

## CONTROL AND MEASURING DEVICES

### Questions of the border control program 2

**Discipline:** Public health and the foundations of evidence-based medicine

**Discipline code:** PHFEBM 3219

**Name and code of the OP:** 6B10115 "Medicine"

6B10116 "Pediatrics"

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## Program Questions for Midterm Control №2

1. What is public health?
2. What are the main concepts used in public health that you know?
3. What are the main definitions used in public health that you know?
4. What methods of assessing the health status of the population do you know?
5. What methods can you suggest to improve the health status of the population?
6. What criteria for assessing health status do you know?
7. How do you understand the definition of medical statistics?
8. What relative indicators do you know?
9. By what methods are average values determined?
10. What sources of information about health indicators do you know?
11. What does the science of demography study?
12. What demographic indicators do you know?
13. What demographic approaches to measuring health do you know?
14. What medical and social aspects of demography do you know?
15. What is the morbidity of the population?
16. How does morbidity differ from prevalence?
17. How do you understand the analysis and assessment of morbidity indicators?
18. Which diseases are considered non-communicable?
19. What is the prevalence of non-communicable diseases?
20. What risk factors for non-communicable diseases do you know?
21. Which diseases are considered infectious?
22. What is the prevalence of infectious diseases?
23. What risk factors for infectious diseases do you know?
24. What types of prevention do you know?
25. What are the features of primary prevention?
26. What are the features of secondary prevention?
27. What health promotion programs do you know?
28. What is your understanding of a healthy lifestyle (HLS)?
29. What principles of forming a healthy lifestyle do you know?
30. What is the role of medical personnel in promoting a healthy lifestyle?
31. What are the features of organizing a service for promoting a healthy lifestyle?
32. What methods of promoting a healthy lifestyle do you know?
33. What is the state policy in the field of health care?
34. What models of health care systems do you know?
35. What are the features of organizing health care?
36. What are the features of legislative regulation in the field of health care?
37. What are the main legislative acts in health care?
38. What are the features of economic relations in the health care system?
39. What methods of financing the health care system do you know?
40. What are the features of managing the health care system?
41. What are the features of managing health care services?
42. How do you understand the international aspects of public health protection?
43. What is the WHO (World Health Organization)?
44. What is the focus of WHO's work?
45. How do you understand the term "public health"?
46. What are the differences between the concepts of individual and public health?
47. By what methods is the health of the population measured?
48. What methods of studying public health can you name?
49. What is the purpose of studying population morbidity?
50. What are the functions of medical statistics in the development of health care?



## **Evidence-Based Medicine**

### **Program Questions for Interim Control №2**

1. What is the definition of a clinical guideline?
2. What are the advantages and disadvantages of clinical guidelines?
3. What role do clinical guidelines play in the activities of nursing and mid-level medical personnel?
4. Which databases for publishing scientific research do you know?
5. What are the rules for publishing scientific research results?
6. How should the title and objective of a scientific study be properly formulated?
7. Which evidence-based medicine centers in Kazakhstan do you know?
8. Which evidence-based medicine centers in the world can you name?
9. What types of data can you name?
10. How should data be prepared for statistical analysis?
11. What methods of statistical analysis do you know?
12. Where is the STATISTICA application program used?
13. What is a meta-analysis?
14. What are the modern requirements for describing the procedures and results of statistical analysis of biomedical data in publications?
15. What is the analysis of the relationship (correlation, association) between two variables?
16. How is statistical processing of medical information performed?
17. What medical methods of writing a scientific article do you know?
18. How is the obtained final information implemented into clinical practice?
19. What methods of writing medical articles do you know?
20. How can the obtained information be implemented into clinical practice?
21. How is the fourth stage in Evidence-Based Medicine conducted?
22. How is the fifth stage in Evidence-Based Medicine conducted?
23. How are the obtained data applied in practice?
24. What is the essence of the fourth stage of Evidence-Based Medicine?
25. What is the essence of the fifth stage of Evidence-Based Medicine?
26. How is the implementation of the results of clinical trials in the pharmaceutical field carried out in practice?
27. What methods for evaluating the results of implementing clinical trials into practice are used in Evidence-Based Medicine?
28. How is clinical audit planning carried out?
29. How is a clinical audit conducted?
30. How is error analysis performed?
31. What is the purpose of conducting a clinical audit?
32. How is a clinical audit performed?
33. Who are the members of the committee conducting a clinical audit?
34. What types of errors can you list?
35. How do you understand the term "clinical guidelines"?
36. Is there a need for clinical recommendations?
37. What types of clinical studies do you know?
38. What are the main principles of pharmacokinetics?
39. What documents regulate research involving humans and/or animals?
40. How can the effectiveness of a new drug be proven?
41. What influence do different types of clinical trials have on the overall research outcome?
42. What is the algorithm for conducting clinical trials of new drugs?
43. What role do pharmacokinetic and pharmacodynamic processes play in the testing of new drugs for various diseases?
44. What requirements must be met for the registration of a new medicinal product?
45. How is a new drug introduced into clinical practice for the treatment of a disease?

46. What is a clinical study?
47. What is the basis for conducting a clinical study?
48. What are the features of scientific research that you know?
49. What are the basic rights of patients during clinical trials?
50. Which specialists conduct ethical expertise?
51. What are the features of conducting an ethical review?
52. What is an ethical review (ethical expertise)?
53. What is the purpose of conducting an ethical review?
54. What are the objectives of conducting an ethical review?
55. What is the difference between clinical and clinical-pharmacological recommendations in disease treatment?
56. What are the principles for selecting drugs and determining their dosage regimens?
57. How does the knowledge of the hierarchy of levels of evidence affect drug selection?
58. Where can one see the practical application of clinical-pharmacological approaches to the selection and prescription of drugs? Give examples.
59. How do you understand "evidence-based prevention"?
60. What types of screening programs do you know?
61. What problems occur during the implementation of screening program results?
62. What is the use of screening programs?
63. What is the relationship between screening programs and evidence-based prevention?
64. Name the marketing factors that influence evidence-based medicine.
65. Are marketing and evidence-based medicine compatible concepts?
66. Are there any shortcomings in the application of the principles of evidence-based medicine?
67. Name the marketing factors that influence evidence-based medicine.
68. Are marketing and evidence-based medicine compatible concepts?
69. Are there any shortcomings in the application of the principles of evidence-based medicine?
70. How do you understand the concept of "evidence for decision-making in public health"?
71. What is the role of the healthcare organizer?
72. What are the prospects for using evidence-based medicine by healthcare organizers?
73. What is evidence-based public health?
74. How are the methods of Evidence-Based Medicine applied by healthcare organizers?
75. What stages of reorganization of the healthcare management system do you know?
76. Why is it necessary to improve the level of primary health care (PHC)?
77. Why is it necessary to strengthen the material and technical base of healthcare?
78. What forms and methods of work planning in Sanitary and Epidemiological Surveillance Departments do you know?
79. What is the sanitary and epidemiological well-being of the population?
80. What Evidence-Based Medicine centers do you know in our country?
81. What Evidence-Based Medicine centers in the CIS countries do you know?
82. What specialists are members of the society of Evidence-Based Medicine experts?
83. What is the definition of Evidence-Based Medicine?
84. How did Evidence-Based Medicine develop in Kazakhstan?

## PUBLIC HEALTH Midterm Examination – 2

### Version 1

1. What is the main strategy aimed at strengthening public health?
  - a) Only treatment of diseases
  - b) Improvement of social determinants
  - c) Only medical services
  - d) Personal care
  - e) Financial support
2. Which of the following is an example of primary prevention?



