Steve Sisolak
Governor

Richard Whitley
Director

Crisis Standards of Care

Crisis Level Guidance for COVID-19

State of Nevada

Department of Health and Human Services

Division of Public and Behavioral Health

Governor Sisolak's Medical Advisory Team for the COVID-19 Response

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Crisis Level Guidance for COVID-19

The Nevada Crisis Standards of Care (CSC) Plan has been activated. Initial guidance for resource sparing strategies based upon shortages of space, staff, and supplies throughout Nevada's statewide healthcare system are provided. These recommendations may change as the situation evolves in Nevada. The content in this plan is specific to the COVID-19 response and assumes the situation has reached the "crisis" level of the overall CSC Plan.

COVID-19 Situation Summary

The Nevada Department of Health and Human Services and partner agencies across the state are responding to a pandemic of respiratory disease caused by a novel (new) coronavirus (COVID-19). COVID-19 can cause mild to severe illness; most severe illness occurs in older adults. Symptoms of COVID-19 most often include fever, cough, and shortness of breath. When someone develops the following emergency warning signs, they should seek medical attention immediately.

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

This situation is spreading in regions around the globe including the United States and Nevada. There is little data available to accurately predict the timing of increased service need in response to this pandemic, but evidence from other affected regions in the world suggest the healthcare resources in Nevada will become overwhelmed.

How COVID-19 Spreads

There is much to learn about the newly emerged COVID-19, including how and how easily it spreads. Based on what is currently known about COVID-19 and what is known about other coronaviruses, spread is thought to occur mostly from person-to-person via respiratory droplets among close contacts.

Close contact can occur while caring for a patient, including:

- being within approximately 6 feet (2 meters) of a patient with COVID-19 for a prolonged period of time.
- having direct contact with infectious secretions from a patient with COVID-19. Infectious secretions may include sputum, serum, blood, and respiratory droplets.

If close contact occurs while not wearing all recommended PPE, healthcare personnel may be at risk of infection.

Additional Guidance for Crisis Standards of Care

This document is only intended to supplement the full "Nevada Crisis Standards of Care (CSC) Plan." For additional guidance see the full document that includes the following section: Ethical Considerations, the State Disaster Medical Advisory Team (SDMAT) Roles and Responsibilities, Healthcare Resource Maximization, Triage, Emergency Medical Services, Hospitals, Out of Hospital Providers, Alternate Care Sites, Access and Functional Needs Considerations, Public Information, Communications Plans and Protocols, and Legal Considerations.

Updates to Guidance

This document is the foundation for the response and additional guidance will be published through technical bulletins as the situation develops. These supplemental guidance documents can be found on the Division of Public and Behavioral Health webpage: Technical Bulletins

Nevada Crisis Standards of Care - Code of Ethics

Overview

The NV CSC Code of Ethics was developed to assist decision-makers, healthcare providers, and healthcare practitioners in ethical decision-making processes during catastrophic public health emergencies. This code of ethics is not intended to apply to localized emergency incidents of limited duration, emergencies not impacting population health, or emergencies where critical medical resource allocation decisions are not required to protect the population's health.

The ethical principles and code language outlined below were developed by the NV CSC Ethical and Legal Workgroup for application during catastrophic public health emergencies. The workgroup carefully considered public health ethical principles, community values obtained from feedback during the public engagement campaign, and information collected from several states during the development of the NV CSC Code of Ethics.

Application

During a catastrophic public health emergency in which the NV CSC Plan is activated, the SDMAT may develop CSC recommendations for dissemination to the public health agencies, healthcare providers, and healthcare practitioner network. The NV CSC Code of Ethics is provided to help guide decision-making and implementation processes. The NV CSC Code of Ethics is intended to supplement, not supplant, relevant existing codes of ethics for public health practitioners, healthcare facilities, healthcare providers, emergency medical services, and other entities involved in CSC responses.

Definitions of Key Terms

- Decision-makers: Persons tasked with making decisions regarding emergency responses or the allocation of scarce resources during a public health emergency on behalf of governmental bodies (e.g., federal, state, tribal, or local) or private sector entities (e.g., emergency response organizations, hospitals, healthcare providers, health insurance companies, or pharmaceutical companies).
- Healthcare practitioner: A person that furnishes healthcare or public health services.
- Healthcare provider: An organization or institution that provides healthcare or public health services.
- Public health emergency: Either (1) a declared state of emergency or public health emergency in which the health of the public is at risk; or (2) circumstances that require implementing a crisis standard of care as defined by IOM.

Core Ethical Guidelines:

1.0 Justice and Fairness. Justice and fairness are the moral and social principles that attempt to allocate scarce medical resources and services which are consistent, equitable, and non-discriminatory.

1.1 While the focus is on saving the greatest number of individuals for the benefit of the community instead of the individual, responses to disaster must not exacerbate disparities or access to care. The level of service to any one individual should be consistent with the above focus.

1.2 Persons critical to protecting the health and safety infrastructure may receive additional support to provide their services.

1.3 Distinctions among patients ought to be based on medical assessment and probable success of treatment.

1.4 The timing and content of a just system ought not to fall to individual healthcare providers.

1.5 The needs of particularly vulnerable groups should be addressed to ensure that a greater burden does not fall to those groups.

1.6 No prevailing treatment will establish the right to receive treatment. All treatment decisions ought to be based on resource availability and the best information available.

2.0 Duty to care. Healthcare practitioners have an ethical obligation to provide care during a response to a catastrophic public health emergency.

2.1 The care provided by healthcare practitioners will necessarily differ from the care they provide under conventional conditions.
2.2 Circumstances may require traditional patient-provider relationships be limited or altered.
2.3 To the extent possible, patients will not be abandoned.
2.4 Government and healthcare institutions should support healthcare practitioners in meeting conflicting duties or obligations.
2.5 Healthcare practitioners may face disproportionate burdens or greater risks for the benefit of the community. Healthcare professionals may be prioritized for support and services to enable them to provide continued service to the community.
2.6 During a catastrophic public health emergency, patients may not receive all levels of care.
2.7 Patients who are unable to receive conventional care or contingency care because capacities are overwhelmed should receive alternative forms of treatment or care, which may include palliative or comfort care if possible.

3.0 Proportionality. Burdensome requirements, (e.g., social distancing or school closures), should be commensurate with the scale of the catastrophic public health emergency and promise clear benefits that outweigh the burdens.

3.1 Government authorities should not overburden the public with restrictions. Restrictions should be as narrow as possible to address the needs of the community.
3.2 Restrictive measures will be utilized only when essential to the response.

4.0 Duty to steward resources. Decision-makers at all levels should allocate scarce resources and services to preserve their effectiveness and impact.

4.1 To the extent possible, scarce resources must be managed during a catastrophic public health emergency to minimize morbidity and mortality.
4.2 When resources are scarce, the patient who is most likely to medically benefit from the use of resources should be given priority.

5.0 Transparency. Officials should provide planning information to the community prior to a catastrophic public health emergency to facilitate public input. During such an event, officials should maintain clear communications with the community to provide situational and policy decision information.

5.1 During planning phases, officials should communicate clearly plans currently in place. Decisions should be open to public input and justifications for those decisions clearly explained.
5.2 Planning activities should be characterized by consideration of community values and priorities, response to public comment, commitment to ongoing revision of policy based on dialogue and data, and accountability for support and implementation.
5.3 During a catastrophic public health emergency, officials have an obligation to communicate to the community the decisions that have been made and the justification for those decisions.

6.0 Accountability. Agencies, healthcare practitioners, and healthcare providers at all levels of the healthcare system should accept and act upon their responsibilities.

6.1 Decision-makers and those responding to catastrophic public health emergencies, including healthcare practitioners and healthcare providers, are responsible for their actions (including failure to act).
6.2 The practitioner duty to care obligation is not absolute and practitioners may face conflicting ethical obligations, such as family obligations, performing procedures outside of a practitioner's scope of practice, or endangerment by caring for patients.

7.0 Respect for persons. To the extent possible, basic respect of a person's autonomy, dignity, privacy, and bodily integrity must be maintained, including honoring a patient's wishes.

7.1 In communication with the patient and family, healthcare practitioners and healthcare provider staff should be truthful and candid about a person's condition.

Duty to plan

8.0 Duty to plan. Government, healthcare providers, and the healthcare system have a responsibility to plan to the best of their abilities for catastrophic public health emergencies.

Emergency Medical Services

Preparedness for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for COVID-19

Emergency medical services (EMS) play a vital role in responding to requests for assistance, triaging patients, and providing emergency medical treatment and transport for ill persons. However, unlike patient care in the controlled environment of a healthcare facility, care and transports by EMS present unique challenges because of the nature of the setting, enclosed space during transport, frequent need for rapid medical decision-making, interventions with limited information, and a varying range of patient acuity and jurisdictional healthcare resources.

When preparing for and responding to patients with confirmed or possible coronavirus disease 2019 (COVID-19), close coordination and effective communications are important among 911 Public Safety Answering Points (PSAPs)—commonly known as 911 call centers, the EMS system, healthcare facilities, and the public health system. Each PSAP and EMS system should seek the involvement of an EMS medical director to provide appropriate medical oversight. For the purposes of this guidance, "EMS clinician" means prehospital EMS and medical first responders. When COVID-19 is suspected in a patient needing emergency transport, prehospital care providers and healthcare facilities should be notified in advance that they may be caring for, transporting, or receiving a patient who may have COVID-19 infection.

Full CDC Preparedness Checklist: Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for COVID-19 in the United States

Dispatch Tactics

- Decline response to calls without evident potential threat to life (also requires medically trained dispatcher and dispatch protocol changes at the regulatory level)
- Place additional staff in Emergency Back-Up Communications Center (EBUCC) and regional Emergency Operations Center (EOC) (if available)
- Decline response to unknown problem/ unknown injury incidents until known illness/injury can be confirmed

Response Tactics

- Utilize scheduled BLS providers to answer emergency calls
- Change staffing to one medical provider, one driver
- Further modify resource assignments as possible

Patient Assessment and Treatment Tactics

- Assess patients and decline to transport those without significant injury/illness (according to guidance from EMS medical director)
- Provide alternative resources/ destination/transportation to definitive care dependent on the crisis occurring
- Treat and triage as appropriate given the circumstances and approved by the medical director as recommended by the State Disaster Medical Advisory Team

Patient Transportation Tactics

- Continue to assess patients and decline to transport those without significant injury/illness (according to guidance from EMS medical director)
- Employ batch transports, as needed
- Request all available air resources (i.e., rotor, fixed wing, National Guard, Navy) for critical patients
- Transport will be based on triage guidelines and bed availability, as established based on the crisis
- Allow the combining of resources from different agencies (e.g., staff from one agency paired with equipment from another agency)

Long Term Care Facilities

What facilities should do when there are cases in their facility or sustained transmission in the community.

Healthcare Personnel Monitoring and Restrictions:

- Implement universal use of facemask for HCP while in the facility.
- Consider having HCP wear all recommended PPE (gown, gloves, eye protection, N95 respirator or, if not available, a facemask) if adequate resources are available, for the care of all residents, regardless of presence of symptoms. Implement protocols for extended use of eye protection and facemasks.
- If there is a shortage of PPE, standard and droplet precautions should be taken for all patients with signs or symptoms of COVID-19.

Resident Monitoring and Restrictions:

- Encourage residents to remain in their room. If there are cases in the facility, restrict residents (to the extent possible) to their rooms except for medically necessary purposes.
    - If they leave their room, residents should wear a facemask, perform hand hygiene, limit their movement in the facility, and perform social distancing (stay at least 6 feet away from others).
- Implement protocols for cohorting ill residents with dedicated HCP.

Nursing Homes and Long-Term Care Facilities Preparedness

Nursing homes and other long-term care facilities can take steps to assess and improve their preparedness for responding to coronavirus disease 2019 (COVID-19). Each facility will need to adapt this checklist to meet its needs and circumstances based on differences among facilities (e.g., patient/resident characteristics, facility size, scope of services, hospital affiliation). This checklist should be used as one tool in developing a comprehensive COVID-19 response plan. Additional information can be found at www.cdc.gov/COVID-19. Information from state, local, tribal, and territorial health departments, emergency management agencies/authorities, and trade organizations should be incorporated into the facility's COVID-19 plan. Comprehensive COVID-19 planning can also help facilities plan for other emergency situations.

- Limit how germs can enter the facility. Cancel elective procedures, use telemedicine when possible, limit points of entry and manage visitors, screen patients for respiratory symptoms, encourage patient respiratory hygiene using alternatives to facemasks (e.g., tissues to cover cough).
- Isolate symptomatic patients as soon as possible. Set up separate, well-ventilated triage areas, place patients with suspected or confirmed COVID-19 in private rooms with door closed and private bathroom (as possible), prioritize AIIRs for patients undergoing aerosol-generating procedures.
- Protect healthcare personnel. Emphasize hand hygiene, install barriers to limit contact with patients at triage, cohort COVID-19 patients, limit the numbers of staff providing their care, prioritize respirators and AIIRs for aerosol-generating procedures, implement PPE optimization strategies to extend supplies.

