**January 17, 2017 AHD Objectives**

**Acute Kidney Injury:**

1. Define acute kidney injury by staging (1-3.)
2. List several causes of pre-renal, intrinsic renal, and post-renal acute kidney injury.
3. Describe the laboratory tests and imaging tests to order in the evaluation of acute kidney injury after a thorough history and physical is performed.
4. Describe the initial management of acute kidney injury including the type of fluid recommended in pre-renal states, goal MAP, indication for diuretics, appropriate medication dosing, and indications for emergent renal replacement therapy.

**Chronic Kidney Disease:**

1. Define chronic kidney disease and know the 5 stages of CKD according to the National Kidney Foundation.
2. Understand what patients with CKD die from.
3. Know the indications for lipid screening and treatment in patients with CKD and the evidence based benefits.
4. Know the medications that CKD patients should avoid to prevent worsening of renal function.
5. Know the indication for ACEI and ARB medications for the treatment of proteinuria and blood pressure goals for patients with CKD.
6. Understand the risks of hyperphosphatemia and its management in patients with CKD.
7. Know the recommendations for erythropoiesis-stimulating agents and optimal hemoglobin goals in patients with CKD as well as the risks of therapy.

**Urinalysis Cases:**

1. Describe the appropriate urine *specimen collection and storage* in *ambulatory patients and hospitalized patients with foley catheters* in order to accurately interpret the urinalysis.
2. List the possible causes of urine that is cloudy, orange, brown, or red.
3. Complete the urinalysis table:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Normal value | High  (causes) | Low value (causes) |
| Specific gravity | 1.003-1.030 | Dehydration  Glycosuria  SIADH | Well hydrated  Diuretic use  Diabetes insipidus |
| pH | 5.5-6.5 |  |  |
| RBC/hematuria | 0-2/HPF |  |  |
| Proteinuria | <150 mg/24 hours |  |  |
| Albuminuria | <30 mg/24 hours |  |  |
| Glucosuria | None |  |  |
| Ketonuria | None |  |  |
| Nitrites | None |  |  |
| Leukocyte esterase | None |  |  |