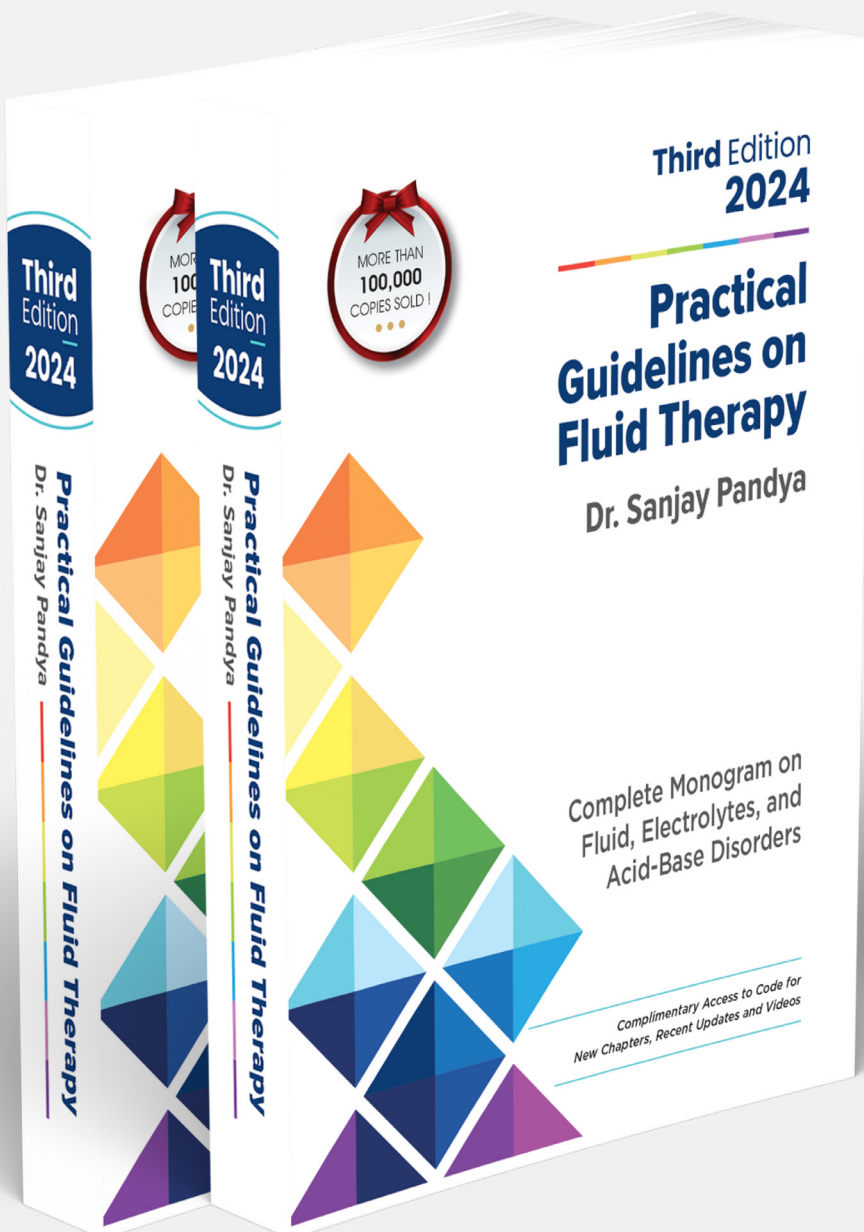




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Chapter 13:

Potassium Chloride and Potassium Phosphate



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Potassium Chloride and Potassium Phosphate

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Potassium chloride (KCl) and potassium phosphate are essential potassium salts used in clinical practice, with potassium chloride being the more common choice and is widely used for correcting hypokalemia. In contrast, potassium phosphate is less frequently administered and primarily used to manage or prevent hypophosphatemia.

INJECTION POTASSIUM CHLORIDE

COMPOSITION

Inj. 15% Potassium Chloride

Each ml contains:

Potassium	2 mEq
KCl	150 mg
Osmolarity	4024 mOsmol/L (calc)
pH	6.0 (4.0 to 8.0)

Available as 10 ml ampules which provides:

Potassium	20.0 mEq
KCl	1.5 mg

PHARMACOLOGICAL BASIS

Potassium is distributed chiefly intracellularly with concentrations of 140 to 150 mEq/L and is the most abundant intracellular cation. The normal range for serum potassium is 3.5–5.0 mEq/L, and its presence in extracellular fluid (ECF) is very important for the regulation of nerve conduction and contraction of muscles, particularly in the heart.

The ability of kidneys to retain potassium is incomplete (unlike sodium). Therefore, potassium loss from the body continues in patients on a potassium-free diet and even in hypokalemia. So, potassium supplementation is required in the patient on maintenance fluid therapy to avoid hypokalemia.

Moreover, in many conditions where sodium and potassium both are lost (i.e., diarrhea, vomiting, diuretic therapy, etc.), under the influence of increased aldosterone, sodium is retained, and the potassium is lost by the kidney, which causes or aggravates hypokalemia. So

adequate potassium supplementation is necessary along with the administration

of sodium.

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