

**Workgroup Name:** Clinical Care

**Date:** April 30, 2020

**Workgroup contact:** Jeff Salvon-Harman, MD

**Question or request:** In order to continuously provide protection to health care workers during the COVID-19 crisis and a known shortage in supplies for Personal Protective Equipment (PPE), we recommend the Governor to issue the following directive:

**New Mexico Hospitals and Healthcare Facilities and Services should immediately begin maximal PPE conservation practices (if not already enacted).**

**Recommendation/s in bullet form:**

- See attached document for specific guidance on conservation approaches, practices and protocols

**Assessment:** Applying maximal PPE conservation efforts across all hospitals and healthcare facilities and services will extend current supplies and increase the likelihood of adequate supply availability for any region/community during times of COVID-19 surge.

Concepts that are essential to a Healthcare PPE conservation plan

- Development of standard protocols and instruction/training for extended use/reuse
- Streamlined areas and teams (limiting numbers of individuals involved in care delivery and bundling of tasks)
- Communication (multiple channels tailored to users to include bi-directional flow) to PPE-users for unity of purpose
- Procurement of alternatives to disposable PPE items with instruction and sufficient supply of disinfection materials

**Red flags and concerns:**

- CDC Crisis/Alternate Strategies for N95s should only be utilized when absolutely necessary
- Resume intended use of conserved disposable PPE items when supplies can be reliably maintained at nominal levels

**Contributors:**

MAT Clinical Care – PPE Subgroup

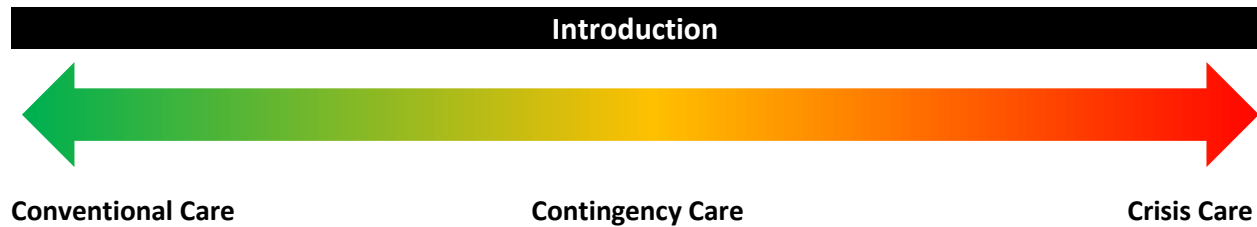
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**Level of Consensus:** Total

**Resources/Reference:**

- CDC Conservation Guidance: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>

## PPE Conservation Recommendations



Throughout the SARS-CoV-2 (COVID-19) global pandemic, hospitals and other healthcare facilities will find themselves somewhere on the spectrum above. Factors including public health practices in place at the time, overall healthcare delivery system capacity, individual patient behaviors, etc. will influence location on this spectrum. The following guidance is intended to provide a framework to support hospitals and other healthcare facilities in protecting their healthcare personnel (HCP) as they consider their longitudinal need, burn rate, supply chain access, and conservation practices for Personal Protective Equipment (PPE).

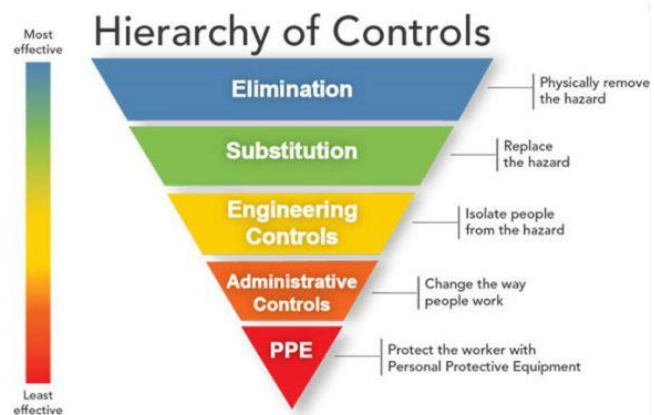
This document is based on the best available scientific evidence, national guidance, and lived experience available at the time of its drafting in late April, 2020. Hospitals and healthcare facilities will need to develop or adapt their own protocols based on this framework to meet the unique needs defined by their scope of services and staffing.

