Supplementary Materials

Contents

Supplement A

Figure s1. PRISMA Flow Diagram

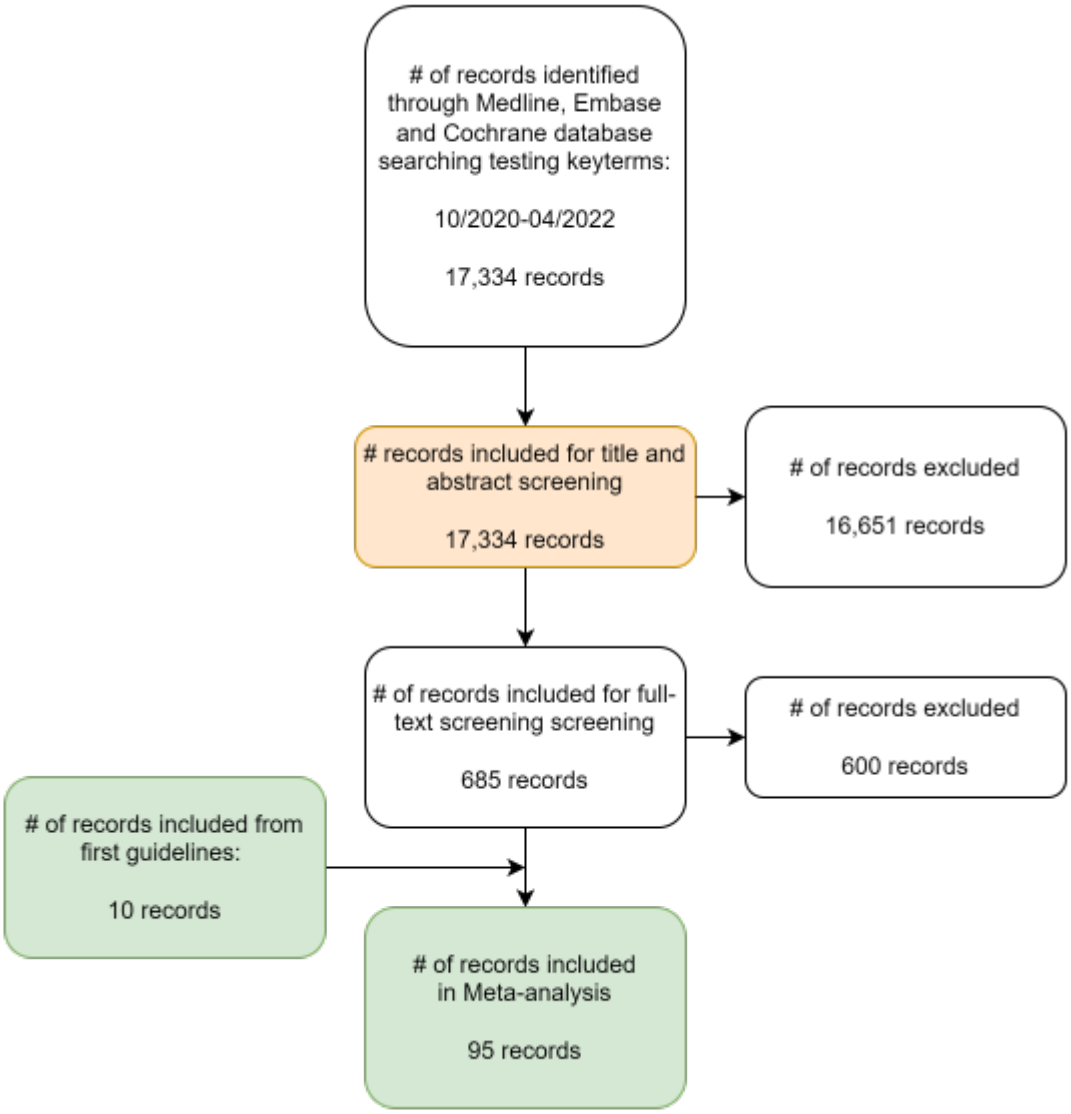

Table s1. PICO Questions Identified by the Panel

PICO	Population	Test/strategy 1	Test/strategy 2	Outcome	Recommendation #
1.	Symptomatic	Ag	No testing	Diagnostic test accuracy	Recommendation #1
2.	Symptomatic	Ag	NAAT	Diagnostic test accuracy	Recommendation #2
3.	Symptomatic	Ag strategy, repeat testing	NAAT	Diagnostic test accuracy	Recommendation #3
4.	Asymptomatic	Ag	No testing	Diagnostic test accuracy	Recommendation #4
5.	Asymptomatic	Ag	NAAT	Diagnostic test accuracy	Recommendation #5
6.	Asymptomatic	Ag strategy, repeat testing	NAAT	Diagnostic test accuracy	Recommendation #6
7.	Students in educational settings and employees in workplaces	Ag strategy, repeat testing	No testing	Patient important outcomes, transmission events	Recommendation #7 (Evidence gap)
8.	Asymptomatic individuals planning to attend large gatherings	Ag	No testing	Patient important outcomes, transmission events	Recommendation #8 (Evidence gap)
9.	Symptomatic	Point-of-care Ag	laboratory-based Ag	Patient important outcomes, transmission events	Both absorbed into Recommendation #9
10.	Asymptomatic	Point-of-care Ag	laboratory-based Ag	Patient important outcomes, transmission events	
11.	Symptomatic	Observed self-collection	Unobserved self-collection	Diagnostic test accuracy	Both absorbed into

12.	Asymptomatic	Observed self-collection	Unobserved self-collection	Diagnostic test accuracy	Recommendation #10
13.	Symptomatic	Home testing #1	Home testing # 2	Diagnostic test accuracy	Deprioritized question

Ag: antigen [testing]; **NAAT:** nucleic acid amplification test

Table s2. Search Strategy

	EMBASE
Set #	Search Strategy
1	('coronavirus disease 2019'/exp OR 'Severe acute respiratory syndrome coronavirus 2'/exp)
2	((corona* OR corono*) AND (viral* OR viridae* OR virinae* OR virus*)):ti,ab
3	('2019 novel*' OR '2019-ncov' OR 2019ncov OR betacoronavirus* OR Coronaviridae* OR coronavirinae* OR coronavirus* OR coronovirus* OR corvid19 OR 'corvid-19' OR cov OR covid19 OR covid2019 OR 'covid 2019' OR 'covid-19' OR 'hcov-19' OR hcov19 OR ncorona* OR ncorono* OR 'n-cov' OR 'ncov-2019' OR ncov OR ncov2019 OR ncovchina* OR ncovchinese* OR ncovhubei* OR ncovor OR ncovwuhan* OR 'novel betacoronavirus' OR 'Novel Coronavirus' OR 'novel CoV' OR 'sarscov-19' OR 'sars-cov19' OR 'sars-cov-19' OR sarscov19 OR 'sarscov2' OR 'sarscov-2' OR 'sars-cov2' OR 'sars-cov-2' OR 'wn-cov' OR wncov):ti,ab
4	((epidem* OR outbreak* OR pandem* OR wildlife*) NEAR/1 (china* OR chinese* OR huanan* OR pneumonia OR respirator*)):ti,ab
5	(('food market*' OR 'seafood market*') NEAR/10 (china* OR chinese* OR huanan* OR hubei* OR wuhan*)):ti,ab
6	**OR/1-5**
7	('virus antigen'/exp)
8	antigen:ti,ab
9	**OR/7-8**
10	('delayed diagnosis'/exp OR 'diagnosis'/de OR 'diagnostic procedure'/de OR 'differential diagnosis'/exp OR 'early diagnosis'/exp OR 'examination'/exp OR 'laboratory diagnosis'/exp OR 'physical examination'/exp OR 'qualitative diagnosis'/exp OR 'quantitative diagnosis'/exp OR 'screening'/exp OR 'symptom assessment'/exp OR 'virus diagnosis'/exp)
11	(case* OR 'case finding' OR casefinding OR detect* OR diagnos* OR screen* OR test*):ti,ab
12	**OR/10-11**
13	**6 AND 9 AND 12**
14	[english]/lim
15	13 AND 14
16	[animals]/lim NOT [humans]/lim
17	15 NOT 16

18	('abstract report'/exp OR 'animal experiment'/exp OR 'book'/exp OR 'case finding'/exp OR 'case report'/exp OR 'case study'/exp OR 'conference paper'/exp OR 'editorial'/exp OR 'feasibility study'/exp OR 'in vitro study'/exp 'letter'/exp OR 'meta analysis'/exp OR 'meta analysis topic'/exp OR 'meta analysis (topic)'/exp OR 'note'/exp OR 'practice guideline'/exp OR 'review'/exp OR 'systematic review'/exp OR 'systematic review topic'/exp OR 'systematic review (topic)'/exp OR 'veterinary clinical trial'/exp OR 'veterinary study'/exp OR [conference abstract]/lim OR [conference paper]/lim OR [conference review]/lim OR [editorial]/lim OR [letter]/lim OR [note]/lim OR [short survey]/lim OR meta*analys*:ti,ab OR (integrative NEAR/5 research NEAR/5 review*):ti,ab OR (methodologic* NEAR/5 overview*):ti,ab OR (methodologic* NEAR/5 review*):ti,ab OR (quantitativ* NEAR/5 overview*):ti,ab OR (quantitativ* NEAR/5 review*):ti,ab OR (quantitativ* NEAR/5 synthesi*):ti,ab OR (research NEAR/5 integration):ti,ab OR (systematic* NEAR/5 overview*):ti,ab OR (systematic* NEAR/5 review*):ti,ab)
19	17 NOT 18
20	[22-2-2021]/sd NOT [29-9-2021]/sd
21	**19 AND 20**

	PUBMED
Set #	Search Strategy
1	"COVID-19"[Mesh] OR "SARS-CoV-2"[Mesh] OR "Coronavirus Infections"[Mesh] OR "Betacoronavirus"[Mesh]
2	((corona*[tiab] OR corono*[tiab]) AND (viral*[tiab] OR viridae*[tiab] OR virinae*[tiab] OR virus*[tiab]))
3	"2019 novel*"[tiab] OR "2019-ncov"[tiab] OR 2019ncov[tiab] OR betacoronavirus*[tiab] OR Coronaviridae*[tiab] OR coronavirinae*[tiab] OR coronavirus*[tiab] OR coronovirus*[tiab] OR cov[tiab] OR covid19[tiab] OR covid2019[tiab] OR "covid 2019" [tiab] OR "covid-19"[tiab] OR "hcov-19"[tiab] OR hcov19[tiab] OR "n-cov"[tiab] OR "ncov-2019"[tiab] OR ncov[tiab] OR ncov2019[tiab] OR "novel betacoronavirus"[tiab] OR "Novel Coronavirus"[tiab] OR "novel CoV"[tiab] OR "sars-cov19"[tiab] OR "sars-cov-19"[tiab] OR sarscov19[tiab] OR "sarscov2"[tiab] OR "sarscov-2"[tiab] OR "sars-cov2"[tiab] OR "sars-cov-2"[tiab]
4	(epidem* OR outbreak* OR pandem* OR wildlife*) AND (china* OR chinese* OR huanan* OR pneumonia OR respirator*)
5	(("food market*"[tiab] OR "seafood market*"[tiab]) AND (china*[tiab] OR chinese*[tiab] OR huanan*[tiab] OR hubei*[tiab] OR wuhan*[tiab]))
6	**OR/1-5**
7	"Antigens, Viral"[Mesh]
8	antigen[tiab]
9	**OR/7-8**

10	"COVID-19 Testing"[Mesh] OR "Delayed Diagnosis"[Mesh] OR "Diagnosis"[Mesh:NoExp] OR "Diagnosis, Differential"[Mesh] OR "Diagnostic Techniques and Procedures"[Mesh] OR "Early Diagnosis"[Mesh]
11	"diagnosis"[Subheading]
12	case*[tiab] OR "case finding"[tiab] OR casefinding[tiab] OR detect*[tiab] OR diagnos*[tiab] OR screen*[tiab] OR test*[tiab]
13	**OR/10-12**
14	**6 AND 9 AND 13**
15	English[Language]
16	14 AND 15
17	animals[Mesh] NOT humans[Mesh]
18	16 NOT 17
19	"2021/02/22"[PDAT] : "3000/12/31"[PDAT]
20	18 AND 19
21	("Academic Dissertation"[Publication Type] OR "address"[Publication Type] OR "Anecdotes"[Publication Type] OR "Animation"[Publication Type] OR "autobiography"[Publication Type] OR "bibliography"[Publication Type] OR "biography"[Publication Type] OR "Book Illustrations"[Publication Type] OR "Book Review"[Publication Type] OR "Bookplate"[Publication Type] OR "Cartoon"[Publication Type] OR "Case Reports"[Publication Type] OR "Catalog"[Publication Type] OR "Chart"[Publication Type] OR "Comment"[Publication Type] OR "congress"[Publication Type] OR "consensus development conference"[Publication Type] OR "consensus development conference, nih"[Publication Type] OR "dictionary"[Publication Type] OR "directory"[Publication Type] OR "editorial"[Publication Type] OR "Expression of Concern"[Publication Type] OR "Guideline"[Publication Type] OR "Handbook"[Publication Type] OR "interactive tutorial"[Publication Type] OR "interview"[Publication Type] OR "Juvenile Literature"[Publication Type] OR "lecture"[Publication Type] OR "legal case"[Publication Type] OR "legislation"[Publication Type] OR "letter"[Publication Type] OR "Meeting Abstract"[Publication Type] OR "Meta-Analysis"[Publication Type] OR "news"[Publication Type] OR "newspaper article"[Publication Type] OR "overall"[Publication Type] OR "patient education handout"[Publication Type] OR "periodical index"[Publication Type] OR "personal narrative"[Publication Type] OR "portrait"[Publication Type] OR "Review"[Publication Type] OR "Scientific Integrity Review"[Publication Type] OR "Systematic Review"[Publication Type] OR "Unpublished Work"[Publication Type] OR "hascommenton"[All Fields] OR "Cartoons as Topic"[Mesh] OR "Meta-Analysis as Topic"[Mesh] OR "Review Literature as Topic"[Mesh] OR "Systematic Reviews as Topic"[Mesh] OR "case report*"[tiab] OR "integrative research review*"[tiab] OR "integrative review*"[tiab] OR "literature review"[tiab] OR meta-analys*[tiab] OR "meta analys*"[tiab] OR metaanalys*[tiab] OR "narrative review"[tiab] OR "research integration"[tiab] OR "scoping review"[tiab] OR ((methodologic*[tiab] OR quantitative*[tiab] OR systematic*[tiab]) AND (overview*[tiab] OR review*[tiab] OR synthesis*[tiab])))

22	**20 NOT 21**

	Cochrane
Set #	Search Strategy
1	MeSH descriptor: [Betacoronavirus] explode all trees
2	MeSH descriptor: [Coronavirus Infections] explode all trees
3	((corona* OR corono*) NEXT (viral* OR viridae* OR virinae* OR virus*)):ti,ab
4	("2019 novel*" OR "2019-ncov" OR 2019ncov OR betacoronavirus* OR Coronaviridae* OR coronavirinae* OR coronavirus* OR coronovirus* OR corvid19 OR "corvid-19" OR cov OR covid19 OR covid2019 OR "covid 2019" OR "covid-19" OR "hcov-19" OR hcov19 OR ncorona* OR ncorono* OR "n-cov" OR "ncov-2019" OR ncov OR ncov2019 OR ncovchina* OR ncovchinese* OR ncovhubei* OR ncovor OR ncovwuhan* OR "novel betacoronavirus" OR "Novel Coronavirus" OR "novel CoV" OR "sarscov-19" OR "sars-cov19" OR "sars-cov-19" OR sarscov19 OR "sarscov2" OR "sarscov-2" OR "sars-cov2" OR "sars-cov-2" OR "wn-cov" OR wncov):ti,ab
5	(epidem* OR outbreak* OR pandem* OR wildlife*) NEAR/1 (china* OR chinese* OR huanan* OR pneumonia OR respirator*):ti,ab
6	(("food market*" OR "seafood market*") NEAR/10 (china* OR chinese* OR huanan* OR hubei* OR wuhan*)):ti,ab
7	**OR/1-6**
8	"Antigens, Viral"[Mesh]
9	antigen:ti,ab
10	**OR/8-9**
11	MeSH descriptor: [Delayed Diagnosis] explode all trees
12	MeSH descriptor: [Diagnosis] this term only
13	MeSH descriptor: [Diagnosis, Differential] explode all trees
14	MeSH descriptor: [Diagnostic Techniques and Procedures] explode all trees
15	MeSH descriptor: [Early Diagnosis] explode all trees
16	Any MeSH descriptor in all MeSH products and with qualifier(s): [diagnosis - DI]
17	case* OR "case finding" OR casefinding OR detect* OR diagnos* OR screen* OR test*
18	**OR/11-17**
19	**7 AND 10 AND 18**
20	MeSH descriptor: [Animals] explode all trees
21	MeSH descriptor: [Humans] explode all trees
22	20 NOT 21
23	19 NOT 22
24	February 22, 2021 to Current

25	**23 AND 24**

Table s3. QUADAS-2 risk of bias assessment for included studies (95 studies)

	Author, Year	Patient Selection Risk of Bias	Index Test Risk of Bias	Reference Standard Risk of Bias	Flow & Timing Risk of Bias
1.	Albert 2021 [1]	Low	Low	Unclear	Low
2.	Alghounaim 2021 [2]	High	Low	Unclear	Low
3.	Allan-Blitz 2021 [3]	Low	Low	Unclear	Low
4.	Almendares 2022 [4]	Low	Low	Unclear	Low
5.	Alqahtani 2021 [5]	Low	Low	Unclear	Low
6.	Amer 2021 [6]	Low	Low	Unclear	Low
7.	Aoki 2021 [7]	High	Unclear	Low	Unclear
8.	Aoki 2021 [8]	High	Unclear	Unclear	Low
9.	Aranaz-Andrés 2022 [9]	Low	Unclear	Unclear	Low
10.	Baro 2021 [10]	Low	Low	Low	Low
11.	Beck 2021 [11]	Low	Low	Low	Low
12.	Bianco 2021 [12]	Low	Low	Unclear	Low
13.	Brihn 2021 [13]	Low	Low	Unclear	Low
14.	Bulilete 2021 [14]	Low	Low	Unclear	Low
15.	Carbonell-Sahuquillo 2021 [15]	Low	Low	Unclear	Low
16.	Caruana 2021 [16]	Low	Low	Unclear	Low
17.	Chiu 2021 [17]	Low	Unclear	Unclear	Unclear
18.	Courtellemont 2021 [18]	Low	Low	Unclear	Low
19.	Di Domenico 2021 [19]	Low	Low	Low	Low
20.	Dierks 2021 [20]	High	Low	Low	Low
21.	Drain 2021 [21]	Low	Low	Low	Low
22.	Drain 2021 [22]	Low	Low	Low	Low
23.	Escribano 2022 [23]	Low	Low	Low	Low
24.	Fernandez-Montero 2021 [24]	Low	Low	Low	Low

25.	Fernández-Rivas 2021 [25]	Low	Low	Low	Low
26.	Ferté 2021 [26]	Low	Low	Low	Low
27.	Fitoussi 2021 [27]	Low	Low	Low	Low
28.	Ford 2021 [28]	Low	Low	Low	Low
29.	Fourati 2021 [29]	High	Low	Low	Unclear
30.	Fourati 2022 [30]	High	High	Low	Low
31.	Garciá-Fiñana 2021 [31]	Low	Low	Low	Low
32.	Gili 2021 [32]	Low	Low	Low	Low
33.	González-Donapetry 2021 [33]	Low	Low	Low	Low
34.	Hagbom 2022 [34]	Low	Low	Low	Low
35.	Harris 2021 [35]	Low	Low	Low	Low
36.	Hirotsu 2021 [36]	Low	Low	High	Unclear
37.	Holzner 2021 [37]	Low	Low	High	Low
38.	Homza 2021 [38]	Low	Low	Low	Low
39.	Ifko 2021 [39]	Low	Low	Low	Low
40.	Ishii 2021 [40]	High	Low	High	High
41.	Jakobsen 2021 [41]	Low	Low	Low	Low
42.	James 2022 [42]	Low	Low	Low	Low
43.	Kahn 2021 [43]	Low	High	Low	Low
44.	Kernéis 2021 [44]	Low	Low	Low	Low
45.	Kim 2021 [45]	Low	Unclear	Low	Low
46.	Kim 2022 [46]	High	High	Low	Low
47.	Klajmon 2022 [47]	Low	Low	Low	low
48.	Klein 2021 [48]	Low	Low	Low	low
49.	Kolwijck 2021 [49]	Low	Low	Low	low
50.	Koskinen 2021 [50]	Low	High	Low	Low
51.	Krüger 2021 [51]	Low	Low	Low	Low
52.	Kumar 2021 [52]	Low	Low	Low	Low

