The Hebrew University of Jerusalem

Syllabus

ANESTHESIOLOGY - FIFTH YEAR - 96522

Last update 21-10-2021

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Medicine

Academic year: 0

Semester: Yearly

Teaching Languages: Hebrew

Campus: Ein Karem

Course/Module Coordinator: Dr Sheldon Stohl

Coordinator Email: sstohl@gmail.com

Coordinator Office Hours: Through email

Teaching Staff:

Dr. Sheldon Stohl,
Dr. Boaz Kallush,
Baruch Batzofin,
Penina Dienstag,
Dr. ido Vilchik,
Prof Yehuda Ginosar,
Galel Yakobi,
Yevgeni Plotkin,
Shimon Firman,
Joel Shapiro,
Eytan Gozal,
Shlomo Gensler,
Aviva Green,
Adir Ben Nahum,
Noor Dirini,
ariel berkowitz,
Shiran Levy,
Yair Reina,
Dr. Elyad Davidson,
Sophie Benamram,
David Ben Ari,
Daniel Shatalin,
Yaacov Gozal,
Orit Nahtomi Shik,
Dr. Gabriella Aschkenasy,
Prof Alexander Ioscovich,
Ms. Raa'd Jebrin,
Rivka Fuica,
Dmitry Greenman,
Dr. Phillip Levin,
Ariel Grass,
Yigal Helviz,
Miriam Ben Harosh Katz,
Dr. NIR Eshel A.,
Dr. einav sharon,
Mohammad Jaber

Course/Module description:

A theoretical overview and brief practical exposure to the practice of anesthesia, including its preoperative, intraoperative, and postoperative dimensions. Critical care will not be emphasized in this course. Students so interested may opt for an elective course in critical care during the sixth year.

Course/Module aims:

The student will become familiar with anatomy, physiology, pharmacology, assessment, monitoring, and management related to the the upper airway, spontaneous and mechanical respiration, cardiovascular hemodynamics, sedation, and pain.

<u>Learning outcomes - On successful completion of this module, students should be able to:</u>

• Recognize and treat central and obstructive apnea
• Prepare for and treat anticipated or unanticipated respiratory depression
• Identify upper airway anatomy and assess a patient's upper airway by physical exam
• Know the difficulty airway algorithm
• Set and adjust a mechanical ventilator
• Distinguish oxygenation from ventilation
• Know the differential diagnosis of and immediate response to each hypoxia and hypercarbia
• Know and apply criteria for extubation
• Recognize and treat bradycardia, tachycardia, hypotension, and hypertension
• Know the categories, signs, symptoms, and treatment of shock
• Know the properties of different vasoactive medications
• Assess hydration status in the anesthetized, unconscious, or critically ill patient
• Understand fluid management
• Interpret non-invasive and invasive cardiorespiratory monitors
• Interpret arterial blood gases
• Know the indications for intraoperative blood transfusion
• Know hypnotic, analgesic, and paralytic medications, including effects and side effects
• Assess and treat perioperative pain
• Manage intrapartum pain
• Understand the considerations relevant to transporting the anesthetized, unconscious, or critically ill patient
• Know indications for admission to and discharge from an intensive care unit
• Perform a focused preoperative evaluation of the surgical patient
• Appreciate the ramifications of pre-existing medical conditions for the anesthetized, unconscious, or critically ill patient

Additionally, students should be able to perform a short list of practical skills related to medication preparation and administration, airway equipment preparation and use, IV insertion, etc (checklist to be distributed at the beginning of each rotation)

<u>Attendance requirements(%):</u>

100%. All absences, late arrivals, and early departures must be coordinated in advance with the course supervisor. Retroactive exemptions will be made only in

the event of dire emergencies.

Teaching arrangement and method of instruction: In the mornings, students will be paired daily with anesthesiologists working in various clinical arenas. In the afternoons, classroom discussions will supplement the anatomy, physiology, and pharmacology to which students are exposed in the clinical setting.

Course/Module Content:
As above.

Classroom discussion topics include:

Components of anesthesia
Airway
Basic & advanced monitoring
Pharmacology
Neuromuscular blockade
Neuraxial and regional anesthesia
Anesthesia operating room setup
Obstetric anesthesia
Pain management
Introduction to intensive care
Respiratory physiology
Mechanical ventilation
Fluids and electrolytes
Blood products and transfusion
Shock
Sepsis
Vasoactive medications
Cardiopulmonary resuscitation
Trauma
Case discussions
Airway workshop
CPR workshop

Required Reading:
Suggested:
Sabiston 20th edition, chapters:
4 (shock, electrolytes, fluid)
10 (principles of preoperative and operative surgery)
14 (anesthesiology)
16 (acute trauma)
21 (critical care)

Additional Reading Material:

Morgan and Mikhail's "Clinical Anestheisology"

The text is clear, comprehensive, and easy to follow.

Course/Module evaluation:

End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 100 %
Project work 0 %
Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:

Attendance and participation are expected. Unexcused absence, late arrival, or early departure will be viewed not only as forfeiting an opportunity to learn the material compacted into this very brief course, but will be interpreted as wantonly disregarding and disrespecting the time and effort invested by those who work so hard to make this course possible.