### Conservation Framework

Controlling exposures to occupational hazards is a fundamental way to protect personnel. During conventional capacity, a hierarchy is typically used to achieve feasible and effective controls. Multiple control strategies can be implemented concurrently and/or sequentially. This hierarchy can be represented as follows:

- Elimination
- Substitution
- Engineering controls
- Administrative controls
- Personal protective equipment (PPE)

To prevent infectious disease transmission, elimination (physically removing the hazard) and substitution (replacing the hazard) are not typically options for healthcare settings.



However, exposures to transmissible respiratory pathogens in healthcare facilities can often be reduced or possibly avoided through engineering and administrative controls and PPE. Prompt detection and effective triage and isolation of potentially infectious patients are essential to prevent unnecessary exposures among patients, healthcare personnel (HCP), and visitors at the facility.<sup>1</sup>

<sup>1</sup> <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html>

## PPE Conservation Recommendations

Three general strata have been used to describe surge capacity and can be used to prioritize measures to conserve N-95 respirator supplies along the continuum of care<sup>2</sup>.

Conventional capacity: Measures consist of providing patient care without any change in daily contemporary practices. This set of measures, consisting of engineering, administrative, and 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 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 recommendations are offered in a suggested order of implementation, however each organization should consider their own unique circumstances and adjust to their needs, accordingly.***

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<sup>2</sup> Hick JL, Barbera JA, Kelen GD. Refining surge capacity: conventional, contingency, and crisis capacity. Disaster Med Public Health Prep. 2009;3(2 Suppl): S59-67 (via CDC website)

## PPE Conservation Recommendations

### Conventional Care Recommendations



“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 HCPs without placing primary responsibility of implementation on them (i.e., they function without HCPs having to take an action).”

1. Perform aerosol-generating procedures on COVID-positive patients or Patients Under Investigation (PUIs) in an airborne infection isolation room (AIIR).
2. Limit the rooms, units, or areas in which PUI or COVID-positive patients are evaluated; consider evaluating COVID-positive patients or PUIs in a single room with the door closed if AIIR is not available.
3. Consider the use of physical barriers, such as glass or plastic windows, as feasible. This can be effective in reception or triage areas where patients first present to the facility.
4. Properly maintain ventilation systems.

### Administrative Controls

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

#### ***Limit Entry***

1. Exclude visitors from the facility (with some exceptions for extenuating circumstances such as end-of-life scenarios and pediatric patients).
2. Screen patients and HCP for acute respiratory illness prior to entry into the facility. Require PUI or symptomatic patients to wear a surgical/procedural mask.
3. Allow only essential personnel to enter the patient care areas, and consider caring for patients with a dedicated healthcare provider (HCP) or team.
4. Bundle care activities to minimize room entries. This can occur across HCP types (such as food tray delivery by HCP performing other care).
5. Implement alternative mechanisms (as feasible) to enable remote HCP and patient interactions. This may include telephone, video monitoring, video-call on cell phone/tablet as practicable for patient condition and care requirements.

#### ***Source Control***

1. Cohort patients together who are COVID-positive or PUIs.
2. PUIs and COVID-confirmed patients may be instructed to wear a surgical mask during times when any healthcare providers (HCPs) are in the patient room. This practice reduces potential exposure to infectious droplets by capturing them with a mask.

## PPE Conservation Recommendations

### Personal Protective Equipment (PPE)

1. Consider implementing Just in Time respirator Fit testing (for anticipated new respirator users) in addition to continued annual fit-testing (for existing respirator users)
2. Use surgical N-95 respirators\* only for HCP who need protection from both airborne and fluid hazards (e.g., splashes, sprays). If protection from both airborne and fluid hazards is needed but unavailable, use a face shield over standard, non-surgical N-95 respirator.
3. Use NIOSH approved alternatives to disposable N-95 respirators such as other disposable filtering face-piece respirators, elastomeric respirators with appropriate filters or cartridges, or powered air purifying respirators where feasible.

#### \*Surgical N-95 Respirator<sup>3</sup>

Most N-95 respirators are manufactured for use in construction and other industrial applications that expose workers to dust and small particulates. They are regulated by the National Personal Protective Technology Laboratory (NPPTL) in the National Institute for Occupational Safety and Health (NIOSH), which is part of the Centers for Disease Control and Prevention (CDC).

However, some N-95 respirators are intended for use in a health care setting. Specifically, single-use, disposable respiratory protective devices used and worn by health care personnel during procedures to protect both the patient and health care personnel from the transfer of microorganisms, body fluids, and particulate material. These surgical N-95 respirators are class II devices regulated by the FDA, under 21 CFR 878.4040, and CDC NIOSH under 42 CFR Part 84.