53.	Landaas 2021 [53]	Low	Low	Low	Low
54.	Leber 2021 [54]	Low	Low	Low	Low
55.	Leixner 2021 [55]	Low	Low	Low	Low
56.	Leli 2021 [56]	Low	Low	Low	Low
57.	Masiá 2021 [57]	Low	Low	Low	Low
58.	Mboumba 2021 [58]	High	Low	Low	Low
59.	Merino 2021 [59]	Low	Low	Low	Low
60.	Merino-Amador 2021 [60]	Low	Low	Low	Low
61.	Mitchell 2021 [61]	Low	Low	Low	Low
62.	Møller 2022 [62]	Low	Low	Low	Low
63.	Montalvo 2021 [63]	Low	Unclear	Unclear	Low
64.	Mungomklang 2021 [64]	Low	Unclear	Low	Low
65.	Murillo-Zamora 2021 [65]	Low	Unclear	Low	Low
66.	Nikolai 2021 [66]	Low	Unclear	Low	Low
67.	Nörz 2021 [67]	Low	Unclear	Low	Low
68.	Osterman 2021 [68]	High	Unclear	Unclear	Low
69.	Paul 2021 [69]	Low	High	Low	Low
70.	Peacock 2022 [70]	Low	Low	Low	Low
71.	Peña 2021 [71]	Low	Low	Unclear	Low
72.	Pérez-García 2021 [72]	High	Unclear	Unclear	Low
73.	Pérez-García 2021 [73]	Low	High	Low	Low
74.	Petonnet 2022 [74]	High	High	Low	Low
75.	Pilarowski 2021 [75]	Low	Low	Low	Low
76.	Pollock 2021 [76]	Low	Low	Low	Low
77.	Pray 2021 [77]	Low	Low	Unclear	Low
78.	Prince-Guerra 2021 [78]	Low	Low	Low	Low
79.	Quentin 2022 [79]	Low	Low	Low	Low
80.	Rahman 2021 [80]	Low	Low	Low	Low

81.	Regev-Yochay 2022 [81]	Low	Low	Low	Low
82.	Schuit 2021 [82]	Low	Low	Low	Low
83.	Shaikh 2021 [83]	Low	Unclear	High	Low
84.	Siddiqui 2021 [84]	Low	Low	Low	Low
85.	Smith 2021 [85]	Low	Unclear	Unclear	Low
86.	Tinker 2021 [86]	Low	Unclear	Unclear	Low
87.	Tonen-Wolyec 2021 [87]	Low	Unclear	Unclear	Low
88.	Turcato 2022 [88]	Low	Unclear	Unclear	Low
89.	Van Der Moeren 2021 [89]	Low	Unclear	Unclear	Low
90.	Venekamp 2022 [90]	Low	Low	Low	Low
91.	Villaverde 2021 [91]	Low	Low	Low	Low
92.	Von Ahnen 2021 [92]	Low	Low	Low	Low
93.	Von Ahnen 2022 [93]	Low	Low	Low	Low
94.	Wachinger 2021 [94]	Low	Low	Low	High
95.	Winkel 2021 [95]	Low	Low	High	High

*Reference list is located after Table s4. Baseline Characteristics of the Included Studies

Table s4. Baseline Characteristics of the Included Studies

Author (Country)	Patient Selection	Index test	Reference Standard
Author, year: Albert 2021 [1] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 412 **Age:** median 36, range 17-91 **Gender (%male):** 42% male **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** tested if symptoms within past week	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** nucleocapsid antigen **COI:** NR **Turnaround time:** 15min **Sample site:** NP	**Test name(s):** TaqPath COVID-19 Kit **Target gene:** ORF1ab, N and S genes **Ct threshold:** NR **Sample site:** NP **Type of swab:** flocked swab **Transport media:** NA **Self vs HCW:** HCW

		Type of swab: flocked swabs **Transport media:** NA **HCW collection:** Yes **Sampling sequence:** Unclear which one obtained first	
Author, year: Alghounaim 2021 [2] **Country:** Kuwait **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 897 (Same patients as below row - all pts were swabbed twice for the two tests, not a separate cohort of patients) **Age:** median 40.2 (IQR 32.3-47.8) **Gender (%male):** 94% male **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** Diasorin LIAISON **EUA certified:** No **CE certified:** Yes **Platform:** chemiluminescence sandwich-immunoassay (CLIA) **Target antigen:** NR	**Test name(s):** TaqPath COVID-19 KitYes **Target gene:** ORF1ab, N and S genes **Ct threshold:** NR **Sample site:** NP **Type of swab:** polyester-tipped 3-dimentionally printed swabs **Transport media:** NR - Collected samples intended for laboratory-based tests were

	Days since symptom onset (if applicable): 3% of patients symptomatic	**COI:** NR **Turnaround time:** 15-30min **Sample site:** NP **Type of swab:** polyester-tipped 3-dimentionally printed swabs **Transport media:** NR - Collected samples intended for laboratory-based tests were stored at a site and transported at 2–8◦C immediately to the Jaber Innovation Laboratory at Jaber Alahmad Hospital and were processed within 12 h **HCW collection:** Yes **Sampling sequence:** Unclear which one obtained first	stored at a site and transported at 2–8◦C immediately to the Jaber Innovation Laboratory at Jaber Alahmad Hospital and were processed within 12 h **Self vs HCW:** HCW
	Number of patients: 18457	**Test name(s):** BinaxNow	**Test name(s):** modified CDC protocol

Author, year: Allan-Blitz 2021 [3] **Country:** FL, USA **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**EUA certified:** Yes **CE certified:** No **Platform:** lateral flow immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** AN **Type of swab:** flocked swabs **Transport media:** NR	**Target gene:** NR **Ct threshold:** 40 **Sample site:** AN **Type of swab:** flocked swabs **Transport media:** NR **Self vs HCW:** Mix - health care worker-observed self-collected oral fluid swabs, self-collected anterior nares swabs, and clinician-collected nasopharyngeal swabs.

		HCW collection: Yes **Sampling sequence:** Ag first	
Author, year: Almendares 2022 [4] **Country:** AZ, USA **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 3419 **Age:** median 41 (range 10-95) **Gender (%male):** 37.7% male, 49.2% female, 13.1% undisclosed **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** BinaxNow **EUA certified:** Yes **CE certified:** No **Platform:** lateral flow immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** 15-30min **Sample site:** AN	**Test name(s):** CDC 2019-nCoV rRT-PCR diagnostic panel (CDC rRT-PCR assay) for detection of SARS-CoV-2 (n = 2,582) or the Fosun COVID19 rRT-PCR detection kit (Fosun rRT-PCR assay) (n = 837) **Target gene:** Statistical analysis was limited to data collected from specimens tested by the CDC rRT-PCR assay when using the nucleocapsid 1 (N1) cycle threshold value as a variable, because the two rRT-PCR assays detect different SARS-CoV-2 gene targets and CT value **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR

		Type of swab: Swab provided in collection kit was used **Transport media:** NA **HCW collection:** Yes **Sampling sequence:** Ag first	**Transport media:** NR **Self vs HCW:** HCW
Author, year: Alqahtani 2021 [5] **Country:** Bahrain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 4183 **Age:** median 30.9 +/- 14.5 **Gender (%male):** 56.5% male **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** median 2 days (range 1-3)	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** Nucleocapsid protein	**Test name(s):** TaqPath COVID-19 Kit **Target gene:** E gene - If the E gene was detected, the sample was then confirmed by RdRP and N genes **Ct threshold:** Ct values >40 were considered negative **Sample site:** NP **Type of swab:** NR

		COI: NR **Turnaround time:** 15min **Sample site:** AN **Type of swab:** Swab provided with kit **Transport media:** NA **HCW collection:** Yes **Sampling sequence:** Ag first	**Transport media:** NA **Self vs HCW:** HCW
Author, year: Amer 2021 [6] **Country:** Egypt	**Number of patients:** 83 **Age:** median 55.5 +/- 18.4	**Test name(s):** Standard Q **EUA certified:** No	**Test name(s):** real-time PCR kit (Primerdesign Ltd, Ref: Z-Path-COMD-19CE, UK) in Stratagene Mx3000P qPCR System (Agilent). **Target gene:** RdRp gene

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** 59% male **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** 50.6% of patients with symptoms, 6.2% asymptomatic, 43.3% not reported. Of the people symptomatic, 45.7% had symptoms within 0-7 days, 32.5% had symptoms within 8-16, 4.8% had symptoms >16 days, 1.2% with symptoms after sampling	**CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** Nucleocapsid protein **COI:** NR **Turnaround time:** 15-30min **Sample site:** NP and OP swab mixed into single VTM for testing **Type of swab:** NR **Transport media:** VTM **HCW collection:** Yes	**Ct threshold:** The analyzed samples were considered negative if they have a Ct value ≥40 or when no Ct values were reported. For positive samples, SARS-CoV-2 RNR content was categorized according to the Ct values into strong (Ct < 29), moderate (Ct = 29−36) and weak (Ct **Sample site:** NP and OP swab mixed into single VTM for testing **Type of swab:** NR **Transport media:** VTM **Self vs HCW:** HCW

		Sampling sequence: Same sample for both	
Author, year: Aoki 2021a [7] **Country:** Japan **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 548 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** collected from COVID-19 patients or suspected patients with COVID-19	**Test name(s):** Lumipulse G **EUA certified:** No **CE certified: Yes** **Platform:** chemiluminescent enzyme immunoassay (CLEIA) **Target antigen:** NR **COI:** Using a cut-off value of 1.34 pg/ml **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR	**Test name(s):** One-step RT-qPCR was performed using QuantStudio® 5 (Applied Biosystems™, U.S.A.) or BD MAX™ open system, respectively. TaqMan Fast Virus 1-Step Master Mix (Thermo Fisher Scientific, U.S.A.) and BD MAX™ TNR MMK (SPC) were used as one-step RT-qPCR master m **Target gene:** N gene **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** NR

		Transport media: NR **HCW collection:** NR **Sampling sequence:** Same sample used for both tests	
Author, year: Aoki 2021b [8] **Country:** Japan **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 129 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** All	**Test name(s):** Espline **EUA certified:** No **CE certified:** Yes **Platform:** Immunochromatographic assay **Target antigen:** N antigen **COI:** NR	**Test name(s):** One-step RT-qPCR was performed using QuantStudio® 5 (Applied Biosystems™, U.S.A.) or BD MAX™ open system, respectively. TaqMan Fast Virus 1-Step Master Mix (Thermo Fisher Scientific, U.S.A.) and BD MAX™ TNR MMK (SPC) were used as one-step RT-qPCR master m **Target gene:** N gene **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR

		Turnaround time: 30min **Sample site:** NP **Type of swab:** NR **Transport media:** Some frozen samples taken from UVT **HCW collection:** NR **Sampling sequence:** NR	**Transport media:** Some frozen samples taken from UVT **Self vs HCW:** NR
Author, year: Aranaz-Andrés 2022 [9] **Country:** Spain **Study Design:** Non-randomized/	**Number of patients:** 541 **Age:** median 76.7 **Gender (%male):** 56% male	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes	**Test name(s):** TaqPath COVID-19 Kit **Target gene:** Orf1ab, N, S gene **Ct threshold:** Only samples with Ct value ≤ 35 were considered positives. **Sample site:** NP

observational study with comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** 15min **Sample site:** NP **Type of swab:** NR **Transport media:** NA **HCW collection:** Yes **Sampling sequence:** Random - switches which one is first	**Type of swab:** NR **Transport media:** NA **Self vs HCW:** HCW

Author, year: Baro 2021 [10] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 286 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Test name(s):** Multiple **EUA certified:** Yes **CE certified:** Yes **Platform:** Multiple **Target antigen:** NR **COI:** NR **Turnaround time:** 15min **Sample site:** NP **Type of swab:** NR **Transport media:** VTM	**Test name(s):** Allplex 2019-nCoV assay **Target gene:** NR **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** VTM **Self vs HCW:** HCW

		HCW collection: Yes **Sampling sequence:** NR - RT PCR test completed before Ag but unclear which sample was obtained first or if same sample used	
Author, year: Beck 2020 [11] **Country:** US **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 347 **Age:** range 1-90 years **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** 0-5, >5days	**Test name(s):** Sofia **EUA certified:** Yes **CE certified:** Yes **Platform:** Lateral Flow Assay **Target antigen:** Nucleocapsid **COI:** NR **Turnaround time:** NR	**Test name(s):** Hologic Aptima, Cepheid Xpert Xpress used for discrepant results (data from CXX not used) **Target gene:** ORF1ab **Ct threshold:** NR **Sample site:** NP **Type of swab:** mini-tip nylon flocked swab **Transport media:** Amies bacterial transport medium

		Sample site: AN **Type of swab:** Provided by manufacturer **Transport media:** dry swab **HCW collection:** Unclear **Sampling sequence:** PCR first	**Self vs HCW:** Unclear
Author, year: Bianco 2021 [12] **Country:** Italy **Study Design:** Non-randomized/ observational study with	**Number of patients:** 907 **Age:** mean 47.9 **Gender (%male):** 55.7% male **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** LumiraDx **EUA certified:** No **CE certified:** Yes **Platform:** fluorescence immunoassay (FIA)	**Test name(s):** Xpert Xpress SARS-CoV-2 assay (Cepheid, Sunnyvale, CA) **Target gene:** NR **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR

comparator (e.g. case control)	**Days since symptom onset (if applicable):** At specimen collection, 676 (74.5%) participants were asymptomatic and 231 (25.5%) reported experiencing one or more COVID-19 symptoms. The median interval from symptom onset to specimen collection was 4 days (interquartile range 2-7).	**Target antigen:** Nucleocapsid protein **COI:** NR **Turnaround time:** NR **Sample site:** AN **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** NR	**Transport media:** NR **Self vs HCW:** HCW
Author, year: Brihn 2021 [13]	**Number of patients:** 2039 **Age:** median 56 (range 16-107)	**Test name(s):** Multiple **EUA certified:** No	**Test name(s):** Fulgent COVID-19 RT-PCR (Fulgent Genetics) (RT-PCR test) **Target gene:** N1 and N2 gene

Country: California, USA **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** 45% male **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** 15% had covid symptoms	**CE certified:** Yes **Platform:** Multiple **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** AN **Type of swab:** NR **Transport media:** NA **HCW collection:** Yes	**Ct threshold:** Ct values <40 **Sample site:** NP **Type of swab:** NR **Transport media:** NA **Self vs HCW:** HCW

		Sampling sequence: Ag first, NP second	
Author, year: Bulilete 2021 [14] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 1369 **Age:** mean 42.5 +/- 14.9 **Gender (%male):** 45.7% male **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** 36.7% with symptoms, 54.8% close contact, 8.5% unknown symptoms. Of patients with symptoms, 70.6% with testing 5 days or less since sympton onset or close contact, 15.7% with >5 days.	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR	**Test name(s):** TaqPath COVID-19 Kit **Target gene:** ORF, N, S gene **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Transport media: NR **HCW collection:** Yes **Sampling sequence:** NR	
Author, year: Carbonell-Sahuquillo 2021 [15] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 357 **Age:** median 2 (IQR 1-6) **Gender (%male):** 56.5% **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** median 1 days since symptom onset (IQR 1-3)	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR	**Test name(s):** TaqPath COVID-19 Kit **Target gene:** ORF, N, S gene **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR

		Turnaround time: NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** NR	**Self vs HCW:** HCW
Author, year: Caruana 2021 [16] **Country:** Switzerland	**Number of patients:** 532 **Age:** median 67 (IQR 48.5, 81.0) for patients without symptoms, median 75 (IQR 61.0, 85.0) for patients with symptoms	**Test name(s):** Multiple **EUA certified:** No **CE certified:** Yes	**Test name(s):** VIASURE SARS-CoV-2 (N1 + N2) Real-Time PCR Detection Kit for BD MAX (Becton Dickinson, Franklin Lake, NJ, USA) or GeneXpert SARS-CoV-2 test (Cepheid, Sunnyvale, CA, USA) **Target gene:** NR **Ct threshold:** NR

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** 56.1% male for patients without symptoms, 55.3% male for patients with symptoms **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Platform:** Lateral Flow Assay **Target antigen:** NR **COI:** NR **Turnaround time:** 15-30min for Standard Q and Panbio, 20min for Exdia and BD Veritor **Sample site:** NP **Type of swab:** wet swab **Transport media:** VTM **HCW collection:** NR **Sampling sequence:** Same swab for both tests	**Sample site:** NP **Type of swab:** wet swab **Transport media:** VTM **Self vs HCW:** NR

Author, year: Chiu 2021 [17] **Country:** California and Hong Kong **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 329 symptomatic in Cali and 22,994 asymptomatic in Hong Kong **Age:** San Fran and Oakland population - 83 patients total, 2 removed due to samples lost in transport, median age 32 (IQR 25,44). San Fernando - 270 patients total, 2 removed due to samples lost in transport, median 35yo (IQR 24,50) **Gender (%male):** San Fran and Oakland population - 83 patients total, 2 removed due to samples lost in transport, 55.6% male. San Fernando - 270 patients total, 2 removed due to samples lost in transport, 47.4% male **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** within 5 days for symptomatic patients	**Test name(s):** INDICAID **EUA certified:** No **CE certified:** Yes **Platform:** lateral flow immunoassay **Target antigen:** NR **COI:** Positive Ct median 18.13 [IQR 16.29 – 22.96] for San Fan/Oakland group. Positive Ct median 19.55 [IQR 17.07 – 24.35] for San Fernando. **Turnaround time:** 20min **Sample site:** AN **Type of swab:** NR	**Test name(s):** RT-PCR **Target gene:** NR **Ct threshold:** NR **Sample site:** AN **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW and self collected

		Transport media: NR **HCW collection:** Yes **Sampling sequence:** NR	
Author, year: Courtellemont 2021 [18] **Country:** France **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 248 **Age:** NR **Gender (%male):** 47.1% male **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** Ninety seven patients were symptomatic, and 24 were totally asymptomatic. The median time of symptom duration before	**Test name(s):** COVID VIRO **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR	**Test name(s):** TaqPath COVID-19 Kit **Target gene:** ORF1ab, S, N gene **Ct threshold:** Samples showing an exponential growth curve and a cycle threshold (Ct)value < 37 were considered positive. A unique Ct value > 37 was considered negative. **Sample site:** NP (but subset had OP/saliva for comparison) **Type of swab:** A polyester-tipped flexible (viral transport medium tube with swab VTM, Sun-Trine®) was inserted

	sampling was 5 days (mean, 6 days; range, 1–20).	**Turnaround time:** 15min **Sample site:** NP (but subset has OP/saliva too for comparison) **Type of swab:** A polyester-tipped flexible (viral transport medium tube with swab VTM, Sun-Trine®) was inserted **Transport media:** NA **HCW collection:** Yes **Sampling sequence:** RT-PCR sample first, Ag second	**Transport media:** NA **Self vs HCW:** HCW
Author, year: Di Domenico 2021 [19] **Country:** Italy	**Number of patients:** 433 **Age:** median age—37 years, range—15–78	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes	**Test name(s):** RT-PCR assay for SARS-CoV-2 (QuantStudioTM, Thermo Fisher Scientific, Waltham, MA, USA) **Target gene:** Orf-1ab, N Protein and S Protein

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Platform:** Lateral flow immunochromatographic assay **Target antigen:** Nucleocapsid protein **COI:** NR **Turnaround time:** 15-20 min **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** antigen first	**Ct threshold:** 35 **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

Author, year: Dierks 2021 [20] **Country:** Germany **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 444 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Test name(s):** Multiple **EUA certified:** No **CE certified:** Yes **Platform:** Lateral Flow Assay **Target antigen:** Nucleocapsid protein **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR	**Test name(s):** Roche Cobas SARS-CoV-2 PCR, the Genesig Real-Time PCR Coronavirus (COVID-19) assay, or the Cepheid Xpert Xpress SARS-CoV-2 PCR **Target gene:** NR **Ct threshold:** 30 **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** NR

		HCW collection: NR **Sampling sequence:** NR	
Author, year: Drain 2021a [21] **Country:** USA **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 222 **Age:** mean (SD) 38.7 (17.3) **Gender (%male):** 82 (26.9%) **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Test name(s):** LumiraDx **EUA certified:** No **CE certified:** Yes **Platform:** fluorescence immunoassay (FIA) **Target antigen:** Nucleocapsid protein **COI:** NR **Turnaround time:** 12min	**Test name(s):** TaqPath COVID-19 Kit or Cobas 6800 Roche **Target gene:** NR **Ct threshold:** 33 **Sample site:** AN **Type of swab:** NR **Transport media:** NR **Self vs HCW:** Yes

		Sample site: AN **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** same time	
Author, year: Drain 2021b [22] **Country:** Multiple sites, UK and USA **Study Design:** Non-randomized/ observational study with	**Number of patients:** 512 **Age:** 0-90yo, mean 34 (± 15.7) for ANS, mean 33.2 (± 19.4) for NPS **Gender (%male):** (44%) **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** LumiraDx **EUA certified:** Yes **CE certified:** Yes **Platform:** Microfluidic Immunofluorescence Assay **Target antigen:** Nucleocapsid	**Test name(s):** Roche cobas SARS-CoV-2 **Target gene:** ORF1ab, E **Ct threshold:** NR **Sample site:** AN, NP **Type of swab:** ANS: Copan FLOQ swab, NP: NR

comparator (e.g. case control)	**Days since symptom onset (if applicable):** Average duration of four days at testing (for symptomatic)	**COI:** NR **Turnaround time:** NR **Sample site:** AN, NP **Type of swab:** NR **Transport media:** 0.7 mL of a proprietary extraction buffer **HCW collection:** Yes **Sampling sequence:** same time	**Transport media:** 3 ml of VTM **Self vs HCW:** HCW
Author, year: Escribano 2022 [23] **Country:** Spain	**Number of patients:** 900 **Age:** NR	**Test name(s):** Multiple **EUA certified:** No	**Test name(s):** TaqPath COVID-19 Kit **Target gene:** NR **Ct threshold:** 20

