

Letter to Editor



Home Hemodialysis Emerges as a Safe and Effective Option for Dialysis Patients amid COVID-19 Pandemic

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To Editor,

COVID-19 has become a global health crisis, affecting hemodialysis patients and healthcare professionals providing medical care to this vulnerable group. In-center hemodialysis patients are the most impacted, with higher potential sources of infection and mortality.^{1,2}

The majority of in-center hemodialysis patients are elderly with multiple medical conditions, making them a high-risk group for COVID-19 transmission and infection due to their immunocompromised state.^{3,4} They share common spaces and must remain in enclosed areas for extended periods, which poses a significant logistical challenge not only during hemodialysis sessions but also when being transported.⁵

Due to constraints in supplies, manpower, and equipment for home dialysis among critically ill COVID-19 patients, alternative approaches such as home dialysis have been developed as a beneficial effort to treat patients at home.⁶ As the COVID-19 pandemic continues to affect the world, hemodialysis patients in the in-center setting have been meaningfully impacted due to the definite logistics involved, such as the necessity to travel to their dialysis wards, usually three times a week, consequently increasing risk of exposure. In response to this, home dialysis has been advocated as a safer option in times of epidemic.⁷

The two main types of home hemodialysis that are available are, conventional home hemodialysis that are typically done three times a week. The patients and their family member, are trained to set up, operate, clean, and sterilize the hemodialysis machine at home. Training usually takes around a month, or until both the patient and his/ her care partner feel comfortable and skilled enough to administer hemodialysis.⁶ Short daily home hemodialysis involves more frequent dialysis treatments,

usually performed on a daily basis. The duration of each treatment is shorter compared to conventional home hemodialysis, typically lasting for a few hours. This kind of hemodialysis is more flexible in fitting treatments into the patient's daily life schedule.⁸

Peritoneal Dialysis: Peritoneal dialysis is a type of dialysis that is performed at home by the patient. It involves the infusion of dialysis fluid into the abdominal cavity through a catheter inserted surgically. The dialysis fluid stays in the abdomen for a prescribed amount of time, allowing for the exchange of waste and excess fluids between the blood vessels in the peritoneum (the lining of the abdomen) and the dialysis fluid. After the dwell time, the fluid is drained out of the abdomen and replaced with fresh dialysis solution. This process is typically repeated several times a day, or a machine called a cyclor can be used to automate the exchanges while the patient sleeps. Peritoneal dialysis offers more flexibility in terms of scheduling and can be performed without the need for a machine in the case of continuous ambulatory peritoneal dialysis.⁶

Patients immediately take infection control measures to reduce COVID-19 exposure and spread in the community. Home dialysis protects patients from high-risk scenarios, eliminates the need to travel or share common spaces, reduces the risk of exposure and contagion, provides clinical and quality-of-life benefits, and offers additional safety and protection benefits, with an emphasis on self-management that improves patients' independence. Although patients on home dialysis face their own challenges, such as the need for training and support, this method has been shown to be a safe and effective option for dialysis patients.^{7,8}

In conclusion, home hemodialysis is associated with greater patient autonomy and treatment satisfaction, and

it has been shown to be safe and effective approach. As the COVID-19 pandemic continues to affect the world, it has emerged as a safe and effective option, allowing hemodialysis patients to receive treatment in the comfort of their own homes and reducing their risk of exposure to the virus. This approach significantly reduces the risk of exposure and transmission of infections, such as COVID-19, making it a reliable and secure way, and presents an efficient and safe method for enhancing the health outcomes of treatment.

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Competing Interests

None declared.

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