UPDATED Personal Protective Equipment (PPE) GUIDANCE

Guidelines for reusing PPE are for the assigned employee and not to be shared with others. It is each employee's responsibility to maintain and care for their mask each week.

Face Masks

As of April 3, 2020, CDC and DPH guidance indicates that all staff in direct care settings should be wearing a mask. *Considering PPE shortages, employees may be advised to reuse traditionally disposable face masks.*

Fitted N95 respirator masks should ONLY be used when staff are working with individuals who have tested positive for COVID-19 under the following circumstances:

- During treatment for an individual with a tracheotomy
- During treatment for an individual receiving suctioning (does not include toothbrushing with suction)
- During treatment for an individual using a nebulizer
- When in the room with an individual using a CPAP or BiPAP machine

In order to extend useable life, fitted N95 masks may be covered by a face shield or regular medical-grade mask and reused by employees until they no longer fit well (i.e., when eye goggles begin to fog, this indicates that the seal is no longer secure). Masks should be stored in a clearly labeled paper bag between uses.

Under all other circumstances, regular medical-grade masks should be used when available. Medical grade masks may be reused by the staff person for up to one week. Masks should be stored in a clearly labeled paper bag between uses.

If medical grade masks are not available, cloth masks, bandanas, or scarves may be used.

Gloves, Gowns, Eye Protection

Staff working with individuals who have tested positive for COVID-19 or are symptomatic and being tested for COVID-19 should use gloves, gowns, and eye protection in addition to the appropriate mask.

Exposure Protocol

Employees who have worked in close proximity (6 feet or less) and for a prolonged period of time (more than 15 minutes) with an individual diagnosed with COVID-19 can continue to work as long as the employee is asymptomatic. Employees should contact their healthcare provider and continue to wear a mask when working.

Coronavirus (COVID-19) Use of Personal Protective Equipment (PPE)

This document outlines appropriate use of PPE for person's diagnosed with COVID-19. When used appropriately the risk of transmission and cross-contamination, as well as depletion of PPE items are minimized.

Who: PPE is to be worn at all times by any employee caring for an individual(s) diagnosed (based on positive test results) with COVID-19 (Coronavirus).

What: Face mask, face shield, gown, gloves, eye protection

**A respirator mask is not generally used for Droplet Precautions; however, the CDC recommends a respirator mask when caring for person's who have tested positive for COVID-19 while performing aerosol treatments.*

Where: Less than 6 ft radius of person who tested positive for COVID-19.

When: Face mask is to be worn at all times. PPE- Face mask, face shield, gown, gloves and eye protection are to be worn when caring for an individual diagnosed with COVID-19.

Why: Respiratory droplets carrying infectious pathogens transmit infection when they travel directly from the respiratory tract of the infectious individual to susceptible mucosal surfaces of the recipient, generally over short distances, necessitating facial protection. Respiratory droplets are generated when an infected person coughs, sneezes, or talks, or during procedures such as suctioning. It is recommended that donning of face protection and other PPE occurs before entering individual's room or 6 feet from the person who has tested positive for COVID-19.

How: Refer to the attached Donning and Doffing instructional sheet

Isolation: Individual who has tested positive shall be isolated from others when possible. A precaution sign(s) should be placed on the person's bedroom door which indicates personal protective equipment is needed prior to entering the area (see attached).

Hand Hygiene: Proper hand hygiene must be performed immediately before donning and immediately after doffing PPE. All employees caring for individuals should perform hand hygiene by using alcohol-based hand rub (ABHR) with at least 60% alcohol (*60% ethanol or 70% isopropyl alcohol*) or washing hands with soap and water for at least 20 seconds. If hands are visibly soiled, use soap and water before returning to ABHR.

Personal Protective Equipment: Face mask, face shield, gown, gloves, goggles

Face Protection:

Put on a facemask or respirator (if performing aerosol producing treatment) before entry into the person's room or care area.

N95 respirators or respirators that offer a higher level of protection should be used instead of a facemask when performing or present for an aerosol-generating procedure. Disposable respirators and facemasks should be removed and stored in a labeled paper bag after exiting the person's room or care area and closing the door.

Eye Protection:

Put on eye protection (i.e., goggles or a disposable face shield that covers the front and sides of the face) upon entry to the person's room or care area. Personal eyeglasses and contact lenses are NOT considered adequate eye protection.

Remove eye protection before leaving the person room or care area.

Reusable eye protection (e.g., goggles) must be cleaned and disinfected according to manufacturer's reprocessing instructions prior to re-use. Disposable eye protection should be discarded after use.

Gloves:

Put on clean, non-sterile gloves upon entry into the person room or care area.

Change gloves if they become torn or heavily contaminated.

