

Title:	COVID-19: Reuse and Extended Use Procedures for Personal Protection Equipment (PPE): N95 Respirator, Facemask, and Eye Protection				
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SCOPE

This document applies to Baylor Scott & White Health including Controlled Affiliates (“BSWH”).

DEFINITIONS

When used in this document with initial capital letter(s), the following word(s)/phrase(s) have the meaning(s) set forth below unless a different meaning is required by context. Additional defined terms may be found in the BSWH P&P Definitions document.

Aerosol-Generating Procedures (AGPs) - procedures may include, but not limited to, non-invasive positive pressure ventilation (BiPAP, CPAP), endotracheal intubation and extubation, airway suctioning, high frequency oscillatory ventilation, tracheostomy, chest physiotherapy, nebulizer treatment, sputum induction, CPR, NG tube placement, lower and upper endoscopy cases, bronchoscopy, manual ventilation, and high flow nasal cannula (HFNC) at greater than six (6) liters.

GUIDELINE

BSWH recommendations for the use of PPE are based on current CDC guidelines. To balance the safety of the clinical staff and conserve critical resources in the weeks ahead, BSWH recommends the following strategies for N95 respirator or face (surgical) mask usage:

PPE Conservation Guiding Principles

- All staff should wear the appropriate mask throughout the day.
- Reuse/extend use of a mask throughout the shift/day unless mask is visibly damaged, degraded, soiled, or becomes difficult to breathe through (Please see reuse/extended use guidance below.)
- Do not wear makeup, if mask will be decontaminated using the UV decontamination process. Masks soiled with makeup are not able to be decontaminated with UV.
 - Must use 5 day paper bag method, if make-up is worn while wearing a mask.
 - Discard paper bag after mask has been stored for 5 days and is retrieved for reuse.
- Do not share masks.
- Do not take masks home to decontaminate. – See [Decontamination Process](#)
- COVID-19 cohort/ unit that is negative pressure throughout the entire unit (ex, hallways) – If you enter the unit, wear the appropriate PPE including mask the entire time.
- Follow department guidelines related to PAPR in place of N95 usage.
- In low risk areas, follow department guidelines related to mask usage.
- Recommend utilization of BSWH acquired and distributed masks.
- Vendors should bring their own mask.

PROCEDURE

Mask Usage Recommendations

Picking Up a New Mask

- Write your name on the mask using a sharpie
- Label the paper bag clearly with your full name, department, and date of use

N95 Respirator Mask

Note: An N95 with an exhaust valve require a facemask worn on top of the N95 with an exhaust valve to provide source control.

Change Frequency and Storage

New or decontaminated N95 per day; Reuse/extended use. After 5 days of drying/storage in a breathable paper bag, N95 may be reused. Place face (surgical) mask over N95 during procedures if risk of splash or spray. Discard face (surgical) mask after use in these circumstances.

PROCEDURE / ROLE
All Surgical Team - Please refer to the COVID-19 Preop Testing Protocol.
Aerosol-Generating Procedures - for Suspected or Confirmed COVID 19 patients and/or any patient undergoing AGP in facilities in communities with moderate to substantial community transmission*.
Anesthesia Providers and Team Members
Emergency Department
Interventional Radiology
OB/GYN Procedures - Vaginal and caesarean deliveries for Suspected or Confirmed COVID-19 Patient
Patient Care of <u>Critically Ill</u> Suspected or Confirmed COVID-19 Patient -- Adhere to Enhanced Airborne Contact Precautions
Transport Personnel involving a suspected or confirmed COVID-19 patient in Enhanced Airborne Contact Precautions
Care of Patient in Airborne Precautions Follow departmental guidelines on PAPR use versus N95 use
Designated Code Blue and RRT Teams

* Transmission rates should be determined weekly by local leadership in connection with Infection Prevention and Control. An average five percent (5%) or lower positivity rate over at least 14 days may denote a “lower community transmission” rate. If county and facility positivity rate data are available, the higher positivity rate should be used.

If the mask becomes contaminated, visibly torn, degraded or soiled, a new mask is required. PAPR where available may be used in place of N95.

Reuse of N95 Respirator

To remove the N95 from face

- Perform hand hygiene.
- Grasp bottom elastic band with one hand, then grasp the top band with the other hand.
- Bend slightly at waist, pull bands up and over the head slowly, pulling away from face, without touching the front.
- Visually inspect. *Discard N95 that is visibly damaged, degraded, soiled or is hard to breathe through.*
- If mask is able to be reused hold by the bands and lower mask into paper bag.
- The potentially-contaminated front should be facing downward; ensure bands do not touch the front of the mask.
- Perform hand hygiene.
- **Properly stored N95s can be reused after 5 days following storage and reuse guidelines allowing the mask to dry.**

To retrieve the N95 for reuse

- Perform hand hygiene and don clean gloves.
- Open paper bag and grasp N95 by elastic bands. Avoid touching front of mask during retrieval of mask.
- Don N95 and perform seal check (you may touch the front of the mask with clean gloves to perform this step).
- Discard gloves and perform hand hygiene.