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** 361 (40%) **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NA	**CE certified:** Yes **Platform:** Lateral flow Assay **Target antigen:** Nucleocapsid protein **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** NR	**Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

Author, year: Fernandez-Montero 2021 [24] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 2288 **Age:** Mean (SD) 28 (12.3) **Gender (%male):** 896 (38%) **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Test name(s):** Roche SD **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR	**Test name(s):** RT-PCR **Target gene:** NR **Ct threshold:** 35 **Sample site:** OP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Transport media: NR **HCW collection:** Yes **Sampling sequence:** NR	
Author, year: Fernández-Rivas 2021 [25] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 861 **Age:** median: 44 years old, range 1-94 **Gender (%male):** 245 (28%) **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Test name(s):** Diasorin LIAISON **EUA certified:** No **CE certified:** Yes **Platform:** chemiluminescence sandwich-immunoassay (CLIA) **Target antigen:** Nucleocapsid protein **COI:** 100 TCID50/ml **Turnaround time:** NR	**Test name(s):** Allplex 2019-nCoV assay **Target gene:** NR **Ct threshold:** 40 **Sample site:** AN **Type of swab:** NR **Transport media:** NR **Self vs HCW:** NR

		Sample site: AN **Type of swab:** NR **Transport media:** NR **HCW collection:** NR **Sampling sequence:** NR	
Author, year: Ferté 2021 [26] **Country:** France **Study Design:** Non-randomized/ observational study with	**Number of patients:** 688 **Age:** Mean (SD) 22.95 (5.52) **Gender (%male):** 236 (34.0%) **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay	**Test name(s):** ARGENE SARS-CoV-2 R-GENE, BioM´erieux, France **Target gene:** RT-PCR was considered positive when both nucleocapsid (N) and RNA-dependent RNR polymerase (RdRp) genes were detected **Ct threshold:** 33 **Sample site:** NP

comparator (e.g. case control)	**Days since symptom onset (if applicable):** NR	**Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** NR	**Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW
Author, year: Fitoussi 2021 [27] **Country:** France	**Number of patients:** 967 **Age:** Median 34 Range (18–83)	**Test name(s):** BIOSYNEX BSS **EUA certified:** Yes	**Test name(s):** Real-Time Multiplex RT-PCR Kit (detection for three genes) (Liferiver and Shanghai ZJ Bio-Tech Co., Ltd), **Target gene:** (E, N and RdRP)

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** 469 (48.5%) **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** 0-20days	**CE certified:** Yes **Platform:** immunochromatographic assay **Target antigen:** Nucleocapsid protein **COI:** NR **Turnaround time:** most seen within 5min **Sample site:** NP **Type of swab:** swab provided in the BIOSYNEX Ag-RDT **Transport media:** NR **HCW collection:** Yes	**Ct threshold:** 41 **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Sampling sequence: Antigen first	
Author, year: Ford 2021 [28] **Country:** Wisconsin, USA **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 2110 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NA	**Test name(s):** BinaxNow **EUA certified:** Yes **CE certified:** No **Platform:** lateral flow immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR	**Test name(s):** TaqPath COVID-19 Kit **Target gene:** ORF1ab, S-gene, and N-gene **Ct threshold:** 37 **Sample site:** AN **Type of swab:** NR **Transport media:** NR **Self vs HCW:** Supervised Self

		Transport media: NR **HCW collection:** No **Sampling sequence:** same time	
Author, year: Fourati 2021 [29] **Country:** France **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 634 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** NR	**Test name(s):** Multiple **EUA certified:** No **CE certified: Yes** **Platform:** Lateral Flow Assay **Target antigen:** NR **COI:** NR	**Test name(s):** RealStar SARS-CoV2 RT PCR Kit 1.0, AltoNR Diagnostics GmbH, Hamburg, Germany **Target gene:** NR **Ct threshold:** 31 **Sample site:** NP **Type of swab:** NR **Transport media:** NR

		Turnaround time: 30min Standard Q, Abbott Panbio 15-20min, all others 15min **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** NR	**Self vs HCW:**
Author, year: Fourati 2022 [30] **Country:** France **Study Design:** Non-randomized/ observational	**Number of patients:** 1763 **Age:** NR **Gender (%male):** NR	**Test name(s):** VITROS **EUA certified:** No **CE certified: Yes**	**Test name(s):** commercially available NAAT (TMA-based Aptima™ SARS CoV-2 Assay, Hologic, San Diego, California; or PCRbased Alinity m® SARS CoV-2 Assay Abbott, Germany). **Target gene:** NR **Ct threshold:** 35

study with comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** NR	**Platform:** chemiluminescent immunoassay (CLIA) **Target antigen:** NR **COI:** NR **Turnaround time:** 48min **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** NR **Sampling sequence:** NR	**Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** NR
	Number of patients: 5869	**Test name(s):** Innova	**Test name(s):** TaqPath COVID-19 Kit

Author, year: Garciá-Fiñana 2021 [31] **Country:** UK **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Age:** mean 50 SD 18 **Gender (%male):** 2700 (46%) **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**EUA certified:** Yes **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** 30min **Sample site:** Throat + nose **Type of swab:** NR **Transport media:** NR	**Target gene:** NR **Ct threshold:** **Sample site:** Throat and nose combo **Type of swab:** NR **Transport media:** NR **Self vs HCW:** Supervised Self

		HCW collection: No **Sampling sequence:** NR	
Author, year: Gili 2021 [32] **Country:** Italy **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 226 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** Lumipulse G **EUA certified:** No **CE certified:** Yes **Platform:** chemiluminescent enzyme immunoassay (CLEIA) **Target antigen:** NR **COI:** 1.340 ng/ml **Turnaround time:** NR **Sample site:** NP	**Test name(s):** Allplex 2019-nCoV assay **Target gene:** NR **Ct threshold:** 40 **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** NR

		Type of swab: NR **Transport media:** NR **HCW collection:** NR **Sampling sequence:** NR	
Author, year: González-Donapetry 2021 [33] **Country:** Spain **Study Design:** Non-randomized/ observational study with	**Number of patients:** 440 **Age:** Median: 3 IQR: (1–7) **Gender (%male):** 59.1% **Symptomatic or Asymptomatic or Mix:** Symptomatic	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR	**Test name(s):** Allplex 2019-nCoV assay **Target gene:** NR **Ct threshold:** 40 **Sample site:** NP **Type of swab:** NR

comparator (e.g. case control)	**Days since symptom onset (if applicable):** Median of 1 (IQR:1-3)	**COI:** 1.340 ng/ml **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** NR **Sampling sequence:** NR	**Transport media:** NR **Self vs HCW:** NR
Author, year: Hagbom 2022 [34]	**Number of patients:** 39 **Age:** Median 57.0 range (32–84)	**Test name(s):** BTNX **EUA certified:** No	**Test name(s):** QIAmp Viral RNR kit **Target gene:** NR

Country: Sweden **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** 28 (71.8%) **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** Median 11.0 Range(5–30)	**CE certified:** Yes **Platform:** immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** 15min **Sample site:** saliva **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes	**Ct threshold:** NR **Sample site:** saliva **Type of swab:** NR **Transport media:** NR **Self vs HCW:** NR

		Sampling sequence: NR	
Author, year: Harris 2021 [35] **Country:** USA **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 2436 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NA	**Test name(s):** Sofia **EUA certified:** No **CE certified:** Yes **Platform:** Fluorescent Immunoassay (FIA) **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** AN **Type of swab:** Dry swabs	**Test name(s):** CDC 2019-Novel Coronavirus (2019-nCoV) Real-Time RT-PCR Diagnostic Panel **Target gene:** NR **Ct threshold:** 20-23 **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Transport media: NR **HCW collection:** No **Sampling sequence:** PCR first	
Author, year: Hirotsu 2021 [36] **Country:** Japan **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 637 **Age:** **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):**	**Test name(s):** Lumipulse G **EUA certified:** No **CE certified: Yes** **Platform:** chemiluminescent enzyme immunoassay (CLEIA) **Target antigen:** NR **COI:** NR	**Test name(s):** StepOnePlus Real-Time PCR System **Target gene:** nucleocapsid gene of SARS-CoV-2 (NC_045512.2) **Ct threshold:** NR **Sample site:** NP **Type of swab:** cotton swabs **Transport media:** VTM

		Turnaround time: NR **Sample site:** NP **Type of swab:** cotton swabs **Transport media:** VTM **HCW collection:** NR **Sampling sequence:** NR	**Self vs HCW:** HCW
Author, year: Holzner 2021 [37] **Country:** Germany **Study Design:** Non-randomized/ observational	**Number of patients:** 2375 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** Standard Q **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay	**Test name(s):** Alinity in the SARS-CoV-2 assay (Abbott), Cepheid (GeneXpert), and RealStar SARS-CoV-2RT-PCR (AltoNR Diagnostics). **Target gene:** NR **Ct threshold:** 30 **Sample site:** NP

study with comparator (e.g. case control)	**Days since symptom onset (if applicable): NA**	**Target antigen:** NR **COI:** NR **Turnaround time:** 15-30min **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** 1st	**Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW
Author, year: Homza 2021 [38]	**Number of patients:** 494	**Test name(s):** Ecotest	**Test name(s):** Multiplex RT-PCR Kit (DiaNR Biotechnologies, Czech Republic)

Country: Czech Republic **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Age:** mean age: 42.2±15.1years (min. 7; max. 81) **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** Medium supplied with the antigen test **HCW collection:** Yes	**Target gene:** genes coding the Spike protein and EndoRNAse. **Ct threshold:** NR **Sample site:** NP **Type of swab:** **Transport media:** Medium supplied with the antigen test **Self vs HCW:** HCW

		Sampling sequence: 1st	
Author, year: Ifko 2021 [39] **Country:** Slovenia and Croatia **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 455 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** <5 days	**Test name(s):** ALLTEST **EUA certified:** No **CE certified:** Yes - NADAL and Alltest **Platform:** Lateral flow assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP	**Test name(s):** Seegene Allplex 2019-nCoV test, Cobas 6800 SARSCoV-2 Test, SARS-CoV-2 RT-PCR assay (PCRBiosystems Ltd, London, UK), **Target gene:** NR **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Type of swab: NR **Transport media:** NR **HCW collection:** NR **Sampling sequence:** 1st	
Author, year: Ishii 2021 [40] **Country:** Japan **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 486 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** Lumipulse G **EUA certified:** No **CE certified: Yes** **Platform:** chemiluminescent enzyme immunoassay (CLEIA) **Target antigen:** NR **COI:** NR	**Test name(s):** TaqPath COVID-19 Kit **Target gene:** NR **Ct threshold:** 35 **Sample site:** NP and saliva **Type of swab:** NR **Transport media:** NR

		Turnaround time: NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** NR **Sampling sequence:** NR	**Self vs HCW:** HCW
Author, year: Jakobsen 2021 [41] **Country:** Denmark	**Number of patients:** 4811 **Age:** median age: 45 years (interquartile range: 30-56) **Gender (%male):** 47	**Test name(s):** Standard Q **EUA certified:** No **CE certified:** Yes	**Test name(s):** LuNR Universal Probe One-step RT-qPCR kit **Target gene:** NR **Ct threshold:** 10-38 **Sample site:** OP

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** NR **Sampling sequence:** 2nd	**Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW
	Number of patients: 2339	**Test name(s):** BinaxNow	

Author, year: James 2022 [42] **Country:** Arkansas, USA **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Age:** (median, 37 years) age range 16-98 **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**EUA certified:** Yes **CE certified:** No **Platform:** lateral flow immunoassay **Target antigen:** nucleocapsid protein antigen **COI:** NR **Turnaround time:** NR **Sample site:** AN **Type of swab:** NR **Transport media:** NR	**Test name(s):** PerkinElmer SARS-CoV-2 real-time RT-PCRassay. **Target gene:** N and Orf1 gene **Ct threshold:** 42 **Sample site:** AN **Type of swab:** flocked swab **Transport media:** NR **Self vs HCW:** HCW

		HCW collection: NR **Sampling sequence:** random	
Author, year: Kahn 2021 [43] **Country:** Germany **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 3630 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):**	**Test name(s):** Standard F **EUA certified:** No **CE certified: Yes** **Platform:** Fluorescent Immunoassay (FIA) **Target antigen:** SARS-CoV-2 nucleoprotein **COI:** 1 **Turnaround time:** NR **Sample site:** OP	**Test name(s):** cobas SARS-CoV2 (Roche), Aptima SARSCoV2 assay (Hologic), GeneXpert SARS-CoV2 (Cepheid), RealStar SARS-CoV2-RT-PCR kit (Altona). **Target gene:** NR **Ct threshold:** NR **Sample site:** OP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Type of swab: NR **Transport media:** NR **HCW collection:** NR **Sampling sequence:** 1st	
Author, year: Kernéis 2021 [44] **Country:** Germany **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 1041 **Age:** median 36 [IQR 26–50] **Gender (%male):** 696 (48%) **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** Standard Q **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** Nucleocapsid	**Test name(s):** TaqPath™ COVID 19 CE IVD RT PCR Kit **Target gene:** NR **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR

		COI: NR **Turnaround time:** 15-30min **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** NR	**Self vs HCW:** HCW
Author, year: Kim 2021 [45] **Country:** India, Korea	**Number of patients:** 330 **Age:** NR **Gender (%male):** NR	**Test name(s):** GenBody **EUA certified:** Yes **CE certified:** Yes	**Test name(s):** Allplex 2019-nCOV in Korea, EURORealTime SARS-CoV-2 in India **Target gene:** NR **Ct threshold:** 30

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Platform:** Immunochromatographic assay **Target antigen:** Nucleocapsid **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NP **Transport media:** VTM **HCW collection:** NR **Sampling sequence:** PCR first	**Sample site:** NP **Type of swab:** Same as index **Transport media:** VTM **Self vs HCW:** HCW

Author, year: Kim 2022 [46] **Country:** Korea **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 165 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** Standard Q **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** VTM	**Test name(s):** Allplex 2019-nCOV **Target gene:** RdRp, N genes **Ct threshold:** 30 **Sample site:** NP **Type of swab:** NR **Transport media:** VTM **Self vs HCW:** NR

		HCW collection: NR **Sampling sequence:** PCR first	
Author, year: Klajmon 2022 [47] **Country:** Poland **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 192 **Age:** mean age was 64.7 years (±13.9). **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** NR	**Test name(s):** Humasis **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** 15min	**Test name(s):** Vitassay qPCR SARS-CoV-2 kit **Target gene:** ORF1ab, N **Ct threshold:** 35 **Sample site:** NP **Type of swab:** NR **Transport media:** Nucliswab standard transport media **Self vs HCW:** NR

		Sample site: NP **Type of swab:** Flocked swab **Transport media:** Nucliswab standard transport media **HCW collection:** NR **Sampling sequence:** NR	
Author, year: Klein 2021 [48] **Country:** Germany **Study Design:** Non-randomized/ observational study with	**Number of patients:** 290 **Age:** average age of 42.7 years (standard deviation (SD) 14.6) **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay	**Test name(s):** Abbott Panbio HCW collected NP swab **Target gene:** E and N **Ct threshold:** NR **Sample site:** NP **Type of swab:** IMPROSWAB

comparator (e.g. case control)	**Days since symptom onset (if applicable):** NA	**Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** Both AN and NP (Compared) **Type of swab:** Multiple **Transport media:** NR **HCW collection:** Yes - NP **Sampling sequence:** NR	**Transport media:** NR **Self vs HCW:** HCW
Author, year: Kolwijck 2021 [49]	**Number of patients:** 825 **Age:** >16	**Test name(s):** Panbio **EUA certified:** No	**Test name(s):** Abbott Panbio HCW collected NP swab **Target gene:** E and N

Country: Netherlands **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** NA	**CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** Both AN and NP (Compared) **Type of swab:** Multiple **Transport media:** NR **HCW collection:** Yes - NP	**Ct threshold:** NR **Sample site:** NP **Type of swab:** IMPROSWAB **Transport media:** NR **Self vs HCW:** HCW

		Sampling sequence: NR	
Author, year: Koskinen 2021 [50] **Country:** **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 259 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** NR	**Test name(s):** MariPoc **EUA certified:** Yes **CE certified:** Yes **Platform:** Enzyme immunoassay (EIA) **Target antigen:** Nucleaoproteni **COI:** NR **Turnaround time:** 20-55 min **Sample site:** NP **Type of swab:** NR	**Test name(s):** Allplex™ 2019-nCoV RT-PCR assay **Target gene:** E, N and RdRP gene **Ct threshold:** 25 **Sample site:** NP **Type of swab:** NR **Transport media:** Saline, and dry **Self vs HCW:** NR

		Transport media: Saline, and dry **HCW collection:** NR **Sampling sequence:** PCR first	
Author, year: Krüger 2021 [51] **Country:** Germany **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 1108 **Age:** Mean 39.4 (14.1) **Gender (%male):** 551 (49.3%) **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** average 4.01 (SD 3)	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR	**Test name(s):** Allplex SARS-CoV-2 Assay, the cobas1 6800 or 8800 system **Target gene:** NR **Ct threshold:** 30 **Sample site:** NP, OP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Turnaround time: 15 minutes **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** PCR first	
Author, year: Kumar 2021 [52] **Country:** India **Study Design:** Non-randomized/ observational study with	**Number of patients:** 204 **Age:** Mean age of the study population was 51.44 years (standard deviation = 16.501 years) **Gender (%male):** 119 (58.3)	**Test name(s):** Standard Q **EUA certified:** No **CE certified: Yes** **Platform:** Lateral flow immunochromatographic assay	**Test name(s):** CFX96 real time PCR (Bio Rad). **Target gene:** NR **Ct threshold:** 40 **Sample site:** NP and throat

comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Target antigen:** Nucleocapsid proteins **COI:** NR **Turnaround time:** 30 min **Sample site:** NP and throat **Type of swab:** NR **Transport media:** VTM **HCW collection:** Unclear **Sampling sequence:** NR	**Type of swab:** NR **Transport media:** VTM **Self vs HCW:** HCW
Author, year: Landaas 2021 [53]	**Number of patients:** 3991	**Test name(s):** Panbio	**Test name(s):** Aria Dx Real-Time PCR System; Cobas® SARS-CoV-2 kit on the Cobas® 6800 system

Country: Norway **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):**	**EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** Nucleocapsid proteins **COI:** NR **Turnaround time:** NR **Sample site:** NP/throat **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes	**Target gene:** NR **Ct threshold:** 30 **Sample site:** NP/throat **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Sampling sequence: NR	
Author, year: Leber 2021 [54] **Country:** Austria **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 1037 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** >1 day	**Test name(s):** Multiple **EUA certified:** No **CE certified: Yes** **Platform:** Lateral flow Assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP	**Test name(s):** Roche LightCycler (http://www.roche.com; Switzerland), BD MAXTM System using original SARS-CoV2 reagents of BD **Target gene:** NR **Ct threshold:** 40 **Sample site:** NR **Type of swab:** NP **Transport media:** NR **Self vs HCW:** NR

		Type of swab: NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** NR	
Author, year: Leixner 2021 [55] **Country:** Austria **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 392 **Age:** 70 (55-80) median (25th–75th percentiles) **Gender (%male):** 200 (51%) **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** 1 (0-3) median (25th–75th percentiles)	**Test name(s):** AMP **EUA certified:** No **CE certified:** Yes **Platform:** chromatographic immunoassay **Target antigen:** NR **COI:** NR	**Test name(s):** cobas® Liat®, GeneXpert®, Liason® MDX, BD MaxTM, cobas® z480 MagNR Pure 24 **Target gene:** E, ORF1a/b, E, N2, S, ORF1a/b, N1, N2, E **Ct threshold:** 30 **Sample site:** NP/OP **Type of swab:** NR **Transport media:** NR

		Turnaround time: NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** same time	**Self vs HCW:** HCW
Author, year: Leli 2021 [56] **Country:** Italy **Study Design:** Non-randomized/	**Number of patients:** 792 **Age:** median age was 71 years (IQR: 53–82.7) **Gender (%male):** 403 (50.9%)	**Test name(s):** LumiraDx **EUA certified:** No **CE certified:** Yes	**Test name(s):** NR **Target gene:** NR **Ct threshold:** 35 **Sample site:** NP

observational study with comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Platform:** fluorescence immunoassay (FIA) **Target antigen:** Nucleocapsid protein **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** standard dry swab **Transport media:** Universal Transport Medium for Viruses, Chlamydia, Mycoplasma, and Ure- aplasma (Copan UTM®system; Copan, Italy). **HCW collection:** Unclear **Sampling sequence:** same time	**Type of swab:** NR **Transport media:** Universal Transport Medium for Viruses, Chlamydia, Mycoplasma, and Ure- aplasma (Copan UTM®system; Copan, Italy). **Self vs HCW:** NR

