

WorkCare Briefing: Trending Beyond COVID-19
Questions & Answers
April 6, 2022

The following questions were asked during WorkCare's monthly webinar series on Trending Beyond COVID-19. Anthony Harris, M.D., M.B.A., M.P.H., a WorkCare Consulting Medical Director, presented the webinar and provided these answers. Please refer to previous Q&As if your question is not answered here.

Here are links for your reference:

- [April 6 Webinar Recording](#)
- [Questions & Answers from the March 2 Webinar](#)

COVID & DIABETES

Q: During your presentation, you showed data on the connection between having had COVID-19 and developing diabetes. What is the actual risk of becoming diabetic after having COVID?

A: If you are not diabetic and you contract COVID-19, data show it depends on whether you are hospitalized or in the ICU. Your risk increases at each level. Let's take the most extreme scenario. If you are hospitalized and in the ICU, out of 1,000 people, roughly 148 of them will develop diabetes as a result of their COVID infection. That gives you the quantification of risk. When you're talking to the workforce, the easiest answer is that you have a higher risk for developing diabetes as a result of a COVID infection. Just keep it black and white. People don't understand yet that diabetes is a risk to begin with, just as the risk of long COVID is for a third of individuals who get infected. The big thing is to protect yourself. People may not be concerned about dying from COVID, but they should be concerned about other things that may happen. Diabetes is one of them.

Q: If you're vaccinated against COVID-19, does that decrease the risk of getting type 1 diabetes if you have a breakthrough infection?

A: The answer relates to the pathogenesis of diabetes and direct insertion of the viral load into cells of the pancreas or the inflammatory response as a result of the infection. Yes, in theory, vaccination should decrease risk of getting and developing diabetes, as we see with other sequelae and long COVID. However, I have not seen any peer-reviewed studies that have looked specifically at decreased risk as a result of vaccination for developing post-COVID type 1 diabetes. Anecdotally, I do know of an individual who was fully vaccinated and boosted and developed diabetes after they had an infection of COVID-19. This was an individual who had no pre-existing risk factors.

Q: Do you know what percentage of the U.S. population has diabetes and how that compares to the percentage in Germany?

A: In the U.S., more than 37.2 million people of all ages (11.3 percent of the U.S. population) had diabetes in the most recent study year. An estimated 8.5 million Americans have diabetes but are undiagnosed. The International Diabetes Federation reported in 2019 that the prevalence of diabetes in German was 9.5 million people (15.3 percent of the population), including 4.5 million who were undiagnosed. We can look at the impact in the workplace of an employee who has diabetes versus an employee who does not. The cost burden as a result of absenteeism in the U.S. is around \$3.3 billion. This gives you an idea of what the cost is and how much is spent with individuals who have diabetes in the workplace.

- Q:** Is there an A1C that makes diabetics more at risk for developing COVID, or is it just having it in general?
- A:** If you have poorly controlled diabetes, you have increased risk for a poor outcome because of the long-term effects of hyperglycemia on multiple organs. It's a continuum; there's no clear-cut answer that if you're below this number, your risk is low. If we use best practices in regard to good control of diabetes and A1C, those standards are still in place and reduce your risk of poor outcomes, but it doesn't reduce it to zero. Merely being diabetic does increase the risk.
- Q:** If someone with diabetes got COVID-19 and was hospitalized, will there be more challenges controlling their blood sugar during their recovery?
- A:** It has been documented, which is common with inflammatory illnesses, that individuals with diabetes who are hospitalized can have periods, after they are discharged, of difficulty controlling their blood glucose levels. That data has been well documented. Individuals who are discharged are asked to closely watch their blood glucose levels. This would be the same for someone who has new-onset diabetes, in particular for children who develop DKA.
- Q:** What are some ways to manage type 1 diabetes due to COVID in the workforce? What would you recommend as far as healthy choices for type 2 diabetics?
- A:** Good control for type 2 diabetes is diet, exercise, and daily monitoring of A1C. Those recommendations haven't changed and COVID won't impact those recommendations. For type 1 diabetics, unfortunately, the only course is to prevent COVID to begin with. We have not uncovered a clear-cut risk factor for developing type 1 diabetes as a result of COVID-19. More studies are needed to determine if black non-Hispanics or white non-Hispanics are at higher risk. We need more data to support any patterns there. Preventing the infection of COVID-19 will prevent the risk of developing type 1 diabetes. At this point, after developing type 1 diabetes, it's not going to be transient. It's going to be more permanent, but time will tell. There again, good management techniques and counseling would be standard.
- Q:** Do you think research like this will increase the efforts put into curing diabetes?
- A:** The connection between COVID and the development of diabetes is likely to generate more interest in diabetes research.

