HEMATURIA AND NEPHROLITHIASIS

OBJECTIVES

- Define microscopic hematuria and gross hematuria
- Recognize the difference between dipstick testing for heme versus microscopic examination for presence of RBCs
- Recognize the difference between glomerular hematuria versus urologic hematuria
- Describe common testing strategies used to evaluate hematuria: CT scan, ultrasound
- Explain the epidemiology, clinical presentation, and stone compositions of nephrolithiasis
- Explain biochemistry of stone formation
- Explain common causes of and mechanisms of formation of the four major clinically relevant kidney stones: calcium stones, uric acid stones, struvite stones, and cystine stones
- Describe strategies for treating stones and contrast medical vs interventional management
- Describe dietary and medical strategies for prevention of future stones in patients prone to nephrolithiasis: weight loss, low purine diet, low oxalate diet, low sodium diet, increase fluid intake, increase citrate