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Update 53 - COVID-19 – From Office of the Medical Director 18DEC2020 1630

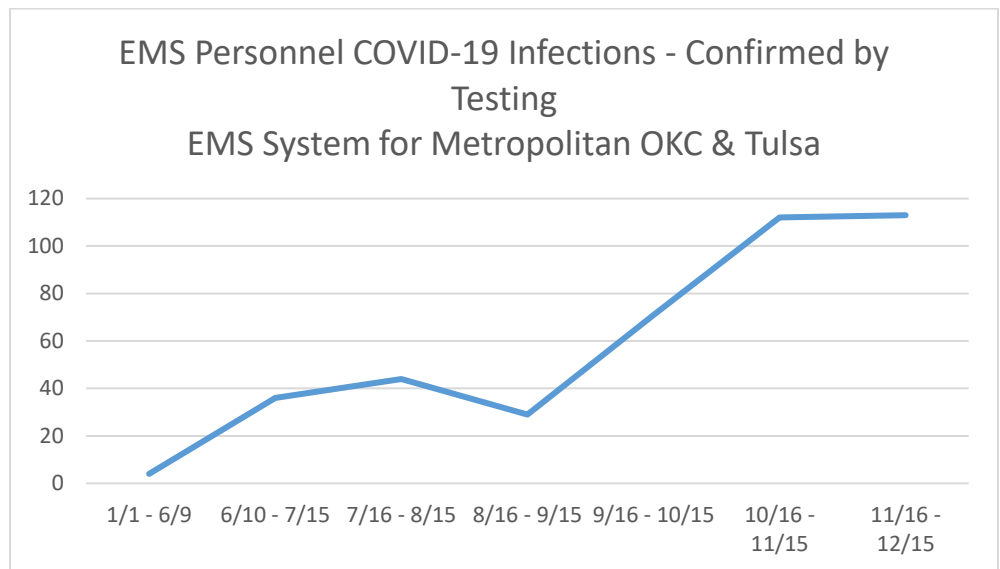
To: All EMS Personnel in the EMS System for Metropolitan Oklahoma City & Tulsa

Key Content:

- **Where We Are – COVID Confirmed Cases in Our EMS System**
- **Project ECHO – OSU Medicine - COVID-19 – Webinar - Today Dec 18th**
- **CDC COCA Webinar – COVID-19 Vaccines - Today Dec 18th**
- **Some Questions & Dr. G Answers on COVID-19 Vaccines**

Whew! This is gonna be some quick and fast facts from news still so hot & fresh from the “inbox oven” that I better take myself to a burn center approved by Protocol 17B as soon as I get it sent to YOU...

Where We Are – COVID Confirmed Cases in Our EMS System



Let’s start with some relatively good news! Collectively, that curve above bent flat the past 30 days, didn’t it? How did that happen? Great leadership in the agencies comprising our EMS system and your individual actions to follow that leadership and to avoid getting overly fatigued in infection control practices – at work AND away from work. Recall the accuracy of this data depends on YOU and making sure your organization dependably knows about any confirmed positive COVID-19 test you have – though of course I’m hoping you never have a single positive COVID-19 test! My thanks to every leader that continues to report in to Team OMD as we analyze this data every 30 days. We’re just a few days past 15 Dec, so let’s make a collective effort to not just keep that curve flat but to bend it notably down! And remember for privacy reasons, the OMD team does not ask or receive test results by name, just by numbers updated every 30 days (queried at mid-month).

Here's the full results since the pandemic's beginning. Keep in mind, as you see the data points, these are new infections in the time periods indicated, not cumulative infections:

Through 6/9/20	4 individuals
6/10/20 - 7/15/20	36 individuals
7/16/20 - 8/15/20	44 individuals
8/16/20 - 9/15/20	29 individuals
9/16/20 - 10/15/20	71 individuals
10/26/20 - 11/15/20	112 individuals
11/16/20 - 12/15/20	113 individuals

Overall, this represents a cumulative number of 409 individuals in our EMS system with confirmed COVID-19 infection (not suspected infection without positive test results) through the last reporting date of 12/15/20.