- a) Screening tests
- b) Early diagnosis
- c) Vaccination
- d) Rehabilitation
- e) Health insurance
3. The goal of secondary prevention:
  - a) Prevention of disease
  - b) Early detection of disease
  - c) Prevention of complications
  - d) Post-traumatic rehabilitation
  - e) Health promotion
4. Tertiary prevention includes:
  - a) Vaccination
  - b) Screening
  - c) Medical rehabilitation
  - d) Healthy lifestyle
  - e) Health care reform
5. The main goal of screening programs:
  - a) Health promotion
  - b) Prevention of infection spread
  - c) Early detection of disease
  - d) Financial support
  - e) Safety measures
6. The main principle of a healthy lifestyle:
  - a) Social isolation
  - b) Regular physical activity
  - c) Only nutrition
  - d) Only rest
  - e) Financial stability
7. The main feature of health promotion:
  - a) Focus on treatment measures
  - b) Improvement of social and public conditions
  - c) Treatment with medication only
  - d) Introduction of health insurance
  - e) Increase in funding
8. Advantage of Big Data:
  - a) Manual data processing
  - b) Lack of information
  - c) Accurate data analysis
  - d) Outdated information
  - e) Lack of new data
9. The main disadvantage of Big Data:
  - a) Fast analysis
  - b) Data security issues
  - c) Availability of information
  - d) Integration with new technologies
  - e) Data storage
10. Advantage of telemedicine:
  - a) Requires expensive equipment
  - b) Inaccessibility
  - c) Providing remote medical care
  - d) No contact with doctor
  - e) Lack of data
11. The concept of E-health includes:
  - a) Electronic health care system
  - b) Only paper documents

- c) Only pharmacy services
- d) Private health insurance
- e) Population census
- 12. The role of new media in health care:
  - a) Concealing information
  - b) Reducing services
  - c) Rapid dissemination of information to the public
  - d) Deterioration of health
  - e) No relation
- 13. The main function of WHO:
  - a) Management of private clinics
  - b) Only drug production
  - c) Establishing global health standards
  - d) Developing tourism
  - e) Only funding
- 14. The HIV/AIDS control program is implemented at what level?
  - a) Individual
  - b) Regional
  - c) Global
  - d) Local
  - e) National
- 15. The consequence of the COVID-19 pandemic:
  - a) No impact on social conditions
  - b) Stoppage of urbanization
  - c) Increased pressure on health systems
  - d) Decrease in morbidity
  - e) Reduction in migration
- 16. Habit considered a risk factor:
  - a) Eating fruits and vegetables
  - b) Physical activity
  - c) Smoking
  - d) Environmental protection
  - e) Proper sleep
- 17. Effect of alcohol:
  - a) No effect on health
  - b) Increases chronic diseases
  - c) Reduces morbidity
  - d) Extends lifespan
  - e) Destroys infections
- 18. Possible consequences of urbanization:
  - a) Clean air
  - b) Environmental pollution
  - c) Decrease in population migration
  - d) Improved health
  - e) Decrease in morbidity
- 19. Impact of migration on health:
  - a) Health stabilizes
  - b) Risk decreases
  - c) Spread of new diseases
  - d) Absence of social problems
  - e) Only positive impact
- 20. The task of management in public health:
  - a) Conducting population census



- b) Improving and monitoring health
- c) Concealing finances
- d) Strengthening the administrative system
- e) Building hospitals only
- 21. Example of a financing model:
  - a) Compulsory social health insurance
  - b) Population census
  - c) Construction of a new hospital
  - d) Support for tourism
  - e) Development of social networks
- 22. The role of a leader:
  - a) Not related to health
  - b) Only allocation of funds
  - c) Introduction of new ideas
  - d) Development of social media
  - e) Only administrative management
- 23. The purpose of personnel policy:
  - a) Regulate the economy
  - b) Create new laws
  - c) Solve the shortage of doctors
  - d) Develop international relations only
  - e) Reduce taxes
- 24. Example of a method for studying risk factors:
  - a) Screening
  - b) Personal interview
  - c) Financial report
  - d) Organizational structure
  - e) Legal reform
- 25. Factor affecting children's health:
  - a) Poor nutrition
  - b) Higher education
  - c) Level of salary
  - d) Number of vehicles
  - e) Size of housing

## PUBLIC HEALTH Midterm Examination – 2

### Version 2

1. The main goal of the WHO “Health for All in the 21st Century” strategy:
  - a) Reducing life expectancy
  - b) Increasing global medical expenses
  - c) Accessible health care for all people
  - d) Focusing only on disease treatment
  - e) A strategy only for developed countries
2. Example of primary prevention:
  - a) Early detection of heart disease
  - b) Post-tuberculosis rehabilitation
  - c) Vaccination
  - d) Prevention of recurrent heart attack
  - e) Post-stroke rehabilitation
3. The main goal of a screening program:
  - a) Distribution of medicines to the population



- b) Early detection of diseases
- c) Control of only infectious diseases
- d) Financing hospitals
- e) Organizing individual treatment
- 4. Advantage of Big Data:
  - a) Slows down data processing
  - b) Allows real-time analysis
  - c) Reduces medical documentation
  - d) Lowers drug prices
  - e) Decreases health care quality
- 5. The main advantage of telemedicine:
  - a) Providing access to medical care in remote areas
  - b) Full replacement of the doctor
  - c) Use only in hospitals
  - d) Designed only for elderly people
  - e) Reduction of funding
- 6. The concept of "E-health" means:
  - a) Electronic health care system
  - b) International tourism
  - c) Social networks
  - d) Medicine trade
  - e) Number of patients in clinics
- 7. The impact of alcohol consumption on public health:
  - a) Increases infectious diseases
  - b) Increases the risk of chronic diseases
  - c) Causes air pollution
  - d) Promotes public transport development
  - e) Permanently strengthens immunity
- 8. One of the methods for studying risk factors:
  - a) Clinical diagnosis
  - b) Conducting a survey (questionnaire)
  - c) Surgical operation
  - d) Drug therapy
  - e) Rehabilitation
- 9. A factor that is not part of a healthy lifestyle:
  - a) Proper nutrition
  - b) Physical activity
  - c) Smoking
  - d) Mental stability
  - e) Observance of hygiene
- 10. Example of tertiary prevention:
  - a) Early detection of cancer
  - b) Prevention of diabetes
  - c) Post-stroke rehabilitation
  - d) Vaccination
  - e) Screening
- 11. One method of health care financing:
  - a) International tourism
  - b) Taxes and insurance contributions
  - c) Only private donations
  - d) Only volunteer assistance
  - e) Trade system
- 12. A WHO program direction:

- a) Earthquake prediction
- b) Combating the HIV/AIDS epidemic
- c) Car production
- d) Political reforms
- e) Tourism development
- 13. The effect of urbanization on health:
  - a) Increases the risk of spreading infectious diseases
  - b) Reduces mortality
  - c) Increases natural population movement
  - d) Eliminates risk factors
  - e) Strengthens immunity
- 14. Methods of improving population health:
  - a) Screening programs, vaccination
  - b) Industrial development
  - c) Expansion of transportation
  - d) Tourism support
  - e) Only building hospitals
- 15. The main global issue during the COVID-19 pandemic:
  - a) Economic crisis and health risks
  - b) Construction of new schools
  - c) Development of transport infrastructure
  - d) Decrease in natural disasters
  - e) Elimination of corruption
- 16. A feature of leadership in public health:
  - a) Managing a medical organization and influencing society
  - b) Performing only financial reporting
  - c) Acting only as a physician
  - d) Examining only patients
  - e) Leading a political party
- 17. Example of screening:
  - a) Early detection of breast cancer through mammography
  - b) Treating tuberculosis patients
  - c) Performing surgery
  - d) Drug therapy
  - e) Post-stroke rehabilitation
- 18. According to the 1948 WHO Constitution, health is:
  - a) Absence of disease and weakness
  - b) A state of complete physical, mental, and social well-being
  - c) Only physical strength
  - d) Adaptation to society
  - e) Resistance to disease
- 19. Advantage of information technology in public health:
  - a) Fast data collection and analysis
  - b) Increase of paper documents
  - c) Growth of medical errors
  - d) Decrease of public awareness
  - e) Increase in financial costs
- 20. Not related to vaccine prevention:
  - a) BCG vaccine
  - b) Polio vaccine
  - c) Measles vaccine
  - d) Heart screening



e) Flu vaccine

21. A modern issue of health care in Kazakhstan:

- a) Population aging
- b) Agricultural development
- c) Car manufacturing
- d) Space exploration
- e) Tourism expansion

