March 13, 2020

The following provisional guidance has been adopted by Delaware Division of Public Health (DPH) to:

- Prevent healthcare-associated spread of COVID-19;
- Support the safe management of patients with suspect or known COVID-19 in healthcare settings;
- Preserve supply of the personal protective equipment (PPE) and resources needed to protect healthcare providers (HCP).

It is the responsibility of the Medical Provider to provide their staff, employees and volunteers with the latest case definitions, guidelines and recommendations from the Centers for Disease Control and Prevention (CDC) and the Center for Medicare and Medicaid Services (CMS). Guidance will be updated as needed to reflect what is known about the transmission of the virus that causes COVID-19. For the purposes of this guidance, HCPs are defined as "all persons, paid and unpaid, working in healthcare settings engaged in patient care activities, including: patient assessment for triage, entering examination rooms or patient rooms to provide care or clean and disinfect the environment, obtaining clinical specimens, handling soiled medical supplies or equipment, and coming in contact with potentially contaminated environmental surfaces."

Centers for Disease Control and Prevention

Centers for Medicare and Medicaid Services

CDC Inpatient Facilities Guidelines

With confirmed cases of COVID-19 within Delaware, healthcare facilities need to consider restricting visitors to their facilities. CDC's Interim Infection Prevention and Control Recommendations to Manage Visitor Access and Movement Within the Facility include the following guidance:

- Establish procedures for monitoring, managing and training all visitors, which should include:
    - All visitors should perform frequent hand hygiene and follow respiratory hygiene and cough etiquette precautions while in the facility, especially common areas.
    - Passively screen visitors for symptoms of acute respiratory illness before entering the healthcare facility
        - Post visual alerts (e.g., signs, posters) at the entrance and in strategic places (e.g., waiting areas, elevators, cafeterias) advising visitors not to enter the facility when ill.
    - Informing visitors about appropriate PPE use according to current facility visitor policy
    - Visitors to the most vulnerable patients (e.g., oncology and transplant wards) should be limited; visitors should be screened for symptoms prior to entry to the unit.
- Limit visitors to patients with known or suspected COVID-19. Encourage use of alternative mechanisms for patient and visitor interactions such as video-call applications on cell phones or tablets. If visitation must occur, visits should be scheduled and controlled to allow for the following:
    - Facilities should evaluate risk to the health of the visitor (e.g., visitor might have underlying illness putting them at higher risk for COVID-19) and ability to comply with precautions.
    - Facilities should provide instruction, before visitors enter patients' rooms, on hand hygiene, limiting surfaces touched, and use of PPE according to current facility policy while in the patient's room.
    - Visitors should not be present during AGPs or other specimen collection procedures.
    - Visitors should be instructed to only visit the patient room. They should not go to other locations in the facility.

Delaware Division of Public Health is suggesting Healthcare facilities consider the following:

- Determine the threshold at which screening of persons entering the facility will be initiated and at what point screening will escalate from passive (e.g., signs at the entrance) to active (e.g., direct questioning) to restricting all visitors to the facility.
- If restriction of all visitors is implemented, facilities can consider exceptions based on end-of-life situations or when a visitor is essential for the patient's emotional well-being and care.
- Limit points of entry to the facility.

Surge

With COVID-19 now in the community, the CDC makes the following recommendations:

- Reschedule elective surgeries as necessary.
- Shift elective urgent inpatient diagnostic and surgical procedures to outpatient settings, when feasible.
- Limit visitors to COVID-19 patients.
- Plan for a surge of critically ill patients and identify additional space to care for these patients. Include options for:
  - Using alternate and separate spaces in the ER, ICUs, and other patient care areas to manage known or suspected COVID-19 patients.
  - Separating known or suspected COVID-19 patients from other patients ("cohorting").
  - Identifying dedicated staff to care for COVID-19 patients.

https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/guidance-hcf.html

PPE requirements for HCPs in outpatient clinics and hospitals

The virus that causes COVID-19 can spread in healthcare settings. PPE policies should, first and foremost, protect those in the healthcare setting from exposure, while prioritizing PPE resources. PPE strategies should be supplemented by source control, including the rapid identification of patients with fever or respiratory symptoms, placing a surgical or procedure facemask on symptomatic patients (if tolerated), and isolating that patient in a private room with the door closed. Staff must utilize effective hand hygiene and standard precautions at all times.

