



UTSW/BioTel EMS ALERT

March 4, 2015

EMS ALERT 15-002

250 mL Normal Saline Supply Shortage – Treatment Guidelines and Pharmacology Sheets Changes

The ongoing, nationwide shortage of 250-mL bags of Normal Saline Solution has created supply problems for some UTSW/BioTel EMS agencies. **Effective immediately**, 500-mL bags of Normal Saline Solution may be utilized instead. However, this substitution necessitates minor changes to several [UTSW/BioTel EMS Treatment Guidelines and Pharmacology Sheets](#).

➤ **For all relevant changes, refer to the Table on page 2.**

Critical points:

1. Affected Treatment Guidelines:
 - a. Obstetrical/Gynecological (“OB”)
 - b. Respiratory Distress (Adult and Pediatric)
 - c. Tachycardia – Unstable
 - d. Ventricular Fibrillation/pulseless Ventricular Tachycardia
 2. Affected drugs:
 - a. Magnesium Sulfate
 - b. Amiodarone (drip infusion only)
 - c. Vasoactive drip medications: dopamine, epinephrine, norepinephrine
 3. Drug preparation modification:
 - a. Dilution of a double drug dose in a 500-mL Normal Saline bag.
 - b. This results in a final concentration that is *identical* to that in the 250-mL dilution.
 4. Drug administration modification:
 - a. For safety, half of the 500-mL drug mixture will be “wasted” prior to administration.
 - b. ***So, the drug administration instructions for both drug dose and infusion times for the remaining 250 mL remain the same as originally specified for each condition.***
 - c. **NOTE:** the 30-minute infusion time for Magnesium Sulfate for PEDIATRIC Respiratory Distress is NOT new; it is highlighted in **blue-bold font** only for emphasis.
 5. These modifications may necessitate stocking of additional unit doses of these drugs on each ambulance and ALS apparatus until the 250-mL Normal Saline shortage ends.
- EMS Providers should consult BioTel **at any time** with questions or concerns about these modified Treatment Guidelines, especially for drug doses and infusion rates, and particularly for the pediatric patient.

<u>TG/Drug</u>	<u>Page</u>	<u>Drug</u>	<u>Current Wording</u>	<u>New Wording</u>
OB	40	Magnesium Sulfate	2 g in 250 mL NS over 20 min	4 g in 500 mL NS; waste 250 mL; administer remaining 250 mL over 20 min
ADULT Respiratory Distress	47	Magnesium Sulfate X 2	2 g in 250 mL NS over 20 min	4 g in 500 mL NS; waste 250 mL; administer remaining 250 mL over 20 min
PEDIATRIC Respiratory Distress	49	Magnesium Sulfate	2 g in 250 mL NS at 40 mg/kg (5 mL/kg) over 30 min; maximum dose 2 g	4 g in 500 mL NS; waste 250 mL; administer 40 mg/kg (5 mL/kg) over 30 min; maximum dose 2 g
Tachycardia – Unstable	61	Magnesium Sulfate	2 g in 250 mL NS over 20 min	4 g in 500 mL NS; waste 250 mL; administer remaining 250 mL over 20 min
Ventricular Fibrillation/ Pulseless VTach	67	Magnesium Sulfate	2 g in 250 mL NS over 20 min	4 g in 500 mL NS; waste 250 mL; administer remaining 250 mL over 20 min
Amiodarone	140	Amiodarone drip	Dilute 300 mg in 250 mL NS	Dilute 600 mg in 500 mL NS; waste 250 mL; contact BioTel for drip rate for remaining 250 mL
Dopamine	147	Dopamine drip X 2	400 mg dopamine in 250 mL NS (1600 mcg/mL)	800 mg dopamine in 500 mL NS (1600 mcg/mL); contact BioTel for drip rate for remaining 250 mL
Epinephrine	148	Epinephrine drip	There is currently no recipe for this	2 mg epinephrine 1:1000 in 500 mL NS; waste 250 mL; contact BioTel for drip rate for remaining 250 mL
Magnesium Sulfate	158	Magnesium Sulfate X 2	2 g of magnesium sulfate in 250 mL NS	4 g of magnesium sulfate in 500 mL NS; waste 250 mL; Adult: administer remaining 250 mL over 20 min; Pedi: contact BioTel to confirm dose and administer 40 mg/kg (5 mL/kg) over 30 min; maximum dose 2 g
Norepinephrine	166	Norepinephrine drip X 2	4 mg norepinephrine in 250 mL NS	8 mg norepinephrine in 500 mL NS; waste 250 mL; contact BioTel for drip rate for remaining 250 mL