



**COVID-19 Living Evidence
Synthesis #10**
(Version 10.14: 18 January 2023)

Appendix 1: Summary of Included Studies

Note: Newly added studies in blue, updated studies in green.

Study ID	First author	Location	Population of interest	Total sample size	Vaccines included in report	Comparator/ Full schedule/ booster	Outcomes included in report	Number of follow-up time points	VOC specific data
01A-3	Andrews ¹	UK	Persons aged >16 years	52,333,72	BNT162b2 AZD1222 (ChAdOx1)	2 vs 0, Full schedule	Symptomatic cases Hospitalisations Deaths	2	Delta
02B-3	Bedston ²	UK	HCWs aged ≥16 years	82,959	BNT162b2	2 vs 0, Full schedule	Any cases	3	N/A
03B-3	Britton ³	USA	Adults aged ≥20 years	1,634,271	BNT162b2 mRNA-1273 Ad26.CoV2.S	2 vs 0, Full schedule	Symptomatic cases	6	Delta
04B-3	Bruxvoort ⁴	USA	KPSC members aged ≥18 years	352,878 unvaccinated, 352,878 vaccinated	mRNA-1273	2 vs 0, Full schedule	Any cases	3	Delta
05B-3	Buchan ⁵	Canada	Adults aged	134,435	BNT162b2	2 vs 0,	Symptomatic	3	Delta

			>18 years		Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	Full schedule	cases		Omicron
06C-3	Cerqueira -Silva ⁶	Brazil	Adults aged >18 years	30,910	BNT162b2, AZD1222 (ChAdOx1) Ad26.CoV2.S	2 vs 0, Full schedule	Symptomatic cases	1	N/A
07C-2	Chemaite lly ⁷	Qatar	Persons aged ≥12 years	494,859	BNT162b2	2 vs 0, Full schedule	All cases	4	Delta
08D-2	De Gier ⁸	Netherlan ds	Persons aged ≥12 year in a nationwide registry of COVID-19 hospitalization s	15,571	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	Hospitalisations	2	Delta
09E-2	El Sahly ⁹	USA	Adults aged ≥18 years with high risk for Covid-19	28,451	mRNA-1273	2 vs 0, Full schedule	Symptomatic cases	1	N/A
10F-3	Florea ¹⁰	USA	KPSC members aged >18 years	1,854,008	mRNA-1273	2 vs 0, Full schedule	All cases Hospitalisations	2	N/A
11K-3	Katikired di ¹¹	Scotland	Adults aged >18 years	2,534,527	AZD1222 (ChAdOx1)	2 vs 0, Full schedule	Symptomatic cases	3	N/A

12L-3	Lin ¹²	North Carolina, USA	North Carolina residents	10,600,823	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases Hospitalisations Deaths	8	Delta, Omicron
13L-7	Lytras ¹³	Greece	Persons aged ≥ 15 years	9,200,000	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	Deaths	1	N/A
14M-3	Machado ¹⁴	Portugal	Adults aged ≥ 65 years	471,439,909	BNT162b2 mRNA-1273	2 vs 0, Full schedule	Symptomatic cases Hospitalisations Deaths	1	N/A
15N-3	Nordstrom ¹⁵	Sweden	Adults aged >18 years	1,684,958	BNT162b2 AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases	3	N/A
16P-3	Petras ¹⁶	Prague	Hospital staff aged ≥ 18 years	11,443	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases	1	N/A
17P-3	Poukka ¹⁷	Finland	HCWs aged 16-69 years	427,905	BNT162b2 AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases Hospitalisations	1	Delta
18R-4	Robles-	Puerto	Persons aged	88,044	BNT162b2	2 vs 0,	All cases	1	N/A

	Fontan ¹⁸	Rico	≥12 years		Ad26.CoV2.S mRNA-1273	Full schedule	Hospitalisations Deaths		
19R-3	Rosenberg ¹⁹	USA	Adults aged ≥18 years in New York State	8,690,825	BNT162b2 mRNA-1273 AZD1222 (ChAdOx1)	2 vs 0, Full schedule	All cases Hospitalisations	1	N/A
20S-5	Skowronski ²⁰	Canada	Adults aged >18 years in BC and QC	2,846,077 (872,440 BC; 1,973,637 QC)	BNT162b2 AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases Hospitalisations	6	Delta
21T-3	Tartof ²¹	USA	KPSC members aged >18 years	3,436,957	BNT162b2	2 vs 0, Full schedule	All cases Hospitalisations	4	N/A
22T-1	Thomas ²²	Global	Persons aged ≥16 years	44,047	BNT162b2	2 vs 0, Full schedule	All cases	1	N/A
23T-1	Thompson ²³	USA	Adults aged ≥50 years	41,552 hospitalisations + 21,522 ED visits from 187 hospitals	BNT162b2 Ad26.CoV2.S mRNA-1273	2 vs 0, Full schedule	Hospitalisations	1	N/A
25F-11	Ferdinands ²⁴	USA	Adults aged ≥18 years	839,461	mRNA-1273 BNT162b2	2 vs 0, Full schedule	All cases	4	Omicron
26H-3	Hall ²⁵	UK	HCWs aged ≥18 years	35,768	BNT162b2 Ad26.CoV2.S	2 vs 0, Full schedule	All cases	2	N/A

					AZD1222 (ChAdOx1) mRNA-1273				
27C-3	Chemaite lly ²⁶	Qatar	Persons aged ≥ 12 years	84,884	BNT162b2	2 vs 0, Full schedule	Symptomatic cases	9	Omicron
28A-4	Andrews ²⁷	England	Adults aged ≥ 18 years	2,663,549	BNT162b2 AZD1222(Ch AdOx1) mRNA-1273	2 vs 0, Full schedule	Symptomatic cases	2	Delta Omicron
29C-4	Castillo ²⁸	France	Adults aged ≥ 50 years	1,296,351	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	Symptomatic cases Hospitalisations	3	Delta
30S-4	Syed ²⁹	Qatar	Persons aged ≥ 12 years	1,241,501	BNT162b2 mRNA-1273	2 vs 0, Full schedule	All cases	2	N/A
31G-5	Glatman- Freedman ³⁰	Israel	Persons aged ≥ 16 years	1,561,812	BNT162b2	3 vs 0, Booster	All cases Hospitalisations Deaths	3	Omicron
32H-5	Hansen ³¹	Denmark	Persons aged ≥ 12 years	3,090,833	BNT162b2 mRNA-1273	2 vs 0, 3 vs 0, Full schedule and Booster	All cases Hospitalisations	1	Omicron
33H-9	Horne ³²	England	Adults aged ≥ 18 years	13,841,107	BNT162b2 AZD1222 (ChAdOx1)	2 vs 0, Full schedule	All cases Hospitalisations Deaths	3	N/A