Surgical N-95 Respirators commonly used in healthcare settings are a subset of N-95 Filtering Facepiece Respirators (FFRs), often referred to as N-95s. They are tested for fluid resistance, filtration efficiency (particulate filtration efficiency and bacterial filtration efficiency), flammability and biocompatibility. They should never be shared and should not be reused in Conventional Capacity mode.

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<sup>3</sup> <https://www.fda.gov/medical-devices/personal-protective-equipment-infection-control/n95-respirators-and-surgical-masks-face-masks#s4>

## PPE Conservation Recommendations

### Contingency Care Recommendations



#### **COVID-19 Specimen Collection**

To the extent possible, perform nasopharyngeal (NP) swab specimen collection for COVID-19 testing in outdoor spaces to reduce contamination of disposable N-95 respirator external surfaces and support extended continuous or intermittent use (see below).

**Note:** Drive-through testing site staff collecting nasopharyngeal (NP) swabs for COVID-19 testing may extend use of disposable N-95 respirators (due to the outdoor setting) that do not become sprayed / spattered in the process of specimen collection.

#### Administrative Controls

1. Temporarily suspend annual Respirator Fit Testing per [interim guidance](#) from OSHA<sup>4</sup>.

#### Personal Protective Equipment (PPE)

##### **General Recommendations**

1. Droplet + Contact with Eye Protection isolation practices are recommended (gown, gloves, goggles/face shield, and procedural/surgical mask, at a minimum).
2. Disposable N-95 respirators (if available) or reusable respirators (half-face, full face and Powered Air Purifying Respirators – PAPRs) are recommended for use in place of procedural/surgical masks for all staff and providers directly caring for PUIs and COVID-confirmed patients.
3. N-95 (or greater protection) Respirators should be used for all aerosol generating procedures, even for non-PUIs/non-COVID patients, out of an abundance of caution.
  - a. If N-95 respirator supplies are not stable, consider limiting aerosol generating procedures for non-PUIs. Examples include limiting elective surgeries, elective bronchoscopy, and nebulization.
4. Consider the use of a "PPE Monitor " with a checklist at the entrance to any unit with PUIs or COVID-confirmed patients who observes HCPs donning and doffing PPE and checks off the clinician or staff member for accuracy in this process.

##### **Disposable N-95 Respirator Distribution**

1. Prioritize disposable N-95 Respirators for use in direct patient care areas.
2. Dispense disposable N-95 Respirators in single quantity – no staff member or provider should obtain more than one respirator at a time without supervisory approval (to prevent hoarding or stockpiling outside of supply inventory management).

<sup>4</sup> <https://www.osha.gov/memos/2020-03-14/temporary-enforcement-guidance-healthcare-respiratory-protection-annual-fit>

## PPE Conservation Recommendations

3. Encourage Units, departments and facilities to develop a centralized supply processes for issuing of Disposable N-95 respirators to staff and providers.
4. All supplies of disposable N-95 respirators should be stored in locked or secured designated areas.
5. Any staff and providers present during tracheal intubation for surgeries/procedures will require disposable N-95 or reusable respirators. This also applies to providers performing aerosol generating procedures during surgeries.
6. Consider requiring that employees who receive a disposable N-95 cannot wear makeup as this can prevent reprocessing of single-use, disposable respirators.

### ***Disposable N-95 Respirator Extended Use***

Extended use refers to the practice of wearing the same N-95 respirator for repeated encounters with several patients, without removing the respirator between the encounters. Extended use is preferred over reuse.

1. Per CDC and NIOSH guidelines, disposable N-95 respirators may be worn continuously over an entire work shift for multiple patient encounters, even if not identified as PUIs or COVID-confirmed patients
  - a. Avoid exposure to exterior surface contaminants that may degrade the respirator material. Minimize unnecessary contact with the respirator surface.
  - b. Perform hand hygiene before and after touching or adjusting the respirator (if necessary for comfort or fit).
  - c. Consider use of a cleanable face shield (preferred) or procedural mask over a disposable N-95 respirator (based on supply availability) to reduce surface contamination.
  - d. Always perform a seal test after donning.

### ***Disposable N-95 Respirator Limited Reuse***

Re-use refers to the practice of using the same disposable N-95 respirator for multiple encounters with patients but removing it (“doffing”) between at least some of the encounters. The respirator is stored in between encounters. Reuse guidelines apply only to those who are fit-tested for a specific type of disposable N-95 respirator.

