



Saline Conservation Measures

Policy:

IV fluids should be preserved for our most critical patients, due to an urgent supply disruption caused by Hurricane Helene.

Purpose:

Hurricane Helene caused damage and disruption to Baxter International's major manufacturing plant in Marion, NC, and that facility is currently closed. IV fluid product allocations have been implemented by all suppliers for all customers, to include EMS systems, hospitals, and other health care facilities. The primary products affected at the moment are larger "bolus volume" fluids (e.g. 250-1000mL normal saline) while smaller volumes of fluids, diluents, etc, may still be available.

Procedure:

Do not give a saline bolus to a patient unless the patient is hypotensive due to hypovolemia (SBP < 90 for adults, SBP < 70 + 2x age in years for peds) or in shock (shock index > 1, i.e. HR greater than SBP).

The following changes to all state EMS protocols should take effect and last until supply chain inventories improve in the wake of Hurricane Helene:

1. IV fluid boluses (i.e. hanging a bag of 1000mL or 250mL normal saline for the purpose of giving volume) should only be given to patients who are hypotensive or in shock and fluid is indicated (SBP < 90 in an adult, or HR > SBP and hypovolemia is suspected), with rare exceptions.
2. Exceptions to the above include Environmental Heat Emergency patients (temp > 102 due to environment, NOT fever), patients with altered mental status and blood glucose reading "high" on the glucometer, some cardiac arrest patients, and patients being transported to the burn center.
 - a. For cardiac arrest, **DO NOT** give cold fluids solely for therapeutic temperature management (TTM) unless the patient is hyperthermic. There is no difference in outcomes whether TTM is started in the field or at the hospital. Some patients in cardiac arrest may benefit from a saline bolus. If you suspect hypovolemia could be a contributing cause of arrest, please follow usual protocol and these patients may receive saline bolus.
 - b. Patients that meet criteria to be transported to the burn center may have fluids initiated per protocol. Consider withholding fluids for small burns going to the burn center only due to burn location (e.g. hands, feet, genitalia). This decision can be left up to the receiving facility regarding the use of IV normal saline.
3. Continue to use current protocols and procedures to mix medications requiring fluid dilution (e.g. amiodarone kits). When you start a bag of saline on a patient, if the patient no longer needs the fluid and/or you arrive at the hospital, **DO NOT** disconnect/discard the remainder of the bag. Leave it connected at "KVO" as the hospital will likely continue to use EMS fluids as part of their own conservation measures, if fluid is indicated later for the patient.

There may be patients in whom IV fluid is indicated for critical illness who are not covered by these temporary protocols. If you have a patient that you feel needs IV fluid that does not meet these guidelines, you may contact medical control for further guidance. **DO NOT** administer IV fluid outside of these guidelines without contacting medical control. We will be sure to provide updates and any necessary changes in guidance as the situation evolves.