

Additional file 5. Figure S4

Newcastle-Ottawa Quality Assessment for cohort studies (Adapted)

A. Selection

- 1) Representativeness of the cohort
 - a) Truly representative of the source population (**one star**)
 - b) Somewhat representative of the source population (**one star**)
 - c) Selected group of users e.g nurses, volunteers
 - d) No description of the derivation of the cohort
 - e) Not clear

- 2) Is the analysis sample representative of the full cohort?
 - a) Yes – information given (**one star**)
 - b) Somewhat – information provided, but sample different or no real comparison given
 - c) No information given/ not clear

- 3) Exposure: Ascertainment of biological exposures
 - a) Secure record (e.g surgical records) (**one star**)
 - b) Directly measured by the study(**one star**)
 - c) Doesn't include biological exposures (**one star**)
 - d) Mixture of secure record and direct measurement by the study(**one star**)
 - e) Structured interview
 - f) Written self-report
 - g) No description/ not clear

- 4) Demonstration that the outcome was not present at the beginning of the study?
 - a) Yes (**one star**)
 - b) No
 - c) No description/ not clear

B. Comparability

- 1) Do main analyses of observational data control for confounders?
 - a) Yes (**one star**)
 - b) No
 - c) Information not provided/ not clear

C. Outcome

- 1) Ascertainment of MHO/MetS in an obese cohort
 - a) Secure record (e.g surgical records) (**one star**)
 - b) Directly measured by the study(**one star**)
 - c) Mixture of secure record and direct measurement by the study(**one star**)
 - d) Self-report

e) No description/ not clear

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

a) Yes (follow up exceeded 5 years) (**one star**)

b) No

c) No information given/ not clear

3) Adequacy of follow-up of cohorts

a) Complete follow up- all subjects accounted for (**one star**)

b) Subjects lost to follow-up unlikely to introduce bias- number lost less than or equal to 20% or description of those lost (suggested no different from those followed) (**one star**)

c) Follow up rate less than 80% and no description of those lost

d) No statement/ not clear

e) Cross-sectional with retrospective report of exposures, thus not applicable

Thresholds for converting the Newcastle-Ottawa scales to AHRQ standards (good, fair, and poor):

Good quality: 3 or 4 stars in selection domain AND 1 star in comparability domain AND 2 or 3 stars in outcome/exposure domain

Fair quality: 2 stars in selection domain AND 1 star in comparability domain AND 2 or 3 stars in outcome/exposure domain

Poor quality: 0 or 1 star in selection domain OR 0 stars in comparability domain OR 0 or 1 stars in outcome/exposure domain

