

UCSF Takes Steps to Stop COVID-19 Spread, Ensure Patient Safety

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Thomas G. Martin, MD

The COVID-19 (coronavirus) outbreak has forced individuals across the globe into quarantine in order to reduce the spread of the virus, and at the University of California San Francisco (UCSF) Helen Diller Family Comprehensive Cancer Center, that includes all nonessential personnel, according to Thomas G. Martin, MD.

In addition, faculty at UCSF have converted up to 90% of in-person appointments to video consultations, and have prohibited visitors in the inpatient and outpatient facilities to limit patients and staff alike from potential exposure to the virus.

“The policies [we put in place to prevent the transmission of COVID-19] at UCSF are quite strict,” said Martin. “We also have to abide by the policies of the San Francisco Department of Public Health, which has done a tremendous job in leading the efforts to limit the transmission of the virus.”

In an interview with *Onclive*, Martin, clinical professor of medicine, Adult Leukemia and Bone Marrow Transplantation Program, associate director, Myeloma Program, UCSF, and co-leader, Hematopoietic Malignancies Program, Helen Diller Family Comprehensive Cancer Center, discussed the potential impact of COVID-19 on patients and the protocols UCSF has put into place to safeguard patients and providers, and provided guidance on the ways patients can protect themselves from the virus.

***Onclive:* What do we know about the risk of COVID-19 to patients with cancer?**

Martin: At the current time, we know patients over the age of 50 or 60 years old have an increased risk of experiencing severe symptoms or pneumonia, [which could lead to] a stay in the Intensive Care Unit (ICU). [The risk] is worse if a patient is 70 years old, [especially] over the age of 80. We know that cancer is more common in patients in those age ranges. The older a patient gets, the more [likely they are to] get cancer, and severe symptoms from COVID-19. [Although we don't have] a lot of data, some reports suggest that patients with cancer or those who are immunocompromised also fare worse from COVID-19. However, we don't really have a true report that tells us the number of patients with cancer who have been diagnosed and exactly how each one of those patients have fared. Some unknowns still exist, but we suspect that immunocompromised patients, specifically older patients with cancer who are receiving therapies, are going to be at an increased risk of having bad outcomes.

Has the Centers for Disease Control and Prevention or World Health Organization (WHO) released any guidance specific to patients with cancer or other immunocompromised individuals?

The general guidance that has been released by the FDA and WHO pertain to the general population. The pandemic has become a worldwide problem, so I don't believe the specifics of each patient population have been worked out yet. Each individual organization and each individual hospital, academic center, or clinic, are defining their immunocompromised population and developing their own protocols based on whether or not patients have received prior transplant, prior chemotherapy, or immunosuppressive medications. These [efforts] are being [made] at more of a local level than they are on a national and international level.

In 2003, UCSF treated several patients with severe acute respiratory syndrome (SARS). Do you believe this past experience has helped inform how to deal with COVID-19? Are similar protocols in place?

There were approximately 10,000 cases of SARS, and now we're approaching 200,000 cases of COVID-19. There is a huge difference between [what we knew about] SARS back then and what we know now. Since the SARS outbreak, many centers across the world—academic centers and UCSF specifically—have established that we need to have basic policies and procedures in place should a pandemic or something like SARS reoccur. We should have [procedures] in place that can help us [to prevent the spread of something like] COVID-19.

I believe [the SARS outbreak] did help us [in some respects] in that it somewhat “greased the wheel” for some of the efforts we’re making now to prevent infectious disease in immunocompromised patients and [spread] between patients in hospitals. However, [efforts to prevent COVID-19 represent] a whole new level [of precaution] that has really been taken to an extreme. Most organizations are focusing 24/7 on how to contain the COVID-19 crisis and establishing the policies that need to be put in place in their institution or academic center to protect everyone that is part of the organization, including patients, providers, and staff.

Have testing guidelines been relaxed to screen a greater number of high-risk patients?

In Singapore, they had something on the order of 5000 tests per million people. In the United States, we might have had somewhere on the order of 100 tests per million people, which is a hugely different number. Even if the numbers aren't exact, the scale is the same. We did not have many tests available up until now, and a lot of that had to do with the regulations behind having Clinical Laboratory Improvement Amendments—certified tests, etc. I do believe that some of those regulations have been modified to allow some in-house testing to occur at academic centers and other organizations so that we can get a grip on who really has this virus versus who may just have

the common cold or another viral syndrome that's not COVID-19.