Full CDC Preparedness Checklist: Preparedness Checklist for Nursing Homes and other Long-Term Care Settings

Healthcare Workforce

Reassign HCPs to Needed Areas

Healthcare professionals may have experience that will be useful for patients needing a higher level of care than where they are currently assigned. Hospitals should grant opportunities for these highly skilled staff members to be reassigned to assist in other areas of the hospital or healthcare system to best meet the needs of the current situation. Licensing boards should consider allowing healthcare professionals, like APRNs, to advance to full independent practice for the duration of the crisis.

Medical Reserve Corp

During the COVID-19 response, the Nevada Medical Reserve Corp should be call upon to fill vital roles in the healthcare system, including healthcare professionals, behavioral health professionals, and other volunteers with skills and experience that may be helpful for a coordinated response. Volunteers should register at State Emergency Registry of Volunteers – Nevada (SERV-NV). Medical Reserve Corp is a cadre of medical and non-medical volunteers who are pre-identified, credentialed, trained, background-checked, and ready to be deployed in case of a disaster. The Department of Health and Human Services, Southern Nevada Health District, Washoe County Health District, Carson City Health and Human Services and partner agencies may call upon these volunteers to aid in the response.

Students Going into the Healthcare Field

Students may become a valuable workforce during the COVID-19 crisis. State and local officials should work with the dean of the medical schools in the state to assess how these highly motivated and medically training students may be used during a crisis. Examples of possible roles they may be used for:

- Telemedicine – They may be able to triage calls, assess severity of patient, and direct potentially infected individuals to the resources they need.
- Non-COVID-19 Healthcare – In extreme circumstances and in concurrence with the Dean of their respective medical school, medical students may work under a resident physician in a healthcare setting where COVID-19 is not likely to be present. This will help ease the burden of the other healthcare personnel that can be better utilized on COVID-19 patients in an intensive care unit or other COVID-19 response needs.
- Prior Certifications – Many medical students may have prior experience and certifications that may be leveraged in a crisis. Some of these may include EMT, Paramedic, nurse, physician assistant, etc.
- Student Volunteers – This population may be used in other areas in the community needing additional resources to preform supportive services.

Out of State/Country Reciprocity

As the situation reaches the crisis stage of the CORIV-19 response, reciprocity of licensure should be considered for healthcare personnel holding licenses in other states and possibly other countries. In advance of the need, this will require steps to be taken by the licensing boards to ensure the ability to verify credentials and licenses of incoming healthcare personnel. Licensing boards for healthcare professionals should extending temporary licenses to decrease the amount of time needed to get workforce resources in place.

Behavioral Health

The psychological components of infectious disease and pandemic events will be among the most prevalent, enduring, health consequences. Specific behavioral health (BH) response strategies are needed and behavioral health professionals may be called upon to aid in the response to a crisis. It may become necessary to call upon volunteers in the community to assist with behavioral health resources.

Main issues identified

Emerging infections disease (EID) events that result in high levels of morbidity and mortality cause psychological morbidity and likely **quickly exceed the capacity of traditional disaster mental health (MH) service delivery approaches and capacity**. Single session interventions including psychological first aid may lead to inappropriate resource allocation in scare resource contexts.

During the event there may be a surge of acute psychological emergencies; some who seek treatment prophylactically; and others who will endure chronic MH effects. **MH consequences on healthcare workers may result in significant degradation in capacity of the emergency health workforce.**

Behavioral adherence to public health containment strategies by the general public and healthcare workforce is of great importance. **Proactively addressing strategies to enhance behavioral adherence across incident phases may enhance the full benefit of non-pharmaceutical strategies.** To the extent the public is able to understand how to psychologically cope with difficult news, they will be more likely to adhere to recommendations, become active partners, and adhere to recommended public health actions.

As a pandemic evolves, **additional at-risk groups, in addition to traditional special populations, will include those experiencing traumatic loss and complicated bereavement for those coping with a seriously ill family/self/friends, and special healthcare conditions.** [Comment from Dr. Freeman: Unique to this pandemic is the stress on families due to the prolonged period of teleworking parents, balancing childcare and homeschooling; this and other factors may lead to an increase in child abuse/neglect.] Customized strategies are needed.

A novel population-level behavioral and psychosocial consequence management strategy is proposed:

1. Anticipate-Plan-Deter Personal Resilience System
    a. Facilitation of psychological coping with information – there is a need to cope with complicated and rapidly changing risk messaging, media reports, rumors as event evolves. Individual develops information management strategy.
    b. EID-specific version of Listen, Protect, and Connect Family to Family Psychological First Aid – built-in, self-guided solution-focused triage; coping skills, focused on natural support systems.
    c. Coping strategies for anticipated stressors by each response phase – coping within altered standards of care, scarce resources, impact of community containment measures.

2. PsySTART Incident Management System (Real-time MH/BH triage system)
    a. Purpose and function is to determine which populations are at greatest risk and align care in a surge environment
    b. Population-level, web-based, solution-focused self-triage capability
    c. Customized individualized coping strategies are based on the individual's self-triaged prioritized needs
    d. At local/state level, this strategy provides capability for allocation of limited professional MH resources to those with greatest risk in future pandemic stages
    e. Three versions are used:
        i. Victim systems (adult & child) at hospitals, triage locations, shelters, schools
        ii. General population self-triage via state and local public links
        iii. Medical first responder triage app

Considerations for Behavioral Health

During the COVID-19 response, there are 3 focus areas that need to be considered for behavioral health: the general public, healthcare professionals, and the continuation of care for persons with serious mental illnesses and substance dependency. The Medical Advisory Team (MAT) should develop a response around the following:

MAT Considerations for **Behavioral Health**	1. Public messaging and recommendations for healthcare and behavioral health practitioners regarding the behavioral impact on the general population. 2. Behavioral health impact on the responder and healthcare provider community. 3. Continuation of care for persons with serious mental illnesses and individuals receiving treatment (including medication) for substance dependency.

Behavioral Health Impact on the General Population

During a CSC incident, while healthcare facilities are experiencing severe medical surge conditions, the need for behavioral healthcare strategies becomes a critical adjunct to patients requiring medical treatment for physical illness or injury, as well as for primary care assessment and treatment of behavioral health conditions. Many people may require behavioral health services to manage grief and post-traumatic stress symptoms. The impact of a crisis will result in a substantial range of variability in the ability of people to respond and function during the crisis. Community resilience strategies that encourage family and neighborhood outreach may be beneficial in enhancing social support systems and reducing stress associated with an emergency incident.

Behavioral Health and Pediatric Populations

Children are an especially vulnerable population to mental health risks following a disaster. Common markers of potential mental health-related issues based on the child's age include:

- Refusal to return to school and clinging behavior;
- Persistent fears related to the catastrophe;
- Sleep disturbances persisting more than several days after the event, such as nightmares, screaming during sleep, and bed wetting;
- Loss of concentration and irritability;
- Jumpiness or startling easily;
- Behavior problems, such as misbehaving in ways that are not typical for the child.
- Physical complaints with no physical cause; and
- Withdrawal from family and friends, sadness, listlessness, decreased activity, and preoccupation with the events of the disaster.

Behavioral Health Impact on Responders and Medical Providers

Behavioral health strategies should consider the unique impacts and behavioral health consequences of catastrophic public health emergencies on responders and healthcare providers. Responders and healthcare providers may be especially prone to post traumatic stress and other psychosocial impacts. Strategies for addressing the behavioral health needs of these groups should consider the identification, monitoring, and intervention systems tailored toward stress reduction, stress management, and mitigation of posttraumatic stress disorder. Peer-to-peer support, counseling, and other behavioral health support services, such as CISM, may be useful for responders and providers.

Impact on the Seriously Mentally Ill Population and Continuation of Care

People with serious mental illness (SMI) will likely be among disaster victims, including the injured or ill, or experience emotional crises related to the disaster. Many people require ongoing behavioral health treatment or services due to SMI or other behavioral health conditions. Ongoing treatment or services may be disrupted during a disaster, leaving people with difficulties in managing their conditions or obtaining needed prescription medications. As behavioral health providers and social workers address the needs of disaster victims, including palliative and comfort care patients, there will be an impact on the overall availability of resources for behavioral healthcare within the state.

Behavioral Health and Public Information

Incident specific public communication strategies should be developed and disseminated to help people manage stress, clarify the incident situation, and direct listeners and viewers to additional resources as necessary. During CSC, the MAT should fully integrate behavioral health content experts in decision making and response implementation. This is especially important during situations where:

- A transition must be made in the fair and just allocation of resources, and care when circumstances will not allow for the optimal level of care for all;
- There are situations resulting in large-scale incapacitation or death of healthcare workers or first responders;
- Events produce an extremely large numbers of fatalities;
- Events result in a potential long-term or unknown health consequences;
- There are deaths or incapacity of key leaders or decision-makers; and
- There are events that evoke extreme emotions, such as terrorism or violence that impacts the most vulnerable populations, e.g. children.

Mental Health Triage

Research indicates that between 30 and 40 percent of people directly impacted by a major disaster are at risk of developing new, clinically diagnosable, mental illness, such as depression or post-traumatic stress disorder. Early triage, intervention, and referral to services can reduce the risk of mental health disorders in disaster victims. An important component of managing medical surge following a major disaster, is the ability to identify people at high risk for development of mental health conditions and managing the demand for mental health services by people who are experiencing a mental health crisis.

One strategy that may be considered by the MAT is the recommendation of a mental health triage system such as PsySTART (Psychological Simple Triage and Rapid Treatment), Fast Mental Health Triage Tool (FMHT), and the Alsept-Price Mental Health Scale (APMHS). Mental health triage systems are useful in identifying individuals experiencing a mental health crisis or at risk for chronic mental health disorders and triaging them to the correct mental health services.

Psychological First Aid

Psychological First Aid is designed to reduce the initial distress caused by a traumatic event and to foster short- and long-term adaptive functioning and coping. Psychological First Aid is based on the understanding that individuals affected by traumatic events will experience a wide range of initial reactions that may cause enough distress to interfere with coping. It is designed to be used in the immediate aftermath of a traumatic event. Its basic objective are to establish connection in a compassionate and non-intrusive manner, enhance immediate and ongoing safety, provide physical and emotional comfort, calm and orient emotionally overwhelmed and distraught survivors, identify the survivors immediate needs and concerns, offer practical assistance to help survivors address immediate needs, connect survivors to social support networks and family, support adaptive coping, provide information, be clear about availability, and link survivor to another team or recovery support system. Psychological First Aid Counselors are available in Southern Nevada by contacting the Southern Nevada Regional Behavioral Health Coordinator; and a similar resource, Crisis Counselors, are available in Northern and Rural Nevada by contacting the Statewide Behavioral Health Coordinator.

Resources: Tips For Social Distancing, Quarantine, And Isolation During An Infectious Disease Outbreak

Testing Availability

Testing supplies are not available at the quantities needed for the COVID-19 response, so the following guidance outlines the prioritization of testing until more resources become available.

Healthcare providers may test any patient with symptoms consistent with the novel coronavirus (COVID-19) (e.g., fever, cough, shortness of breath), however; a limited availability of COVID-19 laboratory testing and supplies is occurring both nationally and in Nevada. In response, public health is requesting providers to follow the below prioritized testing recommendations for symptomatic patients:

- Patients hospitalized with severe lower respiratory signs and symptoms of illness
- Healthcare providers and workers
- Patients in other public safety occupations (e.g., law enforcement, fire fighter, EMS)
- Patients involved in an illness cluster in a facility or institution (e.g., healthcare, schools, corrections, homeless/shelters, other institution/congregate setting)

Please advise the following patients with COVID-19 symptoms to contact their healthcare provider to determine the need for COVID-19 testing should their symptoms worsen:

- Patients older than 60 years
- Patients with underlying medical conditions
- Pregnant women

Younger, healthy individuals with mild illness do not need to be tested. ** They should stay home on self-isolation for 7 days or 72 hours after symptom resolution, whichever is longer. Additionally, laboratory testing is not recommended in persons who are asymptomatic. However, a negative test result does not rule out an infection.

- Regardless of whether testing is performed or not, healthcare providers and public health professional should advise persons with symptoms of COVID-19 to: Stay home except to get medical care
- Separate from other people and pets at home
- Practice proper hand hygiene; covering cough and sneeze with clean single use tissues
- Wear a facemask to reduce the spread of the virus at home; shared space and in a car
- Clean all high-touch surfaces at least once a day
- Self-monitor symptoms, and promptly call healthcare providers if symptoms worsen*** https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html
- Seek medical attention if respiratory infection symptoms/illness start worsening including, but not limited to:
- Difficulty breathing or shortness of breath
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

Individuals with symptoms who are confirmed (or tested positive for COVID-19), and suspected cases who were directed to care for themselves at home, can discontinue home-isolation under the following conditions:

a. At least 3 days (72 hours) have passed since recovery - defined as resolution of fever without the use of fever-reducing medications and resolution of respiratory symptoms (e.g., cough, shortness of breath); AND,
b. At least 7 days have passed since symptoms first appeared

Individuals with laboratory-confirmed COVID-19 who have not had any symptoms may discontinue home isolation when at least 7 days have passed since the date of their first positive COVID-19 diagnostic test and have had no subsequent illness or respiratory symptoms.

