



## DISASTER MEDICINE EXAMINATION SYLLABUS

1. Characteristics of disasters: main concepts and classifications.
2. Organization of public protection in case of disasters.
3. Organizational structure and control of public protection in case of disasters.
4. Organization of medical measures in case of disasters. Problems and complications. Peculiarities in pathology in case of disaster.
5. Lack of correspondence between the necessity of medical help and the available possibilities. Organizational principles of the medical events in case of disasters.
6. Medical protection of the public in disasters.
7. Organization of emergency first aid in case of disasters. Importance and main points.
8. Preventive (hygienic / anti-epidemic) tasks in case of disasters. Institutions and formations for their realization.
9. Organization of emergency professional medical aid in disasters. Importance and main points.
10. Specialized medical aid during disasters with many casualties.
11. Specialized hospital aid during disasters with many casualties.
12. Model for rendering medical help in the region of the disaster in case of huge number sufferers - revealing of medical point.
13. Triage (medical sorting).
14. Organization of the evacuation of casualties to hospitals (so called medical evacuation). Organization of evacuation and transportation of the casualties.
15. Organization of medical aid after an earthquake.
16. First aid in hypothermia and frostbite - blizzards and avalanches.
17. First aid in case of floods.
18. First aid in case of fires.
19. First aid, triage and evacuation of casualties with head trauma.
20. First aid, triage and evacuation of casualties with thoracic trauma.
21. First aid, triage and evacuation of casualties with abdominal trauma.
22. First aid, triage and evacuation of casualties with trauma of the locomotory system.
23. Earthquakes. First aid for crush syndrome and traumatic amputations.
24. Organization of the blood supplying in case of many casualties.
25. Basic principles in the organization of supplying with medical and sanitary household property during disasters with many casualties.
26. Hygienic and anti-epidemic measures after natural disasters and use of biological weapons. Importance and main points.
27. Decontamination measures for bioweapon attacks.
28. Nuclear power plants (NPP) accidents: causes and classifications. Pollution of the surrounding environment with radioisotopes - radioactive plumes and fallout.
29. Assessment of the situation after NPP accidents. International classification of accidents in NPP.
30. Types of radioactive fallout. Migration of radioactive substances in the biosphere. Main radioactive products from NPP accidents.
31. Food and water contamination with radioisotopes. Main radioisotope contaminants.
32. Effect of ionizing radiation on the human body.
33. Mechanism of biological effect of the ionizing radiation.

34. Public exposure to natural background radiation. Increased irradiation from the natural sources of radiation caused by industry development.
35. Technogenic sources of ionizing radiation.
36. Radiation for medical purposes.
37. Types of ionizing rays and radiation.
38. Types of irradiation with ionizing radiation.
39. Dosimetry and radiometry - doses and units. Dosimetric methods and dosimetric apparatus.
40. Acute radiation illness - clinical forms and course.
41. Acute radiation illness - bone marrow form.
42. Acute radiation illness - prophylaxis, treatment, side-effects and complications.
43. Radiodermatitis after NPP accidents.
44. Effects of radiation on human body.
45. Late somatic and genetic effects.
46. Effects of ionizing radiation on pregnancy.
47. Changes in the body as a result of prolonged exposure to ionizing radiation. Chronical radiation illness.
48. Internal irradiation (incorporated radioisotopes) - toxicology of the radioactive isotopes. Incorporated radiation syndrome.
49. Combined radiation injuries.
50. Principles of public protection from ionizing radiation (before and after accidents).
51. Public protection after radioactive accidents.
52. Principles and methods for protection from external radiation.
53. Types of poisoning. Effect of toxic substances on the human body.
54. Mass poisoning with chemical substances. Means of entering the body. Industrial toxins.
55. General characteristics of poisoning with industrial and agricultural toxins. Focus of chemical contamination (FCC).
56. Indication and decontamination of industrial and other toxins.
57. Characteristics of acute poisoning with industrial respiratory toxins. Suffocating toxic substance - Chlorine - main clinical manifestations, prophylaxis, first aid.
58. Characteristics of acute poisoning with industrial respiratory toxins. Suffocating toxic substance - Ammonia - main clinical manifestations, prophylaxis, first aid.
59. Suffocating toxic substances causing pulmonary edema.
60. Characteristics of acute poisoning with general industrial toxins. Blood poison - Carbon monoxide - main clinical manifestations, prophylaxis, first aid.
61. Characteristics of acute poisoning with general industrial toxins. Blood poison - Cyanide - main clinical manifestations, prophylaxis, first aid.
62. Characteristics of acute poisoning with phosphorus-organic toxins - main clinical manifestations, prophylaxis, first aid.
63. Characteristics of poisoning with non-lethal toxins - toxins affecting large groups of people (e.g. Riot control gasses).
64. Chemical warfare. Main properties. Classifications.
65. Psychochemical warfare agents.
66. Psychological problems and behavioral changes after disaster.
67. Phytotoxins.
68. Bioweapons.
69. Uniform medical practice during intoxications with mass character.
70. Individual means of protection.
71. Collective means of protection.
72. Decontamination as a part of a radiological, chemical and biological protection.
73. Increasing the body resistance in stress.
74. Drugs and homeopathic remedies for stress control.
75. Planning of providing medical care during disaster.

## **Literature**

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