Remove and discard gloves when leaving the person's room or care area, and immediately perform hand hygiene

Gowns:

Put on a clean isolation gown upon entry into the person's room or area. Change the gown if it becomes soiled. Remove and discard the gown in a dedicated container for waste or linen before leaving the person's room or care area. Disposable gowns should be discarded after use. Cloth gowns should be laundered after each use.

If there are shortages of gowns, they should be prioritized for aerosol-generating procedures, care activities where splashes and sprays are anticipated, and high-contact personal care activities which provide opportunities for transfer of pathogens to the hands and clothing of caregiver.

Examples include:

- dressing
- bathing/showering
- transferring
- providing hygiene
- changing linens
- changing briefs or assisting with toileting
- device care or use
- wound care

Housekeeping:

A. All sites will be cleaned at least nightly and when contaminated with special attention to high-touch areas such as light switches, doorknobs, drawer handles, tabletops and countertops shall be cleaned.

B. Decontamination will be accomplished by utilizing bleach. Per CDC recommendations to make a bleach solution, mix: 5 tablespoons (1/3rd cup) bleach per gallon of water OR 4 teaspoons bleach per quart of water (*Follow manufacturer's instructions for application and proper ventilation. Check to ensure the product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser. Unexpired household bleach will be effective against coronaviruses when properly diluted.).*

   A list of the most common EPA-registered household disinfectants is located at https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2

C. The label shall note the date of mixing. Only prepare solution when necessary. Solution must be discarded after 24 hours.

D. Commercially prepared products that have a longer shelve life can be utilized for decontamination. See manufacturer label for shelf life.

E. Laundry contaminated with blood or other potentially infectious substance will be placed in a separate bag and then laundered separately.

   Contaminated laundry is not to be rinsed. Staff should be in-serviced on proper procedures for laundering.
   All laundry should be washed at the residential site. Staff are to wear appropriate protective personal protective equipment when handling wet, soiled or contaminated laundry. All contaminated laundry shall be handled as little as possible with a minimum of agitation. Wet contaminated laundry which needs to be transported, shall be place in a leak proof container (i.e., double-bagged) and laundered at another location using the appropriate personal protective equipment; or may be discarded with the trash.

Coronavirus (COVID-19) Optimizing Personal Protective Equipment (PPE)

PPE for treating individuals diagnoses with COVID-19 are eye protection, face mask, gown, and gloves.

In the event of supply shortages, the CDC recommends taking the following steps in order to reduce the transmission of COVID-19:

Conventional capacity: typical use of PPE in the absence of shortages.

Contingency capacity: measures may change daily standard practices but may not have any significant impact on the safety of the caregiver. These practices may be used temporarily during periods of expected PPE shortages.

Crisis capacity: strategies that are not disproportionate with U.S. standards of care. These measures, or a combination of these measures, may need to be considered during periods of known PPE shortages

Eye Protection

Conventional capacity:
Use eye protection according to product labeling and local, state, and federal requirements.

Contingency capacity:
Ensure appropriate cleaning and disinfection between users if goggles or reusable face shields are used.

Extended use of eye protection is the practice of wearing the same eye protection for repeated close contact encounters with several different individuals, without removing eye protection between encounters. Extended use of eye protection can be applied to disposable and reusable devices.

Eye protection should be removed and disinfected if it becomes visibly soiled or difficult to see through. If a disposable face shield is disinfected, it should be dedicated to one caregiver and disinfected whenever it is visibly soiled or removed (e.g., when leaving the isolation area) prior to putting it back on.

Eye protection should be discarded if damaged (e.g., face shield can no longer fasten securely to the provider, if visibility is obscured and cleaning does not restore visibility).

Caregiver should take care not to touch his/her eye protection. If the caregiver touches or adjusts his/her eye protection, he/she must immediately perform hand hygiene.

Caregiver should leave the person's care area if there is a need to remove eye protection.

Crisis capacity:

Use eye protection devices beyond the manufacturer-designated shelf life during person 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 person is unavoidable.

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

Designate convalescent caregivers for provision of care to known or suspected COVID-19 persons.

It may be possible to designate caregivers who have clinically recovered from COVID-19 to preferentially provide care for additional persons 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 Disinfecting 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.

Gowns

Conventional capacity:
Use isolation gown alternatives that offer equivalent or higher protection.

Contingency capacity:
Shift gown use towards cloth isolation gowns.

Reusable (i.e., washable) gowns are typically made of polyester or polyester-cotton fabrics. Gowns made of these fabrics can be safely laundered according to routine procedures and reused. Care should be taken to ensure that caregivers do not touch outer surfaces of the gown during care.

Consider the use of coveralls.

Coveralls typically provide 360-degree protection because they are designed to cover the whole body, including the back and lower legs, and sometimes the head and feet as well. While the material and seam barrier properties are essential for defining the protective level, the coverage provided by the material used in the garment design, as well as certain features including closures, will greatly affect the protective

level. Persons unfamiliar with the use of coveralls must be trained and practiced in their use, prior to using during care.