Facemask (Surgical Mask)

Change Frequency and Storage:

New facemask per day; Extend use of one mask during a single shift/day and then discard.

PROCEDURE / ROLE
All Patient Care Activities - All healthcare settings
Patients suspected or confirmed with COVID-19
All Surgical Team - Please refer to the COVID-19 Preop Testing Protocol.
Imaging
OB/GYN Procedures -Follow COVID-19: Guideline for Care of OB & Neonatal
Cardiovascular / Cardiopulmonary - Non-surgical or percutaneous procedures
Clinics/Outpatient Departments
Pharmacy
Greeters, Screeners, Access Services and Registration
Transport Personnel involving a suspected or confirmed COVID-19 patient in Enhanced Droplet Contact Precautions

Care for Patients in Enhanced Droplet Contact Precautions
Care for Patient in Droplet Precautions
Patient Care of Non-critically Ill Suspected or Confirmed COVID-19 Patient – Adhere to Enhanced Droplet Contact Precautions
COVID-19 Drive-Thru Screening and Collection Sites – Caregivers
EVS involving a suspected or confirmed COVID-19 patient

Cloth Masks/ Non-PPE Masks

Cloth masks or non-PPE masks (ex. KN95s) should NOT be worn instead of a respirator or facemask if more than source control is required. Individuals wearing a mask with a valve will be asked to wear a BSWH issued mask (or a mask over their mask with a valve). Neck coverings (e.g., neck gators) and bandanas may not be worn as cloth masks.

Change Frequency and Storage:

New or decontaminated mask per day; Reuse/extended use. Cloth masks may be laundered.

PROCEDURE / ROLE

All Patients and Visitors should wear a mask upon entry and, as required, patients should continue to wear a mask, as required. Patients/visitors may and are encouraged wear their own masks.

Limited Exceptions:

- Children younger than ten (10) years of age
- Any person with a medical condition or disability that prevents wear a mask (e.g., incapacitated, trouble breathing based on medical condition, etc.)
- Any person is obtaining a service that requires removal or temporary removal of the mask

Patient/ Visitor Refusal:

- A visitor who refuses to wear the appropriate mask may be asked to leave the BSW facility.
- A patient who refuses to wear the appropriate mask may not be asked to leave if presenting with an emergency medical condition to the facility’s Emergency Department. Staff should seek to deescalate, isolate the patient as soon as possible, and stabilize/discharge as appropriate.

All Staff should wear a mask upon entry and switch to appropriate mask for their location/procedure/role, as required. The mask worn upon entry may be brought from home. Staff should minimize switching from Facemask or Respirator to a cloth mask.

Reuse of Cloth Mask

To remove the mask from face

- Perform hand hygiene.
- Holding the mask by the ear loops or ties, lower the mask into a designated laundry bag – potentially-contaminated front (outward-facing) side down.
- Visually inspect. *Discard mask that is visibly degraded or becomes hard to breathe through.*
- Perform hand hygiene.
- **Properly laundered cloth masks can be reused.**

Reuse of Non-PPE Mask (Ex. KN95s)

To remove the mask from face

- Perform hand hygiene.
- Holding the mask by the ear loops or ties, lower the mask into paper bag – potentially-contaminated front (outward-facing) side down.
- The front should be facing downward and ensure bands or ties do not touch the front of the mask.
- Visually inspect. *Discard facemask that is visibly damaged, degraded, soiled, or becomes hard to breathe through.*
- Perform hand hygiene.
- **Properly stored facemasks can be reused every 5 days following storage and reuse guidelines allowing mask to dry.**

To retrieve the mask for reuse

- Perform hand hygiene.
- Open paper bag and grasp facemask by elastic ear loops or ties. Avoid touching front of mask.
- Perform hand hygiene.

Eye Protection

- Eye protection includes eye shields or face shields. Eye protection does not include eye glasses.
- Patient care for COVID suspect or confirmed case: Eye protection is required. Wear eye protection as needed to adhere to Standard Precautions.
- Greeters, Screeners, Access Services and Registration staff: Eye protection is required if a barrier (Plexiglas) is not in place to provide separation from arriving patients and visitors. Wear eye protection as needed to adhere to Standard Precautions.
- Eye protection is worn for all patient care/visitor activities in all settings located in areas with moderate to substantial community transmission of COVID-19. Transmission rates will be determined weekly by local leadership in connection with Infection Prevention and Control. An average five percent (5%) or lower positivity rate over at least 14 days may denote a “lower community transmission” rate. If county and facility positivity rate data are available, the higher positivity rate should be used.

