LEARNING OBJECTIVES

1. Understand basic renal physiology and the role of the kidney in maintaining homeostasis.
2. Describe the most recent NKF K/DOQI guidelines relating to chronic kidney disease (CKD) classification.
3. Understand the role of urinalysis (chemical and microscopic) in detecting and monitoring renal disease.
4. Understand the importance of quantifying renal function and its role in the identification, monitoring, and classification of CKD.
5. Compare and contrast various methods to estimate and measure creatinine clearance and glomerular filtration rate (GFR) in patients with CKD and acute renal failure.
6. Determine the most appropriate method for assessing renal function in patients with CKD, liver disease as well as pediatrics, and the elderly.
7. Compare and contrast the available methods to evaluate proteinuria in patients with CKD.
8. Identify the most common methods to quantify renal blood flow and renal tubular function.
9. Describe the appropriate use of creatinine clearance and estimated GFR equations for renal drug dose adjustments.
10. Understand the limitations of using serum cystatin C as a quantitative index of kidney function.
11. Discuss the role of qualitative tests such as CT, MRI, ultrasonography, and biopsy on renal function evaluation.