To health!
NJHA
New Jersey Hospital Association

Strategies for Optimizing the Supply of PPE based on CDC Guidance

Version 2 | Ocober, 2020

This resource was created with funding from the Assistant Secretary for Preparedness and Response and the New Jersey Department of Health.

Strategies for Optimizing the Supply of PPE based on CDC Guidance

All LTCFs shSource: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/eye-protection.html

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

This document offers a series of strategies or options to optimize supplies of isolation gowns in healthcare settings when there is limited supply. Surge capacity refers to the ability to manage a sudden, unexpected increase in patient volume that would otherwise severely challenge or exceed the present capacity of a facility. While there are no widely accepted measurements or triggers to distinguish surge capacity from daily patient care capacity, surge capacity is a useful framework to approach a decreased supply of isolation gowns during the COVID-19 response. Three general strata have been used to describe surge capacity and can be used to prioritize measures to conserve isolation gown supplies along the continuum of care.

- **CONVENTIONAL CAPACITY:** measures consist of providing patient care without any change in daily contemporary practices. This set of measures, consisting of engineering, administrative, and personal protective equipment (PPE) controls should already be implemented in general infection prevention and control plans in healthcare settings.
- **CONTINGENCY CAPACITY:** measures may change daily standard practices but may not have any significant impact on the care delivered to the patient or the safety of healthcare personnel (HCP). These practices may be used temporarily during periods of expected PPE shortages.
- **CRISIS CAPACITY:** strategies that are not commensurate 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.

The following contingency and crisis strategies are based upon these assumptions:

1. Facilities understand their PPE inventory and supply chain
2. Facilities understand their PPE utilization rate
3. Facilities are in communication with local healthcare coalitions, federal, state, and local public health partners (e.g., public health emergency preparedness and response staff) regarding identification of additional supplies
4. Facilities have already implemented other **engineering and administrative control measures** including:
   - Reducing the number of patients going to the hospital or outpatient settings
   - Excluding HCP not essential for patient care from entering their care area
   - Reducing face-to-face HCP encounters with patients
   - Excluding visitors to patients with confirmed or suspected COVID-19
   - Cohorting patients and HCP
   - Maximizing use of telemedicine
5. Facilities have provided HCP with required education and training, including having them demonstrate competency with donning and doffing, with any PPE ensemble that is used to perform job responsibilities, such as provision of patient care.

Strategies for Optimizing the Supply of Eye Protection

CONVENTIONAL CAPACITY

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

CONTINGENCY CAPACITY

Decrease length of stay for medically stable patients with COVID-19.

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

Shift eye protection supplies from disposable to re-usable devices (i.e., goggles and reusable face shields).

- Consider preferential use of powered air purifying respirators (PAPRs) or full-face elastomeric respirators which have built-in eye protection.
- Ensure appropriate cleaning and disinfection between users if goggles or reusable face shields are used.

Implement extended use of eye protection.

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

- Eye protection should be removed and reprocessed if it becomes visibly soiled or difficult to see through.
  - If a disposable face shield is reprocessed, it should be dedicated to one HCP and reprocessed whenever it is visibly soiled or removed (e.g., when leaving the isolation area) prior to putting it back on. See protocol for removing and reprocessing eye protection below.
- Eye protection should be discarded if damaged (e.g., face shield can no longer fasten securely to the provider, if visibility is obscured and reprocessing does not restore visibility).
- HCP should take care not to touch their eye protection. If they touch or adjust their eye protection they must immediately perform hand hygiene.
- HCP should leave patient care area if they need to remove their eye protection.

CRISIS CAPACITY

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 include 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. However, protective eyewear (e.g., safety glasses, trauma glasses) with gaps between glasses and the face likely do not protect eyes from all splashes and sprays.

Exclude HCP at increased 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 increased 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.

CONSIDERATION

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.

Strategies for Optimizing the Supply of Isolation Gowns

Decisions to implement contingency and crisis strategies are based upon these assumptions:

1. Facilities understand their current isolation gown inventory and supply chain
2. Facilities understand their isolation gown utilization rate
3. Facilities are in communication with local healthcare coalitions and federal, state, and local public health partners (e.g., public health emergency preparedness and response staff) to identify additional supplies
4. Facilities have already implemented other engineering and administrative control measures including:
   - Use physical barriers and other engineering controls
   - Limit number of patients going to hospital or outpatient settings
   - Use telemedicine whenever possible
   - Exclude all HCP who are not directly involved in patient care from patient encounters
   - Limit face-to-face HCP encounters with patients
   - Exclude visitors to patients with known or suspected COVID-19
   - Cohort patients and/or HCP
5. Facilities have provided HCP with required education and training, including having them demonstrate competency with donning and doffing, with any PPE ensemble that is used to perform job responsibilities, such as provision of patient care.

