

### List of questions for self-preparation in the discipline "methodology of evidence-based medicine", 4th year

Methods of conducting the test in the discipline "Methodology of evidence-based medicine", 4th year

*After the end of the classroom classes provided by the curriculum, a differential test is conducted, to which students who have no academic debt and have scored at least 72 points for current performance (current performance 72-120 points) are allowed.*

**Current control** is carried out at each practical lesson in accordance with the specific objectives of the topic and contains standardized forms of control of theoretical training and control of professional skills. Current control includes assessment of the level of knowledge (testing conducted online (in self-preparation), oral or written express survey, test control using test tasks).

*The form of the final module control of the discipline includes control of theoretical training (using standardized and test tasks) and an interview with the teacher.*

*The structure of the final module control:*

*1 Test computer control - maximum score 20 points.*

*2 Interview with the teacher - answer to theoretical questions - 60 points.*

### **List of questions for self-preparation:**

- *Definition of evidence-based medicine.*
- *Clinical epidemiology as one of the areas of evidence-based medicine: definition, history of development, basic principles and research methods.*
- *What are the levels of evidence?*
- *Areas of application of evidence-based medicine.*
- *List the types of clinical trial design.*
- *Evaluation of the effectiveness of drugs based on the results of randomized clinical trials.*
- *Systematic review: definition, purpose, structure, stages of conduct, conclusions and use of results in clinical practice.*
- *Interrelation and practical application of clinical epidemiology and statistics in evidence-based medicine.*

- *Cochrane Collaboration: mission and goals, structure.*
- *Methodology for searching trials for Cochrane systematic reviews.*
- *Cochrane Central Register of Controlled Trials.*
- *The main electronic information resources recommended for obtaining reliable medical information.*
- *Using the technique of keywords and concepts, correction of medical information request.*
- *Classification of scientific research.*
- *Design of clinical trials.*
- *Optimal types of solutions for a specific clinical question.*
- *Differences between descriptive and analytical studies.*
- *Cohort studies, options, advantages and disadvantages.*
- *Case-control studies, advantages and disadvantages.*
- *What is the design of a clinical trial.*

- *Design of randomized controlled trials (RCT).*
- *Types and procedure of randomization.*
- *The purpose of creating clinical guidelines.*
- *List the known databases of clinical guidelines.*
- *Development and use of clinical guidelines, protocols, standards in insurance medicine.*
- *Advantages of clinical guidelines in the work of a doctor.*
- *The use of evidence-based medicine in the planning of preventive measures.*
- *The role of clinical guidelines in the implementation of research results in clinical practice.*
- *The process of creating clinical guidelines. The role of Cochrane evidence.*
- *Quality assessment of clinical guidelines.*
- *Evidence-based medicine in the prevention of chronic non-communicable diseases.*

- *Examples of the use of drugs and research methods with unproven effectiveness.*
- *The concept of quality assessment. The role of clinical guidelines and evidence-based medicine in terms of evidence-based medicine.*
- *Methods of assessing the comparative effectiveness of medicines.*
- *The concept of treatment outcomes. Types of outcomes evaluated.*
- *Health outcomes (benefits, efficacy, adverse drug reactions and use of resources, including medicines, laboratory tests, hospital beds or medical interventions).*
- *The concept of endpoints, the concept of surrogate endpoints. Their difference.*
- *What is the ratio of risks or relative risk (related risk (RR). Meaning in clinical trials.*
- *Comparative studies of efficacy and safety of medicines.*
- *Sufficiency of placebo-controlled studies for decision-making in clinical practice.*
- *International standards GLP, GCP, GSP.*
- *Definition of "diagnostic test" and "screening test".*

- *Validity, sensitivity, specificity, reproducibility of tests.*
- *Types of screening. Requirements for conducting screening programs.*
- *Experimental clinical trials as a method of evaluating the effectiveness and safety of prophylactic and medicinal products.*
- *Features of the organization and conduct of experimental studies. Criteria for inclusion and exclusion of participants in the experimental trial. Planning the number of participants. Placebo. "Blinding" of the experiment.*
- *Features of different types of epidemiological experiments. Factorial structure of the experiment.*
- *Informed consent of patients in clinical trials and medical practice.*

### List of professional skills

- *Be able to formulate a clinical question (problem) using the PICO principle;*
- *Search and evaluate evidence from various sources;*
- *Work in a search engine using filters;*

- *Analyze and critically evaluate medical articles;*
- *Plan clinical trials.*
- *Rationally apply natural therapeutic factors, drug, non-drug therapy based on the principles of evidence.*
- *Analyze the results of CI using statistical methods, reasonably apply them in their own practice*
- *Plan and conduct an audit of the effectiveness of medical care*