

# DPM NEWS

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## Documenting the dead

On page 4, Dr. Cushman provides guidance on documentation for 980 calls.

## The death of public health

Eric Rathfelder provides his thoughts on the current state of the public health profession (and it's not good) on page 6.

## Generalized Weakness, Dizziness, and Geriatric Falls? Oh My!

**Introducing the new MLREMS Care Bundles**  
*Maia Dorsett MD, NREMT-P*



In a previous newsletter article, I made the following assertion: "I have heard the adage that EMS clinicians do not diagnose and can state firmly that I disagree. Not only do I disagree, but I think quite the opposite is true: diagnosis is one of the most important functions of a prehospital clinician."

Indeed, I have not changed my mind, as continued regional quality improvement work has confirmed that patients who do not get an accurate prehospital diagnosis are less likely to get the correct treatment for their disease.

From a system improvement perspective, our goal has been to decrease diagnostic error. Two new MLREMS Care Bundles, Dizziness & Weakness and Geriatric Fall, target not just patient management but diagnosis. The goal of this article is to explain the why behind these care bundles and to inspire you to rise to the challenge of identifying not just the obvious stroke, sepsis or dysrhythmia, but the more subtle presentations that are in danger of being missed.

### Dizziness & Weakness: Why the Least Specific Chief Complaints Needs the Broadest Assessment

As a medical director who has reviewed a countless number of patient care records, I frequently encounter what I have dubbed the "Assessment-Chief Complaint Paradox" which I define as the following:

**Patients with the least specific chief complaints often get the most minimal assessments when the exact opposite should be true.**

Let me explain. Patients who are clearly high acuity often have very well documented patient assessments. Think back to the last really sick patient that you took care of. Think about the assessment you did and the chart you wrote. I am sure it was it thoroughly documented with an assessment of every body system. Now think back to the last patient with "Generalized Weakness". How thorough a patient assessment did you do? Did you complete a thorough history and patient assessment, including time course of

disease, probing for potential underlying infection, assessment of every body system including cardiovascular and neuro? How would this practice change if I told you that “generalized weakness” was the most common chief complaint amongst missed prehospital strokes and that the most common neurologic assessment documented for these patients was none?

Indeed, on a regional level, we have been working on improving prehospital stroke detection. Using data from the Get With the Guidelines Stroke Registry at Strong Memorial Hospital, we analyzed our rate of missed ischemic strokes. For patients arriving to Strong Memorial Hospital, we missed 1 in 4 ischemic stroke patients in 2022. When stroke was not recognized by EMS, patients were far less likely to be triaged to the critical care bay for rapid assessment (26% vs. 97%). The most common contributor to a missed prehospital stroke was lack of neurologic assessment (50%). The most common chart impressions for missed stroke were generalized weakness (39%), unresponsiveness (22%), vomiting (17%) and dizziness (11%).

Given these results, we believe that one important way that we can improve our prehospital stroke recognition and improve care for our patients is to perform thorough assessments in patients with generalized, non-specific chief complaints, in particular Generalized Weakness & Dizziness which have a broad differential diagnosis. This will enable us to not just find the strokes (including posterior circulation strokes that can affect just coordination and gait), as well as the sepsis and cardiac etiologies that also present with generalized chief complaints. Very simply, *you will not find something that you do not look for.*



