



Update 56 - COVID-19 – From Office of the Medical Director 05FEB2021 1400

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

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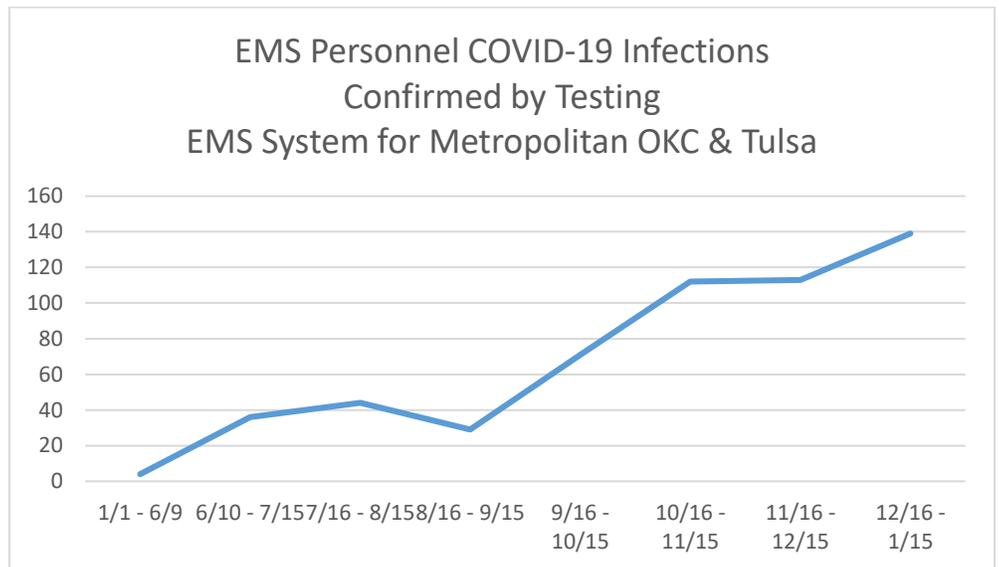
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Welcome back. This has proven the hardest Update to write so far. We are fortunate to have faster information about the SARS-CoV-2 virus (and its variants of concern, increasingly abbreviated as VOCs) than we’ve had since the pandemic’s start. However, that gift of information speed brings new challenges. I’ve found before I can hit “send” that there is such an avalanche of new information that it often changes what I just wrote. That’s the “behind the scenes” explanation of the interim since Update 55. Thanks for your patience in all the interims between Updates as I continue to sort out what I believe can continue to help you and those you care about in staying safe. Here we go again...

Where We Are – COVID Confirmed Cases in Our EMS System



The latest data (always with my thanks to the OMD team and the organization contacts that provide OMD with this information) indicate a rise in COVID-19 within

our EMS system again, though at least not quite as steep as the rises we saw in mid-October and mid-November. Sharing this today is a reminder that although most of us have personally experienced seeing fewer COVID-19 positive patients over the past 2 weeks, we can't get complacent.

Recently during a shift in the emergency department, as I was thinking it was nice to see fewer patients in the hallways and fewer patients in the waiting room awaiting any bed – hallway or not, this reality quickly brought me back to the situation we still share: within one hour, I treated three patients all arriving by ambulance, all with respiratory distress, all with pulse ox readings (accurate pulse ox readings) in the 50s% on room air, all predictably COVID-19 positive, all aged, all obese, all with hypertension, all with diabetes, and terribly sad, despite all the resuscitative care provided in the ED and into the ICU, all with estimated death within the next few days. We are not post-pandemic yet.

Please continue to get your COVID vaccinations and to encourage others to get theirs when they are eligible and able. Despite some recent sunny days with improved emergency department census numbers, we have two pathways out of this pandemic: 1) smart infection control with “MEGG” PPE at work, and masks, distancing, and handwashing in our lives away from work; and 2) vaccinations, preferably for everyone that medically can receive them.

Here's the full results for our EMS system family 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
12/16/20 – 1/15/21	139 individuals

Overall, this represents a cumulative number of 548 individuals in our EMS system with confirmed COVID-19 infection (not suspected infection without positive test results) through the last reporting date of 1/15/21.

Educational Resource – The Osterholm Update – Episode 41

Listener, beware. How's that for frank honesty? I typically don't issue a cautionary note before recommending Dr. Osterholm's podcasts. If you'd prefer to hold off on news that forecasts we have worse COVID-19 dynamics ahead, then you might want to come back to this episode titled “Surrender Is Not an Option” tomorrow or the day after it. Dr. Osterholm is human like the rest of us, though I have to admit that he is rarely off target since I first started listening and learning from him nearly a year ago. I take to heart his warnings. I would recommend you do as well. And we can all be joyfully in error if we continue to enjoy declining daily numbers of COVID-19 in Oklahoma and beyond.

Here's the link to Dr. Osterholm's podcast: <https://www.cidrap.umn.edu/covid-19/podcasts-webinars/episode-41>
Even with concerning news, it's still 55 of the best minutes I spent learning. Remember it doesn't all have to be listened to at once. These podcasts can also be found on [Apple Podcasts](#), [Spotify](#), and now on [YouTube](#) as well.

