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## Bay Area dialysis patients risk their lives to stay alive during pandemic

**Brett Simpson** 

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The nurse in a white hazmat-like hood enters Adnan Aguilar's hospital room, wheeling a massive machine in front of her. She speaks soothingly in Spanish as she checks his temperature, turns on the machine and fixes a tube to the stent in his arm. Fluid enters Aguilar's veins and his blood pressure drops. His whole body begins to feel cold and numb. His eyes drift toward the TV above his bed playing the Mexican drama "La Rosa de Guadalupe." Soon he feels disoriented and ready to sleep.

The dialysis machine at Aguilar's bedside is as large as an industrial washer. It will act as his surrogate kidney over the course of several hours, methodically cleaning the toxins from his blood. For the past three years, Aguilar, 32, has been one of San Jose Regional Medical Center's most vulnerable patients. He relies on this four-hour procedure three times a week to stay alive.

But when he tested positive for the coronavirus in late July, his risk increased dramatically, as he became one of the most likely people in the nation to die from COVID-19.

Recent data from the U.S. Centers for Medicare and Medicaid found that dialysis patients have the highest rate of COVID-19 hospitalizations of all Medicare beneficiaries, at 1,340 per 100,000 recipients -- eight times the rate of the average recipient.

"The mortality rate is just staggering," said Dr. Padma Yarmalagadda, a nephrologist who oversees dialysis at three Santa Clara County hospitals, including Regional Medical Center. "Once infected, these patients have very little to defend themselves."

As coronavirus cases have surged across the state, many elderly and immunocompromised patients have shut themselves inside to avoid infection. But vulnerable dialysis patients don't have the luxury of waiting out the pandemic. They must continue traveling to medical centers several times a week for life-sustaining treatment. San Jose's Regional Medical Center is the Bay Area hospital hardest-hit by the pandemic — and it also serves most of Santa Clara County's dialysis patients.

Bay Area counties don't collect data on COVID-19 and dialysis. But of Yarlagadda's eight chronic kidney disease patients who have been diagnosed with COVID-19 in the past three months, four have died, she said. Aguilar, an immigrant from Colima, Mexico, is one of her patients.

Hemodialysis, a four-hour blood cleaning treatment, is a risky, last-resort option when the kidneys give out, typically following a long struggle with high blood pressure or diabetes. It's largely avoidable through early intervention and medication, or with a kidney transplant.

According to the National Kidney Foundation, 15% of Americans have chronic kidney disease — a disproportionate number of whom are Black and Hispanic. Hispanic Americans, like Aguilar, are 1.5 times likelier to develop kidney disease than white Americans.

Once a person goes on dialysis, they only have a 30% chance of surviving the next five years. Infection is the leading cause of death among dialysis patients. Every day in the U.S., more than 240 dialysis patients die.

But for Aguilar and many others, dialysis is the only option to stay alive.

Augilar's kidneys failed three years ago, after he suffered years of high blood pressure without treatment. Aguilar's situation is common among Yarlagadda's patients in the largely low-income, Hispanic communities she serves in Santa Clara County. Many of her patients, particularly immigrants, don't have health insurance.

For kidney patients under 65, Medicare only kicks in to cover the cost of dialysis — in other words, once the kidneys have already failed.

"Patients can live long lives with diabetes or high blood pressure if they manage it early," Yarlagadda said. "Unfortunately, once we get to see some of these poorer patients, the damage is irreversible."

Aguilar has lived with his parents and two siblings in San Jose since immigrating 15 years ago from Colima. He and his brother collect trash for companies doing major renovation projects. His parents are park employees. Together, they share the burden of rent — and none could afford to stop working when the pandemic hit.

As an essential worker living in a multigenerational household, Aguilar falls into a category of people that is particularly susceptible to coronavirus infection, according to recent U.S. Centers for Disease Control data. Researchers also found that Hispanic Americans were three times as likely to get infected as white Americans.

On July 12, following an unusually exhausting work day, Aguilar checked his temperature. When it read over 100 degrees, he called Dr. Yarlagadda, who ordered him immediately to the hospital.

As his symptoms worsened, Aguilar spent day and night racked by a cough and chills, isolated in the hospital's COVID-19 ward.

"I talk to my family on the phone, and they tell me to stay strong," Aguilar said through a translator during a July 15 phone interview from the hospital. "I'm worried about not working, about making rent."

He also needed to continue dialysis, which even in a pre-pandemic world is a deeply uncomfortable procedure. Infection is an ever-present concern, and patients who contract staph or pneumonia often succumb to it.

