PRIME
OCCUPATIONAL MEDICINE

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When Flu Meets COVID-19

An Employer Perspective – 10/1/2020

COVID-19 is a new virus to affect the human population, which means that we had no available treatments or immunity to the pathogen when it emerged in late 2019. Because of this, the virus was able to spread, unrestrained from host to host, and it did not take long for the COVID-19 outbreak to become a global pandemic.

Flu-like but not alike:

While the onset of symptoms of influenza is rapid, COVID-19 can have a more delayed onset and "limp along." Although supportive care for influenza and COVID-19 is similar, drug treatments tend not to be the same. From the community's point of view, i.e. the employer, a reason it's important to determine whether the respiratory symptoms are due to influenza or to COVID-19 (or both) is that managing the spread of the flu does not need to be as strict as for COVID. The main differences are: 1. Seasonal flu appears to be less lethal, and 2. the community does have a vaccine to contain flu outbreaks.

Transmission:

The flu and COVID-19 are both primarily spread via small, virus-laced particles called respiratory droplets that are released when an infected person coughs, sneezes, talks or simply exhales. Someone who is nearby may inhale these droplets or become infected through physical contact, like handshaking or hugging, followed by touching their own nose or mouth. Importantly, individuals do not need to exhibit symptoms to be contagious. Both COVID-19 and the flu can be transmitted by presymptomatic, asymptomatic (without any symptom) and mildly symptomatic individuals.

The incubation period for the flu is typically 1-4 days after infection, but the incubation period for COVID-19 is considerably more variable. Most people develop symptoms within 5 days of exposure, however incubation periods of as little as 2 days and up to 14 days or more have been reported.

Influenza virus can remain infectious on surfaces outside of the body for up to 48 hours, which means that it's possible to get sick by touching an object or surface that has recently been coughed on, sneezed on or touched by someone who has the flu. There is evidence suggesting that COVID-19 virus may remain present on objects and surfaces for extended periods of time, but how long the virus remains *infectious* outside of the body has yet to be definitively determined.

Diagnostic tests:

Because COVID-19 and the flu present very similarly, they are nearly impossible to differentiate based on symptoms alone. Accurate diagnosis requires laboratory testing to identify genetic or molecular components of the infecting virus. The FDA has issued

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Emergency Use Authorizations (EUAs) for molecular tests, rapid antigen testing, and serology assays to diagnose and/or manage COVID-19 (note that EUAs do not confer FDA approval).

Molecular assays diagnose acute infections by testing for viral RNA in the respiratory specimens of suspected individuals. Molecular assays rely on a laboratory technique called PCR and is considered as being the most "accurate".

Rapid antigen tests detect virus-specific proteins, called antigens, from patient nasal swabs. On May 9, 2020, the FDA issued the first EUA for a COVID-19 rapid antigen test. That produces results within 15 minutes. These tests are efficient, and highly specific. However, they have low-moderate sensitivity, which means the chances of false negatives (reporting as negative when it is not true) are higher. They can be very effective tools for community screening purposes.

Serology (antibody) tests primarily test for immune responses to infection. These tests screen for virus-specific antibodies in the blood of patients who are suspected to have had previous exposure to COVID-19 or the flu. In most cases, serology testing should **not** be used to diagnose acute infections, but serological data can be used for contact tracing, epidemiologic studies, and public health investigations.

Can we be infected with both the flu and COVID?

Physicians in several countries have reported that patients can be tested positive for both COVID-19 and the flu. If you have both, then a prolonged hospital stay is more likely. Therefore, the possibility of COVID-19 should be considered regardless of positive findings for other infection.

Does the flu shot protect you from COVID-19?

Patients with COVID-19 who were immunized against influenza fared better than those who had not. Researchers have analyzed data from 92,664 confirmed COVID-19 cases in Brazil and found that recently vaccinated patients had, on average, an 8% lower chance of needing intensive care, an 18% lower chance of requiring invasive respiratory support, and a 17% lower chance of dying.

Can we curb both the flu and COVID-19?

The flu virus constantly evolves, and we know that both viruses can infect any person at any time, and patients who experienced both had a higher risk of poor health outcomes. There are reports that elsewhere in the world the flu season has been mild. The best explanation for the mild flu season is that community COVID-19 management strategies can be effective for both viruses.

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Fortunately, both COVID-19 and the flu virus are sensitive to alcohol-based sanitizers and soap. Good droplet protection (social distancing, mask), and hand hygiene are effective ways to reduce transmission. As the flu season is upon us, the best things we can do to prepare for the coinciding flu season and global COVID-19 pandemic are get vaccinated against the flu and practice good hand hygiene and social distancing measures.

For more information on this topic or to schedule flu shots please visit primeoccmed.com, call 225-408-5902, or contact your medical provider.