As gown availability returns to normal, healthcare facilities should promptly resume conventional practices. Determining the appropriate time to return to conventional strategies can be challenging. Considerations affecting this decision include:

6. the number of patients requiring Transmission-Based Precautions (e.g., number of patients with suspected or confirmed SARS-CoV-2 infection)
7. whether there is evidence of ongoing SARS-CoV-2 transmission in the facility
8. the incidence of SARS-CoV-2 infections in the community
9. the number of days' supply of PPE items currently remaining at the facility
10. whether or not the facility is receiving regular resupply with its full allotment.

CONVENTIONAL CAPACITY

Note: In general, CDC does not recommend the use of more than one isolation gown at a time by HCP when providing care to patients with suspected or confirmed SARS-CoV-2 infection.

Use isolation gown alternatives that offer equivalent or higher protection.

Several fluid-resistant and impermeable protective clothing options are available in the marketplace for HCP. These include isolation gowns and surgical gowns. When selecting the most appropriate protective clothing, employers should consider all of the available information on recommended protective clothing, including the potential limitations. Nonsterile, disposable patient isolation gowns, which are used for routine patient care in healthcare settings, are appropriate for use by HCP when caring for patients with suspected or confirmed COVID-19. In times of gown shortages, surgical gowns should be prioritized for surgical and other sterile procedures. Current U.S. guidelines do not require use of gowns that conform to any standards. In March 2020, FDA issued an enforcement policy for gowns and other apparel during the COVID-19 pandemic. In May 2020, FDA issued an Emergency Use Authorization regarding the use of certain gowns in healthcare settings.

Reusable (i.e., washable) gowns are typically made of polyester or polyester-cotton fabrics. Gowns made of these fabrics can be safely laundered after each use according to routine procedures and reused.

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)
- replace reusable gowns when needed (e.g., when they are thin or ripped)
- store laundered gowns in a manner such that they remain clean until use

CONTINGENCY CAPACITY

Decrease length of stay for medically stable patients with COVID-19.

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

Consider the use of coveralls.

Coveralls are less convenient to use in most healthcare settings. Their one-piece design covers the back and lower legs, in addition to arms and the front of the body, making them useful for situations in which vigorous physical mobility is anticipated (e.g., emergency medical services). If coveralls are used, the material and seams should be appropriate to serve the intended barrier function effectively. Facilities should anticipate challenges and potential hazards to staff related to doffing coveralls and should provide training and practice in their safe use and designated places for donning and doffing, before providing them for patient care.

In the United States, the NFPA 1999 standard specifies the minimum design, performance, testing, documentation, and certification requirements for new single-use and new multiple-use emergency medical operations protective clothing, including coveralls for HCP.

Use of 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 manufacturerdesignated shelf life. If there is no shelf life information 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 regulatory 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 high performance gowns and EN14126 Class 5–6 coveralls, could be reserved for activities that may involve moderate to high amounts of body fluids.

CRISIS CAPACITY

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

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 other patients and staff via the soiled 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. If used for isolation purposes, the gown must be removed and changed if it becomes soiled, as per usual practices. Different areas of the surgical gown may provide different levels of barrier protection. Facilities may consider suspending use of gowns for endemic multidrug resistant organisms (e.g., MRSA, VRE, ESBL-producing organisms).

Note: The organisms that are considered endemic can vary in different regions. In general, isolation gowns, as part of Contact Precautions, should continue to be used for patients colonized or infected with emerging highly-resistant organisms including Candida auris, carbapenemase-producing carbapenem-resistant Enterobacterales, Carbapenem-resistant Pseudomonas and Acinetobacter, and pan-resistant organisms.

Consider using gown alternatives.

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 pieces of clothing can be considered for activities that may involve high amounts of body fluids and when there are no gowns available:
  - 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)

Re-use of isolation gowns.

The risks to HCP and patient safety must be carefully considered before implementing a gown reuse strategy. Disposable gowns generally should NOT be re-used, and reusable gowns should NOT be reused before laundering, because reuse poses risks for possible transmission among HCP and patients that likely outweigh any potential benefits. Similar to extended gown use, gown reuse has the potential to facilitate transmission of organisms (e.g., C. auris) among patients. However, unlike extended use, repeatedly donning and doffing a contaminated gown may increase risk for HCP self-contamination. If reuse is considered, gowns should be dedicated to care of individual patients. Any gown that becomes visibly soiled during patient care should be disposed of or, if reusable, laundered.

