

## S1 File. 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

#### Comparability

1) Comparability of cases and controls on the basis of the design or analysis

- a) study controls for \_\_\_\_\_ ✱
- b) study controls for any additional factor ✱

## **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

## COHORT STUDIES

### Selection

#### 1) Representativeness of the exposed cohort

- a) truly representative of the average \_\_\_\_\_ in the community \*
- b) somewhat representative of the average \_\_\_\_\_ in the community \*
- c) selected group of users eg nurses, volunteers
- d) no description of the derivation of the cohort

#### 2) Selection of the non exposed cohort

- a) drawn from the same community as the exposed cohort \*
- b) drawn from a different source
- c) no description of the derivation of the non exposed cohort

#### 3) Ascertainment of exposure

- a) secure record (eg surgical records) \*
- b) structured interview \*
- c) written self report
- d) no description

#### 4) Demonstration that outcome of interest was not present at start of study

- a) yes \*
- b) no

### Comparability

#### 1) Comparability of cohorts on the basis of the design or analysis

- a) study controls for \_\_\_\_\_ \*
- b) study controls for any additional factor \*

## Outcome

### 1) Assessment of outcome

- a) independent blind assessment ✱
- b) record linkage ✱
- c) self report
- d) no description

### 2) Was follow-up long enough for outcomes to occur

- a) yes ✱
- b) no

### 3) Adequacy of follow up of cohorts

- a) complete follow up - all subjects accounted for ✱

b) subjects lost to follow up unlikely to introduce bias - small number lost - > 20 %, or description provided of those lost ✱

- c) no description of those lost
- d) no statement

## ADAPTED FOR CROSS-SECTIONAL STUDIES

### Selection: (Maximum 3 stars)

#### 1) Representativeness of the sample:

- a) Truly representative of the average in the target population. ✱ (all subjects or random sampling)
- b) Somewhat representative of the average in the target population. ✱ (non-random sampling)

- c) Selected group of users.
- d) No description of the sampling strategy.

2) Non-respondents:

- a) Comparability between respondents and non-respondents characteristics is established, and the response rate is satisfactory. ✱
- b) The response rate is unsatisfactory, or the comparability between respondents and non-respondents is unsatisfactory.
- c) No description of the response rate or the characteristics of the responders and the non-responders.

3) Ascertainment of the exposure (risk factor):

- a) Validated measurement tool. ✱
- b) Non-validated measurement tool, but the tool is available or described.
- c) No description of the measurement tool.

**Comparability:** (Maximum 2 stars)

1) The subjects in different outcome groups are comparable, based on the study design or analysis. Confounding factors are controlled.

- a) The study controls for the most important factor. ✱
- b) The study control for any additional factor. ✱

**Outcome:** (Maximum 2 stars)

1) Assessment of the outcome:

- a) Independent blind assessment. ✱
- b) Record linkage. ✱
- c) Self report.
- d) No description.

2) Statistical test:

- a) The statistical test used to analyze the data is clearly described and appropriate, and the

measurement of the association is presented, including confidence intervals and the probability level (p value). ✱

b) The statistical test is not appropriate, not described or incomplete.

The scale assessing cross-sectional studies was a modified version of the Newcastle-Ottawa Scale, it was also used by several other studies that found it appropriate for assessing the quality of cross-sectional studies.