



قائمة الاسئلة

طب الأسنان المبني علي الأدلة - المستوى الأول -قسم علاج اللثة - - كلية طب وجراحة الفم والاسنان - الفترة الثالثة- درجة الامتحان (59)

أستاذ مساعد. عبير حسن شرف الدين

- 1) Which of the following best describes an uncontrolled clinical trial?
 - 1) - A trial that compares two active interventions
 - 2) + A trial without a control group
 - 3) - . A trial using placebo as the only comparator
 - 4) - . A trial that randomizes patients into multiple groups
- 2) Uncontrolled clinical trials are used during which phases of drug research?
 - 1) - Phase III and IV
 - 2) - Phase IV only
 - 3) - Phase II and III
 - 4) + Phase I and II
- 3) One key advantage of using an uncontrolled clinical trial in early drug testing is
 - 1) - . Establishes definitive efficacy
 - 2) - . Involves a large, diverse patient group
 - 3) + Tests toxicity with a small group
 - 4) - . Provides a comparison with standard treatment
- 4) Compared to controlled trials, uncontrolled trials tend to produce
 - 1) - . Lower estimates of the mean effect
 - 2) + . Higher estimates of the mean effect
 - 3) - Identical estimates of the mean effect
 - 4) - Unreliable estimates of the mean effect
- 5) In controlled clinical trials, the control group is used to
 - 1) - Receive a higher dose of the investigational drug
 - 2) + . Serve as a comparison by receiving standard treatment or placebo
 - 3) - Replace the study group if needed
 - 4) - . Increase the study's cost-effectiveness
- 6) When a placebo is used in a controlled trial, its purpose is to
 - 1) - Act as an active treatment
 - 2) + Simulate the investigational drug without having an effect on the pathology
 - 3) - Increase patient enrollment
 - 4) - Enhance the pharmacokinetic profile of the drug
- 7) A major limitation of an uncontrolled clinical trial is that it
 - 1) - Requires extensive follow-up
 - 2) - Involves too many participants
 - 3) + . Lacks a control group for comparison
 - 4) - Always uses a placebo
- 8) Controlled trials are generally considered more robust than uncontrolled trials because they
 - 1) - . Include only one group of patients
 - 2) + Incorporate a comparison group to help measure the intervention's effect
 - 3) - Are less expensive to conduct
 - 4) - Involve fewer ethical considerations
- 9) In an uncontrolled trial, which aspect is typically not evaluated
 - 1) - Pharmacokinetic properties
 - 2) - Tolerated dose ranges
 - 3) + Efficacy compared to a placebo
 - 4) - Side effects





- 10) In controlled clinical trials, the investigational drug is usually compared with
- 1) - No treatment
 - 2) - . Historical data only
 - 3) Standard treatment or a placebo
 - 4) - An alternative dosing regimen
- 11) Which study design analyzes data from a population at a specific point in time
- 1) - Prospective cohort study
 - 2) - . Retrospective cohort study
 - 3) Cross-sectional study
 - 4) - Randomized controlled trial
- 12) Cross-sectional studies are also known as
- 1) - Longitudinal studies
 - 2) - Prevalence studies
 - 3) Case-control studies
 - 4) - .Intervention studies
- 13) One advantage of cross-sectional studies is that they are
- 1) - Time-consuming due to long follow-up periods
 - 2) - Able to measure disease incidence accurately
 - 3) . Relatively quick and easy to conduct
 - 4) - The best design for establishing causality
- 14) A limitation of cross-sectional studies is that they are not well-suited for studying
- 1) - Common diseases
 - 2) - Multiple outcomes simultaneously
 - 3) Rare diseases or diseases with a short duration
 - 4) - Descriptive analyses
- 15) Cross-sectional studies are particularly useful for
- 1) - Establishing cause-and-effect relationships
 - 2) Descriptive analyses and generating hypotheses
 - 3) - Testing new interventions in a randomized fashion
 - 4) - Long-term follow-up studies
- 16) In cross-sectional studies, the measurements of exposure and outcome are taken
- 1) - Sequentially over time
 - 2) Simultaneously
 - 3) - Only after the outcome occurs
 - 4) - In separate populations
- 17) In the context of cross-sectional studies, the term “الانتشار معدل” (rate of spread) most nearly refers to
- 1) - Incidence rate
 - 2) - Mortality rate
 - 3) Prevalence rate
- 18) Which study design is best suited for examining the relationship between diseases and variables at a specific moment
- 1) Cross-sectional study
 - 2) - Prospective cohort study
 - 3) - Retrospective cohort study
 - 4) - Case series
- 19) Cross-sectional studies are limited in that they cannot determine
- 1) - The prevalence of a disease
 - 2) - Associations between exposure and outcome
 - 3) Whether the outcome preceded the exposure