1. CDC and NIOSH guidelines recommend that disposable N-95 respirators may be reused up to 5 times per device within an 8 hour time period and should be inspected prior to each reuse for wear or breakdown of the straps or nosepiece/other fit enhancements. The studies cited by NIOSH in developing these guidelines assessed HCP tolerance of extended wear rather than mask integrity or functional limitations. *Institutions may provide specific guidance on the number of times a disposable N-95 respirator may be used and the overall duration of use, factoring in the risk vs benefit to the wearer of exceeding established guidelines that are based on limited evidence.*
  - a. After the allowed number of wearings within the specified time period, disposable N-95 respirators should be disposed of properly. If reprocessing is being practiced, instead place items in a designated receptacle for collection and decontamination.
  - b. Do not share respirators between HCPs.
  - c. Respirator straps may be labeled with the name of its wearer if not kept on the person between reuses.
  - d. Avoid exposure to exterior surface contaminants that may degrade the respirator material.
  - e. Minimize unnecessary contact with the respirator surface.
  - f. Perform hand hygiene before and after touching or adjusting the respirator (if necessary for comfort or fit).

## PPE Conservation Recommendations

- g. Consider use of a cleanable face shield (preferred) or procedural mask over a disposable N-95 respirator to reduce surface contamination.
    - h. Always perform a seal test after donning.
  2. Hang used respirators by their headstraps in a designated storage area or keep them in a clean, breathable container such as a paper bag between uses.
    - a. To minimize potential cross-contamination, store respirators so that they do not touch each other and respirator user is clearly identified.
    - b. Storage containers should be disposed of or cleaned regularly.
  3. Avoid contaminating the inside of the respirator. If inadvertent contact is made with the inside of the respirator (potentially contaminating the inside), discard the respirator and perform hand hygiene as described above
  4. Use a pair of clean (non-sterile) gloves when donning a used N-95 respirator and performing a user seal check.
    - a. Discard gloves after the disposable N-95 respirator is donned and any adjustments are made to ensure the respirator is sitting comfortably on the face with a good seal.

### ***Disposable N-95 Respirator Use Beyond Shelf-life***

Disposable N-95 respirators may be used beyond their manufacturer's shelf-life for training and fit-testing if intact and appearing to be in working condition.

### ***When to Discard Disposable N-95 Respirators***

1. Discard disposable N-95 respirators following use during aerosol generating procedures.
  - a. If reprocessing is being practiced, instead of discarding place in receptacle for collection and decontamination.
2. Discard disposable N-95 respirators soiled with blood, respiratory or nasal secretions, or other bodily fluids from patients.

### ***Reusable Elastomeric N-95 Respirators***

Reusable Elastomeric N-95 (or higher level of filtration) respirators should have dedicated distribution and reprocessing, separate from the disposable N-95 processes and protocols. Consider prioritization for distribution of this limited resource to staff based on:

- Volume of PUIs and COVID-confirmed patients to be seen;
- Likelihood of engaging in aerosol-generating procedures;
- Examples of priority units could include the Emergency Department, Anesthesia, Critical Care/ICU, Respiratory Therapists, Cohorted PUI or COVID-19 units; and
- Distribution to unit, not to individual (which allows for masks to perpetually be either in service or going through decontamination, but never "idle").

### **Source Control**

Reusable Respirators are designed with exhaust ports that preclude source control of the wearer. If source control of the wearer is necessary, consider placement of a filtering medical grade material (e.g. surgical wrap) over/under the outlet port to contain droplets from the exhaled air flow.

### **Reprocessing of Reusable Respirators**

Reprocessing should occur per manufacturer's instructions at the end of each shift. Full inspection should occur after decontamination, with replacement of filters if warranted – otherwise, filters should be replaced according to manufacturer's instructions. Please see Appendix 4 for reuse of PAPRs including Hoods.



## PPE Conservation Recommendations

### ***Extended Use of Face Masks***

Extended use of face masks is the practice of wearing the same face mask for repeated close contact encounters with several different patients, without removing the facemask between those patient encounters.

1. Face masks may be worn continuously while in patient care areas but should be discarded when departing care areas or entering non-care areas when universal masking of staff and providers is not enacted. During universal masking, face masks may be worn continuously throughout the facility during the entirety of presence in the facility. Avoid exposure to exterior surface contaminants that may degrade the face mask material. Minimize unnecessary contact with the face mask surface.
2. The facemask should be removed and discarded if soiled, damaged, or hard to breathe through.
3. HCP must take care not to touch their facemask. If they touch or adjust their facemask they must immediately perform hand hygiene.
4. HCP should leave the patient care area if they need to remove the facemask.