Additional information - for household members, intimate partners, and caregivers of a self-isolated COVID-19 case to help prevent the infection from spreading to household member and the community are available at https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html.

* Modification from CDC Guidelines recommended by the Nevada Governor's COVID-19 Medical Advisory Team (MAT) were based on:
    - Current COVID-19 spread and transmission in the community at the local/state level
    - Availability of testing and testing supplies for COVID-19

** Until testing supplies and laboratory capacity are increased, The MAT is urging providers to adhere the above recommendations.

*** This list is not all inclusive. Please consult your medical provider for any other symptoms that are severe or concerning.

Telehealth

Telehealth services should be leveraged as much as possible during the COVID-19 response. Telehealth will expand the resources available for those at higher risk of adverse outcomes from infection, populations in rural communities, those not needing emergent care, and individuals that may be experiencing a mental health crisis. Administering medical advice, triage, pharmaceutical consultation, nursing consultation, and other health resources through technology will also reduce the risk of exposure to COVID-19 for both patients and providers. Barriers to preforming services have been reduced through certain federal regulations not being enforced, and additional measures should be taken by state and local agencies to encourage this form of health services.

Many services can and should be performed through technology. This area may use workforce resources like retired healthcare providers, the State Emergency Registry of Volunteers (SERV-NV), students entering a healthcare profession as allowed by their institution and licensing boards, mental and behavioral health personnel, and many others.

State and local resources should consider lowering or eliminating the fees for services related to telehealth to expand the use by Nevadans. Nevada Medicaid currently allows for the reimbursement of telehealth services for Medicaid enrolled providers and is waving certain policy limitations. Additional policy waivers should be considered if policies are identified as problematic for the quick expansion of services needed to respond to the public health emergency related to COVID-19.

Full DHCFP Resources: Nevada Division of Healthcare Financing and Policy – COVID-19 Resources

US HHS Relaxed HIPAA Requirements During COVID-19 Response

The Office for Civil Rights (OCR) at the United State Department of Health and Human Services (HHS) will not be enforcing certain regulations under HIPAA for telemedicine during the COVID-19 response. Covered healthcare providers subject to the HIPAA Rules may seek to communicate with patients, and provide telehealth services, through remote communications technologies. Some of these technologies, and the way they are used by HIPAA covered healthcare providers, may not fully comply with the requirements of the HIPAA Rules. OCR will exercise its enforcement discretion and will not impose penalties for noncompliance with the regulatory requirements under the HIPAA Rules against covered healthcare providers in connection with the good faith provision of telehealth during the COVID-19 nationwide public health emergency.

A covered healthcare provider that wants to use audio or video communication technology to provide telehealth to patients can use any non-public facing remote communication product that is available to communicate with patients. OCR is exercising its enforcement discretion to not impose penalties for noncompliance with the HIPAA Rules in connection with the good faith provision of telehealth. This exercise of discretion applies to telehealth provided for any reason, regardless of whether the telehealth service is related to the diagnosis and treatment of health conditions related to COVID-19.

A covered healthcare provider in the exercise of their professional judgement may request to examine a patient exhibiting COVID- 19 symptoms, using a video chat application connecting the provider's or patient's phone or computer in order to assess a greater number of patients while limiting the risk of infection of other persons who would be exposed from an in-person consultation. Likewise, a covered healthcare provider may provide similar telehealth services in the exercise of their professional judgment to assess or treat any other medical condition, even if not related to COVID-19, such as a sprained ankle, dental consultation or psychological evaluation, or other conditions.

Covered healthcare providers may use popular applications that allow for video chats, including Apple FaceTime, Facebook Messenger video chat, Google Hangouts video, or Skype, to provide telehealth without risk that OCR might seek to impose a penalty for noncompliance with the HIPAA Rules. Providers are encouraged to notify patients that these third-party applications potentially introduce privacy risks, and providers should enable all available encryption and privacy modes when using such applications.

Facebook Live, Twitch, TikTok, and similar video communication applications are public facing, and **should not be used** in the provision of telehealth by covered healthcare providers.

Covered healthcare providers that seek additional privacy protections for telehealth while using video communication products should provide services through technology vendors that are HIPAA compliant and will enter into HIPAA business associate agreements (BAAs) in connection with the provision of their video communication products. The list below includes some vendors that represent that they provide HIPAA-compliant video communication products and that they will enter into a HIPAA BAA.

- Skype for Business
- Updox
- VSee
- Zoom for Healthcare
- Doxy.me
- Google G Suite Hangouts Meet

Further OCR Guidance: HIPAA Privacy and Novel Coronavirus

HHS Guidance on BAAs: Sample Business Associate Agreement Provisions

HealthIT.gov Resource: Telemedicine and Telehealth

Clinical Management

1. Screening and triage: early recognition of patients with SARI associated with COVID-19

Screening and triage: Screen and isolate all patients with suspected COVID-19 at the first point of contact with the healthcare system (such as the emergency department or outpatient department/clinic). Consider COVID-19 as a possible etiology of patients with acute respiratory illness under certain conditions. Triage patients using standardized triage tools and start first-line treatments.

> **Remark 1:** Although the majority of people with COVID-19 have uncomplicated or mild illness (81%), some will develop severe illness requiring oxygen therapy (14%) and approximately 5% will require intensive care unit treatment. Of those critically ill, most will require mechanical ventilation. The most common diagnosis in severe COVID-19 patients is severe pneumonia.
>
> **Remark 2:** Early recognition of suspected patients allows for timely initiation of appropriate IPC measures. Early identification of those with severe illness, such as severe pneumonia, allows for optimized supportive care treatments and safe, rapid referral and admission to a designated hospital ward or intensive care unit according to institutional or national protocols.
>
> **Remark 3:** Older patients and those with comorbidities, such as cardiovascular disease and diabetes mellitus, have increased risk of severe disease and mortality. They may present with mild symptoms but have high risk of deterioration and should be admitted to a designated unit for close monitoring.
>
> **Remark 4:** For those with mild illness, patients may be cared for at home and should be instructed to manage themselves appropriately according to local public health protocols for home isolation and return to a hospital if they get worse (https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts).

2. Immediate implementation of appropriate infection prevention and control (IPC) measures

Initiate IPC at the point of entry of the patient to hospital. Screening should be done at first point of contact at the emergency department or outpatient department/clinics. Suspected COVID-19 patients should be given a mask and directed to separate area. Keep at least 1 m distance between suspected patients.

Standard precautions should always be applied in all areas of healthcare facilities. Standard precautions include hand hygiene and the use of personal protective equipment (PPE) when in indirect and direct contact with patients' blood, body fluids, secretions (including respiratory secretions) and non-intact skin. Standard precautions also include prevention of needle-stick or sharps injury; safe waste management; cleaning and disinfection of equipment; and cleaning of the environment. Standard precautions should be taken for interactions with all suspect cases of COVID-19 and full PPE should be used for procedures that may create aerosols.

In addition to standard precautions, healthcare workers should do a point-of-care risk assessment at every patient contact to determine whether additional precautions (e.g. droplet, contact, or airborne) are required.

3. Collection of specimens for laboratory diagnosis

WHO guidance on specimen collection, processing and laboratory testing is available (https://www.who.int/publications-detail/laboratory-testing-for-2019-novel-coronavirus-in-suspected-human-cases-20200117). Additionally, guidance on related biosafety procedures is available (https://apps.who.int/iris/bitstream/handle/10665/331138/WHO-WPE-GIH-2020.1-eng.pdf).

Collect blood cultures for bacteria that cause pneumonia and sepsis, ideally before antimicrobial therapy. DO NOT delay antimicrobial therapy to collect blood cultures.

Collect specimens from the upper respiratory tract (URT; nasopharyngeal and oropharyngeal) AND, where clinical suspicion remains and URT specimens are negative, collect specimens from the lower respiratory tract when readily

available (LRT; expectorated sputum, endotracheal aspirate, or bronchoalveolar lavage in ventilated patient) for COVID-19 virus testing by RT-PCR and bacterial stains/cultures.

In hospitalized patients with confirmed COVID-19, repeated URT and LRT samples can be collected to demonstrate viral clearance. The frequency of specimen collection will depend on local epidemic characteristics and resources. For hospital discharge, in a clinically recovered patient, two negative tests, at least 24 hours apart, is recommended.

> **Remark 1:** Use appropriate PPE for specimen collection (droplet and contact precautions for URT specimens; airborne precautions for LRT specimens). When collecting URT samples, use viral swabs (sterile Dacron or rayon, not cotton) and viral transport media. Do not sample the nostrils or tonsils. In a patient with suspected COVID-19, especially with pneumonia or severe illness, a single URT sample does not exclude the diagnosis, and additional URT and LRT samples are recommended. LRT (vs URT) samples are more likely to be positive and for a longer period. Clinicians may elect to collect only LRT samples when these are readily available (for example, in mechanically ventilated patients). Sputum induction should be avoided owing to increased risk of aerosol transmission.
>
> **Remark 2 for pregnant patients:** COVID-19 testing of symptomatic pregnant women may need to be prioritized to enable access to specialized care.
>
> **Remark 3:** Dual infections with other respiratory viral and bacterial infections have been found in SARS, MERS and COVID-19 patients (8). As a result, a positive test for a non-COVID-19 pathogen does not rule out COVID-19. At this stage, detailed microbiologic studies are needed in all suspected cases. Both URT and LRT specimens can be tested for other respiratory viruses, such as influenza A and B (including zoonotic influenza A), respiratory syncytial virus, parainfluenza viruses, rhinoviruses, adenoviruses, enteroviruses (e.g. EVD68), human metapneumovirus and endemic human coronaviruses (i.e. HKU1, OC43, NL63, and 229E). LRT specimens can also be tested for bacterial pathogens, including Legionella pneumophila.

4. Management of mild COVID-19: symptomatic treatment and monitoring

Patients with mild disease do not require hospital interventions, but isolation is necessary to contain virus transmission and will depend on national strategy and resources.

> **Remark:** Although most patients with mild disease may not have indications for hospitalization, it is necessary to implement appropriate IPC to contain and mitigate transmission. This can be done either in hospital, if there are only sporadic cases or small clusters, or in repurposed, non-traditional settings; or at home.

Provide patients with mild COVID-19 with symptomatic treatment such as antipyretics for fever.

Counsel patients with mild COVID-19 about signs and symptoms of complicated disease. If they develop any of these symptoms, they should seek urgent care through national referral systems.

5. Management of severe COVID-19: oxygen therapy and monitoring

Give supplemental oxygen therapy immediately to patients with SARI and respiratory distress, hypoxemia or shock and target SpO2 > 94%.

> **Remarks for adults:** Adults with emergency signs (obstructed or absent breathing, severe respiratory distress, central cyanosis, shock, coma, or convulsions) should receive airway management and oxygen therapy during resuscitation to target SpO2 ≥ 94%. Initiate oxygen therapy at 5 L/min and titrate flow rates to reach target SpO2 ≥ 93% during resuscitation; or use face mask with reservoir bag (at 10–15 L/min) if patient in critical condition. Once patient is stable, the target is > 90% SpO2 in non-pregnant adults and ≥ 92–95% in pregnant patients.
>
> **Remarks for children:** Children with emergency signs (obstructed or absent breathing, severe respiratory distress, central cyanosis, shock, coma or convulsions) should receive airway management and oxygen

therapy during resuscitation to target SpO2 ≥ 94%; otherwise, the target SpO2 is ≥ 90%. Use of nasal prongs or nasal cannula is preferred in young children, as they may be better tolerated.

Remark 3: All areas where patients with SARI are cared for should be equipped with pulse oximeters, functioning oxygen systems and disposable, single-use, oxygen-delivering interfaces (nasal cannula, nasal prongs, simple face mask, and mask with reservoir bag). See Appendix for details of resources.

Closely monitor patients with COVID-19 for signs of clinical deterioration, such as rapidly progressive respiratory failure and sepsis and respond immediately with supportive care interventions.

Remark 1: Patients hospitalized with COVID-19 require regular monitoring of vital signs and, where possible, utilization of medical early warning scores (e.g. NEWS2) that facilitate early recognition and escalation of treatment of the deteriorating patient.

Remark 2: Hematology and biochemistry laboratory testing and ECG should be performed at admission and as clinically indicated to monitor for complications, such as acute liver injury, acute kidney injury, acute cardiac injury, or shock. Application of timely, effective, and safe supportive therapies is the cornerstone of therapy for patients who develop severe manifestations of COVID-19.

Remarks 3: After resuscitation and stabilization of the pregnant patient, then fetal well-being should be monitored.

Understand the patient's co-morbid condition(s) to tailor the management of critical illness.

