Appendix 4, table 1 – Quality assessment

Quality assessment tool for Observational Cohort and Cross-Sectional Studies (tool from National Heart, Lung and Blood Institute (NHLBI)) (1)

Study number*	2	3	4	5	6	7	8	9	10	11	12	13	14	16	17	18	19
1. Was the research question or objective in this paper clearly stated?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
2. Was the study population clearly specified and defined?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
3. Was the participation rate of eligible persons at least 50%?	cd**	cd	cd	cd	cd	no	cd	cd	yes	yes	cd	yes	cd	yes	yes	cd	cd
4. Were all the subjects selected or recruited from the same or similar populations (including the same time period)? Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	cd
5. Was a sample size justification, power description, or variance and effect estimates provided?	no	yes	no	no	no	yes	yes	yes	yes	yes	no	yes	yes	no	no	no	yes
6. For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?	yes	cd	yes	yes	cd	cd	no	cd	no	yes	yes	yes	yes	yes	cd	yes	yes
7. Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
8. For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)?	na	na	na	na	na	na	na	na	na	na	na	na	na	na	n	na	na
9. Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	cd	yes	yes	yes	No	yes	yes
10. Was the exposure(s) assessed more than once over time?	no	no	no	no	no	no	no	no	no	no	cd	no	no	no	no	no	no
11. Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?	yes	yes	yes	yes	yes	yes	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes
12. Were the outcome assessors blinded to the exposure status of participants?	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
13. Was loss to follow-up after baseline 20% or less?	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
14. Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?	yes	no	yes	no	yes	no	yes	yes	yes	yes	yes	yes	yes	no	yes	no	yes
Overall quality (good, fair or poor)	fair	poor	good	poor	poor	fair	poor	poor	poor	poor	poor	fair	poor	poor	poor	poor	poor

* Study number is connected to the numbers given to the studies in table 1.
** cd = cannot determine

Quality assessment tool for Observational Cohort and Cross-Sectional Studies (tool from National Heart, Lung and Blood Institute (NHLBI)) (2)

Study number*	21	24	26	28	29	30	32	33	34	36
1. Was the research question or objective in this paper clearly stated?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
2. Was the study population clearly specified and defined?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
3. Was the participation rate of eligible persons at least 50%?	yes	yes	cd	Yes	yes	cd	yes	yes	cd	yes
4. Were all the subjects selected or recruited from the same or similar populations (including the same time period)? Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants?	yes	yes	yes	yes	yes	cd	yes	yes	yes	yes
5. Was a sample size justification, power description, or variance and effect estimates provided?	yes	yes	no	yes	no	no	no	no	yes	Yes
6. For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?	yes	cd	cd	cd	yes	yes	yes	yes	yes	Yes
7. Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?	yes	yes	yes	yes	yes	yes	yes	yes	yes	Yes
8. For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)?	na	na	na	na	na	na	na	na	na	Na
9. Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?	yes	yes	yes	yes	yes	yes	yes	yes	yes	Yes
10. Was the exposure(s) assessed more than once over time?	no	no	no	no	no	no	no	no	no	no
11. Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
12. Were the outcome assessors blinded to the exposure status of participants?	no	no	no	no	no	no	no	no	no	no
13. Was loss to follow-up after baseline 20% or less?	na	na	na	na	na	na	na	na	na	na
14. Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?	yes	yes	yes	yes	no	no	yes	no	yes	yes
Overall quality (good, fair or poor)	poor	poor	poor	poor	poor	poor	good	poor	poor	poor

* Study number is connected to the numbers given to the studies in table 1.
** cd = cannot determine

Quality assesment of Case-Control Studies (tool from National Heart, Lung and Blood Institute (NHLBI))

Study number*	1	15	20	22	23	25	27	31	35
1. Was the research question or objective in this paper clearly stated and appropriate?	yes	yes	yes	yes	yes	yes	yes	yes	yes
2. Was the study population clearly specified and defined?	yes	yes	yes	yes	yes	yes	yes	yes	yes
3. Did the authors include a sample size justification?	yes	no	cd	yes	yes	no	no	no	yes
4. Were controls selected or recruited from the same or similar population that gave rise to the cases (including the same timeframe)?	yes	yes	yes	yes	yes	yes	yes	yes	yes
5. Were the definitions, inclusion and exclusion criteria, algorithms or processes used to identify or select cases and controls valid, reliable, and implemented consistently across all study participants?	yes	yes	yes	yes	yes	no	no	yes	yes
6. Were the cases clearly defined and differentiated from controls?	yes	yes	yes	yes	yes	yes	yes	yes	yes
7. If less than 100 percent of eligible cases and/or controls were selected for the study, were the cases and/or controls randomly selected from those eligible?	yes	cd	no	yes	na	na	na	cd	na
8. Was there use of concurrent controls?	yes	yes	yes	yes	yes	yes	yes	yes	yes
9. Were the investigators able to confirm that the exposure/risk occurred prior to the development of the condition or event that defined a participant as a case?	yes	yes	yes	yes	yes	yes	yes	yes	yes
10. Were the measures of exposure/risk clearly defined, valid, reliable, and implemented consistently (including the same time period) across all study participants?	yes	yes	yes	yes	yes	yes	yes	yes	yes
11. Were the assessors of exposure/risk blinded to the case or control status of participants?	yes	no	No	No	no	no	no	no	no
12. Were key potential confounding variables measured and adjusted statistically in the analyses? If matching was used, did the investigators account for matching during study analysis?	yes	yes	No	yes	yes	yes	yes	no	yes
Overall quality (good, fair or poor)	good	fair	fair	good	good	fair	fair	fair	good

*CD, cannot determine; NA, not applicable; NR, not reported

* Study number is connected to the numbers given to the studies in table 1.
** cd = cannot determine