

Table S1 Modified version of A Measurement Tool to Assess Systematic Reviews 2

1. Did the research questions and inclusion criteria for the review include the key components of the focused theme?

For example, systematic reviews that include case control studies, cohort studies, cross-sectional studies of the association of certain exposure factors and relevant outcomes.

For Yes:

- population
- exposure factors
- comparator
- outcomes

- Yes
- No

2. Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?

For Partial Yes:

The authors state that they had a written protocol or guide that included ALL the following:

- review question(s)
- a search strategy
- inclusion/exclusion criteria
- a risk of bias assessment

- Yes
- Partial Yes
- No

For Yes:

As for Partial Yes, plus the protocol should be registered and should also have specified:

- a meta-analysis/synthesis plan, if appropriate, and
- a plan for investigating causes of heterogeneity
- justification for any deviations from the protocol

3. Did the review authors explain their selection of the study designs for inclusion in the review?

For Yes, the review should satisfy the following:

- explanation for including only cross-sectional studies
- or explanation for including only case control studies
- or explanation for including only cohort studies
- or explanation for including two or more of cross-sectional studies, case control studies, cohort studies

- Yes
- No

4. Did the review authors use a comprehensive literature search strategy?

For Partial Yes (ALL the following):

- | | |
|--|--------------------------------------|
| <input type="checkbox"/> searched at least 2 databases (relevant to research question) | <input type="checkbox"/> Yes |
| <input type="checkbox"/> provided key word and/or search strategy | <input type="checkbox"/> Partial Yes |
| <input type="checkbox"/> justified publication restrictions (eg, language) | <input type="checkbox"/> No |

For Yes, should also have (ALL the following):

- searched the reference lists / bibliographies of included studies
- searched trial/study registries
- included/consulted content experts in the field where relevant, searched for grey literature
- conducted search within 24 months of completion of the review

5. Did the review authors perform study selection in duplicate?

For Yes, either ONE of the following:

- | | |
|--|------------------------------|
| <input type="checkbox"/> at least 2 reviewers independently agreed on selection of eligible studies and achieved consensus on which studies to include | <input type="checkbox"/> Yes |
| <input type="checkbox"/> OR 2 reviewers selected a sample of eligible studies and achieved good agreement (at least 80 percent), with the remainder selected by one reviewer | <input type="checkbox"/> No |

6. Did the review authors perform data extraction in duplicate?

For Yes, either ONE of the following:

- | | |
|--|------------------------------|
| <input type="checkbox"/> at least 2 reviewers achieved consensus on which data to extract from included studies | <input type="checkbox"/> Yes |
| <input type="checkbox"/> OR 2 reviewers extracted data from a sample of eligible studies and achieved good agreement (at least 80 percent), with the remainder extracted by one reviewer | <input type="checkbox"/> No |

7. Did the review authors provide a list of excluded studies and justify the exclusions?

For Partial Yes:

- | | |
|--|--------------------------------------|
| <input type="checkbox"/> provided a list of all potentially relevant studies that were read in full-text form but excluded from the review | <input type="checkbox"/> Yes |
| | <input type="checkbox"/> Partial Yes |
| | <input type="checkbox"/> No |

For Yes, must also have:

- justified the exclusion from the review of each potentially relevant study

8. Did the review authors describe the included studies in adequate detail?

For Partial Yes (ALL the following):

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> described populations | <input type="checkbox"/> Yes |
| <input type="checkbox"/> described exposure factors | <input type="checkbox"/> Partial Yes |
| <input type="checkbox"/> described comparators | <input type="checkbox"/> No |
| <input type="checkbox"/> described outcomes | |
| <input type="checkbox"/> described research designs | |

For Yes, should also have ALL the following:

- described population in detail
- described exposure factors in detail
- described comparators in detail
- described study's setting

9. Did the review authors use a satisfactory technique for assessing the risk of bias in individual studies that were included in the review?