Remarks: Determine which chronic therapies should be continued and which therapies should be stopped temporarily. Monitor for drug-drug interactions.

Use conservative fluid management in patients with SARI when there is no evidence of shock.

Remarks: Patients with SARI should be treated cautiously with intravenous fluids, because aggressive fluid resuscitation may worsen oxygenation, especially in settings where there is limited availability of mechanical ventilation. This applies for care of children and adults.

6. Management of severe COVID-19: treatment of co-infections

Give empiric antimicrobials to treat all likely pathogens causing SARI and sepsis as soon as possible, within 1 hour of initial assessment for patients with sepsis.

Remark 1: Although the patient may be suspected to have COVID-19, administer appropriate empiric antimicrobials within **1 hour** of identification of sepsis. Empiric antibiotic treatment should be based on the clinical diagnosis (community-acquired pneumonia, healthcare-associated pneumonia [if infection was acquired in healthcare setting] or sepsis), local epidemiology and susceptibility data, and national treatment guidelines.

Remark 2: When there is ongoing local circulation of seasonal influenza, empiric therapy with a neuraminidase inhibitor should be considered for the treatment for patients with influenza or at risk for severe disease.

Empiric therapy should be de-escalated on the basis of microbiology results and clinical judgment.

7. Management of critical COVID-19: acute respiratory distress syndrome (ARDS)

Recognize severe hypoxemic respiratory failure when a patient with respiratory distress is failing to respond to standard oxygen therapy and prepare to provide advanced oxygen/ventilatory support.

Remarks: Patients may continue to have increased work of breathing or hypoxemia even when oxygen is delivered via a face mask with reservoir bag (flow rates of 10–15 L/min, which is typically the minimum flow

required to maintain bag inflation; FiO2 0.60–0.95). Hypoxemic respiratory failure in ARDS commonly results from intrapulmonary ventilation-perfusion mismatch or shunt and usually requires mechanical ventilation.

Endotracheal intubation should be performed by a trained and experienced provider using airborne precautions.

> **Remarks:** Patients with ARDS, especially young children or those who are obese or pregnant, may desaturate quickly during intubation. Pre-oxygenate with 100% FiO2 for 5 minutes, via a face mask with reservoir bag, bag-valve mask, HFNO or NIV. Rapid-sequence intubation is appropriate after an airway assessment that identifies no signs of difficult intubation.

The following recommendations pertain to mechanically ventilated adults and pediatric patients with ARDS.

Implement mechanical ventilation using lower tidal volumes (4–8 mL/kg predicted body weight, PBW) and lower inspiratory pressures (plateau pressure < 30 cmH2O).

> **Remarks for adults:** This is a strong recommendation from a clinical guideline for patients with ARDS *and* is suggested for patients with sepsis-induced respiratory failure who do not meet ARDS criteria. The initial tidal volume is 6 mL/kg PBW; tidal volume up to 8 mL/kg PBW is allowed if undesirable side effects occur (e.g. desynchrony, pH < 7.15). Permissive hypercapnia is permitted. Ventilator protocols are available. The use of deep sedation may be required to control respiratory drive and achieve tidal volume targets.
>
> **Remarks for children:** In children, a lower level of plateau pressure (< 28 cmH2O) is targeted, and lower target of pH is permitted (7.15–7.30). Tidal volumes should be adapted to disease severity: 3–6 mL/kg PBW in the case of poor respiratory system compliance, and 5–8 mL/kg PBW with better preserved compliance.

In adult patients with severe ARDS, prone ventilation for 12–16 hours per day is recommended.

> **Remarks for adults and children:** Application of prone ventilation is strongly recommended for adult patients and may be considered for pediatric patients with severe ARDS but requires sufficient human resources and expertise to be performed safely; protocols (including videos) are available (https://www.nejm.org/doi/full/10.1056/NEJMoa1214103).
>
> **Remark for pregnant women:** There is little evidence on prone positioning in pregnant women. Pregnant women may benefit from being placed in the lateral decubitus position.

Use a conservative fluid management strategy for ARDS patients without tissue hypoperfusion.

> **Remarks for adults and children:** This is a strong guideline recommendation; the main effect is to shorten the duration of ventilation. See reference for details of a sample protocol.

Use in-line catheters for airway suctioning and clamp endotracheal tube when disconnection is required (for example, transfer to a transport ventilator).

8. Management of critical illness and COVID-19: prevention of complications

Implement the following interventions (Table 4) to prevent complications associated with critical illness. These interventions are based on Surviving Sepsis or other guidelines and are generally limited to feasible recommendations based on high-quality evidence.

Table 4. Prevention of complications

Anticipated outcome	Interventions
Reduce days of invasive mechanical ventilation	• Use weaning protocols that include daily assessment for readiness to breathe spontaneously • Minimize continuous or intermittent sedation, targeting specific titration endpoints (light sedation unless contraindicated) or with daily interruption of continuous sedative infusions
Reduce incidence of ventilator- associated pneumonia	• Oral intubation is preferable to nasal intubation in adolescents and adults • Keep patient in semi-recumbent position (head of bed elevation 30–45º) • Use a closed suctioning system; periodically drain and discard condensate in tubing • Use a new ventilator circuit for each patient; once patient is ventilated, change circuit if it is soiled or damaged, but not routinely • Change heat moisture exchanger when it malfunctions, when soiled, or every 5–7 days
Reduce incidence of venous thromboembolism	• Use pharmacological prophylaxis (low molecular-weight heparin [preferred if available] or heparin 5000 units subcutaneously twice daily) in adolescents and adults without contraindications. For those with contraindications, use mechanical prophylaxis (intermittent pneumatic compression devices)
Reduce incidence of catheter-related bloodstream infection	• Use a checklist with completion verified by a real-time observer as reminder of each step needed for sterile insertion and as a daily reminder to remove catheter if no longer needed
Reduce incidence of pressure ulcers	• Turn patient every 2 hours
Reduce incidence of stress ulcers and gastrointestinal (GI) bleeding	• Give early enteral nutrition (within 24–48 hours of admission) • Administer histamine-2 receptor blockers or proton-pump inhibitors in patients with risk factors for GI bleeding. Risk factors for GI bleeding include mechanical ventilation for ≥ 48 hours, coagulopathy, renal replacement therapy, liver disease, multiple comorbidities, and higher organ failure score
Reduce incidence of ICU-related weakness	• Actively mobilize the patient early in the course of illness when safe to do so

9. Management of critical illness and COVID-19: septic shock

Recognize septic shock in adults when infection is suspected or confirmed AND vasopressors are needed to maintain mean arterial pressure (MAP) ≥ 65 mmHg AND lactate is ≥ 2 mmol/L, in absence of hypovolemia.

Recognize septic shock in children with any hypotension (systolic blood pressure [SBP] < 5th centile or > 2 SD below normal for age) or two or more of the following: altered mental state; bradycardia or tachycardia (HR < 90 bpm or > 160 bpm in infants and HR < 70 bpm or > 150 bpm in children); prolonged capillary refill (> 2 sec) or feeble pulses; tachypnea; mottled or cold skin or petechial or purpuric rash; increased lactate; oliguria; hyperthermia or hypothermia.

> **Remark 1:** In the absence of a lactate measurement, use blood pressure (i.e. MAP) and clinical signs of perfusion to define shock.
>
> **Remark 2:** Standard care includes early recognition and the following treatments within 1 hour of recognition: antimicrobial therapy, and initiation of fluid bolus and vasopressors for hypotension. The use of central venous and arterial catheters should be based on resource availability and individual patient needs. Detailed guidelines from the Surviving Sepsis Campaign and WHO are available for the management of septic shock in adults and children. Alternate fluid regimens are suggested when caring for adults and children in resource-limited settings.

The following recommendations pertain to resuscitation strategies for adult and pediatric patients with septic shock.

In resuscitation for septic shock in adults, give 250–500 mL crystalloid fluid as rapid bolus in first 15–30 minutes and reassess for signs of fluid overload after each bolus.

In resuscitation from septic shock in children, give 10–20 mL/kg crystalloid fluid as a bolus in the first 30–60 minutes and reassess for signs of fluid after each bolus.

10. Adjunctive therapies for COVID-19: corticosteroids

Do not routinely give systemic corticosteroids for treatment of viral pneumonia outside clinical trials.

11. Caring for women during pregnancy or delivery, infants, and guidance for breastfeeding

COVID-19 is a new disease and we are still learning how it spreads, the severity of illness it causes, and to what extent it may spread in the United States.

Pregnant Women

We do not currently know if pregnant women have a greater chance of getting sick from COVID-19 than the general public nor whether they are more likely to have serious illness as a result. Pregnant women experience changes in their bodies that may increase their risk of some infections. With viruses from the same family as COVID-19, and other viral respiratory infections, such as influenza, women have had a higher risk of developing severe illness. It is always important for pregnant women to protect themselves from illnesses. Pregnant women should do the same things as the general public to avoid infection. We do not know at this time if COVID-19 would cause problems during pregnancy or affect the health of the baby after birth.

Prehospital Considerations

- Pregnant patients who have confirmed COVID-19 or who are PUIs should notify the obstetric unit prior to arrival so the facility can make appropriate infection control preparations (e.g., identifying the most appropriate room for labor and delivery, ensuring infection prevention and control supplies and PPE are correctly positioned, informing all healthcare personnel who will be involved in the patient's care of infection control expectations) before the patient's arrival.
- If a pregnant patient who has confirmed COVID-19 or is a PUI is arriving via transport by emergency medical services, the driver should contact the receiving emergency department or healthcare facility and follow previously agreed-upon local or regional transport protocols.
- Healthcare providers should promptly notify infection control personnel at their facility of the anticipated arrival of a pregnant patient who has confirmed COVID-19 or is a PUI.

During Hospitalization

- Healthcare facilities should ensure recommended infection control practices for hospitalized pregnant patients who have confirmed COVID-19 or are PUIs are consistent with CDC guidelines.
- All healthcare facilities that provide obstetric care must ensure that their personnel are correctly trained and capable of implementing recommended infection control interventions. Individual healthcare personnel should ensure they understand and can adhere to infection control requirements.
- Healthcare facilities should follow the above infection control guidance on managing visitor access, including essential support persons for women in labor (e.g., spouse, partner).
- Infants born to mothers with confirmed COVID-19 should be considered PUIs. As such, infants should be isolated according to the Infection Prevention and Control Guidance for PUIs.

Mother/Baby Contact

It is unknown whether newborns with COVID-19 are at increased risk for severe complications. Transmission after birth via contact with infectious respiratory secretions is a concern. To reduce the risk of transmission of the virus that causes COVID-19 from the mother to the newborn, facilities should consider temporarily separating (e.g., separate rooms) the mother who has confirmed COVID-19 or is a PUI from her baby until the mother's transmission-based precautions are discontinued. See the considerations below for temporary separation:

- The risks and benefits of temporary separation of the mother from her baby should be discussed with the mother by the healthcare team.

- A separate isolation room should be available for the infant while they remain a PUI. Healthcare facilities should consider limiting visitors, except for a healthy parent or caregiver. Visitors should be instructed to wear appropriate PPE, including gown, gloves, face mask, and eye protection. If another healthy family or staff member is present to provide care (e.g., diapering, bathing) and feeding for the newborn, they should use appropriate PPE. For healthy family members, appropriate PPE includes gown, gloves, face mask, and eye protection. For healthcare personnel, recommendations for appropriate PPE are outlined in the Infection Prevention and Control Recommendations.
- The decision to discontinue temporary separation of the mother from her baby should be made on a case-by-case basis in consultation with clinicians, infection prevention and control specialists, and public health officials. The decision should consider disease severity, illness signs and symptoms, and results of laboratory testing for the virus that causes COVID-19, SARS-CoV-2. Considerations to discontinue temporary separation are the same as those to discontinue transmission-based precautions for hospitalized patients with COVID-19.
- If colocation (sometimes referred to as "rooming in") of the newborn with his/her ill mother in the same hospital room occurs in accordance with the mother's wishes or is unavoidable due to facility limitations, facilities should consider implementing measures to reduce exposure of the newborn to the virus that causes COVID-19.
    - Consider using engineering controls like physical barriers (e.g., a curtain between the mother and newborn) and keeping the newborn ≥6 feet away from the ill mother.
    - If no other healthy adult is present in the room to care for the newborn, a mother who has confirmed COVID-19 or is a PUI should put on a facemask and practice hand hygiene before each feeding or other close contact with her newborn. The facemask should remain in place during contact with the newborn. These practices should continue while the mother is on transmission-based precautions in a healthcare facility.

During Pregnancy or Delivery

We still do not know if a pregnant woman with COVID-19 can pass the virus that causes COVID-19 to her fetus or baby during pregnancy or delivery. No infants born to mothers with COVID-19 have tested positive for the COVID-19 virus. In these cases, which are a small number, the virus was not found in samples of amniotic fluid or breastmilk.

