

Shortage Strategies and Resources: Peritoneal Dialysis Solution

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ASPR TRACIE attempts to summarize the best available information on emerging issues and make it available for healthcare use. The information in this tip sheet is from existing published resources (based primarily on previous shortage experiences). It is not intended to provide clinical guidance and it does not represent official policy or guidance from the U.S. Department of Health and Human Services or the Administration for Strategic Preparedness and Response.

More than 500,000 patients require dialysis every year in the United States with about 11% receiving peritoneal dialysis (PD) and the remainder receiving hemodialysis.¹ PD is usually performed at home with bags of dialysate prescribed by a nephrologist and provided by homecare or delivered to the home. Treatment should always be monitored and adjusted by the patient's nephrologist based on the patient's residual renal function and other factors.

Medical product shortages and disaster-induced impacts from hurricanes and other extreme weather incidents can disrupt dialysis treatment and access to

critical supplies. Providers treating adult or pediatric patients should refer to the American Society of Nephrology's [Interim Strategies for Peritoneal Dialysis \(PD\) Solution Use for Prevalent Patients Undergoing PD](#) and the American Society of Pediatric Nephrology's [Interim Guidance on PD Solution Conservation During Supply Shortage](#).

Access the [Intravenous Fluid Shortage Strategies tipsheet](#) for information on modifying practices to conserve IV fluids.

The following strategies from prior shortage and disaster incidents can help healthcare providers and patients adapt to a shortage of PD solution:

- Defer initiation of PD for patients requiring dialysis.
- Consider strategies to reduce the number of bags of dialysate required. For additional information, refer to the American Society of Nephrology's [Interim Strategies for Peritoneal Dialysis \(PD\) Solution Use for Prevalent Patients Undergoing PD](#) and the American Society of Pediatric Nephrology's [Interim Guidance on PD Solution Conservation During Supply Shortage](#).
- Consider reducing the number of cycles or, if residual renal function allows, omitting one day per week of dialysis. Adjustments to patients' treatment prescriptions, including cycles, should be closely monitored.
- Carefully monitor patient laboratory results if changes are made to PD frequency or volume.
- Consider implementation of more strict renal diets to facilitate smaller fill volumes or less frequent cycles.
- Switch to a different PD solution provider if supply is better through a different vendor.
 - Note that different vendors may have different connectors and different means of shipping/delivery. The support provided to patients at home may also be

¹ Aal, A. (2022). [Why Peritoneal Dialysis is Underutilized in the United States: A Review of Inequities](#). Seminars in Interventional Radiology. 39(1):47-50.

different. Ordering providers should be familiar with differences between vendors and ensure that patients receive the necessary support.

- Minimize waste from mixing bags.
 - Different concentrations of dextrose may need to be mixed to meet pediatric patients' needs and reach an intermediate level. This often results in patients discarding one of the bags.
 - Consider alternating a lower and higher concentration of dextrose if safe to do so to obtain the same results.
- Maintain situational awareness of available and projected PD solution inventory and implement conservation strategies accordingly.
- Communicate with patients about the supply situation and any related changes to treatment protocols.
- Consider temporarily switching the patient to hemodialysis if they are not a good candidate for treatment changes and supplies are insufficient to provide adequate PD, but transitioning to hemodialysis should be avoided if possible.

Resources for Providers

American Society of Nephrology. (2024). [Interim Strategies for Conservation of Peritoneal Dialysis \(PD\) Solution](#).

American Society of Pediatric Nephrology. (2024). [Interim Guidance on PD Solution Conservation During Supply Shortage](#).

ASPR TRACIE. (2019). [Dialysis Centers Topic Collection](#).

Centers for Disease Control and Prevention. (2024). [Disruptions in Availability of Peritoneal Dialysis and Intravenous Solutions from Baxter International Facility in North Carolina](#).

Food and Drug Administration. (2024). [FDA Drug Shortages](#).

Hashmi, M., Benjamin, O., and Lappin, S. (2023). [End-Stage Renal Disease](#). StatPearls.

Jensen, V. and Throckmorton, D. (2015). [Shortage of Peritoneal Dialysis Solution and the Food and Drug Administration's Response](#). Clinical Journal of the American Society of Nephrology. 10(8):1484-1486.

Resources for Patients

ESRD National Coordinating Center. (2024). [Directory of End Stage Renal Disease \(ESRD\) Network Organizations](#).

Kidney Community Emergency Response (KCER) Program. (2015). [3-Day Emergency Kidney Diet](#). KCER Program. (n.d.) [Patient Resources](#).

National Institute of Diabetes and Digestive and Kidney Diseases. (n.d.). [Eating and Nutrition for Peritoneal Dialysis](#). U.S. Department of Health and Human Services.

National Institute of Diabetes and Digestive and Kidney Diseases. (n.d.). [Peritoneal Dialysis](#). U.S. Department of Health and Human Services.

Patients with challenges obtaining treatment during disasters can access <https://www.kcercoalition.com/en/patients/> for hotline and other patient materials.

Patients unable to locate/contact their provider or obtain assistance may contact KCER at <https://www.kcercoalition.com/en/contact-us/> or call the KCER Hotline: 866.901.3773.