

Appendix 1. Modified Check-list Adapted from the QUADAS-2 Tool

Assessment of Risk of Bias

Domain 1: Patient Selection

Question 1: Was a consecutive or random sample of patients enrolled?

'yes' → low risk of bias

'unclear' → unclear risk of bias

'no' → high risk of bias

Question 2: Did the study avoid inappropriate exclusions?

'no' for < 10% of patients or 'yes' → low risk of bias

'unclear' → unclear risk of bias

'no' for ≥ 10% of patients → high risk of bias

Domain 2: Index Test

Question: Were the index test result read without knowing the result of the reference standard?

'yes' → low risk of bias

'unclear' → unclear risk of bias

'no' → high risk of bias

Domain 3: Reference Standard

Question: The method in testing the postoperative refraction

'objective refraction' → low risk of bias

'unclear' → unclear risk of bias

'subjective refraction' → high risk of bias

Domain 4: Flow and Timing

Question 1: Were all patients included in the analysis?

'no' but for < 10% of patients or 'yes' → low risk of bias

'unclear' → unclear risk of bias

'no' for ≥ 10% of patients → high risk of bias

Question 2: Was there appropriate interval between the surgery and reference standard?

14 days after surgery or later → low risk of bias

'unclear' → unclear risk of bias

before 14 days postoperatively → high risk of bias

Assessment of Applicability Concerns

Domain 1: Patient Selection

Question: Was a different diagnosis presented?

'no' → low risk of bias

'unclear' → unclear risk of bias

'yes' → high risk of bias

Domain 2: Index Test

Question: Variations in test technology

'no' → low risk of bias

'unclear' → unclear risk of bias

'yes' → high risk of bias

Domain 3: Reference Standard

Question: The method in testing the postoperative refraction

'objective refraction' → low risk of bias

'unclear' → unclear risk of bias

'subjective refraction' → high risk of bias

Author/Year	Risk of Bias				Applicability Concerns		
	patient selection	index test	reference standard	flow and timing	patient selection	index test	reference standard
Kane1 2016	U	L	H	L	L	L	H
Kane2 2016	U	L	H	L	L	L	H
Zhang 2016	L	L	U	H	L	L	U
Doshi 2017	L	H	U	L	L	L	U
Kane1 2017	L	L	H	L	L	L	H
Kane2 2017	L	L	H	L	L	L	H
Vogteskhivskyy1 2018	L	L	L	L	L	H	L
Vogteskhivskyy2 2018	L	L	L	L	L	H	L
Zhang 2018	L	L	L	L	L	L	L
Idrobo 2019	U	L	U	L	L	L	U
Liu 2019	U	H	L	L	L	L	L
Rong 2019	U	L	L	L	L	H	L
Wan 2019	L	L	L	L	L	H	L
Wang 2019	L	L	L	L	L	H	L
Zhou 2019	U	L	L	L	L	H	L
Carmona 2020	U	L	L	L	L	L	L
Fuest 2021	L	L	H	L	L	L	H
Ji 2021	H	L	H	L	L	L	H

L: low risk; H: high risk; U: unclear risk