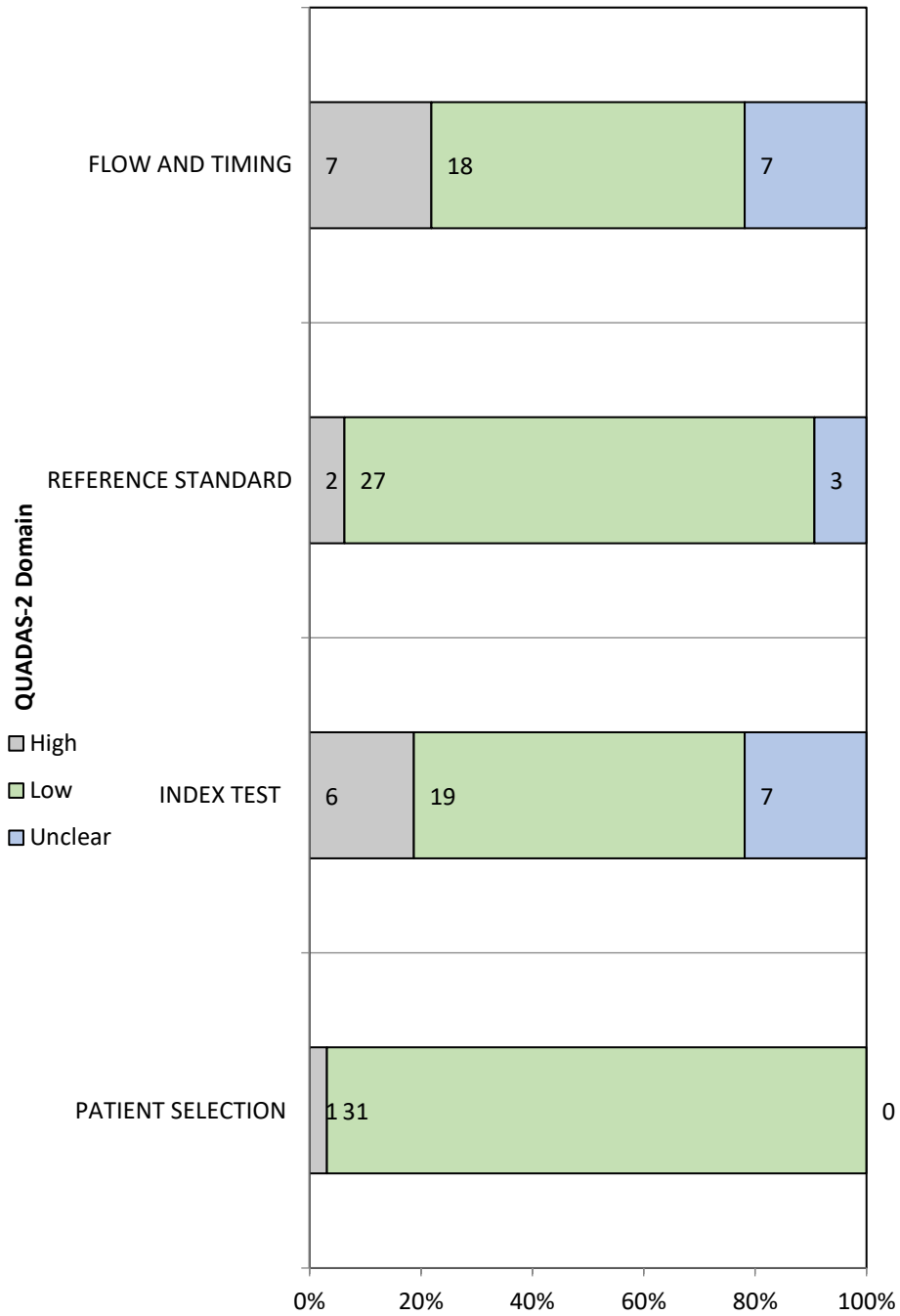


Appendix 1. Risk of Bias of the studies

Tests	Patient Selection	Index Test	Reference Standard	Flow and Timing
MITSU-L (Curiel et al., 2016)	Low	Low	Low	Low
MCS (Zorluoglu et al., 2015)	High	Low	Unclear	High
C-ABC (Noguchi-Shinohara et al., 2020)	Low	Low	Low	Low
BrainCheck (Groppell et al., 2019)	Low	Unclear	Low	Low
Co-Wis (Song et al., 2020)	Low	Low	Low	Low
CANTAB-PAL (Junkkila et al., 2012)	Low	Unclear	Low	High
e-CT (Wu et al., 2017)	Low	Low	Low	High
VSM (Zygouris et al., 2015)	Low	High	Low	Unclear
dCDT (Davoudi et al., 2021)	Low	High	Low	High
iVitality (Jongstra et al., 2017)	Low	Unclear	Low	Unclear
CANS-MCI (Tornatore et al., 2005)	Low	High	High	Low
Mindstreams (Doniger et al., 2009)	Low	Low	Low	Low
VSM (Maki et al., 2010)	Low	Low	Low	Low
CANS-MCI-BR (Memória et al., 2014)	Low	High	Low	High
MoCA-CC (Yu et al., 2014)	Low	Unclear	Low	Unclear
eSAGE (Scharre et al., 2017)	Low	Low	Low	Low
IDEA-IADL (Paddick et al., 2021)	Low	Low	Low	Low
EC-Screen (Chan et al., 2020)	Low	High	Low	Low
CAMCI (Tierney et al., 2014)	Low	Low	Low	Low
Cogstate (Darby et al., 2012)	Low	Low	Low	Low
dCDT (Binaco et al., 2020)	Low	High	High	High
CNS Vital Signs (Gualtieri & Johnson, 2005)	Low	Low	Low	Low
CADi2 (Onoda & Yamaguchi, 2014)	Low	Unclear	Low	Unclear
MicroCog (Green et al., 1994)	Low	Low	Low	Low
BHA (Possin et al., 2018)	Low	Low	Low	Unclear
CST (Dougherty Jr et al., 2010)	Low	Low	Low	Low
dTDT (Robens et al., 2019)	Low	Unclear	Unclear	Unclear
CCS (Scanlon et al., 2016)	Low	Unclear	Unclear	Unclear
CADi (Onoda et al., 2013)	Low	Low	Low	High
SATURN (Bissig et al., 2020)	Low	Low	Low	Low
ICA (Kalafatis et al., 2021)	Low	Low	Low	Low
mSTS-MCI (Park et al., 2018)	Low	Low	Low	Low