22. Example of secondary prevention:

- a) Promoting a healthy lifestyle
- b) Early detection of diseases
- c) Post-stroke rehabilitation
- d) Vaccination
- e) Improving population nutrition

23. Not a model of health care management:

- a) Centralized management
- b) Decentralized management
- c) Mixed model
- d) Volunteer-only model
- e) Insurance model

24. Example of risky behavior:

- a) Smoking
- b) Doing sports
- c) Proper nutrition
- d) Following sleep schedule
- e) Leading a healthy lifestyle

25. A quality not related to leadership in public health:

- a) Communicativeness
- b) Strategic thinking
- c) Responsibility
- d) Honesty
- e) Seeking financial gain

## PUBLIC HEALTH Midterm Examination – 2

### Version 3

1. The main principle of the health care system:

- a) Fairness and accessibility
- b) Relying only on the private sector
- c) Reducing funding
- d) Assistance only to city residents
- e) Preference for taxpayers

2. Not a risk factor:

- a) Smoking
- b) Alcohol consumption
- c) Proper nutrition
- d) Physical inactivity
- e) Overweight

3. The goal of secondary prevention:

- a) Early detection of diseases
- b) Reducing the consequences of diseases

- c) Strengthening public health
- d) Promoting a healthy lifestyle
- e) Treating new diseases
4. "Telemedicine" means:
  - a) Online education
  - b) Providing medical care remotely
  - c) Vaccinating the population
  - d) Health supplements
  - e) Health clubs
5. Example of tertiary prevention:
  - a) Diagnostic screening
  - b) Vaccination
  - c) Rehabilitation after myocardial infarction
  - d) Prevention of overweight
  - e) Promoting a healthy lifestyle
6. The main factor affecting population health:
  - a) Socio-economic conditions
  - b) Sports competitions
  - c) Tourism
  - d) Space research
  - e) Automobile production
7. A disease that belongs to global health problems:
  - a) COVID-19
  - b) ARVI
  - c) Common cold
  - d) Migraine
  - e) Toothache
8. Advantage of E-health:
  - a) Integration of health data
  - b) Sale of medicines only
  - c) Increasing financial profit
  - d) Reducing hospitals
  - e) Political stability
9. Disadvantage of Big Data:
  - a) Excessive amount of data
  - b) Fast analysis capability
  - c) Predictive ability
  - d) Increased accuracy
  - e) Efficient data use
10. Example of leadership in public health:
  - a) Managing only doctors
  - b) Effective management of a medical organization
  - c) Ensuring only economic growth
  - d) Developing tourism
  - e) Managing social media
11. Research belonging to screening:
  - a) Mammography
  - b) Surgery
  - c) Individual therapy
  - d) Training
  - e) Rehabilitation
12. One of the main functions of WHO:





- a) Development of international health standards
- b) Development of tourism
- c) Increasing the number of cars
- d) Conducting economic reforms
- e) Helping only elderly people
- 13. Consequence of urbanization:
  - a) Stabilization of health indicators
  - b) Improvement of quality of life
  - c) Reduction of risk factors
  - d) Lack of infectious diseases
  - e) Growth of environmental problems
- 14. The main direction of preventive medicine:
  - a) Implementing political reforms
  - b) Increasing financial income
  - c) Disease prevention
  - d) Developing the economy
  - e) Improving public transport
- 15. One of the current challenges of the healthcare system in Kazakhstan:
  - a) Shortage of personnel
  - b) Underdeveloped tourism
  - c) Lack of space exploration
  - d) Slow industrial development
  - e) Lack of sports clubs
- 16. Element of a healthy lifestyle:
  - a) Sleep disturbance
  - b) Smoking
  - c) Alcohol consumption
  - d) Proper nutrition
  - e) Increased stress
- 17. What does health care management include?
  - a) Planning, organization, and control
  - b) Only financial accounting
  - c) Only purchasing medicines
  - d) Organizing sports events
  - e) Opening a private business
- 18. Example of information technology in public health:
  - a) Paper journal keeping
  - b) Electronic medical record
  - c) Communication by mail
  - d) Public meeting
  - e) Radio announcements
- 19. By the type of prevention, vaccination belongs to:
  - a) Primary prevention
  - b) Secondary prevention
  - c) Tertiary prevention
  - d) Quaternary prevention
  - e) Auxiliary prevention
- 20. Not related to health promotion activities:
  - a) Conducting screening
  - b) Increasing fruit and vegetable consumption
  - c) Increasing alcohol use
  - d) Increasing physical activity

e) Vaccination

21. One of the international organizations in public health:

- a) UNICEF
- b) UNESCO
- c) UN Development Program
- d) Red Cross
- e) All are correct

22. Not a leadership quality:

- a) Responsibility
- b) Risk-taking
- c) Pursuit of personal gain
- d) Honesty
- e) Communication skills

23. The concept of “Health for All” proposed by WHO means:

- a) Accessible health care for all people
- b) Aid only for rich countries
- c) Building only hospitals
- d) Training only doctors
- e) Making medicine fully paid

24. An important part of preventive program planning:

- a) Analysis of risk factors
- b) Only financial accounting
- c) Political reform
- d) Development of public transport
- e) Opening a private business

25. Not related to digital health:

- a) Electronic prescription
- b) Telemedicine
- c) Online consultation
- d) Treatment by mail
- e) Mobile applications

## PUBLIC HEALTH Midterm Examination – 2

### Version 4

1. The main task of public health:

- a) Preserving and strengthening population health
- b) Gaining economic profit
- c) Increasing the number of private clinics
- d) Producing only medicines
- e) Organizing sports competitions

2. Not included in primary health care:

- a) Screening
- b) Vaccination
- c) Individual surgical operation
- d) Medical check-up (dispensarization)
- e) Preventive counseling

3. An activity belonging to a healthy lifestyle:

- a) Proper nutrition



- b) Excessive alcohol consumption
- c) Smoking
- d) Sleep disturbance
- e) Physical inactivity
4. Example of secondary prevention:
  - a) Measuring blood pressure
  - b) Vaccination
  - c) Rehabilitation measures
  - d) Physical activity
  - e) Proper nutrition
5. The main goal of tertiary prevention:
  - a) Vaccination
  - b) Disease prevention
  - c) Early diagnosis of disease
  - d) Strengthening public health
  - e) Preventing disease complications
6. A program aimed at promoting health:
  - a) Increasing public transport
  - b) Tax reform
  - c) Opening a private business
  - d) Forming a healthy lifestyle
  - e) Developing tourism
7. The year of WHO establishment:
  - a) 1991
  - b) 1965
  - c) 1948
  - d) 2001
  - e) 1955
8. A method of studying risk factors:
  - a) Conducting surveys
  - b) Public meetings
  - c) Social networks
  - d) Tourist programs
  - e) Political reforms
9. The advantage of telemedicine:
  - a) Providing assistance to remote populations
  - b) Increasing only doctors' income
  - c) Using only expensive equipment
  - d) Increasing private clinics
  - e) Reducing the number of pharmacies
10. Not related to global health problems:
  - a) Climate change
  - b) COVID-19
  - c) Urbanization
  - d) Toothache
  - e) Migration
11. The field of Big Data application:

- a) Epidemiological forecasting
- b) Sports competitions
- c) Tourism development
- d) Cultural events
- e) Political reforms
- 12. A method of financing the health care system:
  - a) Compulsory social health insurance
  - b) Relying only on the private sector
  - c) Tax exemption
  - d) Social networks
  - e) Distribution by population size
- 13. The main principle of a healthy lifestyle:
  - a) Physical inactivity
  - b) Smoking
  - c) Alcohol consumption
  - d) Sleep disturbance
  - e) Proper nutrition and activity
- 14. Example of a screening program:
  - a) Personal training
  - b) Dietary menu
  - c) Vitamin intake
  - d) Cytological examination for cervical cancer
  - e) Personal consultation
- 15. An important quality of a public health leader:
  - a) Responsibility and honesty
  - b) Thinking only of personal gain
  - c) Avoiding work
  - d) Avoiding communication
  - e) Ignoring data
- 16. The organizational principle of the health care system:
  - a) Political dominance
  - b) Personal profit
  - c) Accessibility
  - d) Tourism
  - e) Economic business
- 17. Vaccination belongs to which level of prevention?
  - a) Primary prevention
  - b) Secondary prevention
  - c) Tertiary prevention
  - d) Quaternary prevention
  - e) Additional prevention
- 18. A factor affecting population health:
  - a) Environment
  - b) Space research
  - c) Tourism
  - d) Cultural center
  - e) Sports competition



