

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:	obligate
Academic semester:	IX – X
Course:	V course (GMF)
Subject credit:	4 credit
Education form:	Full-time
Education language:	english
Subject educators:	ass. Khoshbonyani P.A.

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 easy and successfully. A serious progress was achieved in management of different types of pain syndromes. 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 anethesia in surgery and different procedures, resuscitation of the body and management of vital functions, pain syndrome. The graduators 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 intensive care for VI year students of medical faculty
(3 lectures – 6 hours)**

№	Topic	Hours
1	Acute respiratory failure: etiopathogenesis, clinical-laboratory diagnostics. Principles and methods of intensive care	2
2	Acute heart and circulatory failure: etiopathogenesis, clinical types. Main courses of intensive care.	2
3	Modern principles and methods of detoxication. Infusion therapy	2

**Thematic plan
on intensive care for VI year students of medical faculty
(6 lessons – 39 hours)**

№	Topic	Hours
1	Intensive care in acid-base, water-electrolyte and protein imbalances. Infusion and transfusion therapy.	7
2	Resuscitation and intensive care in Status Asthmaticus, Acute respiratory distress syndrome, strangulated asphyxia, convulsive syndrome, tetanus, botulism, drowning	7
3	Resuscitation and intensive care in acute coronary syndrome complications, acute heart failure, arrhythmias, hypertensive crisis, strokes	7
4	Intensive care in anaphylactic, traumatic, hemorrhagic and septic shock, electrical injury, hyperthermic and thrombo-hemorrhagic syndromes.	6

5	Intensive care in comas (hyperglycemic, hypoglycemic, cerebral, uremic, hepatic and etc.), acute renal, hepatic failure	6
6	Intensive care in acute poisoning (narcotics, barbiturates, carbon monoxide, acetic acid, phosphor organic commixtures). Modern methods of detoxication	6

**Practical skills
in anesthesiology, resuscitation and intensive care
for students of VI grade**

1. Oxygen support methods
2. Coniotomy (technics)
3. Tracheostomy (technics)
4. Supportive mechanical lung ventilation
5. Vein catheterization

**TOPICS
on Intensive Care for VI grade students**

1. Acid-base balance: mechanism and indicators
2. Respiratory acidosis: causes, diagnostics, correction
3. Respiratory alkalosis: causes, diagnostics, correction
4. Metabolic acidosis: causes, diagnostics, correction
5. Metabolic alkalosis: causes, diagnostics, correction
6. Disturbance of water-electrolytes balance
7. Transfusion therapy: indications, methods
8. Transfusion-infusion therapy in acute hemorrhage
9. Indications for blood components transfusion
10. Types of infusion therapy and methodology
11. Infusion solutions
12. Cristalloids: indications for use
13. Colloids: indications for use
14. Parenteral nutrition: types, indication for use
15. Oxygen carrier solutions
16. Status asthmaticus: etiology and clinical stages
17. Resuscitation and intensive care in Status Asthmaticus
18. Acute respiratory distress syndrome: etiology and clinics
19. Resuscitation and intensive care in Acute respiratory distress syndrome

20. Resuscitation and intensive care in strangulation asphyxia
21. Drowning: types, clinical signs
22. Drowning: resuscitation and intensive care
23. Resuscitation and intensive care in spontaneous pneumothorax
24. General principles of therapy in acute coronary syndrome
25. Intensive care in cardiogenic shock
26. Intensive care in acute left ventricular failure
27. Intensive care in acute right ventricular failure
28. Types and signs of hypertensive crisis
29. Differentiated therapy in hypertensive crisis
30. General principles of therapy in acute ischemic stroke
31. General principles of therapy in acute intracranial hemorrhage
32. Peri-arrest arrhythmias: types, diagnostics
33. Intensive care in peri-arrest arrhythmias
34. Anaphylactic shock: pathogenesis, clinics and intensive care
35. Traumatic shock: pathogenesis, clinics and intensive care
36. Hypovolemic shock: pathogenesis, clinics and intensive care
37. Resuscitation and intensive care in burn shock
38. Septic shock: pathogenesis, clinics and stages
39. Septic shock: resuscitation and intensive care
40. Intensive care in thrombohemorrhagic syndrome
41. Resuscitation and Intensive care in electric injury
42. Intensive care in hyperthermic syndrome
43. Intensive care in convulsive syndrome
44. Comas: concept, types
45. General principles of therapy in comas
46. Differential diagnostics in hyper- and hypoglycemic comas
47. Resuscitation and Intensive care in hyperglycemic coma
48. Resuscitation and Intensive care in hypoglycemic coma
49. Resuscitation and Intensive care in uremic coma
50. Resuscitation and Intensive care in hepatic coma
51. Resuscitation and Intensive care in cerebral coma
52. Resuscitation and Intensive care in acute kidney injury
53. Resuscitation and Intensive care in acute liver failure
54. Toxic nephropathy in exogenic poisoning
55. Toxic injury syndrome in exogenic poisoning
56. Carbon monoxide poisoning: etiopathology, clinical stages
57. Resuscitation and Intensive care in carbon monoxide poisoning
58. Vinegar essence poisoning: pathogenesis, stages of severity
59. Resuscitation and Intensive care in vinegar essence poisoning
60. Resuscitation and Intensive care in opioids and barbiturates poisoning
61. Resuscitation and Intensive care in organophosphorus compounds poisoning.
62. Plasmapheresis in exogenic poisoning
63. Antidot detoxication in poisonings
64. Types of detoxication methods
65. Indications for detoxication

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 is 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 aşığı

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.Малышев, И.В.Веденина, Х.Т.Омаров и др.: Под ред. проф. В.Д.Малышева. –М.: Медицина, 2002 – 584 с.:ил.
7. Andrew 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

Composed by: prof. İsmayılov İ.S.

doc. Kerimova T.B.