Public Health
Seattle & King County

Guidance for PPE conservation and alternatives when PPE is unavailable

May 6, 2020

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During times of severe personal protective equipment (PPE) shortages, individual measures/alternatives combined with administrative and engineering controls should be considered to support maintenance of the healthcare system response to COVID-19.

The following guidance has been extracted from CDC's guidance on optimizing PPE supply and should not be used independently without reviewing the complete CDC guidance for context and recommendations.

N95 Respirators in short supply or unavailable:

- Preserve N95 respirators or suitable alternative respirators for aerosol-generating procedures (AGPs).
    - The following respirator product classifications are considered suitable alternatives: N100, P100, R100, N99, P99, R99, P95 and R95
- Consider using N95 respirators beyond the manufacturer-designated shelf life after taking the following precautions:
    - Visually inspect the N95 to determine if its integrity has been compromised, including checking components such as the straps, nose bridge, and nose foam material are not degraded.
    - Users should perform a user seal check immediately after donning the respirator.
    - **If the integrity of any part of the respirator is compromised, or if a successful user seal check cannot be performed, discard the respirator.**
- Limited re-use of N95 respirators when caring for patients with COVID-19 might become necessary, but caution should be used because of potential for contact transmission. Re-use should be implemented according to CDC guidance.
- In settings where N95 respirators are unavailable, HCP may need to use surgical masks and facemasks, in addition to administrative and engineering controls:
    - **Administrative Controls**
        - Exclude health care providers (HCP) at higher risk (i.e. older age, chronic medical conditions, or pregnant)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. Individuals who have recovered from COVID-19 infection may have developed some immunity, but this has not yet been confirmed.
        - Decrease the length of hospital stay for medically stable patients with COVID-19.
    - **Engineering Controls:** Use engineering controls for risk reduction including expedient patient isolation rooms with negative pressure zones and ventilated headboards.

Facemasks in short supply or unavailable:

- Remove facemasks for visitors in public areas

- Cancel all elective and non-urgent procedures and appointments for which a facemask is typically used by a healthcare provider.

- Implement extended use of facemasks according to the following guidelines:

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

- Restrict facemasks to use by HCP, rather than patients for source control.

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

- Use facemasks beyond the manufacturer-designated shelf life during patient care activities. Inspect the mask and if degraded or torn, discard and do not use.

- Implement limited re-use of facemasks with caution because of potential for contacttransmission.

    - Masks should not be touched during care and should be removed carefully, folding so that the outer surface is held inward against itself and stored in a clean breathablecontainer.
    - Facemasks with ties should not be re-used because of potential for tearing duringdoffing.

- Prioritize facemasks for selected activities: essential surgeries/procedures, when splashes/sprays are anticipated, when prolonged face-to-face contact with a potentially infectious patients is unavoidable or when performing AGPs and respirators aren't available.

- In settings where facemasks are unavailable, HCP may need to use faceshields that cover the entire front and sides of the face or homemade masks, in addition to administrative and engineering controls described above.

    - HCP might use homemade masks (e.g., bandana, scarf) for care of patients with COVID-19 **as a last resort when facemasks are not available**. Homemade masks are not considered PPE. Homemade masks should ideally be used in combination with a face shield that covers the entire front and sides of the face.

Eye protection in short supply or unavailable:

- Shift eye protection supplies from disposable to re-usable devices (i.e., goggles and reusable face shields). Ensure appropriate cleaning and disinfection between users.

- Implement extended use of eye protection and remove it when soiled or difficult to see through; discard if damaged. Eye protection should not be touched, and hand hygiene should be performed immediately if eye protection is touched.

- Use eye protection devices beyond the shelf life during patient care activities; discard if degraded.
- Prioritize eye protection for selected activities such as:

    - Aerosol generating procedures and those where splashes and sprays are anticipated.
    - Activities where prolonged face-to-face or close contact with a potentially infectious patient is unavoidable.

- In settings where eye protection is unavailable, consider using safety glasses (e.g., trauma glasses) that have extensions to cover the side of the eyes in addition to administrative and engineering controls described above.

Isolation gowns in short supply or unavailable:

Please refer to CDC guidance on Strategies for Optimizing the Supply of Isolation Gowns for appropriate strategies depending on your organization's supply of isolation gowns.

Contingency Capacity Strategies:

- Shift gown use toward cloth isolation gowns and consider use of coveralls.
  Crisis Capacity Strategies:
- Implement extended use of isolation gowns in cases where patients are known to have the same infectious disease (e.g. in cohorted patients) and no additional co-infections are present.
- Re-use cloth isolation gowns; any gown that becomes visibly soiled during patient care should be removed and cleaned. This strategy will not necessarily prevent transmission between patients and should be used with caution.
- Prioritize gowns for activities like AGPs, where splashes/sprays are anticipated and for high contact patient care activities like bathing, transferring, etc.
  When no gowns are available:
- In settings where gowns are unavailable, consider using gown alternatives, in addition to administrative and engineering controls described above. 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 or aprons
    - Reusable (washable) patient gowns or laboratory coats
    - Combinations of clothing: Combinations of pieces of clothing can be considered for activities that may involve body fluids and when there are no gowns available:
        - Long sleeve aprons in combination with long sleeve patient gowns or laboratory coats
        - Open back gowns with long sleeve patient gowns or laboratory coats
        - Sleeve covers with aprons and long sleeve patient gowns or laboratory coats
    - Reusable patient gowns and lab coats can be safely laundered according to routine procedures