Purpose:
To provide the procedures for donning/doffing, cleaning, and storage of elastomeric half-face respirators.

Background:
Respirators are required to protect the healthcare worker caring for patients with an airborne spread disease such as measles, tuberculosis, and chickenpox. SARS CoV-2 is primarily transmitted via respiratory droplets, including small particle aerosols. Refer to the Airborne Precautions and PPE policy for COVID Prevention for situations and procedures which require use of a respirator (N95, elastomeric, or PAPR).

Protocol:
1. An elastomeric respirator will be issued to an individual for their sole use. This individual will be referred to as the “owner” of the elastomeric throughout this document. There are two elastomeric respirators in use at YNHHS;
   a. 3M elastomeric—grey mask with grey rectangular cartridges
   b. Honeywell elastomeric—black with circular purple cartridges
2. The owner will be fit tested through Occupational Medicine and provided instructions in the use of the elastomeric.
3. At the time of fit testing, the owner will be issued the elastomeric respirator, re-useable filters, goggles, and a bag to store them in.
4. The owner will be required to watch a video regarding the care and disinfection of the elastomeric.
   a. The elastomeric is to be disinfected using a disinfectant wipe immediately after doffing.
   b. If grossly soiled, the elastomeric is to undergo a more thorough disinfection and inspection process as outlined below (page 3).
5. The elastomeric should be inspected for crack, tears, dirt, fatigue prior to use every day. If any damage is noted to parts of the elastomeric or the device is grossly soiled, contact Materials Management or Occupational Medicine for replacement parts or replacement of the elastomeric.
6. Makeup is not to be worn on parts of the face that come in contact with the elastomeric as it can damage the device.
Standard Operating Procedure:

Donning
1. Perform hand hygiene and don a clean pair of gloves
2. **Inspect your mask at the beginning of every shift**
   a. Ensure all parts of the mask are present, not defective or misshapen
   b. If the valves or washers are not in place the mask will not provide adequate air filtration
3. Place the respirator over your mouth and nose
4. Pull the head harness over the crown of your head
5. Position respirator on the bridge of your nose for optimal seal, comfort, and visibility
6. Connect the bottom straps at the back of the neck
7. Adjust top and bottom straps for comfort
8. **Perform a seal check after each application prior to patient care**
   a. Perform a positive pressure user seal check before EACH use (3M, Honeywell)
      i. Place palm over exhalation cover and exhale gently
      ii. If the face piece bulges slightly and no air leak is detected between the face piece
          and facial skin, you have a proper seal
          1. If you detect a leak, reposition and/or readjust straps and repeat user seal check
          2. If you still detect a leak, do not use for patient care activities that require
             the use of a respirator. See your supervisor for another respirator
   b. Perform a negative pressure user seal check before EACH use
      i. Honeywell Respiratory (black mask)
         1. Place palm of hands over filters to obstruct airflow through filter and inhale
      ii. If the face piece caves in slightly and no air leak is detected between the face piece
          and facial skin, you have a proper seal
          a. If you detect a leak, reposition and/or readjust straps and repeat user seal check
          b. If you still detect a leak, do not use for patient care activities that require
             the use of a respirator. See your supervisor for another respirator
      iii. 3M Respiratory (gray mask)
         1. Clasp both filters in palms, wrapping fingers around to posterior part of
             cartridge. Squeeze filters into palms, and inhale gently.
         2. If the face piece caves in slightly and no air leak is detected between the face piece
             and facial skin, you have a proper seal
             a. If you detect a leak, reposition and/or readjust straps and repeat user seal check
             b. If you still detect a leak, do not use for patient care activities that require
                the use of a respirator. See your supervisor for another respirator
9. Breathe normally and remember you may have to speak louder than usual to be heard through the
   respirator
Doffing Sequence with Intermittent Cleaning and Disinfection-3M and Honeywell

1. After use and prior to removal of the elastomeric from the owner’s face, don clean gloves and obtain hospital-approved disinfecting wipes.
2. Remove safety goggles.
3. Thoroughly wipe all components of the safety goggles, including the straps.
4. Doff the elastomeric:
   a. Perform hand hygiene and put on a clean pair of gloves
   b. Unhook straps from around your neck
   c. Grasp the face piece with one hand and pull head harness from your head
5. Thoroughly wipe all component of the face piece, inside and outside, including the head straps, being careful not to get liquid onto the filter material.
6. Allow to thoroughly dry.
7. Store in provided bag.

