Parenteral Potassium Phosphate for Hypophosphatemia

- Potassium Phosphate available in KAUH as Potassium Phosphate ampoule for injection (20 ml)
- Each 1 ml contains 0.6 mmol PO₄³⁻ + 1 mmol K⁺ SO each ampoule contains 12 mmol PO₄³⁻ + 20 mmol K⁺
- It should be given only if K⁺ level < 4 mmol/L
- Normal PO₄³⁻ range: 0.81-1.45 mmol/L (in KAUH)

Dosing:

We use IV Potassium Phosphate only if patient has:

1- Symptomatic hypophosphatemia: fatigue, bone pain, appetite loss, irritability, numbness and confusion
2- Sever hypophosphatemia (PO₄³⁻ level < 0.32 mmol/L)

Dose: 0.08-0.64 mmol/kg, infusion over (4-12 hrs).

Note: weight is actual body weight (ABW), use adjusted body weight if patient >30% over IBW. Adjusted body weight = IBW +0.4 (ABW-IBW)
• **Preparation for Administration:**
  Intermittent infusion doses of potassium phosphate are typically prepared in 100 to 250 mL of NS or D5W.
  The infusion of 15 mmol of PO₄⁻³ in 250 mL of IV fluid over 4 hrs is safe and effective.
  
  
  | 15 mmol PO₄⁻³ | [250 ml diluent] | [4-6 hours infusion rate] |
  | 30 mmol PO₄⁻³ | [500 ml] | [8 hours infusion rate] |

• Assess adequate replacement, repeat serum potassium and phosphorus levels 2 to 4 hours after dose, also monitor renal function.

**Example:**

Patient has PO₄⁻³ level (0.4 mmol/L) with hypophosphatemia symptoms, his weight is 70 kg.( IBW=65 kg)

The dose range from 0.08 * 70 = 5.6 mmol to 0.64 * 70 = 44.8 mmol

Each ampoule (20 mL) → 12 mmol PO₄⁻³

X → 5.6 mmol PO₄⁻³

So I need 9.33 mL (I draw 10 mL from the ampoule and add them to NS or D5W)

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