Further Good News About Natural Immunity – Reuters

Here is additional good news following related news in Update 55 about natural immunity for several months once surviving COVID-19. Just out yesterday via Reuters news service is this article highlighting that for 6 months post infection, our naturally produced antibodies perform well: <https://www.reuters.com/article/us-health-coronavirus-antibodies/recovered-covid-patients-likely-protected-for-at-least-six-months-study-finds-idUSKBN2A3002>

One Example from the Information Firehose – Science Translational Medicine

Here's an impressively information packed, yet short blog post from one of the many resources I review. While both encouraging about additional vaccines on the way and sobering about the effects of at least one VOC, the B.1.351 (sometimes called the South African variant), it's overall still good news about more vaccination capabilities soon for us and the rest of the world: <https://blogs.sciencemag.org/pipeline/archives/2021/01/29/ji-and-novavax-data>

A Helpful Primer on VOCs & Vaccines – Op Ed – The Washington Post

If you find yourself struggling a bit or more to keep all this virus, variants of the virus, natural immunity, and vaccination news straight, join the club. All that's required for club membership is being human. We're all swimming in the deep sea of information but take heart. Every so often, I come across an article I like to think of as a "Breath deep. Read this. Reset. Okay, move onward." kind of resource. This one is by Dr. John Barry. He wrote a now pretty famous book about the influenza pandemic of 1918-1919 that we featured in an Update so long ago I can't easily find that one myself. But the point is, here's an expert in the history of pandemics and his comments in an opinion article in *The Washington Post* help me to keep a lot of recent information in context. I hope it helps you too: <https://www.washingtonpost.com/opinions/2021/01/27/covid-vaccines-new-strains/>

Steroids for COVID-19 – The Role of EMS? – MedPage Today, NIH, & Dr. G's Thoughts

It's likely that you've come across news about steroids for COVID-19. Here are two helpful resources that summarize research findings and recommendations about steroid use in the treatment of COVID-19:

From *MedPage Today*: <https://www.medpagetoday.com/infectiousdisease/covid19/90327>

From the National Institutes of Health (more scientifically detailed for those that like to do some deeper reading): <https://www.covid19treatmentguidelines.nih.gov/immune-based-therapy/immunomodulators/corticosteroids/>

The takeaway is that like all medications, steroids can be beneficial to the right patient at the right time in the right doses. I was recently asked by a paramedic in the system if we should be giving methylprednisolone (Solu-Medrol) to patients we suspect have COVID-19 or are already diagnosed with COVID-19. That's a great question. If you've read either of the above resource articles, you'll see why my answer was this: "best for patient outcome to leave it to decision after further diagnostics at the ED." There are many variables to work through in terms of whether the patient requires additional oxygen support (now that we can figure out on scene), what other infections the patient may be having (additional infection such as a bacterial pneumonia can be made worse with steroids that blunt the immune system response and that kind of determination is best made with hematology studies and chest x-rays at the hospital) and whether the patient requires hospitalization or not.

This is a fine example of smart thinking by EMS professionals. I love to get this kind of question because sometimes the answer is, "Yes, we're going to add that to our EMS standard of care." or it might be, "No, there are some variables we can't resolve with the diagnostics we have available in EMS. Some things require the resources of hospitals." Either way, this kind of question conveys we as an EMS team truly care about our patients and are searching for all the possible ways that we can help them. Keep your questions coming!

Helpful (against COVID-19) or Harmful (to Your Wallet)? Dr. G's Best Take on Zinc & Quercetin

First up in this installment about supplemental therapies that may or may not do anything to help up fight off the SARS-CoV-2 virus is zinc. This is a “to the point” resource from the National Academies of Sciences, Engineering, and Medicine: <https://www.nationalacademies.org/based-on-science/covid-19-zinc> Key takeaway in my opinion: if you are already taking a daily multi-vitamin/multi-mineral supplement and/or eating a balanced, healthy(ish) diet, then I wouldn't change anything and I certainly wouldn't spend any extra money on zinc.

What about quercetin? And what the heck is it anyway? In reverse order of answering, quercetin's “411” is nicely summarized by *WebMD* here: <https://www.webmd.com/vitamins-and-supplements/quercetin-uses-and-risks#1> As for its effectiveness against COVID-19? The jury is still out. There are some pharmacological theories about how quercetin *could* be helpful against the SARS-CoV-2 virus, but very importantly, the sufficient proof is not yet established to recommend its use at this time. Here's a helpful article that does establish some of the theoretical basis for why there is interest in further quercetin research: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7675685/pdf/PTR-9999-na.pdf>

More supplement reviews to follow, based upon your interests. I've got elderberry on the list next. Feel free to send me requests for specific supplements of your interest and I'll do my best to put them through the “science-o-meter” and share the results I think accurate and helpful.

Post-Vaccination Life – What Does That Look Like? - The New York Times

Let's enter Super Bowl LV weekend ending this Update on some additional hopeful news after I share two important reminders: 1) Go Chieeeeeefs! I've been a lifelong Chiefs fan. Please let me enjoy these past two seasons; and 2) Far more importantly, please make smart choices about any gatherings for Super Bowl watching (or other weekend events). I'll never ask of you what I don't first ask of myself. For transparency, last year I drove to Kansas City to watch the Super Bowl in downtown KC. I'd have loved to be in Miami, but my wallet reminded me KC was a much smarter choice. It was as you would expect knowing the final score, a wonderful celebratory atmosphere. It seems many, many years ago given what we have gone through these past 12 months. This year, I have the day away from the emergency department, so I'll get to watch the big game uninterrupted if EMS work allows. I'll watch it alone. Sure, I'll call or FaceTime some friends that are Chiefs fans, but I know the dangers of gathering in groups and yelling in support. Choose wisely is all I'm asking for your safety and your family's safety. The choices we make this weekend affect what we'll see for the next 30 something days.

Now, here's a nice article that recently ran in *The New York Times* that does share there is hope ahead in our “new normal”: <https://www.nytimes.com/2020/12/21/upshot/after-vaccine-recommendations-experts.html>

Vigilance. Safety. Evidence-Based Service to Others.

Let's be careful out there.

Dr. Goodloe