

Table S5: Quality assessment - Risk of Bias, modified QUADAS2 tool

	Patient selection						Testing			Flow and timing			Overall risk of bias
Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Total	
Brinati et al. [1]	Yes	Yes	Yes	Yes	Yes	No	No thresholds	Unclear	Yes	Unclear	Yes	7	Low
Chen, et al. [2]	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	8	Low
Chen, et al. [3]	Unclear	No	Yes	Yes	Yes	No	No	Yes	Unclear	Yes	Yes	6	High
Cheng, et al. [4]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	9	Low
Chi et al. [5]	Unclear	No	Yes	Unclear	Yes	No	No thresholds	Yes	Yes	Unclear	Yes	5	High
de Moraes Batista et al.[6]	Yes	Yes	Yes	Yes	Yes	No	No thresholds	Yes	Yes	Yes	Yes	9	Low
Fan et al. [7]	No	No	Yes	No	No	No	No thresholds	No	No	Unclear	Yes	2	High
Fei et al.[8]	Yes	No	Yes	No	Yes	No	No thresholds	Yes	Yes	Yes	Yes	7	Low
Feng, et al. [9]	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	9	Low
Ferrari et al.[10]	Yes	No	Yes	No	Yes	No	No thresholds	Yes	Yes	Yes	Yes	7	Low
Gao et al.[11]	Yes	Yes	Yes	Yes	Yes	Yes	No thresholds	Yes	Yes	Yes	Yes	9	Low
Han, et al. [12]	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	10	Low
Hsieh, et al. [13]	Unclear	Unclear	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	6	High
Huang, et al. [14]	Yes	Yes	Yes	Unclear	Yes	No	No thresholds	Yes	Yes	Yes	Yes	8	Low
Kurstjens et al. [15]	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	6	High
Li, et al. [16]	No	No	Yes	Yes	Yes	No	No thresholds	Yes	Yes	Yes	Yes	7	Low

Li, et al. [17]	No	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	7	Low
Liang, et al. [18]	Yes	Yes	No	No	No	No	No thresholds	Yes	Yes	Yes	Yes	6	High
Luo, et al. [19]	Yes	Yes	Yes	Yes	No	No	No thresholds	No	Yes	Yes	No	6	High
Ma et al.[20]	Unclear	Yes	Yes	Yes	Yes	No	No	Yes	Unclear	Unclear	Yes	6	High
Mardani, et al. [21]	Yes	Yes	Yes	Yes	Yes	No	No thresholds	Yes	Yes	Yes	Yes	9	Low
Martín-Sánchez et al.[22]*	Yes	Unclear	Yes	Unclear	Yes	No	No thresholds	Yes	Yes	Yes	Yes	7	Low
Mei et al.[0.]	No	No	Yes	Yes	Yes	No	No thresholds	Yes	Yes	Yes	Yes	7	Low
Meng et al. [24]	Yes	No	Yes	Yes	Yes	No	No thresholds	Yes	Yes	Unclear	Yes	7	Low
O'Reilly, et al. [25]	Yes	Yes	Yes	No	Yes	Unclear	No	Yes	Yes	Yes	Yes	8	Low
Peng, et al. [26]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	9	Low
Peng, et al. [27]	No	No	Yes	Yes	Yes	No	No thresholds	Yes	Yes	Yes	Yes	7	Low
Pisapia et al.[28]	Yes	Yes	Yes	No	Yes	No	No thresholds	Yes	Yes	Yes	Yes	8	Low
Qin et al. [29]	Unclear	Yes	Yes	No	Yes	No	No thresholds	Unclear	Yes	Yes	Yes	6	High
Santotoribio et al.[30]	Yes	Yes	Yes	No	Yes	No	No thresholds	Yes	Yes	Yes	Yes	8	Low
Song, et al. [31]	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	8	Low
Tordjman, et al. [32]	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	8	Low
Vieceli et al.[33]	Yes	Yes	Yes	No	Yes	No	No thresholds	Yes	Yes	Yes	Yes	8	Low
Wang, et al. [34]	Unclear	Unclear	Yes	Yes	Yes	No	No thresholds	Yes	Yes	Yes	Yes	7	Low
Wu, et al. [35]	No?	No?	Yes	Unclear	Yes	No	No thresholds	Yes	Yes	Yes	Yes	6	High
Zhao, et al.[36]	Unclear	Unclear	Yes	Yes	Yes	No	No	Yes	Yes	Unclear	Yes	6	High

Zhao, et al.[37]	Unclear	No	Yes	No	Yes	No	No thresholds	No	Yes	Unclear	No	3	High
Zhu, et al. [38]	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	9	Low

Footnotes: Risk of bias questions: **Q1.** Was a consecutive or random sample of patients enrolled? **Q2.** Was a case-control design avoided? **Q3.** Were laboratory findings recorded for all patients (not only for a specific subgroup)? **Q4.** Did the study avoid inappropriate exclusions? **Q5.** Were they testing only patients 'suspected COVID-19'? **Q6.** Is the reference standard likely to correctly classify the target condition? Use NO if they did not use the composite reference standard (RT-PCR+ imaging). **Q7.** If thresholds were used, were they equivalent to normal ranges for that test? **Q8.** Was the conduct or interpretation of the tests unbiased? **Q9.** Were tests performed at the same point in time for all patients in the sample? (eg. on admission) **Q10.** Were biomarker tests performed prior to COVID-19 treatment (including drugs)? **Q11.** Are the criteria for categorisation of patients clear and defined?