

Healthcare Eye Protection Supply Optimization Strategies during COVID-19 Pandemic: United States

Background

The United States Centers for Disease Control and Prevention (CDC) recommends that Healthcare Providers (HCPs) who enter the room of a known or suspected COVID-19 patient wear specific PPE, including eye protection.¹ Eye protection is defined as goggles or a disposable face shield that covers the front and sides of the face. Personal eyeglasses and contact lenses are determined by the CDC to not be acceptable alternatives.

Eye Protection Supply Optimization Strategies

The CDC has multiple strategies to optimize the supply of eye protection in the context of three strata used to describe patient surge capacity situations: Conventional, Contingency and Crisis Capacity. Please refer to CDC's "Coronavirus Disease 2019 (COVID-19) Strategies for Optimizing the Supply of Eye Protection" for complete details of the categories and strategies and visit the site frequently for updated guidance.

In Conventional Capacity situations, the CDC direction is to continue to use eye protection per local, state, and federal requirements and in accordance with product labeling.

During Contingency Capacity situations the CDC suggests multiple strategies including:

- Selective cancellation of non-urgent or elective procedures where eye protection would be worn by the HCP.
- Use of reusable eye protection such as goggles and reusable face shields in place of disposable options.
- Extended use of eye protection.

Extended use can apply to both disposable and reusable eye protection and involves wearing the eye protection between patient rooms without removal. During extended use, it is important for the HCP to not touch their eye protection and if they do, to perform hand hygiene immediately. Reusable eye protection needs to be cleaned and disinfected according to user instructions and applicable regulations.

There are also multiple strategies suggested by the CDC described for Crisis Capacity situations:

- Cancellation of all non-urgent and elective procedures where eye protection would be worn by the HCP.
- Prioritize use of eyewear to those activities where splashes and sprays are anticipated such as aerosol generating procedures and extended face-to-face contact with a patient.
- Administrative measures such as excluding HCP's who are higher risk for severe illness from COVID-19 and utilizing HCPs who have recovered from COVID-19 and may have some immunity.
- "Consider using safety glasses (e.g. trauma glasses) that have extensions to cover the side of the eyes."

3M Personal Safety Division

Considerations Regarding Use of Safety Eyewear from CDC

Indirectly-vented goggles and non-vented goggles are often selected for infection control purposes as they are designed to fit snuggly and provide splash and spray protection for the eyes. Safety glasses do not fit as snuggly nor provide the same level of splash and spray protection as goggles. For a description of the different types of eye protection please refer to 3M Technical Bulletin - Eye Protection for Infection Control.³ If safety glasses are elected to be used in a Crisis Capacity situation it is important for the individual to select safety eyewear that fits well, with gaps as minimal as possible, and also feels comfortable and secure. A good practice is to have a variety of eyewear available for individuals to determine which style fits them the best.

If safety eyewear is to be reused, it also should be cleaned and disinfected, keeping in mind the following points:

- Safety eyewear can be cleaned, but generally is not designed to be disinfected.
- Some components, such as foam gaskets, will likely degrade from exposure to disinfectants. If safety eyewear is to be used, select products without foam or other components likely to degrade.
- Always inspect safety eyewear following each disinfection cycle and prior to use. If you discover any signs of damage or degradation, remove the eyewear from service and appropriately discard.
- Some safety eyewear is designed to have anti-fog properties. Disinfectants containing alcohol may affect the anti-fog properties more quickly than other disinfectants.

For general cleaning and disinfecting options refer to 3M Technical Bulletin - Eye Protection for Infection Control.³

References

- 1) Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings. United States Centers for Disease Control. Page last reviewed April 1, 2020. https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html
- 2) Coronavirus Disease 2019 (COVID-19) Strategies for Optimizing the Supply of Eye Protection. United States Centers for Disease Control. Page last reviewed: March 17, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/eye-protection.html
- 3) 3M Technical Bulletin Eye Protection for Infection Control. https://multi-media.3m.com/mws/media/576928O/tech-data-bulletin-192-eye-protection-for-infectious-disease.pdf. Release 5, April, 2020.

