

ELECTROLYTE REPLACEMENT PROTOCOL for CCU, ICU and ICB (TELEMETRY – Potassium and Magnesium Replacement Only)

CAUTION if:

- renal dysfunction (CrCl <30mL/hr)
- adrenal insufficiency
- another electrolyte replacement is ordered

Call MD if:

- EKG changes
- patient is symptomatic

POTASSIUM REPLACEMENT PROTOCOL (Replace to target K⁺ level of 4.0 mMol/L)

INTRAVENOUS POTASSIUM REPLACEMENT

Maximum infusion rate for peripheral line is 10mEq/hr
 Infusion rate greater than 10mEq/hr requires cardiac monitoring
 Peripheral line concentration: 10mEq/100mL
 Central line concentration: 10mEq/50mL

SERUM LEVEL	ADMINISTER
<3.5 mMOL/L	Give 40 mEq KCl. <ul style="list-style-type: none"> • If NPO & peripheral line, give KCl 10 mEq in 100mL IVPB over 60 minutes x 4 doses. (If central line & fluid restricted, may specify IVPB of 50mL.) • Re-check serum potassium level 1 hour after the last dose and in AM
3.5 – 3.9 mMOL/L	Give 20 mEq KCl. <ul style="list-style-type: none"> • If NPO & peripheral line, give KCl 10 mEq in 100mL IVPB over 60 minutes x 2 doses. (If central line & fluid restricted, may specify IVPB of 50mL.) • Re-check serum potassium level 1 hour after the last dose and in AM

Serum K⁺ is expected to increase by 0.5mMol/L for each 20mEq IV KCl infused

ORAL POTASSIUM REPLACEMENT

SERUM LEVEL	ADMINISTER
<2.5 mMOL/L	Use IV Potassium Replacement (40 mEq)
2.5 – 3.4 mMOL/L	Give 40 mEq: KCl oral liquid 40 mEq x 1 dose . Re-check serum potassium level 2 hours after the dose and in AM
3.5 – 3.9 mMOL/L	Give 20 mEq: KCl oral liquid 20 mEq x 1 dose . Re-check serum potassium level 2 hours after the dose and in AM

MAGNESIUM REPLACEMENT PROTOCOL

SERUM LEVEL	ADMINISTER
<1 mg/dL	<ul style="list-style-type: none"> • Magnesium Sulfate 8mEq (1 gram) in 100mL D5W IVPB over 1 hour x 3 doses. • Re-check magnesium 2 hours after the last dose
1.0 – 1.4 mg/dL	<ul style="list-style-type: none"> • Magnesium Sulfate 8mEq (1 gram) in 100mL D5W IVPB over 1 hour x 2 doses. • Re-check magnesium 2 hours after the last dose
1.5 – 1.8 mg/dL	<ul style="list-style-type: none"> • Magnesium Sulfate 8mEq (1 gram) in 100 mL D5W IVPB over 1 hour x 1 dose. • Re-check Magnesium in AM.

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CALCIUM REPLACEMENT PROTOCOL *Corrected Serum Calcium = Measured Serum Calcium + 0.8 (4 – Serum Albumin g/dL)

<i>Corrected/Ionized Level</i>	<i>ADMINISTER</i>
Symptomatic	If symptomatic, notify MD stat
<6 mg/dL* OR Ionized Ca <0.9	Calcium gluconate 2 grams (9.3 mEq) in 100 mL D5W IVPB over 2 hours x 3 doses Re-check <u>Ionized Calcium</u> 2 hours after the last dose
6 – 6.9 mg/dL* OR Ionized Ca 0.9 – 0.99	Calcium gluconate 2 grams (9.3 mEq) in 100 mL D5W IVPB over 2 hours x 2 doses Re-check <u>Ionized Calcium</u> 2 hours after the last dose
7 – 7.5 mg/dL* OR Ionized Ca 1.0 – 1.10	Calcium gluconate 2 grams (9.3 mEq) in 100 mL D5W IVPB over 2 hours x 1 dose Re-check <u>Ionized Calcium</u> in AM

PHOSPHATE REPLACEMENT PROTOCOL (DO NOT COMBINE WITH CALCIUM INFUSIONS)

Check Potassium stat if not already done, and if K < 3.5 mMol/L use KP04 and DO NOT give KCL replacement	
<i>SERUM LEVEL</i>	<i>ADMINISTER</i>
<1.5 mg/dL	Phosphate 9 mMol IVPB in 250 mL D5W IVPB over 3 hours x 3 doses . Default salt is Sodium. If K < 3.5 mMol/L specify KP04 Recheck phosphorus, Ionized Ca ⁺⁺ , Mg ⁺⁺ & Chem-7 in 2 hours after the last dose
1.5 – 2.0 mg/dL	Phosphate 9 mMol IVPB in 250 mL D5W IVPB over 3 hours x 2 doses . Default salt is Sodium. If K < 3.5 mMol/L specify KP04 Recheck phosphorus, Ionized Ca ⁺⁺ , Mg ⁺⁺ & Chem-7 in AM
Note: 9 mMol of Sodium Phosphate contains 12 mEq of Na ⁺ 9 mMol of Potassium Phosphate contains 13.2 mEq of K ⁺	