

Azerbaijan Medical University
Academic Programme (Syllabus)
for “Anesthesiology, reanimatology
and intensive therapy”

«Accepted»

Anesthesiology və reanimatology
department chief prof. Ismayilov I.S.

signature: _____

29.09.2021

Subject code:

Subject type:

Academic semester:

Course:

Subject credit:

Education form of subject:

Education language of subject:

Subject educators:

obligate

IX – X

V course (GMF)

4 credit

Full-time

english

ass. Sadigova T.T.

Workload: Lecture - 14 hours, practical class - 46 hours, total 60 hours

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PREREQUISITES:

Subjects which should be previously learned to get into the mentioned subject education: Human anatomy, Normal physiology, Pathology, General surgery, Clinical pharmacology

CO-REQUISITES:

Unneeded subject to be educated concurrently with other subject.

COURSE DESCRIPTION:

Anesthesiology, reanimatology, intensive therapy is a science of analgesia, restoration, urgent replacement and management of lost or disturbed vital functions.

This science is newly founded but rapidly developed and helped another branches of clinical medicine (surgery, traumatology, oncology, cardiology, pulmonology etc.) to gain a success. So, on the behalf of effective and safe anesthesia complicated surgery will go easier and successfully. A serious progress was achieved in management of different types of pain syndrome. An intensive treatment in different diseases with high mortality rate gives a positive outcomes. With mentioned above points it is clear that anesthesiology, reanimatology and intensive intervention showed its special place and important role in medicine.

AIMS OF COURSE:

Education of Anesthesiology, reanimatology and intensive therapy should teach the future doctors to gain a knowledge about methods of anesthesia in surgery and different procedures, resuscitation of the body and management of vital functions, pain syndrome. The gradulators should be obtained

a special skills in anesthesia and the stages of resuscitation.

COURSE RESULTS:

At the end of the course of Anesthesiology, reanimatology and intensive therapy the students should be able to use different modern methods and principles of anesthesia, the knowledges about stages and mechanisms of terminal state and resuscitation skills in

practice. They have to gain knowledges and skills to make a right decision in different urgent situations.

Calendar thematic plan
on Anesthesiology, Resuscitation and Intensive Care
for V year students of medical faculty
(7 lectures – 14 hours)

№	Topic	Hours
1	Anesthesiology, resuscitation and intensive care as a science, its history and place in clinical medicine	2
2	Goals and objectives of the anesthetic management, its stages and modern methods	2
3	Inhalation and non-inhalation general anesthesia. Combined general anesthesia.	2
4	Regional anesthesia. Combined anesthesia.	2
5	Pain syndrome, methods of its management	2
6	Terminal state: clinical pathophysiology, stages. Transition of clinical death to biological. Decortication.	2
7	Cardiopulmonar resuscitation: principle and methods.	2

Thematic plan
on Anesthesiology, Resuscitation and Intensive Care
for V year students of medical faculty
(23 lessons – 46 hours)

Week	Lesson	Topic	Hours
I	1	Anesthesiology and intensive care units working principles and structure	2
	2	Equipping of the anesthetists workplace. The anesthesia machines	2
II	3	Reversible and non-reversible breathing circuits	2
	4	Breathing circuits for children. Complications prevention	2
III	5	Ventilators.	2
	6	Patients preparing for anesthesia. Premedication	2
IV	7	Inhalation anesthesia. Most popular anesthetics	2
	8	Mask or endotracheal anesthesia. Tracheal intubation	2
V	9	Non-inhalation anesthesia and anesthetics.	2
	10	Combined general anesthesia. Neuromuscular blocking agents: management and methods.	2
VI	11	Regional anesthesia. Local anesthetics	2
	12	Dermal and infiltrative anesthesia. Conduction anesthesia	2
VII	13	Spinal anesthesia, Epidural anesthesia, Kaudal anesthesia	2
	14	Combined anesthesia	2
VIII	15	Pain syndrome: assessment	2
	16	Management of pain syndrome: opioid and non-opioid analgesics	2
IX	17	Terminal state: stage assessment	2
	18	Clinical death diagnostics. Types of Heart arrest.	2
X	19	Transition of clinical death to biological: diagnostics. Assessment of decortication.	2
	20	Caediopulmonar resuscitation	2
XI	21	Drug management and defibrillation in clinical death	2
	22	Prevention of resuscitation complications. Intensive care in post-resuscitation stage	2

XII	23	Artificial hypothermia: indication, technics. Controlled hypotension: indication, technics.	2
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**Practical skills
in anesthesiology, resuscitation and intensive care
for students of V grade**

1. Airway restoration (jaw thrust maneuver)
2. Endotracheal intubation
3. Mechanical lung ventilation
4. Heart compression
5. Electrical defibrillation