### **Inappropriate Uses of Face Masks**

1. Wearing a face mask over a disposable N-95 respirator does not add to the respiratory protection provided by the respirator (it has been identified only as a strategy to protect the respirator from splash or splatter for extending use of the respirator).
2. Fabric face masks (homemade or otherwise) have been demonstrated to offer NO respiratory protection at all – this practice should be prohibited for the purpose of workforce protection from ineffective devices. Medical grade procedural or surgical masks should be used by HCPs.
3. Face masks are to be worn **over the mouth AND nose** and not be worn over only the mouth or slung/hanging below the chin/jaw at any time.

### ***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.

1. Shift eye protection from disposable to reusable devices (i.e., goggles and reusable face shields), as availability allows.
  - a. Ensure appropriate cleaning and disinfection between extended uses if goggles or reusable face shields are used
2. Disposable eye protection may be worn continuously while in patient care areas but should be removed for personal reprocessing (preferred) or discarded when departing care areas or entering non-care areas.
  - a. This guidance also applies to Environmental Services staff when cleaning/disinfecting PUI/COVID patient rooms.
3. Extended use of eye protection can be applied to disposable and reusable devices.
4. Eye protection should be removed and reprocessed or discarded if it becomes visibly soiled or difficult to see through.
  - a. If a disposable face shield is reprocessed, it should be reprocessed by the user whenever it is visibly soiled or removed (e.g., when leaving the isolation area) prior to reuse (see reprocessing instructions section).
5. Eye protection should be discarded if damaged (e.g., face shield can no longer fasten securely to the provider or if visibility is obscured and reprocessing does not restore visibility).

## PPE Conservation Recommendations

6. Extended use of face masks with attached face shields is acceptable when both components remain unsoiled and intact.
  - a. If disposable face masks with attached face shields become unavailable, separate components should be used. Sharing of disposable face masks with attached face shields is never acceptable practice.
7. HCPs should take care not to touch their eye protection. If HCPs touch or adjust their eye protection they must immediately perform hand hygiene.
8. HCPs should leave patient care area if they need to remove their eye protection.
9. Adhere to recommended manufacturer instructions for cleaning and disinfection of eye protection.

*See Appendix 5 for cleaning and disinfection steps when manufacturing instructions are not available.*

### **Isolation Gown Conservation**

1. Single-use, disposable isolation gowns should not be reused.
2. Isolation gowns can be used for extended wear when seeing multiple patients in a row when in a COVID-confirmed cohorted patient area and no other infections are identified among the multiple patients. Gloves still need to be changed between patients.
  - a. Upon leaving the cohorted patient area, isolation gowns should be discarded.
  - b. Isolation gowns should be immediately discarded if visibly contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.

### **Shift Gown Use Towards Cloth Isolation Gowns**

1. 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.
2. 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).

### **Consider the Use of Coveralls**

1. 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. HCP unfamiliar with the use of coveralls must be trained and practiced in their use prior to using during patient care.
2. In the United States, the NFPA 1999 standard external icon 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 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 use 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

## **PPE Conservation Recommendations**

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.

## PPE Conservation Recommendations

### Crisis Care Recommendations



Conventional Care

Contingency Care

Crisis Care

#### Engineering Controls

1. Use an expedient patient isolation room for risk-reduction.
2. Use a ventilated headboard to decrease risk of HCP exposure to a patient-generated aerosol.
3. Additional barriers such as “intubation boxes” have not been comprehensively studied, and it is unknown if these provide benefit. These should be considered in crisis care only if they do not compromise the performance of standard procedures.

#### Administrative Controls

1. Exclude HCP at higher risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients (i.e., those of older age, those with chronic medical conditions, and those who may be pregnant).

#### Personal Protective Equipment (PPE)

##### ***Disposable N-95 Respirator Use Beyond Shelf-life***

1. Disposable N-95 respirators may be used in the delivery of healthcare services beyond their manufacturer’s shelf-life if intact and appearing to be in working condition.
2. Straps and nose bridge material should be inspected for breakdown prior to use.
3. Do not use any disposable N-95 respirator that appears damaged, malformed, soiled, or missing components (including straps).
4. Always perform a seal test after donning.

##### ***Crisis Level: Gloves***

Gloves could be reused twice in a row on the same patient if exiting and re-entering the room in rapid succession and without handling any items or surfaces outside of the patient room. Performance of hand hygiene with the gloves on when exiting/re-entering the room should be completed as a best practice for reusing the gloves.