Crisis capacity:
Use of expired gowns beyond the manufacturer-designated shelf life for training.

The majority of isolation gowns do not have a manufacturer-designated shelf life. However, consideration can be made to using gowns that do and are past their manufacturer-designated shelf life. If there is no date available on the gown label or packaging, facilities should contact the manufacturer.

Use gowns or coveralls conforming to international standards.

Current guidelines do not require use of gowns that conform to any standards. In times of shortages, healthcare facilities can consider using international gowns and coveralls. Gowns and coveralls that conform to international standards, including with EN 13795 and EN14126, could be reserved for activities that may involve moderate to high amounts of body fluids.

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 caregiver when interacting with more than one individual known to be infected with the same infectious disease when these individuals are housed in the same location (i.e., COVID-19 persons residing in an isolation cohort). This can be considered only if there are no additional co-infectious diagnoses transmitted by contact (such as Clostridium difficile) among persons. 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 caregivers 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, caregiver risk from re-use of cloth isolation gowns without laundering among (1) single employee caring for multiple patients using one gown or (2) among multiple caregivers sharing one gown is unclear. The goal of this strategy is to minimize exposures to caregivers and not necessarily prevent transmission between patients. Any gown that becomes visibly soiled during care should be disposed of and/or cleaned.

Prioritize gowns:

Gowns should be prioritized for the following activities:

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

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 caregiver is unknown. Preferable features include long sleeves and closures (snaps, buttons) that can be fastened and secured. For example:

1. Disposable laboratory coats
2. Reusable (washable) gowns
3. Reusable (washable) laboratory coats
4. Disposable aprons
5. 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 gowns or laboratory coats
6. Open back gowns with long sleeve gowns or laboratory coats
7. Sleeve covers in combination with aprons and long sleeve gowns or laboratory coats

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

Systems should be 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).

Facemasks

Conventional capacity:
Use facemasks according to product labeling and local, state, and federal requirements.

Contingency capacity:
Implement extended use of facemasks.
Extended use of facemasks is the practice of wearing the same facemask for repeated close contact encounters with several different patients, without removing the facemask between individual encounters.

The facemask should be removed and discarded if soiled, damaged, or hard to breathe through.

Caregivers must take care not to touch their facemask. If they touch or adjust their facemask, they must immediately perform hand hygiene.

Caregivers should leave the patient care area if they need to remove the facemask.

Restrict facemasks to use by caregiver only, rather than individuals that have tested positive for COVID-19.

Have individuals with symptoms of respiratory infection use tissues or other barriers to cover their mouth and nose.

Crisis capacity:
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 caregiver for multiple encounters with different individuals but removing it after each encounter. As it is unknown what the potential contribution of contact transmission is for COVID-19, care should be taken to ensure that caregivers 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.

Caregivers 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:

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:

1. Exclude caregivers at higher risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients.
2. During severe resource limitations, consider excluding caregivers 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.
3. Designate convalescent caregivers for provision of care to known or suspected COVID-19 patients.
4. It may be possible to designate caregivers 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 individual's room, reducing risk to individuals entering the room without respiratory protection. The National Institute for Occupational Safety and Health (NIOSH) has developed guidance for using portable HEPA filtration systems to create expedient patient isolation rooms. The expedient individual 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 an individual in bed into a HEPA filter, decreasing risk of HCP exposure to person-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.

Caregiver use of homemade masks:

In settings where facemasks are not available, caregivers might use homemade masks (e.g., bandana, scarf) for care of individuals with COVID-19 as a last resort. However, homemade masks are not considered PPE, since their capability to protect caregivers 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.

Cleaning Fabric facemasks and reusable gowns or clothing covers

1. Fabric facemasks and gowns should be laundered in a washing machine using the hottest water temperature recommended for the fabric.
2. Once the cycle complete place facemask in the dryer on the hottest temperature for the fabric and dry completely.
3. The laundry hamper that the dirty items where kept should be sanitized by washing (if cloth) or wiped down with EPA approved disinfectant wipes or bleach solution.
    a) To prepare a bleach solution mix: 5 tablespoons (1/3rd cup) bleach per gallon of water; or 4 teaspoons bleach per quart of water
    b) **Use alcohol solutions with at least 60% alcohol**
4. **When using household cleaners and disinfectants follow the instructions on the label** to ensure safe and effective use of the product. Refer to the United States Environmental Protection Agency (EPA) for a list of approved household disinfectants.
5. Wash hands with soap and water for 20secs after handling dirty items and/or cleaning dirty laundry storage containers.

References:

Centers for Disease Prevention and Control (CDC) PPE
https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-use-faq.html

United States Environmental Protection Agency (EPA) Pesticide Registration List of Disinfectants
https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2

Strategies for Optimizing the Supply of PPE:

https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html