

Exercise № 1

CARDIOPULMONARY RESUSCITATION

1. Definition.
2. ATLS and ACLS guidelines.
3. Techniques of artificial respiration:
 - a) mouth to mouth
 - b) mouth to nose
4. External cardiac massage.
5. ATLS guidelines

Practical work:

1. Demonstration of artificial respiration and external cardiac massage on a mannequin.

Exercise № 2

ANTIDOTES. MECHANISM OF ACTION.

1. Classification.
2. Mechanism of action
3. Major systemic antidotes
4. Related antidotal mechanisms

Practical work:

1. Discussion of well-known drugs

Exercise № 3

Toxic effects of anticholinesterase pesticides. Toxic effects of carbon monoxide and cyanide. Differential diagnosis.

1. Mechanism of action.
2. Signs and symptoms of poisonings.
3. Diagnosis and Differential diagnosis.

4. Treatment of poisonings.
5. Practical work:
 - a) Qualitative determination of Cyanide

Exersice № 4

Pulmonary edema-inducing compounds. Toxicology of solvents.

1. Mechanism of action.
2. Signs and symptoms of poisonings.
3. Diagnosis and Differential diagnosis.
4. Treatment of poisonings.
5. Differential diagnosis of coma due to exogenous intoxications.

Exersice № 5

Colloquium on Toxicology. Nuclear radiation incidents.

1. Colloquium (test and oral examination)
2. Prognosis and assessment of radioactive situation as a result of nuclear incident (nomograms).

Exersice № 6

TOTAL BODY RADIATION SYNDROMES

1. Bone Marrow Syndrome
 - a) I Model (radiation purpura) – description
2. Gastrointestinal Syndrome
 - a) II Model - radiomucositis (oral mucosa) - description
 - b) III Model - intestinal mucosa - description
3. Central Nervous System Syndrome
 - a) Histopathological changes

4. Radiation Dermatitis

5. Treatment of acute radiation syndromes

Exersice № 7

LATE EFFECTS OF IONIZING RADIATION. TEST RADIOBIOLOGY.

1. Somatic effects:

2. Genetic effects:

Practical work:

a) Measurement of Effective dose Equivalent (EDE) and cancer risk.

b) Pictures of chromosomal aberrations.

3. Test in Radiobiology