Author, year: Masiá 2021 [57] **Country:** **Study Design:**	**Number of patients:** 913 **Age:** 40.6 (23–55.6) median (Q1–Q3) **Gender (%male):** 80 (22.2%) **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR	**Test name(s):** LightMix Modular SARS-CoV (COVID19) E gene; TIB MOLBIOL, Berlin, Germany, distributed by Roche **Target gene:** E gene **Ct threshold:** 35 **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		HCW collection: Yes **Sampling sequence:** same time	
Author, year: Mboumba 2021 [58] **Country:** France **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 100 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** NR	**Test name(s):** Sienna-Clarity **EUA certified:** No **CE certified:** Yes **Platform:** Lateral Flow Assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR	**Test name(s):** CE IVD-marked AllplexTM 2019-nCoV Assay (Seegene, Séoul, Korée) **Target gene:** (E, RdRP and N genes) **Ct threshold:** 33 **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** NR

		Sample site: NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Unclear **Sampling sequence:** NR	
Author, year: Merino 2021 [59] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 958 **Age:** 40 (32) median (interquartile range) **Gender (%male):** 371 (38.7%) **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:**	**Test name(s):** TaqManTM 2019-nCoV assay (Applied Biosystems, Pleasanton, CA, USA), Allplex™ 2019-nCoV Assay (Seegene, Seoul, South Korea), GENOMICA S.A.U. (Madrid, Spain), SARSCOV-2 Real Time PCR KIT (Vircell, Granada, Spain), TaqPath COVID- 19 Combo Kit (Thermo Fisher, **Target gene:** NR **Ct threshold:** 25

	Days since symptom onset (if applicable): NR	**COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** swab provided by PanbioRT **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** same time	**Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW
Author, year: Merino-Amador 2021 [60] **Country:** Spain	**Number of patients:** 450 **Age:** 65 (44) median (interquartile range)	**Test name(s):** CLINITEST **EUA certified:** No	**Test name(s):** Allplex™ 2019-nCoV Assay (Seegene, Seoul, South Korea), GENOMICA S.A.U. (Madrid, Spain), TaqPath COVID-19 Combo Kit (Thermo Fisher, Waltham, MA, USA), GeneXpert (Cepheid, Sunnyvale, CA, USA), and Cobas 6800

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** 187 (42%) **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NA	**CE certified: Yes** **Platform:** Lateral flow immunochromatographic assay **Target antigen:** nucleocapsid protein **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** swab provided by ClinitestRT **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** same time	**Target gene:** NR **Ct threshold:** 25 **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

Author, year: Mitchell 2021 [61] **Country:** US **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 148 symptomatic and 144 asymptomatic adults **Age:** mean, range 44.1 (18–83) **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** Sofia **EUA certified:** **CE certified:** Yes **Platform:** Fluorescent Immunoassay (FIA) **Target antigen:** nucleocapsid antigen **COI:** NR **Turnaround time:** NR **Sample site:** Nasal **Type of swab:** NR	**Test name(s):** Cepheid Xpert Xpress SARS-CoV-2/Flu/RSV RT-PCR (Cepheid). **Target gene:** NR **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Transport media: NR **HCW collection:** Y **Sampling sequence:** 2nd	
Author, year: Møller 2022 [62] **Country:** Denmark **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 827 **Age:** NR **Gender (%male):** 409 (49%) **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** Multiple **EUA certified:** No **CE certified: Yes** **Platform:** Lateral Flow Assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR	**Test name(s):** NR **Target gene:** NR **Ct threshold:** NR **Sample site:** OP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Sample site: Nasal **Type of swab:** NR **Transport media:** NR **HCW collection:** No **Sampling sequence:** PCR first	
Author, year: Montalvo 2021 [63] **Country:** **Study Design:** Non-randomized/ observational study with	**Number of patients:** 523 **Age:** mean = 36.71, range 5 months to 96 years **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** Elecsys **EUA certified:** No **CE certified:** Yes **Platform:** electrochemiluminescence immunoassay (ECLIA)	**Test name(s):** STAT-NAT® COVID-19 MULTI (SENTINEL Diagnostic) multiplex assay **Target gene:** RdRP and ORF1b genes **Ct threshold:** 40 **Sample site:** NP

comparator (e.g. case control)	**Days since symptom onset (if applicable):** NR	**Target antigen:** NR **COI:** 1 **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Unclear **Sampling sequence:** NR	**Type of swab:** NR **Transport media:** NR **Self vs HCW:** NR
Author, year: Mungomklang 2021 [64]	**Number of patients:** 1100 **Age:** Median 33.39 (range 13–60)	**Test name(s):** Standard Q **EUA certified:** No	**Test name(s):** CFX96 Touch instrument with T1000 Thermocycler (Bio-Rad, Hercules, CA) **Target gene:** ORF1ab

Country: Thailand **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** 618 (56.18%) **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** 2 mL of viral transport media (VTM **HCW collection:** Unclear	**Ct threshold:** 40 **Sample site:** NP **Type of swab:** Same as index **Transport media:** 2 mL of viral transport media (VTM **Self vs HCW:** Same as index

		Sampling sequence: NR	
Author, year: Murillo-Zamora 2021 [65] **Country:** **Study Design:**	**Number of patients:** 15408 **Age:** mean age (±standard deviation) was 47.2 ± 18.5 years. **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** 3.4 ± 1.3 and 3.3 ± 1.3 for RT-PCR and antigen-based testing, respectively	**Test name(s):** Multiple **EUA certified:** No **CE certified:** Yes **Platform:** Multiple **Target antigen:** Multiple **COI:** Multiple **Turnaround time:** NR **Sample site:** NP	**Test name(s):** 7500 Fast RealTime PCR System **Target gene:** NR **Ct threshold:** NR **Sample site:** NP **Type of swab:** Same as index **Transport media:** NR **Self vs HCW:** Same as index

		Type of swab: NR **Transport media:** NR **HCW collection:** Unclear **Sampling sequence:** NR	
Author, year: Nikolai 2021 [66] **Country:** Germany **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 228 **Age:** average 34.6 **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** Average 3.4 days (SD 3.0).	**Test name(s):** Standard Q **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR	**Test name(s):** NR **Target gene:** NR **Ct threshold:** NR **Sample site:** NR **Type of swab:** NR **Transport media:** NR

		Turnaround time: NR **Sample site:** Multiple **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:**	**Self vs HCW:** HCW
Author, year: Nörz 2021 [67] **Country:** Germany **Study Design:** Non-	**Number of patients:** 3139 **Age:** NR **Gender (%male):** NR	**Test name(s):** Elecsys **EUA certified:** No **CE certified:** Yes	**Test name(s):** the cobasÒ 6800 system (Roche Molecular Systems, Inc., Branchburg, NJ, USA) **Target gene:** E gene **Ct threshold:** 33

randomized/ observational study with comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** Multiple	**Platform:** electrochemiluminescence immunoassay (ECLIA) **Target antigen:** NR **COI:** NR **Turnaround time:** as low as 18 min **Sample site:** NP+OP **Type of swab:** Flocked swab **Transport media:** UTM **HCW collection:** Unclear **Sampling sequence:** NR	**Sample site:** NP **Type of swab:** NR **Transport media:** UTM **Self vs HCW:** NR
	Number of patients: 1186	**Test name(s):** Multiple	**Test name(s):** Taqman 7500 (Thermo Fisher Scientific, Waltham, USA), and the

Author, year: Osterman 2021 [68] **Country:** Germany **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Age:** adults and pediatric **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** NR	**EUA certified:** No **CE certified:** Yes **Platform:** Multiple **Target antigen:** NR **COI:** NR **Turnaround time:** Mutiple **Sample site:** NP+OP **Type of swab:** eSwab™ (Copan Diagnostics, Murrieta, California, USA), ImproViral™ (Improve Medical, Guangzhou, Republic of China), dry swabs inserted into sterile 0.9% NaCl,	Xpert Xpress SARS-CoV-2 run on the GeneXpert System. **Target gene:** N, RdRp **Ct threshold:** NR **Sample site:** NP+OP **Type of swab:** same as index **Transport media:** VTM **Self vs HCW:** same as index

		Transport media: VTM **HCW collection:** Yes **Sampling sequence:** NR	
Author, year: Paul 2021 [69] **Country:** India **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 148 **Age:** Median 35 (IQR 12-87) **Gender (%male):** 99/148 **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** VITROS **EUA certified:** No **CE certified:** Yes **Platform:** chemiluminescent immunoassay (CLIA) **Target antigen:** NR **COI:** NR **Turnaround time:** NR	**Test name(s):** RT-PCr **Target gene:** E and S gene **Ct threshold:** 35 **Sample site:** NP+OP **Type of swab:** same as index **Transport media:** VTM **Self vs HCW:** same as index

		Sample site: NP+OP **Type of swab:** NR **Transport media:** VTM **HCW collection:** Yes **Sampling sequence:** NR	
Author, year: Peacock 2022 [70] **Country:** **Study Design:**	**Number of patients:** 753 **Age:** 47 (16.6) **Gender (%male):** 313 (42.6%) **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** BinaxNow **EUA certified:** Yes **CE certified:** No **Platform:** lateral flow immunoassay	**Test name(s):** Abbott RealTimeSARS-CoV-2 test Ct≥23 **Target gene:** NR **Ct threshold:** 23 **Sample site:** NP **Type of swab:** NR

	Days since symptom onset (if applicable): NA	**Target antigen:** NR **COI:** NR **Turnaround time:** 15 minutes **Sample site:** MT **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** NR	**Transport media:** NR **Self vs HCW:** NR
Author, year: Peña 2021 [71] **Country:** Chile	**Number of patients:** 842 **Age:** mean age: 36.67 years; SD: 16.48 years	**Test name(s):** SD Biosensor **EUA certified:** Yes	**Test name(s):** GenomeCov19 Detection Kit ABM **Target gene:** N and S gene

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** 429 (51.0% **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** None **HCW collection:** Yes	**Ct threshold:** 40 **Sample site:** NP **Type of swab:** NR **Transport media:** None **Self vs HCW:** HCW

		Sampling sequence: NR	
Author, year: Pérez-García 2021a [72] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 356 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** Mutiple	**Test name(s):** Multiple **EUA certified:** No **CE certified:** Yes **Platform:** Multiple **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR	**Test name(s):** Allplex SARS-CoV-2 assay (Seegene, which detected SARS-CoV-2 E, N and RdRP genes), Viasure SARS-CoV-2RealTime PCR Detection Kit (Certest Biotech S.L.; detected genes: ORF1ab and N)and GeneFinder COVID-19 Plus RealAmp Kit (Osang Healthcare Co.; detected ge **Target gene:** Multiple **Ct threshold:** **Sample site:** NP **Type of swab:** NR **Transport media:** UTM **Self vs HCW:** NR

		Transport media: UTM **HCW collection:** Unclear **Sampling sequence:** NR	
Author, year: Pérez-García 2021b [73] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 320 **Age:** media 51 (IQR 38-68) **Gender (%male):** 89 (52.4%) **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NA	**Test name(s):** Multiple **EUA certified:** No **CE certified:** Yes **Platform:** NR **Target antigen:** NR **COI:** NR	**Test name(s):** three RealTime PCR platforms: Viasure SARS-CoV-2 Real Time PCR Detection Kit (Certest Biotech S.L., Zaragoza, Spain; which detected SARS-CoV-2 ORF1ab and N genes), Allplex SARS-CoV-2 assay (Seegene, Seoul, South Korea; detected genes: E, RdRP, S and N) **Target gene:** Assay dependant **Ct threshold:** NR **Sample site:** same as index

		Turnaround time: NR **Sample site:** NP **Type of swab:** NR **Transport media:** UTM **HCW collection:** Unclear **Sampling sequence:** NR	**Type of swab:** same as index **Transport media:** UTM **Self vs HCW:** same as index
Author, year: Petonnet 2022 [74] **Country:** France **Study Design:** Non-randomized/ observational	**Number of patients:** 242 **Age:** median 57 (IQR 40-68) **Gender (%male):** 129/242 **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** Multiple **EUA certified:** No **CE certified:** Yes **Platform:** Multiple	**Test name(s):** Cobas® SARS-CoV-2 (Roche Diagnostics, Branchburg, NJ, USA), Simplexa™ COVID-19 Direct (DiaSorin, Saluggia, Italy), BioFire® SARS-CoV-2 (BioMerieux, Salt Lake City, UT, USA), and NeumoDX® SARS-CoV-2 (QIAgen, Hilden, Germany). **Target gene:** S, RdRp **Ct threshold:** NR

study with comparator (e.g. case control)	**Days since symptom onset (if applicable):** NA	**Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** VTM **HCW collection:** Unclear **Sampling sequence:** NR	**Sample site:** NP **Type of swab:** NR **Transport media:** VTM **Self vs HCW:** same as index
Author, year: Pilarowski 2021 [75]	**Number of patients:** 3302	**Test name(s):** BinaxNow	**Test name(s):** RenegadeBio using RenegadeXPTM technology.

Country: USA **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Age:** 99 were aged <13 years, 110 aged 13 to 18 years, and 3093 aged >18 years. **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NA	**EUA certified:** Yes **CE certified:** No **Platform:** lateral flow immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** AN **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes	**Target gene:** NR **Ct threshold:** NR **Sample site:** AN **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Sampling sequence: Ag first	
Author, year: Pollock 2021 [76] **Country:** US **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 2482 **Age:** Any **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NA	**Test name(s):** BinaxNow **EUA certified:** Yes **CE certified:** No **Platform:** lateral flow immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** 15 min **Sample site:** AN	**Test name(s):** CRSP SARS-CoV-2 Real-time Reverse Transcriptase (RT)-PCR Diagnostic Assay **Target gene:** N2 gene **Ct threshold:** 40 **Sample site:** an **Type of swab:** Same as index **Transport media:** NR **Self vs HCW:** HCW

		Type of swab: Nylon swab **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** Antigen first	
Author, year: Pray, 2021 [77] **Country:** US **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 1105 **Age:** Range 17-64 **Gender (%male):** 41% **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** median 3 days (IQR 1-6), and in 72.4% ≤ 5 days	**Test name(s):** Sofia **EUA certified:** Yes **CE certified:** Yes **Platform:** Lateral Flow Assay **Target antigen:** Nucleocapsid **COI:** NR	**Test name(s):** CDC 2019-nCoV (University A) and Thermo Fisher TaqPath COVID-19 (University B) **Target gene:** N1 and N2 of NP (University A) and Thermo ORF1ab, NP and S (University B) **Ct threshold:** NR **Sample site:** MT **Type of swab:** NR

		Turnaround time: 15 minutes **Sample site:** MT **Type of swab:** Regular tipped flocked swab **Transport media:** dry swab **HCW collection:** Yes **Sampling sequence:** PCR first	**Transport media:** VTM **Self vs HCW:** HCW
Author, year: Prince-Guerra 2021 [78] **Country:** US **Study Design:** Non-	**Number of patients:** 3419 **Age:** **Gender (%male):**	**Test name(s):** BinaxNow **EUA certified:** Yes **CE certified:** No	**Test name(s):** CDC 2019-nCoV Real-Time RT-PCR Diagnostic Panel for detection of SARS-CoV-2 (5) (2,582 swabs) or the Fosun COVID-19 RT-PCR Detection Kit **Target gene:** NR **Ct threshold:** NR

randomized/ observational study with comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NA	**Platform:** lateral flow immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** <30 minutes **Sample site:** AN **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** Antigen first	**Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW
	Number of patients: 1009	**Test name(s):** BioSpeedia	**Test name(s):** ABI7500 fast thermocycler (Thermofisher)

Author, year: Quentin 2022 [79] **Country:** France **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Age:** mean 3.7 (4.4) **Gender (%male):** 547 (54.3%) **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NA	**EUA certified:** No **CE certified:** Yes **Platform:** Lateral Flow Assay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** **Transport media:**	**Target gene:** NR **Ct threshold:** NR **Sample site:** same as index **Type of swab:** same as index **Transport media:** NR **Self vs HCW:** HCW

		HCW collection: Yes **Sampling sequence:** NR	
Author, year: Rahman 2021 [80] **Country:** Bengladesh **Study Design:**	**Number of patients:** 900 **Age:** median 35 SD 13.94 **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** Any	**Test name(s):** Standard Q **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** 15-30 min **Sample site:** NP	**Test name(s):** CFX96 Touch™ Real-time PCR Detection System (Bio-Rad Laboratories, Inc., Hercules, CA, USA) w **Target gene:** RdRp, N **Ct threshold:** 37 **Sample site:** NP **Type of swab:** same as index **Transport media:** VTM **Self vs HCW:** same as index

		Type of swab: NR **Transport media:** VTM **HCW collection:** Unclear **Sampling sequence:** NR	
Author, year: Regev-Yochay 2022 [81] **Country:** NR **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 5142 **Age:** Mean 56.7, median 50.1 **Gender (%male):** 2026 (41.97%) **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Test name(s):** Multiple **EUA certified:** **CE certified:** Yes **Platform:** **Target antigen:** NR	**Test name(s):** Allplex™ 2019-nCoV, NeuMoDx™ SARS-CoV-2 assay, Xpert® Xpress SARS-CoV-2 **Target gene:** NR **Ct threshold:** NR **Sample site:** NR **Type of swab:** NR

		COI: NR **Turnaround time:** NR **Sample site:** NR **Type of swab:** NR **Transport media:** NR **HCW collection:** Yes **Sampling sequence:** NR	**Transport media:** NR **Self vs HCW:** HCW
Author, year: Schuit 2021 [82] **Country:** Netherlands	**Number of patients:** 4645 **Age:** >16 years **Gender (%male):** 2153 (50%)	**Test name(s):** Multiple **EUA certified:** No **CE certified:** Yes	**Test name(s):** the cobas® SARS-CoV-2 test on the cobas® 8800 platform, cobas 6800® platform (Roche Diagnostics International, Rotkreuz, Switzerland). **Target gene:** NR **Ct threshold:** NR

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**Platform:** NR **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** NP+OP **Type of swab:** NR **Transport media:** VTM **HCW collection:** Yes **Sampling sequence:** PCR first	**Sample site:** same as index **Type of swab:** same as index **Transport media:** VTM **Self vs HCW:** HCW

Author, year: Shaikh 2021 [83] **Country:** USA **Study Design:** randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 199 (subgroup: pediatrics) **Age:** 2 months - 20 years **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** < 7 days	**Test name(s):** BinaxNow **EUA certified:** Yes **CE certified:** No **Platform:** lateral flow immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** NR **Sample site:** MT **Type of swab:** NR **Transport media:** NR	**Test name(s):** Roche Cobas or Hologic Panther platforms **Target gene:** NR **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** Yes

		HCW collection: Yes **Sampling sequence:** NR	
Author, year: Siddiqui 2021 [84] **Country:** US **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 6099 **Age:** ASx: 31 (26–41), range / Sx: 31 (26–40) **Gender (%male):** 48 **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** 3 (IQR, 4–5)	**Test name(s):** BinaxNow **EUA certified:** Yes **CE certified:** No **Platform:** lateral flow immunoassay **Target antigen:** nucleocapsid (N) protein **COI:** NR **Turnaround time:** 15 minutes	**Test name(s):** (CDC) 2019 Novel Coronavirus Real-Time RT- PCR Diagnostic Panel **Target gene:** viral N gene **Ct threshold:** 25 (24.5 for sympto- matic and 27 for asymptomatic participants) **Sample site:** anterior nares **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Sample site: AN **Type of swab:** NR **Transport media:** NR **HCW collection:** yes **Sampling sequence:** 1st	
Author, year: Smith 2021 [85] **Country:** US **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 43 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Mix	**Test name(s):** Sofia **EUA certified:** Yes **CE certified:** Yes **Platform:** Fluorescent Immunoassay (FIA) **Target antigen:** NR	**Test name(s):** NR **Target gene:** NR **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR

	Days since symptom onset (if applicable): NR	**COI:** NR **Turnaround time:** NA **Sample site:** AN **Type of swab:** NR **Transport media:** **HCW collection:** yes **Sampling sequence:** NR	**Transport media:** NR **Self vs HCW: HCW**
Author, year: Tinker 2021 [86] **Country:** Georgia	**Number of patients:** 1540 **Age:** NR	**Test name(s):** BinaxNow **EUA certified:** Yes	**Test name(s):** CDC Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay **Target gene:** NR **Ct threshold:** 40

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**CE certified:** No **Platform:** lateral flow immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** Students received BinaxNOW results after 15–30 minutes **Sample site:** AN **Type of swab:** NR **Transport media:** NR **HCW collection:** no **Sampling sequence:** random	**Sample site:** Anterior nasal **Type of swab:** NR **Transport media:** NR **Self vs HCW:** Supervised self