### Generalized Weakness & Dizziness Care Bundle

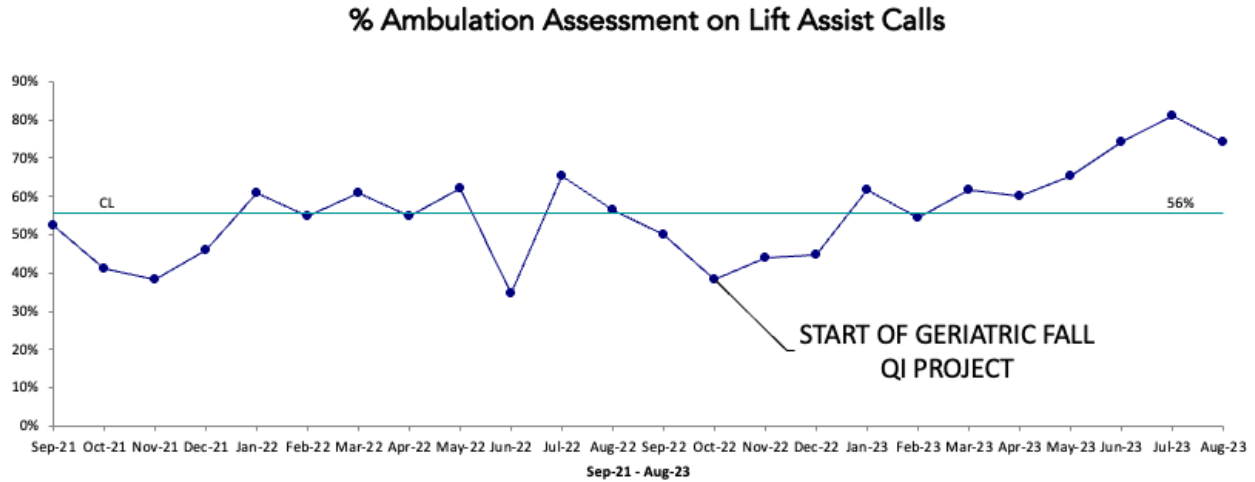
| Metric   | Goal   |
|--|--|
| Complete set of vitals including temperature                     | Obtained and documented  |
| Cincinnati Stroke Scale  | Obtained during initial assessment and documented  |
| Assess for Posterior Stroke                                      | Perform and document coordination (finger-nose-finger) and gait testing if able                |
| Blood Glucose  | Obtained and documented  |
| Assess for Symptoms of ACS (chest pain, dyspnea, abdominal pain) | Obtained and documented; if present, obtain EKG and consider giving ASA if not contraindicated |

### Geriatric Falls: Our Great Opportunity to Do Incredible Good.

The Geriatric fall patient is one of the most common dispatches in EMS. Less than half of these patients are transported to the hospital, making it so that EMS clinicians may be the only medical providers with the opportunity to make a time critical diagnosis.

Regionally, we have been working on a quality improvement project to decrease diagnostic error involving the non-transported geriatric fall patient (a.k.a. the lift assist). For every lift assist patient, approximately 1 in 12 will be transported to the hospital within 72 hrs. The majority of these transports are not for a repeat fall but for significant medical illness, most commonly sepsis, renal failure and CHF. Most of these transports result in hospital admission with a prolonged length of stay and < 50% probability of returning directly home after hospitalization. 9% die during hospital admission. Given that lift assists make up about 4% of our call volume, this gives us tremendous opportunity at all levels to address diagnostic error for a very vulnerable group amongst the patients we serve.

Perinton Ambulance, Pittsford Ambulance and CHS Mobile Integrated Healthcare have been active participants in a regional quality improvement project to improve assessment of these patients. While we still have a ways to go in changing outcomes around repeat transport, with education<sup>1</sup>, focused feedback and engagement of EMS clinicians around standardizing the assessment, we have been able to steadily and surely increase the proportion of patients where it is confirmed that the patient can get up and walk before being left at home:



The new MLREMS Care bundle for the Geriatric Fall (to replace the prior suspected mechanical fall care bundle) aims to optimize care for the vulnerable geriatric fall population, not just by optimizing care for those patients who are transported, but by better identifying who might be able to be left at home by prompting a more thorough assessment:



## Geriatric Fall Care Bundle

| Metric   | Goal   |
|--|--|
| Complete set of vitals including temperature   | Obtained and documented  |
| Assessment of Prodromal Symptoms               | Symptoms prior to the fall assessed and documented   |
| Assess for Stroke                              | Perform and document a Cincinnati Stroke Scale and posterior circulation assessment                  |
| Anticoagulant and/or Anti-Platelet Medications | Determined and documented  |
| Spinal Motion Restriction (SMR)                | Perform and document SMR when indicated  |
| Pain Management                                | Pain assessment is performed and documented, and treatment initiated prior to patient movement       |
| If transport refusal, assessment of ambulation | Assess and document patient's ability to ambulate at their baseline with pertinent assistive devices |

<sup>1</sup> The asynchronous education for this project is available on the University of Rochester Division of Prehospital Medicine CollaborNation. Just search for "A Patient by Any Other Name: Geriatric Fall Patients"

## Final Thoughts

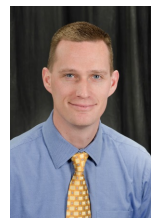
Discussing how diagnostic error is both common and harmful in EMS can seem like focusing on the negative. But I think it is exactly the opposite. I see incredible opportunity to improve care for our patients. Dizziness, weakness and geriatric falls are chief complaints encountered everyday in EMS. Imagine if we saw these not as boring calls, but as opportunities to use excellent assessment and diagnostic skills to determine who has a time critical diagnosis? Imagine if we could take as much pride in excellent performance on these calls as the ones that are obviously critical? That's a whole lot of opportunity for excellence, pride and improving care for our patients. I look forward to when that is the norm rather than the exception.

