PUBLIC HEALTH DIVISION
Acute and Communicable Disease Prevention
Kate Brown, Governor

Oregon Health Authority

800 NE Oregon St, Suite 772
Portland, OR 97232
Voice: 971-673-1111
Fax: 971-673-1100

Updated July 22, 2020

Clinical Care, and Healthcare Infection Prevention and Control Guidance for COVID-19

Summary of Recent Changes

- **Clinical management and treatment:** Updates information about remdesivir, an antiviral agent that is available via distribution by the Oregon Health Authority.
- **Recommendation in outpatient settings**: Updates guidance on patient triage and preventive care visits.
- **Universal Source Control and Eye Protection:** Clarifies source control requirements for health care personnel and patients in all health care settings. Adds recommendation for the universal use of eye protection.
- **Personal Protective Equipment:** Broadens language for PPE use across the spectrum of care. Adds recommendations related to N95 or higher respiratory protection in the context of: (1) aerosol-generating procedures for patients with known COVID-19 exposure; and 2) clinical care that may increase the risk of exposure to infectious droplets or aerosols.
- **Discontinuation of Transmission-Based Precautions**: Adopts updated CDC guidance. Test-based strategy is no longer recommended for routine discontinuation of transmission-based precautions.
- **Return-to-Work Considerations:** Adopts updated CDC guidance. Except in rare situations, a test-based strategy is no longer recommended to determine when to allow healthcare personnel to return to work.

Key Terms

- **Healthcare Personnel (HCP):** refers to all paid and unpaid persons serving in healthcare settings who have the potential for direct or indirect exposure to patients or infectious materials.
- **Face covering:** refers to a cloth, paper or disposable face covering that covers the nose or mouth. It would also include medical-grade face masks.
- **Face mask:** refers to a medical-grade face mask
- **Source control:** refers to use of face covering or face masks to cover a person's mouth and nose to prevent spread of respiratory secretions when they are talking, sneezing, or coughing. Because of the potential for asymptomatic and pre-symptomatic

transmission, source control measures are recommended for everyone in a healthcare facility, even if they do not have symptoms of COVID-19.

The following guidance has been adopted by Oregon Health Authority (OHA) to:

- Provide information on clinical symptoms, risk factors, management, and treatment of COVID-19;
- Provide guidance on diagnostic testing for COVID-19;
- Prevent healthcare-associated spread of COVID-19;
- Support the safe management of patients with suspect or known COVID-19 in healthcare settings;
- Optimize the use of the personal protective equipment (PPE) and healthcare resources needed to protect healthcare personnel (HCP).

This guidance will be updated as needed to reflect current epidemiology, clinical course, and transmission of the virus that causes COVID-19.

CDC has published Steps Healthcare Facilities Can Take Now to Prepare for Coronavirus Disease (COVID-19) and Interim Guidance for Healthcare Facilities: Managing Operations During the COVID-19 Pandemic. All providers should review these websites frequently, as recommendations may change.

Clinical Presentation and Risk Factors

Symptoms of COVID-19 include fever, cough, shortness of breath, fatigue, myalgia, and headache. Less common symptoms include sore throat, diarrhea, and loss of smell and taste. Fever is likely during the clinical course, but some data indicate that fewer than half of hospitalized COVID-19 patients present with fever. Severity of illness may worsen in the second week of infection. Atypical presentations have been described in older adults and persons with comorbidities. CDC has provided details on the clinical presentation of COVID-19.

Older patients and those with chronic medical conditions are at higher risk for severe disease. In addition, the CDC reports that among COVID-19 cases, the most common underlying health conditions were cardiovascular disease (32%), diabetes, (30%), and chronic lung disease (18%). Hospitalizations were six times higher and deaths 12 times higher among those with reported underlying conditions compared with those with none reported. Currently the reported U.S. case fatality rate is 4.3%.

Children are less likely to have severe illness, compared to adults. However, a rare post-infectious phenomenon, multi-system inflammatory syndrome in children (MIS-C), has been reported (More information: New England Journal of Medicine: Multisystem Inflammatory Syndrome in U.S. Children and Adolescents).

RNA from the virus that causes COVID-19 (SARS-CoV-2) has been identified from patients who never develop symptoms (asymptomatic) and in patients before symptoms develop (pre-symptomatic). Transmission during both the asymptomatic and the pre-symptomatic period

has been documented. The degree to which pre-symptomatic and asymptomatic transmission have contributed to the COVID-19 pandemic remains unclear.

SARS-CoV-2 is believed to spread mainly between people in close contact or through respiratory droplets produced by coughs and sneezes. The virus can survive on surfaces for hours to days but can be rendered inactive by routine cleaning and disinfection procedures. (See "Environmental Infection Control in Healthcare Setting" Section.)

Clinical Management and Treatment

Not all patients with COVID-19 infection require hospital admission. If supportive care at home is considered, clinicians should ensure the patient is medically stable, has appropriate caregivers available and is able to safely self-isolate at home. CDC has provided additional recommendations for home care in Interim Guidance for Implementing Home Care of People Not Requiring Hospitalization for Coronavirus Disease 2019 (COVID-19).

