POTASSIUM CHLORIDE (oral)
(poe-tass-ee-um)
potassium chloride

Indications
Treatment/prevention of potassium depletion.

Classification
Therapeutic: mineral and electrolyte replacements/supplements

Pregnancy Category C

Contraindications/Precautions
Contraindicated in:
- Hyperkalemia; Severe renal impairment; Untreated Addison’s disease; Some products may contain tartrazine (FDC yellow dye #5) or alcohol; avoid using in patients with known hypersensitivity or intolerance; Hyperkalemia familial periodic paralysis.

Use Cautiously in:
- Cardiac disease; Renal impairment; Diabetes mellitus (hyperkalemia may cause convulsion); edema; peripheral edema or edema due to heart failure (tablets, capsules); Patients receiving potassium-sparing diuretics.

Adverse Reactions/Side Effects
CNS: confusion, restlessness, weakness.
CV: arrhythmias, ECG changes.
GI: abdominal pain, diarrhea, flatulence, nausea, vomiting (tablets, capsules only), GI ulceration, stenotic lesions.
Neuro: paralysis, paresthesia.

Interactions
Drug-Drug: Use with potassium-sparing diuretics or ACE inhibitors or angiotensin II receptor antagonists may lead to hyperkalemia.
Anticholinergics may exacerbate GI mucosal lesions in patients taking wax-matrix potassium chloride preparations.

Route/Dosage
Expressed as mEq of potassium. Potassium bicarbonate contains 10 mEq potassium/g; potassium chloride contains 13.4 mEq potassium/g.

Normal Daily Requirements
PO (Adults): 40–80 mEq/day.
PO (Children): 2–3 mEq/kg/day.
PO (Neonates): 2–6 mEq/kg/day.

Prevention of hypokalemia during Diuretic Therapy
PO (Adults): 20–40 mEq/day in 1–2 divided doses; single dose should not exceed 20 mEq.
PO (Neonates, Infants and Children): 1–2 mEq/kg/day in 1–2 divided doses.

Treatment of Hypokalemia
PO (Adults): 40–100 mEq/day in divided doses.
PO (Neonates, Infants and Children): 1–2 mEq/kg/day in divided doses.

NURSING IMPLICATIONS
Assessment
- Assess for signs and symptoms of hypokalemia (weakness, fatigue, U wave on ECG, arrhythmias, polyuria, polydipsia) and hyperkalemia (see Toxicity and Overdose).

Drug Therapy
Use caution with this drug. Avoid using in patients with known hypersensitivity or intolerance; Hyperkalemia familial periodic paralysis.

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Lab Test Considerations: Monitor serum potassium before and periodically during therapy. Monitor renal function, serum bicarbonate, and pH. Determine serum magnesium level if patient has refractory hypokalemia. Hypomagnesemia should be corrected to facilitate effectiveness of potassium replacement. Monitor serum chloride because hypochloremia may occur if replacing potassium without concurrent chloride.

Toxicity and Overdose: Symptoms of toxicity are those of hyperkalemia (slow, irregular heartbeat; fatigue; muscle weakness; paroxysmal; confusion; dyspnea; peaked T waves; depressed ST segments; prolonged QT segments; widened QRS complexes; loss of P waves; and cardiac arrhythmias).

Treatment includes discontinuation of potassium, administration of sodium bicarbonate to correct acidosis, dextrose and insulin to facilitate passage of potassium into cells, calcium sulfate to reverse ECG effects (in patients who are not receiving digoxin), sodium polystyrene used as an exchange resin, and/or dialysis for patient with impaired renal function.

Potential Nursing Diagnoses

Imbalanced nutrition: less than body requirements (indications)

Implementation

PO: For most purposes, potassium chloride should be used, except for renal tubular acidosis (hyperchloremic acidosis), in which other salts are more appropriate (potassium bicarbonate, potassium citrate, or potassium gluconate).

If hypokalemia is secondary to diuretic therapy, consideration should be given to decreasing the dose of diuretic, unless there is a history of significant arrhythmias or concurrent digitalis glycoside therapy.

IV: Administer slowly to decrease GI irritation.

Use of tablets and capsules should be reserved for patients who cannot tolerate liquid preparations.

Dissolve effervescent tablets in 3–8 oz of cold water. Ensure that effervescent tablet is fully dissolved. Powder and solutions should be diluted in 5–8 oz of cold water or juice (do not use tomato juice if patient is on sodium restriction). Enteric-Coated capsules can be opened and sprinkled on soft food (pudding, applesauce) and reconstituted immediately with a glass of cool water or juice.

Patient/Family Teaching

Explain the purpose of the medication and the need to take as directed, especially when concurrent digoxin or diuretics are taken. A missed dose should be taken as soon as remembered within 2 hr; return to regular dose schedule. Do not double dose.

Emphasize correct method of administration. GI irritation or ulceration may result from chewing enteric-coated tablets or insufficient dilution of liquid or powder forms.

Instruct patient to avoid salt substitutes or low-sodium milk or food unless approved by health care professional. Patient should be advised to read all labels to prevent excess potassium intake.

Advise patient regarding sources of dietary potassium. Encourage compliance with recommended diet.

Instruct patient to report dark, tarry, or bloody stools; weakness; unusual fatigue; or tingling of extremities. Notify health care professional if nausea, vomiting, diarrhea, or unusual dizziness/shortness of breath may require adjustment.

Emphasize the importance of regular follow-up visits to monitor serum levels and progress.

Evaluation/Desired Outcomes

Prevention and correction of serum potassium depletion.

Cessation of arrhythmias caused by digoxin toxicity.

Why was this drug prescribed for your patient?