### References

Tintinalli, Judith. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide*. 8<sup>th</sup> edition. 2019 New York State EMS Collaborative Protocols, Version 002.

## Documenting the 980

Jeremy Cushman MD, MS, EMT-P



There is one call we go on where it's almost guaranteed that someone outside of your agency and billing staff will look at your chart: The 980. That list often includes the Medical Examiner, law enforcement, and particularly for non-natural deaths, many lawyers and possibly even a court. A few years ago we issued an Advisory on considerations at death scene (See [Advisory 18-03](#)) that many of our newer providers may not be aware of. If you don't know what I am talking about, check it out! At about the same time we took a look at prehospital medical records to see how well we are documenting these encounters, and I have recently noticed some trends that speak to little change – so this newsletter article is a refresher for some, and might be news for others.

We looked at nearly 200 charts with the outcome of “Dead on Scene”. I've provided a summary here, and included a few quotes from your peers who were involved in this review activity. With great variability across agencies and providers, on average 4 of 5 charts had an inadequate description of the scene. This is obviously important information to set the stage for what you viewed and may suggest the potential mechanism involved in the death (trauma, medical, etc). Simple explanations like “male found in chair of undisturbed, well kept livingroom” or “female found at bottom of stairs in unkempt home” can often suffice to set the scene; but equally critical is your description of the position in which you found the patient. If you have to move things to access the patient, it's a good idea to document that as well, that way you can recall it later. You don't have to narrate the location of everything, but a good scene description and how you found the patient is particularly important to paint the picture of the scene to the reader, which could be you in a few years when the case goes to deposition.

*“EMS staff should be documenting the scene more thoroughly and what has been disrupted by staff on location. We as EMS personnel do not know if the scene is a natural death, suicide, or even a murder so we should be documenting where we went, if we moved the body, and anything that we do that could have possibly disrupted the scene.”*

-Comment from a peer reviewer

Another key component is to provide, when possible, the time the patient was last seen alive. This helps identify a timeline and can support your clinical assessment of meeting obvious death criteria. This should also indicate where this information came from. “Daughter last saw patient at 10:30 pm last night

before going to bed” or “no bystanders/witnesses to indicate last time seen alive”. Point being, just like stroke patients, knowing the last known well (or alive) helps place into context the appropriateness of not beginning any resuscitative efforts.

One item that came up and was mentioned in the Advisory was the covering of victims with a blanket. Although covering a decedent is often done out of respect, it can introduce fibers, DNA, and other materials that were not on the patient at the time of their death. This is why the recommendation in the Advisory is to not cover the victim, unless they are in a public or highly visible location, in which case best practice is to cover them using a sterile burn sheet. Point here is that if you do something with the body – move it, cover it, etc, that should be documented as well.

*“Out of all the charts that I reviewed I believe only one chart noted that the patient was covered with a blanket. After being a part of multiple 980 calls I am fairly confident that we are covering the patient more times than what has been getting documented.”*

-Comment from a peer reviewer

Concerningly, nearly 3 in 4 charts have an incomplete physical exam documented. In many cases, it is documented that the patient was “obviously dead” but there is no mention of what criteria made them

*“The most noted observations of the charts with missing information include poor documentation of the physical findings required for meeting the obvious death criteria. In these instances, phrases such as “patient was obviously dead” or “beyond resuscitation” were used, without including any indication of the physical findings that were present.”*

-Comment from a peer reviewer

“obviously dead” (lividity, rigor, decomposition, injury incompatible with life, etc) or a physical exam of where those “obviously dead” findings were found. Point being, you can’t just document “obvious death” and indicate no palpable pulse – there should still be a physical exam performed, identifying the position the patient is found, any obvious wounds, any lividity and where it is present; any rigor; etc. I’m not saying that you don’t know how to identify a dead person, but in many cases, the documentation does not support the fact that they are obviously dead. Take for example shortness of breath: your exam and documentation would support why you felt it was CHF vs asthma and therefore the treatment pathway you followed. The deceased need the same level of documentation

to support your clinical impression of obvious death.