34K-6	Kirsebo m ³³	England	Adults aged ≥18 years	626,148	BNT162b2 AZD1222(Ch AdOx1) mRNA-1273	2 vs 0, 3 vs 0, Full schedule and Booster	Symptomatic cases Hospitalisations	1	Omicron
35L-5	Lauring ³⁴	USA	Adults aged ≥18 years	11,690	BNT162b2 mRNA-1273	2 vs 0, Full schedule	Hospitalisations	1	N/A
37N-5	Nyberg ³⁵	England	Adults aged ≥20 years	1,191,526	BNT162b2 AZD1222(Ch AdOx1) mRNA-1273	2 vs 0, 3 vs 0, Full schedule and Booster	Hospitalisations Deaths	2	Delta Omicron
38S-10	Starrfelt ³⁶	Norway	Adults aged ≥18 years	4,301,995	BNT162b2 AZD1222(Ch AdOx1) mRNA-1273	2 vs 0, Full schedule	All cases Hospitalisations	3	N/A
39S-5	Stowe ³⁷	England	Adults aged ≥18 years	409,985	BNT162b2 AZD1222(Ch AdOx1) mRNA-1273	2 vs 0, 3 vs 0, Full schedule and Booster	Hospitalisations	1	Delta Omicron
40G-10	Gram ³⁸	Denmark	Persons aged ≥12 years	7,351,244	BNT162b2 mRNA-1273	3 vs 0, 2 vs 0, Full schedule and Booster	All cases Hospitalisations	1	Delta Omicron
41L-5	Lind ³⁹	USA	Persons aged ≥5 years	130,073	BNT162b2 mRNA-1273	2 vs 0, Full schedule	All cases	1	Omicron
42B-6	Baum ⁴⁰	Finland	Adults aged ≥70 years	897,932	BNT162b2	2 vs 0, Full schedule	Hospitalisations	1	Delta Omicron

					AZD1222(Ch AdOx1) mRNA-1273				
43C-8	Cerqueira-Silva ⁴¹	Brazil	Adults aged ≥18 years	899,050 individuals (918,219 tests)	BNT162b2 AZD1222(Ch AdOx1)	2 vs 0, Full schedule	All cases	1	Omicron
44C-14	Cerqueira-Silva ⁴²	Brazil and Scotland	Individuals aged ≥18 years	5,832,210 (Brazil: 5,276,385 ; Scotland: 555,825)	BNT162b2 AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule, 3 vs 0, Booster	All cases	2	Omicron
45G-6	Gray ⁴³	South Africa	Adults aged ≥18 years	162,637	BNT162b2 Ad26.COVS mRNA-1273	2 vs 0, Full Schedule	Hospitalisation	2	Omicron
46K-6	Kirseboom ⁴⁴	England	Adults aged ≥40 years	10,281,119	BNT162b2, ChAdOx1-S, mRNA-1273	3 vs 0, Booster	Symptomatic cases	2	Omicron
47N-6	Ng ⁴⁵	Singapore	All contact cases aged 0+ with median age of 36 years	8,470	mRNA-1273 BNT162b2	2 vs 0, Full Schedule	Contact cases	3	Delta
48A-7	Andrejko ⁴⁶	USA	California Residents aged 13+ years	2,238	mRNA-1273 BNT162b2	2 vs 0, Full Schedule	All cases	6	N/A

49C-7	Carazo ⁴⁷	Canada (Quebec)	Community-dwelling residents aged ≥ 12 years	696,439	mRNA-1273 BNT162b2	2 vs 0, Full Schedule	All cases	2	Omicron
50C-7	Chemaite lly ⁴⁸	Qatar	0 + years	138,182	BNT162b2	3 vs 0, Booster	All cases	2	Omicron
51E-7	El Adam ⁴⁹	Canada (British Columbia)	HCWs within the WHITE database aged ≥ 18 years	23,794 for single-dose VE analyses; and 27,602 for two-dose analyses	mRNA-1273 BNT162b2	2 vs 0, Full Schedule	All cases	2	N/A
52K-7	Kissling ⁵⁰	European countries: Croatia, France, Ireland, the Netherlands, Portugal, Romania, Spain, England, and	Adults aged ≥ 30 years	14,282	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full Schedule	All cases	3	Delta

		Scotland							
55R-7	Richterman ⁵¹	USA	HCWs	14,520	mRNA-1273 BNT162b2	3 vs 0, 3 vs 2, Booster	All cases	1	Omicron
56B-8	Berec ⁵²	Czech Republic	Overall population	7,428,968 valid records of vaccinated and/or SARS-CoV-2 positive persons	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases Hospitalisations Deaths	2	N/A
57L-8	Lyngse ⁵³	Denmark	Danish population (0 - 80 years)	24,693 primary cases, 53,584 household contacts, 11,631 secondary cases	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases	4	Delta
58C-9	Cerqueira-Silva ⁵⁴	Brazil	Adults aged ≥18 years	2,471,576	CoronaVac + BNT162b2 AZD1222 (ChAdOx1)	3 vs 0, 3 vs 2, Booster	All cases Hospitalisations Deaths	2	Omicron

60S-9	Suphanchaimat ⁵⁵	Thailand	Thai population, no age limit	1,460,458	CoronaVac + BNT162b2 AZD1222 (ChAdOx1)	3 vs 0, Booster	All cases	1	Delta
61A-10	Andeweg ⁵⁶	Netherlands	Immunization <11 to 60+ years	1,460,458	mRNA – 1273 BNT162b2 Ad26.CoV2.S	3 vs 0, 2 vs 0, Full schedule and Booster	All cases	1	Delta, Omicron
62K-10	Kirseboom ⁵⁷	United Kingdom	Individuals 12+ years from The National Immunization Management System	32,845	mRNA-1273 BNT162b2	4 vs 2, 3 vs 2, Booster	Hospitalizations	3	Omicron
63L-10	Lind ⁵⁸	USA	Individuals enrolled in the Yale New Haven Health System (ages ≥16 years)	441,356	mRNA-1273 BNT162b2	2 vs 0, Full schedule	All cases Hospitalizations	1	Alpha, Delta
64C-11	Carazo ⁵⁹	Quebec Canada	HCWS aged 18 years or older who were paid by the Quebec publicly funded health-care system	111,239	mRNA-1273 BNT162b2	2 vs 0, Full schedule	All cases Hospitalisations Deaths	1	Omicron

65C-11	Chung ⁶⁰	Ontario Canada	Ontario residents aged ≥ 16 years, registered for provincial health insurance, and not in a long-term care facility	3,045,059	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	Hospitalizations	3	Delta
66C-11	Collie ⁶¹	South Africa	18+ years patients that had been hospitalized for medical treatment	38,367	BNT162b2	2 vs 0, 3 vs 0, Full schedule and Booster	Hospitalizations	2	Omicron
67R-11	Ridgway ⁶²	USA	Individuals admitted to the hospital for COVID-19	15,310	mRNA-1273 BNT162b2	3 vs 2, Booster	Hospitalisations	2	Omicron
68S-11	Sobieszczyk ⁶³	USA, Chile, Peru	Individuals aged ≥ 18 years	32,380	AZD1222 (ChAdOx1)	2 vs 0, Full schedule	All cases	1	N/A
69T-11	Tseng ⁶⁴	USA	Individuals aged ≥ 18 years	123,236	mRNA-1273	4 vs 0, 4 vs 3, 3 vs 0, 3 vs 2, Booster	All cases Hospitalisations	2	Omicron