3M 6200 - Thorough disinfection and inspection process (see instruction video)

1. Identify an appropriate space for disinfecting at the end of your shift.
2. After use and prior to removal of the elastomeric from the owner’s face, 
   a. Don clean gloves and obtain clean paper towels and disinfecting wipes.
3. Place paper towels on surface that will be used during disinfection process.
4. Unlock the 2 gray inhalation filters from the outside by turning them to the left. Examine for cracking or distortion. Wipe with disinfectant wipes, ensuring the filter material does not get wet, and place on clean paper towel to air dry.
5. Unclip the headpiece straps and remove by pulling the cover of the exhalation valve. Inspect to ensure the straps are intact and have good elasticity and there is no cracking or distortion to the plastic. Wipe all parts of the head piece with disinfectant wipes and place on clean paper towel to air dry.
6. Remove the 2 orange washers from the inhalation filter area. Inspect for signs of distortion, cracking or tearing. Disinfect and place on clean paper towel to dry.
7. On the inside of the face piece, remove the 2 white inhalation valves diaphragms. On the outside of the face piece remove the 1 blue diaphragm. Inspect for signs of distortion, cracking or tearing. Disinfect and place on clean paper towel to dry.
8. Thoroughly wipe all parts of the face piece, inside and out. Place on clean paper towel to dry.
9. When dry, don clean gloves and reassemble.
   a. On inside attach the 2 white inhalation valves to the inhalation valve area
   b. On the outside:
      i. Replace blue diaphragm
      ii. Place the 2 orange washers on the inhalation valve area.
      iii. Attach the head piece by pressing the cover of the exhalation valve in place then the 2 clips for the head piece.
      iv. Replace the 2 inhalation filters by aligning tabs and turning filter counterclockwise.
10. Store in the provided bag.
11. Remove gloves and perform hand hygiene.
Honeywell 7700 - Thorough disinfection and inspection process

1. Identify an appropriate space for disinfecting at the end of your shift.
2. After use and prior to removal of the elastomeric from the owner’s face,
   a. Don clean gloves and obtain clean paper towels and disinfecting wipes.
3. Place paper towels on surface that will be used during disinfection process.
4. When dissembling, check the face piece for cracks, tears and dirt.
5. Unscrew the 2 purple inhalation filters from the outside by turning them to the left. Examine for signs of distortion, cracking or tearing. Wipe with disinfectant wipes, ensuring the filter material does not get wet, and place on clean paper towel to air dry.
6. Remove the straps by unclipping from the front of the mask. Inspect to ensure the straps are intact and have good elasticity. Wipe all straps disinfectant wipes and place them aside in the clean space.
7. Gently remove the inside black inhalation diaphragms. Examine for cracking or distortion. Disinfect and place on clean paper towel to dry.
8. Remove the cover of the exhalation valve (use tabs to pop off). Examine for cracking or distortion. Disinfect and place on clean paper towel to dry.
9. Remove the orange diaphragm from the exhalation valve. Inspect for signs of distortion, cracking or tearing. Disinfect and place on clean paper towel to dry.
10. Thoroughly wipe all parts of the face piece, inside and out. Place on clean paper towel to dry.
11. When dry, reassemble.
   a. On inside attach both black inhalation diaphragms
   b. On the outside:
      i. Attach the head piece noting wording indicating “TOP” and “THIS SIDE OUT”
      ii. Insert the orange diaphragm and press on cover
      iii. Screw on purple inhalation filters
12. Store in the provided bag.
13. Remove gloves and perform hand hygiene.

Storage
1. Store your respirator in a clean, cool environment, in the provided bag.
2. You may store with the filters either on or off of the face piece

Training Videos
Elastomeric Respirators - https://youtu.be/BNVXA_kagcc

Thorough Cleaning - https://youtu.be/98jkKYeEDcY
Replacement

1. Defective masks must be replaced
   a. See your supervisor for the replacement practice in your area
   b. Filters must be replaced every year unless submerged in water or otherwise not functional
2. Replacement infor (Lawson) numbers – see below

3M Respirators
220640 – Small
220641 – Medium
220642 – Large

220643 – Inhalation Filter (gray)

223164 – Inhalation Gasket (orange washer)

223315 – Head Harness

223172 – Inhalation Valve (white)

223183 – Exhalation Valve (blue)

Honeywell Respirators
220459 – Small
220460 – Medium
220461 – Large
220462 – Inhalation Filter (purple)

References:
2. Honeywell IFUs
3. 3M IFUs
5. CDC.gov

Grimshaw, Sullivan, Tassmer, Balint 12.08.20