Update 19 - COVID-19 – From Office of the Medical Director 08 MAY2020 0800

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

Key Content:

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Yesterday I volunteered to an invitation to participate in a SARS-CoV-2 antibody screening program. I'll be interested in my results, which I will share with you, though it's interesting that no explanation of what the program is designed to do, who/what lab is running the test, what testing brand is being used, when the results will be available, who the results are being shared with, or any other such details were/are being provided. The incredibly nice RN obtaining my nearly painless blood draw had no answers either. Such is the state of testing today in too many instances. We shall see if better clarity for all of us can be found ahead.

Some additional resources for our journey in discovering answers to COVID-19, with my commentary on them and what they can mean for us:

Educational Resource – COVID-19: The CIDRAP Viewpoint – Part 2

Dr. Michael Osterholm, Director of the Center for Infectious Disease Research and Policy at the University of Minnesota, his team of accomplished public health professionals, and some talented guests of theirs have followed up Part 1 of *COVID-19: The CIDRAP Viewpoint*. Part 2 is cool. When you first access it, you'll most likely think that this doesn't apply to you. It's about crisis communication. You'll think this is good for Public Information Officers, Fire Chiefs, EMSA Executives or maybe even me, but how is it applicable to you? Truth is everyone reading this Update is a crisis communicator. Day and night, every shift you work, you communicate information in what is a crisis time for your patients, their loved ones, their co-workers, whomever is near and cares about the patient at the time of their medical emergency.

And…I view each of us as a PIO. A different kind of PIO. A *Private* Information Officer. We are that kind of PIO to our immediate and extended families, to our friends, and even to each other. You are most likely THE highest trained medical professional in your family. No wonder many look to you for health-related answers. So, isn't it even more important to be an effective PIO for those we love?

Another benefit of reading Part 2 is that you'll be a better judge of leader communications ahead about COVID-19. Watch and listen for the right ways and wrong ways in their messages.

You'll learn who to put some trust in…or not. And that's **always** valuable knowledge to have when times get tough.

Check out this interesting Part 2 here: https://www.cidrap.umn.edu/sites/default/files/public/downloads/cidrap-covid19-viewpoint-part2.pdf

What about GI symptoms in COVID-19?

While we historically (okay, history in this case being defined as weeks!) have come to equate COVID-19 with respiratory, respiratory, respiratory…remember that viral illnesses often have a way of humbling us all in the diagnosing business by presenting with a multitude of symptom possibilities. We've said from the earliest days that gastrointestinal symptoms of nausea, vomiting, and/or diarrhea could be found in some COVID-19 patients. We based this on observations reported from both Wuhan and Seattle. Some internal medicine resident physicians noted a concerning pattern of GI complaints in their COVID-19 positive patients in Boston and decided to do a formal study.

It's still wise to have your respiratory and fever radars up and running, but additionally a note of caution from a study from Brigham and Women's Hospital and Harvard Medical School. Looks like GI symptoms are more prevalent than initially thought and sometimes the prominent symptoms, not just secondary to respiratory ones. This is a nice summary of the findings as reported by Reuters: https://www.reuters.com/article/health-coronavirus-gi-symptoms-idUSL1N2CI1ZR

Now, what do you and I do with this information? Does this mean that suddenly anyone that says they are nauseated that we need to stop, back up 6 feet, put on our "MEGG" (N-95 or higher mask, eye shield, gown/raincoats, gloves) and treat as COVID-19 until proven otherwise. No. It does mean that when someone says they are nauseated, or have been vomiting or have diarrhea…well, tell me more. Did you eat 2-day old unrefrigerated chicken a couple of hours before these symptoms? I think we have BAD CHICKEN-20 to blame, not COVID-19. Most likely safe to continue with universal precautions. On the other hand, what if the history was also a fever, and working in a hospital ICU or a nursing home or any place of business where multiple COVID-19 positive persons have been recently diagnosed? Now, we should add some extra PPE for the remainder of care and transport. This study like so many others just reminds us to be good detectives, always searching for the important medical clues to keep our patients safe and us too!