Infants

We do not know, at this time, what if any risk is posed to infants of a pregnant woman who has COVID-19. There have been a small number of reported problems with pregnancy or delivery (e.g. preterm birth) in babies born to mothers who tested positive for COVID-19 during their pregnancy. However, it is not clear that these outcomes were related to maternal infection.

Breastfeeding

This interim guidance is intended for women who are confirmed to have COVID-19 or are persons-under-investigation (PUI) for COVID-19 and are currently breastfeeding. The CDC will update this interim guidance as needed as additional information becomes available. For breastfeeding guidance in the immediate postpartum setting, refer to Interim Considerations for Infection Prevention and Control of 2019 Coronavirus Disease 2019 (COVID-19) in Inpatient Obstetric Healthcare Settings for the most up to date information.

Transmission of COVID-19 through breast milk

Person-to-person spread is thought to occur mainly via respiratory droplets produced when an infected person coughs or sneezes, similar to how influenza (flu) and other respiratory pathogens spread. In limited studies on women with COVID-19 and another coronavirus infection, Severe Acute Respiratory Syndrome (SARS-CoV), the virus has not been detected in breast milk; however, we do not know whether mothers with COVID-19 can transmit the virus via breast milk.

CDC breastfeeding guidance for other infectious illnesses
Breast milk provides protection against many illnesses. There are rare exceptions when breastfeeding or feeding expressed breast milk is not recommended. CDC has no specific guidance for breastfeeding during infection with similar viruses like SARS-CoV or Middle Eastern Respiratory Syndrome (MERS-CoV).

Outside of the immediate postpartum setting, CDC recommends that a mother with flu continue breastfeeding or feeding expressed breast milk to her infant while taking precautions to avoid spreading the virus to her infant.

Guidance on breastfeeding for mothers with confirmed COVID-19 or under investigation for COVID-19
Breast milk is the best source of nutrition for most infants. However, much is unknown about COVID-19. Whether and how to start or continue breastfeeding should be determined by the mother in coordination with her family and healthcare providers. A mother with confirmed COVID-19 or who is a symptomatic PUI should take all possible precautions to avoid spreading the virus to her infant, including washing her hands before touching the infant and wearing a face mask, if possible, while feeding at the breast. If expressing breast milk with a manual or electric breast pump, the mother should wash her hands before touching any pump or bottle parts and follow recommendations for proper pump cleaning after each use. If possible, consider having someone who is well feed the expressed breast milk to the infant.

Full CDC Guidance: Pregnancy & Breastfeeding

12. Caring for older persons with COVID-19

Older age and comorbid diseases such as diabetes and hypertension have been reported as a risk factor for death with people with COVID-19. Therefore, older people are at highest risk for fatality and are one of the most vulnerable populations. It is important to recognize that older people have the same rights as others to receive high-quality healthcare, including intensive care. Refer to the guidance Integrated care for older people (ICOPE) (https://www.who.int/ageing/publications/icope-handbook/en/).

For older people with probable or suspected COVID-19, provide person-centered assessment, including not only conventional history taking, but a thorough understanding of the person's life, values, priorities, and preferences for health management.

Ensure multidisciplinary collaboration among physicians, nurses, pharmacists, and other healthcare professionals in the decision-making process to address multimorbidity and functional decline.

> **Remark 1:** Physiological changes with age lead to declines in intrinsic capacity, manifested as malnutrition, cognitive decline, and depressive symptoms; those conditions should be managed comprehensively.

Early detection of inappropriate medication prescriptions is recommended to prevent adverse drug events and drug interactions for those being treated for COVID-19.

> **Remark 2:** Older people are at greater risk of polypharmacy, as a result of newly prescribed medications, inadequate medication reconciliation, and a lack of coordination of care, all of which increases the risk of negative health consequences.

Involve caregivers and family members in decision-making and goal-setting throughout the management of older COVID-19 patients.

13. Clinical research and specific anti-COVID-19 treatments

Investigational anti-COVID-19 therapeutics should be used only in approved, randomized, controlled trials.

There is no current evidence to recommend any specific anti-COVID-19 treatment for patients with confirmed COVID-19. There are many ongoing clinical trials testing various potential antivirals; these are registered on https://clinicaltrials.gov/ or on the Chinese Clinical Trial Registry (http://www.chictr.org.cn/abouten.aspx).

Collect standardized clinical data on all hospitalized patients to improve our understanding of the natural history of disease.

> **Remark 1:** Contribute anonymized data to the WHO Global COVID-19 Clinical Data Platform; contact EDCARN@who.int to get log-in credentials. Disaggregated data for children and pregnant women is needed.
>
> **Remark 2:** There is an urgent need to collect standardized data for the clinical characterization of COVID-19 to better understand the natural history of disease with serial biological sampling. Clinical characterization research protocols are available (https://isaric.tghn.org/protocols/severe-acute-respiratory-infection-data-tools/).

Investigational anti-COVID-19 therapeutics should be used only in approved, randomized, controlled trials.

> **Remark 1:** Refer to the WHO R&D Blueprint website for the most up-to-date prioritization of therapeutics (https://www.who.int/blueprint/priority-diseases/key-action/novel-coronavirus/en/).
>
> **Remark 2:** Refer to the WHO Core Clinical Randomized Controlled Trial protocol for use in evaluating the efficacy and safety of investigational therapeutic agents in combination with standard of care for the treatment of hospitalized patients with novel coronavirus disease (COVID-19).
>
> **Remark 3:** If conducting an RCT is not possible, then investigational therapeutics should be used under Monitored Emergency Use of Unregistered Interventions Framework (MEURI), until an RCT can be initiated (https://www.who.int/ethics/publications/infectious-disease-outbreaks/en/)

14. Information for Clinicians on Therapeutic Options for COVID-19 Patients

There are no US Food and Drug Administration (FDA)-approved drugs specifically for the treatment of patients with COVID-19. At present clinical management includes infection prevention and control measures and supportive care, including supplementary oxygen and mechanical ventilatory support when indicated. An array of drugs approved for other indications, as well as several investigational drugs are being studied in several hundred clinical trials that are underway across the globe. Below is information on two of the approved drugs (chloroquine and hydroxychloroquine) and one of the investigational agents (remdesivir) currently in use in the United States.

Remdesivir

Remdesivir is an investigational intravenous drug with broad antiviral activity that inhibits viral replication through premature termination of RNA transcription and has in-vitro activity against SARS-CoV-2 and in-vitro and in-vivo activity against related betacoronaviruses.

There are currently four options for obtaining remdesivir for treatment of hospitalized patients with COVID-19 and pneumonia in the United States:

- A National Institutes of Health (NIH)-sponsored adaptive double-blinded, placebo-controlled trial of remdesivir versus placebo in COVID-19 patients with pneumonia and hypoxia is enrolling non-pregnant persons aged 18 years and older with oxygen saturation of ≤94% on room air or requiring supplemental oxygen or mechanical ventilation (https://clinicaltrials.gov/ct2/show/NCT04280705external icon). Exclusion criteria include alanine aminotransaminase or aspartate aminotransaminase levels >5 times the upper limit of normal, stage 4 severe chronic kidney disease or a requirement for dialysis (i.e., estimated glomerular filtration rate (eGFR) <30);
- Two phase 3 randomized open-label trials of remdesivir (5-days versus 10-days versus standard of care) are open to enrollment in persons aged 18 years and older with COVID-19, radiographic evidence of pneumonia and oxygen saturation of ≤94% on room air (severe disease https://clinicaltrials.gov/ct2/show/NCT04292899external icon) or >94% on room air (moderate disease https://clinicaltrials.gov/ct2/show/NCT04292730external icon). Exclusion criteria include alanine aminotransaminase or aspartate aminotransaminase levels >5 times the upper limit of normal, participation in another clinical trial of an experimental treatment for COVID-19, requirement for mechanical ventilation, or creatinine clearance <50 mL/min; and

- Finally, in areas without clinical trials, COVID-19 patients in the United States and other countries have been treated with remdesivir on an uncontrolled compassionate use basis. The manufacturer is currently transitioning the provision of emergency access to remdesivir from individual compassionate use requests to an expanded access program. The expanded access program for the United States is under rapid development. Further information is available at: https://rdvcu.gilead.com/external icon

Hydroxychloroquine and Chloroquine

Hydroxychloroquine and chloroquine are oral prescription drugs that have been used for treatment of malaria and certain inflammatory conditions. Chloroquine has been used for malaria treatment and chemoprophylaxis, and hydroxychloroquine is used for treatment of rheumatoid arthritis, systemic lupus erythematosus and porphyria cutanea tarda. Both drugs have in-vitro activity against SARS-CoV, SARS-CoV-2, and other coronaviruses, with hydroxychloroquine having relatively higher potency against SARS-CoV-2. A study in China reported that chloroquine treatment of COVID-19 patients had clinical and virologic benefit versus a comparison group, and chloroquine was added as a recommended antiviral for treatment of COVID-19 in China. Based upon limited in-vitro and anecdotal data, chloroquine or hydroxychloroquine are currently recommended for treatment of hospitalized COVID-19 patients in several countries. Both chloroquine and hydroxychloroquine have known safety profiles with the main concerns being cardiotoxicity (prolonged QT syndrome) with prolonged use in patients with hepatic or renal dysfunction and immunosuppression but have been reportedly well-tolerated in COVID-19 patients.

Due to higher in-vitro activity against SARS-CoV-2 and its wider availability in the United States compared with chloroquine, hydroxychloroquine has been administered to hospitalized COVID-19 patients on an uncontrolled basis in multiple countries, including in the United States. One small study reported that hydroxychloroquine alone or in combination with azithromycin reduced detection of SARS-CoV-2 RNA in upper respiratory tract specimens compared with a non-randomized control group but did not assess clinical benefit [7]. Hydroxychloroquine and azithromycin are associated with QT prolongation and caution is advised when considering these drugs in patients with chronic medical conditions (e.g. renal failure, hepatic disease) or who are receiving medications that might interact to cause arrythmias.

Hydroxychloroquine is currently under investigation in clinical trials for pre-exposure or post-exposure prophylaxis of SARS-CoV-2 infection, and treatment of patients with mild, moderate, and severe COVID-19. In the United States, several clinical trials of hydroxychloroquine for prophylaxis or treatment of SARS-CoV-2 infection are planned or will be enrolling soon. More information on trials can be found at: https://clinicaltrials.gov/external icon.

There are no currently available data from Randomized Clinical Trials (RCTs) to inform clinical guidance on the use, dosing, or duration of hydroxychloroquine for prophylaxis or treatment of SARS-CoV-2 infection. Although optimal dosing and duration of hydroxychloroquine for treatment of COVID-19 are unknown, some U.S. clinicians have reported anecdotally different hydroxychloroquine dosing such as: 400mg BID on day one, then daily for 5 days; 400 mg BID on day one, then 200mg BID for 4 days; 600 mg BID on day one, then 400mg daily on days 2-5.

Other Drugs

Lopinavir-ritonavir did not show promise for treatment of hospitalized COVID-19 patients with pneumonia in a recent clinical trial in China. This trial was underpowered, and lopinavir-ritonavir is under investigation in a World Health Organization study.

Several other drugs are under investigation in clinical trials or are being considered for clinical trials of prophylaxis or treatment of COVID-19 in the United States and worldwide. Information on registered clinical trials for COVID-19 in the United States is available at: https://clinicaltrials.gov/external icon.

Full WHO Guidance: Clinical management of severe acute respiratory infection (SARI) when COVID-19 is suspected
Full CDC Guidance: Information for Clinicians on Therapeutic Options for COVID-19 Patients

Strategies for Optimizing the Supply of N95 Respirators

When N95 Supplies are Running Low

Use of respirators beyond the manufacturer-designated shelf life for healthcare delivery

Consideration can be made to use N95 respirators beyond the manufacturer-designated shelf life for care of patients with COVID-19, tuberculosis, measles, and varicella. However, respirators beyond the manufacturer-designated shelf life may not perform to the requirements for which they were certified. Over time, components such as the straps and nose bridge material may degrade, which can affect the quality of the fit and seal. Many models found in U.S. stockpiles and stockpiles of healthcare facilities have been found to continue to perform in accordance with NIOSH performance standards. However, fluid resistance and flammability were not assessed. Use of the N95 respirators recommended in Release of Stockpiled N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life: Considerations for the COVID-19 Response can be considered. It is optimal to use these respirators in the context of a respiratory protection program that includes medical evaluation, training, and fit testing. If used in healthcare delivery, it is particularly important that HCP perform the expected seal check, prior to entering a patient care area. CDC does not recommend using N95s beyond the manufacturer-designated shelf life in surgical settings. Release of Stockpiled N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life: Considerations for the COVID-19 Response.

Use of respirators approved under standards used in other countries that are similar to NIOSH-approved N95 respirators

Other countries approve respirators for occupational use and approve respirators to these standards. These products are evaluated using some methods similar to those used by NIOSH, and some methods that are different, but are expected to protect HCPs. These respirators are expected to provide protection to workers. Those with equivalent or similar protection to NIOSH-approved respirators may be available to provide respiratory protection to workers exposed to harmful airborne particulate matter. These devices are expected to be suitable alternatives to provide protection during the COVID-19 response when supplies are short. The country, conformity assessment standards, acceptable product classifications, standards and guidance documents, and protection factor determination are provided in alphabetical order. All of these respirators have protection factors of at least 10 in the countries listed below, as outlined in the standards and guidance documents specified.