No specific treatment for COVID-19 is currently approved by the U.S. Food and Drug Administration (FDA). Clinical management should include prompt infection prevention and control measures and supportive medical care. A National Institute of Allergy and Infectious Diseases (NIAID)-funded study recently reported that adult hospitalized patients with lower respiratory tract infection who received the broad-spectrum antiviral drug Remdesivir recovered 4 days sooner than those who received placebo; FDA has issued an Emergency Use Authorization (EUA) for this drug. This antiviral is available for hospitalized patients only through the Oregon Health Authority; learn more about Oregon's Federal Remdesivir Allocation: Patient Criteria and Hospital Distribution.

National Institutes of Health (NIH) has also developed NIH COVID-19 Treatment Guidelines.

General Recommendations for All Healthcare Settings

Personal Protective Equipment (PPE) for Healthcare Personnel

PPE policies should, first and foremost, protect those in the healthcare setting from exposure. PPE supplies should be used responsibly to ensure they are available for patients and procedures for which they are most needed. PPE strategies must be supplemented by source control, including the rapid identification of patients with fever or respiratory symptoms, placement of a face covering or face mask on all patients, and isolation in a private room with the door closed. Effective hand hygiene, masking and standard precautions shall always be used by all HCP.

Minimum PPE necessary to evaluate patients with respiratory illness, suspected COVID-19, confirmed COVID-19, or a known exposure to COVID-19:

- Face mask
- Eye protection (face shield or goggles)
- Gown
- Gloves

Some patient care warrants a higher level of protection. See "Recommendations for Aerosol-Generating Procedures" and "Other Clinical Care Considerations".

Recommendations for Aerosol-Generating Procedures

Aerosol-generating procedures (AGPs) have been associated with an increased risk of transmission in healthcare settings. (See Appendix I for a non-exhaustive list of AGPs.)

If medically reasonable, AGPs for patients with suspect or confirmed COVID-19 or with known exposures to COVID-19 should be delayed.

When conducting (or assisting with) AGPs for patients with suspect or known COVID-19 or known exposure to COVID-19, HCP should utilize standard, contact, and airborne precautions, including:

- N95 respirator[1] or higher respiratory protection (includes powered air-purifying respirators [PAPRs])
- Eye protection (face shield or goggles)
- Gown
- Gloves

To minimize risk associated with these procedures, AGPs should be planned and bundled, when possible. Only HCP required for the procedure should be present. Whenever possible, AGPs should be performed in an airborne infection isolation room (AIIR). If a hospital is treating multiple suspect or confirmed cases of COVID-19, AIIRs should be prioritized for those with serious illness.

It is unknown how long infectious aerosols remain in the air when a patient remains in the room following an AGP. Continuation of standard, contact, and airborne precautions with eye protection for a period after aerosol-generation has ceased may provide time for contaminant removal. Facilities can assess room air changes/hour to inform the duration of this period by using the CDC Airborne Contaminant Removal Table.

Other clinical care considerations

Some clinical scenarios may increase the likelihood of exposure to droplets, aerosols, or the continuum of infectious particle sizes in between. Until more is known about the risk of these scenarios, N95 or higher-level respiratory protection may be warranted. Higher risk non-procedural clinical scenarios may include:

- Prolonged,[2] close-contact[3] care of a patient with suspect or known COVID-19, presenting with frequent coughing or severe respiratory illness.

---

[1] N95 respirators should be used by HCP that have been medically cleared, trained, and fit-tested in the context of a facility's Respiratory Protection Program. Additional information regarding N95 respirator use and fit-testing in the context of the COVID-19 pandemic, see OSHA website. A user seal check should be performed each time a N95 is put on.

[2] Prolonged generally refers to contact lasting 15 minutes or more, except when aerosol-generating procedures are being performed, in which case, contact of any duration should be considered prolonged. Clinical discretion should be used to define "significant" or "prolonged" exposures, given the type of care being provided and clinical presentation of the patient.

[3] Close-contact defined as within 6 feet.

- Prolonged[3] exposure to patients with suspect or known COVID-19 in poorly ventilated areas[4] or in settings where ventilation quality is not known.

To minimize risk associated with these procedures, limit room entry to essential HCP. Patient care should be bundled to increase efficiency and reduce overall exposure time. Ventilation systems should provide air movement from a clean (HCP workstation or area) to contaminated (sick patient) flow direction (along with appropriate filtration, exchange rate) and should be monitored to ensure proper installation and functioning.

Discontinuation of Transmission-based Precautions for Hospitalized Patients

Transmission-based precautions are discussed in the previous sections ("Personal Protective Equipment (PPE) for Healthcare Personnel" Section).

OHA has adopted CDC's guidance for Discontinuation of Transmission-Based Precautions for patients with confirmed COVID-19. Note that the test-based strategy is no longer recommended (exceptions noted below).

Symptom-Based Strategy for Discontinuing Transmission-Based Precautions.