How has the pandemic impacted your treatment plans for patients and your interactions with them?

We have seen a tremendous amount of anxiety from everyone, including patients, first responders, nurses, and the staff who greet people who come to the Medical Center. Particularly, [there has been concern regarding] the nurses who provide a lot of the initial patient assessments and the providers who provide intensive care in the ward and the ICU [where they may have to] intubate patients. There has been a lot of anxiety regarding how truly infectious COVID-19 is. It has really been an eye-opening experience: We went from reading about it in China to now seeing a growing number of cases in the United States and putting all these policies in place. It has been really remarkable to see how many people are [committed to] doing their best to decrease the transmission of this virus to ensure that they're protecting themselves, their patients, and their families [from infection].

Could you elaborate on some of the policies put into place to protect people from infection? What efforts have been made by UCSF specifically to safeguard patients?

All kids are out of school and many adults are out of work and are meant to be at home. They're able to go out to do necessary things like shopping, banking, and other things that are necessary for daily life. However, when I say shop, I mean grocery shop. No other stores or businesses are open. All bars, clubs, and events in the Bay Area have been completely shut down. These are measures that are hopefully going to greatly decrease the transmission of the virus. At the hospital level, we now have a policy stating that no visitors are allowed inside our hospital. If a patient is in the ICU or up on one of our wards and does not have COVID-19, they still cannot have any visitors. Anyone who has COVID-19 or is at risk of testing positive for infection is isolated and also cannot have any visitors. That's happening in our inpatient setting.

In our outpatient clinics, where we're still administering chemotherapy and other life-saving medications, procedures, and transfusions, those patients are also unable to bring a person with them. We're on the fourth floor, and we don't allow any visitors onto that floor. We're really cutting down the traffic on all of our all floors to try to decrease the [likelihood of] transmission. All nonessential support personnel and staff at UCSF, in many locations, but specifically on our floor in hematology and bone marrow transplantation (BMT), have converted to at-home work. They're telecommuting, so we essentially don't have any staff here who doesn't have a "patient-facing" duty. They're all working from home. [We're interacting with them via] telephone, video, email, or text—whatever means necessary.

In terms of the patients in the outpatient clinic, we're still encouraging providers to interact with their patients and to visit them. However, we have converted more than 50%, and almost 70%, and

in some cases 90%, of the visits to video visits. For example, patients who have an appointment can turn on their computer, go to a website, and interact with the doctor through the computer. If we believe those patients need laboratories or any other assessment, we try to have them done close to their homes in a local LabCorp, Quest Diagnostics, or other blood-drawing facilities so they have as minimal exposure to others as possible. [The outbreak] has dramatically changed the way we operate on our campus at the current time.

Have financial considerations been made for those who can't work from home?

UCSF is putting together policies and procedures that will support people who work at UCSF or any of the UC systems who aren't able to get to work because of childcare or because they have an infection. We're telling people that no matter what, if they have a runny nose, cough, or fever, do not come to work. This is not a time to be at work if you have any symptoms whatsoever. Patients are required to stay home until they're symptom free for 24 hours. In the BMT unit, we prefer patients to be symptom free for 24 to 48 hours before they come back. They are going to be able to access some funding that the University of California is providing for people who can't work for a variety of reasons related to the COVID-19 crisis.

If a national lockdown is imposed, what steps can be taken to ensure that patients continue to receive optimal care?

We are welcoming patients who have a treatment need or an acute illness who need to be seen at UCSF to the center. We are treating them for whatever urgent or emergent need they have. If someone needs to continue chemotherapy because it's lifesaving, they will continue to receive chemotherapy, or continue to receive blood transfusions. Some of our immunocompromised patients are receiving gamma globulin infusion, or other medications to boost their immune systems. Those patients are still coming to our center and receiving therapy. We, as the providers, are seeing them on a daily basis.

