



Peritoneal Dialysis Catheter Insertion is an Essential Medical Service for Kidney Failure Patients in COVID-19 Pandemic^{1,2}

The impact of COVID-19 pandemic on dialysis care



- The COVID-19 pandemic had a significant impact on human health worldwide and poses an unparalleled threat to public health.
- A systematic review suggests that kidney failure patients with KRT had high COVID-19 prevalence and case fatality rate.³

COVID-19: Coronavirus disease 2019; KRT: Kidney replacement therapy.

COVID-19 and Acute Kidney Injury



- KRT could be required to treat AKI due to severe COVID-19 infection.⁴
- The sudden rise in COVID-19 cases has led to a critical and unexpected shortage of all resources and personnel in providing HD and CRRT.⁵
- The scarcity of resources can be fulfilled by incorporating PD for AKI treatment by the nephrologist.⁵

Peritoneal dialysis as a preferred therapy for kidney failure patients during COVID-19



- Reduces hospital visits.¹
- Allows for easier self-isolation, potentially lowering the risk of cluster infection.¹
- Simpler form of home therapy with less training time compared to home HD.⁶
- Multiple studies suggest that COVID-19 infections are less common in patients on PD than on HD.⁷⁻¹⁰

For these reasons, it appears prudent to offer PD as a preferred therapy during the COVID-19 pandemic.⁶

PD: Peritoneal dialysis.

ISPD Recommendations



- Safe, functional, and durable catheter access to the peritoneal cavity¹¹
- Timely insertion¹¹

Peritoneal dialysis catheter can be inserted via the following methods

Open surgical

Peritoneoscopic/
laparoscopic

Percutaneous with
or without ultrasound or
fluoroscopic guidance

The need for percutaneous catheter insertion during COVID-19 pandemic



- Open surgical and laparoscopic catheter insertion have been commonly used to gain PD access.¹
- During the COVID-19 pandemic, surgical and laparoscopic catheter insertion was less favored because of reduced theater list, potential aerosol formation, and viral transmission.¹



- The catheter can be placed percutaneously at the bedside by a surgeon, a nephrologist, or a radiologist.⁶
- Image guidance by ultrasonography and fluoroscopy may be utilized to improve outcomes.¹¹
- Requires local anesthesia, and is minimally invasive.⁶

Medical insertion pathways using percutaneous technique should be considered if available.¹

Summary



- PD should be considered as the preferred therapy in kidney failure patients during COVID-19.¹
- Nephrologists may have to incorporate PD for the treatment of AKI during the pandemic to efficiently manage the shortage of resources.⁵
- Percutaneous PD catheter insertion is the preferred approach during the pandemic as it can be done at bedside and is minimally invasive.^{6,12}
- Healthcare policy should prioritize PD catheter placement and PD catheter insertions should not be considered elective or routine procedures.⁵

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