Patients with mild to moderate illness who are not severely immunocompromised:

- At least 10 days have passed *since symptoms first appeared* **and**
- At least 24 hours have passed *since last* fever without the use of fever-reducing medications **and**
- Symptoms (e.g., cough, shortness of breath) have improved

Note: For patients who are **not severely immunocompromised** and who were **asymptomatic** throughout their infection, Transmission-Based Precautions may be discontinued when at least 10 days have passed since the date of their first positive viral diagnostic test.

Patients with severe to critical illness or who are severely immunocompromised:

- At least 20 days have passed *since symptoms first appeared* **and**
- At least 24 hours have passed *since last* fever without the use of fever-reducing medications **and**
- Symptoms (e.g., cough, shortness of breath) have improved

Note: For **severely immunocompromised** patients who were **asymptomatic** throughout their infection, Transmission-Based Precautions may be discontinued when at least 20 days have passed since the date of their first positive viral diagnostic test.

---

[4] Poor ventilation may result from a number of factors: size of the room, performance of the ventilation system, and use of supplemental heating and/or cooling. In hospital settings, a total air change per hour (ACH) of less than four may manifest as a poorly ventilated space.

A test-based strategy could be considered for severely immunocompromised patients if there was concern about shedding longer than 20 days. Test-based strategy criteria can be found in CDC's Discontinuation of Transmission-Based Precautions guidance.

Additional considerations:

- Meeting criteria for discontinuation of transmission-based precautions is not a prerequisite for discharge.
  - The decision to send the patient home should be made in consultation with the patient's clinical care team, and local or state public health departments. It should include considerations of the home's suitability for and patient's ability to adhere to home isolation recommendations. Guidance on implementing home care of persons who do not require hospitalization and the discontinuation of home isolation for persons with COVID-19 is available.
  - If a medically stable patient will be discharged to a long-term care facility and transmission-based precautions are still necessary, they should go to a facility with the ability to adhere to infection prevention and control recommendations for care of patients with COVID-19.
- If a patient tests negative for COVID-19, but a higher level of clinical suspicion for COVID-19 exists, consider maintaining transmission-based precautions and repeating the test.

Universal Source Control and Eye Protection

Fever and symptom screening may not capture all infected individuals due to the range of clinical presentations associated with SARS-CoV-2, which include mild and asymptomatic infections. These individuals, as well as COVID-19 patients during the pre-symptomatic phase, may be able to transmit the virus while unaware that they are infected.

Universal measures to protect those in the healthcare setting include:

- **Source control (i.e. universal masking) for patients and visitors.** Healthcare facilities shall have policies in place requiring all individuals who enter the facility to don a face covering or face mask while in the building. If a face covering or face mask is not available or is not tolerated by a patient, face shields can also be utilized. If a patient cannot tolerate any form of face covering due to a medical condition, strict physical distancing must be observed until the patient can be placed or roomed in an area that minimizes risk to others.
- **Source control (i.e. universal masking) for HCP.** HCP shall wear a face covering or face mask at all times while they are in the healthcare facility. Medical-grade face masks should be prioritized for HCP, as they offer both source control and protection for the HCP from potentially infectious droplets, splashes, or sprays. Cloth face coverings should not be worn instead of a respirator or face mask if more than source control is needed.
  - HCP shall ensure that the mask covers their nose and mouth at all times. HCP should avoid touching the outside (contaminated) surface of the mask. If HCP must adjust the mask, hand hygiene should be performed immediately after adjustment.

    - N95s or higher-level respiratory protection should replace face masks for patient care that warrants a higher level of protection (See “PPE for Healthcare Personnel” Section). Respirators with exhalation valves are not recommended for source control.

- **Universal eye protection for HCP.** Wearing eye protection in addition to face mask or an N95 respirator ensures the eyes, nose, and mouth are all protected from exposure to respiratory secretions during encounters in healthcare settings.
    - Due to the increased risk of spread in long-term care settings and the likelihood for close-contact exposures to residents and coworkers, long-term care facility staff should wear a face mask and eye protection (goggles or face shield) at all times within the facility (See “Extended Use of Personal Protective Equipment” Section).
    - HCP in other settings should consider the addition of eye protection to universal masking, particularly in scenarios where patients are unable to wear a face covering.

Universal use of PPE does not eliminate the need for physical distancing among HCP in the workplace.

CDC’s Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-2019) Pandemic provides additional information.

Extended Use of Personal Protective Equipment

Major distributors in the United States have reported shortages of PPE. In the context of limited supply, extended-use protocols for masks and eye protection are recommended for the care of cohorted patients. Extended use refers to wearing the same mask (face mask or respirator) or eye protection (goggles or face shield) for repeated encounters with several different patients, without removing them between encounters. HCP should take care not to touch their mask and eye protection. If adjustment is needed, they must immediately perform hand hygiene. Extended use of eye protection can be applied to disposable and reusable devices. Reusable eye protection should be removed and reprocessed if it become visibly soiled or difficult to see through.

Additional information about optimizing the use of PPE is available via CDC’s Optimize PPE Supply guidance.

Work Exclusion Determinations

Exclusion of HCP with suspect or confirmed COVID-19

In the context of sustained community transmission of COVID-19, all HCP should self-monitor for illness consistent with COVID-19 and should be screened for fever and symptoms prior to each shift.

