Personal Protective Equipment in the Era of COVID-19

A take on how a Philadelphia ophthalmologist is handling the COVID-19 crisis.

BY OMESH P. GUPTA, MD, MBA

1. What do you wear when seeing asymptomatic patients?

As I answer this from Philadelphia, the rates of infection from COVID-19 continue to rise. People can be infected with this virus and be asymptomatic for 2 to 14 days. The safest practice is to assume that every patient might be COVID-19 positive. Therefore, I wear an N95 mask and goggles for all patients.

2. Is it necessary for a doctor to wear an N95 mask when examining asymptomatic patients?

Absolutely not. N95 masks are required for suspected or positive COVID-19 patients who are undergoing procedures involving airborne and fluid hazards. A simple surgical mask should suffice for asymptomatic patients in our offices. In my case, I had commercial N95 respirator masks available to me, and I reuse my mask due to the limited supply.

3. How do you reuse your N95 masks?

There have been a number of recommendations, but I found two that are practical for me. I found that letting the mask air dry for 3 to 4 days before reuse may be effective. Coronavirus needs a host to survive, so if you let the mask hang dry or place it in a clean, breathable container such as a brown paper bag for 3 to 4 days, the virus will not survive. I have also hung the mask in an oven at 150°F for 30 minutes. I use a wood clip to hang the mask in a toaster oven that I bought specifically for this purpose. I do not want to find out how coronavirus tastes on the next day's toast or lasagna!

Keep in mind that the polypropylene in N95 masks may degrades when exposed to UV light or sunlight. The data are inconclusive on this topic Make sure to wash your hands before and after you remove your mask. When placing your mask on your face, avoid touching the inside.

4. Do you require patients to wear a mask?

I do not require patients to wear a mask, but it is a good idea for everyone, especially high-risk patients. This includes patients who are over 65 years old, live in a nursing home or long-term care facility, have chronic lung disease or asthma, are immunocompromised, or have severe obesity. Pregnant patients may be at high risk, too.

I wear a mask to protect my patients and staff. Similar to many retina practices, retina specialists at Mid Atlantic Retina see a number of patients and travel to a variety of offices. If I test positive for COVID-19, I could potentially have placed all patients and staff with whom I've interacted at risk to be quarantined.

5. What is the proper precaution for patients who are COVID-19-positive?

The full personal protective equipment attire includes surgical cap, gown, goggles, N95 mask, and gloves for procedures that involve airborne and fluid hazards. The amount of coronavirus in tear fluid remains unclear, but a recent report did not detect the virus in tear samples.[1] That said, as long as the protective equipment is available, it seems reasonable to take all necessary precautions. ■

1. Yu Jun IS, Anderson DE, Zheng Kang AE, et al. Assessing viral shedding and infectivity of tears in coronavirus disease 2019 (COVID-19) patients. *Ophthalmology*. 2020 [Journal pre-proof].

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