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IN THIS ISSUE: CDC HAN PERITONEAL DIALYSIS AND INTRAVENOUS SOLUTION SHORTAGE

CDC Health Alert Network (HAN) Disruptions in Availability of Peritoneal Dialysis and Intravenous Solutions from Baxter International Facility in North Carolina

Summary

The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory to inform healthcare providers, pharmacists, healthcare facility administrators, and state, tribal, local, and territorial health departments of a supply disruption of peritoneal dialysis (PD) and intravenous (IV) solutions from the Baxter International's North Cove facility in North Carolina, due to Hurricane Helene. The supply disruption may impact patient care and require adjustments to the clinical management of patients. Healthcare providers, pharmacists, healthcare facility administrators, and state, tribal, local, and territorial health departments, regardless of supply chain disruptions, should immediately assess their supply and develop plans and mitigation strategies to reduce the impact on patient care.

This Health Advisory summarizes recommendations from the Food and Drug Administration (FDA) (https://www.fda.gov/drugs/updates-2024hurricane-season/hurricane-helene-baxtersmanufacturing-recovery-north-carolina); the Administration for Strategic Preparedness and Response Technical Resources, Assistance Center (https://asprtracie.hhs.gov/), and Information Exchange (ASPR TRACIE); the American Society of Health-System Pharmacists (ASHP) (https://www.ashp.org/drug-shortages/shortageresources/publications/fluid-shortages-suggestionsfor-management-andconservation?_gl=1*1mwyo71*_gcl_au*MTA1NjkyM DMwMC4xNzI4MzE5NDqz*_qa*MTE4MTc1MjM2NC 4xNzI4MzE5NDq1*_qa_5WL5JPM7T0*MTcvODQ5 MjcxNi40LjEuMTcyODQ5MjczOC4zOC4wLjA.&loginr eturnUrl=SSOCheckOnly); the American Society of Nephrology (ASN) (https://www.asnonline.org/news/); and the American Society of

Pediatric Nephrology(ASPN)

(https://aspneph.org/interim-guidance-on-pd-solution-conservation-during-supply-shortage/) among others, to address supply disruptions of PD and IV solutions. Facilities can implement strategies early to conserve their fluid supplies and avoid waste to reduce the impact on services. Strategies must ensure patient safety, timely and effective safety notifications, and education of healthcare personnel and patients. Emergency medical and outpatient services must be included in these strategies.

Background

Over several days in late September 2024, Hurricane Helene caused extensive damage to the southeastern United States. The storm affected the Baxter International's North Cove facility (hurricane-helene-relief-plans) in North Carolina, the largest manufacturer of peritoneal dialysis and intravenous solutions in the United States, halting production. Additional supply disruption may occur in the aftermath of Hurricane Milton.

Recommendations for Healthcare Providers, Pharmacists, and Healthcare Facility Administrators in Healthcare Facilities

Assess inventory, supply
(https://asprtracie.hhs.gov/technicalresources/resource/12712/intravenous-fluidshortage-strategies), and conserve
(https://www.ashp.org/drugshortages/shortageresources/publications/fluid-shortagessuggestions-for-management-andconservation?_gl=1*1mwyo71*_gcl_au*MTA1N
jkyMDMwMC4xNzI4MzE5NDgz*_ga*MTE4MTc
1MjM2NC4xNzI4MzE5NDg1*_ga_5WL5JPM7T0

*MTcyODQ5MjcxNi40LjEuMTcyODQ5MjczOC4z OC4wLjA.&loginreturnUrl=SSOCheckOnly) 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 <u>DrugShortages@fda.hhs.gov</u>.
- Implement a facility-specific action plan to optimize the use of IV solutions using evidencebased 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/regulatoryinformation/search-fda-guidancedocuments/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.
 - o 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/han
 00518.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/baxternewsroom/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
- 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

- American Society of Health-System Pharmacists: Small- and Large-Volume Fluid Shortages – Suggestions for Management and Conservation – ASHP (https://www.ashp.org/drugshortages/shortageresources/publications/fluid-shortagessuggestions-for-management-andconservation?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/regulatoryinformation/search-fda-guidance-

- <u>documents/temporary-policies-</u> <u>compounding-certain-parenteral-drug-</u> 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/d ocuments/aspr-tracie-crisis-standards-ofcare-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
- American Society of Clinical Oncology. Resources for Care Providers (https://society.asco.org/resources-disaster-assistance)
- Centers for Medicare and Medicaid Services. Emergency Preparedness & Response Operations (https://www.cms.gov/about-cms/what-we-do/emergency-response)
- Centers for Disease Control and Prevention. Preventing Unsafe Injection Practices | Injection Safety | CDC. (https://www.cdc.gov/injectionsafety/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)
- 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.

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.