19. The goal of the WHO “Health for All” program:

- a) Holding sports competitions
- b) Developing tourism
- c) Economic reform
- d) Opening private businesses
- e) Improving the health of the world’s population

20. A modern global health problem:

- a) Antibiotic resistance
- b) Growth of tourism
- c) Housing shortage
- d) Increase in cars
- e) Sports competitions

21. Not a leadership model:

- a) Authoritarian management
- b) Democratic management
- c) Business management
- d) Establishing a political party
- e) Liberal management

22. The contribution of international organizations to health care:

- a) Programs to combat infectious diseases
- b) Creating political parties
- c) Developing tourism
- d) Opening cultural centers
- e) Producing cars

23. Example of tertiary prevention:

- a) Vaccination
- b) Rehabilitation after a heart attack
- c) Measuring blood pressure
- d) Proper nutrition
- e) Physical training

24. The benefit of information technology:

- a) Fast data processing
- b) Increasing paper documentation
- c) Slowing down work
- d) Working without communication with the public
- e) Increasing errors

25. Example of Kazakhstan’s participation in global health initiatives:

- a) Political reform
- b) Tourism program
- c) Automobile production
- d) Cultural event
- e) Vaccination program

## PUBLIC HEALTH Midterm Examination – 2

### Version 5

1. The main goal of public health strategies:



- a) Strengthening population health
- b) Changing economic policy
- c) Creating a political party
- d) Developing tourism
- e) Expanding transport infrastructure
2. Included in primary health care:
  - a) Individual surgical operation
  - b) Vaccination prophylaxis
  - c) Tourism development
  - d) Car manufacturing
  - e) Holding cultural events
3. The main goal of primary prevention:
  - a) Early disease detection
  - b) Disease prevention
  - c) Rehabilitation
  - d) Ignoring risk factors
  - e) Increasing public transport
4. One of the global health problems:
  - a) Climate change
  - b) Tourism development
  - c) Public transportation
  - d) Cultural events
  - e) Reading books
5. A modern health problem in Kazakhstan:
  - a) Private business
  - b) Tourism
  - c) Political system
  - d) Increase in non-communicable diseases
  - e) Construction
6. The goal of a screening program:
  - a) Early disease detection
  - b) Only sports competitions
  - c) Political program
  - d) Tourism
  - e) Vehicle production
7. A principle of health care system organization:
  - a) Car manufacturing
  - b) Political dominance
  - c) Economic business
  - d) Tourism
  - e) Accessibility
8. A disadvantage of telemedicine:
  - a) Internet dependence
  - b) Doctor availability
  - c) Remote assistance
  - d) Time saving
  - e) Information exchange
9. Belongs to tertiary prevention:
  - a) Rehabilitation after a heart attack
  - b) Vaccination
  - c) Screening
  - d) Healthy lifestyle



e) Measuring blood pressure

10. The main document of WHO:

- a) Charter
- b) Constitution
- c) Declaration
- d) Convention
- e) Law

11. A factor that does not affect public health:

- a) Environment
- b) Heredity
- c) Education level
- d) Tourist program
- e) Medical care

12. The main organization in the field of global health:

- a) IMF
- b) UNESCO
- c) WHO
- d) OSCE
- e) NATO

13. A disadvantage of information technology:

- a) Issues of personal data security
- b) Fast data retrieval
- c) Remote consultations
- d) Data storage
- e) Doctor-patient communication

14. A method of financing the health care system:

- a) Mandatory health insurance
- b) Only private funding
- c) Private enterprises
- d) Political program
- e) Tourism

15. An example of a global health threat:

- a) Antibiotic resistance
- b) Cultural events
- c) Tourism
- d) Construction
- e) Cars

16. Not included in a healthy lifestyle:

- a) Proper nutrition
- b) Smoking
- c) Physical activity
- d) Sleep schedule
- e) Avoiding alcohol

17. Example of secondary prevention:

- a) Healthy lifestyle
- b) Proper nutrition
- c) Vaccination
- d) Rehabilitation after a heart attack
- e) Measuring blood pressure

18. A method for assessing risk factors:

- a) Survey
- b) Political program

c) Cultural event

d) Automobile

e) Tourism

19. A model of health care system management:

a) State model

b) Social network

c) Tourism

d) Car production

e) Political program

20. The advantage of Big Data in health care:

a) Cultural event

b) Tourism development

c) Car production

d) Epidemiological forecasting

e) Construction

21. The year WHO was founded:

a) 1948

b) 1961

c) 1991

d) 2000

e) 1955

22. The role of a leader in the field of health care:

a) Avoiding responsibilities

b) Seeking only personal profit

c) Organizing and motivating society

d) Hiding information

e) Avoiding communication

23. Vaccination prophylaxis belongs to which type of prevention?

a) Primary

b) Secondary

c) Tertiary

d) Additional

e) Quaternary

24. An advantage of information resources:

a) Fast access to data

b) Increasing paper documentation

c) Slowing down work

d) Increasing errors

e) Losing contact with people

25. An example of Kazakhstan's participation in global health initiatives:

a) Construction

b) Tourism program

c) Automobile production

d) Participation in HIV/AIDS programs

e) Political project





1. The main principle of public health:
  - a) Development of tourism
  - b) Justice
  - c) Changing the political system
  - d) Automobile production
  - e) Economic business
2. The main element of primary health care:
  - a) Individual surgical operation
  - b) Sanitary and educational work
  - c) Tourist program
  - d) Political project
  - e) Construction
3. An example of primary prevention:
  - a) Rehabilitation after a heart attack
  - b) Vaccination
  - c) Measuring blood pressure
  - d) Screening
  - e) Rehabilitation of disabled persons
4. A factor that threatens global health:
  - a) Urbanization
  - b) Tourism
  - c) Car production
  - d) Construction
  - e) Culture
5. A modern issue of public health in Kazakhstan:
  - a) Smoking
  - b) Car production
  - c) Tourism development
  - d) Cultural event
  - e) Construction
6. The main purpose of screening:
  - a) Introducing public transport
  - b) Early disease detection
  - c) Tourism
  - d) Cultural event
  - e) Construction
7. Belongs to the principles of organizing the health care system:
  - a) Political stability
  - b) Accessibility
  - c) Economic business
  - d) Tourism
  - e) Culture
8. The advantage of telemedicine:
  - a) Political control
  - b) Tourism
  - c) Car production
  - d) Remote consultation
  - e) Cultural event
9. An example of tertiary prevention:
  - a) Rehabilitation
  - b) Screening
  - c) Vaccination



- d) Survey
- e) Healthy lifestyle
- 10. The city where the WHO headquarters is located:
  - a) Paris
  - b) Berlin
  - c) London
  - d) New York
  - e) Geneva
- 11. The main factor affecting population health:
  - a) Tourism
  - b) Automobile
  - c) Environment
  - d) Cultural event
  - e) Construction
- 12. An international organization in the field of health care:
  - a) NATO
  - b) IMF
  - c) UNESCO
  - d) OSCE
  - e) UNICEF
- 13. The advantage of information technology:
  - a) Slowing down work
  - b) Fast data processing
  - c) Increasing paper documentation
  - d) Increasing errors
  - e) Cutting communication
- 14. A source of health care system funding:
  - a) Tourism
  - b) Automobile
  - c) Culture
  - d) State budget
  - e) Construction
- 15. Belongs to global health threats:
  - a) Tourism
  - b) COVID-19 pandemic
  - c) Culture
  - d) Construction
  - e) Automobile
- 16. A factor included in a healthy lifestyle:
  - a) Smoking
  - b) Proper nutrition
  - c) Alcohol consumption
  - d) Disturbed sleep routine
  - e) Overuse of medicines
- 17. An example of secondary prevention:
  - a) Screening
  - b) Proper nutrition
  - c) Vaccination
  - d) Rehabilitation
  - e) Healthy lifestyle
- 18. A method of assessing risk factors:
  - a) Biochemical analysis