70C-12	Carazo ⁶⁵	Canada	Individuals aged ≥ 12 years	696,439	mRNA-1273 BNT162b2	2 vs 0, Full schedule	All cases Hospitalisations	2	Omicron
71C-12	Chambers ⁶⁶	Canada	Adults living with HIV	9,680+52 75	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases Hospitalisations Deaths	2	N/A
72C-12	Consonni ⁶⁷	Italy	HCWs	5,596	mRNA-1273 BNT162b2	3 vs 0, Booster	All cases	2	Omicron
73L-12	Laake ⁶⁸	Norway	General population	85,290	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	3 vs 2, Booster	All cases	2	Omicron
74L-11	Lin ⁶⁹	North Carolina	North Carolina residents	10,600, 823	BNT162b2 AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases Hospitalisation	9	N/A
75C-13	Canetti ⁷⁰	Israel	HCWs	5,477	BNT162b2	3 vs 4 Booster	All cases	2	Omicron
76N-13	Nielsen ⁷¹	Denmark	Individuals with prior SARS-CoV-2 infection.	748,322	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases	9	Omicron
77H-14	Heidarza	Iran	Adults admitted to	42,084	AZD1222	2 vs 0,	Hospitalisations	2	N/A

	deh ⁷²	(Guilan)	hospitals who had a positive PCR test		(ChAdOx1)	Full schedule	Deaths		
78H-14	Horne ⁷³	England	Individuals aged ≥ 18 years who registered at an English primary care practice	5,271,616	BNT162b2 AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule	All cases Hospitalisations Deaths	9	Omicron
79H-14	Huiberts ⁷⁴	The Netherlands	Adults aged 18 to 85 years	36,816	BNT162b2 Ad26.CoV2.S AZD1222 (ChAdOx1) mRNA-1273	2 vs 0, Full schedule, 3 vs 0, Booster	All cases	2	Delta, Omicron

Legend: BC: British Columbia; HCWs: healthcare workers; PCR: Polymerase chain reaction test; QC: Quebec; RCT: randomized controlled trial; USA: United States of America; UK: United Kingdom; HCW: healthcare workers; KPSC: Kaiser Permanente Southern California

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Appendix 2: Data tables from the all-strain analyses

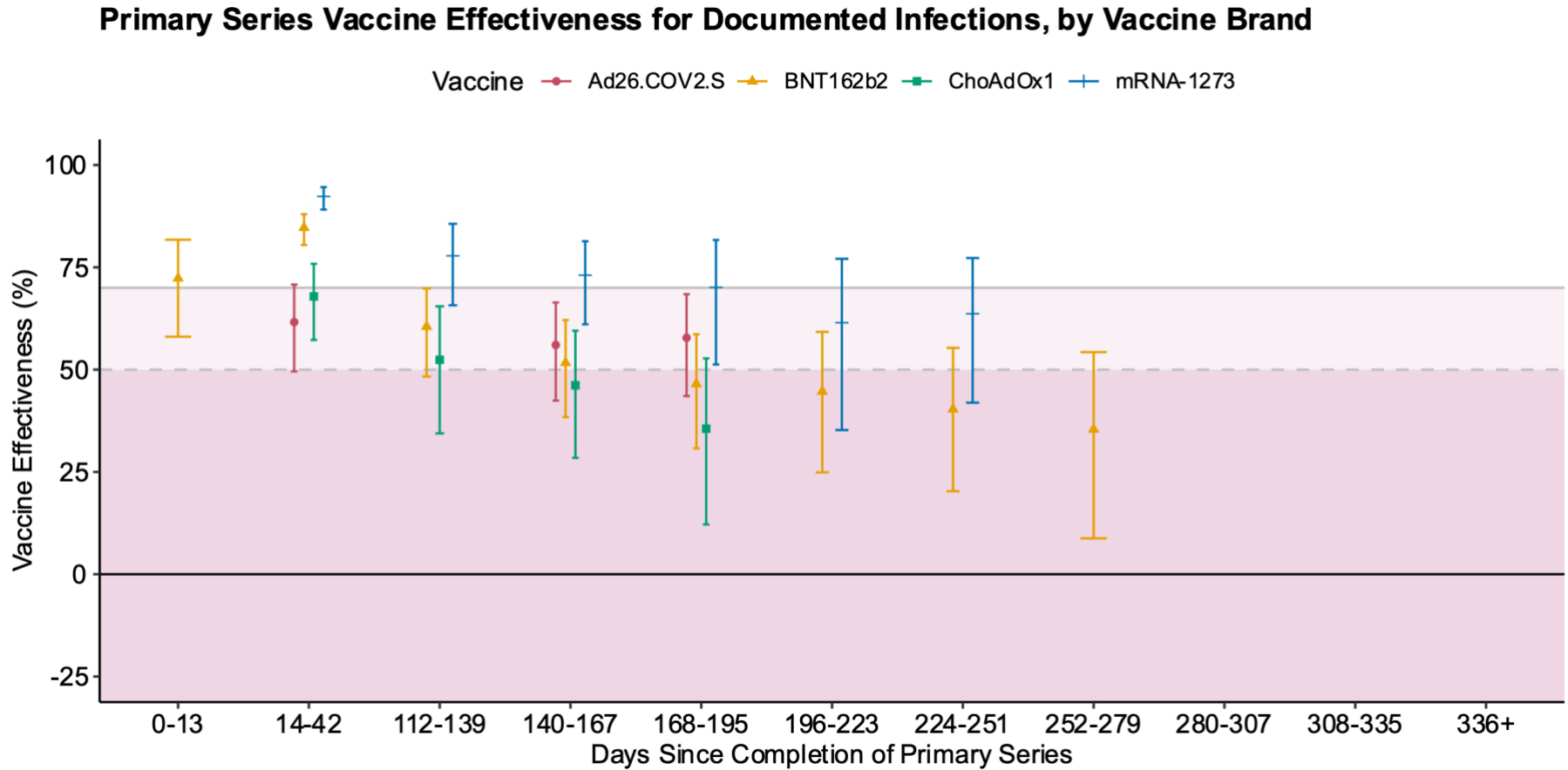
Question 1a: VE against COVID-19 infections change over time (>112 days) in individuals who have received a complete primary COVID-19 vaccine series

Table A2-1: VE against COVID-19 infections* for completed primary series (all strains)