It's admittedly a very gray world. We can't make it all black and white. I'm going to share with you The Risk Rule. It's one I named in honor of Dr. Gregory Risk, an emergency physician two years ahead of me in training at Methodist Hospital of Indiana in Indianapolis in the mid-1990s. As an intern in emergency medicine, I was eager to learn it all and learn it fast. Un huh. Still learning, but that's another story. The wise Dr. Risk took me under his wing, sharing this simple, profound fact that I'll now teach you: When you read all these fancy studies, it's % this and % that. That's how it goes when you're describing hundreds, maybe thousands of people and their symptoms. Any one person though? They either 0% DON'T have the disease of interest (like COVID-19) or they 100% DO have the disease. I've obviously never forgotten that. Profound. Remember education is often at the fingertips of your colleagues. Soak it in. The Risk Rule has helped me countless times in EMS and emergency medicine. I may not have the definitive test result at the time I'm treating the patient, but I can't give them 36% treatment for a tension pneumothorax or 71% treatment for a STEMI. I best treat 100% for what I genuinely believe they have at the time I can treat them. Sometimes you'll be wrong and so will I. Most of the time we'll be spot on and that's how our patients survive and heal. It's also how we can stay as safe as possible with smart choices in PPE. Okay, hopefully enough said to put those GI numbers in perspective to be of help to you.

COVID-19 Inflammatory Implications for Kids

While the good news continues to be that COVID-19 is not impacting children and adolescents to the same severity as adults, there is a subset of pediatric patients with concerning sequelae (complications) from the inflammatory response that the immune system sets off in reaction to the SARS-CoV-2 virus. Pediatric specialists have long known about

Kawasaki's Disease, particularly the coronary artery aneurysms that can result within days of infection. Kawasaki's Disease is looked for in the Emergency Department using this mnemonic: CRASH & BURN

Conjunctivitis (irritated, red eyes) – affects both eyes, but no eye pus/drainage
Rash – red, but no blisters, no fluid-filled lesions
Adenopathy (swollen lymph glands) – primarily in the neck
"**S**trawberry" Tongue – inflamed tongue, looks like the surface of a strawberry
Hands (and Feet) Involvement – swollen, red
&
BURN = fever for 5 days

The key to preventing progression of the disease, specifically preventing onset of vascular inflammation causing aneurysms is to diagnose in days 5-9 of the disease and start anti-inflammatory medication prior to day 10.

There are now increasing cases of an inflammatory response in some COVID-19 positive kids like Kawasaki's Disease. Here's a good article from the New York Times this week: https://www.nytimes.com/2020/05/05/nyregion/kawasaki-disease-coronavirus.html

I'm sharing this for two reasons:

1) As an EMS professional, never overlook kids that look sick. Particularly with parents that are calling 911 with concerns their child has a fever. We know that often once EMS is on scene, parents calm, and often decide against our sincere offer for ambulance transport and continued assessment and care enroute to hospital. Take the extra 60 seconds to ask about duration of fever and look for the CRASH exam findings. You can make a big impact in a child's health if they do have this illness by advocating for their immediate evaluation in the emergency department, preferably at one of our children's hospitals.

2) As a parent, keep the data about this COVID-19 related illness in perspective. So far, it is both rare and all children reported have survived. Don't minimize the importance of timely physician evaluation for your child if you suspect this be happening, yet simultaneously don't live in paralyzing fear of it happening either. Knowledge is power and health.

Educational Resource – The Osterholm Update – Episode 7

Dr. Michael Osterholm has the latest podcast, now its seventh episode of The Osterholm Update – Pandemic Wave Scenarios, posted on the CIDRAP website with release date 06 MAY.

You can access it at this link: https://www.cidrap.umn.edu/covid-19/podcasts-webinars/episode-7 or The Osterholm Update is available on Spotify, Apple Podcasts, or Google Play.

I encourage you to invest the 45 minutes in this latest compilation of knowledge and insight from Dr. Osterholm. We're in a tremendously uncertain time for what the immediate and beyond future holds, COVID-19 wise. This podcast shares a wealth of wisdom, over 45 years of epidemiologic experience backing it, to help us best prepare both personally and professionally. I particularly liked his concept of viral gravity. There's also a "fee" to this podcast. I'll gladly pay it. Listen and you'll see why.

Vigilance. Safety. Evidence-Based Service to Others.

Let's be careful out there.

Dr. Goodloe

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