SCOPE:

When there is a critical shortage of respirator equipment (N95 respirators and PAPR hoods), re-use of these items is appropriate to continue patient care activities while also protecting healthcare workers. Safe single-person reuse of N95 masks is possible and CDC guidelines exist with recommendations to guide this process.

PURPOSE:

Supplies of N95 respirators and PAPR hoods are in increased demand in critical settings during infectious diseases outbreaks. Existing CDC guidelines recommend a combination of approaches to conserve supplies while safeguarding health care workers in such circumstances. In these situations, existing guidelines recommend that health care institutions:

- Minimize the number of individuals who need to use respiratory protection through the preferential use of engineering and administrative controls;
- Use alternatives to N95 respirators and PAPR’s where feasible;
- Implement practices allowing extended use and/or limited reuse of N95 masks and reuse of PAPR hoods, when acceptable

POLICY:

Re-use of N-95 respirators

- Re-use can occur under the following conditions:
  - N-95 respirators must only be used by a single user
  - Use a full face shield or a surgical mask over an N95 respirator to reduce surface contamination of the respirator.
  - Keep used respirators in a clean breathable container between uses.
  - Store respirators so that they do not touch each other. Staff will write their name on the bag and/or on the elastic straps so the person using the respirator is clearly identified. (Do NOT write on the actual mask)
  - Storage containers should be disposed of or cleaned each time mask is removed.

- Always use clean gloves when donning a used N95 respirator and performing a user seal check.
- Perform hand hygiene over gloves before and after touching or adjusting the respirator (if necessary for comfort or to maintain fit).
- Discard gloves after the N95 respirator is donned and any adjustments are made to ensure the respirator is sitting comfortably on your face with a good seal. Perform hand hygiene after removing gloves.
- Avoid touching the mask. Anytime one touches the N95, it is necessary to perform hand hygiene as described above.

Do NOT Reuse and DISCARD N-95 respirators if:

- Contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.
- The straps are stretched out so they no longer provide enough tension for the respirator to seal to the face
• If the nosepiece or other fit enhancements are broken
• The respirator that is obviously damaged or becomes hard to breathe through.
• The respirator has been used more than 5 times, or has been used continuously for >8 hours.

Re-use of PAPR Hood respirator
• PAPR hoods will be used one time and then reprocessed.
• After PAPR hood is used, doff per procedure, and collect PAPR hoods in designated bin. Reprocess per institutional policy following PAPR hood cleaning checklist (below)

Do NOT Reuse and DISCARD PAPR Hood if:
• Contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.
• Tears or broken components are noted upon visual inspection

Cleaning of PAPR hoods

The exterior of the PAPR hoods are wiped down with EPA approved disinfectant wipe immediately following use by trained clinical staff and then placed in designated PAPR hood bin outside of patient room. The following steps are for further cleaning of PAPR hoods in a centralized location. PAPR hoods are moved from point of origin to cleaning location in a designated dirty case cart.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Perform hand hygiene</td>
</tr>
<tr>
<td>2</td>
<td>Don PPE: blue isolation gown, mask and eye protection, gloves</td>
</tr>
<tr>
<td>3</td>
<td>Inspect hoods: Any hoods that are ripped and otherwise damaged or completely soiled with body fluids should be discarded to a red biohazard bin.</td>
</tr>
<tr>
<td>4</td>
<td>Use one or more EPA approved disinfectant wipe to wipe exterior of the PAPR hood on all surface areas.</td>
</tr>
<tr>
<td>5</td>
<td>Remove gloves, perform HH, and don new gloves.</td>
</tr>
<tr>
<td>6</td>
<td>Use one or more EPA approved disinfectant wipe to wipe interior of the PAPR hood on all surface areas.</td>
</tr>
<tr>
<td>7</td>
<td>Remove gloves, perform HH, and don new gloves.</td>
</tr>
<tr>
<td>8</td>
<td>Allow hood to dry for appropriate dwell time.</td>
</tr>
<tr>
<td>9</td>
<td>Using a clean cloth, wipe down interior and exterior of PAPR hood with warm water</td>
</tr>
<tr>
<td>10</td>
<td>Allow to dry in designated clean area.</td>
</tr>
<tr>
<td>11</td>
<td>Remove gloves and perform hand hygiene. Repeat steps above.</td>
</tr>
</tbody>
</table>

DEFINITIONS: (If applicable)

• Engineering controls: reduce exposures for healthcare personnel (HCP) by placing a barrier between the hazard and the HCP including patient isolation, using physical barriers and ventilation systems.
• Administrative controls: refer to employer-dictated work practices and policies that reduce or prevent hazardous exposures such as using telemedicine, training staff in PPE use, cohorting patients, cohorting HCP

REFERENCES AND SOURCES OF EVIDENCE:

UWMC-ML/UWMC-NW PAPR Hood Reuse Job Aid

HMC PAPR Hood Reuse Job Aid
Guidance for Limited Reuse of N95 Respirators and PAPR hoods

https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html


https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/respsource3respreuse.html

http://www.apic.org/Resource_/TinyMceFileManager/Advocacy-PDFs/APIC_Position_Ext_the_Use_and_or_Reus_Resp_Prot_in_Hlthcare_Settings1209l.pdf

KEY WORDS:
N95s, Reuse, Novel Coronavirus, Shortage, PPE, masks

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