

Guidelines for Critically Evaluating an Epidemiologic Study: Case-Control Study

- 1) Research Objectives
 - a) What is the primary study hypothesis?
 - b) Are there secondary hypotheses? If so, what are they?
- 2) Study Population
 - a) Is the study "population-based" or "hospital-based"?
 - b) Who are the study population?
 - i) How is a "case" defined?
 - (1) Are incident cases or prevalent cases selected?
 - (2) Who was excluded from the pool of possible cases?
 - ii) How were the controls selected?
 - (1) Do the controls form an appropriate comparison group?
- 3) Exposure Assessment
 - a) What is the exposure variable of primary interest?
 - b) How is information about exposure obtained?
 - c) How accurate is the assessment of exposure?
 - d) Who constitute the "exposed" and "unexposed" groups?
 - e) Are other potential exposures that are risk factors for the outcome of interest controlled?
- 4) Sample Size and Statistical Analysis
 - a) Is the sample size adequate to answer the question being asked?
 - b) Is statistical power assessed?
 - c) Are the methods of statistical analysis appropriate to answer the research question?
- 5) Evaluation of the results
 - a) What are the main findings of the study?
 - b) Are the findings generalizable to other populations?
 - c) What are the study strengths and limitations?
 - d) Does the abstract adequately summarize the data and conclusions?
- 6) Additional Information on the Study
 - a) Who provided funding for this study?
 - b) Could the funding source have affected the conduct or conclusions of the study?