Author, year: Tonen-Wolyec 2021 [87] **Country:** France **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 106 **Age:** median age : 40 years, range 21 - 59 years **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** 4	**Test name(s):** BIOSYNEX BSS **EUA certified:** No **CE certified:** Yes **Platform:** Immunochromatographic assay **Target antigen:** nucleocapsid protein **COI:** NR **Turnaround time:** Overall, the mean time of antigenic self-test performance (since the opening of the box until the migration step) was 8.1 (SD: 1.3) minutes **Sample site:** nasal mid-turbinate **Type of swab:** NR	**Test name(s):** BIOSYNEX AmpliQuick® SARS-CoV-2 (Biosynex Swiss SA) **Target gene:** gene (E), and RNA-dependent RNR polymerase gene (ORF1ab of RdRP gene) **Ct threshold:** NR **Sample site:** NP **Type of swab:** flocked swab **Transport media:** NR **Self vs HCW:** HCW

		Transport media: NR **HCW collection:** no **Sampling sequence:** 1st	
Author, year: Turcato 2022 [88] **Country:** Switzerland **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 3899 **Age:** median (IQR) 69 (49–82) **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** 2	**Test name(s):** Standard Q **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR	**Test name(s):** XPRSARS-COV2-10 (Cepheid, CA, US). **Target gene:** NR **Ct threshold:** NR **Sample site:** NP **Type of swab:** Laboratory processed swab **Transport media:** Saline **Self vs HCW:** HCW

		Turnaround time: NA **Sample site:** NP **Type of swab:** NR **Transport media:** Saline **HCW collection:** yes **Sampling sequence:** 1st	
Author, year: Van der Moeren 2021(60) **Country:** Netherlands **Study Design:** Non-randomized/	**Number of patients:** 352 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic	**Test name(s):** BD Veritor **EUA certified:** Yes **CE certified:** Yes **Platform:** chromatographic digital immunoassay	**Test name(s):** Cobas 6800 (Roche) platform using Cobas1 SARS-CoV-2–192 PCR assay (Roche diagnostics), **Target gene:** RdRp and E-genes. **Ct threshold:** NR **Sample site:** NP

observational study with comparator (e.g. case control)	**Days since symptom onset (if applicable):** NR	**Target antigen:** nucleocapsid protein **COI:** NR **Turnaround time:** The manual prescribes interpretation of the results after 15 minutes with a reading device provided by the manufacturer **Sample site:** nasal, throat **Type of swab:** NR **Transport media:** NR **HCW collection:** yes **Sampling sequence:** 2nd	**Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW
	Number of patients: 7005	**Test name(s):** BD Veritor	

Author, year: Venekamp 2022 [90] **Country:** Netherlands **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Age:** mean 41.1 (16.3) **Gender (%male):** **Symptomatic or Asymptomatic or Mix:** Mix **Days since symptom onset (if applicable):** NR	**EUA certified:** No **CE certified: Yes** **Platform:** chromatographic digital immunoassay **Target antigen:** NR **COI:** NR **Turnaround time:** NA **Sample site:** OP-N **Type of swab:** NR **Transport media:** NR	**Test name(s):** Roche cobas 6800/8800 (Rotterdam and Breda, respectively) and ABI-7500 (Zwolle) for RT-PCR and the Hologic Panther system (Aptima SARS-CoV2 assay) **Target gene:** NR **Ct threshold:** NR **Sample site:** NP, OP-N **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		HCW collection: yes **Sampling sequence:** 1st	
Author, year: Villaverde 2021 [91] **Country:** Spain **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 1620 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Symptomatic **Days since symptom onset (if applicable):** <5 days	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** nucleocapsid protein **COI:** NR **Turnaround time:** NA **Sample site:** NP	**Test name(s):** NR **Target gene:** E and RdRp genes **Ct threshold:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		Type of swab: NR **Transport media:** NR **HCW collection:** yes **Sampling sequence:** 1st	
Author, year: von Ahnen 2021 [92] **Country:** Germany **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 919 **Age:** mean 41.5 years (range 18–66) **Gender (%male):** 24 **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Test name(s):** Roche SD **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** nucleocapsid (N) antigen	**Test name(s):** Roche qPCR **Target gene:** N-Gen and E-Gen **Ct threshold:** 35 **Sample site:** NP **Type of swab:** NR **Transport media:** NR

		COI: NR **Turnaround time:** NA **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** yes **Sampling sequence:** NR	**Self vs HCW:** HCW
Author, year: von Ahnen 2022 [93] **Country:** Germany	**Number of patients:** 919 **Age:** mean age: 41.5 years (range 18–66). **Gender (%male):** 24	**Test name(s):** Roche SD **EUA certified:** Yes **CE certified:**	**Test name(s):** Eruofins ViroBOAR kit **Target gene:** N-Gen **Ct threshold:** 35

Study Design: Non-randomized/ observational study with comparator (e.g. case control)	**Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Platform:** Lateral flow immunochromatographic assay **Target antigen:** Nucleocapsid antigen **COI:** NR **Turnaround time:** NR **Sample site:** NP **Type of swab:** NR **Transport media:** NR **HCW collection:** Y **Sampling sequence:** NR	**Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

Author, year: Wachinger 2021 [94] **Country:** Germany **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 27421 **Age:** NR **Gender (%male):** NR **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Test name(s):** Standard Q **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** NR **COI:** NR **Turnaround time:** NA **Sample site:** NP **Type of swab:** NR **Transport media:** NR	**Test name(s):** TibMolbiol (Berlin, Germany), the Allplex SARS-CoV-2 Assay from Seegene (Seoul, South Korea) or the Abbott (Illinois, USA) RealTime 2019-nCoV assay **Target gene:** NR **Ct threshold:** 33 **Sample site:** NP **Type of swab:** NR **Transport media:** NR **Self vs HCW:** HCW

		HCW collection: yes **Sampling sequence:** Antigen 1st	
Author, year: Winkel 2021 [95] **Country:** Netherlands **Study Design:** Non-randomized/ observational study with comparator (e.g. case control)	**Number of patients:** 824 **Age:** median age : 27 years (range 16–80 years, IQR 21–40) **Gender (%male):** 94 **Symptomatic or Asymptomatic or Mix:** Asymptomatic **Days since symptom onset (if applicable):** NA	**Test name(s):** Panbio **EUA certified:** No **CE certified:** Yes **Platform:** Lateral flow immunochromatographic assay **Target antigen:** nucleocapsid (N) antigen **COI:** NR **Turnaround time:** Test results were recorded after 15min of assay initiation and documented by photograph.	**Test name(s):** Euro- fins (Brugge, Belgium; commercially available platform Viasure, CerTest Biotech, Spain, according to manufac- turer's instructions, as well as laboratory-developed plat- form), Synlab Laboratories (Luik, Belgium; commercially available platform TaqP **Target gene:** NR **Ct threshold:** NR **Sample site:** NP and OP **Type of swab:** NR **Transport media:** NR

		Sample site: NP **Type of swab:** NR **Transport media:** NR **HCW collection:** yes **Sampling sequence:** 1st	**Self vs HCW:** HCW

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Supplement B

Recommendation 1: For symptomatic individuals suspected of having COVID-19, the IDSA panel recommends a single Ag test over no test. (strong recommendation, moderate certainty evidence)

Figure s2a. Forest plot for the overall sensitivity of antigen tests in symptomatic patients

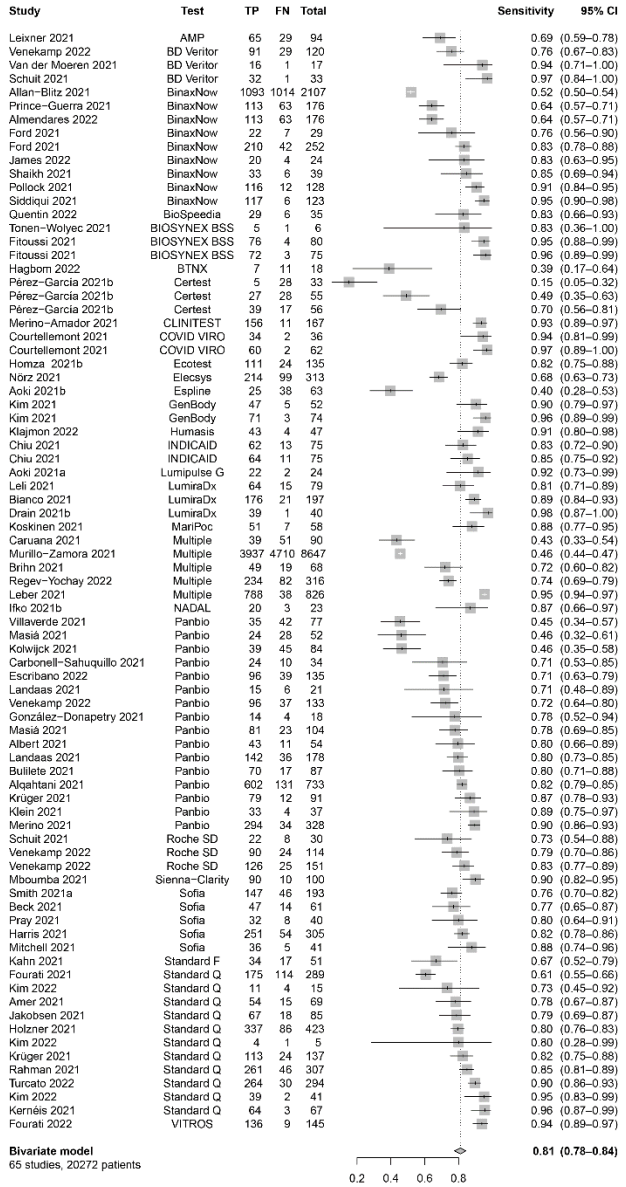


Figure s2b. Forest plot for the overall specificity of antigen tests in symptomatic patients

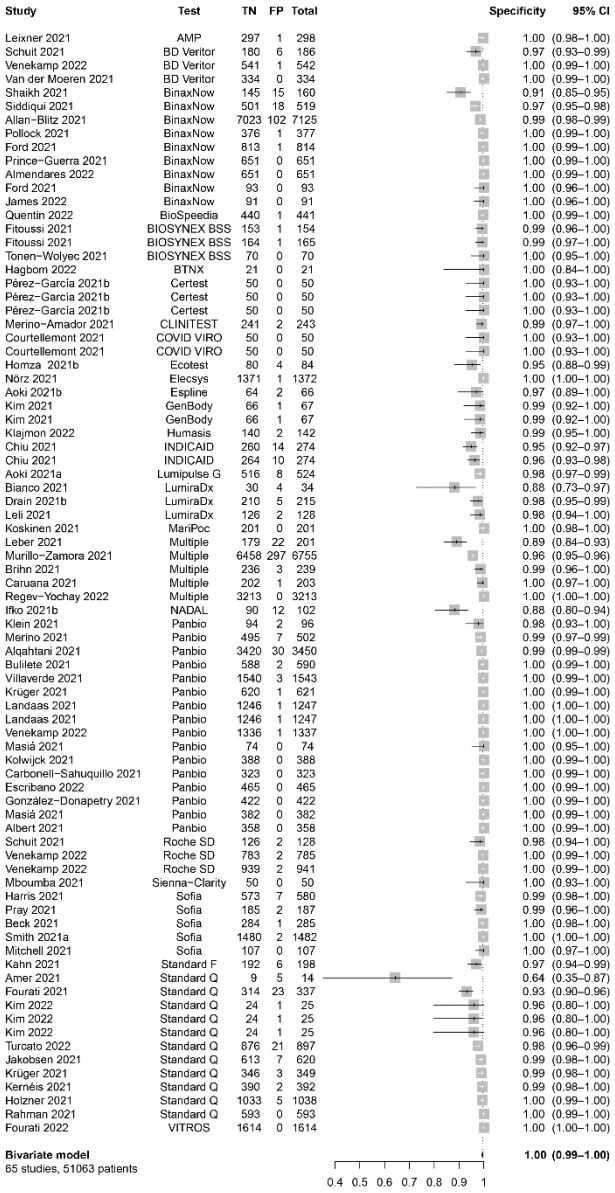


Figure s3a. Forest plot for the sensitivity of antigen tests in symptomatic patients (≤ 5 days since symptom onset)

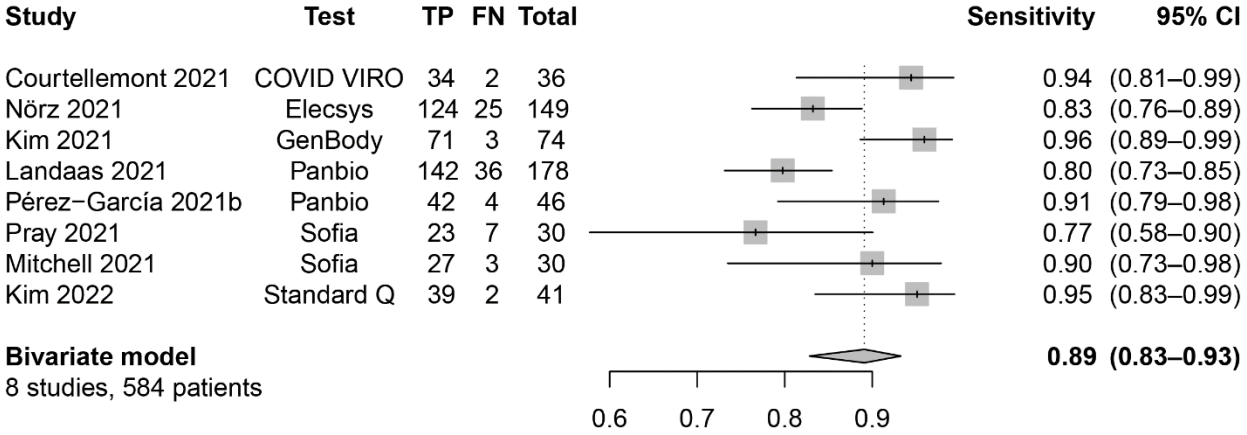


Figure s3b. Forest plot for the specificity of antigen tests in symptomatic patients (≤ 5 days since symptom onset)

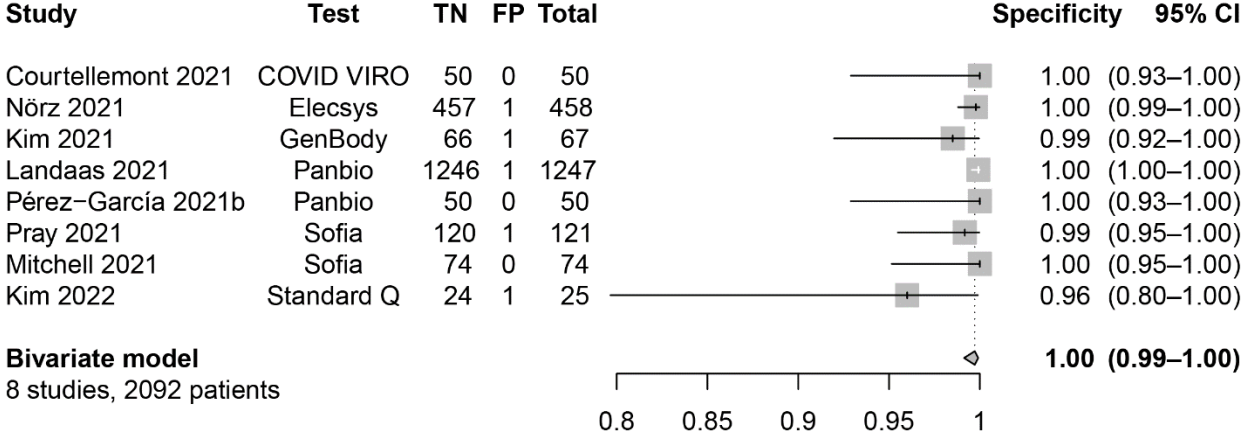


Figure s4a. Forest plot for the sensitivity of antigen tests in symptomatic patients (>5 days since symptom onset)

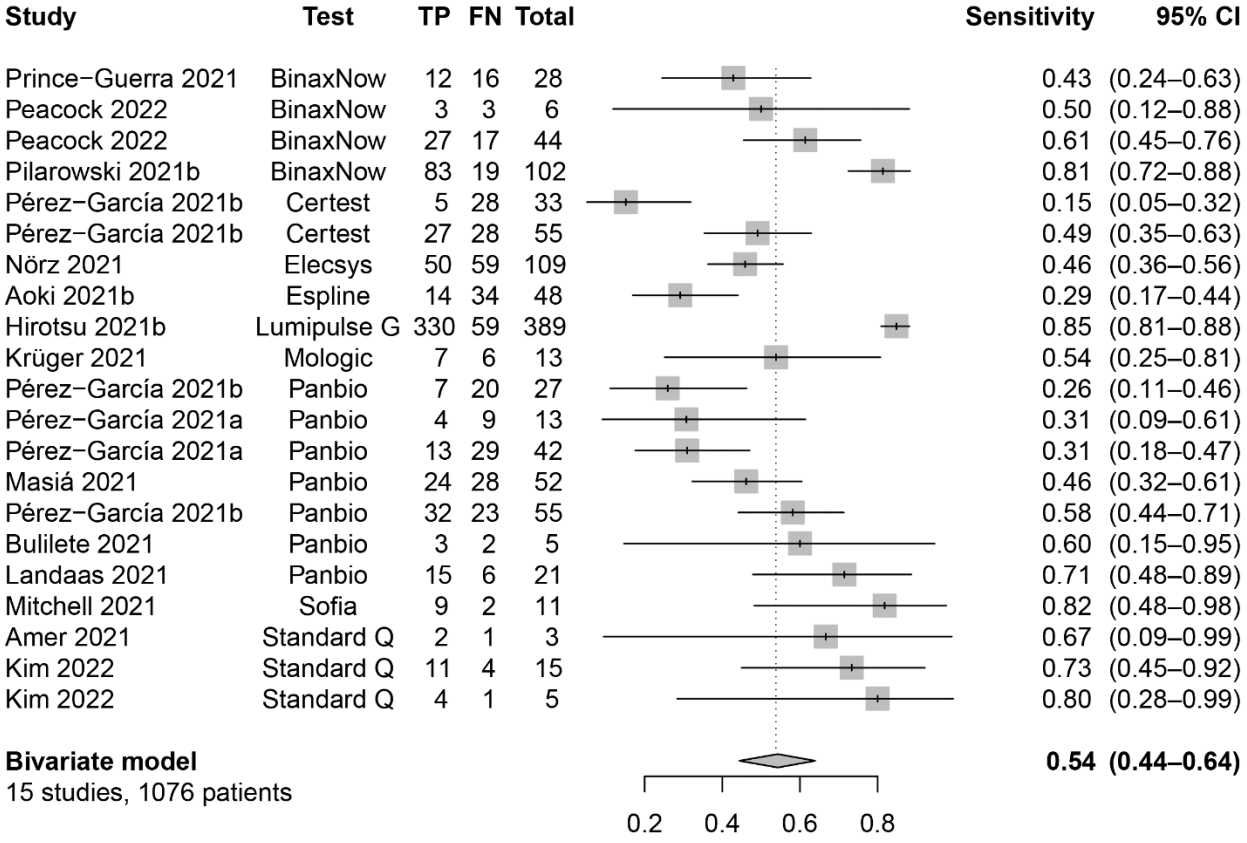


Figure s4b. Forest plot for the specificity of antigen tests in symptomatic patients (>5 days since symptom onset)

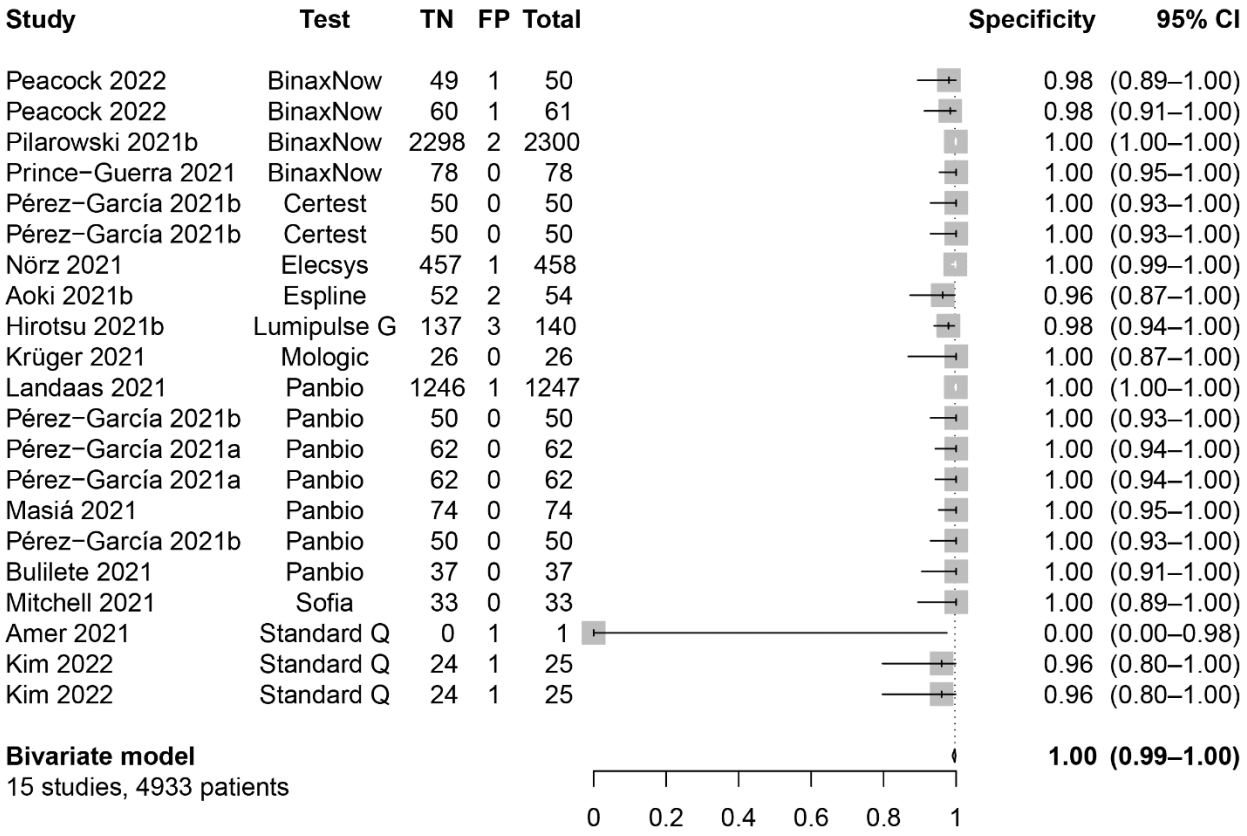


Figure s5a. Forest plot for the sensitivity of antigen tests in symptomatic patients (≤ 7 days since symptom onset)

