

Literature Critique Criteria for Case-control studies-tabular form

Criteria	Green	Yellow	Red	Comments
Outcome (definition of cases)	Assessed by examiner using history, physical exam, and ancillary diagnostic tests when appropriate	Symptom patterns reported which are generally recognized as sensitive and specific for the condition	Symptoms not clearly diagnostic of the condition, but suggestive of regional pain	If cases defined by symptoms alone are included in the case series, this will dilute the case series with many people who should be non-cases, tending to bias the results toward the null value. This must be balanced against the consideration that cases defined by ancillary tests may slant the cases towards those with more advanced or severe disease
Exposure	Some measure of exposure in addition to interview or self-report; existing objective records assembled prior to the beginning of the study, recording work activities and work environmental variables quantitatively (e.g., length of employment)	Exposure data in addition to self-report, but lacking a quantitative measure; self-report of a validated quantitative scale	Self-report alone of a scale that lacks validation or quantitative measurement	Recall bias is the major information bias that threatens the validity of case-control studies; it may be mitigated if the questionnaire or interview includes extraneous items not related to the exposure under study

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Participation rates	Clear reporting of the number of eligible participants, the numbers who did participate, the numbers of refusals, and the reasons for refusal	Reporting of participation rates, with refusals to participate, and at least some descriptive (demographic) information on those who refuse participation	Participation rates are lacking	Participants in a study may differ from non-participants, especially if participation is time-consuming, requires time outside work, or is otherwise inconvenient
Selection of cases	Incident cases (newly diagnosed)	Mix of incident and prevalent cases, with clear delineation of which cases are which and how long the prevalent cases have had the condition	Undefined mix of prevalent and incident cases, with a large number of prevalent cases	Variables associated with prevalent cases may be predictors of survival and may be mistaken for predictors of disease occurrence; prevalence data may be useful for estimating burden of disease but do not provide evidence of disease onset. If reliable data is available on potential exposures prior to the onset of incident cases, there may be some evidence of temporality in a case-control study.

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Selection of controls	Description of selection is clear, and consists of controls drawn from the source population of the cases (e.g., both drawn from the general population, or both drawn from the same industrial facilities)	Description of selection is clear, but consists of controls drawn from populations that may differ from the source of the cases (e.g., cases drawn from a single factory and controls from a general population)	Description of selection is not clear enough to determine which source population the controls may represent.	Control selection should reflect the exposure distribution of the hypothetical cohort from which the cases arose
Selection of both cases and controls	Selection (including recruitment) of participants is unlikely to be influenced by exposure	Selection of participants may be influenced by exposure	Selection of participants is likely to be influenced by exposure	If cases and controls volunteer for the study, exposed cases may volunteer at higher rates than exposed non-cases
Confounders	See cohort study			
Sponsorship and competing interests	See cohort study			
Reporting of precision of main results	See cohort study			
Biological plausibility	See cohort study			
Statistical power	See cohort study			
Statistical assumptions	See cohort study			
Statistical analysis	See cohort study			