QUESTIONNAIRE ON DISASTER MEDICINE

1. An introduction to disaster medicine. Medical and medicoorganisational items. Classification of disasters.
2. Organization of medical care in disaster situation. The rescue chain. Aims of medical care. Tasks of disaster pre-hospital setting.
3. Organization of medical care in disaster situation. Severity of accidents. Capacity of medical services.
4. Organization of medical care in disaster situation. Ambulances and medical teams.
5. Organization of medical care in disaster situation. Triage. First aid. Transportation.
6. Nuclear radiation accidents. Basic characteristic of nuclear reactor. Main barriers to prevent the release of fission products.
7. Nuclear radiation accidents. Factors influencing on morbidity and mortality - routs of exposure, acute effects, chronic effects.
8. Nuclear radiation accidents. Protective action after nuclear accident - early-phase protective actions, intermediate-phase protective actions, injestion pathway.
9. Chemical disasters. Scope of the problem. Classification of the chemical disasters. Chemical disaster procedures.
10. Chemical disasters. Prevention and control measures.
11. General toxicology. Basic concepts. Routs of the entry of poisons.
12. General toxicology. Nature of the toxic effects. Classification of toxic agents.
13. Biotransformation of the xenobiotics. Phase I and Phase II reactions.
14. Principles of therapy of intoxications.
15. Antidotes. Principles of antidotal therapy. Classification of antidotes.
16. Toxicology of solvents. General characteristic of the solvents. Mechanism of action. General and specific effects.
17. Toxicology of Benzene.
18. Toxicology of chlorinated hydrocarbones - Dechloromethane, Cloroform, Carbon tetrachloride, Carbon disulfide.
19. Toxicology of Carbon monoxide. Sources and uses. Mechanism of action. Pathology.
20. Toxicology of Carbon monoxide. Clinicial presentation. Diagnosis. Treatment.
21. Toxicology of Carbon dioxide.
22. Toxicology of Cyanide. Sources and uses. Mechanism of action. Metabolism.
23. Toxicology of Cyanide. Clinicial presentation. Diagnosis. Treatment.
24. Toxicology of Phosgene.
25. Toxicology of Chlorine.

26. Toxicology of Ammonia.
27. Toxicology of Nitrogene oxides.
28. Modern riot control compounds.
29. Toxicology of anticholinesterase pesticides. Organophosphorus esters and carbamate esters. Toxicokinetics. Mechanism of toxic action. Biotransformation. Pathomorphology.
30. Toxicology of Anticholinesterase pesticides - signs and symptoms of acute poisonings. Delayed neurotoxcity. Carbamate pesticides.
31. Toxicology of Anticholinesterase pesticides. Diagnosis. Treatment.
32. Physics of radiaton biology. Characteristic of the ionizing radiation. Natural radiation background.
33. Dosimetry - basic concepts. Radioactive isotopes.
34. Biological effects of ionizing radiation. Target theory. Indirect theory.
35. Biological effects of ionizing radiation. Modern concepts of radiation injury.
36. Influence of radiation on molecular level.
37. Radiation effects on cellular level. Fate of irradiated cells.
38. Effects of radation on normal tissues. Haemopoitic system. Circulating blood.
39. Effects of radation on normal tissues - skin, digestive system, reproductive system, eye, central nervous system.
40. Total body radiation syndrome - prodromal, latent and manifest illness stage.
41. Bone-marrow syndrome.
42. Gastrointestinal syndrome and central nervous system syndrome.
43. Treatment of acute radiation syndrome. Chemical agents. Biological agents.
44. Radioprotectors.
45. Radiodermatitis.
46. Radiotoxicology. Radiobiological characteristics of iodine-131, cesium-137 and stroncium-90.
47. Late effects of radiation. Carcinogenesis.
48. Late effects of radiation. Genetic effects.
49. Radiation damage of the fetus.

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Sources:

1. Ellenhorn’s Medical Toxicology, second edition, Williams & Wilkins, 1997.

2. Prasad K, Handbook of Radiobiology, second edition, CRC Press, 1995.
3. Handbook of Disaster Medicine, J. de Boer, M. Dubouloz, Hentenaar Boek BK, Nieuwegein, the Netherlands, 2000.
4. Medicine en situation de catastrophe, L.J.Courbil et P, Shevalier, Masson Paris, Milan, Barcelone, Bonn, 1992
5. The Public Health Consequences of Disasters, Ed. by Eric K. Noji, Oxford University Press, 1997.