The World Health Organization does not recommend the routine wearing of N95 respirators for treating patients with COVID-19, **unless** an aerosol-producing procedure is being performed (endotracheal intubation, suctioning, CPR, non-invasive ventilation, tracheostomy, manual ventilation, bronchoscopy). Therefore, the State of Delaware is recommending that the routine use of N95 respirators be up to each agency's infection control designated officer.

The World Health Organization (WHO) is recommending the following actions for healthcare workers to protect from COVID-19 and other respiratory disease:

Providing direct care to COVID-19 patients	Medical Mask Gown Gloves Eye protection (goggles or face shield)
Aerosol-generating procedures performed on COVID-19 patients	N95 (or higher) respirator Gown Gloves Eye protection (goggles or face shield)

Use of airborne infection isolation rooms (AIIRs)

The use of airborne infection isolation rooms (AIIRs) should be considered if there is a likelihood of any aerosol-generating procedures being performed.

Considerations to prevent healthcare exposures to COVID-19

Strategies can be employed preemptively to reduce exposures and the resultant number of work exclusions that may be required after identification of patient with COVID-19. When patients present with fever or respiratory symptoms:

- Minimize HCP-patient contacts to those necessary for patient care (i.e., bundle care when possible)
- Mask patients with respiratory symptoms immediately at check-in. Symptomatic patients should be moved from the waiting room as soon as possible and placed in a private room with the door closed.
- Patients with severe symptoms or who require aerosol-generating procedures should be placed in an AIIR, if available.
- Educate HCPs on the appropriate selection, donning and doffing of PPE to manage patients presenting with a range of respiratory symptoms (see recommendations above). *Failure to use eye protection in addition to a masking has been a key factor in work exclusions to date.*
- Attempt to cohort multiple PUI or confirmed COVD-19 patients in the same physical area of the facility to prevent cross-contamination of other patient care areas.

Healthcare settings may need to identify populations of HCPs who provide essential or unique clinical functions (e.g., neurosurgeons, trauma teams) and to the degree possible, given the medical needs of each patient, limit the number and duration of contacts those HCPs have with symptomatic individuals.

Work exclusion and monitoring determinations

Each HCF should have a policy and plan in place to address work exclusion and monitoring of persons who have been in contact with a PUI or a confirmed COVID-19 patient.

Once a COVID-19 case has been confirmed, work exclusions and home monitoring plans should be implemented immediately. In general, staff with the following risk factors should be excluded from work and monitored for fever and respiratory symptoms.

- Providing patient care that did not include aerosol-generating procedures without any element of the minimum PPE requirements (regular facemask or respirator, eye protection [goggles or face shield]).
- Providing patient care that involves extensive contact with the patient and their immediate environment (e.g., logrolling, toileting) without using gown and gloves in addition to facemask or respirator and eye protection.
- Providing patient care that did include aerosol-generating procedures without anything less than full PPE requirements (respirator, eye protection, gown, and gloves).

The following table provides considerations for sample activities to aid in decision making regarding exclusion and monitoring plans. Examples are generally limited to those that involve patient care, as a key pre-emptive step is limiting the entry into rooms of patients with fever or respiratory symptoms to essential care providers only. Other factors may alter risk determination, including but not limited to patient symptoms, ability to comply with source control, and duration of exposure.

(See Table on next page)

Table 1: Work Exclusion and Monitoring Plan Considerations for HCP Activities by PPE and Source Control Utilization