My hope is that by sharing these observations, you will consider them when documenting your next 980 chart. Some say that refusals should be your longest and most thorough chart, and although they may be right, just because the patient is dead doesn’t mean you don’t need to be on top of your documentation game.

## The Public Health Profession is Committing Suicide

Eric Rathfelder MS, EMT-P



To some degree all medical specialties are more effective when they maintain credibility with their patients. The importance of that credibility to the functioning of the specialty exists on a continuum. For example, a paramedic or trauma surgeon is often plying his craft in situations where a patient has not specifically chosen to engage with his services nor has the patient usually had the opportunity to select the provider. A plastic surgeon performing elective surgeries, however, relies heavily on her credibility to generate business and maintain a successful practice. So, on one end of the spectrum exist specialties such as emergency medicine where credibility with the public is one important and useful consideration amongst many others of equal or greater importance. On the other end are specialties which will cease to exist, or at least cease to maintain any functionality, if they do not maintain credibility with their patients. The anchor on that side of the credibility spectrum is the field of public health - which is eroding the pedestal of credibility it stands upon and requires to remain visible and viable, with alarming efficiency.

Credibility is one of those concepts easy to recognize, more difficult to define, and most difficult to create. I think about credibility as “competence effectively communicated”. A breakdown in either competence or effective communication will lead to a decline in credibility. On the communication side, consider a brilliant physician who makes excellent decisions but has terrible bedside manner. In his book *Blink*, Malcolm Gladwell illustrates how people can predict which physicians are more likely to be sued for malpractice based on listening to nothing more than a few seconds of the physician speaking with a patient. While listeners can’t make an effective judgment on the physician’s level of competence based on those data, they *can* make a judgment on how the physician communicates - which turns out to be a good predictor of the physician’s perceived credibility. The public health specialty has appeared to be understandably focused on efforts to maximize effective communication in the recent past while its credibility has suffered from a lack of competence rather than ineffective communication.

Towards the beginning of the COVID-19 pandemic, like most of the country, I followed the advice being provided by public health officials. I wore a mask and received my two shot series of the vaccine early on since I was eligible to do so as a healthcare worker, with the understanding that it was safe, would reduce my chance of serious illness or death when if I became infected, would prevent me from transmitting the disease to others, and would work towards the goal of herd immunity. At the time it seemed to me that while our knowledge was increasing, we were still making best guesses for the most effective means of dealing with a pandemic not otherwise experienced in our lifetimes. In a situation like that, the decision makers deserve a lot of room for error due to the serious impact of the disease and the lack of data or history on how to effectively mitigate the risk. But, I was also bothered by many of the measures being taken that were absurd on their face: close campgrounds, golf courses, and boating access when it was logical that outdoors was the safest place you could be; close fitness centers when early indications showed physical fitness was likely a powerful modifiable risk factor for severe infection; ban attendance at religious services but encourage mass gatherings to protest the police; mask toddlers at preschool but not while they are napping; ban family members from being present while a dying family member takes her last breath viewed through an iPad. Examples like these, and dozens of others, revealed the lack of an evidence-based approach to many of the policies being advocated by the public health community and implemented by government officials and business. This led thoughtful citizens to begin to question the decisions they had previously given these officials the latitude to make on good faith. From there, health

officials further eroded their credibility by doubling down on their initial assertions even as our knowledge, and the pandemic itself, evolved.

As someone with a naturally analytic personality further biased in that direction by getting an undergraduate degree in natural science and a graduate degree in social science, until now my efforts at writing on this topic have been paralyzed by the overwhelming amount of data and analysis available and relevant. But, maximizing data, references, charts, and graphs doesn't correlate to a more engaging piece in this format. So, my options were to write a ridiculously lengthy article inappropriate for the format of DPM News, write a four or five part series which I could include over a year or so worth of editions, or write an article of reasonable length that conveys my thoughts in a more concise and narrowly focused manner. I say all this to excuse the paucity of references, citations, and numerous angles that I have consumed, considered, and left out. I fully understand that this means most people who agree with my perspective will continue to do so, and many who disagree will understandably not be persuaded. Let me include at least one example that might provide a gut check or serve as a conversation starter.

