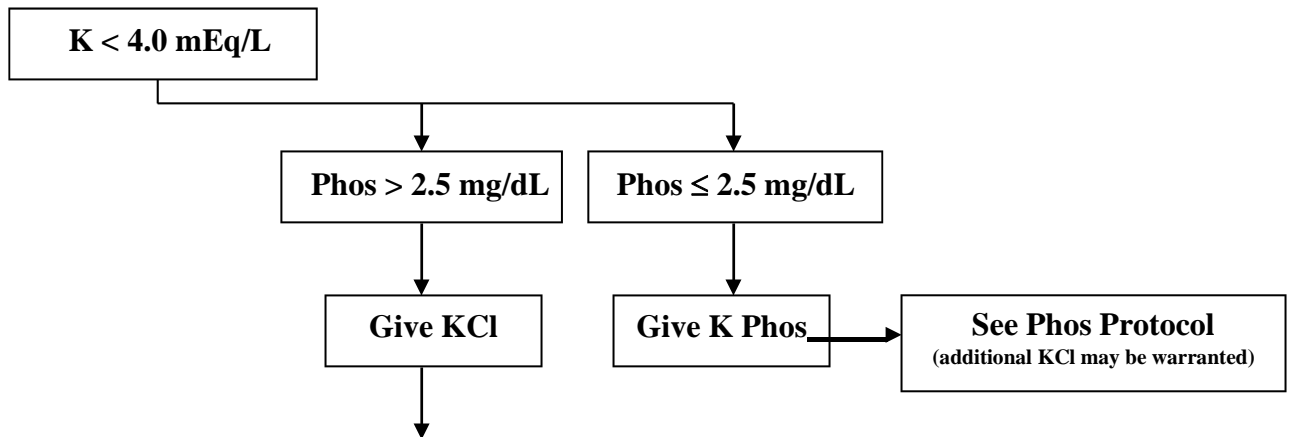


Guidelines for Electrolyte Replacement

EXCLUSIONS: Patients with the following: hemodialysis/peritoneal dialysis, acute kidney injury (AKI), creatinine clearance <30mL/min, chronic adrenal insufficiency, electrical burns, rhabdomyolysis, DKA, crush injury, hypothermia, or have active transfer orders out of the ICU/Step Down Unit

Potassium Replacement

**** Always look at phosphorus level to determine appropriate potassium product ****



<u>Serum K+</u>	<u>Replace With</u>	<u>Recheck Level</u>
3.3-3.9 mEq/L	40 meq KCl PO/PT/IV (enteral route preferred)	with next AM labs
3.0-3.2 mEq/L	20 meq KCl PO/PT/IV X 3 doses (IV route preferred)	immediately and with next AM labs
2.6-2.9 mEq/L	80 meq KCl IV and NHO	immediately and with next AM labs
< 2.6 mEq/L	100 meq KCl IV and NHO	immediately and with next AM labs

***** Consider PO/PT replacement if GI tract available *****

- If central line present and continuous cardiac monitoring, infuse at **20 mEq/hr** (max = 40 mEq/hr); If peripheral access only, infuse at **10 mEq/hr**.
- Serum potassium may be expected to increase by ~0.25 mEq/L for each 20 mEq IV KCl infused.

Magnesium Replacement

<u>Serum Magnesium</u>	<u>Replace With</u>
1.3 – 1.9 mg/dL	4 grams IV over 4h; recheck Mg level with next AM labs
≤ 1.2 mg/dL	8 grams IV over 8h; recheck Mg level 6 hours after replacement

IV Administration:

- Magnesium replacement will be one-time doses.
- All doses will be comprised of the appropriate number of 4 g/100mL premixed piggybacks. Infuse at a rate of 1 gm per hour.

Oral Administration:

- ** Elemental magnesium (supplied as magnesium oxide) or Milk of Magnesia may be initiated; however, oral magnesium is poorly absorbed and diarrhea may be a limiting factor. Separate order must be entered into EPIC for oral replacement.

Phosphorus Replacement

** Always look at phosphorus level to determine appropriate potassium product **

<u>Product</u>	<u>Phosphate</u>	<u>Potassium</u>	<u>Sodium</u>
K-Phos Neutral Tablet	250 mg (8 mmol)	1.1 mEq	13 mEq
K Phos Injection (per mL)	3 mmol	4.4 mEq	
Na Phos Injection (per mL)	3 mmol		4 mEq

<u>Serum Phos</u>	<u>Replace With</u>	<u>Repeat Level</u>	<u>meq K if K Phos</u>
2-2.5 mg/dL	15 mmol KPhos or NaPhos -or- K-Phos Neutral 2 tabs PO/PT q4h x 3 (Enteral route preferred)	with next AM labs	~22 meq (~11 meq/hr based on 2h infusion)
1.6-1.9 mg/dL	30 mmol KPhos or NaPhos -or- K-Phos Neutral 2 tabs PO/PT q4h x 4 (IV route preferred)	with next AM labs	~44 meq (~11 meq/hr based on 4h infusion)
<1.6 mg/dL	45 mmol KPhos or NaPhos	6h after replacemen t	~66 meq (~11 meq/hr based on 6h infusion)

- Always look at potassium level to determine appropriate IV phosphorus product: use **K Phos** if **K < 4.0 mEq/L** and **Na Phos** if **K ≥ 4.0 mEq/L**.
- For IV replacement: Pharmacy will dilute in 250-300mL NS. Infuse over 2-6 hours.

Calcium Replacement

Calcium replacement based upon ICa ⁺⁺ levels		
Ionized Calcium	Replace With	Recheck Level
3.5-3.9 mg/dL	4 g Calcium Gluconate	With next AM Labs
3.0-3.4 mg/dL	6 g Calcium Gluconate	4 Hours After Replacement
2.5-2.9 mg/dL	8 g Calcium Gluconate	4 Hours After Replacement
< 2.5 mg/dL	10 g Ca Gluconate AND NHO	4 Hours After Replacement
Infuse 2 gm per hour		

References:

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