For those patients who might need oral medication, dosing changes, or blood tests to have their kidneys, liver, and electrolytes assessed, we are having them get those tests done locally. Then we can access the labs through online programs and we can have a video conference directly with the patient. We can manipulate all of the medications [that way]. It's also helpful that I can [share] my screen and show them their lab test results. I can also write down specific recommendations on my computer for them to screenshot on their phone. Then they have their recommendations right there [on their phone] after our visit. It actually ends up being a very detailed visit and an essential part of treatment. Video conferencing has dramatically helped our efforts through this crisis. It really would have been [unbelievably difficult] if we didn't have this ability to conduct video visits. I probably did 15 video visits [last Wednesday], and all the patients were able to figure out how to do it online, so [this approach] works extremely well.

Should clinical trials be halted for the time being or will they continue as planned?

Clinical trials are a very difficult entity with all the things that are shut down at the current time. Many of the personnel who help us carry out these trials, such as the clinical research coordinators, the program project managers, and even some of the research nurses, are home right now. All our clinical research coordinators at UCSF are considered nonessential and are prohibited from being on our floor; however, they help us run the clinical trials, help us take the blood samples, and ensure that they're sent to a sponsor or to a central laboratory, so we can ensure the experimental drug we're testing is safe.

At the current time, we have closed down essentially over 90% of our clinical trials to new enrollment. We can't put new patients on a clinical trial, but some patients are already on trials; these patients are receiving treatment on the clinical trial just as a patient would be receiving chemotherapy. We can't just stop treatment in patients who are responding to the trial drug because it's a lifesaving therapy for them. These patients continue to receive treatment on clinical trials.

Some of the correlative work, which is not as important in terms of safety and response, have been put on hold until we get our personnel back. We still believe it's safe to continue the therapy that's hopefully holding the cancer in check. New trial enrollment is very limited, but patients on current clinical trials are continuing treatment, if it is safe. Even in the clinical trial domain, many of our assessments are being done via video conferencing, so we can call patients and ask them how they're tolerating the medication. We'll also have [patients] get their laboratory tests done locally, so we can ensure their kidneys look good, their liver looks good, etc.

Unfortunately, some people are being diagnosed with cancer during this time, and those people have to start therapy. Sometimes, we believe, investigational therapy is better than the standard of care. In some cases, we may choose to use research therapy versus standard therapy if initial data suggest [the former] may be [more effective]. We'll have a frank discussion with the patient on the risks of being in the hospital and the risks of potentially getting COVID-19 as they have to be integrally involved in the medical system.

What types of questions have your patients asked you as it pertains to COVID-19?

I've probably received dozens of questions online from my patients saying, "This is my diagnosis. Here's my treatment. Am I immunocompromised? Am I at higher risk [for infection with COVID-19]?" In general, the majority of patients with cancer who have received cancer medications are considered somewhat immunocompromised and are at increased risk [of infection with COVID-19]. The only thing patients can do is try to protect themselves as much as possible [from infection]. I've been telling patients to stay inside, stay sequestered. They can go out to exercise. They can walk

around the block, but they shouldn't interact with others. They should wash their hands very well.

If they see anyone who is coughing, sneezing, or has signs of infection, stay away from them. If anyone in their family has any signs of infection, stay away from them. Use a different bathroom. Stay in a different room. They should quite literally sequester themselves in at the current time. No travel and no vacations [should happen] at the current time. Don't get on a plane. Don't get on buses. Don't get on public transportation where you have a risk of exposure to other people. If patients want to get in the car, drive to the beach, and watch the waves crash from their car, that's fine. They're not going to get into any trouble doing that. However, patients should stay local, and they shouldn't travel otherwise.

What are your recommendations for your patients when it comes to personal protective equipment (PPE)?

Masks and gloves, what falls under the category of PPE equipment, [have received a lot of attention]. We have our patients wear masks when they're in our clinic and when they're around other people. [Masks] may protect against COVID-19. If there's going to be a time where patients believe they are going to be exposed to others, using a regular mask, it doesn't have to be an N95 mask, will likely provide some protection against COVID-19. [We also recommend] they wash their hands as often as possible.

In terms of the science, it will be interesting to see the data on when those who have COVID-19 are able to transmit the virus. We still don't know the true answer to that. We're going to get more data as [time passes]. We'll see what happens with epidemiology and whether this sequester order works. Thus far, it looks pretty good.