Cohort studies

For Partial Yes, must have assessed:

- from confounding, and
- from selection bias

- Yes
- Partial Yes
- No

For Yes, must also have assessed:

- methods used to ascertain exposure and outcomes, and
- adequate follow up period for outcome of interest
- record linkage of independent blind assessment of outcome
- adequacy of follow up of cohorts (complete follow up/subjects lost to follow up unlikely to introduce bias)

Case control studies

For Partial Yes, must have assessed:

- from confounding, and
- from selection bias

- Yes
- Partial Yes
- No

For Yes, must also have assessed:

- methods used to ascertain exposures and outcomes, and
- same method of ascertainment exposures for both groups
- same non-response rate for both groups

Cross-sectional studies

For Partial Yes, must have assessed:

- from confounding, and
- from selection bias

- Yes
- Partial Yes
- No

For Yes, must also have assessed:

- methods used to ascertain exposures and outcomes, and
- appropriate statistical analysis used

10. Did the review authors report on the sources of funding for the studies included in the review?

For Yes:

- must have reported on the sources of funding for individual studies included in the review

- Yes
- No

Note: reporting that the reviewers looked for this information but it was not reported by study authors also qualifies

11. If meta-analysis was performed did the review authors use appropriate methods for statistical combination of results?

For Yes:

- | | |
|--|---|
| <input type="checkbox"/> the authors justified combining the data in a meta-analysis | <input type="checkbox"/> Yes |
| <input type="checkbox"/> and they used an appropriate weighted technique to combine study results and adjusted for heterogeneity if present. | <input type="checkbox"/> No |
| <input type="checkbox"/> and investigated the causes of any heterogeneity | <input type="checkbox"/> No meta-analysis conducted |

12. If meta-analysis was performed, did the review authors assess the potential impact of risk of bias in individual studies on the results of the meta-analysis or other evidence synthesis?

For Yes:

- | | |
|--|---|
| <input type="checkbox"/> included only low risk of bias individual studies | <input type="checkbox"/> Yes |
| <input type="checkbox"/> or, if the pooled estimate was based on individual studies at variable risk of bias, the authors performed analyses to investigate possible impact of risk of bias on summary estimates of effect | <input type="checkbox"/> No |
| | <input type="checkbox"/> No meta-analysis conducted |

13. Did the review authors account for risk of bias in individual studies when interpreting/discussing the results of the review?

For Yes:

- | | |
|--|------------------------------|
| <input type="checkbox"/> included only low risk of bias individual studies | <input type="checkbox"/> Yes |
| <input type="checkbox"/> or, if individual studies with moderate or high risk of bias, provided a discussion of the likely impact of risk of bias on the results | <input type="checkbox"/> No |

14. Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?

For Yes:

- | | |
|--|------------------------------|
| <input type="checkbox"/> there was no significant heterogeneity in the results | <input type="checkbox"/> Yes |
| <input type="checkbox"/> or if heterogeneity was present the authors performed an investigation of sources of any heterogeneity in the results and discussed the impact of this on the results of the review | <input type="checkbox"/> No |

15. If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?

For Yes:

- | | |
|--|---|
| <input type="checkbox"/> performed graphical or statistical tests for publication discussed likelihood and magnitude of impact of publication bias | <input type="checkbox"/> Yes |
| | <input type="checkbox"/> No |
| | <input type="checkbox"/> No meta-analysis conducted |

16. Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?

For Yes:

- | | |
|---|------------------------------|
| <input type="checkbox"/> the authors reported no competing interests or | <input type="checkbox"/> Yes |
| <input type="checkbox"/> the authors described their funding sources and how they managed potential conflicts of interest | <input type="checkbox"/> No |

Table S2 Summary of basic information of included studies

Study	Country	Journal	Study population	Number of included studies	Exposure (periodontal disease)	Outcome (systemic disease)	Conclusion
Chen et al. 2024 [1]	China	Med Oral Patol Oral Cir Bucal	End-stage renal disease (ESRD) patients	8	Periodontitis	Cardiovascular mortality, all-cause mortality	Periodontitis does not impact all-cause and cardiovascular mortality in ESRD patients
Dewan et al. 2024 [2]	India	Dent Med Probl	Adults	13	Periodontitis and gingivitis	Stroke (ischemic stroke, hemorrhagic stroke, transient ischemic attacks)	A significant association between stroke and periodontal disease
Ma et al. 2024 [3]	China	BMC Oral Health	Human	73	Periodontitis	Dyslipidemia	Periodontal disease is a risk factor for high triglyceride and low high-density lipoprotein levels
Aguiar et al. 2024 [4]	Brazil	Clinics	Human	9	Periodontal disease	Gastric adenocarcinoma	The presence of periodontal disease increased the risk of gastric adenocarcinoma
Li et al. 2024 [5]	China	Clin Oral Investig	Human	18	Periodontitis	Dental caries (crown caries, root caries)	A positive correlation between dental caries and periodontitis clinically
Lin et al. 2024 [6]	China	Dement Geriatr Cogn Disord	Adults	7	Periodontitis	Mild cognitive impairment	Patients with periodontitis are at a higher risk of developing mild cognitive impairment
Ma et al. 2024 [7]	China	Acta Odontol Scand	Human	16	Periodontitis	Oral cancer	Periodontitis may serve as a potential risk factor for oral cancer
Wang et al. 2024 [8]	China	Clin Oral Investig	Human	9	Periodontitis	Halitosis	A positive association was observed between halitosis and periodontitis
Rosário-Dos-Santos et al. 2023 [9]	Brazil	Oral Dis	Adults	14	Periodontitis	Metabolic syndrome	Moderate and severe levels of periodontitis are associated with metabolic syndrome
Leelaviwat et al. 2023 [10]	USA	J Arrhythm	Human	4	Periodontal disease	Atrial fibrillation or atrial flutter	Periodontal disease increases the risk of atrial fibrillation and atrial flutter

