

**Syllabus**  
**Pathological Physiology 2**  
**Summer Semester 2022/2023**  
**Week 5**

## **General Medicine**

### **1. Lecture**

- Glomerular disorders - forms, pathogenesis, clinical signs; typical findings
- Tubulointerstitial diseases
- Kidney failure – acute and chronic, etiology, pathogenesis, symptoms

### **2. Seminars**

- T: Disorders of ventilation, diffusion & perfusion – hypo-, hyperventilation, ventilation-perfusion disturbances, pulmonary thromboembolism
- S: Cystic fibrosis – genetics, clinical signs, complications  
Lung oedema - classification - interstitial and alveolar, etiopathogeneses, clinical signs

### **3. Practical protocol: *Evaluation of heart sounds and murmurs and respiratory auscultation sounds***

- Analysis of cardiac and respiratory sounds under the guidance of a teacher
- Theoretical introduction available at <http://patfyz.medic.upjs.sk/estudmat/Breath%20and%20cardiac%20sounds.pdf>
- Sound recordings available at <http://patfyz.medic.upjs.sk/estudmat.htm>
- Editable protocol form available at <http://patfyz.medic.upjs.sk/estudmat.htm>
- Prepare the protocols and pass them on to the teacher according to the instructions

### **4. Examination of knowledge (quiz, oral examination)**

### **5. Presentations of semester works and selected topics according to the group schedules**

## **Dental Medicine**

### **1. Lecture**

- Glomerular disorders - forms, pathogenesis, clinical signs; typical findings
- Tubulointerstitial diseases
- Kidney failure – acute and chronic, etiology, pathogenesis, symptoms

### **2. Seminars**

- T: Disorders of ventilation, diffusion & perfusion – hypo-, hyperventilation, ventilation-perfusion disturbances, pulmonary thromboembolism
- S: Respiratory failure - - type I and II (global and partial), causes, symptoms  
Lung oedema - classification - interstitial and alveolar, etiopathogeneses, clinical signs

### **3. Examination of knowledge (quiz, oral examination)**

### **4. Presentations of semester works and selected topics according to the group schedules**

**Seminars (S)** = special topics for discussion; **Tutorials & homeworks & exams (T)** = discussions, consultations, oral and quiz exams on the current topics.

**Note:** The range of topics and their timetable during the tutorials and seminars in each group is determined by the teacher and to a large extent, by the presentations, consultation interests, questions and readiness of the group and may vary in between groups. Neither tutorials nor seminars are lectures, but dialogue and discussion and thus require an active participation and preparation of students for the topics.

### **Recommended audiovisual materials**

- Nephritic Syndrome - classification, pathophysiology, treatment <https://www.youtube.com/watch?v=wyTRDz8syo>
- Nephrotic Syndrome - Types and pathology (histology) <https://www.youtube.com/watch?v=WOkcWlpYsgA>

- Acute Kidney Injury (AKI) - prerenal, intrarenal and postrenal causes and pathophysiology <https://www.youtube.com/watch?v=MH1DCCqLGps>
- Acute Renal Failure <https://www.youtube.com/watch?v=bwwQd7xkHNc>
- Chronic Kidney Disease (CKD) Pathophysiology <https://www.youtube.com/watch?v=JjcqY95HR1o>
- Urinary Tract Infection - Overview (signs and symptoms, pathophysiology, causes and treatment) <https://www.youtube.com/watch?v=1vIHTAnBmuU>
- Medical Animation: Kidney Stone Disease [https://www.youtube.com/watch?v=nCJm\\_KxwQOM](https://www.youtube.com/watch?v=nCJm_KxwQOM)