	Baseline days (weeks)		Follow-up days (weeks)									I _e [w/b]	σ [w/b]	MO D
	0-13 (0-2)	14-42 (2-6)	112-139 (16-20)	140-167 (20-24)	168-195 (24-28)	196-223 (28-32)	224-251 (32-36)	252-279 (36-40)	280-307 (40-44)	308-335 (44-48)	336+ (48+)			
Any vaccine	66%	82%†	61%*	55%*	49%†*	54%*	46%†*	43%†*	38%†*	48%*	51%*	[48, 52]	[0.45, 0.48]	Yes
	[53, 76]	[79, 85]	[52, 68]	[46, 62]	[38, 58]	[41, 64]	[32, 58]	[23, 57]	[14, 56]	[21, 66]	[26, 68]			
	[-22, 91]	[34, 95]	[-31, 89]	[-40, 88]	[-47, 86]	[-42, 88]	[-50, 86]	[-54, 85]	[-57, 84]	[-50, 87]	[-47, 87]			
	8 (14)	43 (105)	23 (54)	34 (86)	22 (53)	16 (27)	14 (25)	9 (16)	7 (12)	3 (6)	4 (7)			
Any mRNA vaccine	71%	87%†	66%*	57%†*	51%†*	51%†*	46%†*	42%†*	40%†*	48%*	55%*	[29, 71]	[0.36, 0.56]	Yes
	[57, 80]	[84, 89]	[56, 73]	[47, 65]	[38, 62]	[36, 63]	[29, 59]	[19, 59]	[13, 59]	[14, 69]	[24, 73]			
	[-14, 93]	[50, 97]	[-23, 91]	[-39, 89]	[-46, 87]	[-47, 87]	[-52, 86]	[-56, 85]	[-57, 85]	[-53, 87]	[-46, 89]			
	6 (8)	31 (64)	15 (30)	27 (53)	14 (28)	12 (15)	10 (16)	6 (9)	5 (7)	2 (3)	2 (3)			
Any adenovirus	44%	66%†	54%*	48%*	43%*	48%*	47%*	29%*	31%*	55%	47%*	[21, 79]	[0.23, 0.45]	Yes
	[11, 65]	[58, 73]	[40, 64]	[35, 59]	[27, 56]	[25, 64]	[28, 62]	[0, 50]	[0, 52]	[29, 71]	[21, 65]			
	[-41, 82]	[7, 88]	[-23, 84]	[-31, 81]	[-38, 80]	[-34, 82]	[-33, 82]	[-51, 76]	[-50, 76]	[-26, 85]	[-35, 82]			
	2 (4)	17 (29)	8 (14)	15 (26)	8 (15)	3 (4)	4 (5)	3 (5)	2 (3)	1 (2)	2 (3)			
BNT162b2	72%	85%†	61%*	52%†*	46%†*	45%†*	40%†*	35%†*	25%†*	41%†*	49%†*	[21, 79]	[0.28, 0.54]	Yes
	[58, 82]	[80, 88]	[48, 70]	[38, 62]	[31, 59]	[25, 59]	[20, 55]	[9, 54]	[-9, 49]	[8, 62]	[19, 68]			
	[0, 92]	[47, 96]	[-27, 89]	[-40, 86]	[-46, 85]	[-48, 84]	[-52, 83]	[-56, 82]	[-63, 79]		[-47, 86]			
	4 (5)	21 (33)	10 (17)	20 (32)	13 (22)	7 (9)	9 (11)	4 (6)	3 (4)	2 (3)	2 (3)			
mRNA-1273		92%	78%*	73%*	70%*	61%*	64%*	55%*	68%			[37, 63]	[0.43, 0.56]	Yes

		[89, 95]	[66, 86]	[61, 81]	[51, 82]	[35, 77]	[42, 77]	[9, 77]	[-47, 95]					
		[67, 98]	[4, 95]	[-13, 94]	[-24, 93]	[-42, 91]	[-37, 92]	[-54, 91]	[-67, 97]					
		15 (24)	6 (10)	11 (18)	4 (7)	4 (5)	6 (7)	2 (3)	1 (1)					
ChAdOx1	48%	68%	52%*	46%*	36%*	44%*	41%*	22%*	24%*	52%	50%	[19, 81]	[0.24, 0.49]	Yes
	[9, 70]	[57, 76]	[34, 65]	[28, 60]	[12, 53]	[12, 64]	[11, 61]	[-17, 49]	[-17, 53]	[21, 71]	[15, 71]			
	[-44, 85]	[1, 90]	[-32, 85]	[-40, 83]	[-50, 79]	[-45, 83]	[-47, 81]	[-60, 76]	[-60, 77]	[-37, 85]	[-40, 85]			
	2 (3)	13 (23)	5 (10)	11 (21)	5 (11)	2 (3)	2 (3)	2 (4)	1 (2)	1 (2)	1 (2)			
Ad26.COV2.S	18%	62%	58%	56%	58%	57%	58%	46%	44%		48%	[55, 44]	[0.21, 0.18]	Yes
	[-46, 64]	[50, 71]	[43, 69]	[42, 66]	[44, 68]	[29, 74]	[38, 71]	[11, 67]	[8, 66]		[14, 69]			
	[-55, 70]	[27, 80]	[18, 78]	[16, 77]	[19, 78]	[6, 80]	[15, 79]	[-14, 75]	[-17, 74]		[-11, 76]			
	1 (1)	5 (6)	3 (4)	5 (5)	4 (4)	1 (1)	2 (2)	1 (1)	1 (1)		1 (1)			

Figure A2-1: VE against COVID-19 infections# for specific primary series vaccines (BNT 162b2, ChoAdOx1, and mRNA-1273)



Only time points with at least 4 studies have been included in the figure.

The solid line indicates the WHO definition of preferred minimum level of VE and the dotted line is the minimum lower 95% CIs

This is a combination of any, symptomatic, and asymptomatic infections. If a study reports any infections this is prioritised over symptomatic or asymptomatic (when reported). If the study reports symptomatic and asymptomatic, then symptomatic is prioritised.