b) Construction

c) Tourism

d) Political program

e) Culture

19. A model of health care system management:

a) Tourism

b) Insurance model

c) Culture

d) Car production

e) Political project

20. The advantage of Big Data:

a) Increasing paper documentation

b) Cutting communication

c) Hiding information

d) Slowing down work

e) Analysis of large volumes of data

21. The year WHO was founded:

a) 1991      b) 1948      c) 2000      d) 1955

e) 1961

22. The role of a leader in the health care field:

a) Avoiding responsibility

b) Motivating society

c) Seeking personal profit

d) Hiding data

e) Avoiding communication

23. Vaccination prophylaxis belongs to which type of prevention?

a) Tertiary

b) Primary

c) Secondary

d) Additional

e) Quaternary

24. The advantage of information resources:

a) Slowing down work

b) Increasing paper documentation

c) Rapid information exchange

d) Increasing errors

e) Losing connection with people

25. An example of Kazakhstan's participation in global health initiatives:

a) HIV/AIDS program      b) Tourism      c) Construction      d) Culture

e) Car production

## **FUNDAMENTALS OF EVIDENCE-BASED MEDICINE**

### **Midterm Examination – 2**

#### **Variant I**

1. Clinical outcomes of clinical epidemiology:

A. Disability

B. Risk

C. Prognosis

D. Frequency

E. Treatment

2. Components of a clinical question include:

A. Medicine

B. Prognosis

C. Death

- D. Pathological manifestations
- E. Morphological level changes
3. One of the main principles of clinical epidemiology:
  - A. Individual patient treatment
  - B. Qualitative approach
  - C. Generalization
  - D. Development of treatment principles for infectious diseases
  - E. Development of treatment principles for non-infectious patients
4. Internal validity exists...
  - A. Generated
  - B. Evidence
  - C. Popularization
  - D. Originality
  - E. Assessment
5. This is Diagnosis:
  - A. How common is this disease?
  - B. What factors are associated with high disease risk?
  - C. How does the disease prognosis change during treatment?
  - D. What factors can cause the disease?
  - E. How accurate are the methods used for disease diagnosis?
6. Therapeutic measures:
  - A. How does the disease course change during treatment?
  - B. What is the cost of treatment?
  - C. What are the pathogenetic mechanisms?
  - D. Does the disease course improve with early detection and treatment?
  - E. Is the person healthy or sick?
7. Price means:
  - A. How common is this disease?
  - B. How much does treatment of this disease cost?
  - C. Are the methods used for diagnosis accurate?
  - D. How common is treatment of this disease?
  - E. What factors can cause the disease?
8. A principle of clinical epidemiology exists:
  - A. Structure of the clinical problem
  - B. Structure of the clinical question
  - C. Focus on clinical outcome
  - D. Clinical approach
  - E. Labor productivity
9. Clinical epidemiology is...
  - A. A science that develops research methods allowing fair conclusions
  - B. A science that develops studies controlling the influence of systematic and random errors
  - C. A science that develops research controlling error influence
  - D. A science that develops clinical trial methods to make fair conclusions with control of systematic and random errors
  - E. Clinical research science
10. One definition of clinical epidemiology contains the following concept:
  - A. A science that allows forecasting for each individual patient
  - B. A science based on studying the clinical course of disease for specific predictions
  - C. Application of rigorous scientific methods to study a group of patients to ensure precise scientific prediction
  - D. A science using rigorous scientific methods
  - E. A science that allows forecasting for each patient based on studying the clinical course of the disease in similar conditions using rigorous scientific methods on a patient group to ensure prediction accuracy



11. When searching for information in electronic databases:
  - A. Search for connections
  - B. Expand the query
  - C. Increase the amount of retrieved information
  - D. Simplify the search
  - E. Search objective
12. Advantages of Medline include:
  - A. Fast search and data copying
  - B. Search in Russian
  - C. Information on all topics (medical and non-medical)
  - D. Many books
  - E. Recommendations for students
13. Medline information has been available since:
  - A. 1950s
  - B. 1970s
  - C. 1980s
  - D. 1990s
  - E. 2000s
14. Using the operator "OR":
  - A. Narrows the search
  - B. Defines the search
  - C. Aligns the search
  - D. Expands the search
  - E. Search changes
15. The operator used for "NOT":
  - A. Expands the search
  - B. Changes the search
  - C. Narrows the search
  - D. Defines the search trajectory
  - E. Distributes the search
16. Specialized websites are websites...
  - A. Containing information on specific categories
  - B. Containing information on evidence-based medicine
  - C. Containing information on surgery
  - D. Containing information on medicine and surgery
  - E. Containing general medical information and its individual departments
17. Specialized websites contain information on:
  - A. General medical information
  - B. Medicine and its individual departments
  - C. Only on specific health sections
  - D. Selective information on evidence-based medicine
  - E. Popular science health information
18. Specialized EBM websites:
  - A. British Medical Journal
  - B. Medical server
  - C. Information and Coordination Center for National Guidelines
  - D. Russian electronic site
  - E. International electronic journal
19. Electronic journals include:
  - A. The Lancet
  - B. Population
  - C. EBM Society site

- D. Consilium Medicum
- E. Health Bulletin
- 20. Sources of scientific evidence:
  - A. Archival sources
  - B. Statistics
  - C. Legislative materials
  - D. DARE, Medline websites
  - E. Economic materials
- 21. Systematic error:
  - A. Systematic deviation of results from true values
  - B. Gradual changes made by humans
  - C. Systematic change of source materials
  - D. Timely data change
  - E. Quantitative research indicators
- 22. Random error:
  - A. Systematic deviation of research results
  - B. Gradual addition of people
  - C. Deviation of control results from real population values
  - D. Timely data change
  - E. Typical control method
- 23. Main clinical question includes:
  - A. 1 component
  - B. 3 components
  - C. 4 components
  - D. 5 components
  - E. 2 components
- 24. Clinical trial exists...
  - A. Method of medical intervention in the intervention group
  - B. Justification of new theoretical knowledge – final stage of studied clinical trials
  - C. Method of performing medical interventions in intervention or comparison group
  - D. Retrospective study introduced in the intervention group to establish causal relationships between intervention and clinical outcome
  - E. Specific type of study which is the result of therapeutic intervention, serving as the studied prognostic factor
- 25. Clinical trial design:
  - A. Way of conducting scientific research in the clinic, i.e., its organization or architecture
  - B. Method of medical intervention in the intervention group
  - C. Method of medical intervention in intervention or comparison group
  - D. Method of performing medical interventions in the comparison group
  - E. Experimental research method
- 26. There is a form of clinical trial documentation...
  - A. Set of classifications
  - B. Certain types of clinical problems
  - C. Treatment assignment
  - D. Preventive measures
  - E. Patient group for clinical trials
- 27. Measurement in observational studies with the presence of a researcher:
  - A. Actively intervenes
  - B. Controls events without active intervention
  - C. Describes active intervention events
  - D. Experiments and creates different types of diseases
  - E. Actively modifies events
- 28. A simple example of a study may be a "case report":





- A. Medical organization records
- B. Statistical allowance
- C. Case history
- D. Orders
- E. Emergency notification
- 29. Study monitoring:
  - A. Research study
  - B. Analytical studies
  - C. Descriptive control study
  - D. Analytical control study
  - E. Study description
- 30. Cohort study exists...
  - A. Experimental study
  - B. Controlled study
  - C. Descriptive study
  - D. Medical research
  - E. Analytical research

