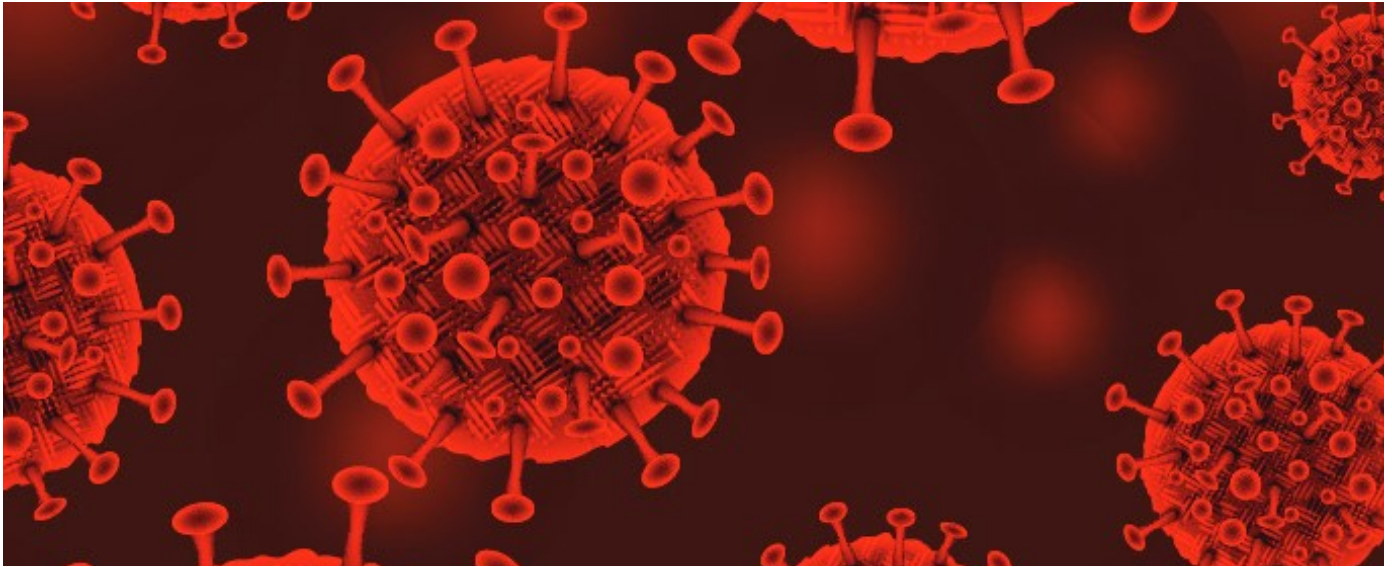


APRIL 6, 2020

RULES OF THE ROAD

Getting and Conserving Respirators and Protective Equipment

A Guide for Frontline Staff During the COVID-19 Crisis



PROTECTIVE EQUIPMENT IS THE CRISIS WITHIN A CRISIS

The failure to provide proper protective equipment to frontline staff is a crisis within a crisis, and it will lead to many more COVID-19 cases that could have been avoided.

Contrary to every infection control principle, almost all our facilities are using just one or two strategies to manage shortages of critical supplies like N95 respirators: limit the use of PPE or force staff to reuse disposable PPE.

Multiple strategies are, in fact, available and they all must be used to their fullest extent before turning to conservation measures.

NYSNA has created this guide to help members understand infection control best practices and demand hospital procedures that can truly protect healthcare workers on the frontlines of the COVID crisis.

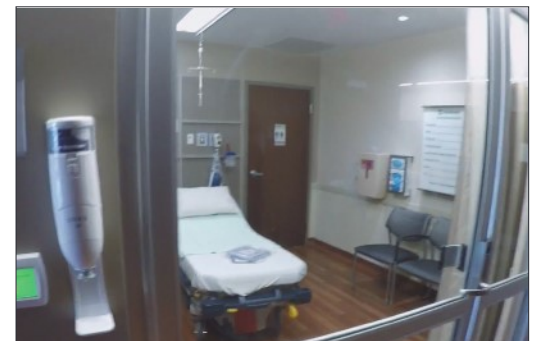
You can find this guide, our short COVID Protection Bulletins, along with other key health and safety resources on the NYSNA website: nysna.org/covid.

THE FOUNDATION: Engineering and Administrative Controls

Reducing the number of staff potentially exposed to patients with confirmed or suspected COVID-19 is the most logical measure to take to conserve PPE and staff.

A host of administrative/screening steps are available and should be in place to accomplish this. They include:

1. Having patients or their providers **call ahead to determine who needs to be seen and who can be managed at home.**
2. Calling patients ahead of time (clinics, home health) to screen and better determine how to proceed with their appointments or care.
3. Have **separate screening areas** to keep patients out of the ED itself for screening and initial assessment purposes. Many facilities have tents. Trailers are also an option.
4. Expanding **telehealth options** during this crisis.
5. Establish a protocol and system for **getting a surgical mask on symptomatic patients ASAP** and monitoring that they are able to keep wearing it. This reduces the hazard (COVID-19 droplets and airborne particles getting into the environment).
6. Another strategy is to **designate separate areas, units, or even buildings, for the care of COVID-19 patients**, even when isolation rooms are not available. Separating COVID-19 patients from others (cohorting) will reduce transmission between patients and potentially reduce the number of staff who will require higher levels of protective equipment.
7. Make sure a PPE program is in place to ensure that workers are trained properly, **respirator fit-testing is taking place** and the use of the equipment is monitored to detect shortcomings when they arise.



