

Evaluation

Study design: cohort study

Questions to consider:

Control of threats to internal validity

- Control of selection bias
 - Is the exposure clearly defined and measurable?
 - Are the exposed and unexposed groups similar except for the exposure that defines them into their group memberships?
 - Were inclusion and exclusion criteria clearly stated?
- Control of information bias
 - Is the outcome clearly defined and measurable?
 - Was the outcome identified in the same way for the exposed and unexposed groups?
 - Was the outcome measured by an observer who was kept unaware of the exposure status of the subjects?
- Completeness of follow-up
 - What was done to maintain completeness of follow-up?
 - Was attrition similar in the exposed and unexposed groups?
 - How many subjects were retained at each stage of the study?—A flow diagram is the best way to display this information
- Control of confounding
 - Were efforts made to measure potential confounders (age, smoking, BMI, physical activity outside occupation) which may be directly associated with both exposure and outcome but are not in the causal pathway?
 - What was done to control for the effects of confounders (stratification, multiple regression)?
- Control of random chance
 - Was the effect of the exposure reported both with a single point estimate and with confidence intervals (conventionally set at 95% but may be set differently)?
 - Were enough subjects enrolled and followed up to detect a clinically important difference (reporting of the statistical power of the study)?

Control of threats to external validity

- Do the results apply to a workers' compensation population?
- Were compensation cases excluded from the study population?

Were sponsorship, funding source, and competing interests of authors stated?

Are the authors' conclusions convincingly supported by methods and results, or are alternative interpretations of the same data also plausible? What else might the results mean?

Assessment: high-quality, adequate, inadequate, not applicable (may be different with respect to different conclusions when the authors make more than one inference from their data)

CUMULATIVE TRAUMA