Study	Country	Journal	Study population	Number of included studies	Exposure (periodontal disease)	Outcome (systemic disease)	Conclusion
Larvin et al. 2023 [11] ^a	UK	Age Ageing	Human	39	Periodontal disease	Cognitive disorders (dementia and Alzheimer's disease, cognitive decline)	Periodontal disease demonstrated increased risks of cognitive disorders
Molina et al. 2023 [12]	Spain	J Clin Periodontol	Adults	75	Periodontitis	Respiratory diseases [asthma, severe acute respiratory syndrome coronavirus 2 (SARS CoV-2) infection]	A positive association between periodontitis and coronavirus disease 2019 (COVID-19) complications has been found, but not for asthma
Larvin et al. 2023 [13] ^b	UK	Community Dent Oral Epidemiol	Populations without predefined systemic disease	30	Periodontitis	Immune-mediated systemic conditions (osteoporosis, liver disease)	The risks of developing subsequent liver disease and osteoporosis are significantly increased, though the evidence for the associations is scarce
Ortíz de Urbina Comerón et al. 2023 [14]	Spain	J Clin Med	Men	7	Periodontal disease	Prostate inflammation	The incidence of periodontal disease does not increase the risk of the incidence of prostate inflammation
Yang et al. 2023 [15]	China	BMJ Open	Adults	22	Periodontal disease	Chronic obstructive pulmonary disease (COPD), COPD-related acute exacerbation or mortality	Periodontal disease confers no risk for COPD and COPD-related events when strictly adjusted by smoking
Guo et al. 2023 [16]	China	PLoS One	Adults free of cardiovascular disease (CVD) at initially	39	Moderate or severe periodontal disease	Cardiovascular outcome (coronary heart disease, stroke, cardiac death), all-cause mortality	Periodontal disease were associated with an increased risk of coronary heart disease, stroke, cardiac death, and all-cause mortality
Xu et al. 2023 [17]	China	Community Dent Health	Human	7	Periodontitis	Non-alcoholic fatty liver disease	Current evidence fails to demonstrate a link between periodontitis and non-alcoholic fatty liver disease

Study	Country	Journal	Study population	Number of included studies	Exposure (periodontal disease)	Outcome (systemic disease)	Conclusion
Karimi et al. 2023 [18]	Iran	Health Sci Rep	Pregnant women	67	Periodontal disease	Adverse maternal or neonatal outcomes (pre-eclampsia, premature rupture of the amniotic sac, gestational diabetes, low weight at birth)	Periodontal disease may contribute to a higher risk of poor maternal and newborn outcomes in pregnant women
Khodadadi et al. 2022 [19]	Iran	J Clin Exp Dent	Adults	10	Periodontitis	Obstructive sleep apnea (OSA)	Periodontitis has a direct association with OSA. Periodontitis has been shown to be associated with mild-to-moderate OSA, but not with severe OSA
Zhang et al. 2022 [20]	China	Front Pediatr	Pregnant women	24	Periodontal disease	Adverse neonatal outcome (preterm birth, small for gestational age)	Pregnant women with periodontal disease have a significantly higher risk of preterm birth. No relationship between periodontal disease and small for gestational age
Zhang et al. 2022 [21]	China	Oral Dis	Adults	13	Periodontitis	Psoriasis	A positive association between periodontitis and psoriasis
Wang et al. 2022 [22]	China	PeerJ	Human	27	Periodontal disease	Cancer (breast, prostate, colon and rectum)	A modest association between periodontal disease and breast, prostate, colon and rectum cancer incidence. Periodontal disease may increase the risk of breast, prostate, colon and rectum cancer mortality, the overall estimate was not significant
Li et al. 2022 [23]	China	Front Oncol	Adults	11	Periodontal disease	Urogenital cancer	Periodontal disease is a potential risk factor for urogenital cancer
Kesharani et al. 2022 [24]	India	Contemp Clin Dent	Human	12	Periodontitis	Lung cancer	Periodontal disease is a potential risk factor for the development of lung cancer