Country	Performance Standard	Acceptable product classifications	Standards/Guidance Documents	Protection Factor ≥ 10
Australia	AS/NZS 1716:2012	P3 P2	AS/NZS 1715:2009	YES
Brazil	ABNT/NBR 13698:2011	PFF3 PFF2	Fundacentro CDU 614.894	YES
China	GB 2626-2006	KN 100 KP100 KN95 KP95	GB/T 18664—2002	YES
Europe	EN 149-2001	FFP3 FFP2	EN 529:2005	YES
Japan	JMHLW-2000	DS/DL3 DS/DL2	JIS T8150: 2006	YES
Korea	KMOEL-2017-64	Special 1st	KOSHA GUIDE H-82-2015	YES
Mexico	NOM-116-2009	N100, P100, R100 N99, P99, R99 N95, P95, R95	NOM-116	YES
US NIOSH Requirements	NIOSH approved 42 CFR 84	N100, P100, R100 N99, P99, R99 N95, P95, R95	OSHA 29CFR1910.134	YES

Respirator Extended Use Recommendations

Extended use is favored over reuse because it is expected to involve less touching of the respirator and therefore less risk of contact transmission. Please see the section on Risks of Extended Use and Reuse of Respirators for more information about contact transmission and other risks involved in these practices.

A key consideration for safe extended use is that the respirator must maintain its fit and function. Workers in other industries routinely use N95 respirators for several hours uninterrupted. Experience in these settings indicates that respirators can function within their design specifications for 8 hours of continuous or intermittent use. Some research studies have recruited healthcare workers as test subjects and many of those subjects have successfully worn an N95 respirator at work for several hours before they needed to remove them. Thus, the maximum length of continuous use in non-dusty healthcare workplaces is typically dictated by hygienic concerns (e.g., the respirator was discarded because it became contaminated) or practical considerations (e.g., need to use the restroom, meal breaks, etc.), rather than a pre-determined number of hours.

If extended use of N95 respirators is permitted, respiratory protection program administrators should ensure adherence to administrative and engineering controls to limit potential N95 respirator surface contamination (e.g., use of barriers to prevent droplet spray contamination) and consider additional training and reminders (e.g., posters) for staff to reinforce the need to minimize unnecessary contact with the respirator surface, strict adherence to hand hygiene practices, and proper Personal Protective Equipment (PPE) donning and doffing technique. Healthcare facilities should develop clearly written procedures to advise staff to take the following steps to reduce contact transmission after donning:

- Discard N95 respirators following use during aerosol generating procedures.
- Discard N95 respirators contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.
- Discard N95 respirators following close contact with, or exit from, the care area of any patient co-infected with an infectious disease requiring contact precautions.
- Consider use of a cleanable face shield (preferred) over an N95 respirator and/or other steps (e.g., masking patients, use of engineering controls) to reduce surface contamination.
- Perform hand hygiene with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the respirator (if necessary, for comfort or to maintain fit).

Extended use alone is unlikely to degrade respiratory protection. However, healthcare facilities should develop clearly written procedures to advise staff to:

- Discard any respirator that is obviously damaged or becomes hard to breathe through.

Limited re-use of N95 respirators for COVID-19 patients

Limited re-use of N95 respirators when caring for patients with COVID-19 might become necessary. However, it is unknown what the potential contribution of contact transmission is for SARS-CoV-2, and caution should be used. Re-use should be implemented according to CDC guidance. Re-use has been recommended as an option for conserving respirators during previous respiratory pathogen outbreaks and pandemics. It may also be necessary to re-use N95 respirators when caring for patients with varicella or measles, although contact transmission poses a risk to HCP who implement this practice.

Prioritize the use of N95 respirators and facemasks by activity type

The number of infectious particles required to cause an infection (infectious dose) is often uncertain or unknown for respiratory pathogens. Further, there is often uncertainty about the influence of factors such as exposure duration and nature of clinical symptoms on the likelihood of infection transmission from person-to-person. When facemasks must be used by HCP entering a patient care area, source control (i.e. masking of symptomatic patients) and maintaining distance from the patient are particularly important to reduce the risk of transmission.

This prioritization approach to conservation is intended to be used when N95 respirators are so limited that routinely practiced standards of care for all HCP wearing N95 respirators when caring for a COVID-19 patient are no longer possible. N95 respirators beyond their manufacture-designated shelf life, when available, are preferable to use of facemasks. The use of N95s or elastomeric respirators or PAPRs should be prioritized for HCP with the highest potential exposures including being present in the room during aerosol generating procedures performed on symptomatic persons.

Suggested facemask or respirator use, based upon distance from a patient with suspected or known COVID-19 and use of source control*

HCP planned proximity to the case patient during encounter	Facemask or respirator determination	
	Patient masked for entire encounter (i.e., with source control)	Unmasked patient or mask needs to be removed for any period of time during the patient encounter
HCP will remain at greater than 6 feet from symptomatic patient	HCP remaining at this distance from the patient should not need to enter the patient care area; if entry required: no facemask or respirator	HCP remaining at this distance from the patient should not need to enter the patient care area; if entry required: no facemask or respirator
HCP will be within 3 to 6 feet of symptomatic patient	HCP remaining at this distance from the patient should not need to enter the patient care area; if entry required: facemask	HCP remaining at this distance from the patient should not need to enter the patient care area; if entry required: facemask
HCP will be within 3 feet of symptomatic patient, including providing direct patient care	Facemask	N95 respirator/ elastomeric /PAPR, based on availability
HCP will be present in the room during aerosol generating procedures performed on symptomatic persons	N95 respirator/ elastomeric /PAPR, based on availability	N95 respirator/ elastomeric /PAPR, based on availability

*Based on availability, organizations may require and/or individuals may voluntarily choose to utilize higher levels of protection

When No Respirators are Left

Administrative Controls

Exclude HCP at higher risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients

During severe resource limitations, consider excluding HCP 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 caring for patients with confirmed or suspected COVID-19 infection.

Designate convalescent HCP for provision of care to known or suspected COVID-19 patients

It may be possible to designate HCP who have clinically recovered from COVID-19 to preferentially provide care for additional patients with COVID-19. Individuals who have recovered from COVID-19 infection may have developed some protective immunity, but this has not yet been confirmed.

Engineering Controls

Expedient patient isolation rooms for risk-reduction

Portable fan devices with high-efficiency particulate air (HEPA) filtration that are carefully placed can increase the effective air changes per hour of clean air to the patient room, reducing risk to individuals entering the room without respiratory protection. NIOSH has developed guidance for using portable HEPA filtration systems to create expedient patient isolation rooms. The expedient patient isolation room approach involves establishing a high-ventilation-rate,

negative pressure, inner isolation zone that sits within a “clean” larger ventilated zone. In the absence of any remaining supply of N95 respirators, it may be possible to use this technology in conjunction with HCP wearing facemasks.

Ventilated Headboards

NIOSH has developed the ventilated headboard that draws exhaled air from a patient in bed into a HEPA filter, decreasing risk of HCP exposure to patient-generated aerosol. This technology consists of lightweight, sturdy, and adjustable aluminum framing with a retractable plastic canopy. The ventilated headboard can be deployed in combination with HEPA fan/filter units to provide surge isolation capacity within a variety of environments, from traditional patient rooms to triage stations, and emergency medical shelters. In the absence of any remaining supply of N95 respirators, it may be possible to use this technology in conjunction with HCP and/or patients wearing facemasks.

Personal Protective Equipment and Respiratory Protection

HCP use of non-NIOSH approved masks or homemade masks

In settings where N95 respirators are so limited that routinely practiced standards of care for wearing N95 respirators and equivalent or higher level of protection respirators are no longer possible, and surgical masks are not available, as a last resort, it may be necessary for HCP to use masks that have never been evaluated or approved by NIOSH or homemade masks. It may be considered to use these masks for care of patients with COVID-19, tuberculosis, measles, and varicella. However, caution should be exercised when considering this option. Simple Respiratory Mask

Full CDC Guidance: Strategies for Optimizing the Supply of N95 Respirators: Crisis/Alternate Strategies

Strategies for Optimizing the Supply of Isolation Gowns

Cancel all elective and non-urgent procedures and appointments for which a gown is typically used by HCP.

Extended use of isolation gowns.

Consideration can be made to extend the use of isolation gowns (disposable or cloth) such that the same gown is worn by the same HCP when interacting with more than one patient known to be infected with the same infectious disease when these patients housed in the same location (i.e., COVID-19 patients residing in an isolation cohort). This can be considered only if there are no additional co-infectious diagnoses transmitted by contact (such as Clostridioides difficile) among patients. If the gown becomes visibly soiled, it must be removed and discarded as per usual practices.

Re-use of cloth isolation gowns.

Disposable gowns are not typically amenable to being doffed and re-used because the ties and fasteners typically break during doffing. Cloth isolation gowns could potentially be untied and retied and could be considered for re-use without laundering in between.

In a situation where the gown is being used as part of standard precautions to protect HCP from a splash, the risk of re-using a non-visibly soiled cloth isolation gown may be lower. However, for care of patients with suspected or confirmed COVID-19, HCP risk from re-use of cloth isolation gowns without laundering among (1) single HCP caring for multiple patients using one gown or (2) among multiple HCP sharing one gown is unclear. The goal of this strategy is to minimize exposures to HCP and not necessarily prevent transmission between patients. Any gown that becomes visibly soiled during patient care should be disposed of and cleaned.

Prioritize gowns.

Gowns should be prioritized for the following activities:

- During care activities where splashes and sprays are anticipated, which typically includes aerosol generating procedures
- During the following high-contact patient care activities that provide opportunities for transfer of pathogens to the hands and clothing of healthcare providers, such as:
    - Dressing, bathing/showering, transferring, providing hygiene, changing linens, changing briefs or assisting with toileting, device care or use, wound care

Surgical gowns should be prioritized for surgical and other sterile procedures. Facilities may consider suspending use of gowns for endemic multidrug resistant organisms (e.g., MRSA, VRE, ESBL-producing organisms).

When No Gowns Are Available

Consider using gown alternatives that have not been evaluated as effective.

In situation of severely limited or no available isolation gowns, the following pieces of clothing can be considered as a last resort for care of COVID-19 patients as single use. However, none of these options can be considered PPE, since their capability to protect HCP is unknown. Preferable features include long sleeves and closures (snaps, buttons) that can be fastened and secured.

- Disposable laboratory coats
- Reusable (washable) patient gowns
- Reusable (washable) laboratory coats
- Disposable aprons
- Combinations of clothing: Combinations of pieces of clothing can be considered for activities that may involve body fluids and when there are no gowns available:
    - Long sleeve aprons in combination with long sleeve patient gowns or laboratory coats
    - Open back gowns with long sleeve patient gowns or laboratory coats
    - Sleeve covers in combination with aprons and long sleeve patient gowns or laboratory coats

Reusable patient gowns and lab coats can be safely laundered according to routine procedures.

- Laundry operations and personnel may need to be augmented to facilitate additional washing loads and cycles
- Systems are established to routinely inspect, maintain (e.g., mend a small hole in a gown, replace missing fastening ties) and replace reusable gowns when needed (e.g., when they are thin or ripped)

Link to full CDC Guidance: Strategies for Optimizing the Supply of Isolation Gowns

Strategies for Optimizing the Supply of Eye Protection

Cancel all elective and non-urgent procedures and appointments for which eye protection is typically used by HCP.

Use eye protection devices beyond the manufacturer-designated shelf life during patient care activities.

If there is no date available on the eye protection device label or packaging, facilities should contact the manufacturer. The user should visually inspect the product prior to use and, if there are concerns (such as degraded materials), discard the product.

Prioritize eye protection for selected activities such as:

- During care activities where splashes and sprays are anticipated, which typically includes aerosol generating procedures.
- During activities where prolonged face-to-face or close contact with a potentially infectious patient is unavoidable.

Consider using safety glasses (e.g., trauma glasses) that have extensions to cover the side of the eyes.

Exclude HCP at higher risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients.

- During severe resource limitations, consider excluding HCP 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 caring for patients with confirmed or suspected COVID-19 infection.

Designate convalescent HCP for provision of care to known or suspected COVID-19 patients.

- It may be possible to designate HCP who have clinically recovered from COVID-19 to preferentially provide care for additional patients with COVID-19. Individuals who have recovered from COVID-19 infection may have developed some protective immunity, but this has not yet been confirmed.

Selected Options for Reprocessing Eye Protection

Adhere to recommended manufacturer instructions for cleaning and disinfection.