Dialysis nurse Rosalinda Gutierrez, a San Jose resident and immigrant from the Philippines, has been working 12-to-16-hour days in Regional Medical Center's COVID-19 ward.

In a typical world, she said, she works to keep her patients comfortable, talking to them, making jokes, encouraging family members to sit beside them. Now, working with COVID dialysis patients, Gutierrez wears an oxygen-filtration hood and does not leave the room for the entirety of the four-hour treatment.

Alone, she concentrates on mitigating the spread of infection and keeping her weakened patient alive.

"The patients are so tired, they cough, they're weak," Gutierrez said. "It hurts to see them like this."

So far, infection control procedures at South Bay hospitals have proven effective, Yarlagadda said. No nurses or staff have become infected. No patients have spread the virus to other patients.

After a harrowing 11 days in the hospital, Aguilar's symptoms subsided and he returned home. Two weeks into his recovery, he returned to work, collecting trash to once again help his family cover the rent. He also has resumed dialysis treatment three nights a week, which he self-administers from a machine at his bedside.

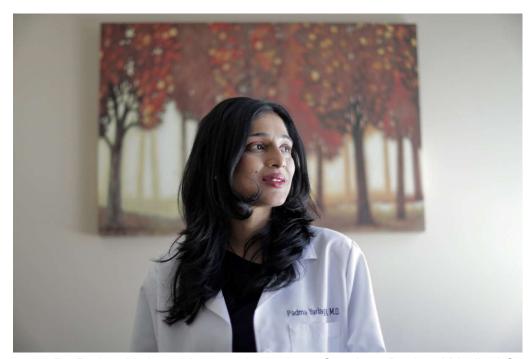
Yarlagadda has seen enough patients like Aguilar to know that keeping them alive depends on early medical intervention. Both she and Gutierrez expressed concerns that the public's fear of catching the virus at the hospital will keep dialysis patients from seeking crucial treatment.

This misconception, Yarlagadda said, could put patients with milder kidney conditions at greater risk of organ failure — accelerating their path to dialysis and increasing the risk of lifethreatening complications, like heart damage or fluid in the lungs.

"Our hospitals are empty," she said. "But the hospital is the safest place you can be."



1 of 6 Dr. Padma Yarlagadda, a nephrologist at San Jose Regional Medical Center, checks patient Ban Lam in an exam room. Photo: Carlos Avila Gonzalez / The Chronicle



2 of **6** Dr. Padma Yarlagadda, a nephrologist at San Jose Regional Medical Center, said of eight chronic kidney disease patients who have been diagnosed with COVID-19 in the past three months, four have died. Photo: Carlos Avila Gonzalez / The Chronicle



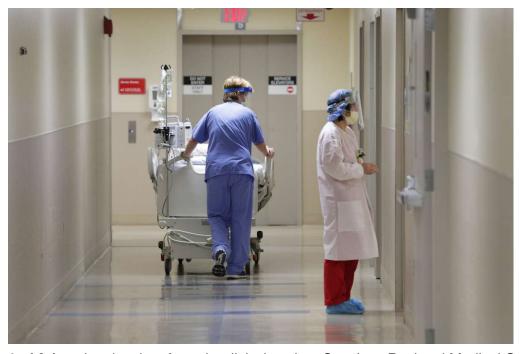
3 of **6** Dialysis nurses Aurea Tabilas, left, and Fan Jin, right, in the dialysis unit at Regional Medical Center in San Jose, Calif., on Wednesday, July 22, 2020. On June 22, the US Centers for Medicare and Medicaid released new data showing that dialysis patients had the highest rate of hospitalization among all Medicare beneficiaries with COVID-19. Photo: Carlos Avila Gonzalez / The Chronicle



4 of **6** Bags of sodium bicarbonate, part of the dialysis treatment, hang on an IV pole at the dialysis unit at San Jose Regional Medical Center. Photo: Carlos Avila Gonzalez / The Chronicle



5 of 6 Dialysis nurse Rosalinda Gutierrez checks in at the dialysis unit after treating a patient in the ICU at San Jose Regional Medical Center. Photo: Carlos Avila Gonzalez / The Chronicle



6 of **6** A patient is taken from the dialysis unit at San Jose Regional Medical Center. Those undergoing regular dialysis treatments are highly susceptible to infection. "Once infected, these patients have very little to defend themselves," says Dr. Padma Yarmalagadda. Photo: Carlos Avila Gonzalez / The Chronicle

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https://www.sfchronicle.com/bayarea/article/Bay-Area-dialysis-patients-risk-their-lives-to-15523672.php#photo-19849099