HCP should be excluded from the workplace if they test positive via a COVID-19 viral (nucleic acid or antigen) test or have any of the following symptoms:

- Measured temperature >100.0° F or subjective fever
- Cough
- Shortness of breath
- Diarrhea

If symptoms develop at work, HCP must withdraw from patient-care activities immediately and notify their supervisor or occupational health services prior to leaving work.

See “HCP Return-To-Work Considerations” Section below.

See “Mitigating Staffing Shortages” Section below.

Exclusion of HCP based on exposure

Facilities may elect to exclude or furlough asymptomatic exposed HCP with known exposure to COVID-19 patients or coworkers. The following list describes the types of patient contact that would be considered high-risk exposures to a patient with COVID-19:

- Providing patient care that included AGPs without all required elements of full PPE (respirator, eye protection, gown, and gloves).
- Providing non-AGP care to an unmasked patient without a face mask or respirator and eye protection (goggles or face shield).
- Providing non-AGP care to a masked patient without a face mask or respirator.

Additional CDC resources for performing assessment of risk is available in the Interim U.S. Guidance for Risk Assessment and Work Restrictions for Healthcare Personnel with Potential Exposure to COVID-19.

See “Mitigating Staffing Shortages” Section below.

HCP Education

The following are topic areas to guide education for HCP regarding COVID-19 exposure and work exclusion:

Provide HCP resources for self-care. HCPs face tremendous challenges during a crisis like the COVID-19 pandemic. Depression, anxiety, and insomnia have been documented among HCP potentially exposed to COVID-19. Educate HCP about mental health and self-care resources. Examples:

- CDC Guidance for Stress and Coping
- Disaster Distress Helpline
- American Medical Association Managing Mental Health During COVID-19
- American Psychiatric Nurses Association Guidance for Managing Stress and Self-Care
- Physician Support Line

Educate all HCPs about the need to monitor themselves for symptoms. Given the potential for community-based exposures or unrecognized exposures in the healthcare system, all HCP should be instructed to monitor for fever and other symptoms of COVID-19.

Develop plan for what the HCP will do if they become symptomatic. Points of contact should be established for HCPs if they become ill. Educate HCP to self-isolate in their home should they become symptomatic, unless they need to seek medical care. Provide instructions for testing.

Discuss why these steps are being taken. If work exclusion is necessary, convey using non-punitive language why work exclusions are essential to prevent healthcare-associated infections.

Discuss when it would be appropriate to return to work. See “HCP Return-to-Work Considerations” Section.

HCP Return-to-Work Considerations

OHA has adopted CDC’s Return-to-Work guidance for HCP with suspect or confirmed COVID. Note that the test-based strategy is no longer recommended for routine return-to-work criteria.

Symptom-based strategy

HCP with mild to moderate illness who are not severely immunocompromised:

- At least 10 days have passed *since symptoms first appeared* **and**
- At least 24 hours have passed *since last* fever without the use of fever-reducing medications **and**
- Symptoms (e.g., cough, shortness of breath) have improved

Note: HCP who are **not severely immunocompromised** and were **asymptomatic** throughout their infection may return to work when at least 10 days have passed since the date of their first positive viral diagnostic test.

HCP with severe to critical illness or who are severely immunocompromised:

- At least 20 days have passed *since symptoms first appeared*
- At least 24 hours have passed *since last* fever without the use of fever-reducing medications **and**
- Symptoms (e.g., cough, shortness of breath) have improved

Note: HCP who are **severely immunocompromised** but who were **asymptomatic** throughout their infection may return to work when at least 20 days have passed since the date of their first positive viral diagnostic test.

Key practices for HCP returning to work include:

- Wear a face mask for source control at all times while in the healthcare facility (see "Universal Use of PPE" Section)
- Adhere to hand hygiene, respiratory hygiene, and cough etiquette in CDC's interim infection control guidance (e.g., cover nose and mouth when coughing or sneezing, dispose of tissues in waste receptacles)
- Self-monitor for symptoms and seek re-evaluation from occupational health or healthcare provider if respiratory symptoms recur or worsen.

A test-based strategy could be considered to allow HCP to return to work earlier than if the symptom-based strategy was used. It could also be considered for severely immunocompromised HCP if there was concern about viral shedding longer than 20 days. Test-based strategy criteria and additional information about Return-to-Work can be found in CDC Return-to-Work Criteria guidance.

Mitigating Staffing Shortages

Maintaining appropriate staffing levels is key to providing a safe work environment. If a healthcare facility has insufficient staffing for the safe provision of essential care and has exhausted options to identify additional HCP, they can allow asymptomatic HCP who have had a healthcare exposure to SARS-CoV-2 but are not known to be infected to continue to work (see CDC Interim U.S. Guidance for Risk Assessment and Work Restrictions for Healthcare Personnel with Potential Exposure to COVID-19). The following should be in place to utilize this approach:

- Entry screening for HCP to monitor for signs and symptoms of COVID-19. Symptomatic HCP should mask, leave the patient care area, and notify their supervisor.
- Staff are adhering to universal source control recommendations. (See "Universal Source Control and Eye Protection" Section)

In a **crisis scenario only**, the usual standard of care for return-to-work for asymptomatic HCP with COVID-19 may not be able to be followed due to critical HCP staffing shortages. If available staffing, despite all other available accommodations (use of SERV-OR or Medical Reserve Corps volunteers, hiring from staffing agencies, etc.), is insufficient to provide needed patient care, healthcare facilities, with approval from local and state public health officials, *may* determine that HCP with asymptomatic, laboratory-confirmed COVID-19 infections could potentially return to work earlier than specified above, as long as they follow all recommended return-to-work practices.