Strategies for Optimizing the Supply of Facemasks

CDC's optimization strategies for facemask supply offer a continuum of options for use when facemask supplies are stressed, running low, or exhausted. Contingency and then crisis capacity measures augment conventional capacity measures and are meant to be considered and **implemented sequentially**. As facemask availability returns to normal, healthcare facilities should promptly resume standard practices.

Decisions to implement contingency and crisis strategies are based upon these assumptions:

1. Facilities understand their facemask inventory and supply chain
2. Facilities understand their facemask utilization rate
3. Facilities are in communication with local healthcare coalitions, federal, state, and local public health partners (e.g., public health emergency preparedness and response staff) to identify additional supplies
4. Facilities have already implemented other engineering and administrative control measures including:
   - Use physical barriers and other engineering controls
   - Limit number of patients going to hospital or outpatient settings
   - Use telemedicine whenever possible
   - Exclude all HCP not directly involved in patient care
   - Limit face-to-face HCP encounters with patients
   - Exclude visitors to patients with known or suspected COVID-19
   - Cohort patients and/or HCP
5. Facilities have provided HCP with required education and training, including having them demonstrate competency with donning and doffing, with any PPE ensemble that is used to perform job responsibilities, such as provision of patient care.

CONVENTIONAL CAPACITY

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

- FDA-cleared surgical masks are designed to protect against splashes and sprays and are prioritized for use when such exposures are anticipated, including surgical procedures.
- Facemasks that are not regulated by FDA, such as some procedure masks, which are typically used for isolation purposes, may not provide protection against splashes and sprays.

CONTINGENCY CAPACITY

Decrease length of stay for medically stable patients with COVID-19.

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

Place facemasks in a secure and monitored site and provide facemasks to symptomatic patients upon check-in at entry points.

Healthcare facilities can consider removing all facemasks from public areas. Facemasks can be available to provide to symptomatic patients upon check in at entry points. All facemasks should be placed in a secure and monitored site. This is especially important in high-traffic areas like emergency departments.

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 patient encounters.

- The facemask should be removed and discarded if soiled, damaged, or hard to breathe through.
- HCP must take care not to touch their facemask. If they touch or adjust their facemask they must immediately perform hand hygiene.
- HCP should leave the patient care area if they need to remove the facemask.

Restrict facemasks for use by HCP, rather than asymptomatic patients (who might use cloth masks) for source control.

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

CRISIS CAPACITY

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.

CONSIDERATION

When no facemasks are available, options Include:

Exclude HCP at increased 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 increased 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 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.

Strategies for Optimizing the Supply of N95 Respirators

CONVENTIONAL CAPACITY

Engineering controls reduce exposures for HCP by placing a barrier between the hazard and the HCP. Engineering controls can be very effective as part of a suite of strategies to protect HCP without placing primary responsibility of implementation on them (i.e., they function without HCP having to take an action).

Administrative controls are employer-dictated work practices and policies that reduce or prevent hazardous exposures. Their effectiveness depends on employer commitment and HCP acceptance and consistent use of the strategies.

While engineering and administrative controls should be considered first when selecting controls, **the use of personal protective equipment (PPE)** should also be part of a suite of strategies used to protect personnel. Proper use of respiratory protection by HCP requires a comprehensive program (including medical clearance, training, and fit testing) that complies with OSHA's Respiratory Protection Standard and a high level of HCP involvement and commitment. The program should also include provisions for the cleaning, disinfecting, inspection, repair, and storage of respirators used by HCP on the job according to manufacturer's instructions. Proper storage conditions can maximize shelf life of respirators. The following strategies in this section are traditionally used by some healthcare systems. If not already implemented, these strategies can be considered by healthcare settings in the face of a potential N95 respirator shortage before implementing the contingency strategies.

CONTINGENCY CAPACITY

Decisions to implement contingency are based upon these assumptions:

1. Facilities understand their current N95 respirator inventory and supply chain
2. Facilities understand their N95 respirator utilization rate
3. Facilities are in communication with local healthcare coalitions and federal, state, and local public health partners (e.g., public health emergency preparedness and response staff) to identify additional supplies
4. Facilities have already implemented conventional capacity measures
5. Facilities have provided HCP with required education and training, including having them demonstrate competency with donning and doffing, with any PPE ensemble that is used to perform job responsibilities, such as provision of patient care.

Administrative Controls

- Decrease length of hospital stay for medically stable patients with COVID-19
- Temporarily suspend annual fit testing.

