

MHD II, Small Group Session XVI

Correlative Lecture Objectives

MHD

Explain the physiology of water balance and control of the plasma sodium concentration.

Explain the factors that regulate the secretion of anti-diuretic hormone.

Explain the pathogenesis of hyponatremia and hypernatremia

Classify the causes of hyponatremia and hypernatremia into hypovolemic, euvolemic, hypervolemic categories

Explain the expected complications of cirrhosis and how these are related to portal hypertension and hepatocyte failure.

List the laboratory studies utilized in the diagnosis of urinary tract infections.

Describe the relationship between acute kidney injury, critical illness, and sepsis

Classify acute kidney injury into prerenal causes, intrinsic renal causes, and postrenal causes

Explain the diagnostic approach to acute kidney injury

Assess for the cause of acute kidney injury and reverse if possible

Measure the fractional excretions of sodium and urea using plasma and urine values

P&T

Describe the mechanisms of action and clinical use of ADH Antagonists (demeclocycline, lithium, tolvaptan, conivaptan, mozavaptan)

Correlative topics in First Aid for USMLE I 2011

p. 464

p. 300