Study	Country	Journal	Study population	Number of included studies	Exposure (periodontal disease)	Outcome (systemic disease)	Conclusion
Kaliamoorthy et al. 2022 [25]	India	Med Pharm Rep	Adults	5	Periodontitis	Alzheimer's disease (Alzheimer's disease or cognitive impairment)	A significant association between periodontitis and Alzheimer's disease
Romandini et al. 2021 [26]	Spain	J Dent Res	Human	57	Periodontitis	Mortality (cancer, coronary heart disease, cerebrovascular diseases, pneumonia)	Periodontitis is associated with an increased risk of all-cause and cause-specific mortality, but not for pneumonia
Larvin et al. 2021 [27]	UK	Clin Exp Dent Res	Population free from predefined systemic disease at baseline	32	Periodontal disease	CVD	Modest but consistently increased risk of CVD in periodontal disease populations
Qin et al. 2021 [28]	China	AM J EMERG MED	Not defined	10	Periodontal disease	Myocardial infarction	Periodontal disease is modestly associated with myocardial infarction, especially in women
Guo et al. 2021 [29]	China	Int J Environ Res Public Health	Human	20	Periodontitis	Dementia	No statistical significance in the effect of periodontitis on dementia. Moderate or severe periodontitis was a risk factor for dementia
Alvarenga et al. 2021 [30]	Brazil	Front Public Health	Humans with diabetes mellitus	5	Periodontitis	Diabetic retinopathy	An association between diabetic retinopathy and periodontitis, however, the quality of the body of evidence was low
Stöhr et al. 2021 [31]	Germany	Sci Rep	Humans, except pregnant women, children and adolescents	15	Periodontal disease	Diabetes mellitus	A positive bidirectional association between periodontal disease and diabetes mellitus
Sayeed et al. 2021 [32]	Saudi Arabia	J INT SOC PREV COMMU	Female	37	Periodontal disease	Metabolic syndrome	Lack of convincing proof of a link between metabolic syndrome and periodontal disease in females

Study	Country	Journal	Study population	Number of included studies	Exposure (periodontal disease)	Outcome (systemic disease)	Conclusion
Aragão et al. 2021 [33]	Brazil	Front Psychiatry	Adults	11	Periodontitis	Anxiety	Positive association between periodontitis and anxiety, although with very low certainty of evidence
Farook et al. 2021 [34]	Saudi Arabia	Am J Mens Health	Adult males	6	Periodontitis	Erectile dysfunction	A significant association exists between the periodontal disease and erectile dysfunction
Wu et al. 2020 [35]	China	Med Oral Patol Oral Cir Bucal	Patients of any age	6	Periodontitis	Hematopoietic and lymphatic cancers	Periodontal disease might be considered as a risk factor for hematopoietic and lymphatic cancers
Zhang et al. 2020 [36]	China	J Clin Periodontol	Human	10	Periodontitis	Gastrointestinal cancers	Periodontitis may be a risk factor for gastrointestinal cancers
Gopinath et al. 2020 [37]	Malaysia	Cancers	Human	21	Periodontal disease	Head and neck cancer	Periodontal disease is an independent risk factor for head and neck cancer
Nguyen et al. 2020 [38]	Australia	Diabetes Res Clin Pract	Participants with diabetes mellitus	14	Periodontal disease	Complications of diabetes mellitus (neuropathy, nephropathy, cardiovascular complications and death)	A link between poor oral health and diabetes mellitus and its complications
Gomes-Filho et al. 2020 [39]	Brazil	Oral Dis	Adults	13	Periodontitis	Respiratory diseases (pneumonia)	An association between periodontitis and pneumonia
Lv et al. 2020 [40]	China	Biomed Res Int	Human	5	Periodontal disease	Age-related macular degeneration	Periodontal disease patients have a higher risk of age-related macular degeneration
Qiao et al. 2020 [41]	China	Joint Bone Spine	Human	13	Periodontitis	Rheumatoid arthritis	An increased risk of rheumatoid arthritis in patients with periodontitis