Sample Activity	Personal Protective Equipment Used by HCP					Source Control	Work Restriction	Follow up and monitoring plan
	Respirator [d]	Regular Mask	Goggles or face shield	Gown	Gloves	Patient Masked		
HCP walks by patient, but has no direct contact with patient or their secretions	-	-	-	-	-	-/+	None	Standard respiratory illness precautions[a]
Brief Check-In Interactions or brief entrance into patient room without contact or patient secretions	-	-	-	-	-	-/+	None	HCP self-monitoring for 14 days after last exposure[b]
Patient care with no aerosol-generating procedures	+	-	+	+	+	-/+	None	HCP self-monitoring for 14 days after last exposure[b]
Patient care with no aerosol-generating procedures	-	+	+	+	+	-/+	None	HCP self-monitoring for 14 days after last exposure[b]
Patient care with no aerosol-generating procedures	-	+	+	-	-	-/+	None	HCP self-monitoring for 14 days after last exposure[b]
Patient care with no aerosol-generating procedures	+	-	-	-	-	+	None	HCP self-monitoring for 14 days after last exposure[b]
Patient care with no aerosol-generating procedures	-	+	-	-	-	+	None	HCP self-monitoring for 14 days after last exposure[b]
Patient care with aerosol-generating procedures (e.g. intubation, suctioning, specimen collection)	+	-	+	+	+	N/A	None	HCP self-monitoring for 14 days after last exposure[b]
Patient care with no aerosol-generating procedures	-	-	-	-	-	-/+	Exclude from work for 14 days after last exposure	Active monitoring for 14 days after last exposure[c]
Patient care with no aerosol-generating procedures	-	-	-	+	+	-/+	Exclude from work for 14 days after last exposure	Active monitoring for 14 days after last exposure[c]
Patient care with no aerosol-generating procedures	+	-	-	+	+	-	Exclude from work for 14 days after last exposure	Active monitoring for 14 days after last exposure[c]
Patient care with no aerosol-generating procedures	-	+	-	+	+	-	Exclude from work for 14 days after last exposure	Active monitoring for 14 days after last exposure[c]
Patient care with aerosol-generating procedures (e.g. intubation, suctioning, specimen collection)	Any variation in PPE utilization that does not include full recommended PPE (respirator, eye protection, gown and gloves)					N/A	Exclude from work for 14 days after last exposure	Active monitoring for 14 days after last exposure[c]

State of Oregon Public Health Division – "Provisional Guidance: Healthcare Infection Prevention and Control for COVID-19")

+ designated PPE category used throughout the activity, assumes appropriate donning, doffing, and hand hygiene;

- designated PPE category not used;

+/- designated PPE category either used or not used, action steps not contingent on this item.

[a]**Standard respiratory illness precautions**-All HCPs should stay home if ill.

[b]**HCP self-monitoring:** HCP perform self-monitoring for fever or respiratory symptoms (cough, sore throat, or shortness of breath) for 14 from last exposure under the supervision of a healthcare facility's occupational health or infection control program.

[c]**Active monitoring:** Ongoing communication to assess for the presence of fever or respiratory symptoms (cough, sore throat, or shortness of breath) conducted by healthcare facility's occupational health or infection control program.

[d]**Respirator:** Refers to respiratory protection at least as protective as a fit-tested NIOSH-certified disposable N95 filtering facepiece respirator, including NIOSH-approved Powered Air-Purifying Respirators (PAPRs).

Testing considerations: PUI category for severe disease with no alternative diagnosis

Clinicians should use their judgment to determine if a patient has signs and symptoms compatible with COVID-19 and whether the patient should be tested. Decisions on which patients receive testing should be based on the local epidemiology of COVID-19, as well as the clinical course of illness. Clinicians are strongly encouraged to test for other causes of respiratory illness, including infections such as influenza. For guidance on how to submit to a commercial laboratory, refer to the guidance the commercial laboratories provide as they come online.

Most patients with confirmed COVID-19 have developed fever and/or symptoms of acute respiratory illness (e.g., cough, difficulty breathing). Priorities for testing may include:

1. Hospitalized patients who have signs and symptoms compatible with COVID-19 in order to inform decisions related to infection control;
2. Other symptomatic individuals such as older adults (age $\geq$ 65 years) and individuals with chronic medical conditions and/or an immunocompromised state that may put them at higher risk for poor outcomes (e.g., diabetes, heart disease, receiving immunosuppressive medications, chronic lung disease, chronic kidney disease);
3. Any persons including healthcare personnel, who within 14 days of symptom onset had close contact with a suspect or laboratory-confirmed COVID-19 patient, or who have a history of travel from affected geographic areas where sustained community transmission has been identified (https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html)

Testing at the Delaware Public Health Lab will be prioritized as follows:

Criteria	***Rationale***
Hospitalized patients with signs and symptoms of COVID-19 (fever, cough, difficulty breathing) and no other explanation for symptoms (e.g., influenza or other respiratory pathogen; for the purpose of infection control)	*Conservation of PPE and other supplies/infrastructure*
Symptomatic staff in health care and other facilities serving high-risk populations	*Safe workforce for staff, patients, and other high-risk populations*
Critically ill patients	*Timely results for management of care*
Potential outbreaks in health care, residential facilities and other high-risk settings (e.g., dialysis centers, cancer centers, child care facilities, homeless shelters, correctional facilities, etc.)	*Timely identification and infection control within these settings*

Due to the dynamic nature of information which continues to emerge about the novel coronavirus SARS-CoV-2, this information is subject to change.

