



COUNTY OF SAN LUIS OBISPO HEALTH AGENCY  
PUBLIC HEALTH DEPARTMENT  
**PROVIDER HEALTH ADVISORY**

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**Date:** October 4, 2024

**Contact:** Ryan M Rosander, EMT-P, EMS Director, [rrosander@co.slo.ca.us](mailto:rrosander@co.slo.ca.us), 805-380-3411

## **National Shortage of IV Solution: SLO County Update**

Hurricane Helene has severely damaged facilities at a Baxter International plant in North Carolina, resulting in its closure. Baxter International is a major manufacturer of intravenous (IV) and peritoneal dialysis solutions in the United States. The closure of this plant is affecting supply of IV solution nationwide, across California, and here in San Luis Obispo County. The SLO County Emergency Medical Services Agency (EMSA) is coordinating closely with state and other county officials in response to this shortage.

### **Current situation: no additional resources available at this time**

This shortage of IV solution is affecting healthcare facilities across California. The State and all regions/counties, unfortunately, have no additional resources to provide at this time.

The U.S. Department of Health and Human Services (USHHS) and Federal Emergency Management Association (FEMA) are actively working with Baxter to restore the facility as quickly as possible, but there is currently no estimated timeline for when the plant will resume operations. USHHS is coordinating with other U.S.-based IV solution suppliers to increase production and alleviate shortages; next steps involve boosting supply from international suppliers and exploring the possibility of an airbridge to import supplies. USHHS is also working with U.S. suppliers to gather critical information, including current inventory levels, ongoing production statuses, and distribution challenges. Facility-level inventory checks may be requested from hospitals to assess current stock.

### **Please implement conservation strategies**

SLO County healthcare facilities are asked to **please implement all conservation strategies immediately**. Baxter International and the American Society of Health-System Pharmacists have provided suggestions for management and conservation:

- Baxter International recommendations are attached as a 4-page summary
- American Society of Health-System Pharmacists recommendations are available at [www.ashp.org/drug-shortages/shortage-resources/publications/fluid-shortages-suggestions-for-management-and-conservation](http://www.ashp.org/drug-shortages/shortage-resources/publications/fluid-shortages-suggestions-for-management-and-conservation)

### **For more information in SLO County**

The SLO County EMSA will provide updates as the situation develops. For questions or consultation, please call the SLOEMSA Duty Officer at 805-380-3411.

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#### **Public Health Department**

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[www.slopublichealth.org](http://www.slopublichealth.org)

September 30, 2024

Dear Valued Customer:

In follow-up to the communication issued on September 29, 2024 regarding Baxter's North Cove, NC facility and the disruption of site operations as a result of Hurricane Helene, below is information from Baxter's Medical Affairs team regarding immediate product management and conservation actions.

Healthcare practitioners should use their professional judgment in evaluating the information in this document and assessing the needs and resources of their individual organizations.

If you have questions related to the content of this letter, please email [MedInfo@Baxter.com](mailto:MedInfo@Baxter.com).

### **Suggestions for Management and Conservation**

*Please refer to the list of Product Codes manufactured at Baxter's North Cove facility beginning on page 2 of this document.*

- **Evaluate Inventory:** Review your current stock levels, expiration dates, and the distribution of IV and irrigation solutions (e.g., saline, dextrose, lactated Ringer's) and impacted medications to identify the most critical areas. Prioritize the use of fluids that are most essential for patient care.
- **Evaluate Clinical Needs:** Work with clinical teams to identify which patients are in most urgent need of impacted IV solutions, such as those undergoing surgery, critically ill patients, or those with severe dehydration or shock. You may want to consider reevaluating protocols for fluid administration to prevent unnecessary usage.
- **Identify Alternative Sources of Solutions and Medications:** Recommend the use of alternative IV fluids or solutions when appropriate, such as oral rehydration for non-critically ill patients. Consider using smaller volumes or concentrated forms of fluids, based on clinical guidelines. Consider alternative sources or formats of equivalent medications including medications with similar pharmacological actions and indications.
- **Optimize Fluid Management:** Implement evidence-based fluid management protocols to optimize IV fluid administration and minimize waste. For instance, reducing IV fluid bolus volumes for routine patients or switching to other therapies like enteral feeding. Consider fluid conservation strategies, such as reducing maintenance IV fluids in less critical patients. Consider changing medications and electrolytes to a clinically appropriate oral product whenever possible.
- **Assess Pharmacy Operational Strategies:** Consider transitioning to commercially manufactured premix medications, including multichambered parenteral nutrition bags, if available. Consider changes in the electronic health record (EHR) to allow the use of either dextrose or saline for admixture of drugs compatible with both solutions. This will help create better flexibility based upon which products are available at the time. If your institution can utilize syringe infusions pumps, consider preparing and dispensing non-IV push medications in ready-to-administer syringes to be infused via syringe pump.