- 4) - Descriptive characteristics of a population
- 20) Which of the following is NOT listed as a source for searching evidence
- 1) - Journal databases
 - 2) - Journal articles
 - 3) - Personal contact with experts
 - 4) + Random online blogs
- 21) The primary role of keywords in research is to
- 1) - Summarize the text verbatim
 - 2) + Capture the main ideas or concepts of a text
 - 3) - Serve as decorative elements in articles
 - 4) - Replace the abstract
- 22) In research appraisal, "validity" refers to
- 1) - The speed at which a study is published
 - 2) + The extent to which the study results are free from bias and believable
 - 3) - The number of participants enrolled
 - 4) - The popularity of the journal
- 23) Internal validity is best defined as
- 1) - The ability to generalize study results to other populations
 - 2) + How accurately a study establishes a cause-and-effect relationship within its own design
 - 3) - The economic efficiency of the study
 - 4) - The consistency of the study's external applications
- 24) External validity is concerned with
- 1) - The statistical significance of the study
 - 2) + The generalizability of the study results to other settings and populations
 - 3) - The internal consistency of the measurements
 - 4) - The study's ability to detect confounding variables
- 25) Confounding variables are defined as
- 1) - Variables that have no effect on the outcome
 - 2) + Factors outside the main variables that may influence study results
 - 3) - The primary variables being tested
 - 4) - Variables that are intentionally manipulated by researchers
- 26) The process of critically appraising evidence is important because it
- 1) - Ensures that only recent studies are used
 - 2) + Evaluates the strength and reliability of the gathered evidence
 - 3) - Increases the number of citations in a study
 - 4) - Meets academic publication quotas
- 27) Meta search engines are best described as
- 1) - Search tools that index only one database
 - 2) + . Tools that gather results from multiple search engines and provide a unified list
 - 3) - . Engines that exclusively search academic journals
 - 4) - Tools that rely solely on manual data entry
- 28) Which of the following is an example of a meta search engine mentioned in the material
- 1) - Google Scholar
 - 2) + Dogpile
 - 3) - PubMed
 - 4) - Cochrane Library
- 29) According to the document, research findings should be integrated into clinical practice by
- 1) - Applying them directly without any adjustments
 - 2) + Modifying them to fit the clinician's expertise and the patient's circumstances





- 3) - Using them solely for academic discussion
4) - Replacing established clinical guidelines outright
- 30) What is bias in research
1) - Random error in study design
2) Systematic deviation from the truth
3) - A process to ensure accuracy
4) - A form of random selection
- 31) When can bias occur in research
1) - During study design
2) - During data collection
3) - During data analysis and publication
4) All of the above
- 32) Which of the following is NOT a major source of bias
1) - Selection bias
2) - Confounding
3) - Performance bias
4) Random allocation
- 33) What type of bias occurs when participants drop out before the study ends
1) - Selection bias
2) - Confounding bias
3) Transfer bias
4) - Recall bias
- 34) How can confounding bias be controlled
1) - Using random sampling
2) Matching patients for demographics
3) - Using unreliable statistical methods
4) - Ignoring external factors
- 35) What is the best method to minimize bias in a study
1) - Blinding
2) - Standardization of instruments
3) - Randomization
4) All of the above
- 36) Which bias occurs due to reliance on inaccurate or biased references
1) Literature bias
2) - Interviewer bias
3) - Performance bias
4) - Recall bias
- 37) What is the difference between internal and external validity
1) - Internal validity refers to generalizability, while external validity refers to accuracy
2) Internal validity ensures a study is free from bias, while external validity refers to generalizability
3) - External validity is more important than internal validity
4) - None of the above
- 38) What type of bias happens when non-respondents differ significantly from respondents
1) - Confounding bias
2) Non-respondent bias
3) - Recall bias
4) - Performance bias
- 39) What is the purpose of randomization in a study
1) - To ensure bias is present