Consider your personal beliefs and the media/public health advocacy surrounding the efficacy of ivermectin as a treatment or preventative for COVID-19. Here is my breakdown:

**Media and public health:** Ivermectin is a dangerous horse dewormer and anyone who takes it for COVID-19 is an ignorant, anti-science, anti-medicine, Trump-loving moron.

**Reality:** Ivermectin is a safe, prolific medication used initially in animals then in humans for decades as an effective anti-parasitic. It has not been proven effective at treating COVID-19 (Marcelino et al., 2022).

Now, consider your personal beliefs and the media/public health advocacy surrounding the efficacy of masking to prevent transmission of COVID-19. Here is my breakdown:

**Media and public health:** Wearing a mask is a simple and effective strategy to reduce the spread of COVID-19. It is safe and minimally intrusive. If you choose to not wear a mask, you are an inconsiderate person who wishes to kill old people and those who are immunocompromised. If you don't wish to mask, we will not allow you to go to a store, a doctor appointment, or visit your elderly relatives. We will also make bizarre, non-sensical rules surrounding this ritual such as requiring you to wear a mask while walking to your restaurant table but then allowing you to sit and eat for a hours without wearing a mask. We do not need to perform randomized controlled trials for this practice because you will do it because we said so and we know it works. It just makes sense - think about all that filth that comes out of your mouth and nose that gets stopped by the mask. We even tested it in a controlled lab environment.

**Reality:** Masking has not been proven effective at mitigating the spread of COVID-19 (Jefferson et al., 2023).

An in-depth look at the research surrounding masking and ivermectin is a topic for another day. However, scratching the surface on these two matters provides a good example of the perception of efficacy and is useful to illustrate how a lack of scientific rigor has damaged the credibility of the public health profession during the pandemic. On his Sensible Medicine blog, Dr. Vinay Prasad provides a nice graphic to drive this point home which shows the 95% confidence interval for ivermectin reducing COVID-19 mortality and for masking reducing the spread of influenza and COVID-19. The underlying data comes from the studies referenced above. As you can see, each shows a large confidence interval with results that cross the threshold of 1. The only reasonable conclusion from this graphic is *these data do not show efficacy for either intervention*. Please note the difference between that statement and saying *shows a lack of efficacy*. The obligation to prove efficacy falls on the party advocating the intervention since all interventions come with costs, harms, and unintended consequences. Imagine those in public health saying you should (or more analogously, you MUST) take a drug or receive a surgery where there isn't any evidence the drug or intervention is effective. That is an ineffective and unethical standard. Do ivermectin or masking "work"? So far, we don't have proof they do (they most likely do not) but public health officials have convinced those in healthcare and the government to require one of these interventions. They should be required to do the work to prove or disprove efficacy as is the standard in science and medicine.

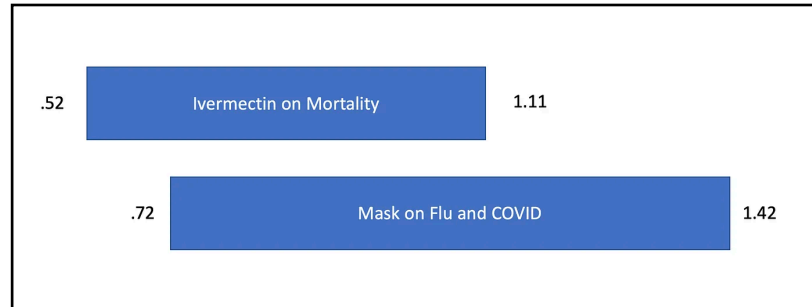


Figure 1: Confidence interval for physical interventions and for ivermectin efficacy related to COVID-19. Source: Prasad V. (2023), Sensible Medicine. [https://www.sensible-med.com/pl/cochrane-masking-review-reveals-how?utm\\_campaign=post&utm\\_medium=web](https://www.sensible-med.com/pl/cochrane-masking-review-reveals-how?utm_campaign=post&utm_medium=web)

As the pandemic appropriately placed the public health profession front and center daily in our lives, many in this community chose to use their professional voices to double down on declaring many social or political issues as "public health crises". Racism? Public health crisis. Climate change? Public health crisis. Police brutality? Public health crisis. Gun violence? Public health crisis. Clearly medicine interacts in some way with aspects of these and many other societal issues. However, medicine and public health professionals do not have any particular expertise in relation to many of these issues and their messaging frequently sounded more like progressive or left-leaning political positions of the day packaged within the credibility of a public health context. Focusing on each new current events topic spent additional valuable credibility capital that was desperately needed for the pandemic response. Now, many people who were uncomfortable with some of the public response to COVID-19 were watching the same professionals they wanted to trust on a clear medicine topic (a virus) expressing their "professional" advice on issues that many view as political. So, the farmer who has some skepticism about receiving the COVID-19 vaccine but is considering it now hears the same doctors providing opinions on global warming, public safety, race relations, abortion, transgenderism, and the second amendment of the US Constitution. Some of these might be topics where the farmer has deeply held convictions or significant knowledge which cause him to dismiss this doctor as non-credible in relation to one of these other issues, which then destroys the doctor's credibility on the clear public health topic, COVID-19.



