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available IV solutions.

- Determine the type of IV solutions your pharmacy or facility uses, including expiration dates, and whether this supply disruption will impact your facility.
- Monitor current and future supplies of IV solutions at your facility.
- Report any potential shortages or interruptions to the Food and Drug Administration (FDA) at DrugShortages@fda.hhs.gov.
- **Implement a facility-specific action plan to optimize the use of IV solutions using evidence-based fluid management protocols.**
 - Evaluate all protocols, including the clinical need to continue IV fluid replacement at every shift change, bag change, and during the transition of care unless clinically necessary.
 - Ensure that advisory committees (<https://files.asprtracie.hhs.gov/documents/template-hospital-csc-resource-allocation-annex.pdf>) with appropriate authorities are established to determine complex issues in supply disruptions and allocation of limited resources and patient triage as needed.
 - Use oral formulations when IV options are not available and when appropriate and safe.
 - Identify safe and effective alternative IV options (e.g., working with a nearby facility or licensed manufacturer who is not affected by the supply disruption).
 - Review standing orders, including drug records and order sets.
 - Ensure thorough documentation of the situation, including consumption of IV solutions.
 - See FDA's Temporary Policies for Compounding Certain Parenteral Drug Products (<https://www.fda.gov/regulatory-information/search-fda-guidance-documents/temporary-policies->

[compounding-certain-parenteral-drug-products](#)), for compounders to help fill the gaps from the impact of Hurricane Helene on Baxter International's North Cove facility.

- **Ensure multidisciplinary team involvement to determine and develop conservation and stewardship strategies using IV solutions in specific patient populations.**
 - Include providers from various expertise (including key outpatient settings such as emergency departments, hematology/oncology, ambulatory surgery centers, wound care centers, infusion centers, home healthcare, etc.), pharmacists, nurses, infection control, informatics, patient safety, supply chain leadership, and emergency preparedness.
 - Provide education and training to healthcare providers regarding any changes in protocols.
- **Communicate changes in current practice, disruption, new shortages, and action plan adjustments to hospital leadership and frontline staff.**
 - Communicate with patients (<https://emergency.cdc.gov/han/2024/han00518.asp>) to assess supplies and provide a mechanism to notify their providers of insufficient supplies.

Recommendations for Providers and Administrators in Dialysis Facilities

- **Assess and monitor inventory (<https://aspneph.org/interim-guidance-on-pd-solution-conservation-during-supply-shortage/>) of available PD solutions.**
 - Review current practices to identify changes that extend the PD solution supply safely.
 - Monitor current and future supplies of PD solutions.
 - Report any interruptions to the FDA at DrugShortages@fda.hhs.gov.
- **Implement an action plan for emergency PD treatment protocols (https://www.asn-online.org/news/2024/1007-PD_Solutions.pdf)**

- Assess emergency PD protocols.
- Ensure optimal PD catheter function and flow of all patients to maximize ultrafiltration and solute exchange (malposition, etc.).
- Optimize prescriptions; overall approaches should prioritize bag-sparing rather than solution-sparing.
 - For example, consider changing dwell times rather than adding a PD solution bag if a prescription change is needed for a patient.
- Monitor patients closely after prescription adjustments, including phone check-ins.
- **Communicate with patients receiving peritoneal dialysis at home and their care providers.**
 - Assess supplies and provide a mechanism to notify their provider of insufficient supplies.
 - Provide education and training to patients and their care providers regarding any changes in PD bags or associated products (e.g., adaptors, tubing, etc.) used for their treatments.
- **Consider options for individual patients (https://www.asn-online.org/news/2024/1007-PD_Solutions.pdf), keeping safety in mind.**
 - Continuous ambulatory PD (CAPD) may be a good option for some patients.
 - Transitioning to hemodialysis (HD) should be avoided as much as possible. However, if adjustment of PD prescription has been explored and exhausted, a temporary transition to HD may be necessary if the available supply is insufficient to provide adequate PD.
- **Reinforce patient safety principles when not using usual products and procedures to prevent patient injury and medical errors.**

