



INTERNATIONAL EUROPEAN UNIVERSITY
EDUCATIONAL AND SCIENTIFIC INSTITUTE
"EUROPEAN MEDICAL SCHOOL"
DEPARTMENT
OF MEDICAL AND PREVENTIVE DISCIPLINES

The list of theoretical questions for the final control
FOR 3RD YEAR STUDENTS, VI SEMESTER
SPECIALTY 222 "MEDICINE"

DISCIPLINE

Social medicine, organization and economics of health care

Section 1 "BIOSTATISTICS"

1. Social medicine and public health as a science: Tasks and methods.
2. Evidence-based medicine. History of development. Hierarchy of evidence of clinical trials.
3. Organization of Cochrane cooperation.
4. The subject and objectives of medical statistics. Descriptive and analytical statistics.
5. Biostatistics as a science.
6. Design of clinical and epidemiological studies.
7. The concept of the null hypothesis in statistics.
8. Testing of the statistical hypothesis. Errors of the first and second type.
9. Empirical and experimental epidemiological studies. The "gold standard" of research.
10. Case-control study, cohort study.
11. Theory and concept of statistical observation, stages of its implementation.
12. Sources of statistical information.
13. Data types. The concept of measurement scales.
14. Statistical tables, their characteristics, types, rules of construction.
15. Selective observation as a source of statistical information.
16. Types of statistical observation according to time and completeness of accounting.
17. Methods of collecting statistical material.
18. Types of statistical values.
19. Relative values, types and purpose of application.
20. Graphic methods of data analysis. Types of diagrams, rules for their construction.
21. Average values in clinical and epidemiological studies, their types, practical significance, calculation methods.
22. The concept of variation, its meaning.
23. Types of distribution.
24. Variability of population parameters, estimation methods.
25. The rule of three sigma.
26. Evaluation of the probability of research results.
27. Parametric criterion for assessing the probability of the Student.
28. Confidence limits, the actual value of the indicator within the general population
29. Substantiation of cases of using nonparametric methods of probability assessment. The concept of connected and independent sets.
30. Nonparametric methods for estimating the probability of difference in results.
31. Methods of application of the Criterion of signs
32. Methods of application of the method of Kolmagorov-Smirnov
33. Methods of application of the Chi-quart criterion
34. Methods of applying of the Mann-Whitney test.
35. Methods of applying of the method of Kruskal-Wallis,

36. Methods of application of the paired Wilcoxon test.
37. Methods of application of ANOVA
38. Functional and correlation connection. Types of correlation coefficients and their analysis.
39. Regression analysis, regression coefficient, regression equation.
40. ROC-curve: choice of method, interpretation of results.
41. Methods of standardization, stages of the direct method of standardization.
42. Basic rules of construction and analysis of time series. Methods of time series alignment, the concept of extrapolation and interpolation.
43. The concept of risk in epidemiological studies.
44. The main risk factors affecting health.
45. Risk indicators, calculation and evaluation methods.
46. Odds ratio, calculation and evaluation methods.
47. Screening. The main characteristics of screening tests.
48. Specificity and sensitivity of the screening test.
49. Requirements for the formation of "clinical issue".
50. The concept of systematic reviews and meta-analysis.
51. Organization of the service of medical statistics in Ukraine.
52. Electronic databases.
53. Electronic document management.
54. Tasks of the information-analytical department of the health care institution.
55. The concept of accounting and reporting documentation.
56. Types of scientific works.
57. The order of presentation of scientific works: registration, publication, speech, presentation.
58. Scientometrics and scientometric databases.

Discussed and approved at the meeting of the department of
MEDICAL AND PREVENTIVE DISCIPLINES
protocol № 1 from "25" 08 2021

Head of the department, Doctor of Biological Sciences, Associate Professor

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