Study	Country	Journal	Study population	Number of included studies	Exposure (periodontal disease)	Outcome (systemic disease)	Conclusion
Hussain et al. 2020 [42]	UK	Semin Arthritis Rheum	Adults with rheumatoid arthritis	6	Periodontitis	Rheumatoid arthritis (clinical activity)	Periodontal disease is associated with worse rheumatoid arthritis clinical activity
Ali et al. 2020 [43]	Australia	J Public Health	Human	13	Periodontitis	Oral human papillomavirus (HPV) infection	A positive association between periodontitis and oral HPV infection. Evidence for an association between periodontitis and high-risk oral HPV infection is inconclusive
Xu et al. 2020 [44]	China	Clin Exp Pharmacol Physiol	Human	29	Periodontitis	Hyperlipidaemia	Periodontal disease is indeed associated with hyperlipidemia in humans
Aguilera et al. 2020 [45]	UK	Cardiovasc Res	Individuals (≥ 16 years)	81	Periodontitis	Hypertension	Periodontitis could be associated with increased risk of hypertension in a linear fashion
Machado et al. 2020 [46]	Portugal	J Clin Med	Female patients	12	Periodontitis	Polycystic ovary syndrome	A higher risk of individuals with polycystic ovary syndrome being diagnosed with periodontal disease
Gobin et al. 2020 [47]	China	Front Endocrinol	Adults	43	Periodontal disease	Metabolic syndrome	Compelling evidence for the association between periodontitis and metabolic syndrome
Lorenzo-Pouso et al. 2020 [48]	Spain	Acta Odontol Scand	Patients	9	Periodontal disease	Inflammatory bowel disease	Clear evidence for an association between periodontal disease and inflammatory bowel disease
Ma et al. 2020 [49]	China	Int J Med Sci	Human	10	Periodontitis	Cancer (esophageal cancer, hematological malignancy, melanoma of skin)	A potential link between periodontitis and esophageal cancer, hematological malignancy, and melanoma of the skin
Wu et al. 2020 [50]	China	BMC Oral Health	Human	53	Periodontitis	Type 2 diabetes mellitus (T2DM)	An evident bidirectional relationship between T2DM and periodontitis

Study	Country	Journal	Study population	Number of included studies	Exposure (periodontal disease)	Outcome (systemic disease)	Conclusion
Kapellas et al. 2019 [51]	Australia	Nephrology	Adults	17	Periodontal disease	Chronic kidney disease	Moderate evidence for a positive association between periodontitis and chronic kidney disease exists
Ferreira et al. 2018 [52]	Brazil	J Dent	Human	19	Periodontitis	Peri-implantitis	Diagnosis or history of periodontitis was associated with the occurrence of peri-implantitis
Xie et al. 2018 [53]	China	Front Physiol	Human	5	Periodontal disease	Bladder cancer	Patients with periodontal disease may not be at an increased risk of developing bladder cancer
Corbella et al. 2018 [54]	Italy	PLoS One	Human	10	Periodontitis	Cancer (digestive tract cancer, corpus uteri cancer, esophagus or oropharyngeal cancer, non-Hodgkin lymphoma)	A low but statistically significant association between periodontitis and different types of cancer
Leira et al. 2017 [55]	Spain	Eur J Epidemiol	Adults	8	Periodontitis	Ischemic stroke	An association between periodontitis and ischemic stroke
Maisonneuve et al. 2017 [56]	USA	Ann Oncol	Human	8	Periodontitis	Pancreatic cancer	An association between periodontal disease and subsequent tooth loss with pancreatic cancer
Zeng et al. 2016 [57]	China	Int J Cardiol	Human	15	Periodontal disease	Carotid atherosclerosis	Periodontal disease was associated with carotid atherosclerosis

^{a,b} Different studies published by the same author in the same year. ESRD end-stage renal disease, SARS-CoV-2 severe acute respiratory syndrome coronavirus 2, COVID-19 coronavirus disease 2019, COPD chronic obstructive pulmonary disease, CVD cardiovascular disease, OSA obstructive sleep apnea, HPV human papillomavirus, T2DM type 2 diabetes mellitus

