Newcastle-Ottawa Quality Assessment Scale

(Case-Control Studies)

Selection

1) Is the case definition adequate?
    a) yes, with independent validation *
    b) yes, eg record linkage or based on self-reports
    c) no description
2) Representativeness of the cases
    a) consecutive or obviously representative series of cases *
    b) potential for selection biases or not stated
3) Selection of Controls
    a) community controls *
    b) hospital controls
    c) no description
4) Definition of Controls
    a) no history of disease (endpoint) *
    b) no description of source

Note: Selection bias is the bias introduced by selecting individuals, groups, or data for analysis so that proper randomization is not achieved, thereby ensuring that the sample obtained is not representative of the population intended to be analyzed.

Comparability

Comparability of cohorts based on the design or analysis

a) The study controls for age, sex and marital status (one *)

b) Study controls for other factors (BRAAK stages etc) _____ (one *)

c) Cohorts are not comparable on the basis of the design or analysis controlled for confounders

Exposure

1) Ascertainment of exposure
    a) Secure record (eg surgical records) *
    b) Structured interview where blind to case/control status *
    c) Interview not blinded to case/control status
    d) Written self-report or medical record only
    e) No description
2) Same method of ascertainment for cases and controls
    a) yes *
    b) no
3) Non-Response rate
    a) Same rate for both groups *
    b) Non respondents described
    c) Rate different and no designation

Note: Ascertainment bias arises when data for a study or an analysis are collected (or surveyed, screened, or recorded) such that some members of the target population are less likely to be included in the final results than others.

Note*: A study can be awarded a maximum of one star for each numbered item within the Selection and exposure categories. Comparability is awarded a maximum of two stars.*

QUADAS-2 scoring questions

Patient Selection

1. Was a consecutive or random sample of patients enrolled? (yes/no/unclear)
2. Was a case-control design avoided? (yes/no/unclear)
3. Did the study avoid inappropriate exclusions? (yes/no/unclear)

Applicability: Is there concern that the included patients do not match? (low/high/unclear)

Index Test (Platform Used for Biomarker quantification)

1. Were the index test results interpreted without knowledge of the results of the reference standard? (yes/no/unclear)
2. If a threshold was used, was it pre-specified? (yes/no/unclear)

Applicability: Is there concern that the index test, conduct, or interpretation differ from the review question? (low/high/unclear)

Reference Standard (Established clinical diagnostic criteria)

1. Is the reference standard likely to correctly classify the target condition? (yes/no/unclear)
2. Were the reference standard results interpreted without knowledge of the results of the index test? (yes/no/unclear)

Applicability: Is there concern that the target condition as defined by the reference standard does not match the review question? (low/high/unclear)

Flow and Timing (Interval b/w index test and reference standard)

1. Was there an appropriate interval between index test(s) and reference standard? (yes/no/unclear)
2. Did all patients receive a reference standard? (yes/no/unclear)
3. Did patients receive the same reference standard? (yes/no/unclear)
4. Were all patients included in the analysis? (yes/no/unclear)