I don't like to present a problem without offering a solution and it is critical for the reputation and credibility of the public health community to be rehabilitated before the next pandemic strikes. Unfortunately, I have seen little momentum in the US public health industry to do so. However, here is my five-part plan for improvement.

**Be humble** - most scientists and physicians didn't become aware of COVID-19 until early 2020 (except, perhaps, for a few at a laboratory in Wuhan, China). We expect infectious disease doctors and public health officials to make decisions in the beginning of a pandemic involving a brand new virus that turn out to be incorrect. Most people understand that. Instead of admitting what they simply did not know (likely for fear of losing credibility), many in government and public health were overconfident. While this works for a short period of time at convincing people to follow the provided guidance, it causes greater harm later when we learn new information that disproves initial understandings or recommendations. So, be humble. Tell people how much confidence you have in a particular recommendation rather than feigning overconfidence to gain compliance.

**Be explicit about new knowledge and admit your mistakes** - some people will throw up their hands when guidance changes due to new data. Many people will appreciate and relate to the transparency of explaining why our understanding of a new and evolving virus rapidly changes. Initially I was told, and believed, all of the following things because the infectious disease and public health community told me them: the COVID-19 vaccine significantly reduces or prevents transmission of the virus. COVID-19 is not aerosolized. COVID-19 was absolutely not related to a "lab leak" but was spread to humans from a wet market in China. There is little to no risk of adverse reactions (such as myocarditis) from the vaccine even in young, healthy males. Putting people on ventilators early on improves outcomes. I could keep going but my point is the level of certainty in the public health community was disproportionate to their knowledge or understanding. As scientific understanding of each of these things, and many others, changed it should have been explicitly communicated in order to maintain the trust of the public.

**Educate people that science is a process** - when people understand that science and evidence-based medicine require constant incorporation of new evidence which changes our understanding, they can view changes in recommendations as a natural part of the process rather than indicative of ignorance.

**Narrow the focus** - incorporating too many topics, especially those that are very political, into the fold of public health dilutes the effect the profession can have. More narrowly focusing on problems that public health officials and physicians are specifically trained and equipped to understand and improve will bolster credibility which will improve efficacy.

**Increase viewpoint diversity in infectious disease and public health specialties** - over the past few years medicine, along with nearly every other profession, has focused on increased diversity, equity, and inclusion. Viewpoint diversity should be incorporated into these efforts in order to reduce intellectual blindspots and to foster a healthy and robust community of intellectual and thought diversity. This should improve the quality of future public health advice and provide better stewardship for the profession.

My undergraduate degree is in physics which helped me develop a healthy respect for the process of science and the excitement that comes with disproving an accepted phenomena or theory. To find evidence that shows a commonly held scientific belief cannot be true garners as much, or more, respect in science as developing a new explanation of a scientific phenomenon. And, scientists spend decades or centuries doing so. Public health would do well to remember this because throughout the pandemic the

majority of the science communicators and public health profession actively resisted any and all challenges to their initial conceptions surrounding the COVID-19 pandemic. If, instead, it chooses to stay the course and persecute those heretics, like Socrates, who “fail to acknowledge the gods that the city acknowledges”, it ironically may be public health that swallows the proverbial cup of hemlock. Meanwhile, I will stand on the side of Socrates who gave his life for freedom of speech, thought, and inquiry.

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## Upcoming Events

- 1/22 MLREMS REMSCo Meeting
  - 1/22 MLREMS REMAC Regional Case Conference
  - 2/12 EMS Journal Club
  - 2/26 REMAC Meeting
  - 3/18 MLREMS REMSCo Meeting
  - 3/18 RSI Case Review
  - 4/15 REMAC Meeting
  - 4/15 MLREMS REMAC Regional Case Conference
-