See additional CDC guidance on Strategies to Mitigate Healthcare Personnel Staffing Shortages.

Managing PPE Supply Issues

Healthcare facilities should develop processes to facilitate ongoing PPE inventory, ensuring that facility supply-chain managers and infection prevention staff are in communication about PPE shipment or order delays as well as increased PPE needs to support training, fit testing, and patient care. Should a potential PPE shortage be identified, the following steps should be taken:

1. Review guidance on PPE supply optimization and implement conservation strategies as appropriate. See the following guidance:

    a. OHA/OR-OSHA Use of PPE by Healthcare Personnel in Resource Constrained Settings. *Provides a tiered approach to PPE optimization strategies organized by type of PPE and level of shortage.*

    b. CDC's Optimizing Supply of Personal Protective Equipment and Other Equipment During Shortages resources. *Includes optimization strategies for N95 respirators, PPE FAQ's, and contingency and crisis scenario PPE considerations.*

2. Define severity of the shortage. Note when interruptions in clinical operations would occur if the shortage were to persist.

3. Determine whether other PPE vendors can be utilized and review current contract specifications.

4. Leverage mutual-aid agreements and memoranda of understanding (MOUs) to obtain PPE supply from healthcare partners.

5. If all internal and partner-based options to obtain sufficient PPE supply have been exhausted, contact your local public health authority.

Environmental Infection Control in Healthcare Settings

Dedicated medical equipment should be used for patients with suspect or known COVID-19. Routine cleaning and disinfection procedures (i.e. pre-clean surfaces prior to 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 COVID-19 in healthcare settings. EPA's list of products for use against SARS-CoV-2 is available to support appropriate disinfectant selection.

Testing Guidance

Updated OHA COVID-19 Testing Guidance for Health Care Providers is available at OHA website and is updated regularly to reflect changes in testing capacity and priorities.

Recommendations for Outpatient and Urgent-Care Settings (Not Including Emergency Departments)

Outpatient Facilities Triage and Evaluation

Outpatient facilities commonly see patients with COVID-19-like symptoms. The Oregon Health Authority offers the following guidance in order to reduce the potential risk of community spread of COVID-19 through outpatient facilities:

For All Patients:

1. Screening: When any patient calls to schedule a visit, screen the patient by phone for (1) fever or acute respiratory symptoms, (2) domestic or international travel within the last 14 days to areas with high prevalence of COVID-19, (3) cruise ship travel within the past 30 days, and (4) contact with someone with known or suspected COVID-19 or ill with respiratory symptoms. Delay routine or non-urgent visits until symptoms have resolved. See additional guidance below for patients with acute respiratory illness or fever.

2. Separating well from ill patients: Primary care practices should use strategies to separate well visits from sick visits. This could include:

    a. Scheduling sick visits and preventive care visits during different times of the day
    b. Reducing crowding in waiting rooms, by asking patients to remain outside (e.g., stay in their vehicles until called into the facility for their appointment, or setting up outdoor triage screening)
    c. For multi-facility practices, consider identifying separate locations for preventive visits only

3. Immunizations: As counties reopen, HCP should identify children and adolescents who have missed well-child visits and/or recommended vaccinations and contact them to schedule immunizations. Providers may consider creating “drive up” immunization delivery systems (e.g., in-car parking lot vaccinations) for patients who are due for routine immunizations.

For Patients with Acute Respiratory Illness or Fever (See Figure 1 for additional guidance):

1. Consider using telemedicine to evaluate these patients when appropriate.

2. In general, any patient with symptoms consistent with COVID-19 should be tested. For detailed testing guidance, including priority groups if resources are limited, please see COVID-19 Testing Guidance for Health Care Providers.

3. Providers are encouraged to use “drive-through” dedicated COVID-19 testing sites.

4. For patients requiring in-person clinical evaluation, consider alternative routes of entry/exit and alternative waiting areas in order to minimize interaction with other patients and healthcare workers.

5. Implement respiratory hygiene and cough etiquette. Patients shall wear a face covering or face mask during their visit (See “Universal Source Control and PPE” Section).

Masks should be readily available at all entries/exits and clear signage in relevant languages should reinforce their use.

6. Patients shall not wait in lobbies or waiting rooms. Immediately place patients in a private room with the door closed. If available, consider use of an AIIR, prioritizing AIIR use for those with severe respiratory illness. Ideally, the patient should not be placed in any room where room exhaust is recirculated within the building without HEPA filtration.

7. HCP evaluating patients suspected to have COVID-19 shall don appropriate personal protective equipment (PPE), see “Personal Protective Equipment for Healthcare Personnel” Section.