##### ***Crisis Level: Disposable N-95 Respirators***

Use of surgical masks by providers and staff (Droplet + Contact with Eye Protection precautions) not at higher risk for severe illness should be utilized to conserve (if necessary) disposable N-95 respirators for those at increased risk of complications and for those performing aerosol generating procedures.

##### ***Crisis Level: Gowns***

Prioritize gowns for care activities where splashes and sprays are anticipated. This typically includes aerosol generating procedures and for high-contact patient care activities such as device care, wound care, providing hygiene, or changing linens. Consider suspending use of gowns for non-high-contact

## PPE Conservation Recommendations

care of patients with endemic multidrug resistant organisms (e.g. endemic contained or “source controlled” VRE, MRSA, ESBL-producing organisms).

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








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	If HCP must enter the patient care area: No facemask or respirator.  However, HCP should consider not entering the patient care area.	If HCP must enter the patient care area: No facemask or respirator.  However, HCP should consider not entering the patient care area.
HCP will be within 6 feet of symptomatic patient, including providing direct patient care	Facemask.	Any NIOSH-approved N-95 respirator/ elastomeric /PAPR, based on availability or facemask if respirator unavailable.
HCP will be present in the room during aerosol generating procedures performed on symptomatic persons	Any NIOSH-approved N-95 respirator/ elastomeric /PAPR, based on availability.	Any NIOSH-approved N-95 respirator/ elastomeric /PAPR, based on availability.

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

# PPE Conservation Recommendations

## APPENDIX 1: COVID-19 PPE Requirements Per CDC Guidelines

Below is an example PPE requirement chart for provider and staff education from Presbyterian Healthcare Services based on CDC Guidelines. Hospitals and healthcare facilities may need to develop their own guidelines according to specific PPE availability and institutional guidelines.

 <b>LAST UPDATED:</b> 04/10/2020		<b>Patients who are COVID-19 Positive or Known PUI or High-Risk for COVID-19*</b>			
Applies to All Hospital and Ambulatory Settings		Direct Patient Contact	Aerosol Generating Procedures: BiPAP, CPAP; intubation; suctioning; hi-flow oxygen; nebulizer tx; CPR	Transport of Patient**	
				Transport Staff	Care Providers
PPE Required for Staff	Gown 	✓	✓	✗	✓
	Gloves 	✓	✓	✗	✓
	Procedural/Surgical Mask 	✗	✗	Optional	✗
	Hair Covering 	✗	✓	✗	✗
	Face Shield or Goggles 	✓	✓	✗	✓
	Respirator (N95/P100) 	✓	✓	✗	✓
Homemade Masks		NOT RECOMMENDED FOR HEALTHCARE WORKERS			

\* Consider bringing a change of clothes to change out of scrubs at the end of shift.