- **Engage Clinical Teams:** Provide education and training to healthcare providers on managing fluid restrictions, medication and therapeutic changes and the potential risks. Regularly update all staff on the status of the shortage and any changes to treatment protocols.
- **Document and Monitor:** Maintain thorough documentation of impacted fluid and medication usage, patient needs, and any adverse effects or shortages encountered. Set up a monitoring system to track fluid and medication consumption closely and ensure transparent reporting to leadership.

Baxter is continuing to take immediate action so that we can resume production in North Cove as quickly as possible to help mitigate the effect on product supply for patients. We thank you for your partnership as we navigate this situation.

#### References

Suggestions for Management and Conservation. American Society of Health-System Pharmacists. Drug Shortage Resource Center, 2022. <https://www.ashp.org/drug-shortages/shortage-resources/publications/fluid-shortages-suggestions-for-management-and-conservation>

#### Product Codes Made in North Cove

Code	Description	NDC
10019055 61	BREVIBLOC PREMIX NACL INJ SOL 10MG/ML 250ML X 10	10019-0055-61
10019075 87	BREVIBLOC PREMIX INJ 2000 MG 100ML 20mg/mL DBL STRG BAGS	10019-0075-87
2B0062Q	DEXTROSE 5% INJECTION USP 250M L MIGRATED	00338-0017-02
2B0063Q	DEXTROSE 5% INJECTION USP 500M L MIGRATED	00338-0017-03
2B0064X	DEXTROSE 5% INJECTION USP 1000 ML MIGRATED	00338-0017-04
2B0162Q	10% DEXTROSE INJECTION USP 250 ML MIGRATED	00338-0023-02
2B0163Q	10% DEXTROSE INJECTION USP 500 ML MIGRATED	00338-0023-03
2B0164X	10% DEXTROSE INJ USP 1000ML	00338-0023-04
2B0296H	70% DEXTROSE INJECTION (2000ML ) USP	00338-0719-06
2B0304X	STERILE WATER FOR INJ.USP 1000ML	00338-0013-04
2B0306	STER WATER FOR INJ. USP 2000 ML (PHARM BULK PKG)	00338-0013-06
2B0307	STERILE WATER FOR INJ. USP 3000 ML (PHARM BULK PKG)	00338-0013-08
2B0309	STERILE WATER FOR INJ. USP 5000 ML (PHARM BULK PKG)	00338-0013-29
2B1024X	2.5% DEX AND 0.45% SOD CHL INJ USP	00338-0073-04
2B1063Q	5% DEX AND 0.9% SOD CHL INJ, U SP	00338-0089-03
2B1064X	5% DEX AND 0.9% SOD CHL ING, USP	00338-0089-04
2B1073Q	5% DEX AND 0.45% SOD CHL INJ, USP	00338-0085-03
2B1074X	5% DEX AND 0.45% SOD CHL INJ, USP	00338-0085-04
2B1094X	5% DEX AND 0.2% SOD CHL INJ, USP	00338-0077-04
2B1134X	20 MEQ POT IN 5% DEX INJ-USP	00338-0683-04
2B1313Q	0.45% SODIUM CHLORIDE INJ USP	00338-0043-03
2B1314X	0.45% SODIUM CHL INJ, USP VIAFLEX PLASTIC CONTAINER	00338-0043-04