For more Information

General Information

1. Baxter International:
 - a. Hurricane Helene Updates | Baxter (<https://www.baxter.com/baxter-newsroom/hurricane-helene-updates>)

- b. Medical Information Letter for Healthcare Facilities, September 30, 2024 (https://www.baxter.com/sites/g/files/ebysai3896/files/2024-10/9-30_Medical%20Information%20Letter.pdf)
 - c. Medical Information Letter for Home Dialysis Customers, September 30, 2024 (https://www.baxter.com/sites/g/files/ebysai3896/files/2024-10/10-1_RenalMedical%20Information%20Letter.pdf)
2. Department of Health and Human Services, Letter to Health Care Leaders and Stakeholders on Impacts of Hurricane Helene from Secretary Becerra | HHS.gov (<https://www.hhs.gov/about/news/2024/10/09/letter-health-care-leaders-stakeholders-impacts-hurricane-helene-secretary-becerra.html>) October 9, 2024
 3. Center for Drug Evaluation and Research (CDER) | FDA (<https://www.fda.gov/about-fda/fda-organization/center-drug-evaluation-and-research-cder>)

For U.S. Healthcare Settings, including Dialysis

1. American Society of Health-System Pharmacists: Small- and Large-Volume Fluid Shortages – Suggestions for Management and Conservation – ASHP (<https://www.ashp.org/drug-shortages/shortage-resources/publications/fluid-shortages-suggestions-for-management-and-conservation?loginreturnUrl=SSOCheckOnly>)
2. Food and Drug Administration
 - a. Hurricane Helene: Baxter’s manufacturing recovery in North Carolina | FDA (<https://www.fda.gov/drugs/updates-2024-hurricane-season/hurricane-helene-baxters-manufacturing-recovery-north-carolina>)
 - b. Temporary Policies for Compounding Certain Parenteral Drug Products (<https://www.fda.gov/regulatory-information/search-fda-guidance->

- [documents/temporary-policies-compounding-certain-parenteral-drug-products\)](#)
3. Administration for Strategic Preparedness and Response, the Technical Resources, Assistance Center, and Information Exchange (TRACIE)
 - a. Crisis Standards of Care Briefs-Summary (<https://files.asprtracie.hhs.gov/documents/aspr-tracie-crisis-standards-of-care-briefs-summary.pdf>)
 - b. IV Fluid Shortage Strategies (<https://files.asprtracie.hhs.gov/documents/iv-fluid-shortage-strategies.pdf>)
 - c. Understanding the Hospital Incident Command System (<https://files.asprtracie.hhs.gov/documents/epimn-module-2-understanding-hospital-ics.pdf>)
 - d. [Partnering with the Healthcare Supply Chain during Disasters](#)
 4. American Society of Clinical Oncology. Resources for Care Providers (<https://society.asco.org/resources-disaster-assistance>)
 5. Centers for Medicare and Medicaid Services. Emergency Preparedness & Response Operations (<https://www.cms.gov/about-cms/what-we-do/emergency-response>)
 6. Centers for Disease Control and Prevention. Preventing Unsafe Injection Practices | Injection Safety | CDC. (<https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html>)
 7. The Joint Commission. Communicating Clearly and Effectively to Patients ([https://store.jointcommissioninternational.org/assets/3/7/jci-wp-communicating-clearly-final_\(1\).pdf](https://store.jointcommissioninternational.org/assets/3/7/jci-wp-communicating-clearly-final_(1).pdf))
 8. American Society of Nephrology: Interim strategies for peritoneal dialysis (PD) solution used for prevalent patients undergoing PD (<https://www.asn-online.org/news/>); Society News, October 7. 2024.

9. American Society of Pediatric Nephrology: Interim Guidance on PD solution conservation during Supply Shortage (<https://aspneph.org/interim-guidance-on-pd-solution-conservation-during-supply-shortage/>)

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

HAN Message Types

- **Health Alert:** Conveys the highest level of importance; warrants immediate action or attention.
- **Health Advisory:** Provides important information for a specific incident or situation; may not require immediate action.
- **Health Update:** Provides updated information regarding an incident or situation; unlikely to require immediate action.