MCQs on Study Designs (Up to Page 29)

1. What is the primary purpose of a study design in epidemiology?

A. To collect random data without a plan
B. To translate a hypothesis into an operational study
C. To ensure the study has many participants
D. To make the study expensive and complex
E. To test multiple unrelated hypotheses

Answer: B. To translate a hypothesis into an operational study

2. Which of the following is a type of descriptive observational study?

A. Randomized controlled trial
B. Case report
C. Case-control study
D. Cohort study
E. Experimental study

Answer: B. Case report

3. What is the main difference between descriptive and analytical studies?

A. Descriptive studies test cause-effect relationships
B. Analytical studies only describe disease occurrence
C. Descriptive studies uncover occurrence; analytical studies test causes
D. Analytical studies collect random data
E. Descriptive studies always include control groups

Answer: C. Descriptive studies uncover occurrence; analytical studies test causes

4. Which study type involves detailed reporting of a single patient?

A. Case series
B. Cohort study
C. Case report
D. Ecological study
E. Cross-sectional study

Answer: C. Case report

5. What is a key limitation of a case series study?

A. It requires a control group
B. It cannot estimate prevalence or incidence rates
C. It is always expensive and time-consuming
D. It is unsuitable for hypothesis generation
E. It cannot describe disease features

Answer: B. It cannot estimate prevalence or incidence rates

6. What is a common application of a case series study?

A. Testing drug efficacy
B. Estimating disease prevalence
C. Routine surveillance and detecting new disease emergence
D. Measuring relative risk
E. Randomizing participants into groups

Answer: C. Routine surveillance and detecting new disease emergence

7. What type of study is used when a clinician observes unusual disease features leading to new hypotheses?

A. Cross-sectional study
B. Case report
C. Case-control study
D. Cohort study
E. Experimental trial

Answer: B. Case report

8. What is a disease registry considered in epidemiological terms?

A. An experimental design
B. A special form of case series
C. A type of randomized trial
D. A form of cross-sectional study
E. A purely analytical study

Answer: B. A special form of case series

9. Which of the following statements is TRUE about observational epidemiology?

A. It always involves direct intervention
B. It can only test cause-effect relationships
C. It provides data on disease patterns by person, place, and time
D. It cannot generate new hypotheses
E. It is the same as experimental design

Answer: C. It provides data on disease patterns by person, place, and time

10. What is one advantage of descriptive studies in epidemiology?

A. They always require a control group
B. They help in generating hypotheses for further research
C. They directly test drug effectiveness
D. They require random allocation of participants
E. They always provide incidence rates

Answer: B. They help in generating hypotheses for further research