Infection Prevention and Control Manual
Interim Policy for Optimizing the Supply of N95 Respirators- COVID-19 Pandemic

Optimizing the Supply of N95 Respirators during COVID-19 - Pandemic

Policy

It is the policy of this facility to optimize the use of N95 Respirators consistent with current CDC guidance.

Purpose

To provide strategies or options for the facility to optimize supplies of N95 Respirators 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 N95 respirators during the COVID-19 response. Three general strata have been used to describe surge capacity and can be used to prioritize measures to conserve N95 respirator supplies along the continuum of care.[1]

- **Conventional capacity**: measures consist of providing patient care without any change in daily contemporary practices. This set of measures, consisting of engineering, administrative, and 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 HCP. These practices may be used temporarily during periods of expected N95 respirator 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 N95 respirator shortages.

As PPE availability returns to normal, healthcare facilities should promptly resume conventional practices."[1]

The CDC Indicates that "While engineering and administrative controls should be considered first when selecting controls, the use of **personal protective equipment** (**PPE)** should also be part of a suite of strategies used to protect personnel. Proper use of respiratory protection by HCP requires a comprehensive program (including medical clearance, training, and fit testing) that complies with OSHA's Respiratory Protection Standard and a high level of HCP involvement and commitment."[2]

The program should include:

- Pandemic Planning and supply selection for N95 Respirators
- Determination of a Fit-testing protocol consistent with State and Federal Guidance
- Directions for cleaning, disinfection and/or decontamination and reuse in accordance with manufacturer's recommendation and best practice approach
    - If using disposable filtering facepiece respirators (FFRs), it is recommended to follow the CDC "Decontamination and Reuse of Filtering Facepiece Respirators: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html
- Inspection

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- Repair if indicated
- Storage in accordance with manufacturer's recommendation
- Employee Education

Decisions to implement contingency capacity strategies are based upon these assumptions:

1. "Facilities understand their current N95 respirator inventory and supply chain
2. Facilities understand their N95 respirator utilization rate
3. 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
4. Facilities have already implemented conventional capacity measures
5. 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."[3]

Decisions to implement crisis strategies are based upon these assumptions:

1. "Facilities understand their current N95 respirator inventory and supply chain
2. Facilities understand their N95 respirator utilization rate
3. 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
4. Facilities have already implemented contingency capacity measures
5. 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"[4]

When no respirators are available, assignments can be prioritized to include:

1. Healthcare workers who are not at increased risk (i.e. chronic medical conditions, pregnant, older age, etc.) will provide care to residents with confirmed or suspected COVID-19.
2. Healthcare workers who have recovered from COVID-19 assigned to care for residents with confirmed or suspected COVID-19.

Extended Use: "the same FFR is worn continuously for encounters with multiple patients."[5]

- "Extended use is favored over reuse because it is expected to involve less touching of the respirator and therefore less risk of contact transmission."[6]

Limited Reuse: "the practice of using the same N95 FFR or other filtering facepiece respirator for multiple encounters with patients but removing it (doffing) after each encounter."[7]

- "CDC recommends limiting the number of donning's for an N95 FFR to no more than five per device."[8]

Decontamination: "the process to reduce the number of pathogens on used FFRs before reusing them."[9]

- Only use during N95 shortages
- The manufacturer must provide guidance on decontamination
- Decontamination may affect fit
- Employees must be trained on how to reuse and decontaminate N95 FFRs
- The employee should complete a performance seal check with reused FFRs
- For more information see: https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html and

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https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html

- Facility will need to show FDA Emergency Use Authorization: https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization#covidppe

Conventional Strategy: An N95 is used for one resident contact and then discarded.

Contingency Strategy:

- Extended use: The N95 is worn for an extended period, with multiple resident contact.
- N95 is used past the manufacturer's recommended shelf-life

Crisis Strategy: Only implement crisis strategy during shortages when options for conventional and contingency strategies have been exhausted. See CDC Flowchart to Determine if an N95 FFR Crisis Capacity is Needed: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html

- The N95 or other types of respirators will be used beyond the manufacturer's recommended shelf-life
- Respirators can be considered for use if approved by standards from other countries with standards similar to NIOSH-approval
- Limited reuse
- Use of additional respirators that have not been evaluated by NIOSH and are beyond the manufacturer's designated shelf live
- Review activity and prioritize the use of N95's

When N95 Respirator Supply is Exhausted:

- Identify high risk employees and exclude from contact with COVID-19 confirmed or suspected residents
- Assign employees recovered from COVID-19 to provide care for COVID-19 confirmed or suspected residents

Recommendations, References and Resources:

- Review the Summary for Healthcare Facilities: Strategies for Optimizing the Supply of N95 Respirators during the COVID-19 Response: https://www.cdc.gov/coronavirus/2019-ncov/novel-coronavirus-2019-SupplyChecklist_of-N95-Respirators_COVID-19_4_6_20_num.pdf

- [1,2,3,4]Centers for Disease Control and Prevention. "Strategies for Optimizing the Supply of N95 Respirators" June 28, 2020, at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html

- [5,7,8]Centers for Disease Control and Prevention. Implementing Filtering Facepiece Respirator (FFR) Reuse, Including Reuse after Decontamination, When There Are Known Shortages of N95 Respirators. August 4, 2020: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html

- [6]Centers for Disease Control and Prevention. The National Institute for Occupational Safety and Health (NIOSH). Pandemic Planning. Recommended Guidance for Extended Use and Limited

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Reuse of N95 Filtering Facepiece respirators in Healthcare Settings. March 27, 2020: https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html

- Centers for Disease Control and Prevention. The National Personal Protective Technology Laboratory (NPPTL) Healthcare Respiratory Protection Resources. Fit Testing NIOSH Documents. May 7, 2020: https://www.cdc.gov/niosh/npptl/hospresptoolkit/fittesting.html

- United States Department of Labor. Occupational Safety and Health Administration (OSHA), Temporary Enforcement Guidance – Healthcare Respiratory Protection Annual Fit-Testing for N95 Filtering Facepieces During the COVID-19 Outbreak. March 14, 2020: https://www.osha.gov/memos/2020-03-14/temporary-enforcement-guidance-healthcare-respiratory-protection-annual-fit

- Centers for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19). Decontamination and Reuse of Filtering Facepiece Respirators. April 30, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html

- Centers for Medicare & Medicaid Services. COVID-19 Long Term Care Facility Guidance. April 2, 2020. https://www.cms.gov/files/document/4220-covid-19-long-term-care-facility-guidance.pdf