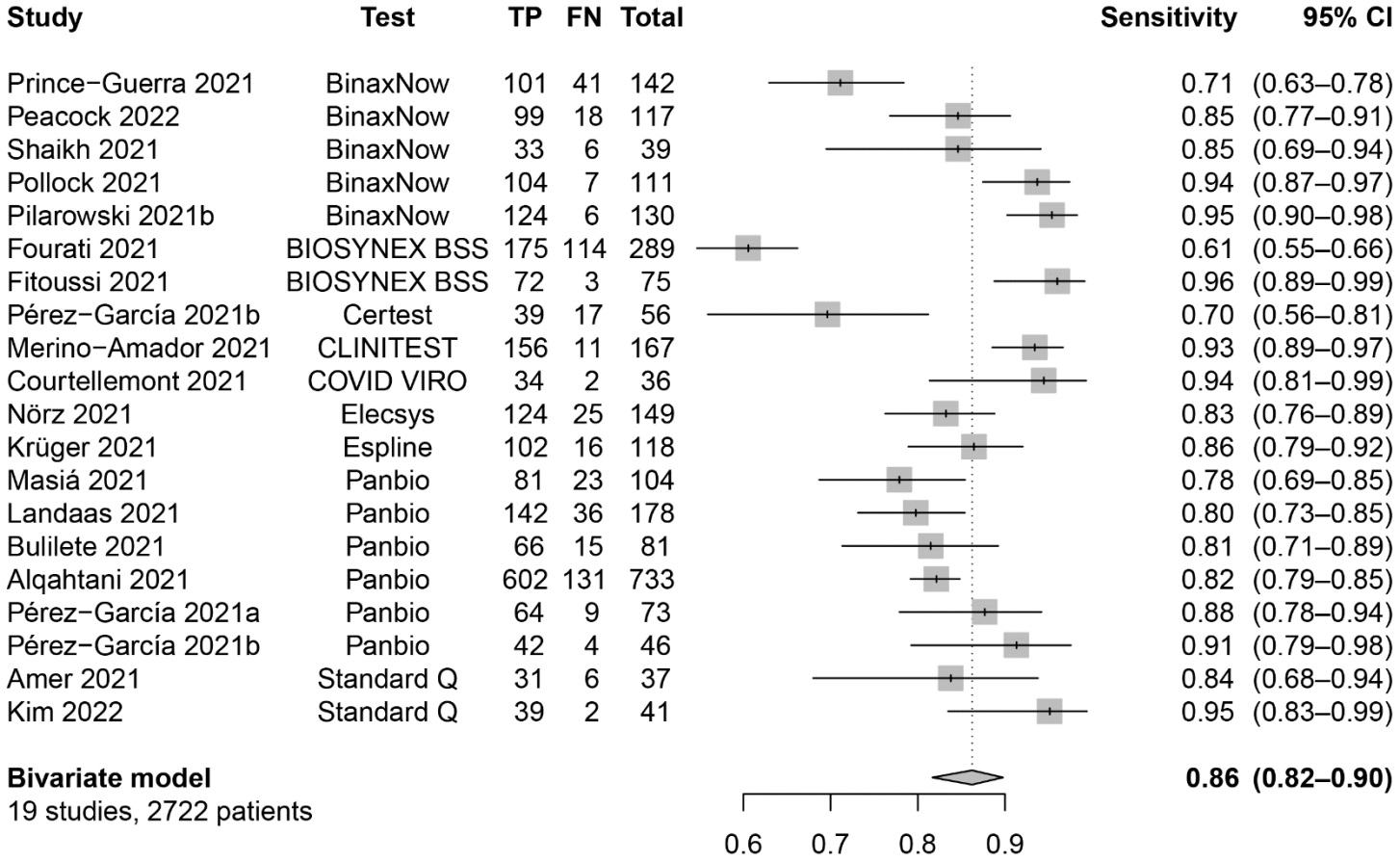


Figure s5b. Forest plot for the specificity of antigen tests in symptomatic patients (≤ 7 days since symptom onset)

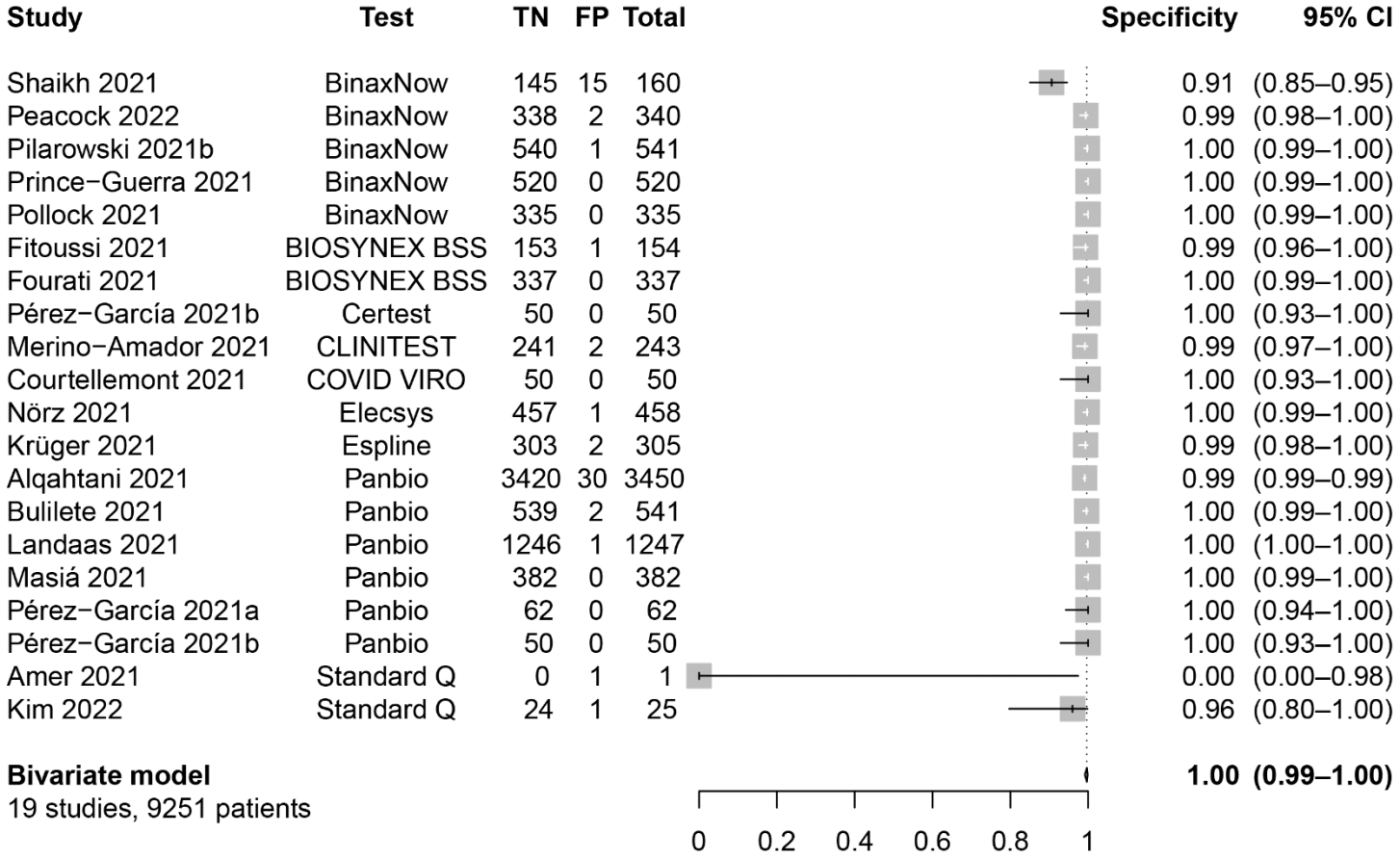


Figure s6a. Forest plot for the sensitivity of antigen tests in symptomatic patients (> 7 days since symptom onset)

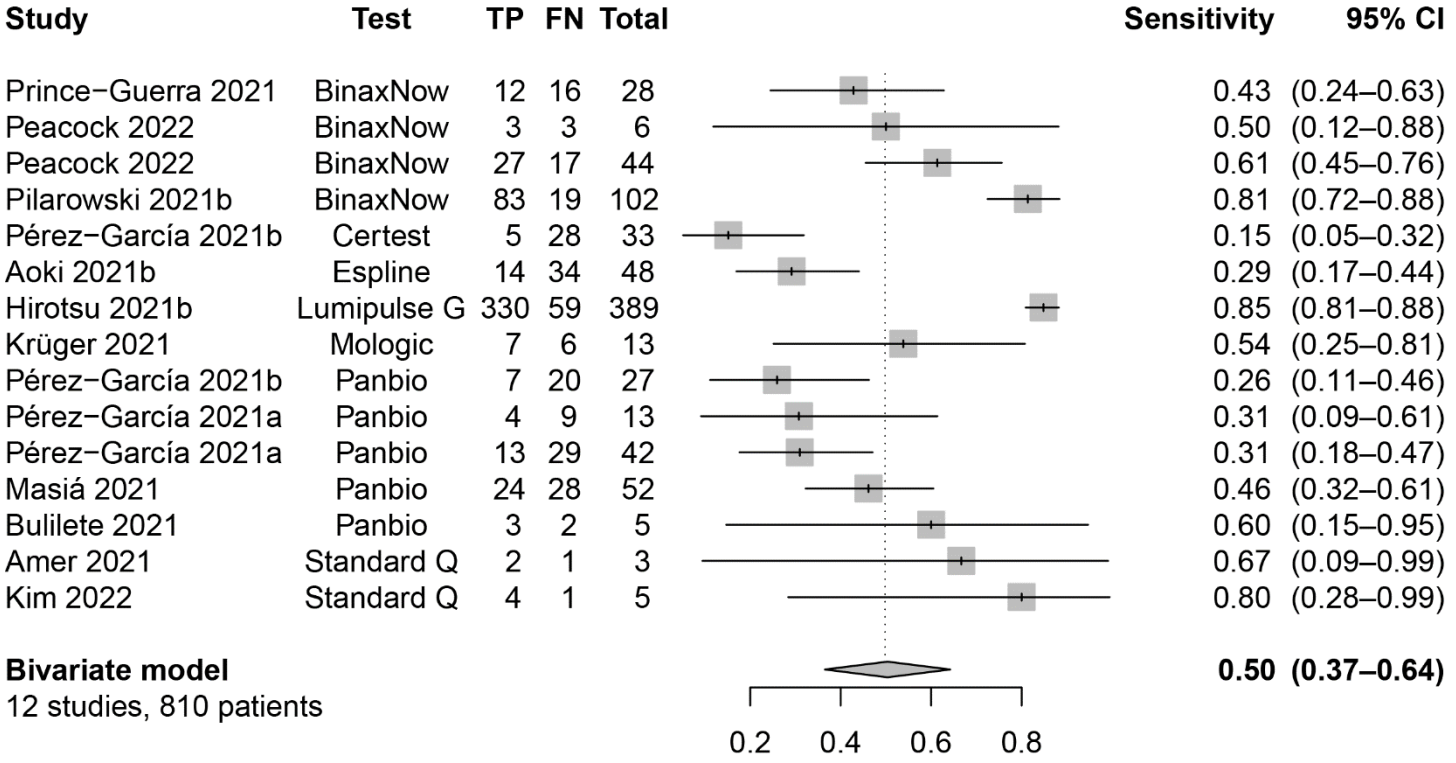


Figure s6b. Forest plot for the specificity of antigen tests in symptomatic patients (> 7 days since symptom onset)

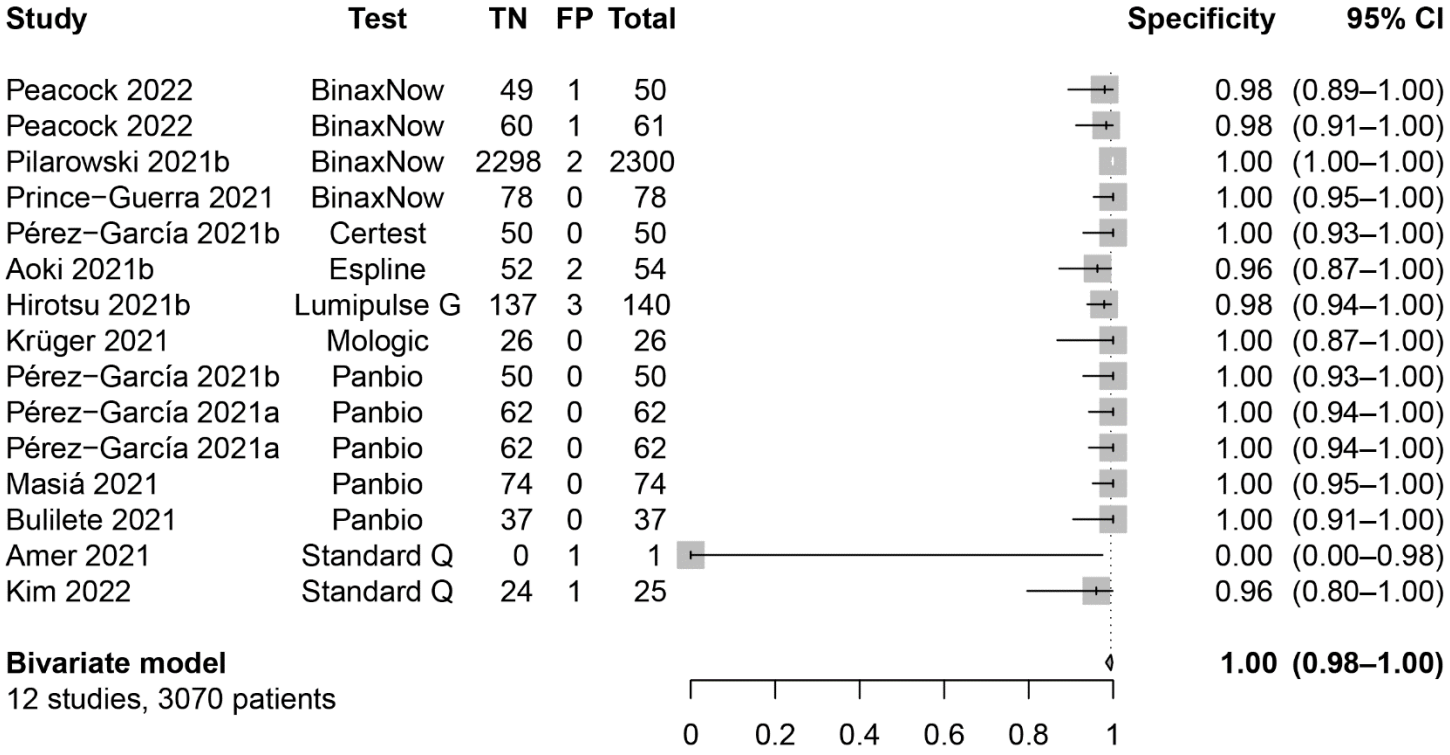


Figure s7a. Forest plot for the sensitivity of antigen tests in symptomatic patients (≤ 3 days since symptom onset)

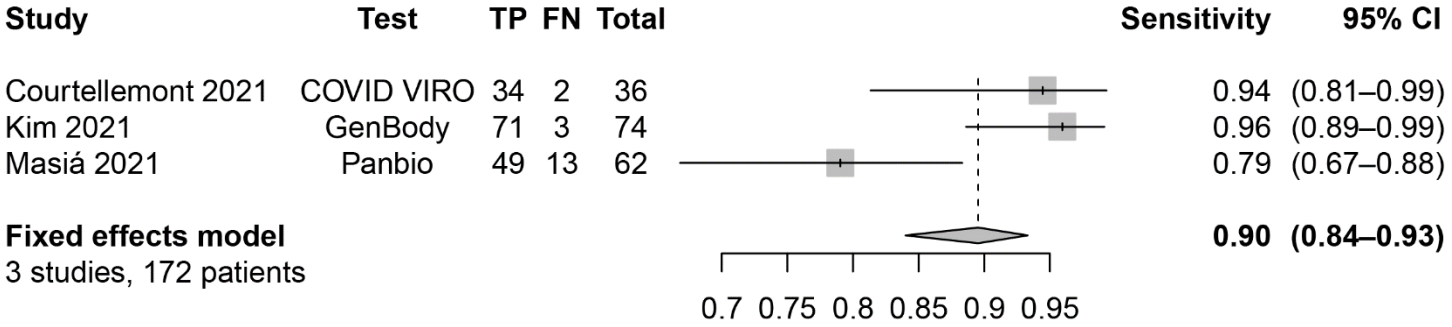


Figure s7b. Forest plot for the specificity of antigen tests in symptomatic patients (≤ 3 days since symptom onset)

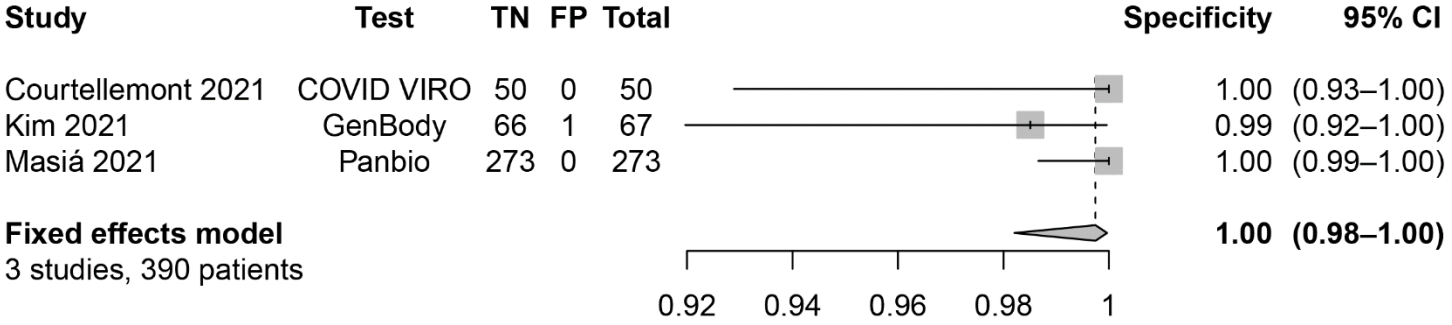


Figure s8a. Forest plot for the sensitivity of antigen tests in pediatric symptomatic patients

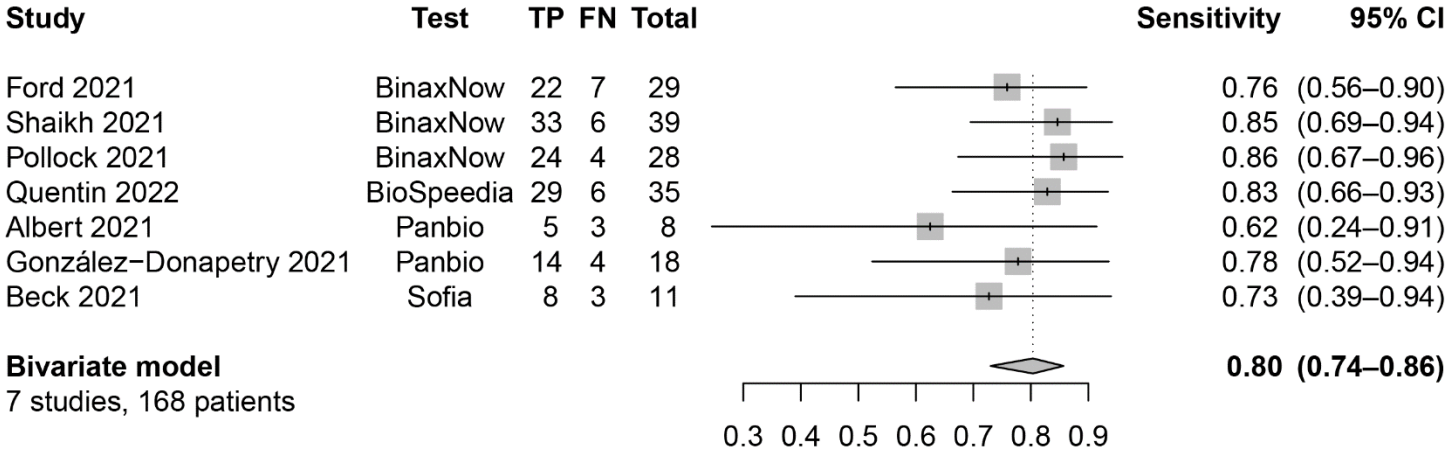


Figure s8b. Forest plot for the specificity of antigen tests in pediatric symptomatic patients