Project ECHO – OSU Medicine - COVID-19 – Webinar - Today Dec 18th

This webinar just ended 2 hours ago, and it was a fantastic educational review of how we've gotten to where we are today with COVID-19 vaccines and expert direction about best practices with them.

Julie Ledgerwood, DO was the speaker. She is an accomplished allergist (to say the least as you'll read very soon) and a graduate of the Oklahoma State University College of Osteopathic Medicine in Tulsa. She serves as the Deputy Director and Chief Medical Officer for the Vaccine Research Center at the National Institute of Allergy & Infectious Diseases at the National Institute of Health. (try embroidering that on a duty shirt!) She is also the Lead of the Predictive Analytics Working Group for the US Government's Operation Warp Speed. Here's her online bio if you're interested:

<https://www.niaid.nih.gov/research/julie-e-ledgerwood-do>

And yes, she's as impressive as that intro would lead you to believe. It's great to see we have amazing people making this unprecedented year of science happen like it is. Some key takeaways, at least ones I think are key:

Is one vaccination enough? Do we really need both shots?

A single COVID-19 vaccine shot does give us some immunity, but the studies in validating these vaccines show that the "some" immunity after one shot is too variable from person to person for assurance we are protected. Thus, the second dose is designed not only to elevate the level of immunity but to do so in all of us to a point of consistent, needed protection. But consistent isn't a 100% guarantee from COVID-19. Keep reading, please...

What about the timing of the second dose? If I can't make it on Day 21 (Pfizer/BioNTech) or Day 28 (soon to be available Moderna), am I just screwed or what? (Usage of "screwed" terminology is by Dr. G, not Dr. Ledgerwood who appears too professional and refined for such usage)

No, you aren't screwed at all. Don't fret about the exact day, but from a logistics standpoint, I bet when the health department, hospital, or organization is calling for your date/time of appointment, it would help them tremendously if you can make your originally scheduled time. If that's not good, it's better in immunity to be a bit later than earlier compared to your original second date. So, key point – don't fret and get that second vaccine when you can at or after Day 21 or 28 depending on which vaccine you get.

Which is better – Pfizer/BioNTech or Moderna?

Yes – they both are MUCH better than having COVID-19. There is no evident superiority in one vs. the other. Get what whomever is vaccinating you has to give you that day. Whichever it is, be sure to get the same in the second vaccine too.

If you've already unfortunately had COVID-19, should you still get the COVID-19 vaccination?

Yes, and with zero hesitancy in Dr. Ledgerwood's direct answer.

Once vaccinated, how long will it last? Is it forever? Will we have to do this COVID-19 vaccine thing every year?

We simply don't know yet. The first folks in the world that got these vaccines as part of Phase 1 of the trials throughout 2020 got their doses in March. They are predictably still being followed very closely to check antibody titers, etc. But there are less than 200 of these folks per manufacturer – remember Phase 1 trials involve few people on purpose because not much is known about how the vaccines affect humans at that point. We will certainly find the answer to this important question in time as now tens of thousands and soon millions and millions of us around the world will get these vaccines.

What about side effects?

I'm going to take this one as a Dr. G Answer below, but credit to Dr. Ledgerwood, because she, like all presenters I have heard on these vaccines, highlighted and encouraged anyone getting the vaccine to enroll in the Vaccine Adverse Event Reporting System (VAERS) or similar. I am enrolled and I'll share that with you in more detail below.

We're hearing that the SARS-CoV-2 virus is mutating? What's up with that and will it mutate to a point these vaccines won't work?

All viruses mutate over time. It's pretty much a change and survive or stay the same and die kind of equation for viruses. So, the fact there are already numerous mutations seen in the genetic sequence of the SARS-CoV-2 viruses isn't surprising at all; it's expected. So far, there are no sequence changes of concern that could impair the ability of these vaccines to work.

After we get vaccinated, can we celebrate by throwing away our masks, holding big parties, and high fiving?

Ummmm.....no. No, we should avoid all of that. These vaccines are 95% effective and that's great, but 95% isn't 100%. Every bit of precaution we can take until this pandemic is officially over helps you, your family, your co-workers, your friends, etc. So, get vaccinated and continue all the other protective stuff for now, too.