When manufacturer instructions for cleaning and disinfection are unavailable, such as for single use disposable face shields, consider:

1) While wearing gloves, carefully wipe the inside, followed by the outside of the face shield or goggles using a clean cloth saturated with neutral detergent solution or cleaner wipe.
2) Carefully wipe the outside of the face shield or goggles using a wipe or clean cloth saturated with EPA-registered hospital disinfectant solution.
3) Wipe the outside of face shield or goggles with clean water or alcohol to remove residue.
4) Fully dry (air dry or use clean absorbent towels).
5) Remove gloves and perform hand hygiene.

Full CDC Guidance: Strategies for Optimizing the Supply of Eye Protection

Strategies for Optimizing the Supply of Facemasks

Cancel all elective and non-urgent procedures and appointments for which a facemask is typically used by HCP.

Use facemasks beyond the manufacturer-designated shelf life during patient care activities.

If there is no date available on the facemask label or packaging, facilities should contact the manufacturer. The user should visually inspect the product prior to use and, if there are concerns (such as degraded materials or visible tears), discard the product.

Implement limited re-use of facemasks.

Limited re-use of facemasks is the practice of using the same facemask by one HCP for multiple encounters with different patients but removing it after each encounter. As it is unknown what the potential contribution of contact transmission is for SARS-CoV-2, care should be taken to ensure that HCP do not touch outer surfaces of the mask during care, and that mask removal and replacement be done in a careful and deliberate manner.

- The facemask should be removed and discarded if soiled, damaged, or hard to breathe through.
- Not all facemasks can be re-used.
    - Facemasks that fasten to the provider via ties may not be able to be undone without tearing and should be considered only for extended use, rather than re-use.
    - Facemasks with elastic ear hooks may be more suitable for re-use.
- HCP should leave patient care area if they need to remove the facemask. Facemasks should be carefully folded so that the outer surface is held inward and against itself to reduce contact with the outer surface during storage. The folded mask can be stored between uses in a clean sealable paper bag or breathable container.

Prioritize facemasks for selected activities such as:

- For provision of essential surgeries and procedures
- During care activities where splashes and sprays are anticipated
- During activities where prolonged face-to-face or close contact with a potentially infectious patient is unavoidable
- For performing aerosol generating procedures, if respirators are no longer available

When No Facemasks Are Available, Options Include

Exclude HCP at higher risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients.

During severe resource limitations, consider excluding HCP 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 caring for patients with confirmed or suspected COVID-19 infection.

Designate convalescent HCP for provision of care to known or suspected COVID-19 patients.

It may be possible to designate HCP who have clinically recovered from COVID-19 to preferentially provide care for additional patients with COVID-19. Individuals who have recovered from COVID-19 infection may have developed some protective immunity, but this has not yet been confirmed.

Use a face shield that covers the entire front (that extends to the chin or below) and sides of the face with no facemask.

Consider use of expedient patient isolation rooms for risk reduction.

Portable fan devices with high-efficiency particulate air (HEPA) filtration that are carefully placed can increase the effective air changes per hour of clean air to the patient room, reducing risk to individuals entering the room without respiratory protection. NIOSH has developed guidance for using portable HEPA filtration systems to create expedient patient isolation rooms. The expedient patient isolation room approach involves establishing a high-ventilation-rate, negative pressure, inner isolation zone that sits within a "clean" larger ventilated zone.

Consider use of ventilated headboards

NIOSH has developed the ventilated headboard that draws exhaled air from a patient in bed into a HEPA filter, decreasing risk of HCP exposure to patient-generated aerosol. This technology consists of lightweight, sturdy, and adjustable aluminum framing with a retractable plastic canopy. The ventilated headboard can be deployed in combination with HEPA fan/filter units to provide surge isolation capacity within a variety of environments, from traditional patient rooms to triage stations, and emergency medical shelters.

HCP use of homemade masks:

In settings where facemasks are not available, HCP might use homemade masks (e.g., bandana, scarf) for care of patients with COVID-19 as a last resort. However, homemade masks are not considered PPE, since their capability to protect HCP is unknown. Caution should be exercised when considering this option. Homemade masks should ideally be used in combination with a face shield that covers the entire front (that extends to the chin or below) and sides of the face.

Full CDC Guidance: Strategies for Optimizing the Supply of Facemasks

Ventilators - Policy for Modifications to FDA-Cleared Devices

In the context of the COVID-19 public health emergency in which affected patients may develop respiratory illness, it is necessary to maintain an adequate supply of devices to treat patients who develop respiratory failure or respiratory insufficiency. The devices listed in Table 1, which include ventilators, anesthesia gas machines, and other respiratory devices, and their accessories, are needed to support patients who develop respiratory compromise from COVID-19 or other respiratory disorders.

Wherever possible, healthcare facilities should use FDA-cleared conventional/standard full featured ventilators when necessary to support patients with respiratory failure, or a device subject to an Emergency Use Authorization (EUA), if any. However, to help ensure the availability of the greatest possible number of devices for this purpose, and as described in more detail below, FDA does not intend to object to limited modifications to the indications, claims, functionality, or to the hardware, software, or materials of FDA-cleared devices used to support patients with respiratory failure or respiratory insufficiency, without prior submission of a premarket notification under section 510(k) of the FD&C Act and 21 CFR 807.81, for the duration of the declared public health emergency. This policy applies where a modification is made to the device that triggers the requirement that a manufacturer submit a new premarket notification (510(k)) to FDA. Examples of such changes could include a significant change or modification in design, material, chemical composition, energy source, or manufacturing process.

More specifically, this policy will create more flexibility for manufacturers that make device modifications to address current manufacturing limitations or supply shortages. Examples may include:

- Changes to the ventilator motor to allow an alternate supplier to meet the required design specifications
- Changes to the material in the ventilator tubing to allow for more flexible material sourcing

We believe this approach will help manufacturers that want to add production lines or manufacture at alternative sites which may have different manufacturing equipment to increase manufacturing capacity and supply and reduce supply change interruptions and manufacturing bottlenecks.

Table 1

Classification Regulation	Device Type	Product Code	Device Classification
21 CFR 868.5895	Ventilator, Continuous, Facility Use	CBK	II
	Ventilator, Continuous, Minimal Ventilatory Support, Facility Use	MNT	II
	Continuous, ventilator, home use NOU II	NOU	II
	Ventilator, continuous, minimal ventilatory support, home use	NQY	II
	Ventilator, continuous, non-life supporting	MNS	II
	Mechanical Ventilator	ONZ	II
21 CFR 868.5925	Ventilator, Emergency, Powered (Resuscitator)	BTL	II
21 CFR 868.5160	Gas-machine, anesthesia	BSZ	II
21 CFR 868.5905	Ventilator, non-continuous (respirator) Including masks and interfaces under the same product code	BZD	II
	Conserver, Oxygen	NFB	II
	Device, Positive Pressure Breathing, Intermittent	NHJ	II
	Resuscitator, Manual, Non-Self Inflating	NHK	II
21 CFR 868.5454	High flow/high velocity humidified	QAV	II

1. Modifications to FDA-Cleared Indications, Claims, or Functionality

In developing this policy, FDA's intent is to foster the continued availability of safe and effective medical devices while being flexible regarding modifications made to ventilators, anesthesia gas machines and other respiratory devices, and their accessories, in response to the COVID-19 public health emergency.

As noted above, wherever possible, healthcare facilities should use FDA-cleared conventional/standard full-featured ventilators to treat patients who develop respiratory failure or respiratory insufficiency. However, for the duration of the public health emergency, to help foster the wider availability of devices for patients in need of ventilatory support, FDA does not intend to object to modifications to the FDA-cleared indications, claims, or functionality of these devices, without prior submission of a premarket notification where the modification will not create an undue risk in light of the public health emergency. Examples of circumstances where FDA currently believes a modification would not create such undue risk include:

1) The use of powered emergency ventilators and anesthesia gas machines for patients needing mechanical ventilation;
2) The use of ventilators outside their cleared environment of use (for example, use of a ventilator in a healthcare facility when it is only cleared for use at home or during transport);
3) The use of devices indicated for sleep apnea (including noncontinuous ventilators delivering continuous positive airway pressure (CPAP) or bilevel positive airway pressure (BiPAP)) to treat patients with respiratory insufficiency, provided that appropriate design mitigations are in place to minimize aerosolization;
4) The use of oxygen concentrators for primary supply when medically necessary and clinically appropriate.

2. Hardware, Software, and Material Changes to FDA cleared Ventilators and Anesthesia Gas Machines

As stated above, wherever possible, healthcare facilities should use conventional/standard full featured ventilators to treat patients who develop respiratory failure or respiratory insufficiency. However, for the duration of the public health emergency, in order to help foster the wider availability of devices for patients in need of ventilatory support and to help manufacturers respond to potential device component disruptions in the supply chain, FDA does not intend to object to limited modifications to the FDA-cleared hardware, software, or materials, without prior submission of a premarket notification under section 510(k) of the FD&C Act and 21 CFR 807.81, where the modification does not create an undue risk in light of the public health emergency. Examples of circumstances where FDA currently believes a modification would not create such undue risk include:

1) Modifications to motors, batteries, or other electrical components;
2) Material changes to components in the gas pathway or with other patient tissue contact;
3) Introduction of filtration to minimize aerosolization.
4) Software modifications intended to modify the ventilation parameters including inspiratory pressure, tidal volumes, flow rates, positive end-expiratory pressure (PEEP) in accordance with any applicable device standard;
5) Software modifications implementing physiological closed loop (automated) algorithms for oxygen titration where the algorithms/devices are the subject of an FDA-approved Investigational Device Exemption (IDE);
6) Hardware and/or software modifications implementing the capability for remote monitoring and remote adjustment of ventilator parameters (i.e., adjustment of parameters by trained healthcare providers from outside an isolation unit to avoid unnecessary exposures).

Additionally, FDA does not intend to object to firms making modifications or adding to the hardware/software architectures to allow for increased remote monitoring and setting adjustment capability/availability to support additional claims or indications described above. One example is the addition of wireless and/or Bluetooth capability. For any such changes, manufacturers should develop and implement appropriate cybersecurity controls to assure device cybersecurity and maintain device functionality and safety. FDA recommends firms refer to the following FDA guidance documents for consideration when pursuing these design changes:

- Guidance for the Content of Premarket Submissions for Software Contained in Medical Devices
- Content of Premarket Submissions for Management of Cybersecurity in Medical Devices
- Radio Frequency Wireless Technology in Medical Devices
- Design Considerations and Pre-market Submission Recommendations for Interoperable Medical Devices

3. Use of Ventilator and Anesthesia Gas Machine Breathing Circuit Devices Beyond Their Indicated Shelf Life and Duration of Use

Ventilators and anesthesia gas machines are designed to work as a breathing circuit, which is comprised of various ancillary devices such as the tubing that connects the ventilator to the patient, filters, and humidifiers. Constituent parts of the breathing circuit may include, but are not limited to, those identified in Table 2:

Table 2

Classification Regulation	Device Type	Product Code	Device Classification
21 CFR 868.5240	Anesthesia breathing circuit	OFP	I
	Anesthesia breathing circuit	CAI	I
21 CFR 868.5260	Filter, Bacterial, Breathing-Circuit	CAH	II
21 CFR 868.5270	Heated breathing circuit	BZE	II
21 CFR 868.5340	Cannula, Nasal, Oxygen	CAT	I
21 CFR 868.5440	Generator, oxygen, portable	CAW	II
21 CFR 868.5450	Humidifier, Respiratory Gas, (Direct Patient Interface)	BTT	II
21 CFR 868.5580	Mask, Oxygen	BYG	I
21 CFR 868.5730	Tube, Tracheal (W/Wo Connector)	BTR	II
	Airway Monitoring System	OQU	II
21 CFR 868.5895	Accessory to Continuous Ventilator (Respirator)	MOD	II
21 CFR 868.5965	Attachment, Breathing, Positive End Expiratory Pressure	BYE	II
21 CFR 868.5975	Set, Tubing and Support, Ventilator	BZO	I

These breathing circuit devices might be labeled with specific durations of use and shelf life. Given the potential for extensive use of ventilators and anesthesia gas machines in response to the COVID-19 pandemic, and to avoid depletion of breathing circuit supplies, for the duration of the public health emergency, FDA does not intend to object to changes in the indicated shelf life and duration of use of these products for treating individual patients, without prior submission of a premarket notification under section 510(k) of the FD&C Act and 21 CFR 807.81, where the change does not create an undue risk in light of the public health emergency. Examples of circumstances where FDA currently believes a change would not create such an undue risk: the devices are used according to healthcare institutional protocols, or useful life is limited to the occurrence of malfunction or visible soiling.

4. Labeling of Modified Devices

In addition, FDA recommends that the devices described above use labeling that helps users better understand the device modifications such as:

1) A clear description of the device's new indications, claims, or functions, and information on the device's performance and potential risks.
2) Adequate instructions for use for the intended user and indicated environment(s) of use. The labeling highlight the differences in design compared to the unmodified, FDA cleared version of the device, along with instructions for mitigating any known risks associated with these differences.
3) A clear distinction delineating FDA-cleared indication and claims from those that are not FDA-cleared. In addition, FDA recommends the labeling include a general statement about changes that have not been cleared by FDA.