Reuse of Eye Protection

- Perform hand hygiene.
- Carefully remove eye protection by using earpieces.
- Inspect the eye protection for integrity. Discard immediately if eye protection/face shield appears cloudy or fragile from prolonged use.
- Wipe eye protection using standard disinfection process. Wipe front and back, earpieces and foam band. Wipe the inside first, and then the outside.
- Perform hand hygiene.
- Eye shields may be reused between Health Care Workers (HCWs) after disinfection. Face shields should only be used by the same HCW.

Decontamination Process

- A damaged N95 must be discarded immediately and not reused.
- Decontamination processes are being developed.
- For providers and staff traveling between facilities, place the mask in the paper storage bag and store it in the trunk of your vehicle. Do not take the bag/mask into your home.

Mask Shortages (Contingency to Crisis Capacity)

- **Paper bag decontamination** - After 5 days of drying/storage in a breathable paper bag, mask may be reused.
- **UVGI decontamination**
 - Decontaminate mask
 - Store in paper bag for 5 days prior to use
 - After five cycles only utilize paper bag mode of decontamination
- **Steris decontamination** - *Do not use on N95 respirators with exhalation valves.*
 - Decontaminate mask
 - Store in paper bag for 5 days prior to use
 - After ten cycles only utilize paper bag mode of decontamination
- **Sterrad sterilization** - *Do not use on N95 respirators with exhalation valves.*
 - Sterilize mask
 - Store in paper bag for 5 days prior to use
 - After two cycles only utilize paper bag mode of decontamination
- **Bioquell decontamination** - *Do not use on N95 respirators with exhalation valves.*
 - Decontaminate mask
 - Store in paper bag for 5 days prior to use
 - After twenty cycles only utilize paper bag mode of decontamination
- **Battelle decontamination** - *Do not use on N95 respirators with exhalation valves.*
 - Decontaminate mask
 - Store in paper bag for 5 days prior to use
 - After twenty cycles only utilize paper bag mode of decontamination

No Masks Available (Crisis Capacity)

- **Paper bag decontamination** - After 5 days of drying/storage in a breathable paper bag, mask may be reused.
- **UVGI decontamination** - Decontaminate mask – Available for immediate use. After five cycles only utilize paper bag mode of decontamination.
- **Steris decontamination** - *Do not use on N95 respirators with exhalation valves.*
 - Decontaminate mask – available for immediate use.
 - After ten cycles only utilize paper bag mode of decontamination.
- **Sterrad sterilization** - *Do not use on N95 respirators with exhalation valves.*
 - Sterilize mask – Available for immediate use.
 - After two cycles only utilize paper bag mode of decontamination.
- **Bioquell decontamination** - *Do not use on N95 respirators with exhalation valves.*
 - Decontaminate mask – available for immediate use.
 - After twenty cycles only utilize paper bag mode of decontamination.
- **Battelle decontamination** - *Do not use on N95 respirators with exhalation valves.*
 - Decontaminate mask – available for immediate use.
 - After twenty cycles only utilize paper bag mode of decontamination.

ATTACHMENTS

None.

RELATED DOCUMENTS

COVID-19: Interim Infection Prevention and Control Recommendations for Patients Under Investigation (“PUI”) or Confirmed Cases of COVID-19 in Healthcare Settings (BSWH.CLN.110.G)

REFERENCES

1. “Nebraska Medicine COVID-19 PPE Guidance: Extended Use and Limited Reuse of Disposable Facemasks, Respirators and Protective Eyewear.” *Nebraska Medical Center*, 24 Mar. 2020, 3. www.nebraskamed.com/sites/default/files/documents/covid-19/COVID-Extended-Use-Reuse-of-PPE-and-N95.pdf?date=03182020.
2. Platoff, Emma. “Texas Hospitals Brace for Coronavirus Surge with Uncertain Stocks of Protective Gear.” *The Texas Tribune*, The Texas Tribune, 25 Mar. 2020, www.texastribune.org/2020/03/25/texas-hospitals-coronavirus-personal-protective-equipment/.
3. Case, Josh. “The Society of Hospital Medicine: COVID 19 PPE Utilization, Northwell Health.” *The Society of Hospital Medicine*, 24 Mar. 2020, www.hospitalmedicine.org.

The information contained in this document should not be considered standards of professional practice or rules of conduct or for the benefit of any third party. This document is intended to provide guidance and, generally, allows for professional discretion and/or deviation when the individual health care provider or, if applicable, the “Approver” deems appropriate under the circumstances.