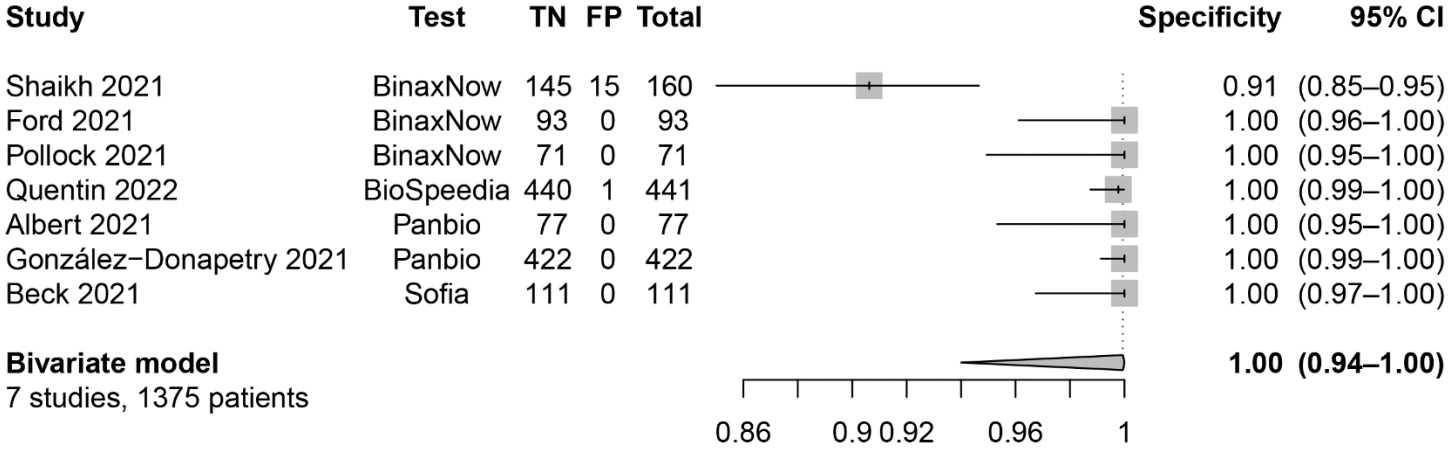


Figure s9a. Forest plot for the agreement on positive results of antigen tests and standard NAAT (either rapid RT-PCR or laboratory-based NAAT) vs. viral culture (all patients)

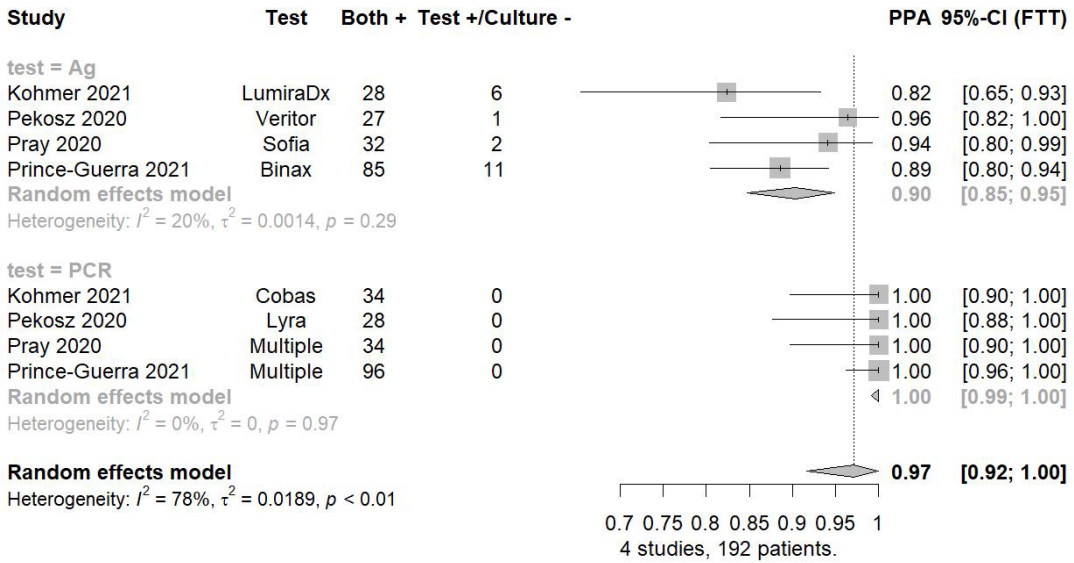
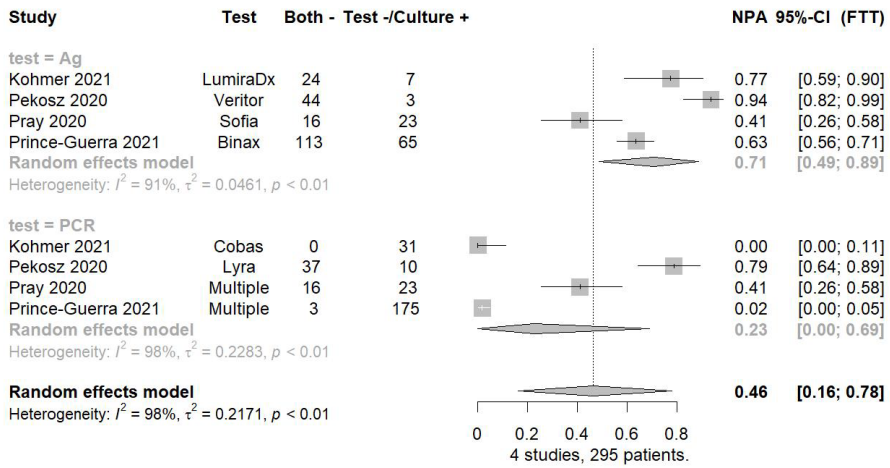


Figure s9b. Forest plot for the agreement on the negative results of rapid antigen tests and standard NAAT (either rapid RT-PCR or laboratory-based NAAT) vs. viral culture (all patients)



Supplement C

Recommendation 2: For symptomatic individuals suspected of having COVID-19, the IDSA panel suggests using standard NAAT (i.e., rapid RT-PCR and laboratory-based NAAT) over a rapid Ag test (conditional recommendation, low certainty evidence).

For the antigen test accuracy forest plots (symptomatic), refer to Figures s2a and s2b.

Figure s10a. Forest plot for the sensitivity of standard laboratory based NAAT in all patients

Study	Test	Type	Symptoms	Setting	Reference Standard	TP	FN	Total	Sensitivity	95% CI
Smith 2020	BioFire COVID−19 Test	Standard non−rapid RT−PCR	Symptomatic	Submitted clinical samples	2 of 3 tests	74	1	75	0.99	(0.93–1.00)
Lephart 2021	Diasorin Simplexa	Standard non−rapid RT−PCR	Unclear	Suspected cases	2 of 4 tests	22	3	25	0.88	(0.69–0.97)
Yun 2021	Seegene Allplex	Standard non−rapid RT−PCR	Mix	Submitted clinical samples	3 of 3 tests	93	4	97	0.96	(0.90–0.99)
Kim 2022	Seegene Allplex	Standard non−rapid RT−PCR	Unclear	Hospitalized patients	2 of 3 tests	89	0	89	1.00	(0.96–1.00)
Altamimi 2021	Thermo Fisher Taqpath	Standard non−rapid RT−PCR	Unclear	Submitted clinical samples	6 of 12 tests	60	3	63	0.95	(0.87–0.99)
Bivariate model									**0.97**	**(0.93–0.99)**
5 studies, 349 patients										

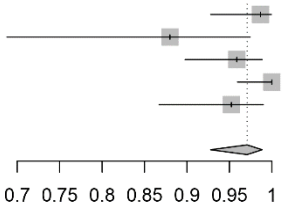
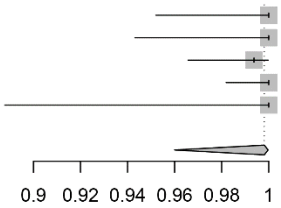


Figure s10b. Forest plot for the specificity of standard laboratory based NAAT in all patients

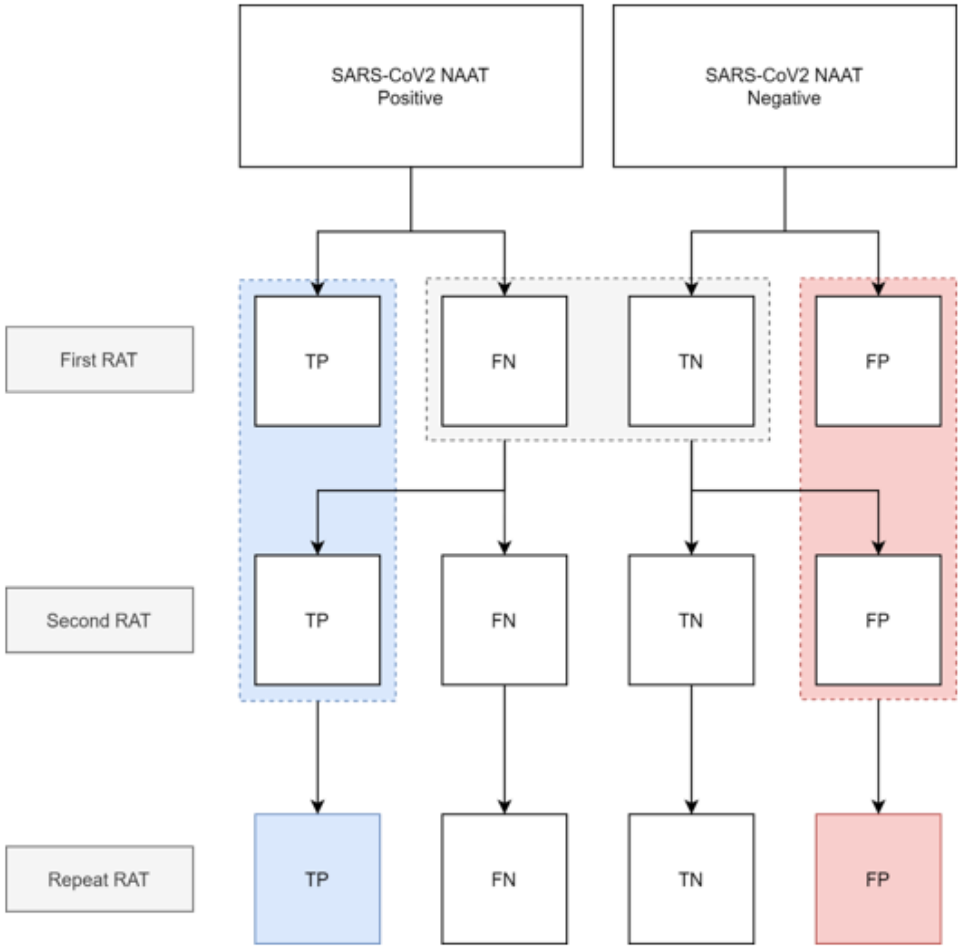
Study	Test	Type	Symptoms	Setting	Reference Standard	TN	FP	Total	Specificity	95% CI
Smith 2020	BioFire COVID−19 Test	Standard non−rapid RT−PCR	Symptomatic	Submitted clinical samples	2 of 3 tests	75	0	75	1.00	(0.95–1.00)
Lephart 2021	Diasorin Simplexa	Standard non−rapid RT−PCR	Unclear	Suspected cases	2 of 4 tests	63	0	63	1.00	(0.94–1.00)
Kim 2022	Seegene Allplex	Standard non−rapid RT−PCR	Unclear	Hospitalized patients	2 of 3 tests	159	1	160	0.99	(0.97–1.00)
Yun 2021	Seegene Allplex	Standard non−rapid RT−PCR	Mix	Submitted clinical samples	3 of 3 tests	201	0	201	1.00	(0.98–1.00)
Altamimi 2021	Thermo Fisher Taqpath	Standard non−rapid RT−PCR	Unclear	Submitted clinical samples	6 of 12 tests	31	0	31	1.00	(0.89–1.00)
Bivariate model									**1.00**	**(0.96–1.00)**
5 studies, 530 patients										



Supplement D

Recommendation 3: For symptomatic individuals suspected of having COVID-19, the IDSA panel suggests using a single standard NAAT (i.e., rapid RT-PCR and laboratory-based NAAT) rather than a strategy of two consecutive rapid Ag tests (conditional recommendation, very low certainty evidence).

Figure s11a. Repeat testing algorithm



RAT: Rapid antigen test

Supplement E

Recommendation 4: For asymptomatic individuals with known exposure to SARS-CoV-2 infection, the IDSA panel suggests using a single (i.e., one-time) Ag test over no testing in specific situations (conditional recommendation, moderate certainty evidence).

Figure s12a. Forest plot for the overall sensitivity of antigen tests in asymptomatic patients

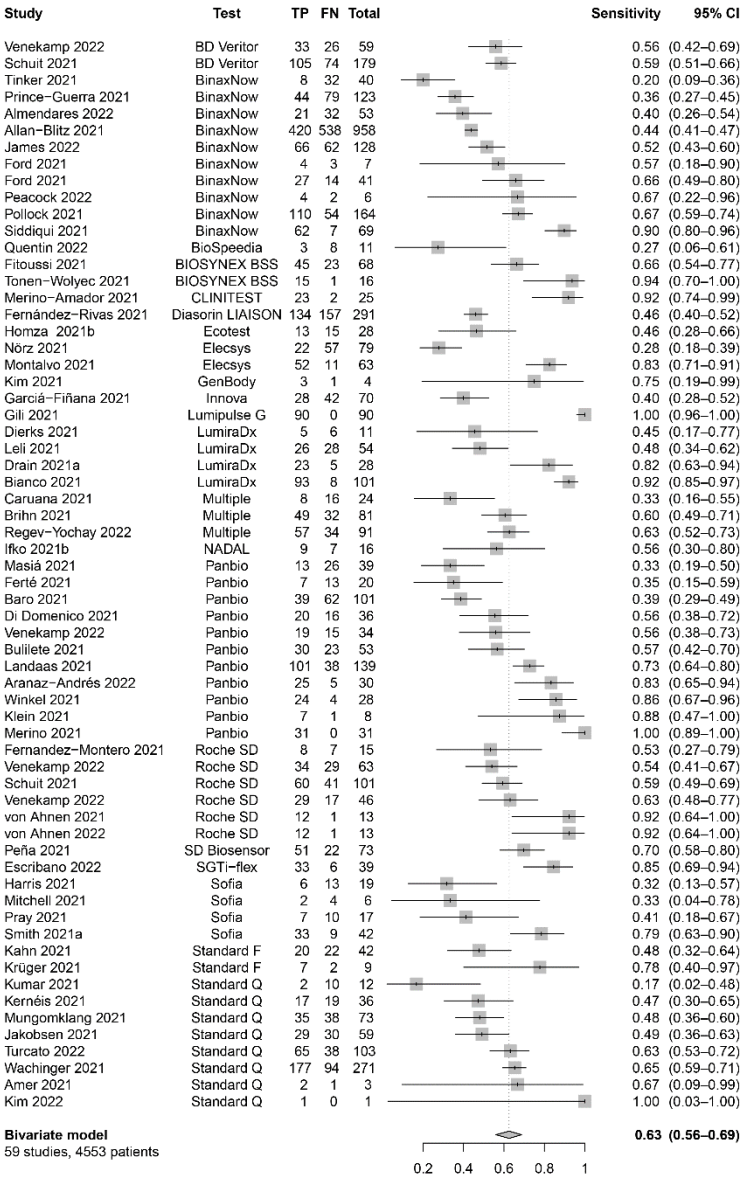


Figure s12b. Forest plot for the overall specificity of antigen tests in asymptomatic patients

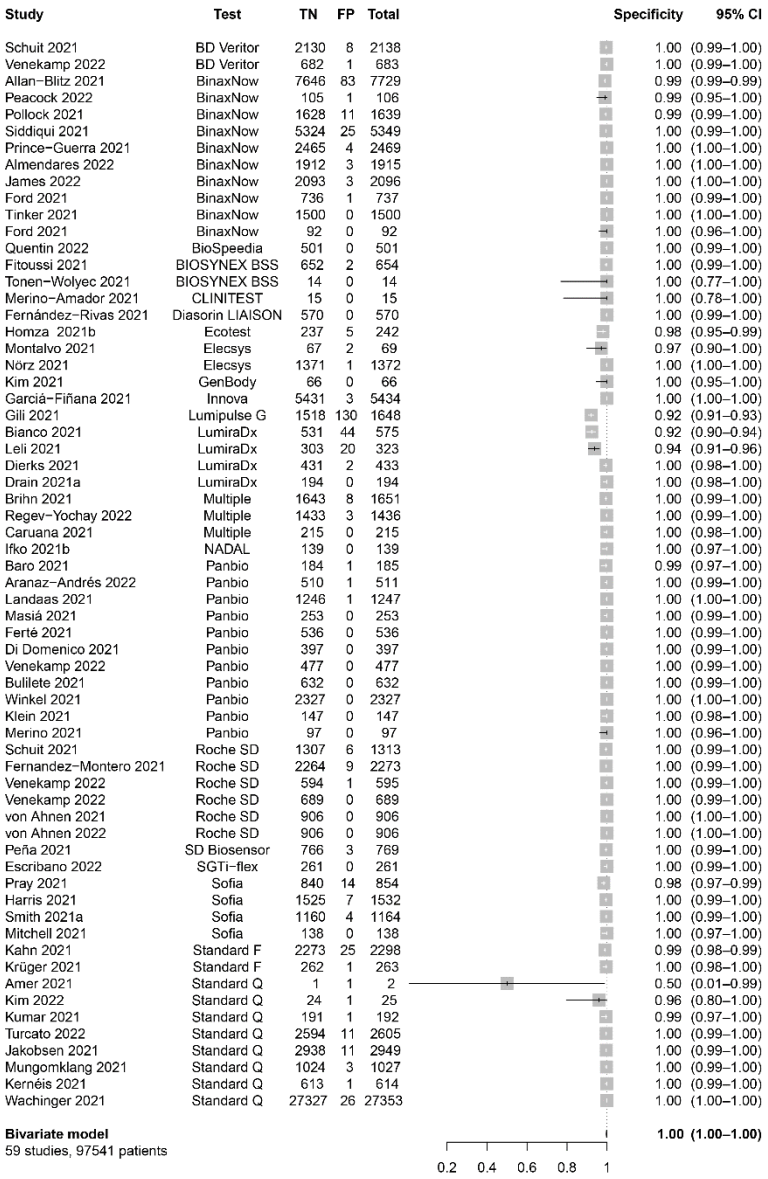


Figure s13a. Forest plot for the overall sensitivity of antigen tests in asymptomatic patients (pediatrics)

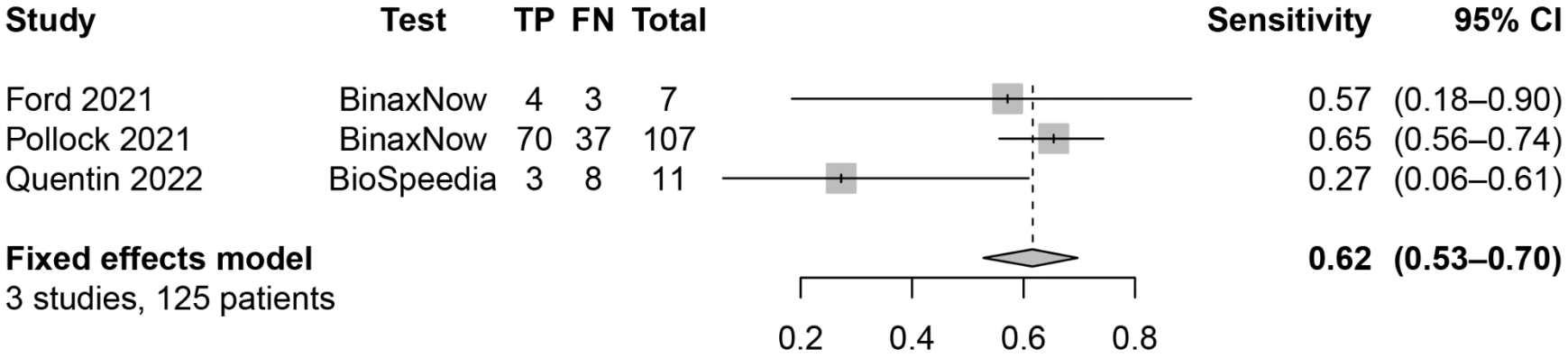
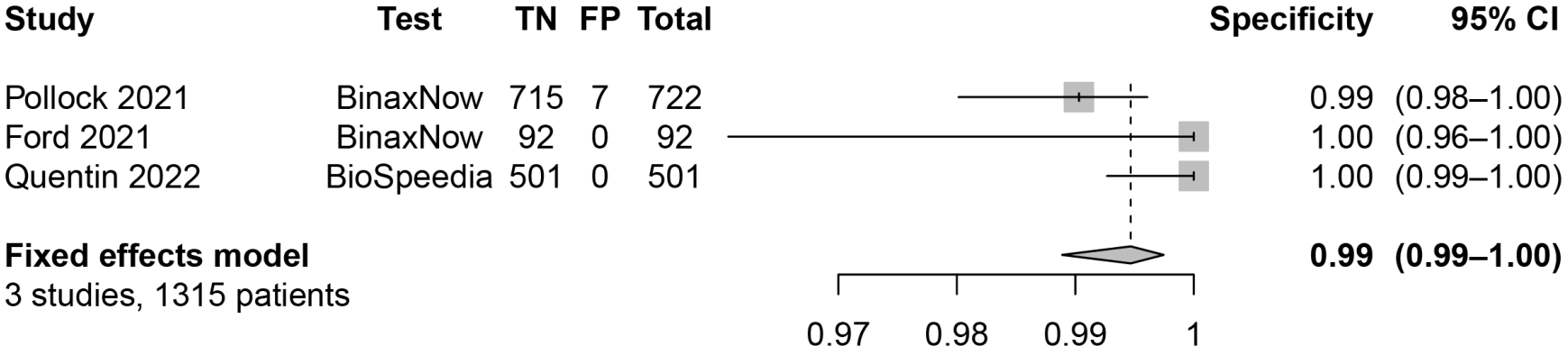


Figure s13b. Forest plot for the overall specificity of antigen tests in asymptomatic patients (pediatrics)



Supplement F

Recommendation 5: For asymptomatic individuals with known exposure to SARS-CoV-2 infection, the IDSA panel suggests using a single standard NAAT (i.e., rapid RT-PCR and laboratory-based NAAT) over a single rapid Ag test (conditional recommendation, low certainty evidence).