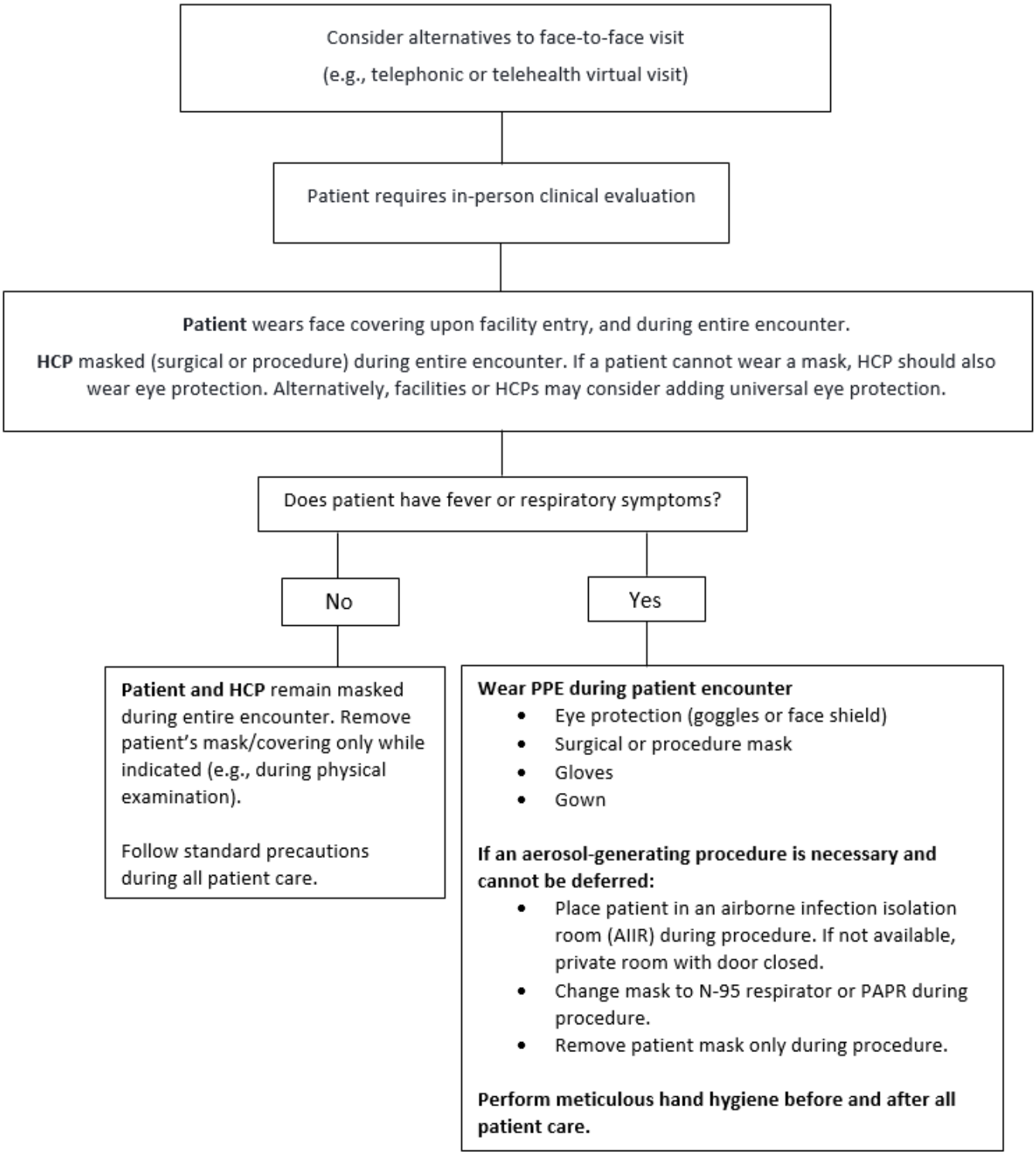
8. Consider strategies to minimize the number of HCP interacting with patients, e.g., alternative check-in procedures and asking providers to room patients directly.

9. It is unknown how long SARS-CoV-2 persists in various environments, but contact-based transmission is believed to play some role in the spread of the virus. The patient room must be appropriately cleaned and disinfected between patients. See “Environmental Infection Control in Healthcare Settings” Section. If medical needs are non-urgent, attempt to schedule those with respiratory illness for the end of the day when possible.

Collection of Respiratory Specimens in Outpatient Settings

Providers are encouraged to use “drive through” dedicated COVID-19 testing sites. Any type of patient care that involves prolonged, close contact or direct contact with respiratory secretions should be minimized. If specimen collection is necessary, nasopharyngeal swabs (NP), nasal swabs or nasopharyngeal washes can be performed using contact and droplet precautions with surgical mask and eye protection. Institutions may choose to use an N95 respirator based on risk assessment of the patient. Severely ill patients who will be transferred to a higher level of care should not be tested in an outpatient setting; testing should be deferred until the patient is hospitalized.