Huge thanks to our colleagues at OSU for arranging this great webinar!

CDC COCA Webinar – COVID-19 Vaccines - Today Dec 18th

It's been a good day for high-quality COVID-19 webinars. This one nearly immediately followed the timing of Dr. Ledgerwood's comments and was part of an ongoing series of webinars from the Centers for Disease Control (CDC). This is what is called a Clinician Outreach and Communications Activity (hence, COCA) Call.

Multiple presenters from the US Public Health Service gave an excellent review from their perspectives about the vaccines and ongoing work to track and decrease the prevalence of COVID-19 in the US. This presentation has some accessible resources. For instance: the slides, which tell a big part of their story, are here:

https://emergency.cdc.gov/coca/ppt/2020/12.18.2020_COCA_Pfizer-BioNTech-and-Moderna_COMBINED-2.pdf and going to the COCA homepage at CDC can get you access to watch/listen to this and prior COCA calls if the topic piques your interests: <https://emergency.cdc.gov/coca/>

Today's call included a further review of how mRNA vaccines work (I still am impressed with the video I referenced back in Update 51). They also included information I hadn't seen before that indicates all the ingredients in the Pfizer/BioNTech and Moderna vaccines (slide 11 in the set). There is a very helpful table that breaks out information for us to factor who "may proceed with vaccination" or should have "precaution to vaccination" or the rare "contraindication to vaccination" (slide 17 in the set). I've seen this same table in other presentations and will replicate it here for your convenience from this resource: <https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/clinical-considerations.html>

Appendix: Triage of persons presenting for Pfizer–BioNTech COVID–19 vaccination

	MAY PROCEED WITH VACCINATION	PRECAUTION TO VACCINATION	CONTRAINDICATION TO VACCINATION
CONDITIONS	<p>CONDITIONS</p> <ul style="list-style-type: none"> Immunocompromising conditions Pregnancy Lactation <p>ACTIONS</p> <ul style="list-style-type: none"> Additional information provided* 15 minute observation period 	<p>CONDITIONS</p> <ul style="list-style-type: none"> Moderate/severe acute illness <p>ACTIONS</p> <ul style="list-style-type: none"> Risk assessment Potential deferral of vaccination 15 minute observation period if vaccinated 	<p>CONDITIONS</p> <ul style="list-style-type: none"> None <p>ACTIONS</p> <ul style="list-style-type: none"> N/A
ALLERGIES	<p>ALLERGIES</p> <ul style="list-style-type: none"> History of food, pet, insect, venom, environmental, latex, or other allergies not related to vaccines or injectable therapies History of allergy to oral medications (including the oral equivalent of an injectable medication) Non-serious allergy to vaccines or other injectables (e.g., no anaphylaxis) Family history of anaphylaxis Any other history of anaphylaxis that is not related to a vaccine or injectable therapy <p>ACTIONS</p> <ul style="list-style-type: none"> 30 minute observation period: Persons with a history of severe allergic reaction (e.g., anaphylaxis) due to any cause 15 minute observation period: Persons with allergic reaction, but not anaphylaxis 	<p>ALLERGIES</p> <ul style="list-style-type: none"> History of severe allergic reaction (e.g., anaphylaxis) to another vaccine (not including Pfizer-BioNTech vaccine) History of severe allergic reaction (e.g., anaphylaxis) to an injectable therapy <p>ACTIONS:</p> <ul style="list-style-type: none"> Risk assessment Potential deferral of vaccination 30 minute observation period if vaccinated 	<p>ALLERGIES</p> <ul style="list-style-type: none"> History of severe allergic reaction (e.g., anaphylaxis) to any component of the Pfizer-BioNTech vaccine <p>ACTIONS</p> <ul style="list-style-type: none"> Do not vaccinate

* See Special Populations section for information on patient counseling in these groups

Page last reviewed: December 14, 2020
 Content source: National Center for Immunization and Respiratory Diseases

They concluded with several additional resources given over the last several slides in the set.

