

RADIATION MEDICINE

Guidelines for the 2nd year students (Faculty for International Students)

LESSON № 6: RADIOSENSITIVITY

THE AIM: to get acquainted with the data on the radiosensitivity of the organ and tissue;
to study individual and age differences of radiosensitivity;
to master the main factors that determine the radiosensitivity of the organization of the human body;
to perform laboratory work.

DURATION: 3.0 hours.

PLACE: student's workshop.

EQUIPMENT: methodical grant, tables, PowerPoint presentation, tasks according to the topic.

Required theoretical knowledge

1. The molecular basis of radiosensitivity. The factors that determine the radiosensitivity at the cellular and tissue levels.
2. The Bergonie-Tribondo rule. The factors that determine the radiosensitivity at the organ, organism and population levels.
3. Individual and age differences of radiosensitivity. The effect of radiation on the embryo and fetus.
4. Modification of radiosensitivity.

Laboratory (individual) work of students

1. To master the principles of operation of the detector setup РЗБ-05 to control contamination in surfaces of the arms, legs, body and clothing of human beta-active radionuclides.

Literature

Basic:

1. Radiation medicine : учебное пособие для иностранных студентов учреждений высшего образования : допущено Министерством образования Республики Беларусь / А.Н. Стожаров [и др.]; под ред. А.Н. Стожарова. – Минск: Новое знание, 2020. – 203 с.

Additional:

1. Мойсеёнок, Е.А. Лекции по радиационной медицине (в таблицах) = Lectures on Radiation Medicine (in tables): пособие для студентов факультета иностранных учащихся (на английском языке) [изд. на CD-дисках] / Мойсеёнок Е.А. – Электрон. текст. дан. и прогр. (объем 29 Мб). – Гродно: ГрГМУ, 2012. – 1 электрон. опт. диск (CD-ROM).

2. Radiation and Ecological Medicine: Electronic Educational and Methodological Complex. Access: <http://edu.grsmu.by/course/view.php?id=99>