- 2) - To make the sample non-representative
3) + To balance confounding variables across groups
4) - To remove the need for statistical analysis
- 40) What is blinding in a clinical trial
1) + A process of keeping certain individuals unaware of treatment assignments
2) - A method to ensure open communication
3) - A statistical tool to increase errors
4) - A way to increase sample size
- 41) Which type of blinding is considered the gold standard
1) - Single-blind study
2) + Double-blind study
3) - Open-label study
4) - Observational study
- 42) What is the purpose of a placebo in pharmaceutical trials
1) - To increase bias
2) - To deceive participants
3) + To act as a control and eliminate bias
4) - To reduce sample size
- 43) Which is NOT a common challenge in blinding
1) - Cost and time constraints
2) - Risk of unblinding
3) + Use of placebos
4) - Difficulty in behavioral studies
- 44) What is formal unblinding
1) - Accidental disclosure of treatment assignments
2) + Deliberate disclosure due to medical emergencies
3) - Intentional participant deception
4) - A randomization process
- 45) What is one way blinding can fail informally
1) - Through detailed documentation
2) - By ensuring all participants receive the same intervention
3) + When participants deduce their group assignment
4) - By increasing the sample size
- 46) What is the primary goal of blinding
1) - To make trials more expensive
2) + To reduce bias in assessment and results
3) - To ensure transparency in treatment allocation
4) - To make trials longer
- 47) Which type of blinding includes participants, researchers, and data analysts
1) - Single-blind study
2) - Double-blind study
3) + Triple-blind study
4) - Open-label study
- 48) Which of the following can lead to unblinding
1) + Subtle differences in medication effects
2) - Transparent reporting
3) - Random sampling
4) - Use of standardized instruments
- 49) How can researchers improve blinding in clinical trials





- 1) - Avoid reporting methods
 - 2) Develop innovative blinding techniques
 - 3) - Encourage participant collaboration
 - 4) - Ensure open-label designs
- 50) What is the main purpose of comparing samples
- 1) To analyze data differences, similarities, or relationships
 - 2) - To increase bias
 - 3) - To manipulate study results
 - 4) - To create errors in data collection
- 51) Which statistical test is used to compare two independent groups
- 1) - Paired t-test
 - 2) Independent samples t-test
 - 3) - ANOVA
 - 4) - Chi-square test
- 52) What is a key assumption of an independent samples t-test
- 1) - The samples are dependent
 - 2) The variances must be equal
 - 3) - The groups must have the same sample size
 - 4) - The data must be non-normally distributed
- 53) What is Welch's t-test used for
- 1) - Comparing means with equal variances
 - 2) Comparing means with unequal variances
 - 3) - Comparing three or more groups
 - 4) - Analyzing categorical data
- 54) What type of t-test is used for the same individual measured at two different times
- 1) - Independent t-test
 - 2) Paired t-test
 - 3) - Welch's t-test
 - 4) - ANOVA
- 55) What does a partially overlapping samples t-test address
- 1) Missing data and mixed independent/paired observations
 - 2) - Small sample sizes
 - 3) - Only independent observations
 - 4) - Only paired observations
- 56) Which statistical test is best for comparing pre-test and post-test scores
- 1) - ANOVA
 - 2) Paired t-test
 - 3) - Chi-square test
 - 4) - Regression analysis
- 57) What does the Sleep Fragmentation Index study example illustrate
- 1) Independent and paired observations in a study
 - 2) - The effects of sleep deprivation
 - 3) - The importance of randomization
 - 4) - Confounding variables
- 58) What does hypothesis testing determine in t-tests
- 1) If differences are statistically significant
 - 2) - If data is biased
 - 3) - If randomization is used
 - 4) - If blinding is effective





- 59) Which assumption is common to all t-tests
- 1) + Normal distribution of data
 - 2) - Unequal variances
 - 3) - Only one group must be analyzed
 - 4) - Randomized controlled trials are required

