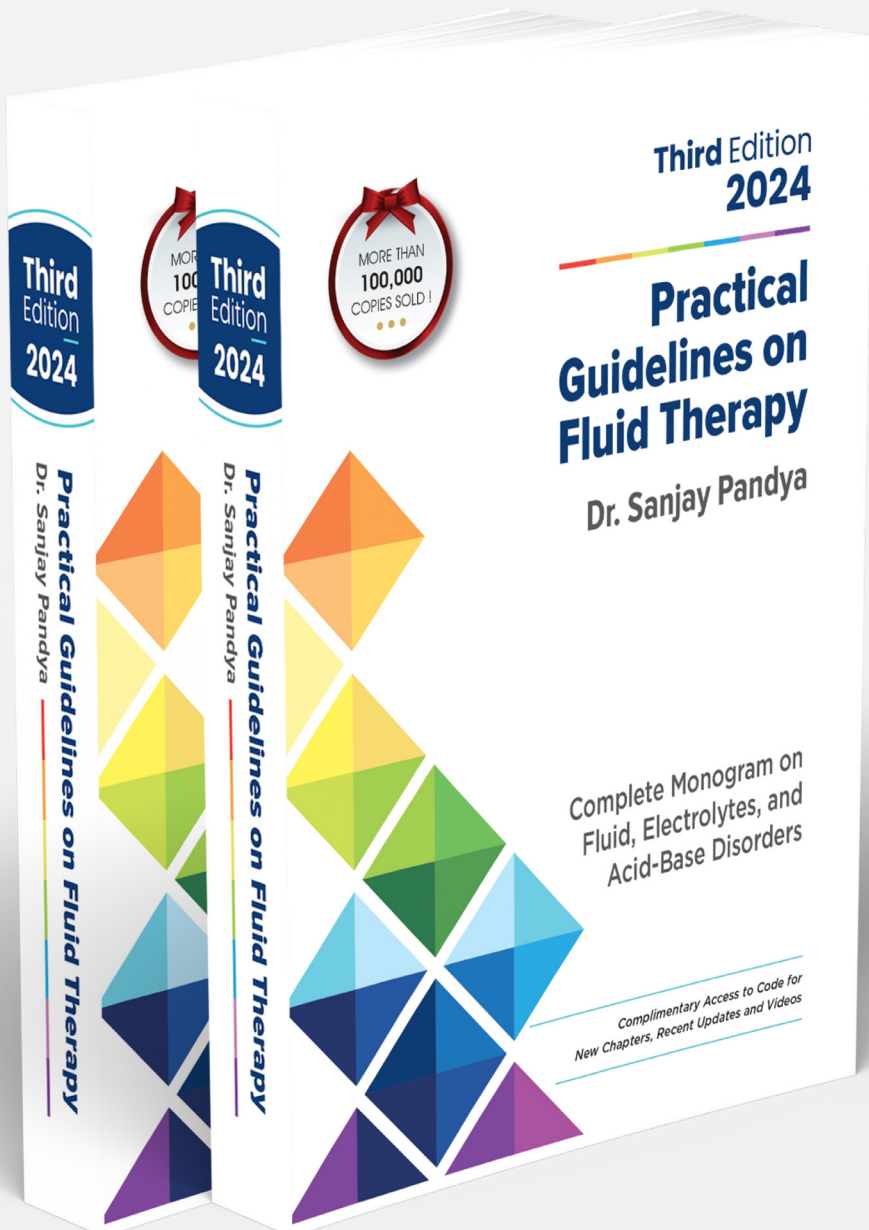




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Chapter 4:

Balanced and Multi-electrolyte Solutions



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4

Balanced and Multi-electrolyte Solutions

Ringer's Lactate	32	Indications	40
Composition	33	Contraindications and precautions..	40
Pharmacological basis	33	Isolyte-G	40
Indications	34	Composition	40
Contraindications and precautions..	35	Pharmacological basis	40
What is Ringer's Solution?	36	Indications	40
What is Hartmann's Solution?	36	Contraindications.....	41
Newer Balanced Crystalloid Solutions	36	Isolyte-M	41
What is Ringer's Acetate Solution? ..	37	Composition	41
PlasmaLyte Solution	37	Pharmacological basis	41
Composition	37	Indications	42
Pharmacological basis	38	Contraindications.....	42
Indications	38	Isolyte-P	42
Contraindications and precautions..	39	Composition	42
Sterofundin	39	Pharmacological basis	42
Composition	39	Indications	43
Pharmacological basis	40	Contraindications.....	43

Balanced and a few multi-electrolyte solutions are discussed in this chapter. Crystalloids with a composition closely resembling extracellular fluid have been termed 'balanced' or 'physiological' solutions [1, 2]. Balanced crystalloids are also distributed throughout the extracellular fluid (ECF) and are, therefore, of similar efficacy to normal saline (0.9% NaCl) in terms of plasma volume expansion.

Balanced crystalloids contain somewhat less sodium and significantly less chloride and therefore have advantages over normal saline solution when used

for resuscitation or routine maintenance. Due to the instability of bicarbonate-containing solutions in plastic containers, alternative buffers such as lactate, acetate, gluconate, and malate are used to provide bicarbonate in balanced crystalloids [3]. Ringer's lactate is the most widely used balanced crystalloid.

RINGER'S LACTATE (RL)

Ringer's lactate solution is also known as Hartmann's solution, sodium lactate solution, or lactated Ringer's solution (LR).

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