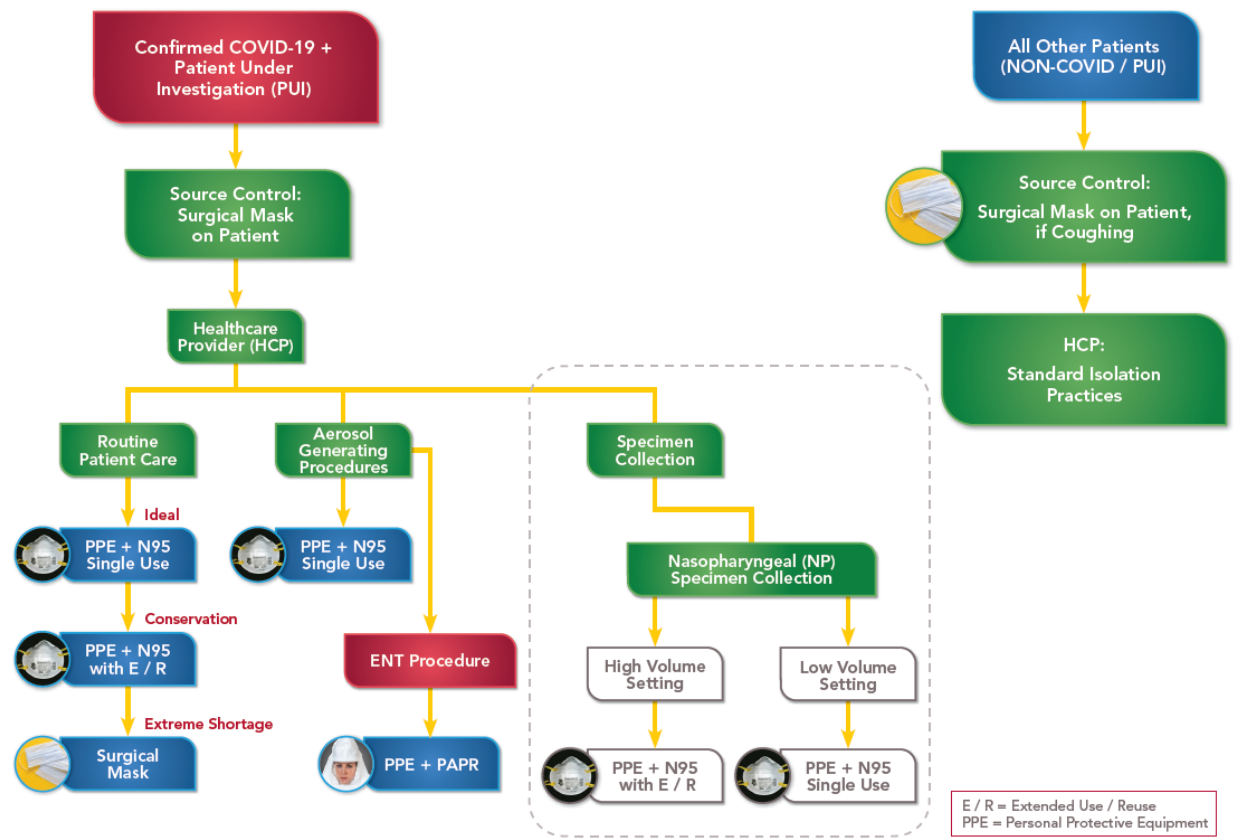
\*\*COVID+/PUI patients should not be transported unless absolutely necessary, e.g. diagnostic study, room change.

For non-COVID/PUI patients, all relevant Transmission-Based Isolation Precautions should be followed.

