

# ANESTHESIOLOGY – MEDICINE 5<sup>th</sup> YEAR

## SEMINARS:

**The seminars are designed so that the student processes particular subject area, usually in the form of PowerPoint presentations. The teacher (mentor) evaluates student presentation (grades 1-5). Each absence from seminars must be additionally passed (colloquium) at the respective teachers. Without it, the student is not allowed to approach the final exam!!**

### Seminar topics and mentors:

- S1. Fluid Therapy and Venous Access (central, peripheral) (2 hours) – Doc. S. Glumac**
- S2. Cardiopulmonary Reanimation (2 hours) – S. Dosenovic, Ph.D.**
- S3. Local Anesthetics (2 hours) – Doc. S. Glumac**
- S4. Acute Pain. Postoperative Pain (2 hours) – Doc. I. Agnic**
- S5. Chronic pain. Pain Clinics (2 hours) – S. Kraljevic, M.Sc.**
- S6. Non-invasive Monitoring of Vital Parameters (2 hours) – N. Dropulic, Ph.D.**
- S7. Emergencies caused by Environmental Factors (2 hours) - B. Ivancev, Ph.D.**
- S8. Hemodynamics (1 hour). Vasoactive drugs (1 hour) – – B. Ivancev, Ph.D., J. Domazet, Ph.D.**
- S9. Acute Coronary Syndrome (2 hours) – Doc. L. Šarić**
- S10. Oxygen Therapy. Airway. Tracheotomy. (2 hours) – N. Dropulic, Ph.D.**

## DETAILED SCHEDULE WITH PARTICIPATING STUDENTS (yellow&green color)

### **S1. Fluid Therapy and Venous Access, (2 hours), November 27<sup>th</sup>**

**Mentor: S.Glumac, [sandro.glumac@gmail.com](mailto:sandro.glumac@gmail.com)**

- a) Intravenous cannulas, catheters + Venous approach, central and peripheral (30 min) **(1)**
- b) Crystalloids and colloids (30 min) **2**

Discussion: 30 min

### **S2. Cardiopulmonary reanimation (2 hours) November 28<sup>th</sup>**

**Mentor: S. Dosenovic, [sdosenovic@yahoo.com](mailto:sdosenovic@yahoo.com),**

- a) BLS 1 – ventilation, compressions, AED (30 min) **3,**
- b) ALS 1 – Drugs in CPR (15 min) **4,**
- c) ALS 2- bradycardia and tachycardia algorithms, pacemakers, cardioversion (25 min) **5,6**

Discussion: 20 min

### **S3. Local Anesthetics (2 hours) November 29<sup>th</sup>**

**Mentor: S.Glumac, [sandro.glumac@gmail.com](mailto:sandro.glumac@gmail.com)**

- a) Overview and classification of LAs (30 min) **7**
- b) Local and systemic complications of local anesthetics; Treatment of local anesthetic toxicity (30 min) **8**

Discussion: 30 min

### **S4. Acute Pain. Postoperative Pain. December 2<sup>nd</sup>**

**Mentor: I. Agnić, [agnic33@gmail.com](mailto:agnic33@gmail.com),**

- a) Analgesics (opioid and non-opioid analgesics (30 min) **9,**
- b) Postoperative pain (epidural, nerve blocks, ...) (30 min) **10**

Discussion: 30 min

### **S5. Chronic pain (2 hours) December 3<sup>rd</sup>**

**Mentor: S. Kraljevic, [suzyenkraljevic@ymail.com](mailto:suzyenkraljevic@ymail.com)**

- a) Chronic Pain Treatment, Back Pain Treatment (30 min.) **11,**
- b) Neuropathic Pain (30 min.) **12**

Discussion: 30 min

### **S6. Non-invasive Monitoring of Vital Parameters (2 hours) December 4<sup>th</sup>**

**Mentor: N. Dropulic, [natasa.dropulic@inet.hr](mailto:natasa.dropulic@inet.hr)**

- a) monitoring of cardiac function and circulation (30 min) **13**
- b) monitoring of ventilation + other monitoring – INVOS, BIS, temperature (30 min) **14**

Discussion: 30 min

**S7. Emergencies caused by Environmental Factors (2 hours) December 5<sup>th</sup>**

**Mentor: B. Ivančev, [bozena.ivancev@gmail.com](mailto:bozena.ivancev@gmail.com)**

- a) Drowning, Near-drowning; Hypothermia (30 min) 15
  - b) Electrical Injuries. Lightning Injuries. Envenomations – snakes (30 min) 16
- Discussion: 30 min

**S8.**

**A. Hemodynamics. (1 hour) December 9<sup>th</sup>**

**Mentor: B. Ivančev, [bozena.ivancev@gmail.com](mailto:bozena.ivancev@gmail.com),**

- a) Basic physiology – cardiac output, systemic and pulmonary vascular resistance, (15 min) 17
  - b) Hemodynamic effects of anesthetics, opioids and relaxants (15 min) 18
- Discussion: 15 min

**B. Vasoactive drugs, (1 hour), December 9<sup>th</sup>**

**Mentor: J. Domazet, [jospa.domazet@gmail.com](mailto:jospa.domazet@gmail.com),**

- a) Inotrope drugs (15 min) 19,
  - b) Vasoconstrictors and Vasodilators. (15 min) 20
- Discussion: 15 min

**S9. Acute Coronary Syndrome (2 hours) December 10<sup>th</sup>**

**Mentor: L. Šarić, [lenko.saric@gmail.com](mailto:lenko.saric@gmail.com)**

- a) Ischemic Heart Disease; Definition, epidemiology, pathogenesis (30min) 21
  - b) ACS – diagnosis, clinical symptoms and signs, treatment (30 min) 22
- Discussion 30 min

**S10. Oxygen therapy (2 hours) December 11<sup>th</sup>**

**Mentor: N. Dropulic, [natasa.dropulic@inet.hr](mailto:natasa.dropulic@inet.hr)**

- a) Oxygen - the storage, transport and handling. Oxygen therapy - masks nasal catheters, Venturi masks (20 min) 23
  - b) Airway devices (oropharyngeal, supraglottic, endotracheal tubes) (20 min) 24
  - c) Percutaneous tracheotomy in the ICU (20 min) 25
- Discussion: 30 min