

## **Clinical Biochemistry – 5<sup>th</sup> year GM**

### ***Syllabus***

**Introduction to clinical biochemistry.** Biological material, sampling and manipulation in preanalytic phase. Interpretation of results – reference intervals, biological variation, sensitivity, specificity, predictive values of the test.

**Water and mineral homeostasis.** Regulation of osmolality. Hyper- and dehydration. Hyponatraemia, hypernatraemia. Hyper- and hypokalaemia.

**Acid-base balance disorders.** Metabolic and respiratory acidosis and alkalosis. Acute and chronic disorders – compensation and correction. Blood gases analysis, measured and calculated parameters. Interpretation of laboratory results in ABD

**Renal function.** Biochemical tests for assessment of glomerular and tubular function. Proteinuria.

**Liver function.** Assessment of hepatic function. Jaundice – differential diagnosis

**Diabetes mellitus** – biochemical background. Biochemical tests for diagnosis and monitoring of diabetes mellitus. Diabetic emergencies. Hypoglycaemia

**Cardiac markers.** Biochemistry of cardiovascular system. Hyperlipidaemias.

**Tumour markers.** Definition and classification of TM. Purpose of TM usage. Ectopic hormone secretion

**Final exam:** written test