## FUNDAMENTALS OF EVIDENCE-BASED MEDICINE

### Midterm Examination – 2

#### Variant II

1. Experimental studies – these studies can be conducted:
  - A. Mathematical tests
  - B. Clinical trials
  - C. Statistical tests
  - D. Experimental research
  - E. Quasi-experimental trials
2. Correct criteria for disease resolution with and without drug treatment:
  - A. Documentation list
  - B. Statistical documentation
  - C. Requirements for medical research
  - D. Mathematical requirements
  - E. Requirements for statistical analysis of research results
3. Proper use of statistical processing methods:
  - A. Mathematical research
  - B. Operational tests
  - C. Therapeutic tests
  - D. Medical research
  - E. Narcotic tests
4. Most important requirements for medical research:
  - A. Randomization method
  - B. Financial interests of study participants
  - C. Necessary consent from relatives
  - D. Insurance
  - E. Research site and study duration
5. Classic clinical studies:
  - A. Controlled and uncontrolled
  - B. Uncontrolled
  - C. Controlled
  - D. Controllers
  - E. Uncontrolled
6. Main categories of clinical questions:



- A. Clinical research organization
- B. Participation in hobby clubs
- C. Disease prevalence
- D. Participation in relevant lectures
- E. Participation in focus groups
7. Related to correct diagnosis:
  - A. Stratification method
  - B. Audit method
  - C. Disease outcome
  - D. Observational studies
  - E. Clinical question
8. Disease prognosis:
  - A. Controlled patient study on specific characteristics
  - B. One of the clinical question categories
  - C. Study where the research factor is a literature review
  - D. Subject of controlled study
  - E. Specially designed comparative studies
9. Treatment efficacy:
  - A. Assessment of previous interventions
  - B. Specially designed studies
  - C. Study conducted based on specific characteristics
  - D. One of the clinical question categories
  - E. Special type of proposed research
10. Requirements for conducting clinical studies:
  - A. Proper organization of research (design) and mathematically implementable randomization method
  - B. Health organization management
  - C. Free food basket
  - D. Participation in quality control experiment
  - E. Selection of auditor
11. Clearly defined implementation criteria to be maintained in the study:
  - A. Probability of detecting disease outcome
  - B. Requirements for conducting clinical research
  - C. Comparison with other treatment options
  - D. Less common studies
  - E. Conducting verification procedures
12. Correct choice of criteria for disease onset with and without treatment:
  - A. Baseline data on disease onset
  - B. Procedures conducted in comparison
  - C. Clinical practice guidelines
  - D. Latin square
  - E. Studies related to clinical practice
13. Disease duration depends on requirements:
  - A. Searching for the most common diseases
  - B. Diagnosis
  - C. High disease risk
  - D. Medical research
  - E. Disease consequences
14. Proper application of statistical methods exists:
  - A. Determining a healthy patient
  - B. Determining disease in a patient
  - C. Important requirements for medical research
  - D. Risk factors



## E. Prognosis

### 15. Purpose of a systematic review:

- A. Balanced and fair consideration of previous research results
- B. Quantitative systematic literature review to obtain general statistical indicators
- C. Review of results of unique studies on the same question
- D. Science recognized as standard for scientific research
- E. Method used to generate participant group allocation sequence

### 16. Meta-analysis:

- A. Quantitative assessment of cumulative effect based on results of all studies
- B. Medical science generally recognized as standard for evaluating clinical effectiveness
- C. Quantitative systematic literature review for cumulative statistics or quantitative synthesis of raw data
- D. Method used to generate random sequence of participant allocation
- E. Review of original study results on the same issue or system without statistical analysis

### 17. Randomized controlled trial (RCT):

- A. Modern medical science, widely accepted standard for evaluating clinical effectiveness
- B. Quantitative systematic literature review or digital synthesis of raw data for summary statistics
- C. Peak of evidence base and important research: quantitative assessment of cumulative effect based on all studies
- D. Modern financial science serving as research guidance for clinical effectiveness evaluation
- E. Method used to generate random sequence of participant allocation

### 18. Active treatment group in randomized controlled trials:

- A. Patients receiving standard, traditional (accepted) treatment or proposed patient groups or placebo
- B. Healthy patient group
- C. Patients with "severe" exacerbations
- D. Patients undergoing hospitalization
- E. Patient group whose effectiveness is ensured

### 19. Retrospective study exists:

- A. Meta-analysis
- B. Case-control study
- C. Cohort study
- D. Literature review
- E. Systematic review

### 20. Process of developing and evaluating guidelines focused on key outcomes for consumers:

- A. Clinical management
- B. Typical principle of clinical guideline development
- C. Main principles of clinical guideline
- D. Development of clinical guideline principle
- E. Stage of clinical practice guideline development based on specific evidence

### 21. Principles for developing clinical practice methodological recommendations:

- A. Guidelines should be based on best evidence and include guidance on the level of evidence for certain recommendations
  - B. Development of clinical recommendations should be based on quantitative synthesis of raw data for summary statistics
  - C. Development of clinical recommendations should include dissemination and implementation plan prepared for 10 years
  - D. Development should be based on analysis of performed medical interventions
  - E. Clinical practice guideline should be based on analysis of performed medical interventions
- ### 22. Development of clinical protocol in a medical organization involves the following stages:
- A. Research integration, guideline implementation into treatment process, organization of training group creation
  - B. Research group population, guideline development, working group including managers, policymakers, auditors
  - C. Formation of working group, text development of clinical protocol, introduction into medical organization activities
  - D. Formation of research group with hospital and clinic managers, auditors, health officials, implementation of practical guideline in healthcare practice

<p> ONTÜSTIK-QAZAQSTAN  <b>MEDISINA  AKADEMIASY</b>  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>		<p> SOUTH KAZAKHSTAN  <b>MEDICAL  ACADEMY</b>  АО «Южно-Казахстанская медицинская академия» </p>
<p>Departments: "Social health insurance and public Health"</p>		58/ 12 P. 30 - 41
Control and measuring tools for the discipline " Public health and the foundations of evidence-based medicine "		

E. Development of clinical methodological recommendations, formation of guideline research group, implementation into healthcare system

23. Development of clinical protocol includes sections:

- A. Patient model, salary model
- B. Approximate list of main and additional patient medications
- C. Medical staff remuneration model, standard operations and procedures to meet protocol requirements
- D. Patient model, list of main and additional medications, standard operations and procedures meeting protocol requirements
- E. List of main and additional medications, standard operations and procedures for protocol compliance

24. Clinical practice guidelines – primarily content:

- A. Standardized approaches to diagnosis, treatment, and prevention based on evidence-based medicine
- B. Quality management system in medical organizations, standard technical maintenance of medical care
- C. Program justification of state guarantees for medical care
- D. Allows patients to effectively implement medications
- E. Monitoring compliance with action plan for new treatment implementation

25. Advantages of CPG for experienced physician:

- A. Prevents the use of clinical reasoning
- B. Physician facing emergency can always refer to guideline and prescribe treatment based on EBM
- C. Allows use of expensive diagnostic and treatment methods
- D. Prevents use of EBM-based methods
- E. Allows use of ineffective drugs

26. Principles of developing methodological recommendations of National Clinical Clinic:

- A. Guideline should be evidence-based and include topics
- B. Evidence synthesis method should be the most comprehensive
- C. Development and evaluation of guideline process should focus on key consumer-relevant outcomes
- D. Guideline should be based on scientific community experience
- E. Method used to select intervention groups

27. Evidence-based guideline has disadvantages:

- A. Maximum participants required to compare all positive and negative effects of all possible approaches
- B. Time required to create working group of stakeholders
- C. Time required for random allocation of patients, eliminating differences between treatment groups affecting outcomes
- D. Use of indifferent substance for comparison with specific drug or intervention effect
- E. Time required for quantitative systematic literature review and cumulative statistics

28. Most probable definition of “clinical practice guideline”:

- A. Long-term scientific work, object of study being results of multiple unique studies
- B. Review considering primary research results but not combined statistically
- C. Quantitative analysis of combined results of several clinical trials of one intervention
- D. Effective tool for continuous improvement of daily healthcare outcomes and acceptable results
- E. Instruction for studying pharmacokinetics of drugs

29. Clinical recommendations are not used by:

- A. Patients
- B. Polyclinic and hospital managers
- C. Health administrators
- D. Health economists
- E. Experienced physicians

30. Level of evidence of expert opinion:

- A. 1A
- B. 1C
- C. 1B
- D. One
- E. 1D





### Variant III

1. Principles of clinical epidemiology include:

- A. Accurate processing
- B. Internal structure
- C. Precision
- D. Process-oriented
- E. Application of norms in healthcare

