Name of the module: Nephrology 5th year Medicine  
Number of module 471-8-5027

Course Description:

Aims of the module: The nephrology module is conceived to introduce students to the practice of nephrology.

Objectives of the module: At completion of the module, students will develop an approach to acute and chronic kidney an metabolic disturbances, i.e. acute kidney injury, chronic kidney disease, nephrotic and nephritic syndromes, electrolyte and acid-base disorders. Students will be introduced to the three types of renal replacement therapy, e.g. hemodialysis, peritoneal dialysis and kidney transplantation.

Learning outcomes of the module: On successful completion of the course, the student will be able to:

1. Understand pathophysiology of acute kidney injury. The student will be familiar with methods of assessment of the degree of renal dysfunction and pertinent laboratory tests.
2. Understand water disorders as manifest by hypo and hypernatremia.
3. Discern potassium metabolism and management of potassium disturbances.
4. Evaluate renal contribution to the regulation of systemic acid base homeostasis. The student will be provided with basic skills needed to analyze acute and chronic acid-base disorders and their management.
5. Understand the role of the kidney, parathyroid and bone as regulators of calcium and phosphate metabolism.
6. Familiarize with causes and complications of chronic kidney disease, their causes, complications and management.
7. The student will be introduced into principles of dialysis.
8. Apply clinical, laboratory and ancillary immunologic diagnostic testing to develop a differential diagnosis of kidney diseases presenting as nephritic or nephritic syndrome.
9. Appreciate the role and significance of the kidney involvement in systemic diseases.
10. Be introduced to pertinent findings of renal imaging

Attendance regulation: Attendance in 80% of classes is mandatory.

Teaching arrangement and method of instruction: Instruction in the module is based on bed-side teaching and clinical discussions, and to a lesser extents on lectures.
**Assessment:**
None

**Work and assignments:** Students are required to attend lectures and clinical discussion.

**Time required for individual work:** in addition to attendance in class, individual work of students includes:
1. Review of lectures – roughly 30 minutes per hour of lecture are required.

**Module Content schedule and outlines:** the content and structure of the module, including detailed subjects, and their order.

**Required reading:** binding reading requirements are offered by the respective teacher. Most but not necessarily all lectures are based on ppt presentations.

**Additional literature:** Upon request the student is provided with additional reading references. Bibliography of the module includes:

2. Brenner's textbook of Nephrology.
3. Clinical Physiology of Acid-Base and Electrolyte Disorders – Burton Rose and Theodore Post

*All learning material will be available to the students on the module's website (high-learn)/ library/ electronic documents available to BGU students*