Table S1: Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (#a), Case-Control Studies (#b), Quality Assessment of Controlled Intervention Studies (#c), Quality Assessment Tool for Before-After (Pre-Post) Studies with No Control Group (#d)

#a. Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies

Criteria	Eslamian et al	Hulsewe et al (b)	Kanwar et al	Liboredo et al	Zhao et al
Was the research question or objective in this paper clearly stated?	Yes	Yes	Yes	Yes	Yes
Was the study population clearly specified and defined?	Yes	No	Yes	Yes	Yes
Was the participation rate of eligible persons at least 50%?	Yes	NR	NR	NR	Yes
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	No	No	Yes	Yes
Was a sample size justification, power description, or variance and effect estimates provided?	No	No	No	No	Yes
For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?	No	No	Yes	No	Yes
Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?	No	No	No	No	No
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)?	Yes	No	Yes	No	Yes
Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?	Yes	Yes	Yes	Yes	Yes
Was the exposure(s) assessed more than once over time?	No	No	Yes	No	No
Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?	Yes	Yes	Yes	Yes	Yes
Were the outcome assessors blinded to the exposure status of participants?	Yes	No	NR	No	NR
Was loss to follow-up after baseline 20% or less?	NA	NA	Yes	NA	NA
Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?	Yes	No	No	No	No
Quality Rating (Good, Fair, or Poor)	Fair	Poor	Fair	Poor	Fair

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

#b. Quality Assessment of Case-Control Studies

Criteria	Fahim et al	Grigioni et al	Hossain et al	Monteleone et al	Norman et al	Reynold et al	Takimoto et al	Van der Hust et al	Welsh et al
Was the research question or objective in this paper clearly stated and appropriate?	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Was the study population clearly specified and defined?	Yes	Yes	Yes	No	Yes	No	Yes	No	No
Did the authors include a sample size justification?	No	No	No	No	No	No	No	No	No
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	No	Yes	No	CD	Yes
Were the definitions, inclusion and	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No

exclusion criteria, algorithms or processes used to identify or select cases and controls valid, reliable, and implemented consistently across all study participants?									
Were the cases clearly defined and differentiated from controls?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
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?	CD	CD	CD	CD	CD	CD	CD	CD	CD
Was there use of concurrent controls?	NR	Yes	NR	NR	NR	NR	NR	NR	NR
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?	No	No	No	No	No	No	No	No	No
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
Were the assessors of exposure/risk blinded to the case or control status of participants?	No	No	Yes	No	No	Yes	No	No	No
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	No	No	No	No	No	No	No	No
Quality Rating (Good, Fair, or Poor)	Fair	Fair	Fair	Poor	Fair	Fair	Poor	Poor	Poor

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

#d. Quality Assessment of Controlled Intervention Studies

Criteria	Hulsewé (a) et al
Was the study described as randomized, a randomized trial, a randomized clinical trial, or an RCT?	Yes
Was the method of randomization adequate (i.e., use of randomly generated assignment)?	NR
Was the treatment allocation concealed (so that assignments could not be predicted)?	NR
Were study participants and providers blinded to treatment group assignment?	Yes

Were the people assessing the outcomes blinded to the participants' group assignments?	Yes
Were the groups similar at baseline on important characteristics that could affect outcomes (e.g., demographics, risk factors, co-morbid conditions)?	Yes
Was the overall drop-out rate from the study at endpoint 20% or lower of the number allocated to treatment?	No
Was the differential drop-out rate (between treatment groups) at endpoint 15 percentage points or lower?	NR
Was there high adherence to the intervention protocols for each treatment group?	NR
Were other interventions avoided or similar in the groups (e.g., similar background treatments)?	Yes
Were outcomes assessed using valid and reliable measures, implemented consistently across all study participants?	Yes
Did the authors report that the sample size was sufficiently large to be able to detect a difference in the main outcome between groups with at least 80% power?	Yes
Were outcomes reported or subgroups analyzed prespecified (i.e., identified before analyses were conducted)?	Yes
Were all randomized participants analyzed in the group to which they were originally assigned, i.e., did they use an intention-to-treat analysis?	No
Quality Rating (Good, Fair, or Poor)	Fair

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

#c. Quality Assessment Tool for Before-After (Pre-Post) Studies with No Control Group

Criteria	Hendriks et al
Was the study question or objective clearly stated?	Yes
Were eligibility/selection criteria for the study population prespecified and clearly described?	Yes
Were the participants in the study representative of those who would be eligible for the test/service/intervention in the general or clinical population of interest?	Yes
Were all eligible participants that met the prespecified entry criteria enrolled?	NR
Was the sample size sufficiently large to provide confidence in the findings?	No
Was the test/service/intervention clearly described and delivered consistently across the study population?	No
Were the outcome measures prespecified, clearly defined, valid, reliable, and assessed consistently across all study participants?	Yes
Were the people assessing the outcomes blinded to the participants' exposures/interventions?	NR
Was the loss to follow-up after baseline 20% or less? Were those lost to follow-up accounted for in the analysis?	NA
Did the statistical methods examine changes in outcome measures from before to after the intervention? Were statistical tests done that provided p values for the pre-to-post changes?	Yes
Were outcome measures of interest taken multiple times before the intervention and multiple times after the intervention (i.e., did they use an interrupted time-series design)?	Yes
If the intervention was conducted at a group level (e.g., a whole hospital, a community, etc.) did the statistical analysis take into account the use of individual-level data to determine effects at the group level?	No
Quality Rating (Good, Fair, or Poor)	Fair

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