Figure 1. Suggested Approach for HCP Personal Protective Equipment (PPE) While Evaluating All Patients in Ambulatory Settings



Recommendations for Hospitals (Includes Emergency Departments [EDs] and Inpatient Settings)

Hospital Triage and Evaluation

Symptom, travel, and exposure screening
All patients should be screened for (1) fever or acute respiratory symptoms, (2) domestic or international travel within the last 14 days to areas with high prevalence of COVID-19, (3) cruise ship travel within the past 30 days, and (4) contact with someone with known or suspected COVID-19 or ill with respiratory symptoms.

Though travel to geographic areas with sustained transmission is no longer the primary mode of exposure to the virus that causes COVID-19, we recommend continued implementation of a travel screen that identifies those with international travel in the last 14 days (30 days is also a reasonable time frame). This will facilitate identification of travel-associated cases and those at risk for other serious travel-associated infections; and support ongoing high-impact pathogen preparedness in the healthcare setting.

Rapid triage
When possible, instruct patients to call ahead and inform clinic or hospital staff when they have respiratory symptoms. Remind patients to adhere to respiratory etiquette and to don a cloth face covering or face mask upon entry to the facility. Ensure PPE and an appropriate room are available to minimize exposure to other patients and providers. Identify a separate, well-ventilated space (prioritize AIIR use for those with severe respiratory illness). Instruct patients to remain at least six feet from others and to observe respiratory etiquette, including placement of a face covering.

Place signs or posters at entryways, requesting that patients don a cloth face covering or face mask and apply hand sanitizer if they have fever, cough, or difficulty breathing. Signage is available at the OHA website.

Tracking people who enter patient room
Facilities should be prepared to maintain a log of HCP and visitors who enter the room of any patient with known or suspected COVID-19. Contact information should be collected to facilitate follow-up, if needed.

Communication plans
Develop an internal communication plan to alert key internal staff (e.g., hospital epidemiologists, infection preventionists, frontline staff, occupational health, laboratory, nursing supervisors, leadership, etc.) promptly about known or suspected cases of COVID-19.

A confirmed case of COVID-19 must be reported to the local public health authority (LPHA) within 24 hours. (See LPHA contact information in Appendix II.)

Collection of Respiratory Specimens in Hospitals

Respiratory specimen collection procedures known to generate aerosols (e.g., sputum induction, bronchoscopy, open suctioning) require standard, contact, and airborne precautions with eye protection, as discussed above. For other modes of respiratory specimen collection, HCP should perform a risk assessment of the patient. Severely ill and heavily symptomatic patients may require standard, contact, and airborne precautions with eye protection for specimen collection procedures, including NP specimen collection.

Visitor Policy Recommendations

On March 19, 2020, Governor Brown issued Executive Order No. 20-22 which directed the Oregon Health Authority (OHA) to provide guidance on visitation and screening at hospitals in order to ensure the safety of patients and health care workers and to slow the spread of COVID-19. COVID-19 Guidance for Entry into Acute Health Care Facilities is available here.

Guidance for Collection and Submission of Postmortem Specimens

Autopsy procedures should be performed with standard, contact, and airborne precautions with eye protection (goggles or a face shield) due to the likelihood for aerosol-generation.

For specimen collection, infection control, and biosafety considerations for a deceased person under investigation, see CDC's Interim Guidance for Collection and Submission of Postmortem Specimens from Deceased Persons Under Investigation for COVID-19.

Resources for Specialized Healthcare Providers and Settings

Long-Term Care Facilities (LTCFs)

- See previous sections for detailed guidance for all healthcare settings regarding:
  - Personal Protective Equipment (PPE)
  - Discontinuation of Transmission-Based Precautions
  - Universal Source Control and Eye Protection
  - Extended Use of PPE
  - Work Exclusion Determinations
  - Return-to-Work Considerations
  - Managing PPE supply
  - Environmental Infection Control
- See OHA COVID-19 Healthcare Partner Resources webpage for LTCF-specific updates regarding COVID-19 and the LTCF COVID-19 Response Toolkit.
- CDC Resources:
  - Preparing for COVID-19 in Nursing Homes
  - Responding to Coronavirus (COVID-19) in Nursing Homes
  - Testing Guidelines for Nursing Homes
  - Interim Guidance on Testing Healthcare Personnel for SARS-CoV-2
  - Considerations for Memory Care Units in Long-term Care Facilities

- Considerations for Preventing Spread of COVID-19 in Assisted Living Facilities
- Infection Prevention and Control Assessment Tool for Nursing Homes Preparing for COVID-19

Outpatient Hemodialysis Facilities

- See previous sections for detailed guidance for all healthcare settings regarding:
  - Personal Protective Equipment (PPE)
  - Universal Source Control and Eye Protection
  - Extended Use of PPE
  - Work Exclusion Determinations
  - Return-to-Work Considerations
  - Managing PPE supply
  - Environmental Infection Control
- CDC Resources:
  - Infection Prevention and Control for Outpatient Hemodialysis Facilities
  - Coronavirus Disease 2019 (COVID-19) Outpatient Dialysis Facility Preparedness Checklist
- CMS guidance for dialysis facilities

First Responders

See OHA COVID-19 Healthcare Partner Resources webpage for COVID-19 updates specific to emergency medical services (EMS), law enforcement and public safety answering points (PSAPs).