CRISIS CAPACITY

Decisions to implement crisis strategies are based upon these assumptions:

1. Facilities understand their current N95 respirator inventory and supply chain
2. Facilities understand their N95 respirator utilization rate

3. Facilities are in communication with local healthcare coalitions, federal, state, and local public health partners (e.g., public health emergency preparedness and response staff) regarding identification of additional supplies
4. Facilities have already implemented contingency capacity measures
5. Facilities have provided HCP with required education and training, including having them demonstrate competency with donning and doffing, with any PPE ensemble that is used to perform job responsibilities, such as provision of patient care.

When N95 supplies are running low

- Use of respirators beyond the manufacturer-designated shelf life for healthcare delivery
- Use of respirators approved under standards used in other countries that are similar to NIOSH-approved N95 respirators
- Limited re-use of N95 respirators for COVID-19 patients
- Use of additional respirators beyond the manufacturer-designated shelf life for healthcare delivery
- 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 unknownfor 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.

CONSIDERATION

When no respirators are left:

Administrative Controls

- Exclude HCP at increased risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients
- Designate convalescent HCP for provision of care to known or suspected COVID-19 patients

Engineering Controls

- Expedient patient isolation rooms for risk reduction
- Ventilated headboards
- 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.

Elastomeric Respirators

CONVENTIONAL CAPACITY

Not applicable during the COVID-19 response when supplies are short. HCP should follow the contingency and crisis strategies.

CONTINGENCY CAPACITY

Elastomeric respirator is issued for the exclusive use of an individual employee. The respirators are cleaned and disinfected as often as necessary to remain unsoiled and sanitary. Their description and use should be part of a written OSHA respiratory protection program (RPP). If there is deviation from the standard RPP, it should be authorized and documented by the program's administrator.

CRISIS CAPACITY

Limited respirator and/or respirator component supplies such as filters, cartridges, or canisters, and valves, and situations in which it is impossible for individual HCP to have a dedicated elastomeric respirator, for example when the same respirator must be used by multiple HCP. When used by more than one HCP, respirators must be cleaned and disinfected before being worn by different individuals. The use of elastomeric respirators should be part of a written OSHA RPP. If there is any deviation from the conventional RPP, it should be authorized and documented by the program's administrator.

Sharing elastomeric respirators if it is impossible for individual HCP to have dedicated elastomeric respirators, the same elastomeric respirator may be used by multiple HCP. Elastomeric respirators issued to more than one employee should be cleaned, disinfected, and inspected before being worn by different individuals. One option is to label the respirator, conduct surface cleaning at the point of use, and return to a central location to be disinfected by central staff before reissuing the respirator to a different user.

Waiving the fit testing requirements

If fit testing is not possible, leakage at the face seal could occur and the protection provided to the wearer may be significantly reduced. For any tight-fitting respirator, such as FFRs and elastomeric respirators, a successful user seal check must be performed with each donning.

Under serious outbreak conditions in which respirator supplies are severely limited, HCP may not have the opportunity to ever be fit tested on a respirator before needing to use it. While this is not ideal, in this scenario, HCP should work with their employers to choose the respirator that fits them best, as, even without fit testing, a respirator will provide better protection than using no respirator at all or using a surgical mask.

Fit testing is necessary to confirm if a respirator does or does not fit. During a crisis, however, when conventional requirements cannot be implemented, healthcare professionals should be able to determine if they have obtained a reasonable fit if they have had training and they perform a successful user seal check prior to each use of the respirator.

CONSIDERATION

Users of Corrective Lenses

- Conventionally, workers who wear a full face piece respirator and need corrective lenses would have prescription inserts. In a surge situation, where multiple employees share respirators, the use of prescription inserts might not be feasible.
- Employees who use glasses could wear half face piece respirators, with glasses worn over the respirator to avoid a situation where the arms of the glasses interfere with the respirator seal.
- The risks of contamination by solvent vapors do not apply in most healthcare settings. Therefore, individuals who wear contact lenses should be able to wear either full face piece or half face piece respirators. However, the use of contact lenses in general could present additional risks where SARS-CoV-2 exposures are known or suspected.

Suggested facemask or respirator use, based upon distance from a patient with suspected/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

Resources:

Checklist for Healthcare Facilities: Strategies for Optimizing the Supply of N95 Respirators during the COVID-19 Response: https://www.cdc.gov/coronavirus/2019-ncov/hcp/checklist-n95-strategy.html

Release of Stockpiled N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life: Considerations for the COVID-19 Response: https://www.cdc.gov/coronavirus/2019-ncov/release-stockpiled-N95.html

NIOSH Approved N95 Particulate Filtering Facepiece Respirators: Manufacturers Listed Alphabetically: https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/n95list1.html