



*Pramod Gumpeni, M.D., assistant deputy chief medical examiner at the Harris County Institute of Forensic Sciences, wears full personal protective equipment while examining a swab for COVID-19 testing. (Courtesy photo)*

## Five questions for Pramod Gumpeni, M.D., assistant deputy chief medical examiner at Harris County Institute of Forensic Sciences

Gumpeni speaks to TMC News about people dying at home from COVID-19 as well as “death care” and its critical importance during a global pandemic

By Alexandra Becker June 3, 2020

### Five questions for Pramod Gumpeni, M.D., assistant deputy chief medical examiner at Harris County Institute of Forensic Sciences

As health care workers for the living are hailed as front line heroes during the COVID-19 crisis, experts working in pathology and forensic sciences are serving in equally critical public health

roles during the pandemic. *TMC News* spoke with Pramod Gumpeni, M.D., assistant deputy chief medical examiner at Harris County Institute of Forensic Sciences (HCIFS), to learn more about “death care” and how the institute is collaborating with hospitals and public health agencies to better understand COVID-19 disease and help curb the spread of the SARS-CoV-2 virus.

**TMC: What general practices are in place to protect employees at Harris County Institute of Forensic Sciences from infectious diseases such as COVID-19?**

**Gumpeni:** We always use full universal precautions any time we’re at a scene with our death investigators. We’ve advanced it a little further to include N95 masks when they’re on a scene now, and as far as in the office itself, any time we’re interacting with decedents or interacting with samples, we’re always wearing full universal precautions, which basically assumes that anything can be infectious. So, at all times we’re wearing full gloves in the morgue and in the autopsy suite we wear full N95 gear, protective gowns, shoe coverings, face coverings, shields.



*Pramod Gumpeni, M.D. (Courtesy photo)*

**TMC: Did HCIFS update this protocol in response to the COVID-19 pandemic?**

**Gumpeni:** We have instituted several changes. Obviously, there was an N95 shortage—a lot of PPE (personal protective equipment) shortages initially in early March and April—so we had to modify the number of people going down to the morgue and the number of people in the autopsy suite at any one time so that we could reduce the amount of PPE we were using. ... We also instituted social distancing in the office. We removed group meetings—everything shifted immediately to online—and we’ve reduced interactions, we wear face masks, and we also have implemented temperature checks.

**TMC: How does HCIFS handle cases that are suspected positive for COVID-19?**

**Gumpeni:** Initially, back in March and April, the biggest problem we had was our testing capabilities. How many cases can we test and which cases should we be testing? We decided on an algorithm for the types of cases that would be coming in that we suspected might be due to something like COVID-19—all cases that we suspected of having an influenza-like illness, or ILI.

We devised a set of questions that the investigators would be asking at the scene or at the hospital to determine the possibility that the patient might be infected with COVID-19. From there, we have a standardized procedure for not just what we're going to do here but how we're going to respond at the scene in a case someone is dying at home, potentially from COVID-19, or even picking them up from the hospital. Then once they're here, we have a

testing procedure in place where we do nasopharyngeal swab testing, which we send to the health department and then we wait for results before proceeding further. Then we tailor what kind of examination or how much more work we need to do on the case based on the results from the COVID-19 test. It took a while. The first couple of weeks in March were very difficult in terms of figuring out what our testing capabilities were. This was nationwide. Everyone was having issues in regards to access to testing, what materials we needed for testing, if we had enough materials for testing. That was an ongoing problem, but I think we've seen the dust settle. We have a good algorithm working with the Houston Health Department as well as with the Harris County Health Department and their epidemiology teams. Any positive results are promptly reported to public health officials as well as to the families for contact tracing.

**TMC: A lot has been said about the bravery and service of the health care workers treating COVID-19 patients, but what can you tell me about the contributions of pathologists and forensic scientists—experts not working in patient care, but serving an equally important role in public health.**

**Gumpeni:** In the forensics world, we tend to refer to ourselves as “death care,” as opposed to health care, and it's multifaceted. We provide not just answers to families, which is really important, but we have a lot of stakeholders in our routine cases, like law enforcement, insurance companies, family, the legal system, et cetera. As far as COVID-19 is concerned, our response has been really important, not just for providing accurate numbers, but also for providing accurate answers. A lot of what is going on with this disease, the problem with this disease, is that no one experienced this kind of infection before. These kind of findings we were having, no one really knew what to expect and what to look for. And without doing autopsies and examinations on these decedents, you wouldn't necessarily know if a person died from COVID-19. Someone might have died at home without ever seeing anyone for a week and was sick, and then all of a sudden you do an autopsy on them, and without knowing what the results look like, you wouldn't be able to tell. We're actually in the process of having two papers in publication right now based on material and the cases that we've seen. It's been very helpful in terms of education of not just other forensic individuals but also people in the hospital community and in the general health care community for seeing the findings in these people and what people are dying from—not just in the hospital when they are dying after several weeks on a respirator or after they've been diagnosed, but people who are suddenly dying at home. That's also something that health care officials need to be aware of and we are the only people that have seen stuff like this. If they die at home, they're not going to make it to the hospital before they come to us.

I think this has actually brought death care to the front with health care. It's affecting people on both ends equally—whether you're a physician in a forensics office, like myself, or you're a physician in a hospital. They're seeing a lot more death than they are used to and they need to know how to deal with it correctly. We're seeing a lot more medical problems than we might normally see in these people, and so, it's helping us integrate. We speak to physicians more and it's helping integrate clinical findings that physicians have as well as our findings and autopsies to help advance medicine to the point where, hopefully, we can find some sort of vaccine or temporizing measure or something against COVID-19.

**TMC: Any additional thoughts?**

**Gumpeni:** As far as the public is concerned, it's hard to really grasp something like an infectious disease; it's hard to point fingers or place blame because it's so ethereal. You can't see it; you can't touch it. Something like a natural disaster—you were in the hurricane, you survived the hurricane or you saw people die in the hurricane—something like that is a physical manifestation and it's a lot easier for people to grasp that. I think it's important to keep that in mind, that it's hard to see, and just because you're great and you're doing well doesn't mean that you can't get someone else sick whether it's someone you don't know or it ends up being someone you love, like your mom or your dad or your older aunt or uncle.

Keep social distancing in mind. Keep proper cleaning techniques in mind. We're all in this together and it's hard to really grasp this as being dangerous and deadly, but try to avoid that mindset. Being vigilant is the most important thing we can do right now.

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