

Appendix 1: Empirical evidence of sources of bias reported in 3 systematic review of diagnostic accuracy studies

| Checkpoint | Review; sources of bias | | |
|---|---|--|---|
| | Lijmer et al ⁵ | Whiting et al ⁶ | Rutjes et al ⁴ |
| Was the diagnostic test evaluated in a representative spectrum of patients? | <ul style="list-style-type: none"> Case-control design (RDOR 3.0, 95% CI 2.0–4.5) Nonconsecutive patient selection (RDOR 0.9, 95% CI 0.7–1.1) Retrospective data collection (RDOR 1.0, 95% CI 0.7–1.4) | <ul style="list-style-type: none"> Distorted selection of participants (some empirical support) — — | <ul style="list-style-type: none"> Case-control design (RDOR 4.9, 95% CI 0.6–37.3) Nonconsecutive sampling (RDOR 1.5, 95% CI 1.0–2.1) Retrospective data collection (RDOR 1.6, 95% CI 1.1–2.2) |
| Did investigators compare the test against an appropriate, independent “gold” (reference) standard? | — | <ul style="list-style-type: none"> Inappropriate reference standard (some empirical support) Incorporation bias (test used as part of gold standard) (no empirical support) | — |
| Did investigators perform the same gold standard on all patients regardless of the results of the test under investigation? | <ul style="list-style-type: none"> Different reference standard used for some patients (RDOR 2.2, 95% CI 1.5–3.3) Reference standard not used for some patients (RDOR 1.0, 95% CI 0.8–1.3) | <ul style="list-style-type: none"> Different reference standard used for some patients (some empirical support) Reference standard not used for some patients (strong empirical support) | <ul style="list-style-type: none"> Different reference standard used for some patients (RDOR 1.6, 95% CI 0.9–2.9) Reference standard not used for some patients (RDOR 1.1, 95% CI 0.7–1.7) |
| Did investigators interpret the results of the study test and the gold standard independently and blindly from each other? | <ul style="list-style-type: none"> Nonblinded reading of results (RDOR 1.3, 95% CI 1.0–1.9) | <ul style="list-style-type: none"> Review bias (some empirical support) | <ul style="list-style-type: none"> Single- or nonblinded reading of results (RDOR 1.1, 95% CI 0.8–1.6) |

Note: RDOR = relative diagnostic odds ratio, CI = confidence interval.