2. Numerical approach:

- A. Clinical epidemiology questions
- B. Principles of clinical epidemiology
- C. Principles of evidence-based medicine
- D. EBM tasks
- E. Outcomes in clinical epidemiology

3. The concept of "Evidence-Based Medicine" was introduced by scientists from... University:

- A. Sorbonne
- B. Harvard
- C. Oxford
- D. McMaster
- E. Cambridge

4. University where the concept of "Evidence-Based Medicine" was introduced:

- A. Canada
- B. USA
- C. England
- D. France
- E. Germany

5. Main questions are often used by physicians with... experience:

- A. Average
- B. Large
- C. Minimal
- D. Continuous
- E. Small

6. Applied questions are often asked by physicians with... experience:

- A. Large
- B. Small
- C. Average
- D. Minimal
- E. Duration

7. PICO principle:

- A. Searching for scientific information
- B. Formulating a four-component question
- C. Formulating component 2
- D. Critical analysis of scientific information
- E. Correct formulation of a clinical question

8. EBM Step 1:

- A. Development of practical management principles
- B. Writing an article on a chosen topic
- C. Searching information on a chosen topic
- D. Formulating a clinical question
- E. Practical use of scientific data

9. Second step of EBM:

- A. Investigating the problem in global literature
- B. Article publication

- C. Choosing treatment method
- D. Choosing diagnostic methods
- E. Searching scientific information in electronic databases
- 10. Third step of EBM:
  - A. Developing practical recommendations
  - B. Writing an article on a chosen topic
  - C. Critical analysis of scientific information
  - D. Searching information on a chosen topic
  - E. Formulating a clinical question
- 11. Fourth step of EBM:
  - A. Developing practical recommendations
  - B. Writing an article on a chosen topic
  - C. Searching information on a chosen topic
  - D. Practical use of scientific data
  - E. Formulating a clinical question
- 12. Part of an applied problem includes:
  - A. Prognosis
  - B. Disability
  - C. Outcome
  - D. Drug
  - E. Disease
- 13. Mandatory component of an applied question:
  - A. Question word
  - B. Patient or problem
  - C. Situation modeling
  - D. Healthcare worker
  - E. Literature
- 14. Evidence-Based Medicine:
  - A. Honest, accurate, and meaningful use of best clinical trial results to treat a specific patient
  - B. Compilation and interpretation of laboratory data
  - C. Independent medical science
  - D. Study of public health
  - E. Theoretical foundations of Soviet healthcare
- 15. Purpose of a cohort study:
  - A. Identify causes of rare diseases
  - B. Compare advantages and disadvantages of intervention measures
  - C. Assess prevalence of certain diseases in the population
  - D. Describe side effects of medications in the study
  - E. Determine differences in frequency of certain clinical outcomes
- 16. Correct background of EBM:
  - A. No more than 2 million articles per year
  - B. Regular information exchange
  - C. Outdated medical education
  - D. No more than 100,000 articles
  - E. Over 4 million articles per year
- 17. Decisions not based on evidence:
  - A. Decisions based on scientific approaches
  - B. Decisions related to disease
  - C. Decisions related to patient status
  - D. Decisions based on brief conversation
  - E. Decisions based on economic costs
- 18. Main aspect of EBM:



- A. Critical appraisal of scientific information for validity and usefulness, identifying justified data to answer questions
  - B. Critical evolution of specific data in health economics
  - C. Identification of reasonable data in medicine
  - D. Identification of best results from biological research
  - E. Identification of best epidemiological outcomes
19. Classification of reliability levels for presented information:
- A. 1,2,3,4
  - B. High, medium, low
  - C. I, II, III, IV
  - D. I, B, G, R
  - E. A, D, B, C
20. Definition of maximum reliability:
- A. Information based on at least several independent results from RCTs
  - B. Information based on several independent clinical trials with consistency in systematic reviews
  - C. Information based on results of one clinical study
  - D. Statement based on expert opinion
  - E. Information based on retrospective cohort study results
21. Definition of moderate reliability:
- A. At least close independent information for RCT objectives based on several clinical trials
  - B. Information based on several independent clinical trials with consistency in systematic reviews
  - C. Information based on results of one clinical study
  - D. Statement based on expert opinion
  - E. Information based on retrospective cohort study results
22. Definition of limited reliability:
- A. Information based on several independent clinical trials with consistency in systematic reviews
  - B. Close independent information for RCT objectives based on at least several clinical trials
  - C. Information based on results of one clinical study
  - D. Statement based on expert opinion
  - E. Information based on retrospective cohort study results
23. Definition of strict scientific evidence (no RCTs conducted):
- A. Information based on results of one RCT
  - B. Information based on several independent clinical trials with consistency in systematic reviews
  - C. Close independent information for RCT objectives based on several clinical trials
  - D. Statement based on expert opinion
  - E. Information based on retrospective cohort study results
24. Indicate presentation classes:
- A. I, B, C, D
  - B. 1, 2, 2a, 2b, 3
  - C. High, medium, low
  - D. I, B, G, R
  - E. A, D, B, C
25. Definition of class 1 recommendations:
- A. Conflicting data and/or differing opinions on advantage/effectiveness of treatment method
  - B. Available data indicating benefit/effectiveness of medical intervention
  - C. Preference/effectiveness that is less reliable
  - D. Available data or general opinion indicating treatment may be useless/ineffective and sometimes harmful
  - E. Benefits and effectiveness of diagnostic method or intervention proven and/or traditional
26. Definition of class 2 recommendations:
- A. Benefits/effectiveness of diagnostic method or intervention proven and/or traditional
  - B. Available data indicating benefit/effectiveness of medical intervention
  - C. Conflicting data and/or differing opinions on advantage/effectiveness of treatment method
  - D. Less reliable advantage/effectiveness

E. Available data or general opinion indicating treatment may be useless/ineffective and sometimes harmful

27. Definition of class 2a recommendations:

- A. Available data indicating benefit/effectiveness of medical intervention
- B. Conflicting data and/or differing opinions on advantage/effectiveness of treatment method
- C. Benefits/effectiveness of diagnostic method or intervention proven and/or traditional
- D. Less reliable advantage/effectiveness
- E. Available data or general opinion indicating treatment may be useless/ineffective and sometimes harmful

28. Definition of class 2b recommendations:

- A. Conflicting data and/or differing opinions on advantage/effectiveness of treatment method
- B. Benefits and effectiveness of diagnostic method or intervention proven and/or traditional
- C. Available data indicating benefit/effectiveness of medical intervention
- D. Less reliable advantage/effectiveness
- E. Available data or general opinion indicating treatment may be useless/ineffective and sometimes harmful

29. Randomized clinical trials are designed to answer questions:

- A. Is the new drug better than placebo or old drug?
- B. Determine disease prognosis
- C. Determine disease etiology
- D. Determine hypothesis
- E. Determine validity and reliability parameters

30. Evidence-based medicine in assessing treatment outcomes:

- A. Surrogate endpoints
- B. Hard endpoints
- C. Primary endpoints
- D. Secondary endpoints
- E. Final outcomes

## **FUNDAMENTALS OF EVIDENCE-BASED MEDICINE**

### **Midterm Examination – 2**

#### **Variant IV**

1. The purpose of Phase 1 of pre-registration testing in clinical trials is:

- A. Confirm efficacy, assess drug safety
- B. Study therapeutic dose efficacy, assess safety, determine drug
- C. Study drug safety and efficacy to evaluate "harm-benefit" ratio
- D. Study drug safety to evaluate "harm-benefit" ratio
- E. Safety, study pharmacokinetic properties of the drug

2. The purpose of Phase 3 pre-registration trials in clinical research is:

- A. Study pharmacokinetic properties and safety
- B. Confirm efficacy and safety of the drug
- C. Study drug safety and efficacy to evaluate "harm-benefit" ratio
- D. Study efficacy, assess safety, determine therapeutic dose
- E. Study drug safety to evaluate "harm-benefit" ratio