**Topics for abstracts in Anesthesiology and reanimatology for 5th grade
students of medical faculty**

1. A science of anesthesiology and reanimatology
2. Equipment of the anesthesiologist working place
3. Organization and working principles of ICU
4. Monitoring: use in anesthesiology department and ICU
5. Respiration monitoring
6. Hemodynamics monitoring
7. Neurological monitoring
8. Modern anesthesia machines
9. Reversible and non-reversible breathing contours
10. Choose of pediatric breathing contours
11. Types of ventilators, principles of work
12. Pre-anesthesia patient evaluation
13. Preparation for anesthesia, premedication
14. Induction anesthesia
15. Inhalation anesthesia, advantages and disadvantages
16. Inhalation anesthetics
17. Noninvasive ventilation in anesthesia
18. Endotracheal (invasive) anesthesia
19. Technics of orotracheal intubation
20. Technics of nasotracheal intubation
21. Blind intubation
22. Non-inhalation anesthesia, advantages and disadvantages

23. Widely used non-inhalation anesthetics
24. Combined general anesthesia
25. Balanced general anesthesia
26. Muscle relaxants
27. Method of use of muscle relaxants
28. Principles of neuromuscular conduction restoration
29. Local anesthetics
30. Methods of local anesthesia
31. Surface anesthesia
32. Infiltrative anesthesia
33. Conduction anesthesia
34. Spinal anesthesia
35. Technics of spinal anesthesia
36. Epidural anesthesia: indications and contraindications
37. Technics of epidural anesthesia
38. Caudal anesthesia: indications and contraindications
39. Technics of caudal anesthesia
40. Combined anesthesia
41. Pain syndrome: classification
42. Pain syndrome assessment
43. Pain release: opioids
44. Side effects of opioids, use of antidotes
45. Pain release: non-opioids
46. Stages and diagnostics of terminal state
47. Clinical death: diagnostics criteria
48. Transition of clinical death to biological
49. Heart arrest: types and diagnostics
50. Main principles of CPR
51. Basic life support
52. Advance life support
53. Technics of open and closed heart massage
54. Resuscitation in ventricular fibrillation
55. Resuscitation in asystole
56. Resuscitation in electromechanical dissociation
57. Possible complications in CPR
58. Possible mistakes in CPR
59. Evaluation of resuscitation effectiveness
60. Post-resuscitation period, stages
61. Complications in post-resuscitation period
62. Management of post-resuscitation period
63. Diagnostic criteria of brain death
64. Hypothermia: indications, technics
65. Controlled hypotension, technics

ASSESSMENT:

The proper 100 Points collection for the subject should be provided as shown below:

50 points collected in department on preexamination stage:

10 points - participation

10 points - free work (history case and abstracts)

10 points – gained skills

20 points – assessment of theoretic knowledges

50 points – collected on exam

Testing has 50 questions. Every right answer is assessed as 1 points. Wrong answer will affect on a right answer by erasing it.

MARKS:

Minimum exam points are 17. In case of insufficient points on exam the pre-exam collected points will be erased. Exam and pre-exam points will be added and total score will be assessed as shown below.

“Excellent” (A) – 91-100

“Very good” (B) – 81-90

“Good” (D) – 71-80

“Satisfactory” (F) – 61-70

“Acceptable” (E) - 51-60

“Failed” (F) - 51 baldan aşağı

FREE WORK:

Free work consist of writing abstracts

REFERENCES:

1. Jean Louis Vincent et al. Text book of critical care, 7th edition, Elsevier, 2017
2. Ахунбейли А.А., Исмаилов И.С., Султанов А.С. Сердечно-легочно-мозговая реанимация при клинической смерти (учебно-методическое пособие). Баку 1995, 26 с.
3. İsmayılov İ.S. “Reanimasiya: prinsipləri, mərhələləri və metodları” – Dərs vəsaiti, Bakı, 2007, 174 с.
4. Paul L. Marino. The ICU book. 4th edition, Wolter Kluwer/Lippincott Williams and Wilkins 2014.
5. Анестезиология и реаниматология: учебник/Под.ред. О.А.Долиной- 2-е изд. перераб. и доп. – М.: ГЭОТАР-МЕД, 2002 - 552 с.: ил.-(серия «XXI век»)
6. Интенсивная терапия / В.Д.Мальшев, И.В.Веденина, Х.Т.Омаров и др.: Под ред. проф. В.Д.Мальшева. –М.: Медицина, 2002 – 584 с.:ил.
7. Endrew Webb et al, Oxford Textbook of Critical care, 2nd edition, Oxford University press, 2016.
8. John M. Ornello, Vladimir Kvetan, Stephen M. Pastores. Critical Care. LANGE, McGraw Hill Education, 2017

COURSE WORK:

Coursework for the subject is not considered

PRACTICE:

No free practice experience is considered

Tərtib etdilər: prof. İsmayılov İ.S.

dos. Kərimova T.B.

