

## LEARNING OBJECTIVES

### Nephrology Learning Objectives:

1. Hypertension
  - Understand the normative data and be able to classify a patient by hypertension stage
  - Basic evaluation and work up of a patient presenting with hypertension
  - General anti-hypertensive management strategies
2. Hematuria
  - Evaluation and differential diagnosis of microscopic hematuria
  - Evaluation and differential diagnosis of gross hematuria, including glomerulonephritis
3. Proteinuria
  - Evaluation of asymptomatic/isolated proteinuria
  - Evaluation and management of nephrotic syndrome
4. Urinary tract infections & Vesicoureteral reflux (VUR)
  - Evaluation and management of a child with a suspected UTI
  - Understand the role of reflux, VUCUG, and antibiotic prophylaxis in patients with UTI
5. Chronic kidney disease/End stage renal disease & Renal replacement therapy
  - Determination and estimation of glomerular filtration rate (GFR)
  - Evaluation, staging, and management of chronic kidney disease
  - Understanding the sequelae associated with CKD and ESRD
  - Basic peritoneal and hemodialysis concepts
6. Renal Transplantation
  - Basic concepts of transplant medicine
  - Immunosuppression mechanisms and side effects

### Rheumatology Learning Objectives:

#### Core learning objectives:

1. Recognize the following features of systemic lupus erythematosus:
  - a. Clinical manifestations
  - b. Indications for laboratory testing and laboratory manifestations
  - c. The importance of UV protection
  - d. General care of the immunosuppressed patient
  - e. Common causes of morbidity and mortality, both from treatment and the disease
2. Recognize the following features of Juvenile Idiopathic Arthritis:
  - a. Classification of types of JIA
  - b. Clinical manifestations of different types of JIA
  - c. Differential diagnoses for a patient presenting with arthritis/arthralgias
  - d. Indications for laboratory testing and laboratory manifestations of different types of JIA
  - e. Features of arthritis on radiographic studies

- f. Importance of eye exams and the risk of uveitis with various forms of JIA
  - g. Use of Physical and Occupational Therapy for patients with JIA
  - h. General care of the immunosuppressed patient
  - i. Common causes of morbidity and mortality, both from treatment and the disease
3. Recognize the following features of Juvenile Dermatomyositis
    - a. Clinical manifestations
    - b. Indications for laboratory testing and laboratory manifestations
    - c. The importance of UV protection
    - d. Use of Physical and Occupational Therapy for JDM patients
    - e. General care of the immunosuppressed patient
    - f. Common causes of morbidity and mortality
  4. Be able to perform a detailed musculoskeletal exam to assess for signs of arthritis, lupus, and to assess muscle strength.
  5. Recognize the indications for laboratory testing and the basic interpretation of laboratory testing when assessing a patient for a possible autoimmune or autoinflammatory disease.

Supplemental learning objectives:

1. Recognize the common indications and side effects of common medications used in the treatment of rheumatologic diseases:
  - a. Corticosteroids
  - b. NSAIDs
  - c. DMARDs (hydroxychloroquine, methotrexate, sulfasalazine)
  - d. Biologics (TNF inhibitors, IL-1 inhibitors, IL-6 inhibitors)
  - e. Immunosuppressives (cyclophosphamide, MMF, calcineurin inhibitors, rituximab)
2. Recognize the differential, common presentations, evaluation, and treatment of post infectious arthritis, mechanical pain and pain syndromes.
3. Recognize the common presentations, laboratory findings, treatment, and course of the periodic fever syndromes/ autoinflammatory syndromes.