See CDC guidance for first responders, including emergency medical services (EMS), law enforcement, and emergency management officials .

Appendix I

Aerosol-generating procedures[5] include, but are not limited to:

- Intubation, extubation, and related procedures such as manual ventilation and open suctioning
- Cardiopulmonary resuscitation
- Tracheotomy/tracheostomy procedures (insertion/open suctioning/removal)
- Bronchoscopy
- Surgery and post-mortem procedures involving high-speed devices
- Some dental procedures (such as high-speed drilling)
- Non-invasive ventilation (NIV) such as bi-level positive airway pressure (BiPAP) and continuous positive airway pressure ventilation (CPAP)
- High-frequency oscillating ventilation (HFOV)
- High-flow nasal oxygen (HFNO), also called high-flow nasal cannula
- Induction of sputum
- Medication administration via continuous nebulizer

[5] Note: this list is not exhaustive. Please discuss activities not described with your Infection Control Department.

Appendix II

Local Public Health Authority Contact Numbers

(updated Feb 2020)

County	General	CD Nurse	CD Fax	Env Health	Animal Bites	After Hours CD
Baker	541-523-8211	General	541-523-8242	General	General	541-523-6415
Benton	541-766-6835	General	541-766-6197	541-766-6841	EH	541-766-6835
Clackamas	503-655-8411	503-655-8411	503-742-5389	503-655-8411	CD	503-655-8411
Clatsop	503-325-8500	General	503-325-8678	General	General	503-791-6646
Columbia	503-397-7247	971-757-4003	503-893-3121	503-397-7247 Env Health & Animal Bite Fax 888-204-8568	EH	503-397-7247
Coos	541-266-6700	541-266-6700	541-888-8726	541-266-6720	541-266-6720	541-266-6700
Crook	541-447-5165	General	541-447-3093	541-447-8155	General	541-447-5165
Curry	541-425-7545	541-373-8118	541-425-5557	541-251-7074	EH	541-425-7545
Deschutes	541-322-7400	541-322-7418	541-322-7618	541-388-6566	EH	541-322-7400
Douglas	541-440-3571	541-440-3684	541-464-3914	541-317-3114	EH	541-440-3571
Gilliam*	541-506-2600	General	541-506-2601	541-506-2603	General	541-506-2600
Grant	541-575-0429	General	541-575-3604	General	General	541-575-0429
Harney	541-573-2271	541-573-2271	541-573-8388	541-575-0429	EH	541-573-2271
Hood River	541-386-1115	541-387-7110	541-386-9181	541-387-6885	541-387-7110	541-386-1115
Jackson	541-774-8209	General	541-774-7954	541-774-8206	General	541-774-8209
Jefferson	541-475-4456	General	541-475-0132	General	General	541-475-4456
Josephine	541-474-5325	General	541-474-5353	General	General	541-474-5325
Klamath	541-882-8846	541-882-8846	541-850-5392	541-882-8846	General	541-891-2015
Lake	541-947-6045	General	541-947-4563	General	General	541-947-6045
Lane	541-682-4041	General	541-682-2455	541-682-4480	EH	541-682-4041
Lincoln	541-265-4112	General	541-265-4191	541-265-4127	EH	541-265-4112
Linn	541-967-3888	541-967-3888 x2488	541-924-6911	541-967-3821	EH	541-967-3888
Malheur	541-889-7279	541-889-7279	541-889-8468	541-473-5186	EH	541-889-7279
Marion	503-588-5342	503-588-5621	503-566-2920	503-588-5346	EH	503-588-5342
Morrow	541-676-5421	General	541-676-5652	541-278-6394	General	541-676-5421
Multnomah	503-988-3674	503-988-3406	503-988-3407	503-988-3400	CD	503-988-3406
Polk	503-623-8175	General	503-831-3499	503-623-9237 x1442	EH	503-932-4686
Sherman*	541-506-2600	General	541-506-2601	541-506-2603	General	541-506-2600
Tillamook	503-842-3900	503-842-3912	503-842-3983	503-842-3902	EH	503-842-3900
Umatilla	541-278-5432	General	541-278-5433	General	General	541-314-1634
Union	541-962-8800	541-910-7209	541-963-0520	General	541-910-7209	541-962-8800
Wallowa	971-673-1111	971-673-1111	971-673-1100	971-673-0440	541-426-3131	971-673-1111
Wasco*	541-506-2600	General	541-506-2601	971-673-0440	General	541-506-2600
Washington	503-846-3594	503-846-3594	503-846-3644	503-846-8722	503-846-3594	503-412-2442
Wheeler	541-763-2725	General	541-763-2850	General	General	541-763-2725
Yamhill	503-434-7525	503-434-4715	503-434-7549	General	CD	503-434-7525

**operated jointly as North Central Public Health District*

www.healthoregon.org/lhddirectory

You can get this document free of charge in other languages, large print, braille or a format you prefer. Contact Mavel Morales at 1-844-882-7889, 711 TTY or OHA.ADAModifications@dhsoha.state.or.us.