

New Mexico Medical Advisory Team (MAT) Assessment

Workgroup Name: Clinical Care PPE Subgroup

Date: 4/3/2020

Question or task for assessment or Protocol name/description

What Directive could the Governor give to hospitals to implement maximum conservation of PPE?

DIRECTIVE

To continuously provide protection to health care workers during the COVID-19 crisis and a known shortage in supplies for Personal Protection Equipment (PPE), we recommend the Governor to issue the following directive:

New Mexico Hospitals should develop policies and procedures for maximal conservation of PPE.

To maximize conservation of PPE, New Mexico hospitals should follow the CDC guidance which can be found here: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>

Recommendations

Important Elements to consider:

Maximize Engineering Controls:

- Utilization of airborne infection isolation rooms
- Properly maintain ventilation systems

Maximize Administrative Controls:

- Limit number of patients and families visiting hospital/outpatient settings
- Limit Health Care Professional (HCP) not involved in direct patient contact
- Limit HCP face-to-face encounters with patient
- Source control
- Cohorting patients
- Telemedicine
- Other (See: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/conventional-capacity-strategies.html>)

Maximize PPE Conservation: Many conservation strategies are built around the conservation of N95-type respirators; and, CDC has released guidance that offers a series of strategies or options on how healthcare facilities can optimize supplies of disposable N95 filtering facepiece respirators when there is limited supply available (similar strategies are also available for eye protection, isolation gowns and face masks).

- Develop policies, standards, and training for the extended use and reuse of N95 type respirators:
<https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>
- PPE and Respiratory Protection: Use N95 surgical respirators only for HCP who need protection from airborne and fluid hazards; protect with face shield where necessary; consider alternatives.

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- Hospitals should utilize the CDC N95 Checklist for Healthcare for specific guidance related to N95 mask conservation (attached).
- Use of alternatives to N95 respirators (>N95, reusable respirators, PAPRs): <https://www.cdc.gov/niosh/npptl/pdfs/UnderstandingDifference3-508.pdf>
- **Crisis/Alternate Strategies when N95s are low:** Includes the use of N95 respirators that are performing adequately beyond the manufacturer-designated shelf life, use under standard approved in other countries (potentially similar to NIOSH-approved), implement limited re-use for COVID-19+measles+varicella, use additional respirators identified as not performing adequately beyond the shelf life, prioritize the use of N95s and facemasks by activity type.
- **Crisis/Alternate Strategies when N95s are gone:** Exclude HCP at higher risk of severe illness from contact with COVID-19 positive or persons under investigation (PUIs), designate convalescent HCP for provision of care, use an expedient patient isolation room, use a ventilated headboard, use masks not evaluated or approved by NIOSH or homemade masks as a last resort.*

**Editorial comment: Homemade masks at a minimum should include some type of filter element in addition to cloth fabric or be fabricated from a synthetic textile fabric likely to offer more filtration than woven cloth.*

Analysis, including triggers and thresholds if applicable

Concepts that are essential to a Hospital PPE conservation plan

- Development of standard protocols and instruction/training for extended use/reuse
- Streamlined areas and teams (limited individuals involved and bundling of tasks)
- Communication to users of PPE to create unity of purpose
- Procurement of alternatives to disposable PPE items with instruction and sufficient supply of disinfection materials

Red flags, major concerns and recommendation sunset

- Surge – unlikely to maintain sufficient supply levels
- CDC Crisis/Alternate Strategies for N95s should only be utilized when absolutely necessary
- Complete consumption of one or more types of PPE
- Supply chain interruptions or diversions
- Price-gouging by suppliers
- Resume intended use of conserved disposable PPE items when supplies can be reliably maintained at nominal levels

Gaps in knowledge or science related to topic

- Alternative materials for homemade surgical masks that offer some filtration benefit
- Available supply sources for reusable half-face respirator cartridges
- Rate of asymptomatic carriers
- Protective value of masking HCPs throughout shifts presently vs conserving surgical masks for the future Surge

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Level of consensus within workgroup

Total	Moderate	Limited
X		

Contributors

PPE Subgroup:

- Jeff Salvon-Harmon, MD (PHS)
- Jon Femling, MD (UNM)
- Irene Agostini, MD (UNM)
- Marla Sievers, MPH (DOH)
- Andrea Hunnicutt (Lovelace)
- Charlie Lucero (Lovelace)
- Diego Arencón, MD (DOH)

References or resources for further information

- CDC Conservation Guidance: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>
- CDC/NIOSH Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings: <https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>
- CDC FAQ about PPE: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-use-faq.html>
- University of Washington Protocols: <https://covid-19.uwmedicine.org/Pages/default.aspx>

Attachments:

- CDC N95 Checklist for Healthcare