## Table 1. Overinterpretation practices in systematic reviews of diagnostic accuracy studies

| Overinterpretation item   | Abstracts scored<br>as 'yes' | Full-texts scored<br>as 'yes' | Reviews scored as<br>'yes' |
|---|------------------------------|-------------------------------|----------------------------|
|   | n (%) [95%CI)                | n (%) [95%CI)                 | n (%) [95%CI)              |
| Total number of systematic reviews  | 112 (100)                    | 112 (100)                     | 112 (100)                  |
| a.1 Positive conclusion, not reflecting the reported summary accuracy estimates   | 55 (49) [40-58]              | 56 (50) [41-59]               |                            |
| a.2 Positive conclusion, not taking high risk of bias and/or applicability concerns into account  | 47 (42) [33-51]              | 26 (23) [15-31]               |                            |
| a.3 Positive conclusion, not taking heterogeneity into account  | 44 (39) [30-48]              | 14 (12) [6-18]                |                            |
| a.4 Positive conclusion, focusing on the results of primary studies<br>favoring the diagnostic accuracy of the test instead of the meta-<br>analysis results                      | 0 (0)                        | 0 (0)                         |                            |
| a.5 Positive conclusion, selectively focusing on a selection of subgroups, tests or accuracy estimates, while others were evaluated as well                                       | 12 (11) [5-17]               | 12 (11) [5-17]                |                            |
| a.6 Positive conclusion, inappropriately extrapolated to a wider population or setting  | 3 (3) [0-6]                  | 2 (2) [0-5]                   |                            |
| a.7 Positive conclusion, inappropriately extrapolated as surrogates<br>for improvement in patient important outcomes  | 1 (1) [0-4]                  | 2 (2) [0-5]                   |                            |
| a.8 Stronger conclusion in abstract than full text  | 32 (29) [21-37]              |                               |                            |
| a.9 Conclusion claiming test equivalence or superiority based on indirect comparisons   | 6 (5) [1-9]                  | 6 (5) [1-9]                   |                            |
| a.10 Conclusion claiming test equivalence or superiority without<br>performing statistical comparisons; or claiming test equivalence for<br>non-statistically significant results | 15 (13) [7-19]               | 16 (14) [8-20]                |                            |
| p.1 Intended role of test in clinical pathway unclear   |                              |                               | 51 (46) [37-55]            |
| p.2 No or inadequate assessment of risk of bias and applicability concerns  |                              |                               | 23 (21) [13-29]            |
| p.3 Traditional statistical methods for meta-analysis performed   |                              |                               | 57 (51) [42-60]            |
| p.4 Failure to report the number of studies and patients actually contributing to the meta-analyses in abstract   |                              |                               | 54 (48) [39-57]            |
| p.5 No confidence intervals around summary accuracy estimates in abstract   |                              |                               | 24 (21) [13-29]            |
| p.6 No confidence intervals around summary accuracy estimates in full text  |                              |                               | 3 (3) [0-6]                |
| p.7 No statistical assessment of heterogeneity performed  |                              |                               | 16 (14) [8-20]             |
| p.8 No review limitations discussed   |                              |                               | 9 (8) [3-13]               |
| p.9 Unclear conflict of interests   |                              |                               | 14 (12) [6-18]             |

For items a.1 to a.7 a 'positive conclusion' refers to any review scored as 'positive' or 'positive with qualifier'.