Table S3 Detailed evaluation of the methodological quality with modified version of A Measurement Tool to Assess Systematic Reviews 2

Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	All
Chen et al. 2024 [1]	Y	PY	N	PY	Y	Y	N	Y	Y	N	Y	N	N	N	Y	Y	Critically low
Dewan et al. 2024 [2]	Y	PY	N	PY	N	Y	N	Y	PY	N	N	N	Y	Y	N	Y	Critically low
Ma et al. 2024 [3]	Y	N	N	PY	Y	N	N	Y	Y	N	Y	N	N	Y	Y	Y	Critically low
Aguiar et al. 2024 [4]	Y	PY	N	PY	Y	Y	N	Y	Y	N	N	N	Y	N	Y	Y	Critically low
Li et al. 2024 [5]	Y	N	N	PY	N	Y	N	Y	Y	N	Y	N	N	N	Y	Y	Critically low
Lin et al. 2024 [6]	Y	PY	N	PY	Y	N	N	Y	Y	N	N	N	N	Y	N	Y	Critically low
Ma et al. 2024 [7]	Y	PY	N	PY	Y	N	N	Y	Y	N	Y	N	N	Y	Y	Y	Critically low
Wang et al. 2024 [8]	Y	PY	N	PY	Y	N	N	Y	PY	N	N	N	Y	Y	N	Y	Critically low
Rosário-Dos-Santos et al. 2023 [9]	Y	PY	N	PY	Y	Y	Y	Y	PY	N	Y	N	Y	Y	Y	Y	Moderate
Leelaviwat et al. 2023 [10]	Y	N	N	PY	N	N	N	Y	N	N	N	N	N	N	N	Y	Critically low
Larvin et al. 2023 [11] ^a	Y	PY	N	PY	N	N	N	PY	PY	N	Y	N	Y	Y	Y	Y	Low
Molina et al. 2023 [12]	Y	PY	N	PY	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Low
Larvin et al. 2023 [13] ^b	Y	PY	N	PY	Y	Y	Y	PY	PY	N	Y	N	Y	Y	Y	Y	Moderate
Ortíz de Urbina Comerón et al. 2023 [14]	Y	N	N	PY	Y	Y	N	PY	Y	N	N	N	Y	N	Y	Y	Critically low
Yang et al. 2023 [15]	Y	N	N	PY	Y	Y	N	PY	PY	N	Y	N	Y	Y	Y	Y	Critically low
Guo et al. 2023 [16]	Y	N	N	PY	Y	Y	N	PY	Y	N	Y	Y	Y	Y	Y	Y	Critically low
Xu et al. 2023 [17]	Y	PY	N	PY	Y	Y	N	PY	PY	N	Y	N	N	Y	Y	Y	Critically low
Karimi et al. 2023 [18]	Y	N	N	PY	Y	Y	N	Y	Y	N	N	N	Y	N	Y	Y	Critically low
Khodadadi et al. 2022 [19]	Y	N	N	PY	Y	Y	N	PY	Y	N	Y	N	N	Y	Y	Y	Critically low

Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	All
Zhang et al. 2022 [20]	Y	N	N	PY	Y	Y	N	Y	Y	N	Y	N	N	Y	Y	Y	Critically low
Zhang et al. 2022 [21]	Y	PY	N	PY	Y	Y	N	Y	Y	N	Y	N	Y	Y	N	Y	Critically low
Wang et al. 2022 [22]	Y	PY	N	PY	Y	Y	N	Y	Y	N	Y	N	Y	Y	Y	Y	Low
Li et al. 2022 [23]	Y	PY	N	PY	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Moderate
Kesharani et al. 2022 [24]	Y	PY	N	PY	N	N	N	Y	Y	N	Y	Y	Y	Y	N	Y	Critically low
Kaliamoorthy et al. 2022 [25]	Y	PY	N	PY	Y	Y	N	PY	PY	N	N	N	N	N	N	N	Critically low
Romandini et al. 2021 [26]	Y	PY	N	PY	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Moderate
Larvin et al. 2021 [27]	Y	PY	N	PY	Y	Y	N	PY	PY	N	Y	N	Y	Y	Y	Y	Low
Qin et al. 2021 [28]	Y	N	N	PY	N	N	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Critically low
Guo et al. 2021 [29]	Y	N	N	PY	Y	Y	Y	Y	PY	N	Y	N	N	Y	Y	Y	Critically low
Alvarenga et al. 2021 [30]	Y	PY	N	PY	Y	N	N	Y	Y	N	NA	NA	N	N	NA	Y	Critically low
Stöhr et al. 2021 [31]	Y	PY	N	PY	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Moderate
Sayeed et al. 2021 [32]	Y	N	N	PY	N	N	N	PY	PY	N	Y	N	Y	Y	N	Y	Critically low
Aragão et al. 2021 [33]	Y	PY	N	PY	Y	Y	Y	Y	Y	N	NA	NA	Y	Y	NA	Y	Moderate
Farook et al. 2021 [34]	Y	PY	N	PY	Y	N	N	Y	PY	N	Y	N	Y	Y	N	Y	Critically low
Wu et al. 2020 [35]	Y	N	N	PY	N	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Low
Zhang et al. 2020 [36]	Y	N	N	PY	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Critically low
Gopinath et al. 2020 [37]	Y	PY	N	PY	Y	Y	N	PY	Y	N	Y	N	Y	Y	Y	Y	Low
Nguyen et al. 2020 [38]	Y	N	N	PY	Y	N	N	Y	PY	N	NA	NA	N	N	NA	Y	Critically low
Gomes-Filho et al. 2020 [39]	Y	PY	N	PY	Y	Y	N	Y	PY	N	N	Y	Y	Y	Y	Y	Critically low

Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	All
Lv et al. 2020 [40]	Y	N	N	PY	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Critically low
Qiao et al. 2020 [41]	Y	N	N	PY	Y	Y	N	Y	PY	N	Y	N	N	Y	Y	Y	Critically low
Hussain et al. 2020 [42]	Y	PY	N	PY	Y	Y	Y	PY	Y	N	N	Y	Y	Y	N	Y	Critically low
Ali et al. 2020 [43]	Y	PY	N	PY	Y	N	Y	Y	PY	N	Y	N	Y	Y	N	N	Low
Xu et al. 2020 [44]	Y	N	N	PY	N	Y	N	PY	Y	N	Y	N	N	Y	Y	Y	Critically low
Aguilera et al. 2020 [45]	Y	PY	N	PY	Y	N	N	Y	PY	N	Y	Y	N	Y	Y	Y	Critically low
Machado et al. 2020 [46]	Y	N	N	PY	Y	Y	Y	PY	Y	Y	Y	Y	Y	Y	N	Y	Critically low
Gobin et al. 2020 [47]	Y	N	N	PY	N	Y	N	Y	PY	N	Y	N	N	Y	Y	Y	Critically low
Lorenzo-Pouso et al. 2020 [48]	Y	N	N	PY	Y	Y	N	Y	Y	N	Y	N	N	Y	Y	Y	Critically low
Ma et al. 2020 [49]	Y	N	N	PY	Y	N	N	PY	Y	N	Y	Y	Y	Y	N	Y	Critically low
Wu et al. 2020 [50]	Y	PY	N	PY	Y	Y	N	PY	Y	N	Y	Y	Y	Y	Y	Y	Low
Kapellas et al. 2019 [51]	Y	PY	N	PY	Y	N	N	Y	Y	N	Y	Y	N	Y	Y	Y	Critically low
Ferreira et al. 2018 [52]	Y	PY	N	PY	Y	N	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Low
Xie et al. 2018 [53]	Y	N	N	PY	N	Y	Y	PY	N	N	Y	N	N	Y	N	Y	Critically low
Corbella et al. 2018 [54]	Y	PY	N	PY	Y	Y	Y	Y	PY	N	Y	Y	Y	Y	N	Y	Low
Leira et al. 2017 [55]	Y	PY	N	PY	Y	Y	N	Y	N	N	Y	N	N	Y	N	Y	Critically low
Maisonneuve et al. 2017 [56]	Y	N	N	N	Y	Y	N	Y	N	N	Y	N	N	Y	Y	Y	Critically low
Zeng et al. 2016 [57]	Y	N	N	PY	Y	Y	N	Y	N	N	Y	N	N	Y	Y	Y	Critically low

Q1 – Q16 16 evaluation items of modified version of A Measurement Tool to Assess Systematic Reviews 2, ^{a,b} Different studies published by the same author in the same year, Y Yes, N No, PY Partial Yes, NA No meta-analysis conducted

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