



State of Maryland

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TO: Maryland EMS Providers
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FROM: Richard Alcorta, M.D., FACEP
State EMS Medical Director

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RE: Shortage of Intravenous Fluids – Best Practices

The Food and Drug Administration (FDA) is reporting a severe shortage of IV fluids across the nation—particularly 0.9% sodium chloride (normal saline). The cause of the shortage is being compounded by increased demand during flu season and recent issues with manufacturers. Because many institutions have transitioned to using Lactated Ringer's solution during the shortage, a pervasive nationwide shortage of both solutions is occurring. While the FDA is working with major manufacturers to match demand and abate a long term shortage, it is likely that EMS systems will be impacted until the situation is resolved. This memo will provide recommendations to help guide the use of intravenous solutions until they become more readily accessible.

- (1) When appropriate, EMS providers should use an IV saline lock rather than IV fluids at KVO.
- (2) EMS services should coordinate with local hospitals to establish a temporary policy regarding distribution of IV fluids to ensure mutual availability.
- (3) The use of Lactated Ringer's solution should be restricted to patients requiring fluid resuscitation.
 - a. Consider using both 500 mL and 1L bags to administer fluid.
 - b. Providers should take a more conservative approach to fluid administration and consider restricting fluid challenges to those with outward signs of shock (e.g., altered mental status, hypotension).
- (4) EMS systems should inventory their stock of IV fluids and allocate them in a controlled manner, allowing for continued tracking to anticipate critical shortages.
- (5) If critical shortage is reached, IV fluids should be removed from non-transport units (e.g., medic engines) and placed on transport ambulances.

Please contact the Office of the State EMS Medical Director at 410-706-0881 with any questions or concerns.

RLA:ihb