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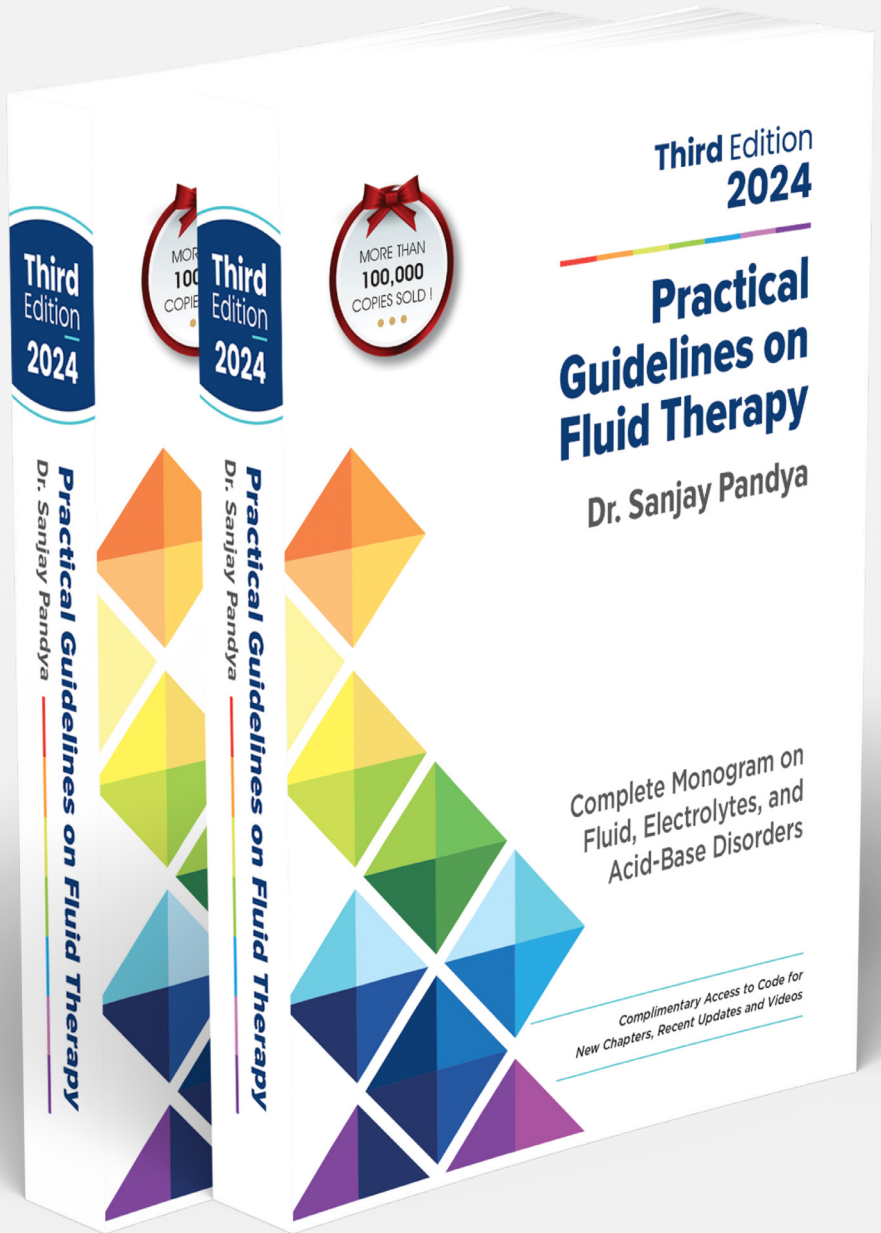
Chapter 6:

Principles, Planning, and Prescribing Fluid Therapy



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6 Principles, Planning, and Prescribing Fluid Therapy

Fluid administration is commonly needed in hospitalized patients, especially in an emergency, ICU, and surgical units.

Why is it important to plan and prescribe fluid therapy meticulously?

- Fluid administration is an essential and most commonly required intravenous treatment in acutely ill hospitalized patients [1, 2].
- Timely, appropriate, and properly designed intravenous fluid administration is lifesaving [2, 3].
- The prescription plans of fluid therapy vary markedly in different dynamic phases, demanding frequent attention, evaluation, and necessary changes.
- Prescribing intravenous fluids is complex. Unfortunately, doctors' basic knowledge and understanding of prescribing intravenous (IV) fluids are poor, and errors in planning appropriate fluid type, rate, or volume lead to morbidity and mortality, which is preventable [4–7].
- IV fluids are not just an innocent bag of water; their under or over-administration may be potentially harmful [8–11].
- Fluid overload is one of the most common complications of overzealous IV fluid administration, which is often overlooked but is harmful [10, 12–18].

Because of the possibilities of multifactorial errors and harmful effects, it is recommended to use the right type of fluid, in the right volume at the right time, by the right route (in a similar way as using any other pharmacological prescription antibiotics or drugs), and tailor the fluid therapy to meet the patient's individualized needs which reduces the risks and improves the outcome [2, 10, 19, 20].

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