For the antigen test accuracy forest plots (asymptomatic), refer to Figure s12a and Figure s12b.

For the NAAT accuracy forest plots, refer to Figure s10a and Figure s10b.

Supplement G

Recommendation 6: In asymptomatic individuals with a known exposure to SARS-CoV-2, if standard NAAT testing or results are not available in a timely manner and a first Ag test is negative, the IDSA panel suggests for repeating Ag testing (conditional recommendation, very low certainty evidence).

Refer to Figure s11a for repeat testing algorithm

Supplement H

Recommendation 9: For individuals for whom Ag testing is desired, the IDSA panel suggests for either point-of-care or laboratory-based Ag testing (conditional recommendation, low certainty evidence).

Figure s14a. Forest plot for the sensitivity of point of care antigen tests

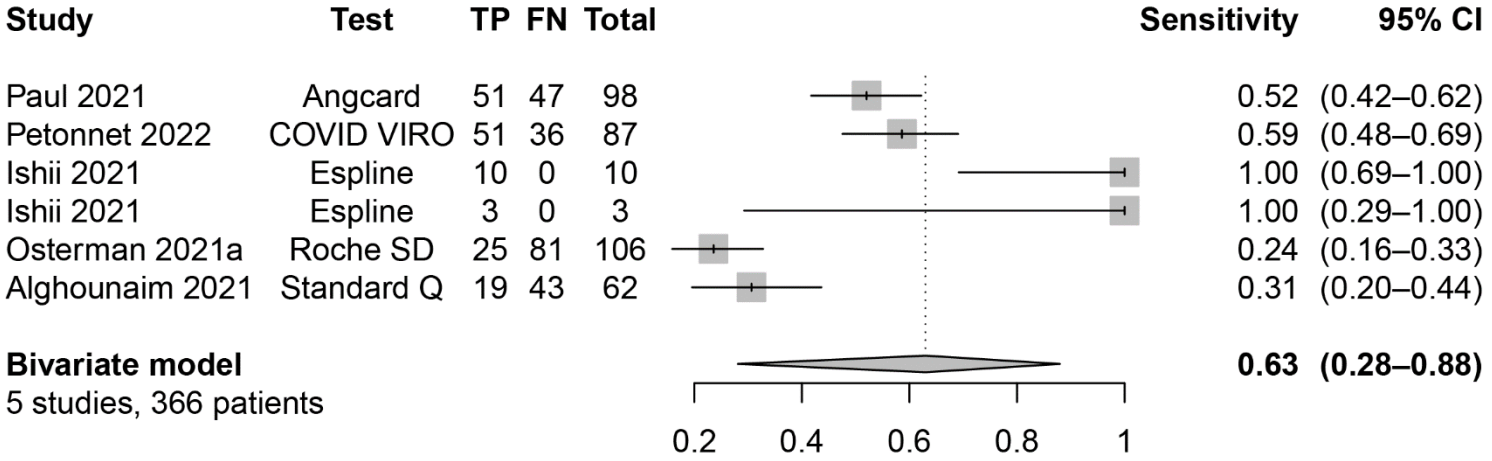


Figure s14b. Forest plot for the specificity of point of care antigen tests

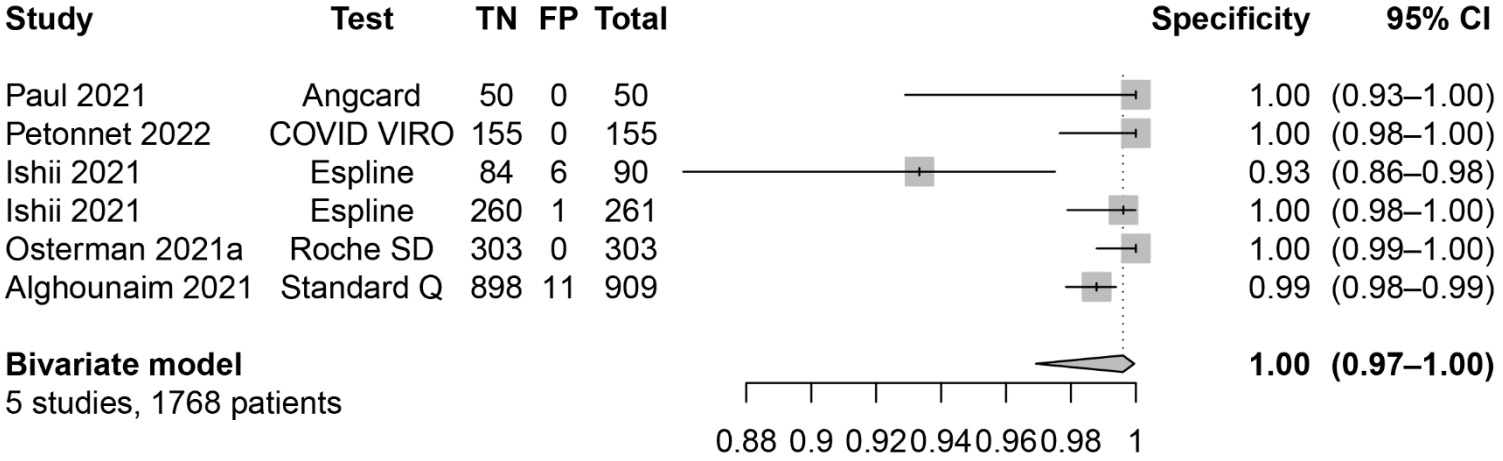


Figure s15a. Forest plot for the sensitivity of laboratory-based antigen tests

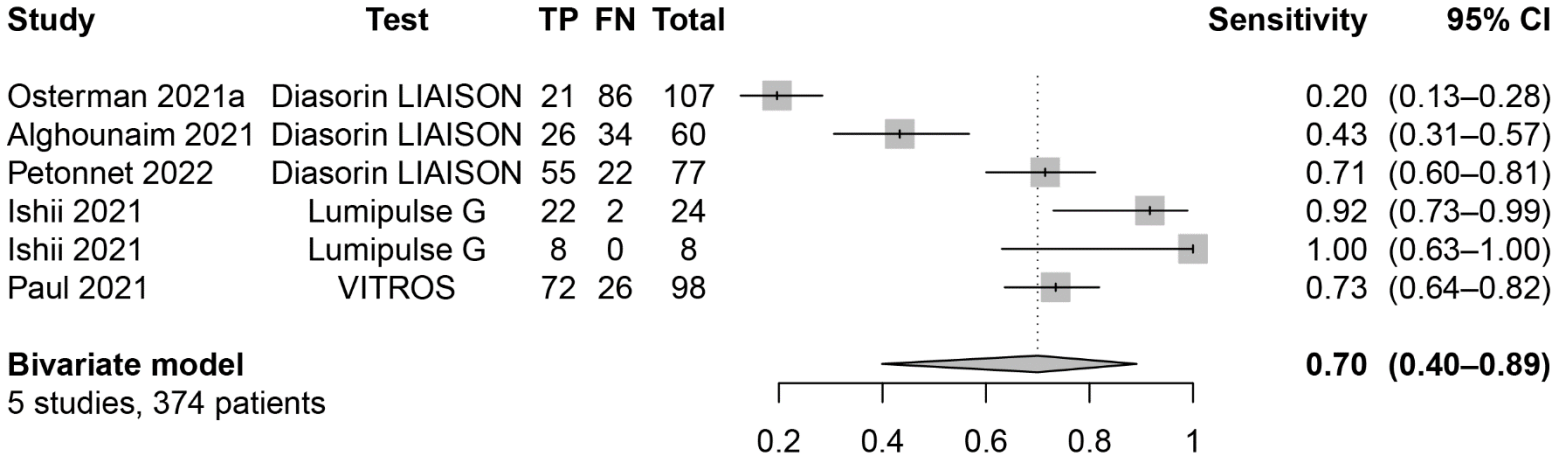
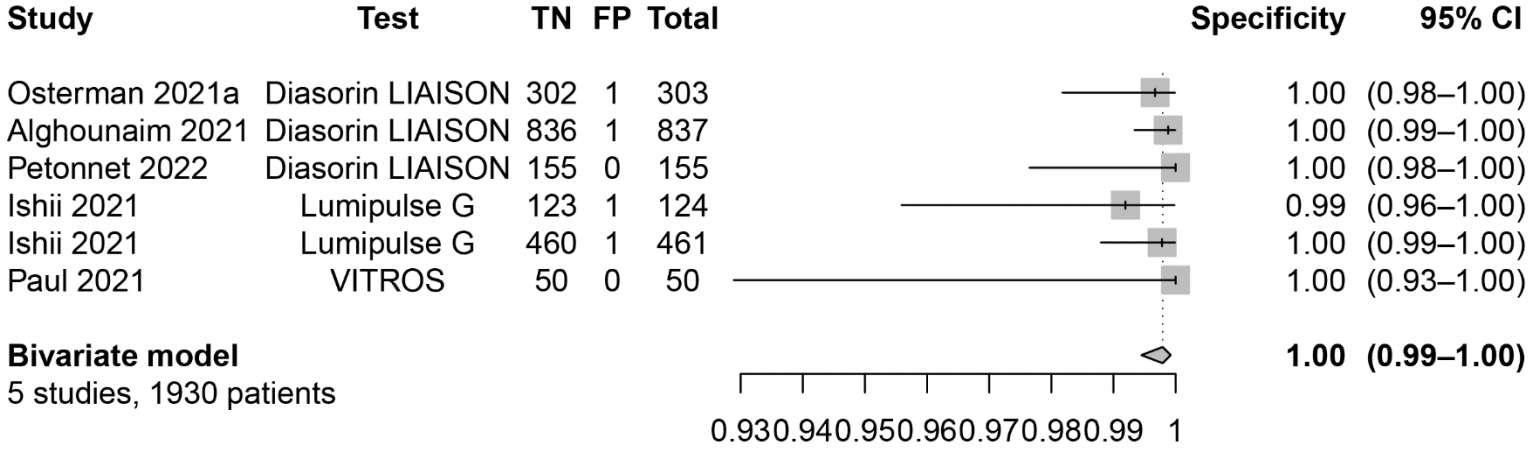


Figure s15b. Forest plot for the specificity of laboratory-based antigen tests



Supplement I

Recommendation 10: The IDSA panel suggests either observed or unobserved self-collection of swab specimens for Ag testing (conditional recommendation, low certainty evidence).

Figure s16a. Forest plot for the sensitivity of observed self-collection

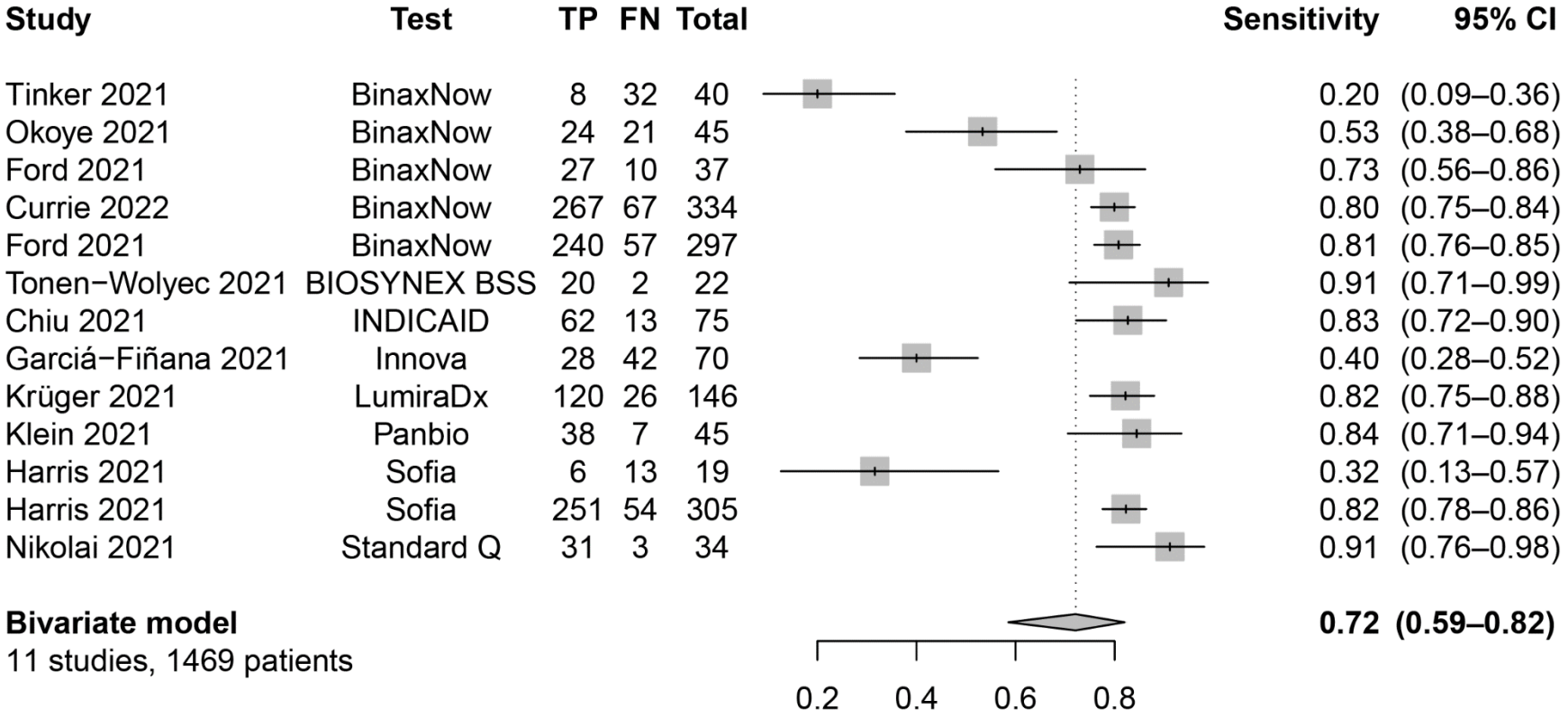


Figure s16b. Forest plot for the specificity of observed self-collection

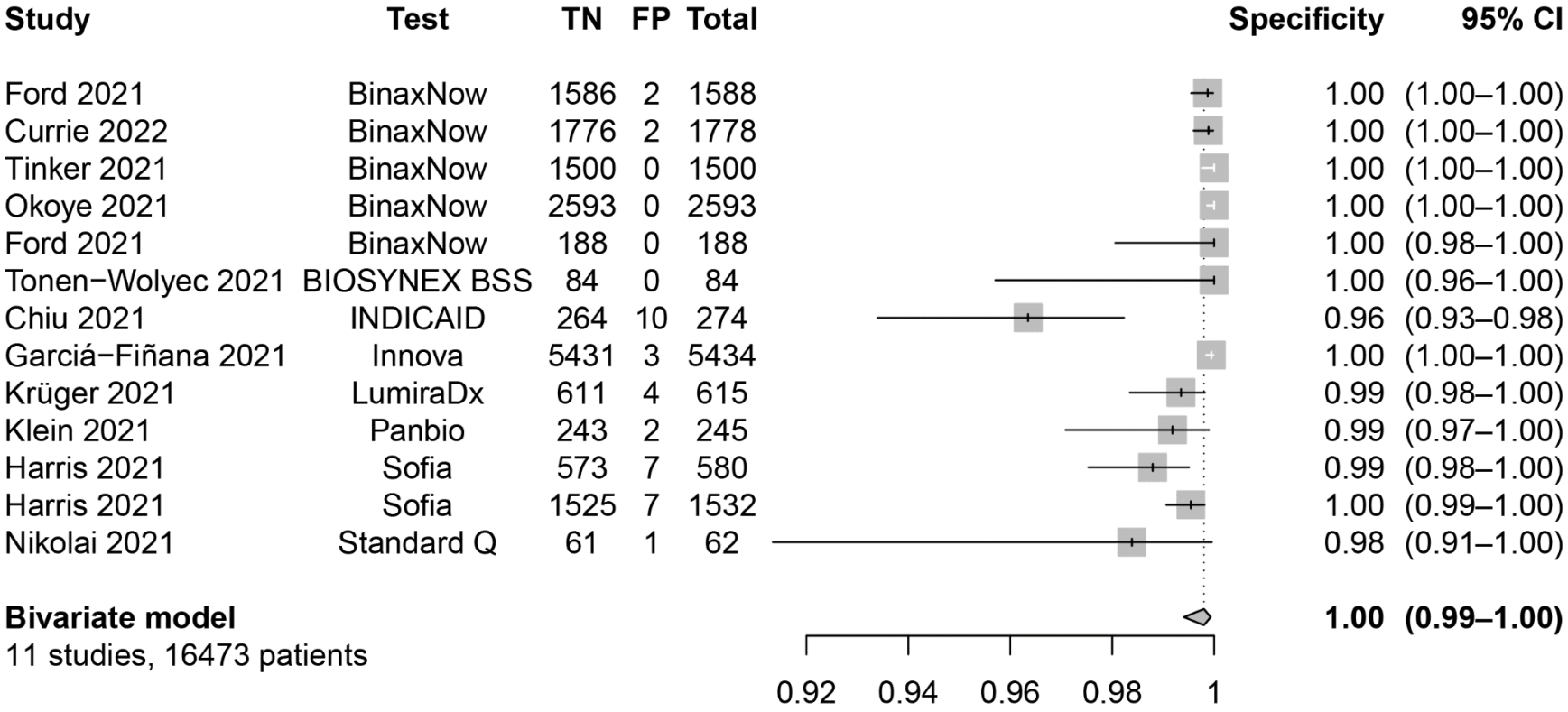


Figure s17a. Forest plot for the sensitivity of unobserved self-collection

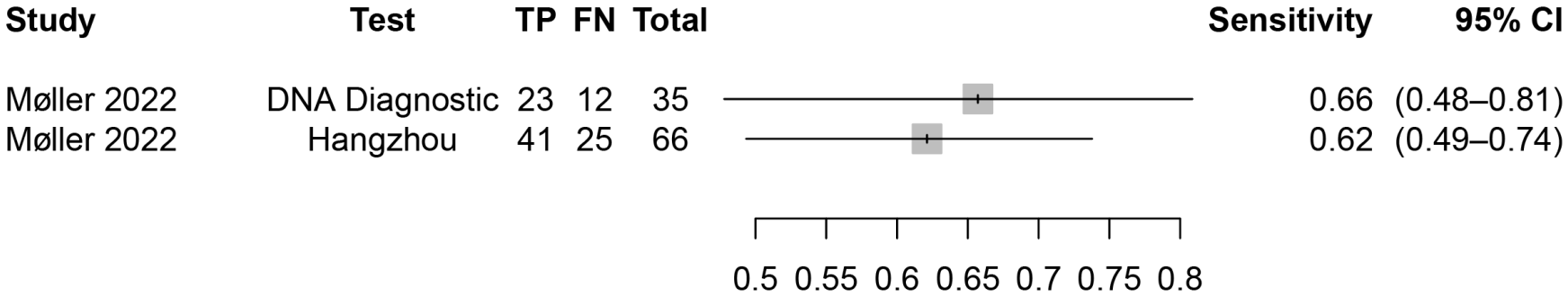


Figure s17b. Forest plot for the specificity of unobserved self-collection