Recommended instructions for HCPs potentially exposed to COVID-19

The following are topic areas to guide education for potentially exposed HCPs:

- **Discuss why these steps are being taken:** If work exclusion and active monitoring are necessary, convey using non-punitive language why work exclusions are essential to prevent healthcare-associated infections. Explain that the purpose of ongoing home monitoring is to ensure that the HCP does not develop symptoms of COVID-19 in the 14 days after last exposure. For those with low-risk exposures, convey the importance of self-monitoring for fever or respiratory symptoms.
- **Discuss the plan for work exclusion and monitoring:** Discuss facility processes for work exclusion, active monitoring and self-monitoring.
- **Educate on appropriate monitoring for symptoms:** Instruct HCPs on how to monitor for fever or respiratory symptoms. Stress that HCPs should not come to work while ill. Ensure that excluded HCPs have thermometers and, if supply allows, consider providing regular masks for use should they become symptomatic.
- **Educate on social distancing:** For those with exposures that necessitate work exclusion and active monitoring, educate on the need to avoid congregate settings, the sharing of personal household items, and any place travel for 14 days after last exposure.
- **Develop plan for what the HCP will do if they become symptomatic:** Educate HCPs to self-isolate in their home should they become symptomatic. Mildly symptomatic HCPs are not required to seek care solely for the purposes of COVID-19 testing, but they should do so if they require medical evaluation or intervention. If seeking care, the HCP should first call their doctor or local hospital to inform that they are being monitored for COVID-19 and will need follow-up medical care and testing.

Managing PPE Supply Issues

Healthcare facilities should develop processes to facilitate ongoing PPE inventory, ensuring that facility supply-chain managers and infection prevention staff are in communication about PPE shipment or order delays as well as increased PPE needs to support training, fit testing, and patient care. Should a potential PPE shortage be identified, the following steps should be taken:

1. Define severity of the shortage. Note when interruptions in clinical operations would occur if the shortage were to persist.
2. Review CDC guidance on PPE supply optimization and implement conservation strategies as appropriate.
3. Determine whether other PPE vendors can be utilized and review current contract specifications.
4. If all internal and partner-based options to obtain sufficient PPE supply have been exhausted, you may request PPE from the State of Delaware Division of Public Health. Please see the following procedures:

Requesting PPE from the State of Delaware Department of Public Health

The State of Delaware has a limited supply of PPE stored in the Delaware Public Health Warehouse. This stockpile includes N95 respirators, face shields and goggles, surgical masks, and gowns.

POLICY: Hospitals and emergency medical services may request PPE from the State of Delaware Emergency Medical Services and Preparedness Section when the following conditions have been met:

1. Your agency's stockpile of PPE is running dangerously low, **and,**
2. Your agency provides the Office of EMS with documentation from your normal PPE supplier stating that they are unable to supply your needs due to supply chain issues.
3. Your agency will need to agree to, sign and submit the N95 Acceptance Letter. (If N95s are requested)

PROCEDURE:

1. Provide your current stock (in storage facility, not on the floors or units).
2. If requesting N95 respirators, you must provide the following:
    a. Indicate which N95 make and model that your staff has been fit tested for
    b. Sign the N95 Acceptance Letter
3. Provide your average weekly patient census

4. Provide your current weekly burn rate
5. If available, provide your weekly burn rate experienced during H1N1
6. Describe what conservation efforts your facility has employed
7. Provide documentation from your normal PPE supplier stating that they are unable to supply your agency's need due to supply chain issues.
    a. Please describe the issue (unable to receive any resupply; a delayed resupply; etc.)
8. Complete the State Health Operations Center (SHOC) Resource Request Form as completely as possible Scan and email the completed paperwork to OEMS@delaware.gov or fax the completed request form to: 302-223-1330
9. The request will be forwarded to the warehouse staff for completion.
10. Requesting agency will be notified when the order has been filled with a pickup location.
11. Due to the large volume of requests, please allow 7-10 business days for processing.

DISCLAIMER: It is important to note that most of the 3M N95 respirators that are available have no expiration date noted on the packaging. At the time some of these respirators were purchased (approximately 2009), 3M was not putting expiration dates on their respirators. Since then, 3M has changed their process and are saying that N95 respirators have a shelf life of five years after their manufacturing date, if they are stored under controlled conditions. Therefore, some respirators in the DPH warehouse may be beyond the five-year manufacturer-suggested shelf life.

NIOSH and the CDC have conducted tests on batches of respirators outside of their 5-year manufacturing date and have approved them for use. The N95 respirators that DPH is providing meet the new testing requirements.