Coronavirus: Rudy Giuliani Spreads Misinformation on COVID-19

By Chuck Dinerstein, MD, MBA — March 31, 2020

Just when you thought the pandemic of misinformation could not get worse, Rudy Giuliani, President Trump's personal attorney, surfaces to add his misinformative spin. His website has two video presentations on suspect therapies for COVID-19. Let's consider them in turn.

Mayor Giuliani now thinks he's Dr. Giuliani. His website is offering up two very bad videos on coronavirus and COVID-19.

The first discusses hydroxy treatment. You might wonder why, hydroxy? I suspect because, at every opportunity, Dr. Giuliani refers to hydroxyquinoline rather than hydroxychloroquine, but what's in a name? (It joins the millions of prescription errors made, identified and correct annually). Dr. Giuliani is interviewing Dr. Vladimir Zelenko, a board-certified family practitioner, providing care in Kiryas Joel, a secular Hassidic community, about an hour outside of NYC. Dr. Zelenko is sharing the results of his practice in treating patients with Covid-19. It is more a demonstration of anecdotal information than anything approaching a peer-review process. And let me be quick to point out that I do not fault Dr. Zelenko, who is trying to protect his community or newly minted Dr. Giuliani, who has no understanding of medicine.

The community consists of about 35,000 individuals median age 16 (because of a very high birth rate of about six per family), living densely. While the Giuliani site indicates 699 patients treated, Dr. Zelenko has not been keeping count, and when forced to provide a number comes in at about 500. His regimen is a mixture of hydroxychloroquine, zinc, and azithromycin – a high breed of the work done in South Korea and France. He indicates that his criteria for initiating the therapy are respiratory symptoms and a positive test. It is unclear whether a positive test means that the patient actually had a Covid-19 test or merely that in the face of flu symptoms and a negative test for seasonal flu, he presumed they had Covid-19. I like the guy; he is real, admitting that some
patients complain so much that he treats them even if he doesn't feel they have the disease – I get it.

He reports that after a follow-up period of 8 days, there have been no deaths, no intubations, and only four hospitalizations. So there you have it, a bunch of patients, no firm diagnostic information, no ages, no co-morbidities, and a follow-up period that is several days shy of adequate. Could he be right? Perhaps, but this report doesn't clarify. There is one biologically plausible belief underlying Dr. Zelenko's thought process. He believes that the hydroxy, to borrow Dr. Giuliani's phrase, reduces the viral load, while the azithromycin reduces bacterial overgrowth that frequently accompanies persistent pneumonia.

The second vlog features Dr. Robert Hariri, described as a serial entrepreneur, but additionally a surgeon and discoverer of the pluripotential stem cells of the placenta. He is the CEO of Celularity, a Celgene spinoff, involved in regenerative medicine. Again, I have no real quarrel with the facts Dr. Hariri provides. Like Dr. Zelenko, he is targeting viral load and bacterial pneumonia but using a more sophisticated approach, natural killer cells found in the placenta. Natural killer cells respond to cells infected by viruses which have released a "stress antigen" on their surface, their call for help. Natural killer cells react to that signal and kill the infected cell, sacrificing the infected cell for the good of the body. In the case where a virus has "hijacked" the cell's mechanism to reproduce itself, it can reduce viral load. All of this is established science.

Where the discussion goes off the track is when Dr. Hariri points out that this treatment has never been used with Covid-19, but has worked with other viruses. His company is awaiting an Investigational New Drug approval to being Phase I testing on 50 to 100 patients. What Dr. Giuliani doesn't understand and Dr. Hariri does, but fails to correct, is that a Phase I trial looks at a treatment's safety, not its efficacy. Successfully completing a Phase I study will open the way for a Phase II study of whether the therapy actually helps. Dr. Giuliani's takeaway is that "we may be wasting time here, but not endangering them." Of course, while that is likely true, it has yet to be proven. It does make you wonder if Dr. Giuliani in his previous career as U.S. Attorney for the Southern District of New York, he also confused likely with proven.

As an added treat, if you are to listen at about 19:15 minutes into the vlog, you will find a delightful discussion of what constitutes statistical proof and never wonder again why the general public is confused, and p-values are frequently misused and irrelevant.

There are no lies presented, there is no smoking gun to show that Rudi is blatantly misleading his audience, but his inability to understand medical care, at this moment in time, makes this behavior problematic. Can't we leave science and healthcare to scientists and physicians? This might be a good time for America's Mayor now Doctor to quietly exit the stage, be thanked for the good he did on 9/11, and not be remembered for this, could I call it fake news?

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