Appendix 2. Proportion of studies with low, high or unclear RISK of BIAS

Appendix 3. Qualitative Assessment of the Studies (Mobile-Based Screening Tests)

Test	Study Population	Selection of Participants	Procedures to Run the Index Test	Reference Standard	Cognitive Domains	Evaluated Diseases	Test Reliability	Diagnostic Accuracy	Score
BHA	3	3	3	3	3	2	3	3	23
CST	3	3	3	3	2	3	2	3	23
CAMCI	3	3	3	3	3	2	1	2	21
EC-Screen	3	3	3	3	3	2	1	3	21
BrainCheck	3	3	3	3	3	1	3	2	21
CADi2	3	1	3	3	3	2	3	3	21
VSM	3	2	3	3	3	1	1	3	19
dCDT	3	3	3	3	1	3	0	3	19
CADi	3	3	3	3	3	1	1	2	19
ICA	3	3	3	3	1	3	0	3	19
SATURN	3	2	3	3	3	1	2	2	19
eSAGE	3	2	3	3	3	2	3	2	19
IDEA-IADL	3	3	3	3	3	1	0	3	19
e-CT	3	3	3	3	1	2	1	2	18
CCS	3	2	2	2	3	1	1	3	17
mSTS-MCI	3	3	3	3	3	1	1	0	17
iVitality	3	3	3	1	3	1	1	0	15
CANTAB-PAL	3	2	2	3	2	2	0	1	15
MCS	1	1	3	1	3	1	1	1	12

Abbreviations: CANTAB-PAL, Cambridge Neuropsychological Test Automated Battery- paired associate learning; BHA, Brain Health Assessment; e-CT, electronic cancellation test; VSM, Virtual Super Market; dCDT, digital Clock Drawing Test; CST, color and shape matching; IDEA-IADL, Identification and Intervention for Dementia in Elderly Africans- Instrumental Activities of Daily Living; EC-Screen, Electronic Cognitive Screen; MCS, mobile cognitive screening; CAMCI, Computer Assessment of Memory and Cognitive Impairment; CADi, The Cognitive Assessment for Dementia, iPad version; CCS, The computerized cognitive screening; ICA, Integrated Cognitive Assessment; mSTS-MCI, mobile screening test system for screening mild cognitive impairment; SATURN, Self-Administered Tasks Uncovering Risk of Neurodegeneration; eSAGE, Self-Administered Gerocognitive Examination.

Appendix 4. Qualitative Assessment of the Studies (Desktop-Based Screening Tests)

Test	Study Population	Selection of Participants	Procedures to Run the Index Test	Reference Standard	Cognitive Domains	Evaluated Diseases	Test Validity	Diagnostic Accuracy	Score
C-ABC	3	3	3	3	3	2	1	3	21
CANS-MCI-BR	3	2	3	3	3	3	2	2	21
CANS-MCI	3	3	3	2	3	1	3	2	20
MoCA-CC	3	2	3	3	3	1	1	3	19
Cogstate	3	3	3	2	3	2	1	2	19
MicroCog	3	2	2	2	3	1	3	2	18
visuo-spatial memory (VSM) test	3	2	3	3	1	2	1	2	17
dCDT	3	2	3	3	2	2	0	1	16
dTDT	3	2	3	1	1	2	0	3	15

Abbreviations: CANS-MCI, Computer-Administered Neuropsychological Screen for Mild Cognitive Impairment; C-ABC, computerized assessment battery for cognition; VSM, Visuo-Spatial Memory; MoCA-CC, the Chinese version of the Montreal cognitive assessment; dCDT, digital Clock Drawing Test; dTDT, digital tree drawing test.

Appendix 5. Qualitative Assessment of the Studies (Web-Based Screening Tests)

Test	Study Population	Selection of Participants	Procedures to Run the Index Test	Reference Standard	Cognitive Domains	Evaluated Diseases	Test Reliability	Diagnostic Accuracy	Score
CNS-VS	3	2	3	3	3	2	1	3	20
MITS-L	3	2	3	3	2	2	1	1	17
Co-Wis	3	3	3	3	3	1	1	0	17
Mindstreams	3	2	3	3	3	1	1	1	17

Abbreviations: MITS-L, the Miami Test of Semantic Interference and Learning; Co-Wis, computer-based dementia assessment content; CNS-VS, CNS Vital signs.

