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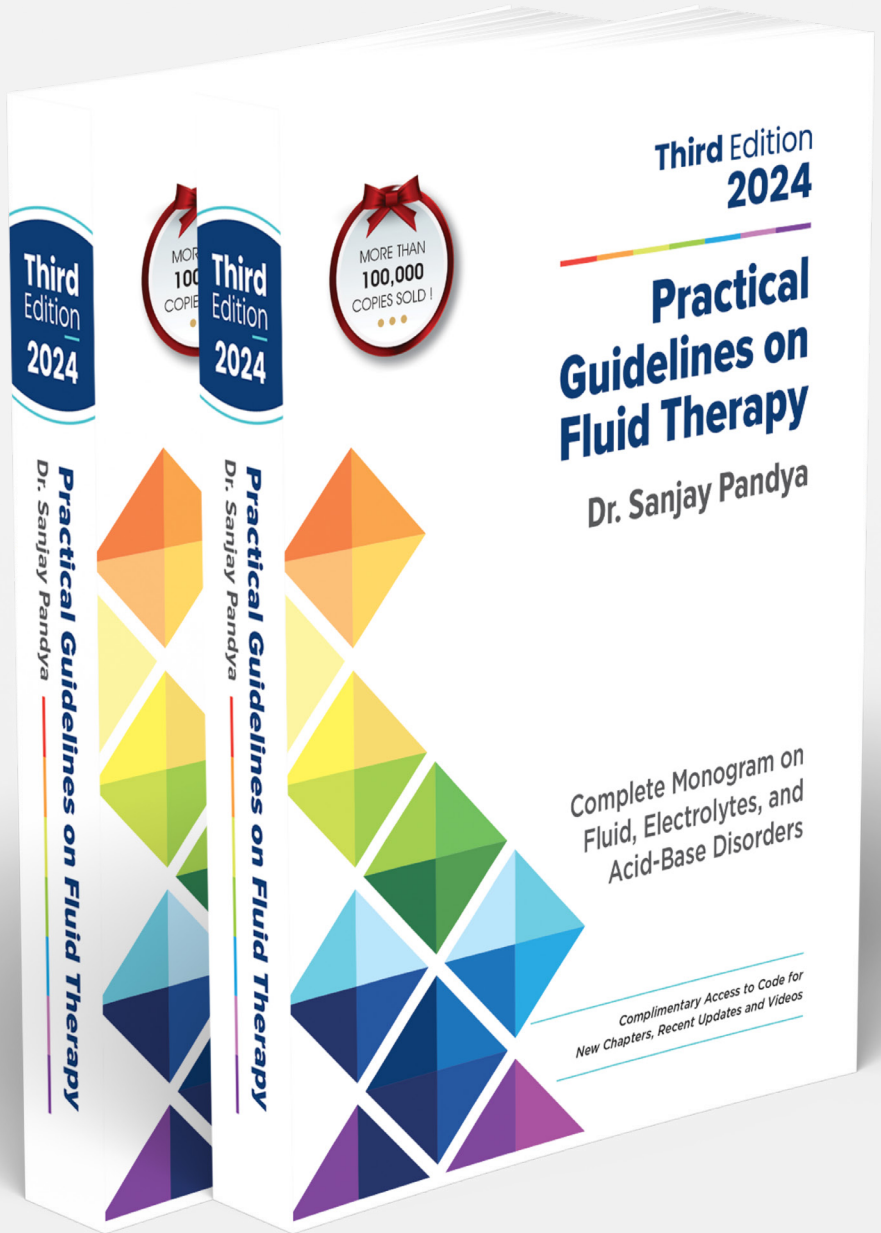
Chapter 44:

Postoperative Fluid Therapy



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44 Postoperative Fluid Therapy

Postoperative fluid therapy is crucial for managing patients' fluid needs, ensuring their physiological stability, maintaining hydration and tissue perfusion, restoring fluid balance, and supporting recovery during the postoperative period. The administration of fluid and electrolytes during the postoperative period depends on a thorough patient evaluation, and no single postoperative fluid regimen suits everyone [1].

THE GOAL OF FLUID THERAPY

The aim of postoperative fluid therapy is to keep the patient normovolemic, maintain an adequate circulating blood volume, optimize organ perfusion, promote wound healing, provide adequate calories to prevent catabolism and prevent complications such as hypovolemia, fluid overload, electrolyte imbalances, and acid-base disturbances.

In postoperative patients, the major principles of management of fluid balance are:

- To replace ongoing losses (hemorrhage, drainage, third space losses, and insensible losses)
- To provide maintenance requirements
- To correct preexisting deficits (preoperative and intraoperative losses)

CAUSES OF HYPOVOLEMIA

Hypovolemia and hypotension are common postoperative complications, and their important causes include:

- Bleeding: Intraoperative and postoperative blood loss.
- Fluid deficit: Inadequate correction of the preoperative starvation (nothing by mouth-NPO) deficit, utilization of "zero-balance" or "restrictive fluid strategy" to replace intraoperative losses, failure to adequately replace maintenance fluid requirements during prolonged surgeries, and ongoing fluid losses from the gastrointestinal tract (such as vomiting and diarrhea).

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