**January 08, 2019**

09:40-10:25 - 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 | DehydrationGlycosuriaSIADH | Well hydratedDiuretic useDiabetes 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 |  |  |

1. Describe the conditions associated with the following urine casts: Hyaline, Erythrocyte, Leukocyte, Epithelial, Granular, Fatty.

10:25-11:10 - Hyperkalemia – Dr. Amandeep Khurana:

1. Describe the laboratory evaluation that must be obtained to work up the hyperkalemic patient. (Comment on pseudohyperkalemia, EKG findings and sensitivity, and the required urine studies.)
2. Describe the acute management of the hyperkalemic patient including steps to stabilize the myocardial membrane, shift potassium into the cells, and lower the total body potassium. Know the appropriate doses, methods of delivery, and contraindications to calcium gluconate, insulin and glucose, beta-agonists, and kayexalate.
3. Know when to hospitalize and when to treat hyperkalemia.

11:30-12:15 - Hypertension – Dr. Katherine Dahl:

1. Define normal blood pressure, pre-hypertension, stage 1 and stage 2 hypertension. Describe the end-organ injuries that occur due to long-standing hypertension.
2. Describe the patient(s) who should be evaluated for secondary causes of hypertension and the preferred diagnostic strategy for each identifiable cause.
3. Identify the medications which are first-line anti-hypertensives for non-black patients and black patients *without* DM and CKD and *with* DM and CKD.
4. Identify the BP targets for patients aged ≥ 60 years old, < 60 years old, patients with chronic kidney disease and patients with diabetes.
5. Define hypertensive urgency and emergency and the indications for admission to the hospital and ICU treatments.