Optimizing the Supply of Facemasks During COVID-19 - Pandemic

Purpose

To provide strategies or options for the facility to optimize supplies of facemasks when the facility is experiencing limited supply.

“Surge capacity refers to the ability to manage a sudden, unexpected increase in patient volume that would otherwise severely challenge or exceed the present capacity of a facility. While there are no commonly accepted measurements or triggers to distinguish surge capacity from daily patient care capacity, surge capacity is a useful framework to approach a decreased supply of facemasks during the COVID-19 response. Three general strata have been used to describe surge capacity and can be used to prioritize measures to conserve facemask supplies along the continuum of care.

- **Conventional capacity**: measures consist of providing patient care without any change in daily contemporary practices. This set of measures, consisting of engineering, administrative, and personal protective equipment (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 healthcare personnel (HCP). These practices may be used temporarily during periods of expected facemask 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 facemask shortages.

The following contingency and crisis strategies are based upon these assumptions:

- Facilities understand their facemask inventory and supply chain
- Facilities understand their facemask utilization rate
- Facilities are in communication with local healthcare coalitions, federal, state, and local public health partners (e.g., public health emergency preparedness and response staff) regarding identification of additional supplies.
- Facilities have already implemented other engineering and administrative control measures including:
  - Reducing the number of patients going to the hospital or outpatient settings
  - Excluding HCP not essential for patient care from entering their care area
  - Reducing face-to-face HCP encounters with patients
  - Excluding visitors to patients with confirmed or suspected COVID-19
  - Cohorting patients and HCP
  - Maximizing use of telemedicine
- Facilities have provided HCP with required education and training, including having them demonstrate competency with donning and doffing, with any PPE ensemble that is used to perform job responsibilities, such as provision of patient care

**Protocol for Optimizing the Supply of Facemasks:**

Complete a review of current and future needs for PPE’s. Utilize a process to determine PPE Burn Rate.
Infection Prevention and Control Manual
Interim Policy for Optimizing the Supply of Facemasks- COVID-19 Pandemic

- **PPE Burn Rate Calculator** – This is a sample spreadsheet-based model that provides information for healthcare facilities to plan and optimize the use of PPE for response to coronavirus disease 2019 (COVID-19).

**Conventional Capacity:**
- Use facemasks according to manufacturer’s recommendation (label) as well as local, state and federal requirements,
  - Use FDA-cleared surgical masks when exposure to splashes and sprays are anticipated
  - Facemasks not regulated by FDA (i.e. procedure masks) may not provide protection against splashes and sprays.

**Contingency Capacity:**
- Secure facemasks in public areas and distribute to visitors in accordance with your visitor COVID-19 policy
- Extended Use of facemasks (defined as wearing the same facemask for repeated close contact with several residents without removing the facemask between residents)
  - Remove and discard facemask if soiled, damaged or difficult to breathe through
  - Employee must be careful not to touch or adjust facemask.
    - If the facemask is touched or adjusted, immediately perform hand hygiene
  - Employee should leave the resident care area if the facemask needs to be removed
- Facemasks will be reserved for use by employees, rather than residents
  - Instruct symptomatic residents to use tissue or other barriers to cover mouth and nose

**Crisis Capacity:**
- Use the facemasks beyond manufacturer’s-designated shelf live
  - If no date is available, contact the manufacturer
  - Inspect product for integrity prior to use. If evidence of degraded materials or visible tears, discard product
- Implementation of re-use of facemasks (the practice of using the same facemask by one employee for multiple encounters with different residents, removing after each encounter. The employee should not touch the outer surface of the mask during care. Removal of mask should be accomplished carefully, in accordance with facility procedure.
  - Remove and discard if soiled, damaged or hard to breathe through
  - If facemask cannot be re-used (provider is unable to undo ties without tearing) it should be considered for extended use rather than re-use
  - Facemasks with elastic ear hooks may be acceptable for re-use
- Employee should leave the resident care area when the facemask needs to be removed.
  - Remove mask carefully, folding so the outer surface is held inward and against itself reducing contact with the outer surface during storage. Store between uses in a clean, sealable paper bag or breathable container.
- **Prioritizing Facemasks:**
  - Essential procedures
  - Activities when splashes and sprays are anticipated
  - Activities with prolonged face-to-face or close contact with potentially infectious resident is unavoidable
  - When performing aerosol generating procedures if respirators are not available

**When Facemasks are Not Available:**

This resource was developed utilizing Information from CDC and CMS.
Providers are reminded to review state and local specific information for any variance to national guidance
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Exclude employees with higher risk of severe illness from COVID-19 from contact with residents with known or suspected COVID-19. (i.e. employees over 60 years old, chronic medical conditions, pregnant employees, etc.)

Employees who have recovered from COVID-19 assigned to care for residents with known or suspected COVID-19

Use of a face shield that covers the entire face to the chin or below and sides and not facemask

Use of expedient patient isolation rooms for risk reduction
  o Portable fan devices with HEPA filtration

Ventilated headboards developed by NIOSH

Use of homemade masks when facemasks are not available (i.e. bandana, scarf) as a last resort.
  o Not considered PPE
  o If possible use in combination with a face shield that covers the entire front and sides of face and extends to the chin or below

Reference

