes:

- Respirator or surgical mask:
  - **Before entering a patient room or care area**, put on one of the following:
    - An N95 respirator[5] or a respirator that offers a higher level of protection such as other disposable filtering facepiece respirators, powered air-purifying respirators (PAPRs), or elastomeric respirators.
    - If a respirator is not available, a combination of a surgical mask and full-face shield. Ensure that the mask is cleared by the US Food and Drug Administration (FDA) as a surgical mask.
  - **During aerosol-generating procedures** (e.g. use of dental handpieces, air/water syringe, ultrasonic scalers), put on one of the following:
    - An N95 respirator or a respirator that offers a higher level of protection such as other disposable filtering facepiece respirators, powered air-purifying respirators (PAPRs), or elastomeric respirators.
  - **After exiting the patient's room or care area and closing the door** (if present), take into consideration that most dental procedures generate droplets, spatter, and aerosols:
    - Remove and discard disposable respirators and surgical masks.
    - Perform hand hygiene after removing the respirator or facemask.
- Eye Protection
  - **Before entering the patient room or care area**, put on eye protection (i.e., goggles or a full face shield that covers the front and sides of the face).
    - Personal eyeglasses and contact lenses are NOT considered adequate eye protection.
    - If respirators are not available and surgical masks are used, wear a full-face shield.
  - **After leaving the patient room or care area**:
    - Remove eye protection.
    - Clean and disinfect reusable eye protection according to manufacturer's reprocessing instructions prior to reuse.
    - Discard disposable eye protection after use.
- Gloves
  - **Before entering the patient room or care area**, put on clean, non-sterile gloves.

    - Change gloves if they become torn or heavily contaminated.
    - **Before leaving the patient room or care area:**
        - Remove and discard gloves.
        - Immediately perform hand hygiene.
- Gowns
    - Before entering the patient room or area, put on a clean isolation gown.
    - Change gown if it becomes soiled.
    - **Before leaving the patient room or area**, remove and discard the gown in a dedicated container for waste or linen.
        - Discard disposable gowns after use.
        - Launder cloth gowns after each use.
    - If there are shortages of gowns, they should be prioritized for:
        - Aerosol-generating procedures.
        - Clinical procedures where splashes and sprays are anticipated.

If a surgical mask and a full face shield are not available, do not perform any emergency dental care. Refer the patient to a clinician who has the appropriate PPE.

Ensure DHCP practice strict adherence to hand hygiene, including

- Before and after all patient contact, contact with potentially infectious material, and before putting on and after removing PPE, including gloves. Hand hygiene after removing PPE is particularly important to remove any pathogens that might have been transferred to bare hands during the removal process.
- Use of alcohol-based hand rub (ABHR) with 60-95% alcohol or washing hands with soap and water for at least 20 seconds. If hands are visibly soiled, use soap and water before returning to ABHR.
- Dental healthcare facilities should ensure that hand hygiene supplies are readily available to all DHCP in every care location.

Clean and disinfect the room and equipment according to the Guidelines for Infection Control in Dental Health-Care Settings—2003

- Clean and disinfect room surfaces promptly after completion of clinical care.
- Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly.
- Routine cleaning and disinfection procedures (e.g., using cleaners and water to clean surfaces **before** applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label) are appropriate for SARS-CoV-2 in healthcare settings, including those patient-care areas in which aerosol-generating procedures are performed.
    - Refer to List N on the EPA website for EPA-registered disinfectants that have qualified under EPA's emerging viral pathogens program for use against SARS-CoV-2.
- Manage laundry and medical waste in accordance with routine procedures.
- Clean and disinfect all reusable dental equipment used for patient care according to manufacturer's instructions and facility policies.

Monitor DHCP

Screen all DHCP at the beginning of their shift for fever and symptoms of COVID-19*.

- Actively measure their temperature and document absence of symptoms consistent with COVID-19. If DHCP are ill, have them keep their cloth face covering or facemask on and leave the workplace.
- *For healthcare personnel, fever is either measured temperature ≥0˚F or subjective fever. Note that fever may be intermittent or may not be present in some individuals, such as those who are elderly, immunosuppressed, or taking certain medications (e.g., NSAIDs).
  - Clinical judgement should be used to guide testing of individuals in such situations. Respiratory symptoms consistent with COVID-19 are cough, shortness of breath, or sore throat.
  - Medical evaluation may be warranted for lower temperatures (<100.0˚F) or other symptoms (e.g., muscle aches, nausea, vomiting, diarrhea, abdominal pain headache, runny nose, fatigue) based on assessment by occupational health. Additional information about clinical presentation of patients with COVID-19 is available.
- Information about when DHCP with suspected or confirmed COVID-19 may return to work is available in the Interim Guidance on Criteria for Return to Work for Healthcare Personnel with Confirmed or Suspected COVID-19.

Patient Management

People with COVID-19 who have ended home isolation can receive emergency dental care. This is decided using two strategies: a non-test-based strategy and a test-based-strategy:

- Non-test-based-strategy: 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 such as cough or shortness of breath), **and** at least 7 days have passed since symptoms first appeared.
- Test-based-strategy:
  - Persons who have COVID-19 who have symptoms: Resolution of fever without the use of fever-reducing medications **and** improvement in respiratory symptoms (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[4] (total of two negative specimens).
  - Persons with laboratory-confirmed COVID-19 who have not had any symptoms: At least 7 days have passed since the date of the first positive COVID-19 diagnostic test and have had no subsequent illness.

Potential Exposure Guidance

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

DHCP should institute a policy to contact all patients who received emergency dental care in the dental setting 48 hours after receiving emergency care. DHCP 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.

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 supplies of PPE in healthcare settings when there is limited supply, and a burn rate calculator that provides information for healthcare facilities to plan and optimize the use of PPE for 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 DHCP 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 emergency dental care.

Additional Resources

- Infection Prevention and Control Recommendations
- Public Health Personnel Evaluating at Home or Non-Home Residential Settings
- Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure
- American Dental Association: What Constitutes a Dental Emergency

Footnotes

[1]DHCP refers to all paid and unpaid persons serving in dental healthcare settings who have the potential for direct or indirect exposure to patients or infectious materials, including:

- body substances
- contaminated medical supplies, devices, and equipment
- contaminated environmental surfaces
- contaminated air

[2]The urgency of a procedure is a decision based on clinical judgement and should be made on a case-by-case basis.

[3]Fever may be subjective or confirmed.

[4]A respirator is a personal protective device that is worn on the face, covers at least the nose and mouth, and is used to reduce the wearer's risk of inhaling hazardous airborne particles (including dust particles and infectious agents), gases, or vapors. Respirators are certified by the CDC/NIOSH, including those intended for use in healthcare.

Respirator use must be in the context of a complete respiratory protection program in accordance with 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.

[5]All test results should be final before isolation is ended. Testing guidance is based upon limited information and is subject to change as more information becomes available.

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