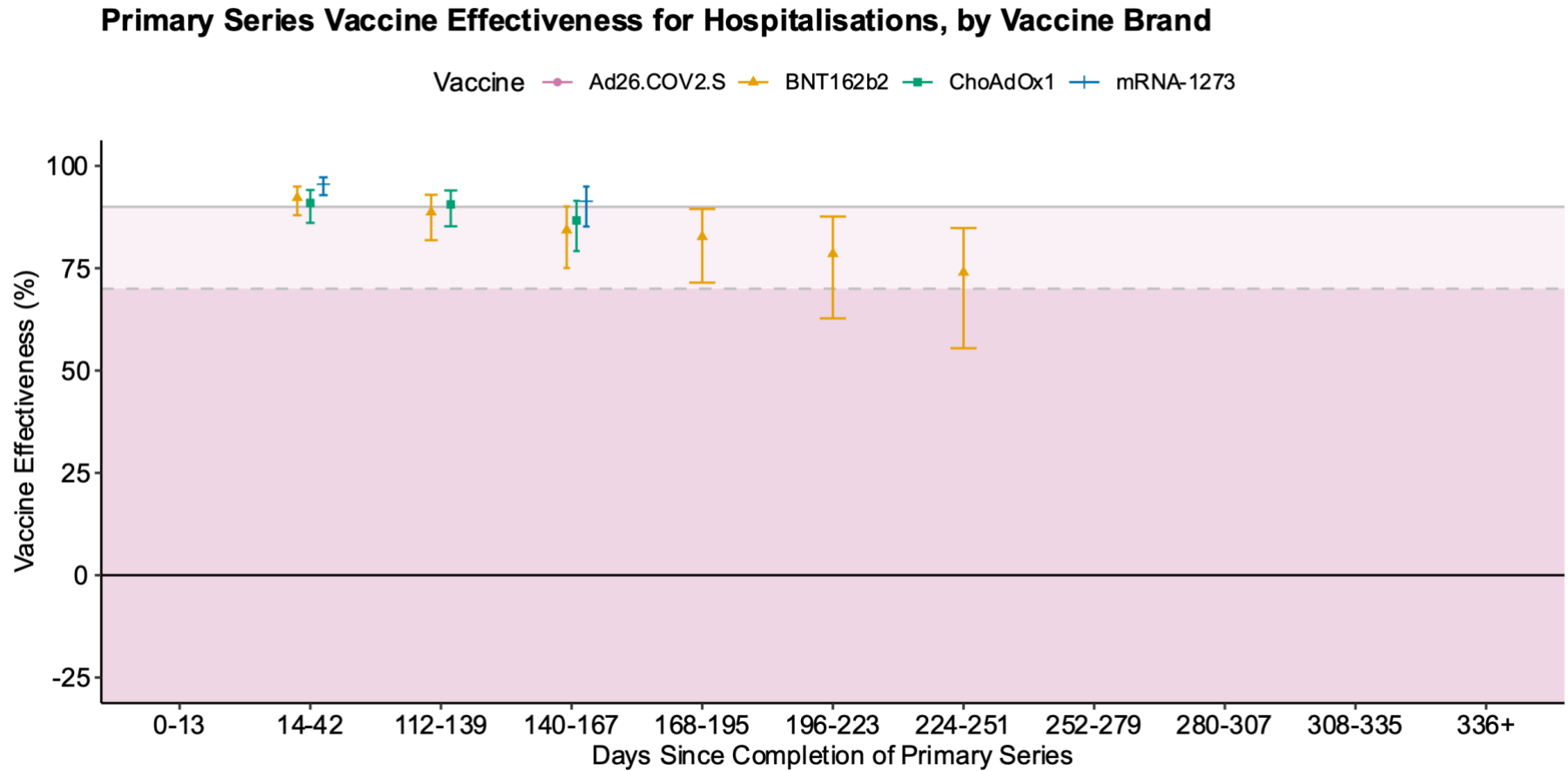
Question 1b: VE against COVID-19 hospitalisations change over time (>112 days) in individuals who have received a complete primary COVID-19 vaccine series

Table A2-2: VE against COVID-19 hospitalisations for completed primary series (all strains)

	Baseline days (weeks)		Follow-up days (weeks)									I _p [w/b]	σ [w/b]	MO D
	0-13 (0-2)	14-42 (2-6)	112-139 (16-20)	140-167 (20-24)	168-195 (24-28)	196-223 (28-32)	224-251 (32-36)	252-279 (36-40)	280-307 (40-44)	308-335 (44-48)	336+ (48+)			
Any vaccine	88%	92%	89%*	86%*	83%*	82%*	76%*	64%†*	45%†*	40%†*	52%†*	[34, 64]	[0.50, 0.68]	Yes
	[76, 94]	[88, 94]	[85, 92]	[81, 90]	[76, 88]	[73, 88]	[64, 84]	[42, 78]	[3, 68]	[-10, 68]	[20, 71]			
	[27, 98]	[54, 98]	[41, 98]	[26, 97]	[9, 97]	[2, 97]	[-25, 96]	[-51, 94]	[-69, 90]	[-72, 90]	[-63, 92]			
	4 (7)	23 (60)	13 (42)	17 (42)	10 (23)	7 (12)	8 (13)	4 (8)	2 (5)	1 (4)	3 (7)			
Any mRNA vaccine	88%	93%	90%*	87%*	85%*	83%*	78%*	64%†*	23%†*	32%†*	53%†*	[27, 72]	[0.46, 0.76]	Yes
	[71, 95]	[89, 95]	[84, 93]	[80, 91]	[76, 90]	[71, 89]	[63, 86]	[36, 80]	[-42, 65]	[-34, 70]	[11, 75]			
	[12, 98]	[55, 99]	[36, 98]	[18, 98]	[6, 98]	[-8, 97]	[-29, 96]	[-56, 94]	[-81, 89]	[-79, 90]	[-68, 93]			
	3 (4)	19 (35)	9 (22)	14 (22)	7 (11)	6 (9)	7 (9)	3 (5)	1 (2)	1 (2)	2 (4)			
Any adenovirus		89%	89%	85%	82%*	81%	73%*	60%*	52%*	42%*	49%*	[39, 59]	[0.45, 0.55]	Yes
		[83, 93]	[82, 93]	[77, 90]	[69, 89]	[63, 90]	[50, 85]	[22, 80]	[5, 75]	[-22, 74]	[-2, 75]			
		[50, 97]	[49, 97]	[34, 97]	[17, 96]	[10, 96]	[-22, 94]	[-48, 92]	[-57, 90]	[-66, 89]	[-59, 90]			
		11 (18)	7 (14)	9 (14)	4 (8)	2 (3)	3 (4)	2 (3)	2 (3)	1 (2)	2 (3)			
BNT162b2	89%	92%	89%*	84%*	83%*	79%*	74%*	56%*	11%†*	22%†*	46%†*	[26, 72]	[0.43, 0.72]	Yes
	[51, 97]	[88, 95]	[82, 93]	[75, 90]	[71, 89]	[63, 88]	[55, 85]	[20, 76]	[-49, 60]	[-42, 65]	[-3, 71]			
	[-4, 99]	[56, 99]	[36, 98]	[11, 97]	[1, 97]	[-20, 96]	[-34, 96]	[-61, 93]	[-82, 86]	[-80, 88]	[-69, 91]			
	1 (1)	14 (22)	7 (13)	8 (14)	7 (10)	4 (7)	6 (7)	3 (5)	1 (2)	1 (2)	2 (4)			

mRNA-1273	87%	96%	95%	91%*	87%*	88%*	84%*	82%*			77%*	[64, 31]	[0.49, 0.35]	Yes
	[-24, 99]	[93, 97]	[91, 97]	[85, 95]	[69, 95]	[76, 94]	[59, 94]	[60, 92]			[46, 91]			
	[-44, 99]	[83, 99]	[80, 99]	[67, 98]	[42, 97]	[51, 97]	[26, 97]	[23, 96]			[-2, 95]			
	1 (1)	6 (11)	3 (6)	4 (7)	2 (3)	3 (5)	2 (2)	2 (3)			1 (2)			
ChAdOx1		91%	91%	87%	84%*	83%	72%*	49%*	35%*	42%*	36%*	[38, 58]	[0.40, 0.49]	Yes
		[86, 94]	[85, 94]	[79, 91]	[72, 90]	[65, 92]	[48, 85]	[-5, 76]	[-26, 69]	[-18, 73]	[-28, 71]			
		[65, 98]	[64, 98]	[49, 97]	[35, 96]	[28, 96]	[-13, 93]	[-55, 88]	[-64, 85]	[-60, 87]	[-65, 86]			
		9 (15)	6 (12)	7 (11)	3 (7)	1 (2)	2 (3)	1 (2)	1 (2)	1 (2)	1 (2)			
Ad26.COVS.S		74%	79%	73%	74%	70%	70%	70%	65%		59%	[86, 0]	[0.28, 0.00]	Yes
		[23, 91]	[24, 94]	[31, 90]	[9, 93]	[-13, 92]	[-6, 92]	[-12, 92]	[-20, 90]		[-42, 90]			
		[-24, 95]	[-19, 96]	[-20, 94]	[-32, 95]	[-46, 95]	[-42, 95]	[-45, 95]	[-50, 94]		[-63, 94]			
		2 (2)	1 (1)	2 (2)	1 (1)	1 (1)	1 (1)	1 (1)	1 (1)		1 (1)			

Figure A2-2: VE against COVID-19 hospitalisations for specific primary series vaccines (BNT 162b2, ChoAdOx1, and mRNA-1273)



Only time points with at least 4 studies have been included in the figure.