Some Questions & Dr. G Answers on COVID-19 Vaccines

Let's finish this Update with a few of the questions I've received in the past 3-4 days and my answers:

Q: Doc, how are you feeling after the vaccination? I mean, really, give it to me straight.

A: I feel great! No symptoms. Not a one. I did get an information sheet to help me enroll in V-safe, which is a smartphone tool that allows me to "check in" periodically and report that I'm either feeling great or if I have any specific symptoms. Here's a link to the same sheet I got courtesy of the Michigan Department of Health & Human Services
 1111 Classen Drive • Oklahoma City, OK 73103-2616 • 1417 N. Lansing • Tulsa, OK 74106
 (405) 297-7173 Telephone • (405) 297-7199 Fax • www.okctulsaomd.com

posting it online: https://www.michigan.gov/documents/mdhhs/v-safe-information-sheet_709444_7.pdf This link came up even faster than the CDC's own info on it.

In fact, while I'm typing this Update, I got a V-safe "check in" text. It's super quick and easy to use – I report using a simple image scale (think green, yellow, red) how I'm feeling. Then it asks me if I've had a fever? (no) Have I had any symptoms at the injection site, such as pain, redness, swelling, itching? (nope) Have I had any of these other symptoms today, such as chills, headache, joint pain, muscle pain, fatigue, nausea, vomiting, diarrhea, abdominal pain, rash, other? (not a one) IF I did have symptoms, did it impact ability to work, do normal daily stuff, get medical care, etc.? (no)

So, on the unexpected chance you don't get information about V-safe, please use the resource above and join me in helping us all see what, and how many, side effects might be related to these vaccines.

Q: Are there really a lot of side effects to this vaccine?

A: I honestly don't believe so. Keep in mind when trials are conducted about vaccines and volunteers are asked to report side effects after vaccinations, they are to report ANY symptoms at all. I bet at some point in life, probably multiple points, you've had (let's use the V-safe list above) a chill, a headache, pain in a joint, a muscle that ached, fatigue – are you kidding in EMS? Fatigue is a verifying factor of being in EMS, not being sick! – nausea, vomiting, diarrhea, abdominal cramps, a rash, etc. Right? So, even in those that reported such a symptom in the days and weeks after a vaccine, it's nearly impossible to guarantee whether that symptom is caused by the vaccine. Occurrence doesn't always equal causation is another way of saying it. Now, that doesn't mean I think we should ignore symptoms. Not at all. That's why I'm a fan of V-safe to report in so we can all see if any trends occur as we move from tens of thousands to millions of folks vaccinated.

Q: I've got immunocompromised family I'm going to be around. Should I get vaccinated or not?

A: The COVID-19 vaccine is not a live vaccine so there would be no risk to those immunocompromised. This vaccine works using a sequence that turns on some of your cells to produce antibodies to the SARS-CoV-2 virus, but the vaccine does not contain the whole virus, just a tiny sequence of it, thus nothing being injected is "live" or functions like the virus does. This is decidedly different than something like the smallpox vaccine some may have had in the military that contains a tiny amount of live virus, enough to make you produce antibodies and unfortunately, just enough that could be problematic to someone with immunosuppression – cancer patient on chemo, autoimmune disorder, etc. I'm glad they found a way in the COVID-19 vaccine to completely avoid those concerns.

Q: I'm still taking antibiotics and steroids after a recent non-COVID-19 respiratory illness. Should I get vaccinated now or wait until I'm off the meds and feeling better?

A: If acutely ill, COVID or otherwise, I would defer vaccination until feeling back to baseline health. Is there an absolute time (number of days) feeling healthy before getting vaccinated? No, that hasn't yet been established for this vaccine, though I would recommend a week of feeling healthy as a rule of thumb for vaccines in general.

As we know, this isn't a live vaccine, so there is no chance of acquiring COVID-19 from the vaccine itself. Thus, if on a baseline steroid (chronic need for rheumatic disease, etc.) then it should be perfectly fine. If on short course steroids or antibiotics for acute illness, I would refer to the first point.

Vigilance. Safety. Evidence-Based Service to Others.

Let's be careful out there.

Dr. Goodloe