# New Mexico Medical Advisory Team (MAT) Assessment

## PPE Conservation Recommendations

### APPENDIX 2: COVID-19 Respiratory Protection Diagram

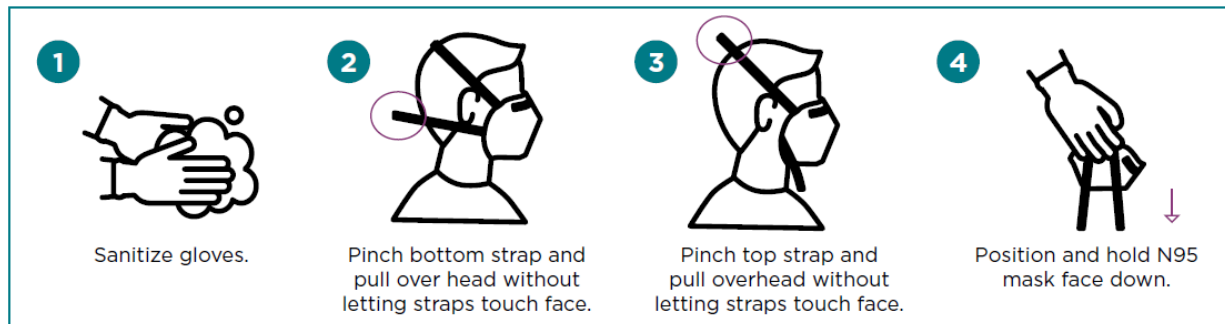


New Mexico Medical Advisory Team (MAT) Assessment

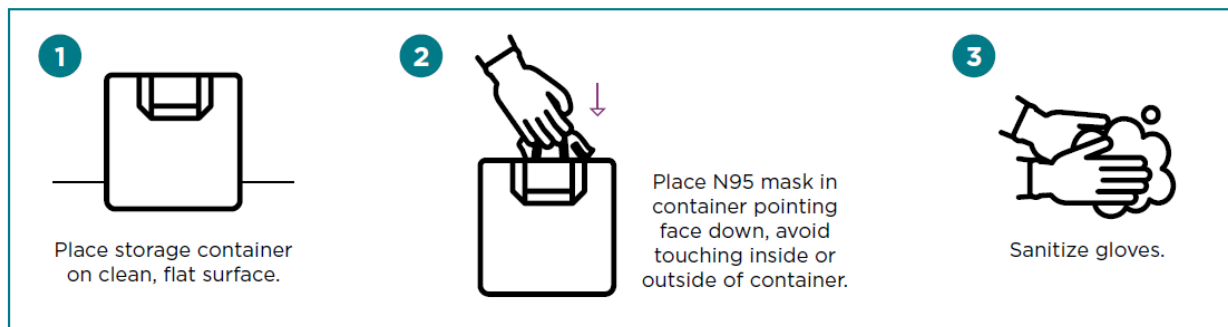
## PPE Conservation Recommendations

### APPENDIX 3: Doffing, Storage, and Retrieval of Disposable N-95 Mask

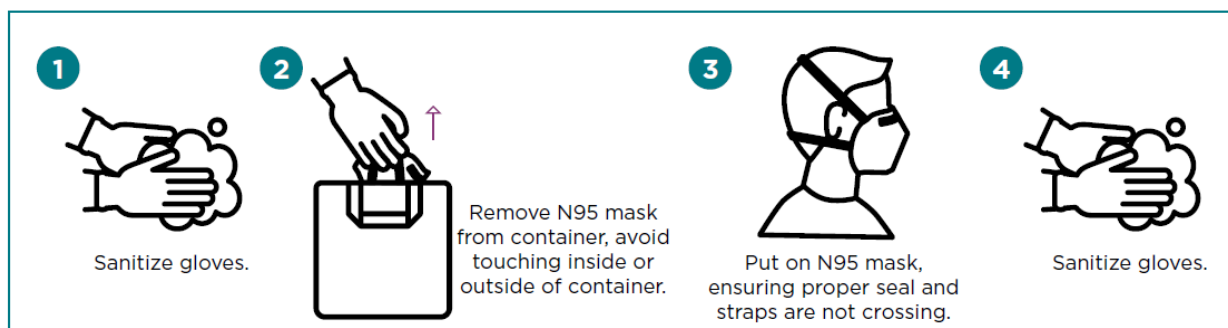
#### ■ Doffing N95 Mask



#### ■ Storage



#### ■ Retrieval





## PPE Conservation Recommendations

### APPENDIX 4: Procedures for PAPRs including Hoods

#### ***Donning***

1. After performing a safety check, assemble the PAPR to connect the hood, hose belt and motor.
  - a. Write name on the hood.
  - b. Keep the plastic sleeve on the tubing by cutting the ends off to expose the screw caps.
2. Perform hand hygiene.
3. Don the PAPR by donning the belt, turning on the PAPR motor and donning the ½ hood.
4. Don gown over the PAPR belt.
  - a. Use easy to undo bows to secure the ties.
  - b. Tuck gown under the PAPR motor to avoid the gown occluding air inlet to the PAPR motor.
5. Don gloves.

#### ***Doffing***

1. While in the patient's room, remove gown then gloves prior to leaving.
2. Perform hand hygiene.
  - a. After exiting the patient's room, turn off PAPR motor, remove the PAPR hood, undo belt, clean, and store appropriately.
3. Perform hand hygiene.

#### ***Reuse of PAPRs including Hoods***

##### Disinfection and Storage of PAPR components including the Hood for re-use:

1. Don gloves and a procedure mask, and carry the PAPR to the PAPR processing area without holding it against you.
2. Visually inspect the PAPR hood for contamination; discard and do not re-use if visibly contaminated
  - a. If the PAPR will be reused during the shift and visible contamination is not observed, do not disconnect any of the PAPR components.
  - b. Do not remove the PAPR filters from the motor unless flow test fails due to clogged filters.
3. Disinfect the PAPR motor, belt, hose and hood using EPA approved germicidal wipes labeled to kill human coronaviruses, while observing contact time, using the following order:
  - a. PAPR motor and filters (avoid introducing liquid into the filter holes)
  - b. Belt
  - c. Tubing sleeve
  - d. Hood (wipe the hood inside then the outside)
4. Once completely dry, remove the hood from the hose and place the PAPR in a clean area close to where it will be reused.

##### Disinfection, Disposal and Storage of Used PAPR Components:

1. Follow above procedure for cleaning and disinfecting PAPR with the following exceptions:
  - a. Disconnect PAPR belt to disinfect separately and reattach to PAPR motor when dry.
  - b. Disconnect and dispose of PAPR hood.
  - c. Return PAPR motor with filters, belt and tubing attached to unit storage area.
2. Plug in PAPR motor to recharge battery.

## PPE Conservation Recommendations

### APPENDIX 5: Cleaning and Disinfection for Extended Use of Eye Protection

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

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 an 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 the face shield or goggles by air drying or using clean, absorbent towels.
5. Remove gloves and perform hand hygiene.