

Supplement 4 | Bias risk assessment

Key question 1.

	<u>Risk of Bias</u>				<u>Applicability Concerns</u>		
	Patient Selection	Index Test	Reference Standard	Flow and Timing	Patient Selection	Index Test	Reference Standard
Bassi 2020	+	+	+	+	+	+	+
Fenske 2008	+	+	+	+	+	+	+
Musch 1995	?	+	+	?	+	+	?
Musch 2001	+	+	+	+	+	+	?
Nigro 2018	+	+	+	+	+	+	+

● High ? Unclear + Low

Key question 2.

	Participants comparability	Selection of participants	Confounding variables	Measurement of exposure	Blinding of outcome assessment (detection bias)	Outcome evaluation	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)
Fenske W 2009	+	+	-	+	-	+	?	+
Suryeong G 2021	+	+	-	+	-	+	?	+

■ Low risk of bias ■ Unclear risk of bias ■ High risk of bias

Key question 3.

ROB for RCT

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Baek 2021	+	-	?	+	+	+	+

RoBANS for non RCT

	Participant comparability	Selection of participants	Confounding variables	Measurement of exposure	Blinding of outcome assessments	Outcome evaluation	Incomplete outcome data	Selective reporting
Garrahy 2019	+	+	?	+	?	?	?	?

	High risk of bias		Unclear risk of bias		Low risk of bias
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Key question 4.

	Participants comparability	Selection of participants	Confounding variables	Measurement of exposure	Blinding of outcome assessment (detection bias)	Outcome evaluation	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)
Doshi 2012	+	+	+	+	-	+	+	+
Kovesdy 2012	+	+	+	+	-	+	+	+
Sushrut 2009	+	+	+	+	-	+	+	+

	Low risk of bias		Unclear risk of bias		High risk of bias
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Key question 5.

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Felker 2017	?	+	+	+	+	+	+
Hiroimi 2020	+	?	+	+	+	+	+
Jujo 2016	?	+	-	-	+	+	+
Kimura 2016	?	+	-	?	+	+	+
Konstam 2017	?	+	+	+	+	+	+
Matsue 2016	?	-	-	-	+	+	+
Shanmugam 2016	?	?	+	+	+	+	+
Tanaka 2018	-	-	-	?	+	+	+
Tominaga 2017	+	+	+	+	+	?	+






Key question 6.

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Abraham 2012	?	+	+	+	+	+	-
Abraham 2012_2	?	+	+	+	+	+	+
Annane 2009	?	?	+	+	+	+	?
Chen 2014	?	+	+	+	?	+	-
Ghali 2006	?	?	+	+	+	+	?
Gheorghiade 2006	?	?	-	+	?	-	-
Koren 2011	?	+	+	+	?	+	+
Salahudeen 2014	+	+	+	+	?	-	-
Schrier 2006	+	+	+	+	?	?	-
Soupart 2006	?	+	-	+	+	+	-
verbalis 2008	?	+	+	+	?	+	+
Wong 2003	+	?	+	+	-	-	?

 Low risk of bias	 Unclear risk of bias	 High risk of bias
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Key question 7.

	Comparison possibility of participants	Selection of participants	Confounding variables	Measurement of intervention (exposure)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)
MacMillan 2018	+	+	+	+	?	?	+	+
Perianayagam 2008	+	+	?	+	?	?	+	+
Ward 2018	+	+	+	+	?	?	+	+

 Low risk of bias	 Unclear risk of bias	 High risk of bias
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Key question 8.


Not applicable


Key question 9.

9-1. ROB for RCT

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)
Almeida 2015	+	?	+	+	+	+
Bagri 2019	+	+	+	+	+	+
Balasubramanian K 2012	+	+	+	+	+	+
Choong 2011	+	+	+	+	-	+
Coulthard 2012	+	+	-	+	+	+
Danathan 2020	+	+	+	+	+	-
Friedman 2015	+	+	+	+	+	+
Kannan 2010	+	+	-	+	+	+
Kumar 2020	+	+	+	+	+	+
Lehtiranta S 2021	+	+	-	+	+	?
McNab 2015	+	+	+	+	+	+
Montanana 2008	+	?	-	+	+	+
Neville 2010	+	+	-	+	+	+
Pernde 2015	+	+	+	+	+	+
Ramanathan 2016	+	+	+	+	+	+
Rey 2011	+	?	?	+	-	+
Shamin 2014	+	+	+	+	+	?
Torres 2019	+	+	+	+	+	?

 Low risk of bias

 Unclear risk of bias

 High risk of bias

9-2. RoBANS 2.0 for non-RCT

	Participant comparability	Selection of participants	Confounding variables	Measurement of exposure	Blinding of outcome assessment	Outcome evaluation	Incomplete outcome data	Selective reporting
Chrome 2021	+	-	+	+	+	+	+	+
Tuzun 2020	+	+	+	+	-	+	+	+
Velasco 2018	+	+	?	+	-	+	+	+

■ Low risk of bias
 ■ Unclear risk of bias
 ■ High risk of bias

9-3. AMSTAR for systematic review

AMSTAR criteria	Wang 2014	MacNa b 2014	Foster BA 2014	Padua 2015	Yang G 2015	Choong K 2006
Was an 'a priori' design provided?	No	Yes	Yes	Yes	Yes	Yes
Was there duplicate study selection and data extraction?	Yes	Yes	Yes	Yes	Yes	Yes
Was a comprehensive literature search performed?	Yes	Yes	Yes	Yes	Yes	Yes
Was the status of publication (i.e. grey literature) used as an inclusion criterion?	No	Yes	Yes	No	No	Yes
Was a list of studies (included and excluded) provided?	Yes	Yes	Yes	Yes	Yes	Yes
Were the characteristics of the included studies provided?	Yes	Yes	Yes	Yes	Yes	Yes
Was the scientific quality of the included studies assessed and documented?	Yes	Yes	Yes	Yes	No	Yes
Was the scientific quality of the included studies used appropriately in formulating conclusions?	Yes	Yes	Yes	Yes	No	Yes
Were the methods used to combine the findings of studies appropriate?	Yes	Yes	Yes	Yes	Yes	Yes
Was the likelihood of publication bias assessed?	No	No	Yes	No	No	No
Was the conflict of interest stated?	No	No	No	No	No	No
Total	7	9	10	8	6	9