

WorkCare Briefing: Preventing and Managing COVID-19 in the Workplace
Questions & Answers – Week 43
January 6, 2021

The following questions were asked during WorkCare's weekly webinar series on Preventing and Managing COVID-19 in the Workplace – Week 43. This week we focused on mortality rates and vaccination developments. Anthony Harris, M.D., M.B.A., M.P.H., WorkCare's Chief Innovation Officer and Associate Medical Director - Onsite Clinical Operations, presented the webinar and provided these answers. If your question is not answered here, it was answered in a previous Q&A.

Here are links for your reference:

- [January 6 Webinar Recording](#)
- [Questions & Answers from the December 30 Webinar](#)

TESTING

Q: You've characterized the burden of illness in terms of mortality. What impact do you think a broader COVID-19 testing strategy would have on reducing that burden?

A: It's all about prevention. The better we articulate the burden of illness in regard to the number of people who contract COVID, the better we can do with contact tracing and prevention of transmission, and reducing that reproductive rate, as shown by the R0 (naught) number. R0, on average across the U.S., is between 1.2 and 1.5, but in some locations as high as 4 and 5, meaning, five people are infected by one person with COVID. The articulation of the burden of illness from a testing strategy gives us a better opportunity to prevent transmissions, and that's what it's all about at the end of the day.

TRACKING

Q: Is there a methodology for tracking testing and vaccinations and an automated system in place to enable that for employers?

A: At WorkCare, we are developing a digital platform to track both. With that application, we will be able to make a clinical determination on who is safe and when they are safe to come back to the workplace.

SYMPTOMS

Q: Does COVID infection cause hair shedding in some people who have recovered? If so, is the hair loss likely to reverse over time?

A: I am not aware of any evidence that would suggest COVID-19 or SARS-CoV-2 causes hair loss in a substantial way.

VACCINE

Q: Assuming that Johnson & Johnson's vaccine receives emergency use authorization, do you anticipate any benefit to a person receiving this adenovirus with DNA embedded format after previously receiving an mRNA format from the Pfizer, Moderna or AstraZeneca vaccine?

A: I'm not aware of any studies that have examined the impact from an efficacy standpoint of a dual vaccine combination. However, from a scientific or clinical standpoint there would likely not be much benefit in terms of how your body may manufacture antibodies against the spike protein itself because both methodologies – whether it's mRNA providing the building blocks or the spike protein to be presented and offer immunocompetence in that pathway vs. the spike protein being introduced in the adenovirus amplification pathway – lead to the same inevitability of antibody recognition of the spike protein. Having

the dual vaccine process likely will not make either way more efficacious above and beyond their baseline efficaciousness.

Q: Are you aware of any of the vaccines causing infertility?

A: I haven't seen any evidence of an fertility impact.

Q: Have any of the Russian or Chinese vaccines been approved in Europe or the U.S.?

A: Not in the U.S. You can find information about vaccines approved for use in various countries here: <https://ourworldindata.org/covid-vaccinations>

TREATMENTS

Q: With tested, effective and EUA-approved treatment such as Remdesivir, Regeneron and monoclonal antibodies, etc. on the shelves and widely in the system, why do you think we are still seeing the same degree of deaths and bad outcomes?

A: Do we have a body of data that links the mortality rate with supply and demand or distribution of these interventions? No. Unfortunately, in health care across the board, there are logistic and distribution issues in regard to adequate and appropriate clinical utilization of these interventions across the board. As we've experienced for decades, access to health care in the U.S. is not equitable, and because of that inequity we can experience and see a dramatic difference in which states and geographical areas experience varying levels of impact from SARS-CoV-2. The other aspect of it is the clinical support need for ICU beds and hospital beds, in general.

QUARANTINE PROTOCOLS

Q: What quarantine protocols should be followed by someone who has already had and recovered from COVID and who subsequently has close contact with an infected person?

A: Pretty straight forward across the board, what we're seeing is, if you have recovered from COVID-19 – and we confirm that clinically – and you have a subsequent exposure within 90 days after your recovery, you are likely in the clear and do not need to quarantine. Your body has developed an immune response sufficient to prevent you from contracting again and transmitting COVID-19 in that time period. Beyond that, it would be recommended to do a quarantine because we have seen retransmissions after recovering from COVID-19 outside that window. Again, not a tremendous onslaught of reinfections, however, we know that after that 90-day window, the capability of your immune system to respond to COVID-19 or SARS-CoV-2 begins to diminish. At this point in time, move forward with that recommendation.

Q: Similarly, if a person has been vaccinated and then subsequently has close contact with an infected person, what quarantine protocol do you recommend?

A: Employers should apply the same quarantine policies currently in place, regardless of employee-vaccinated status. When exposed to SARS-CoV-2, the vaccination allows your immune system to respond in such a way that an active infection is far less likely. The scientific data demonstrates that some vaccinated individuals can still become infected with COVID, and can potentially transmit COVID to others. Although the risk is far lower than for those who are not vaccinated, as we await further data collection, vaccinated employees who are close contacts should be placed in quarantine, without any deviation from current employer policies in place for those who are not vaccinated. As the science evolves, the recommendations may change, and WorkCare will keep our employer recommendations updated accordingly. To date, there have not been any published statements from the CDC or FDA with regard to being able to avoid quarantine after vaccination within a given time period, however, from a clinical standpoint, it would still follow that an individual, much like one who has recovered from COVID-19 who has been vaccinated, will not have a

high likelihood of contracting and transmitting COVID-19 within that 90-day window and up to 180 days. Studies show vaccinated individuals may have immunity for up to eight months.

- Q:** Can you explain absolute risk reduction vs. efficacy with vaccines. There are studies showing Pfizer vaccine has an absolute risk reduction of 0.4% and Moderna 0.576% My understanding is for Pfizer's vaccine to prevent a single case of COVID-10, 256 people have to be vaccinated to prevent 1 case of COVID. Moderna, 176 people vaccinated to prevent 1 case of COVID.
- A:** Vaccine efficacy/effectiveness (VE) is interpreted as the proportionate reduction in disease among the vaccinated group. VE is measured by calculating the risk of disease among vaccinated and unvaccinated persons and determining the percentage reduction in risk of disease among vaccinated persons relative to unvaccinated persons. The greater the percentage reduction of illness in the vaccinated group, the greater the vaccine efficacy/effectiveness. The basic formula is written as:

$$\frac{\text{Risk among unvaccinated group} - \text{risk among vaccinated group}}{\text{Risk among unvaccinated group}}$$

$$\text{OR: } 1 - \text{risk ratio}$$

In the first formula, the numerator (risk among unvaccinated – risk among vaccinated) is sometimes called the risk difference or excess risk. Refer to [Principles of Epidemiology in Public Health Practice – Measures of Risk](#). You may also find this article of interest: [What defines an efficacious COVID-19 vaccine?](#) (The Lancet Infectious Diseases, Oct. 27, 2020)