Convalescent COVID-19 Patients on Hemodialysis: When Should We End Isolation?

Ahmet Murt Mehmet Rıza Altıparmak

Nephrology Unit, Internal Medicine Department, Cerrahpasa Medical Faculty, Istanbul University, Istanbul, Turkey

Dear Editor,

All hemodialysis facilities are putting extensive efforts to protect their patients from the COVID-19 pandemic. Screening for the symptoms is the first step of all. When there is fever, cough, or shortness of breath, the patient becomes a suspected case to be tested for COVID-19. Suspected and confirmed COVID-19 patients should ideally be dialysed in a separate isolation room [1]. When an isolation room cannot be established, these patients may be placed in the last shift or sent to a COVID-19 designated dialysis facility. The staff should follow institutional guidance to use appropriate personal protective equipment.

All of the suggested algorithms necessitate isolation of patients when they are either suspected or confirmed COVID-19 cases [2]. Many institutions have established isolation rooms for dialysis, and experiences in this context are growing. As understanding of the disease evolves, we have more patients for whom a discharge is planned, and none of the guides has mentioned about the ideal timing to end the isolation for hemodialysis patients yet.

The following are the generally accepted criteria to discharge patients from COVID wards:

- being afebrile for at least three consecutive days
- having two negative respiratory SARS-CoV2 PCR tests done 24 hours apart

- having improved respiratory symptoms with absorbed inflammation in imaging studies.

Discharging a patient from a COVID ward may be relatively easy when compared to a nephrologist's dilemma to decide the best for both this particular patient and other hemodialysis patients. Should this patient be accepted to a standard facility as the PCR tests are negative? We know that RT-PCR done for SARS-CoV2 has 70% sensitivity [3] and it can miss some cases even if it is done twice. Although not extensively studied yet, viral shedding could be detected on the 37th day for SARS-CoV2, with a median of 20 days [4]. Besides, PCR assays may turn positive for some discharged patients [5].

In summary, we suggest that nephrologists should continue hemodialysis in an isolation room even if the patient is discharged. The use of relevant personal protective equipment should also be continued during this period. The decision to end the isolation should be given with an additional PCR test which is done 1 month after the patient was confirmed to have COVID-19. We believe that such an approach will be valuable to protect other patients as viral shedding may continue even if the patient is accepted to be convalescent.

Disclosure Statement

The authors have no conflicts of interest to declare.

Funding Sources

The authors did not receive any funding.

Author Contributions

References

- 1 Kliger AS, Silberzweig J. Mitigating risk of COVID-19 in dialysis facilities. [Clin J Am Soc Nephrol](#). 2020.
- 2 Watnick S, McNamara E. On the frontline of the COVID-19 outbreak: keeping patients on long-term dialysis safe. [Clin J Am Soc Nephrol](#). 2020.
- 3 Fang Y, Zhang H, Xie J, Lin M, Ying L, Pang P, et al. Sensitivity of chest CT for COVID-19: comparison to RT-PCR. [Radiology](#). 2020 Feb; 200432.
- 4 Zhou F, Yu T, Du R, Fan G, Liu Y, Liu Z, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. [Lancet](#). 2020;395(10229):1054–62.
- 5 Yuan J, Kou S, Liang Y, Zeng J, Pan Y, Liu L. PCR assays turned positive in 25 discharged COVID-19 patients. [Clin Infect Dis](#). 2020 April 8.

Dr. Ahmet Murt conceptualized the idea, did the literature search, and wrote the manuscript. Prof. Mehmet Riza Altıparmak supervised the work and revised the text.