Full FDA Guidance Document: Enforcement Policy for Ventilators, Accessories, and Other Respiratory Devices During COVID-19 Public Health Emergency

Preparedness Guidance for COVID-19

Comprehensive Hospital Preparedness Checklist for COVID-19

Planning for a community outbreak of Coronavirus Disease 2019 (COVID-19) is critical for maintaining healthcare services during a response. The Centers for Disease Control and Prevention (CDC), with input from partners, has developed a checklist to help hospitals (acute care facilities) assess and improve their preparedness for responding to a community-wide outbreak of COVID-19. Because of variability of outbreaks, as well as differences among hospitals (e.g., characteristics of the patient population, size of the hospital/community, scope of services), each hospital will need to adapt this checklist to meet its unique needs and circumstances. This checklist should be used as one of several tools for evaluating current plans or in developing a comprehensive COVID-19 preparedness plan. Additional information can be found at www.cdc.gov/coronavirus.

An effective COVID-19 hospital preparedness plan will incorporate information from state, regional, tribal and local health departments, emergency management agencies/authorities, hospital associations, and suppliers of resources. In addition, hospitals should refer to state and federal pandemic influenza plans to inform their response (available at https://www.cdc. gov/flu/pandemic-resources/pdf/pan-flu-report-2017v2.pdf). Hospitals will also need to ensure their plans comply with applicable state and federal regulations and with standards set by accreditation organizations, such as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Comprehensive COVID-19 planning can also help facilities plan for other emergency situations.

All U.S. hospitals should be prepared for the possible arrival of patients with COVID-19. All hospitals should ensure their staff are trained, equipped and capable of practices needed to: (1) Prevent the spread of COVID-19 within the facility; (2) Promptly identify and isolate patients with possible COVID-19 and inform the correct facility staff and public health authorities; (3) Care for a limited number of patients with confirmed or suspected COVID-19 as part of routine operations; (4) Potentially care for a larger number of patients in the context of an escalating outbreak while maintaining adequate care for other patients; (5) Monitor and manage any healthcare personnel that might be exposed to COVID-19; and (6) Communicate effectively within the facility and plan for appropriate external communication related to COVID-19.

Full CDC Preparedness Checklist: Comprehensive Hospital Preparedness Checklist for COVID-19

Healthcare Professional Preparedness Checklist for Transport and Arrival of Patients with Confirmed or Possible COVID-19

Front-line healthcare personnel in the United States should be prepared to evaluate patients for coronavirus disease 2019 (COVID-19). The following checklist highlights key steps for healthcare personnel in preparation for transport and arrival of patients with confirmed or possible COVID-19.

Stay up to date on the latest information about signs and symptoms, diagnostic testing, and case definitions for coronavirus disease 2019.

Full CDC Preparedness Checklist: Healthcare Professional Preparedness Checklist For Transport and Arrival of Patients With Confirmed or Possible COVID-19

Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings

1. Minimize Chance for Exposures

Ensure facility policies and practices are in place to minimize exposures to respiratory pathogens including SARS-CoV-2, the virus that causes COVID-19. Measures should be implemented before patient arrival, upon arrival, throughout the duration of the patient's visit, and until the patient's room is cleaned and disinfected. It is particularly important to protect individuals at increased risk for adverse outcomes from COVID-19 (e.g. older individuals with comorbid conditions), including HCP who are in a recognized risk category.

2. Adhere to Standard and Transmission-Based Precautions

Standard Precautions assume that every person is potentially infected or colonized with a pathogen that could be transmitted in the healthcare setting. Elements of Standard Precautions that apply to patients with respiratory infections, including COVID-19, are summarized below. Attention should be paid to training and proper donning (putting on), doffing (taking off), and disposal of any PPE. This document does not emphasize all aspects of Standard Precautions (e.g., injection safety) that are required for all patient care; the full description is provided in the Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.

3. Patient Placement

For patients with COVID-19 or other respiratory infections, evaluate need for hospitalization. If hospitalization is not medically necessary, home care is preferable if the individual's situation allows.

If admitted, place a patient with known or suspected COVID-19 in a single-person room with the door closed. The patient should have a dedicated bathroom.

As a measure to limit HCP exposure and conserve PPE, facilities could consider designating entire units within the facility, with dedicated HCP, to care for known or suspected COVID-19 patients. Dedicated means that HCP are assigned to care only for these patients during their shift.

Limit transport and movement of the patient outside of the room to medically essential purposes.

4. Take Precautions When Performing Aerosol-Generating Procedures (AGPs)

Some procedures performed on patient with known or suspected COVID-19 could generate infectious aerosols. In particular, procedures that are likely to induce coughing (e.g., sputum induction, open suctioning of airways) should be performed cautiously and avoided if possible.

5. Collection of Diagnostic Respiratory Specimens

When collecting diagnostic respiratory specimens (e.g., nasopharyngeal swab) from a possible COVID-19 patient, the following should occur:

- HCP in the room should wear an N-95 or higher-level respirator (or facemask if a respirator is not available), eye protection, gloves, and a gown.
- The number of HCP present during the procedure should be limited to only those essential for patient care and procedure support. Visitors should not be present for specimen collection.
- Specimen collection should be performed in a normal examination room with the door closed.
- Clean and disinfect procedure room surfaces promptly as described in the section on environmental infection control below.

Full CDC guidance: Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed COVID-19 in Healthcare Settings

Strategies to Prevent and Mitigate the Spread of COVID-19 in Jails and Prisons

The population density and quick cycling of inmate/detainees in and out of correctional facilities creates a heightened risk of the 2019 novel coronavirus (COVID-19) infection being transmitted to inmate/detainees and staff. In addition, people in jails, prisons, and other detention facilities typically have a greater underlying disease burden and worse health conditions than the general population. They also frequently face greater exposure to risks, such as: smoking; poor hygiene; and weak immune defenses due to stress, poor nutrition, or the prevalence of coexisting diseases, such as: bloodborne viruses; tuberculosis; and substance use disorders. Therefore, the Nevada Department of Health and Human Services (DHHS) has developed strategies to assist jails, prisons, and other detention facilities to respond to the outbreak.

Most correctional facilities already have a written health promotion, safety, and disease prevention plan that addresses exposure control, medical isolation, and standard precautions used to detect and prevent the spread of other respiratory viruses like the influenza. Those same outbreak management principles should be used with the COVID-19 virus, and the DHHS recommendations below should complement but not replace, those general prevention and control standards.

Limit Visitation

Social Visits: Restrict or suspend all social visitation for 30 days and then re-evaluate at that time. To maintain inmate/detainee social contact, it is recommended facilities allow for increased inmate/detainee telephone communications and use alternative contact-visitation methods, such as video visits (where available) or tablets. The phone and video visits should be provided at no charge to the inmate/detainee. If visiting is allowed, screen the visitors using the same procedures the facility uses for staff. Visitors who are symptomatic should be excluded from visiting. Decisions to limit or restrict social visits need to consider the particular impact on the mental well-being of the inmate/detainee and the increased levels of anxiety that separation from children and the outside world may cause.

Legal Visits: Restrict or suspend in-person legal visits for 30 days and then re-evaluate at that time. To ensure inmates/detainees have access to legal counsel, use alternative visitation methods (e.g., video conferencing). Provide case-by-case accommodations for attorneys seeking in-person visits, and if attorneys are approved for in-person visits, screen them for the virus using the same procedures the facility uses for staff.

Contractors: Restrict or suspend contractor access to the facility for 30 days unless the person is there to perform essential services (e.g., medical care, mental healthcare, religious functions/services) or is there to perform necessary maintenance on essential systems; reassess after 30 days. For contractors allowed access to the facility, screen them using the same procedures the facility uses for staff.

Volunteers and non-essential service providers: Suspend volunteers and non-essential service providers for 30 days; then reassess the situation. Allow exceptions for volunteers providing religious functions/services. For those allowed access to the facility, screen them using the same procedures the facility uses for staff.

Facility Prevention Strategies

- Conduct a COVID-19 risk assessment of all persons entering the facility: inmate/detainees, visitors, and facility staff.
    - All symptomatic inmates should be screened and tested, if tests are available. If an inmate tests positive, or testing is not available, but they are symptomatic, they should be isolated based on these guidelines for discontinuation or released after 2 negative tests conducted 24 hours apart.
        - At least 3 days (72 hours) have passed recovery defined as resolution of fever without the use of fever-reducing medications; and,
        - Improvement in respiratory symptoms (e.g., cough, shortness of breath); and,
        - At least 7 days have passed since symptoms first appeared.
    - Collect information on the person's history of cough and/or shortness of breath, travel history, and possible contact with confirmed cases within the last 14 days.

    - Provide clear messaging to staff so those who have traveled recently or who are coming from affected areas and who develop COVID-19 symptoms can self-isolate and their managers can provide a high level of vigilance and support of the isolating-staff.
- Any inmate/detainee who presents with signs, symptoms, and exposure criteria consistent with COVID-19 should be isolated and tested, per local health authority protocols, and immediately placed on contact and droplet precautions for 14 days, unless otherwise cleared.
    - Place symptomatic inmates/detainees in single rooms if space is available. If space is not available, place symptomatic inmates/detainees together in a designated area of the facility.
- If possible, maintain incoming inmate/detainees in a designated isolation unit for 14 days prior to release into general population.
- If aerosol-generating medical procedures are needed, all healthcare workers should wear an N95 respirator (and eye protection).
- Incorporate social distancing measures: cancel all inmate/detainee group activities (recreation, education, chapel, therapy and support groups (e.g., Alcoholics Anonymous)) and events where people gather; cancel communal dining, stagger meals and recreational activities; provide the pill line by unit or administer medications on the units.
- Screen inmates/detainees who work in food service and health services.
- Minimize self-serve in food service (eliminate salad bars, etc.).
- Temporarily suspend handshakes.
- Limit facility points of entry.
- Use logs on each unit to document staff and inmate/detainee entry.
- Restrict moving inmates/detainees between housing units.
- For a sample screening flow chart, see the Clark County Detention Center's flow chart on page 12 of this document.

Prevention Strategies for Law Enforcement Officers Who Transport Detainees to Jail

Recommendations for law enforcement officers who, during an apprehension, come into close contact with a person who has been confirmed or is suspected of having COVID-19:

- Clean and disinfect the duty belt and gear prior to reuse.
    - Use a household cleaning spray or wipe, as outlined on the product label.
- Follow standard operating procedures for the containment and disposal of used PPE.
- Follow standard operating procedures for containing and laundering clothes.
- Avoid shaking the clothes.

The CDC provides guidance for law enforcement officers who make contact with persons confirmed or suspected to have COVID-19. The guide can be accessed at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html

Facility Mitigation Strategies

In addition to following the facility's infection disease management plan, implement modified operations and administrative controls for 30 days; then reassess the situation. Recommended strategies include:

- Isolate any asymptomatic inmate/detainee with exposure risk factors.
- Confine symptomatic inmates/detainees to their rooms.
- Isolate cellmates of symptomatic inmates/detainees until it is determined the cellmates are symptom free.
- If transportation of a symptomatic person is necessary, have the affected person wear a mask to contain respiratory secretions.
- Collaborate with the local health department to arrange appropriate medical care for inmates/detainees who are sick and scheduled for release.

- Transfers of symptomatic inmates/detainees from county to state facilities should be limited, prudent, and reviewed by the receiving facility's medical team before the inmate/detainee is transferred.
- Work in collaboration with your local health department to arrange appropriate aftercare for inmates/detainees who are sick and scheduled for release.
- Designate staff to work on either affected or non-affected units in order to avoid cross contamination.
- Ensure only trained staff wearing appropriate personal protective equipment (PPE) have contact with inmates/detainees who have or who may have the virus. Follow the CDC's Interim Guidance for Emergency Medical Services (EMS) Systems for PPE. The resource is available at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html
- Have a proactive sick leave policy and follow the CDC's recommended work restrictions and monitoring based on staff exposure to COVID-19 individuals.
- Provide staff with information about COVID-19 symptoms so they can self-assess before reporting for duty.
- Advise staff to check for any signs of illness before reporting to work each day and to notify their supervisor if they become ill while at work.
- Screen symptomatic staff if they present to work with symptoms or if they develop them while at work.
- In settings of widespread transmission, consider screening all staff for fever or respiratory symptoms before they can enter the facility.
- Consider identifying staff who may be at higher risk for COVID-19 and assigning them to unaffected units, if possible.
- Follow the most updated public health requirements for when staff can return to work after having a COVID-19 diagnosis.
- Make contingency plans for increased absenteeism caused by staff illness or by illness in staffs' family members that would require staff to stay home. Contingency planning includes:
    - Identifying and prioritizing essential and non-essential functions;
    - Identifying minimum staffing needs for essential facility operations;
    - Extending shift hours;
    - Cross-training current staff or hiring temporary staff; and
    - Collaborating with the local health department to identify facility space that could be adapted for use as an isolation area for symptomatic individuals.