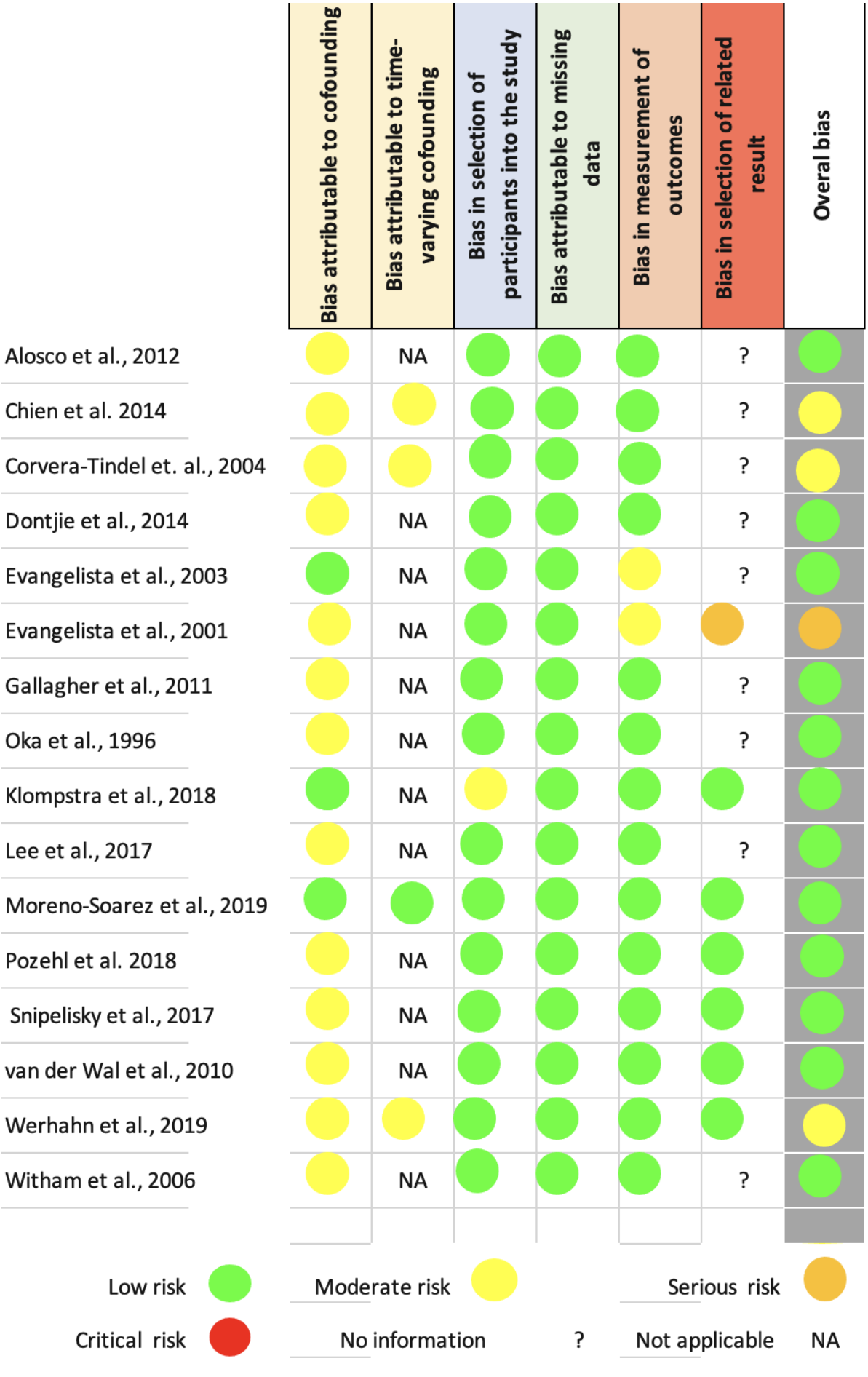
Supplement 7. Risk of bias (study-level)

Tools used for the risk of bias assessment

Bias domain	*Question to consider*
Selection bias	*'Was selection into the study unrelated to both the exposure and outcomes?'* (Dekker et al. 2019 p.4). ROBIN-I
	'Were the reasons for missing data unrelated to the exposure and outcomes?' (Dekker et al. 2019). ROBIN-I
	'Were the controls sampled from the population that gave rise to the cases?' (Dekker et al. 2019). WGIB; AXIS.
Missing data bias	*'Were the reasons for the missing data related to the predictor being assessed?'* (Dekker et al. 2019). ROBIN-I; AXIS; WGIB
	'Were the reasons for missing data related to case/exposure status?'[1] (Dekker et al. 2019). ROBIN-I
Confounding **Time-varying confounding (if applicable)**	'*What are the important variables that might confound the effect of the exposure?*'(Dekker et al. 2019, p4). Included in ROBIN-I, WGIB, AXIS Is there evidence that controlling for this variable was unnecessary? (ROBIN-I)
	We're confounding variables measured at appropriate points in time. (Dekker et al. 2019). Included in ROBIN-I
	Did the authors use an appropriate analysis method or design that adjusted for all of the important confounding variables? (Dekker et al. 2019 p4). Included in ROBIN-I *Was the confounding variable measured using appropriate measurement?* (ROBIN-I) *Were time-varying confounding variables assessed?*[1] (ROBIN-I) *Was the follow-up/time lag appropriate (and balanced across groups[1])?* (WGIB) *Any attempt to balance the allocation between the groups or match groups (e.g., through stratification, matching, propensity score?*[2] (WGIB)
Information bias/Measurement bias	*'Were outcome assessors unaware of the exposure status of study participants?'* (Dekker et al. 2019). ROBIN-I; AXIS; WGIB
	Were the methods of outcome assessment comparable across exposure groups? (Dekker et al. 2019). ROBIN-I.
	'Was the definition of case status applied without knowledge of exposure status?' (Dekker et al. 2019). ROBIN-I
	'Was data collection on exposure status unaffected by knowledge of the outcome or risk of the outcome?'(Dekker et al. 2019; and ROBIN-I)
Results summary bias/Statistical analysis	Was the sample size justified? (AXIS) Were results adequately described? (AXIS; WGIB) Were the precision and significance estimates clear (AXIS; WGIB) Were results internally consistent (AXIS; WGIB)?
Selective reporting	Were all outcomes reported? Is there evidence that not all outcomes were reported (ROBIN-I; AXIS; WGIB)

[1] Cohort studies

[2] Case-control studies


Bias attributable to cofounding
Bias attributable to time-varying cofounding
Bias in selection of participants into the study
Bias attributable to missing data
Bias in measurement of outcomes
Bias in selection of related result
Overal bias
Alosco et al., 2012
Chien et al. 2014
Corvera-Tindel et. al., 2004
Dontjie et al., 2014
Evangelista et al., 2003
Evangelista et al., 2001
Gallagher et al., 2011
Oka et al., 1996
Klompstra et al., 2018
Lee et al., 2017
Moreno-Soarez et al., 2019
Pozehl et al. 2018
Snipelisky et al., 2017
van der Wal et al., 2010
Werhahn et al., 2019
Witham et al., 2006
NA
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Low risk
Moderate risk
Serious risk
Critical risk
No information
Not applicable