LONG COVID

- Q:** Are there different long-term health effects based on the COVID strain or variant that causes infection?
- A:** We are seeing now that long COVID effects are not tied to the type of variant someone was infected with. We have seen a difference in organ targets based on the type of variants between SARS-CoV-1 and SARS-CoV-2. All the variants seem to carry the risk of long COVID.

WORKPLACE SAFETY

- Q:** We continue to struggle with when to phase out masks and daily screening, since case rates are lower but not yet fully under control. What are the key considerations to phase out these two precautions if CDC levels are "stuck" on low even as case rates go up?
- A:** What we presented today should be a part of your consideration. Case rates at this point have not reached the lowest that we saw last summer. I think at this point, unfortunately, COVID fatigue has set in to a level of feeling like we want to be done with it. But if we look at the numbers, they haven't hit their lowest like we saw last summer. There is no evidence to suggest that we are out of the woods yet. I would prioritize first with what's the easiest to restart. Daily screenings at the front door are harder to re-start as opposed to mask-wearing. We've already gone through a couple of cycles of relaxing the masks and putting them back on. When we're talking about prioritization, masks would be first in terms of decreasing those in the

workplace. In terms of testing, I think testing will be with us for some time longer. Early detection is a way to decrease workplace transmission. Going back to the data from Columbia University in 2021, we know that the more you can test a population, the more you can prevent workplace transmission. So that would be one of the last things to go when doing away with all precautions and treating COVID like a common cold.

HERD IMMUNITY

Q: With the BA.2 variant now in >70% of the population in the U.S. and its R-naught at around 14 (almost as most as contagious as measles), are we seeing evidence of some level of herd immunity as new case rates in the U.S. are continuing to improve in most states?

A: Yes and no. The theory is that clinically, yes, we do have some resistance in the population due to the overwhelming number of cases we had from BA.1. If you look at when that immunity should start to wane, we're going to hit that mark roughly next week, 90 days after our peak from January 15. In theory, we may start to see more cases and numbers start to go back up. The second piece of it is that we are woefully underestimating our burden of illness. When we look at the data for the number of tests that are conducted in the U.S. at this point versus our peak, we're at a dismal rate of where we used to be. Right now, in the U.S., on a seven-day rolling average, our testing is about 2.5 per 1,000 people. If we look at our peak, it still was dismal, but it was higher at 7.6. So, we were three times higher at our peak of testing. If we look at the United Kingdom, they are at 27.3 tests per 1,000, compared to our 2.5. This should give you an indication of how not testing will equal lower rates of detection. You amplify that with the rapid tests that are being conducted at home and are not being reported. We are in a perfect situation for not knowing what our actual burden of illness is. If you look at the number of deaths, we are still higher than most nations. Specific to the BA.2 virus, yes, we know that the virus is highly transmissible but not as severe as the Delta variant. Then we had, less than 30 days ago, Deltacron, which is a blend of Delta and Omicron. Now we have, as of this week, identified 500-600 cases in the UK of a strain called XE. That's a blended version of BA.1 and BA.2. We found that it may be 10 times more transmissible than BA.2. We'll see how it plays out in the UK. It may also be the cause of the spike in Germany. The testing for XE is starting to increase, but we're not testing for it in the U.S. yet. It begs the question of will we see another spike once our immunity to the BA variant wanes.

CONTACT TRACING

Q: Any predictions on when contact tracing will no longer be required?

A: As long as OSHA considers workplace transmissions as an increased risk for the workforce, contact tracing will still happen. But should that regulatory lens change and COVID is considered an endemic type of infection, with no increased risk in the workplace, then we may see relaxed contact tracing in that regard.

VACCINATION

Q: Is there any chance we will see a flu/COVID vaccine combo?

A: I believe that answer is probably yes. We knew last season that three pharmaceutical companies were looking at a combined COVID/flu vaccine. We didn't see that take off, but this season we may likely see it because there will be a need to get both at the same time. Two jabs are less pleasing if we are looking at people who will sign up for both.

Q: What is the latest research showing on transmission when comparing vaccinated and unvaccinated individuals?

A: There is some evidence that transmission risk is lower if you're vaccinated. People who are vaccinated but get breakthrough infections may be less likely to spread the virus because they shed it for a shorter period



of time than unvaccinated people who are infected, according to a study led by the Harvard T.H. Chan School of Public Health. Another [study](#) found that vaccinated health care personnel who got COVID carried a lower viral load than those who were not vaccinated and were less contagious.