



Division of Cellular Therapy

DOCUMENT NUMBER: ABMT-GEN-001**DOCUMENT TITLE:**

Electrolyte Supplementation Protocol

DOCUMENT NOTES:**Document Information****Revision:** 08**Vault:** ABMT-General-rel**Status:** Release**Document Type:** ABMT**Date Information****Creation Date:** 26 Apr 2024**Release Date:** 15 May 2024**Effective Date:** 15 May 2024**Expiration Date:****Control Information****Author:** JLF29**Owner:** JLF29**Previous Number:** ABMT-GEN-001 Rev 07**Change Number:** ABMT-CCR-338

ABMT-GEN-001 ELECTROLYTE SUPPLEMENTATION PROTOCOL

ELECTROLYTE SUPPLEMENTATION and BLOOD PRODUCT TRANSFUSION PROTOCOL ORDER SET FOR ADULT BLOOD AND MARROW TRANSPLANT AND CHIMERIC ANTIGEN RECEPTOR (CAR-T) CELL THERAPY PATIENTS

If creatinine is ≥ 1.8 consult physician for electrolyte supplementation orders

Potassium (K^+):

Consult H.O. for administration guidelines if patient does NOT have a central line in place. Maximum concentration for peripheral administration is 10 mEq/100 ml to infuse at rate of 10mEq per hour.

Replacement parameters for IV potassium (using minibags)

- | | | |
|------------------|------------|---|
| • If serum K^+ | ≤ 2.9 | Notify H.O. give potassium chloride 80 mEq over 4 hours; repeat serum K^+ level 1 hour after completion of infusion |
| • If serum K^+ | 3-3.2 | Give potassium chloride 60 mEq over 3 hours |
| • If serum K^+ | 3.3-3.5 | Give potassium chloride 40 mEq over 2 hours |
| • If serum K^+ | 3.6-3.8 | Give potassium chloride 20 mEq over 1 hour |
| • If serum K^+ | 3.9-5 | No supplement necessary |
| • If serum K^+ | > 5 | Notify H.O. and obtain order for EKG |

Phosphate (PO_4^-):

If serum potassium is ≥ 4.6 , use sodium phosphate instead of potassium phosphate and supplement according to the following parameters:

Replacement parameters for IV phosphate

- | | | |
|---------------------|------------|---|
| • If serum PO_4^- | ≤ 1.4 | Notify H.O. and give sodium phosphate 30 mMol (10 ml) in 250 ml fluid 4 hours |
| • If serum PO_4^- | 1.5-2.3 | Give sodium phosphate 15 mMol (5 ml) in 250 ml fluid over 3 hours |
| • If serum PO_4^- | ≥ 2.4 | No supplement necessary |

Magnesium (Mg^{+2}):

Replacement parameters for IV magnesium

- | | | |
|----------------------|------------|---|
| • If serum Mg^{+2} | ≤ 1.1 | Notify H.O. and give magnesium sulfate 6 gm over 90 minutes (minimum 90 ml fluid) |
| • If serum Mg^{+2} | 1.2-1.5 | Give magnesium sulfate 6 gm over 90 minutes (minimum 90 ml fluid) |
| • If serum Mg^{+2} | 1.6-1.8 | Give magnesium sulfate 4 gm over 60 minutes (minimum 60 ml fluid) |
| • If serum Mg^{+2} | 1.9-2.4 | No supplement necessary |
| • If serum Mg^{+2} | ≥ 2.5 | Notify H.O. |

Calcium (Ca^{+2}):

Prior to calcium replacement, check the most recent albumin level. If the serum albumin is < 4 gm/dL, use the adjusted calcium concentration to determine requirements for replacement. The following formula is to be used:

$$(4.0 - \text{Serum Albumin}) \times 0.8 + \text{measured } Ca^{+2} = \text{Adjusted } Ca^{+2}$$

Replacement parameters for IV calcium

- | | |
|--------------------------------|---|
| • If serum $Ca^{+2} \leq 7.4$ | Notify H.O. and give calcium gluconate 2 gm over 1 hour (minimum 60 ml fluid) |
| • If serum Ca^{+2} | 7.5-7.9 Give calcium gluconate 2 gm over 1 hour (minimum 60 ml fluid) |
| • If serum Ca^{+2} | 8-8.5 Give calcium gluconate 1 gm over 30 minutes (minimum 30 ml fluid) |
| • If serum Ca^{+2} | 8.6-10.2 No supplement necessary |
| • If serum $Ca^{+2} \geq 10.3$ | Notify H.O. |

Transfusion parameters:

- Transfuse 1 unit PRBCs for Hgb ≤ 7.5
- Transfuse 1 unit single donor platelets for Plt $\leq 10,000$ cells/mm³. Ask provider if 30 minute post-platelet count is needed. If yes, provider to place order.
- PRBCs and platelets should be filtered and irradiated

Premedication for blood products:

*****If patient has a past medical history of a transfusion reaction, notify the provider******

If ordered, pre-medicate with:

- Acetaminophen 650 mg po**
- Diphenhydramine 25 mg po

Do not give acetaminophen or diphenhydramine more frequently than every 4 hours

****Notify the Attending MD prior to administration of acetaminophen in patients actively receiving Busulfan**

Dr. Mitchell Horwitz, Medical Director ABMT

Date

Signature Manifest**Document Number:** ABMT-GEN-001**Revision:** 08**Title:** Electrolyte Supplementation Protocol**Effective Date:** 15 May 2024

All dates and times are in Eastern Time.

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