Pictured (top to bottom) Brooklyn Hospital sets up screening tents outside the hospital; A nurse enters a COVID screening tent; Hospitals are establishing more negative air pressure rooms; Screens are being used to limit COVID-19 exposure.

GET MORE Different and Higher-Level Respirators



DUCKBILL SURGICAL N95 RESPIRATOR.



SURGICAL N95



ELASTOMERIC REUSABLE HALF-FACE N95



POWERED AIR PURIFYING RESPIRATOR

Employers should have a multi-pronged strategy for getting and conserving PPE.

Not using PPE is not an option and reusing is dangerous.

It will take a number of measures to make it through this difficult time. Has your employer done the following?

- 1. Switched to higher level, reusable respirators.** PAPR (powered air purifying) supplied air respirators are commonly used in EDs, operating suites and other settings in hospitals. They were standard for Ebola care, and there should be some in every hospital. For care of COVID-19 patients, start using the ones that are currently available and take steps to secure more for use going forward. There are also elastomeric reusable respirators with cartridges.
- 2.** Identify, secure and place into service industrial N95, N99, P100 face filtering respirators. Facilities may have stocks of these industrial respirators already for use by plant operations, grounds and other workers. Facilities can make arrangements with other employers, construction and others, to have them share stocks of these respirators. OSHA and the FDA have approved this measure.
- 3.** Organize work and patient care to extend the use of equipment. Dedicated staff who exclusively care for COVID-19 patients and the co-horting of patients will make a difference and make it more possible to keep equipment on for an extended care session. Extended use of N95s, for example, can be done safely (unlike reuse, which is unsafe).
- 4.** Organize care in such a way that some tasks are done remotely from the patient without the use of protective equipment, provided the safety of the patient is not compromised and it fits into established standards of care.

DON'T REUSE! **Extend Sessions of Respirator Use**

“The most significant risk is of contact transmission from touching the surface of the contaminated respirator.”

TAKING ACTION TO GET MORE RESPIRATORS & EQUIPMENT TO STAFF

By not adequately preparing for this crisis, employers and their associations are basically sanctioning the critical shortages in protective equipment for bedside staff.

At NYSNA we are challenging this failure on the part of healthcare institutions and government agencies. As with many of our core issues, we are using a range of strategies to address this preventable part of the coronavirus crisis.

To minimize respirator exchanges, extended use of respirators is sometimes considered. **Extended use means that the healthcare worker keeps the respirator on while caring for the same, or multiple patients with the same illness**, for a continuous period of time.

The respirator is not removed and not touched while in use. The nurse does not leave the immediate care area while using it. When the respirator must be removed due to meal or bathroom breaks, for example, it is discarded. **According to the WHO, these sessions should not last more than four hours.**¹

Additionally, time is not the only factor involved in deciding when a respirator needs to be discarded. If the respirator becomes damaged, stops fitting well, gets splashed by body fluids or is, in the wearer's judgement, not providing protection, it should be disposed of and exchanged with a new one.

NYNSA has major concerns about extended use of N95 respirators. The CDC itself warns against this practice:

“The most significant risk is of contact transmission from touching the surface of the contaminated respirator. One study found that nurses averaged 25 touches per shift to their face, eyes, or N95 respirator during extended use. Contact transmission occurs through direct contact with others as well as through indirect contact by touching and contaminating surfaces that are then touched by other people.”²

Transmission of other pathogens is also an issue:

“Respirators might also become contaminated with other pathogens acquired from patients who are co-infected with common healthcare pathogens that have prolonged environmental survival (e.g., methicillin-resistant *Staphylococcus aureus*, vancomycin-resistant enterococci, *Clostridium difficile*, norovirus, etc.). These organisms could then contaminate the hands of the wearer, and in turn be transmitted via self-inoculation or to others via direct or indirect contact transmission.”³

DON'T REUSE!

Extend Sessions of Respirator Use

(continued)

If your employer has an extended use program, it is important to raise these concerns and to consider the following:

An extended respirator use program needs to be paired with a work/care organization plan, so that a caregiver can provide safe care to multiple COVID-19 patients over a duration of time WITHOUT interruption, having to leave the immediate area, etc. This will mean that staff should be dedicated to those patients, that sufficient staffing is available, including ancillary staff.