2B1322Q	SOD CHLOR 0.9% INJ USP VIAFLEX PLASTIC 250ML MIGRATED	00338-0049-02
2B1323N	0.9% SOD CHL INJ, USP	00338-0049-03
2B1323Q	SOD CHLOR 0.9% INJ USP VIAFLEX PLASTIC 500ML MIGRATED	00338-0049-03
2B1324X	SOD CHLOR 0.9% INJ USP VIAFLEX 1000ML MIGRATED	00338-0049-04
2B1353Q	3% SODIUM CHLORIDE INJ, USP	00338-0054-03
2B1357X	20MEQ POTASSIUM CHLORIDE 0.45% SOD CHLORIDE INJ, USP	00338-0704-34
2B1373Q	5% SODIUM CHLORIDE, INJ USP	00338-0056-03
2B1462X	CARDIOPLEGIC SOLUTION SOL F/SLUSH 1000 ML X 14	00338-0341-04
2B1473Q	10MEQ POT CHL IN 5% DEX&0.33% SOD CHL INJ,USP	00338-0603-03
2B1614X	20MEQ POT CHL IN 5% DEX & 0.2% SOD CHL ING, USP	00338-0663-04
2B1644X	10 MEQ POT CHL IN 5% DEX%0.45% SOD CHL INJ-1000ML	00338-0669-04
2B1653Q	10 MEQ POT CHL IN 5% DEX 0.45% SOD CHL INJ,USP (500 ML)	00338-0671-03
2B1654X	20 MEQ POT CHL IN 5% DEX & 0.4 5% SOD CHL INJ, USP	00338-0671-04
2B1664X	30MEQ POT CHL IN 5%DEX & 0.45% SOD CHL INJ, USP	00338-0673-04
2B1674X	40 MEQ POT CHL IN 5% DEX&0.45% SOD CHL INJ, USP	00338-0675-04
2B1764X	20 MEQ POT CHL IN .9% SOD CHL INJ,USP	00338-0691-04
2B1984X	40 MEQ POT CHL IN 0.9% SOD CHL INJ	00338-0695-04
2B2073Q	LACTATED RINGER'S AND 5% DEXTR OSE	00338-0125-03
2B2074X	LACTATED RINGERS & 5% DEXTROSE INJ, USP	00338-0125-04
2B2103Q	5% DEXTROSE AND ELECTROLYTE NO 48 INJ.	00338-0143-03
2B2224X	20 MEQ POT CHL IN LACTATED RINGER'S AND 5% DEX	00338-0811-04
2B2322Q	LACTATED RINGER'S INJ, USP	00338-0117-02
2B2323Q	LACTATED RINGER INJ, USP VIA FLEX PLASTIC CONTAINER 500ML	00338-0117-03
2B2324X	LACTATED RINGER INJECTION, USP 1000ML VIAFLEX CONTAINER	00338-0117-04
2B2434X	20MEQ POT CHL IN 5% DEX&0.9% SOD CHL INJ, USP	00338-0803-04
2B2454X	40 MEQ PJOT CHL IN 5% DE1X&0.9 % SOD CHL INJ, USP	00338-0807-04
2B2534X	PLASMA-LYTE 148 INJ (MULT ELECINJ TYPE 1, USP)	00338-0179-04
2B2543Q	PLASMA-LYTE A INJECTION PH 7.4 (MULTIPLE	00338-0221-03
2B2544X	PLASMA-LYTE A INJECTION PH 7.4 MULTIPLE	00338-0221-04
2B7114X	STERILE WATER FOR IRRIG,USP 1000ML	00338-0003-44
2B7116	STER WATER FOR IRRIG USP,2000 ML UROMATIC	00338-0003-46
2B7117	STERILE WATER FOR IRRIG.USP. 3000mL UROMATIC CONT.	00338-0003-47
2B7124X	0.9% SOD CHL IRRIG, USP 1000 ML UROMATIC CONT	00338-0047-44
2B7126	0.9% NAACL IRRIG USP 2000 ML UR OMAC CONTAINER	00338-0047-46
2B7127	0.9% SOD.CHL.IRRIG. USP 3000ML UROMATIC CONTAINER	00338-0047-47
2B7207	0.9% SOD CHL PROCESSING SOL, 3 000 ML FLEXIBLE CONT	00338-0050-47
2B7231	0.9% SOD CHL IRRIGATION, USP I N BAXTER STER CONT	00338-0051-44
2B7231K	0.9% SOD CHL IRRIGATION, USP I N BAXTER STER CONT	00338-0051-44
2B7317	1.5% GLYCINE FOR IRRIG USP, 30 00 ML	00338-0289-47
2B7357	3% SORBITOL IN WATER, 3000 ML UROMATIC CONTAINER	00338-0295-47
2B7477	0.9% SOD CHL IRRIG, USP, 3000 ML ARTHROMATIC	00338-0047-27
2B7479	0.9% SOD CHL IRRIG, USP, 5000 ML ARTHROMATIC	00338-0047-29
2B7487	LACTATED RINGERS IRRIG, 3000 M L ARTHROMATIC	00338-0137-27
2B7489	LACTATED RINGERS IRRIG, 5000 M L ARTHROMATIC	00338-0137-29

2D5613Q	10% OSMITROL INJ (10% MANNITOL INJ, USP)	00338-0353-03
2D5632Q	20% OSMITROL INJ (20% MANNITOL INJ, USP)	00338-0357-02
2D5633Q	20% OSMITROL INJ (20% MANNITOL INJ, USP)	00338-0357-03
2J1416	BREVIBLOC INJ VIZIENT 2000MG IN 100ML PREMIX BAG, SALINE	10019-0668-10
2J1417	BREVIBLOC INJ VIZIENT 2500MG IN 250ML PREMIX BAG, SALINE	10019-0672-10
2J1419	BREVIBLOC INJ PREMIER 2500MG IN 250ML PREMIX BAG, SALINE	10019-0670-10
2J1420	BREVIBLOC INJ PREMIER 2000MG IN 100ML PREMIX BAG, SALINE	10019-0666-10