The solid line indicates the WHO definition of preferred minimum level of VE and the dotted line is the minimum lower 95% CIs

Question 1c: VE against COVID-19 deaths change over time (>112 days) in individuals who have received a complete primary COVID-19 vaccine series

Table A2-3: VE against COVID-19 deaths for completed primary series (all strains)

	Baseline days (weeks)		Follow-up days (weeks)									I ² [w/b]	σ [w/b]	MO D
	0-13 (0-2)	14-42 (2-6)	112-139 (16-20)	140-167 (20-24)	168-195 (24-28)	196-223 (28-32)	224-251 (32-36)	252-279 (36-40)	280-307 (40-44)	308-335 (44-48)	336+ (48+)			
Any vaccine		90%	91%	84%*	85%	83%	78%*	70%*	63%*	34%*	61%*	[30, 65]	[0.51, 0.75]	Yes
		[84, 94]	[82, 95]	[73, 91]	[72, 92]	[60, 92]	[56, 90]	[22, 88]	[7, 86]	[-60, 82]	[-7, 86]			
		[38, 99]	[38, 99]	[-3, 98]	[-1, 98]	[-21, 98]	[-33, 97]	[-57, 96]	[-64, 95]	[-84, 93]	[-68, 95]			
		12 (25)	6 (9)	9 (16)	5 (9)	3 (3)	4 (6)	2 (2)	2 (2)	1 (1)	2 (2)			
Any mRNA vaccine		94%	95%	88%*	89%*	86%	82%*	49%*	36%*	37%*	38%*	[24, 71]	[0.44, 0.76]	Yes
		[89, 97]	[88, 98]	[77, 93]	[78, 95]	[64, 95]	[58, 92]	[-40, 84]	[-53, 81]	[-55, 82]	[-60, 85]			
		[62, 99]	[65, 99]	[20, 98]	[28, 98]	[-3, 98]	[-22, 97]	[-77, 94]	[-82, 92]	[-82, 93]	[-83, 94]			
		9 (16)	3 (4)	7 (9)	3 (7)	2 (2)	3 (4)	1 (1)	1 (1)	1 (1)	1 (1)			
Any adenovirus		81%	79%	74%	81%	76%	79%	81%	76%		69%	[64, 28]	[0.58, 0.38]	Yes
		[68, 89]	[54, 91]	[52, 86]	[60, 91]	[6, 94]	[44, 92]	[24, 95]	[7, 94]		[-21, 92]			
		[14, 96]	[-7, 96]	[-18, 95]	[3, 96]	[-42, 97]	[-17, 96]	[-28, 97]	[-42, 97]		[-57, 96]			
		8 (11)	4 (5)	5 (6)	3 (5)	1 (1)	2 (2)	1 (1)	1 (1)		1 (1)			
BNT162b2		95%	94%	90%*	89%*	84%*	79%*	44%*	30%*	32%*	33%*	[82, 0]	[0.36, 0.00]	Yes
		[93, 97]	[87, 97]	[84, 93]	[84, 92]	[62, 93]	[62, 88]	[-23, 76]	[-41, 71]	[-45, 75]	[-53, 79]			
		[89, 98]	[82, 98]	[76, 96]	[74, 95]	[50, 95]	[45, 92]	[-42, 82]	[-55, 78]	[-57, 80]	[-62, 83]			
		6 (8)	2 (2)	4 (4)	3 (5)	1 (1)	2 (2)	1 (1)	1 (1)	1 (1)	1 (1)			

mRNA-1273		97%		93%	95%		88%*					[14, 0]	[0.17, 0.00]	Yes
		[92, 99]		[77, 98]	[89, 98]		[75, 94]							
		[91, 99]		[75, 98]	[87, 98]		[71, 95]							
		3 (4)		1 (1)	1 (2)		1 (1)							
ChAdOx1		89%	90%	79%	79%		77%					[25, 69]	[0.43, 0.73]	Yes
		[70, 96]	[43, 98]	[28, 94]	[16, 95]		[-16, 96]							
		[-1, 99]	[-27, 99]	[-53, 98]	[-56, 98]		[-66, 98]							
		5 (6)	2 (2)	2 (2)	1 (2)		1 (1)							
Ad26.COV2.S		63%	83%*	77%*	78%*	74%	77%	80%	74%		66%	[0, 28]	[0.00, 0.13]	Yes
		[47, 75]	[74, 88]	[68, 84]	[70, 84]	[57, 85]	[66, 84]	[64, 89]	[61, 82]		[40, 81]			
		[42, 77]	[71, 90]	[64, 86]	[67, 86]	[54, 86]	[63, 86]	[61, 89]	[57, 84]		[35, 82]			
		4 (4)	2 (2)	3 (3)	3 (3)	1 (1)	1 (1)	1 (1)	1 (1)		1 (1)			

Question 2a-1: VE against COVID-19 infections change over time (>84 days) in individuals who have received a complete primary COVID-19 vaccine series plus one additional dose – comparison to unvaccinated

Table A2-4: VE against COVID-19 infections^a for completed primary series and one additional dose (all strains)

	Baseline days (weeks)		Follow-up days (weeks)									I ² [w/b]	σ [w/b]	MO D
	0-6 (0-1)	7-28 (1-4)	84-111 (12-16)	112-139 (16-20)	140-167 (20-24)	168-195 (24-28)	196-223 (28-32)	224-251 (32-36)	252-279 (36-40)	280-307 (40-44)	308+ (44+)			
Any vaccine	60%	70%	56%*	46%*	2%†*							[26, 74]	[0.34, 0.59]	Yes
	[37, 75]	[58, 79]	[37, 69]	[22, 63]	[-35, 38]									
	[-40, 91]	[-17, 93]	[-44, 89]	[-54, 87]	[-75, 77]									
	1 (6)	13 (26)	12 (27)	9 (22)	3 (7)									
Any mRNA vaccine	56%	67%	50%*	41%*	-6%†*							[37, 63]	[0.35, 0.45]	Yes
	[32, 71]	[55, 75]	[33, 63]	[19, 56]	[-38, 30]									
	[-33, 87]	[-7, 90]	[-38, 85]	[-48, 82]	[-72, 68]									
	1 (6)	12 (22)	11 (23)	9 (22)	3 (7)									
Any adenovirus		82%	75%									[9, 90]	[0.37, 1.17]	Yes
		[-30, 98]	[-51, 97]											
		[-85, 100]	[-90, 99]											
		2 (4)	2 (4)											
BNT162b2	65%	69%	58%*	50%*	25%†*							[17, 83]	[0.34, 0.76]	Yes
	[33, 82]	[48, 82]	[29, 75]	[14, 71]	[-31, 62]									
	[-53, 94]	[-44, 95]	[-59, 93]	[-66, 92]	[-78, 88]									

