Table S3. General characteristics of included tools

Article ID	Tool	Type of tool	Scope of tool	Types of reporting bias	Types of study designs	Level of assessment	Methods used to develop tool	Guidance available	Measurement properties evaluated
Balshem 2013[1]	AHRQ outcome and analysis reporting bias framework	Domain-based	Reporting bias only	Bias due to selective non-reporting and bias in selection of the reported result	Randomized trials	Specific outcome/ result in a study	Expert consensus (via email)	Brief annotation per item/response option	No
Berkman 2013[2]	AHRQ tool for evaluating the risk of reporting bias	Domain-based	Reporting bias only	Bias due to selective publication and bias due to selective non-reporting	Systematic reviews	Specific synthesis of studies	Not stated	Brief annotation per item/response option	No
Downes 2016[3]	AXIS tool (Appraisal tool for Cross-Sectional Studies)	Checklist	Multiple sources of bias	Bias due to selective non-reporting	Cross-sectional studies	Whole study	Literature review, piloting, Delphi study	None	No
Downs 1998[4]	Downs-Black tool	Scale	Multiple sources of bias	Bias in selection of the	Randomized trials and non-	Whole study	Literature review, piloting,	Brief annotation per	Yes

Article ID	Tool	Type of tool	Scope of tool	Types of reporting bias	Types of study designs	Level of assessment	Methods used to develop tool	Guidance available	Measurement properties evaluated
				reported result	randomized studies of interventions		psychometric testing	item/response option	
Guyatt 2011[5-9]	GRADE	Domain-based	Multiple sources of bias	Bias due to selective publication and bias due to selective non-reporting	Systematic reviews	Specific synthesis of studies	Literature review, expert consensus (face-to-face and email), user testing	Detailed guidance manual	Yes
Hayden 2013[10]	QUIPS (Quality In Prognosis Studies) tool	Domain-based	Multiple sources of bias	Bias due to selective non-reporting	Prognosis studies	Whole study	Modified Delphi approach, nominal group technique at facilitated discussion workshop; piloting	Brief annotation per item/response option	Yes
Higgins 2008[11-13]	Cochrane risk of bias tool for randomized trials	Domain-based	Multiple sources of bias	Bias due to selective non-reporting and bias in selection of the	Randomized trials	Whole study	Literature review, informal consensus at facilitated meeting, piloting, focus groups and	Detailed guidance manual	Yes

Article ID	Tool	Type of tool	Scope of tool	Types of reporting bias	Types of study designs	Level of assessment	Methods used to develop tool	Guidance available	Measurement properties evaluated
				reported result			surveys, followed by consensus meeting		
Higgins 2016[14 15]	RoB 2.0 (revised tool for assessing risk of bias in randomized trials)	Domain-based	Multiple sources of bias	Bias in selection of the reported result	Randomized trials	Specific outcome/ result in a study	Literature review, informal consensus at facilitated meeting, piloting	Detailed guidance manual	No
Hoojimans 2014[16]	SYRCLE's RoB tool (SYstematic Review Centre for Laboratory animal Experimentation)	Domain-based	Multiple sources of bias	Bias due to selective non-reporting and bias in selection of the reported result	Animal studies	Whole study	Adaptation of existing tool, literature review	Brief annotation per item/response option	No
Kim 2013[17]	RoBANS (Risk of Bias Assessment Tool for Nonrandomized Studies)	Domain-based	Multiple sources of bias	Bias due to selective non-reporting and bias in selection of the	Non-randomized studies of interventions	Whole study	Literature review, psychometric testing	Brief annotation per item/response option	Yes

Article ID	Tool	Type of tool	Scope of tool	Types of reporting bias	Types of study designs	Level of assessment	Methods used to develop tool	Guidance available	Measurement properties evaluated
				reported result					
Kirkham 2010[18 19]	ORBIT-I (Outcome Reporting Bias In Trials) classification system for benefit outcomes	Domain-based	Reporting bias only	Bias due to selective non-reporting	Randomized trials	Specific outcome/ result in a study	Iteratively developed as part of a methodological study	Worked example for each response option	Yes
Meader 2014[20 21]	SAQAT (Semi-Automated Quality Assessment Tool)	Domain-based	Multiple sources of bias	Bias due to selective publication and bias due to selective non-reporting	Systematic reviews	Specific synthesis of studies	Development of logic model based on GRADE articles and piloting	None	Yes
Reid 2015[22]	Selective reporting bias algorithm	Domain-based	Reporting bias only	Bias due to selective non-reporting and bias in selection of the	Randomized trials	Whole study	Not stated	Brief annotation per item/response option	No

Article ID	Tool	Type of tool	Scope of tool	Types of reporting bias	Types of study designs	Level of assessment	Methods used to develop tool	Guidance available	Measurement properties evaluated
				reported result					
Saini 2014[23]	ORBIT-II (Outcome Reporting Bias In Trials) classification system for harm outcomes	Domain-based	Reporting bias only	Bias due to selective non-reporting	Randomized trials and non-randomized studies of interventions	Specific outcome/ result in a study	Iteratively developed as part of a methodological study	Worked example for each response option	No
Salanti 2014[24 25]	Framework for evaluating the quality of evidence from a network meta-analysis	Domain-based	Multiple sources of bias	Bias due to selective publication and bias due to selective non-reporting	Network meta-analyses	Specific synthesis of studies	Adaptation of existing tool	Detailed annotation per item/response option	No
Sterne 2016[26]	ROBINS-I (Risk Of Bias In Non-randomized Studies of Interventions) tool	Domain-based	Multiple sources of bias	Bias in selection of the reported result	Non-randomized studies of interventions	Specific outcome/ result in a study	Expert consensus meetings (face-to-face), piloting	Detailed guidance manual	Yes

Article ID	Tool	Type of tool	Scope of tool	Types of reporting bias	Types of study designs	Level of assessment	Methods used to develop tool	Guidance available	Measurement properties evaluated
Viswanathan 2012[27]	RTI Item Bank for Assessment of Risk of Bias and Precision for Observational Studies of Interventions or Exposures	Domain-based	Multiple sources of bias	Bias due to selective non-reporting	Non-randomized studies of interventions or exposures	Whole study	Literature review, expert consensus (via email), cognitive testing, psychometric testing	Brief annotation per item/response option	No
Viswanathan 2013[28]	RTI Item Bank for Assessing Risk of Bias and Confounding for Observational Studies of Interventions or Exposures	Domain-based	Multiple sources of bias	Bias due to selective non-reporting	Non-randomized studies of interventions or exposures	Whole study	Literature review, expert consensus (via email)	Brief annotation per item/response option	No

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