

PRINT- Dialysis Analysis; Needs Growing in Rural Communities

How One Hospital is Meeting the Challenge

A 67 year-old man shows up at his local hospital's emergency department and he's in a bad way. He has [end stage kidney disease](#) and his potassium levels are out of control. In many rural communities, the local hospital doesn't have a dialysis machine. That can be a difference between life and death if dialysis comes too late because a patient has to be transferred to a facility that can provide it.

Dr. Syed Imam, a nephrologist who practices at OSF HealthCare hospitals in rural Illinois communities, acknowledges this kind of scenario plays out in rural communities across the country because [nearly one-fourth of new dialysis patients live in rural areas](#) and facilities face challenges serving them. Many rural hospitals are financially strapped and can't afford dialysis equipment and the support needed for the service, such as sterile water delivery and trained specialists to provide the complex care.

Dr. Imam says the consequences can be dire for patients who are facing life-threatening complications that occur in patients with advanced kidney disease, such as dangerously high potassium levels.

"Potassium is an electrolyte that is involved in the electrical rhythm of the heart and so it can really stun the heart if the potassium (is very high) and cannot be controlled in a timely manner. Dialysis is critical at that point. Sometimes we may be delaying care because the patient has to be transferred, and so it really helps if the dialysis is available and we can do it as soon as possible," Dr. Imam explained.

The Centers for Disease Control and Prevention (CDC) reports the average rural patient travels two-and-a-half times farther to dialysis than their urban counterpart. Complicating matters, [people who are older](#) and live in rural communities are also at a significantly higher risk for obesity, cardiovascular disease, and diabetes that lead to the development of chronic kidney disease.

Among Midwestern states, Illinois and Michigan [rank near the bottom](#) for fewest hospitals per 1,000 people to treat people suffering from end stage renal failure. OSF HealthCare St. Mary Medical Center President Lisa DeKezel says the 81-bed hospital in Galesburg, Illinois serves as an intermediate care hub for the three smaller OSF hospitals in Kewanee, Monmouth and Galesburg, so adding in-hospital dialysis was important to meet community needs.

DeKezel stressed, "We have a population which we recognize as a diabetic population and those with chronic health conditions that require those dialysis services so it really made sense when we took a step back and looked at the needs of our community who we're here to serve and we should be providing that service here at St. Mary Medical Center to keep our patients local."

The COVID Connection

Dr. Partha Srinivasan moved to Galesburg from New York City more than three decades ago after deciding big city life wasn't for him. Dr. Srinivasan's passion for his patients has been a magnet for other nephrologists, including Dr. Imam, who have joined the Renal Care Associates group.

Dr. Srinivasan says the availability of hospital dialysis is critically important during the COVID-19 pandemic because acute kidney damage is occurring to nearly 15% of all hospitalized coronavirus patients, many of whom will need dialysis. According to the Kidney Foundation, if a patient ends up in the intensive care unit (ICU) their odds of needing dialysis increase — because at least 20% of intensive-care patients have lost kidney function.

"It's better to have them continue in the same institution, in the same room, rather than have to put them in an ambulance and transport ... putting a lot of people at risk for exposure to the virus," Dr. Srinivasan emphasized.

Providing dialysis care locally also helps patients stay connected to their support system, which Dr. Imam stresses is important for recovery and chronic disease management.

"Family support is really, really instrumental at that time, (when initiating dialysis). Sometimes we have to pose the question, 'Where do you want to go? Are you ok going to Peoria?' and then they have the logistics (to worry about), a lot of issues come up that way and it really helps (if) the patients family members are around and if (the patient) can stay local," according to Dr. Imam.

New equipment recently installed at OSF St. Mary Medical Center required a team to review water lines, sanitation processes, and filtration to provide sterile water necessary for kidney dialysis. Lisa DeKezel says the time and behind-the-scenes effort is worth the investment because it is better for the patient.

“Bringing the equipment and nursing team to them to perform the service so that makes it much more convenient and less stressful for the patients as well.”

DeKezel adds being part of a larger health care system allows her team to provide the vital dialysis services when many other rural hospitals are unable to. Innovation also plays a role.

“We also have the opportunity to incorporate our telemedicine program. The dialysis team at Saint Francis (in Peoria) will be available real time via tele-support so they will be able to be virtually in the room with our dialysis team should there be a need that arises to tap directly into their mentors,” DeKezel explained.

Both Drs. Srinivasan and Imam enjoy providing in-person care within the region, relishing the ability to have a deeper, trusting relationship with those who rely on them for care. But they also see a day when telehealth will have to supplement what they can provide to many smaller communities whose aging population continues to grow.