	1 (4)	9 (14)	9 (18)	6 (11)	2 (4)									
mRNA-1273	55%	70%	44%*	36%*	9%†*							[99, 0]	[0.34, 0.00]	Yes
	[26, 73]	[60, 78]	[25, 58]	[18, 51]	[-16, 30]									
	[-5, 81]	[36, 86]	[-17, 73]	[-25, 70]	[-48, 57]									
	1 (2)	3 (9)	3 (6)	3 (8)	2 (8)									
ChAdOx1		77%	78%									[3, 95]	[0.15, 0.90]	Yes
		[-28, 96]	[-26, 97]											
		[-80, 99]	[-80, 99]											
		2 (3)	2 (3)											
Ad26.COVS.S														

Question 2b-1: VE against COVID-19 hospitalisations change over time (>84 days) in individuals who have received a complete primary COVID-19 vaccine series plus one additional dose – comparison to unvaccinated

Table A2-5: VE against COVID-19 hospitalisations for completed primary series and one additional dose (all strains)

	Baseline days (weeks)		Follow-up days (weeks)									I ² [w/b]	σ [w/b]	MO D
	0-6 (0-1)	7-28 (1-4)	84-111 (12-16)	112-139 (16-20)	140-167 (20-24)	168-195 (24-28)	196-223 (28-32)	224-251 (32-36)	252-279 (36-40)	280-307 (40-44)	308+ (44+)			
Any vaccine	78%	89%†	74%*	71%*	87%							[34, 64]	[0.35, 0.47]	Yes
	[60, 88]	[82, 93]	[60, 83]	[51, 83]	[60, 95]									
	[17, 94]	[59, 97]	[8, 93]	[-6, 92]	[33, 97]									
	1 (4)	7 (11)	8 (15)	4 (5)	1 (1)									
Any mRNA vaccine	79%	90%	78%*	75%*	87%							[52, 45]	[0.35, 0.33]	Yes
	[58, 90]	[85, 93]	[69, 84]	[60, 84]	[62, 95]									
	[31, 94]	[71, 96]	[37, 92]	[25, 91]	[44, 97]									
	1 (2)	7 (12)	8 (14)	4 (5)	1 (1)									
Any adenovirus	82%		76%											
	[54, 93]		[72, 80]											
	1 (2)		1 (2)											
BNT162b2		86%	77%*	71%*	85%							[41, 56]	[0.28, 0.33]	Yes
		[78, 91]	[65, 85]	[51, 83]	[60, 94]									
		[60, 95]	[37, 92]	[17, 90]	[43, 96]									
		5 (7)	5 (7)	3 (3)	1 (1)									
mRNA-1273		90%	84%	77%										
		[87, 93]	[78, 88]	[63, 86]										
		1 (1)	1 (1)	1 (1)										

ChAdOx1	82%		76%											
	[54, 93]		[72, 80]											
	1 (2)		1 (2)											
Ad26.COV2.S														

Question 2c-1: VE against COVID-19 deaths change over time (>84 days) in individuals who have received a complete primary COVID-19 vaccine series plus one additional dose – comparison to unvaccinated

Table A2-6: VE against COVID-19 deaths for completed primary series and one additional dose (all strains)

	Baseline days (weeks)		Follow-up days (weeks)									I ² [w/b]	σ [w/b]	MO D
	0-6 (0-1)	7-28 (1-4)	84-111 (12-16)	112-139 (16-20)	140-167 (20-24)	168-195 (24-28)	196-223 (28-32)	224-251 (32-36)	252-279 (36-40)	280-307 (40-44)	308-335 (44-48)			
Any vaccine	83%	87%	86%	85%	73%							[61, 31]	[0.31, 0.22]	Yes
	[67, 91]	[74, 93]	[76, 92]	[66, 93]	[-37, 96]									
	[49, 94]	[60, 96]	[61, 95]	[50, 95]	[-48, 96]									
	1 (4)	2 (2)	3 (6)	1 (1)	1 (1)									
Any mRNA vaccine	81%	87%	87%	84%	76%							[0, 85]	[0.00, 0.24]	Yes
	[63, 90]	[80, 92]	[81, 92]	[75, 90]	[-35, 96]									
	[52, 92]	[73, 94]	[73, 94]	[66, 92]	[-42, 97]									
	1 (2)	2 (2)	3 (4)	1 (1)	1 (1)									
Any adenovirus	83%		82%											
	[61, 93]		[50, 94]											
	1 (2)		1 (2)											
BNT162b2		87%	87%	83%	78%							[0, 96]	[0.00, 0.41]	Yes
		[48, 97]	[47, 97]	[33, 96]	[-83, 99]									
		[-19, 99]	[-21, 99]	[-38, 98]	[-89, 99]									
		2 (2)	2 (2)	1 (1)	1 (1)									
mRNA-1273														

ChAdOx1	83%		82%												
	[61, 93]		[50, 94]												
	1 (2)		1 (2)												
Ad26.COVS.S															

Appendix 3: Details of meta-analytic procedure

Reports were included for meta-analytic review when they met all the following criteria:

1. Reported vaccine effectiveness (VE), risk ratio (RR), odds risk (OR) or hazard ratio (HR) data, along with corresponding confidence intervals (CIs)
2. Provided the above with regards to (a) cases, (b) hospitalisations, or (c) deaths due to COVID-19
3. Reported data for baseline (0-42 days since second dose of vaccine) and for at least one follow-up time point (≥ 112 days since complete primary series of a vaccine or ≥ 84 days since an additional dose of the vaccine)

All estimates, and their corresponding CIs, were converted to risk ratios (RRs). RRs were then log-transformed for use in meta-analytic models, and the CIs were used to derive a standard error for each effect size.

Random effects models were used to calculate pooled effects, as we anticipated meaningful heterogeneity across studies and group comparisons (e.g., follow-up time points). When data was available, subgroup analyses were computed to examine how patterns of findings varied according to:

1. Type of vaccine
 - a) Overall (i.e., any vaccine)
 - b) mRNA vaccines
 - i) Moderna (mRNA-1273)
 - ii) Pfizer-BioNTech (BNT162b2)
 - c) Any adenovirus
 - i) AstraZeneca/COVISHIELD (AZD1222/ChAdOx1)
 - ii) Janssen (Johnson & Johnson: Ad26.COV2.S)
2. Variants of Concern (VOC):
 - a) Any variant
 - b) Omicron

All analyses for the current report were computed using the *metafor* package in R (version 4.1.2). As of update 10.6 of our review, we used a multi-step procedure to determine which model to report according to the subgroups above.