If extended use is a practice in your facility, these are some considerations:

- 1. Use clean gloves to don and doff the respirator.** When doffing, handle respirator by straps, not by face piece.
- 2. Ensure a good fit to keep the contaminant out.** Perform a user seal check every time you put on a new respirator.
- 3. Keep it on during the extended sessions.** Keep wearing the same respirator as care is provided for multiple patients with the same illness (COVID-19). That means the healthcare worker exits one patient's room and enters another without having touched the used respirator or face shield.
- 4. Keep it clean.** Protect the outside of the respirator by using barriers, such as a face shield, to prevent droplet spray contamination. Some healthcare workers are covering the respirator with a surgical mask. Please note: retrofitting the N95 with other equipment like surgical masks can have multiple effects. It can make it more difficult to breathe and can cause the respirator seal to be compromised.
- 5. Don't Touch It – Remove and Replace with Each Break in Care.** Do not touch or remove respirator during period of extended use. To use restroom or take a break, remove and replace respirator and PPE.

NO REUSE OR "CLEANING" of Respirators

NYSNAs position is that disposable respirators, such as N95s commonly used in healthcare settings, cannot be safely reused.

Reuse is when a respirator is kept after a care session, rather than discarded, typically in a bag with the staff member's name on it. It is then taken out and reused during a subsequent care session.

Reuse is a major breach of infection control protocols and can subject staff and patients alike to coronavirus exposure and to exposure by other pathogens.

- Manufacturers' instructions direct that they NOT be reused.
- The CDC initially stated that **reuse did not meet U.S. standards of care.**⁴
- **The CDC then caved in to pressure from healthcare lobbyists** and allowed for reuse under certain conditions. This "guidance" was current as of April 6, 2020.⁵

Even the CDC sets a host of **restrictions** on reuse. They include:

- If no manufacturer guidance is available, **preliminary data suggests limiting the number of reuses to no more than five uses** per device to ensure an adequate safety margin.
- Discard N95 respirators following an **aerosol-generating procedure.**
- Discard N95 respirators **contaminated with blood**, respiratory or nasal secretions, or other bodily fluids from patients.
- Discard N95 respirators following close contact with any patient co-infected with an infectious disease requiring contact precautions.⁶

"But can't they be cleaned and sanitized?"

The answer is NO!

Currently, there is no definitive evidence to support the idea that you can safely clean or sanitize equipment intended for single-use.

Until science-based testing demonstrates that certain methods are effective, any promises of sanitizing are dubious.

Any study purporting to support sanitizing must prove the following:

- **Neutralization or removal of the viral agent**
- **Preservation of filtration performance**
- **Structural integrity of respirator components**
- **Continued ability to form a tight seal to the wearer's face**
- **No introduction of new hazards, such as potentially harmful residue from the disinfection process itself.**

ORGANIZING for Action



NYSNA members are speaking out about PPE shortages, access to testing, unleashing the Defense Production Act, and more. Pictured are speak-outs organized at Jacobi Medical Center, Erie County Medical Center, Montefiore Medical Center, and Harlem Hospital (top to bottom).

NYSNA members are taking action—on their units, in Albany, and in Washington, DC—to demand the PPE we need:

- **Calling on the Trump Administration to unleash the Defense Production Act**, and force manufacturers to produce the PPE, test kits, and other equipment we desperately need.
- **Demanding Governor Cuomo collect or commandeer the PPE stockpiles** of industrial N95 respirators and other equipment from industries like construction, shipbuilding, and manufacturing.
- **Organizing to force hospitals to implement measures that management initially refused**, including tents and improved screening; separation of COVID-19 patients from the general population; more N95 respirators; not having to reuse respirators; tighter visitor policies; access to PAPRs; reworking of clinic schedules to reduce exposure; improved sick time policy and much more.
- Speaking out in the media—letting the world know that we are **fighting the war with no armor**—we need PPE to fight COVID-19 safely and effectively.
- **Demanding that New York State order the reinstatement of protective measures** including safe quarantining of nurses exposed to COVID-19; the use of N95 or better respirators instead of surgical masks; and improved testing for frontline staff.
- **Working with relief organizations to speed up the collection of N95** and other equipment for use by nurses on the frontlines.
- **Pushing Congress for an emergency OSHA standard** on infection control in healthcare.
- **Linking up with frontline nurses nationwide**, via chat groups and social media, to share ideas and solidarity.
- **Continuing our fight for adequate staffing**—including nurses, MDs and ancillary staff—during this crisis and in the months and years to come.

SOURCES

1. World Health Organization, *Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19): Interim guidance, February 27, 2020.* https://apps.who.int/iris/bitstream/handle/10665/331215/WHO-2019-nCov-IPCPPE_use-2020.1-eng.pdf
2. National Institute of Occupational Safety and Health, *Pandemic Planning: Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare.* <https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>, accessed April 6, 2020.
3. Dancer S. J. (2014). *Controlling hospital-acquired infection: focus on the role of the environment and new technologies for decontamination.* *Clinical microbiology reviews*, 27(4), 665–690
4. National Institute of Occupational Safety and Health, *Pandemic Planning: Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare,* <https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>, accessed April 6, 2020.
5. Centers for Disease Control, *Strategies for Optimizing the Supply of N95 Respirators: Crisis/Alternate Strategies.* <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/crisis-alternate-strategies.html>, accessed March 26, 2020.
6. National Institute of Occupational Safety and Health, *Pandemic Planning: Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare,* <https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>, accessed April 6, 2020.