Upon completion of this chapter, the reader will be able to:

1. Identify the most common etiologies of both acute and chronic hypercalcemia.
2. Develop appropriate treatment plans for the management of a patient with hypercalcemia based on acuity and symptoms manifested.
3. Recommend an appropriate treatment regimen for nephrolithiasis associated with hypercalcemia and hypercalciuria.
4. Identify the most common pathophysiologic and drug-induced causes of hypocalcemia.
5. Describe the pathophysiology of hypocalcemia with a focus on the role of vitamin D, parathyroid hormone (PTH), and fibroblast growth factor 23 (FGF-23).
6. Develop a treatment plan for a patient with acute hypocalcemia.
7. List the most common causes of hyperphosphatemia.
8. Describe the pathophysiology and symptoms associated with hyperphosphatemia.
9. Recommend a drug therapy plan for acute hyperphosphatemia.
10. Identify the patient populations that are most likely to develop hypophosphatemia.
11. Identify concomitant electrolyte disorders that may be present in a patient with hypophosphatemia.
12. Recommend an appropriate phosphorus replacement regimen based on a patient’s clinical presentation.