3. The purpose of Phase 4 pre-registration testing in clinical trials is:

- A. Study pharmacokinetic properties and safety
- B. Confirm efficacy and safety of the drug
- C. Study safety and efficacy to evaluate "harm-benefit" ratio
- D. Study efficacy, assess safety, determine therapeutic dose
- E. Study drug safety to evaluate "harm-benefit" ratio

4. Indicate the reliability level of randomized clinical trials:

- A. 1A
- B. 1B
- C. 1C



- D. I
- E. 2E
5. One of the tasks of clinical epidemiology includes:
  - A. Modification of clinical monitoring
  - B. Testing of clinical monitoring
  - C. Development of clinical monitoring
  - D. Development and application of clinical observations
  - E. Justification of clinical monitoring
6. One of the main concepts of clinical epidemiology:
  - A. In most cases, diagnosis, prognosis, and treatment outcomes of a specific patient are clearly defined and therefore should be expressed probabilistically
  - B. Probability of a specific patient is weakly assessed
  - C. Systematic errors that lead to incorrect results do not affect the outcome
  - D. Any monitoring, including clinical, is not exposed to random influences
  - E. Physicians must rely on experience to draw conclusions
7. Intervention is effective if:
  - A. Effectiveness is proven; expected harm is greater than benefit
  - B. Effectiveness is not proven
  - C. Effectiveness of intervention is proven
  - D. Effectiveness is reliably proven; expected harm is less than benefit
  - E. Effectiveness is proven; harm is incomparable to benefit
8. Intervention is effective if:
  - A. Effectiveness is proven
  - B. Effectiveness is less proven
  - C. Effectiveness is not proven
  - D. Ineffectiveness is proven
  - E. Effect of intervention is proven
9. If benefits and harms of an intervention are relative:
  - A. The physician must consider expected benefit and harm before using the intervention
  - B. The physician must consider expected benefit and harm for a specific situation
  - C. The patient must assess expected benefits and harms for a specific case
  - D. The patient should not consider expected benefits and harms
  - E. Physician and patient must consider expected benefit and harm for a specific situation
10. If intervention effectiveness is not established:
  - A. No suitable evidence found
  - B. Evidence insufficient or uncertain
  - C. Evidence not very reliable
  - D. Effectiveness not proven
  - E. No effect exists
11. Intervention effectiveness is unlikely if:
  - A. Ineffectiveness proven
  - B. Evidence for effectiveness unreliable
  - C. Evidence for effectiveness unreliable
  - D. Evidence for ineffectiveness unclear
  - E. Effectiveness less reliable
12. Universal first-generation database:
  - A. Google
  - B. BMJ
  - C. Yahoo
  - D. Cochrane Library
  - E. PubMed
13. Studies evaluating intervention results and observing study objects:



- A. Experimental studies
- B. Controlled studies
- C. Modeling methods
- D. Statistical processing
- E. Prediction methods
- 14. Study object is clear in:
  - A. Experimental and controlled studies
  - B. Only controlled studies
  - C. Only practical studies
  - D. Control and prediction
  - E. Experimental, controlled, and predictive studies
- 15. Intervention outcomes in experimental studies include:
  - A. Patients
  - B. Document review
  - C. Study design
  - D. Research centers
  - E. Medicine, procedures, treatment
- 16. Quantitative representativeness means:
  - A. Each group has enough patients for statistically valid results
  - B. Structural identity of sample and population
  - C. Controlled number ensures statistical validity
  - D. Random allocation of patients to groups
  - E. Procedure to compare drug effects
- 17. Realistic efficacy criteria include:
  - A. Key patient-related outcomes
  - B. Development of national clinical guidelines
  - C. Required number of participants
  - D. Process of participant inclusion
  - E. Process of participant removal
- 18. True criteria for treatment efficacy include:
  - A. Enough patients for statistically valid results
  - B. Improved quality of life, reduced complications, symptom relief
  - C. Structural match between sample and population
  - D. Reduced participant influence on results
  - E. Open clinical trials
- 19. One realistic criterion of treatment efficacy:
  - A. Simple "hair method"
  - B. Method ensuring balanced group allocation
  - C. Lab and instrumental results related to specific treatment endpoints
  - D. Reduced organizer influence on results
  - E. Structural identity of population
- 20. Randomized clinical trial outcome criteria should be:
  - A. Representative
  - B. Subjective
  - C. Competent
  - D. Humane
  - E. Objective
- 21. Simple "blind" method:
  - A. Group unknown to patient and physician
  - B. Method ensuring balanced group allocation
  - C. Method reducing conscious/unconscious influence from study members
  - D. Patient unaware but physician knows group



E. Group unknown to patient, physician, and organizers

22. W-blind method:

A. Patient unaware, physician knows

B. Method ensuring balanced allocation

C. Patient and physician unaware of group

D. Reduces participant influence on outcomes

E. Group unknown to patient, physician, and organizers

23. Three blind methods:

A. Patient, physician, and organizers unaware of group, "foresee" method

B. Only physician unaware, "foresee" method

C. Patient and physician unaware, "foresee" method

D. Method ensuring balanced allocation based on factors affecting outcome

E. Method reducing uncertain influence by participants

24. Open study method:

A. Patient unaware, physician knows

B. Participants informed of clinical trial

C. Patient and physician unaware

D. Method ensuring balanced allocation by outcome factors

E. Method reducing conscious/unconscious influence

25. Patient continuation rate in RCTs is important if:

A.  $\leq 5\%$

B.  $\geq 5\%$

C.  $< 10\%$

D.  $> 10\%$

E.  $\leq 15\%$

26. Corresponds to realistic treatment efficacy criteria:

A. Zero

B. Fourth period

C. Fifth

D. Sixth

E. Secondary education

27. Objective outcome criteria in RCTs:

A. Total population fraction

B. Patient-related outcomes

C. Lab and instrumental results

D. Disease-specific mortality

E. Unknown exposure factors

28. Objective outcome criteria in RCTs:

A. Reduced complication rates

B. Symptom relief

C. Planned life expectancy

D. Reduced participant influence

E. Overall mortality

29. Objective outcome criteria in RCTs:

A. Frequency of severe complications

B. Law of large numbers

C. Increased life expectancy

D. Random sampling

E. Targeted method

30. RCT endpoint criteria:

A. One determining factor in exposed group

B. Life expectancy

C. Objective clinical parameters

D. Rehospitalization frequency

E. Risk-determining factor

## PUBLIC HEALTH Midterm Examination – 2

№	1	2	3	4	5	6
1.	b	c	a	a	a	b
2.	c	c	c	c	b	b
3.	b	b	a	a	b	b
4.	c	b	b	a	a	a
5.	c	a	c	e	a	a
6.	b	a	a	d	d	b
7.	b	b	a	c	e	b
8.	c	b	a	a	a	d
9.	b	c	a	a	a	a
10.	c	c	b	d	a	e
11.	a	b	a	a	d	c
12.	c	b	a	a	c	e
13.	c	a	e	e	a	b
14.	c	a	c	d	a	d
15.	c	a	a	a	a	b
16.	c	a	d	c	b	b
17.	b	a	a	a	e	a
18.	b	b	b	a	a	a
19.	c	a	a	e	a	b
20.	b	d	c	a	d	e
21.	a	a	e	d	a	b
22.	c	b	c	a	c	b
23.	c	d	a	b	a	b
24.	a	a	a	a	a	c
25.	a	e	d	e	d	a





## FUNDAMENTALS OF EVIDENCE-BASED MEDICINE

### Midterm Examination – 2

	1-B	2-B	3-B	4-B
1.	b	b	a	b
2.	c	a	a	b
3.	c	c	b	c
4.	b	a	b	c
5.	a	d	d	a
6.	b	d	d	a
7.	a	e	e	d
8.	a	e	e	d
9.	b	a	c	e
10.	e	b	c	e
11.	d	b	a	c
12.	b	a	b	a
13.	c	a	c	b
14.	a	c	e	d
15.	a	e	c	a
16.	b	a	a	a
17.	d	c	b	d
18.	b	b	d	d
19.	b	c	e	a
20.	a	a	c	e
21.	e	b	a	a
22.	a	d	d	e
23.	d	a	a	a
24.	a	c	b	b
25.	c	a	a	b