First, when multiple studies were available for a given subgroup (e.g., when examining the effects of any vaccine type on cases), we computed three-level meta-analytic models, nesting effect sizes within studies. These models used the Restricted Maximum Likelihood procedure to obtain estimates. Moderation tests were computed to examine whether vaccine effectiveness (VE) at each follow up time period differed from the two baseline time points (e.g., 0-14 days and 14-42 days for the VE of the primary series).

Second, when only a single study was available for a given subgroup, separate random-effects models were used to estimate VE at each time point, treating all cohorts as independent groups. These models were computed using the DerSimonian and Laird procedure. This secondary option is equivalent to the meta-analytic procedure used in older versions of our review (i.e., prior to version 10.6).

Third, in cases when multiple studies were available, but the three-level models failed to produce results (e.g., due to model convergence difficulties), the results of random effects models were used instead (as per step 2). This third scenario did not occur for any of the models reported in version 10.6 of our report.

When our results tables indicate that moderation was formally tested, the subgroup employed three-level models. When tables indicate that no moderation was formally tested, the subgroups employed random effects models.

Imputations used in order to compute meta-analytic models

In order to be included in meta-analytic models, each effect size extracted from reports needed to be accompanied by a corresponding standard error (SE). The standard error was always derived from the confidence intervals provided. However, several values were not usable for computation and needed adjustment. Similarly, a few VE point-estimates required adjustments to compute models. The table that follows lists each of the adjustments we applied, along with our rationale.

Problem Case	Explanation and Solution
1. Provided CIs were asymmetric (when computed as log RRs).	Because standard errors (SEs) were derived from CIs, asymmetric CIs would produce two competing standard errors (SEs). To resolve this, we calculated the SE implied by both the upper and lower CI, and selected the larger of the 2 SEs for use in models. This represents the more conservative approach (assuming more, rather than less, error in estimates extracted).
2. VE estimates were negative in magnitude (or, equivalently, RRs were >1.0 in magnitude). Applies to point estimates and CIs.	<p>If the original metric was an RR, OR, or HR, this was not a problem, and the estimate could be used directly in analyses.</p> <p>When the original metric was a VE, we needed to take into account the calculating VEs typically assumes a positive number, where:</p> $VE = (1-RR)*100$ <p>When an RR is less than 1, the plausible range of VE is 0% to 100%. If we extend the logic of VE to the negative range, then we could assume that VE equal to -100% represents non-vaccination offering the highest protection. From this extension, VE can have a range of -100% to 100%.</p> <p>However, VE is negative, its relation to RR would need to be adjusted as the RR metric is unbounded in the positive range (ranges 0 to infinity). Consequently, when VE is negative (or RR>1), we used the following formulas to convert between the two metrics.</p> <p>A negative VE is assumed to reflect the following formula:</p> $VE = (-1 + 1/RR)*100$ $RR = 1 / (VE/100 + 1)$
3. VE point estimate was 100%, or RR point estimate was 0.	Both these cases make it impossible to calculate a log-transformed RR (as the transformation cannot be applied to a value of zero). We therefore imputed VE estimates of 100% with a VE of 99.5% (equivalent RR would be .005). The choice of 99.5% stemmed from a recognition that VE is often reported without decimals, and that a value of 99.5% would be likely to be rounded up. This decision is more conservative than using a value between 99.5 and 100).

<p>4. Upper CI was equal to VE = 100% or RR = 0.</p>	<p>Causes a similar problem as when the point estimate is VE = 100%. If a lower CI was available, we used that CI instead to derive the SE. Otherwise, we imputed a value of VE = 99.9% (or RR = .001). This allowed us to derive SEs while recognizing that the value may approach 100%.</p>
<p>5. Lower CI is VE = 100 or RR = 0.</p>	<p>Causes a similar problem as when the point estimate is VE = 100%. If an upper CI was available, we used that CI instead to derive the SE. Otherwise, we imputed a value of VE = 97.5% (or RR = .025). This allowed us to derive SEs while recognizing that the value may approach 100%. The values of 99.9% for the upper CI and 97.5% for the lower CI were chosen to be symmetrical (in the log RR scale) around the value of VE = 100%.</p>
<p>6. A study cohort had a point estimate for VE available, but no CIs.</p>	<p>No SE could be computed for such effects, and they were removed from the meta-analytic models. We further flagged these cases to comment on and acknowledge within our report.</p>
<p>7. A study cohort had a point estimate, but only one CI.</p>	<p>In such cases, we used the SE suggested by the CI that was provided.</p>
<p>8. A CI was reported as -/+ Infinity or a CI was reported as less than - 100% (i.e. -189.8%)</p>	<p>We treated “infinity” or “less than -100%” as a missing value. We reasoned such estimates would have large enough errors as to be too imprecise to warrant including within our models.</p>
<p>9. One of the CIs was equal in value to the point estimate.</p>	<p>When a CI is equal in magnitude to the point estimate, the implied standard error (SE) is effectively zero. SEs of zero cannot be used in analyses, so we used the other (provided) CI to derive an SE. This rule can be seen as a specific case of rule #1.</p>
<p>10. Both CIs were equal in magnitude to the point estimate.</p>	<p>When both CIs are equal in magnitude to the point estimate, both imply a standard error (SE) of zero, which cannot be used in meta-analytic models. Since SEs of zero are not usually plausible, such occurrences were taken to be artifacts of rounding estimates in reporting when SE was very low. Because low SEs are particularly valuable in meta-analytic reviews, we sought to retain these studies while accounting for this. Our solution was to add a 5 beyond the last decimal of the upper CI reported, and subtract a 5 beyond the last decimal of the lower CI reported. For example: [CI = 15.5 - 15.5] -> [CI = 15.45 - 15.55] [CI = 15 - 15] -> [CI = 14.5 - 15.5] This rule was derived assuming that these cases derived from rounding error (i.e., rounding the imputed values to the right to have one fewer decimal point would lead to the values on the left). This rule allowed us to retain estimates for meta-analytic modeling while accounting for the fact that these studies would have small SE values.</p>

	Since 2 CIs were imputed, the meta-analysis used the whichever produced the larger SE as per rule #1.
11. The point estimate was outside the range of the CI.	This was assumed to be an error in reporting. We thus operated under the assumption that the point-estimate was accurate and used the CI that had a plausible value to derive SEs (e.g., the upper CI if it was higher than the point estimate, or the lower CI if it was below the point estimate).

Indices of Heterogeneity

As of version 10.7 of our review, we are computing three indices of effect size heterogeneity to qualify the findings from our meta-analytic models. These indices are computed whenever we produced three-level meta-analytic models (i.e., they were not produced for random-effects models) and include:

1. **95% Prediction Intervals (PI).** Prediction intervals reflect the likely range within which a future effect size (i.e., a VE estimate from a new study, or VE observed in a new context) would be expected to fall. Prediction intervals are produced for every point estimate within the models (i.e., at each time point) and account for both sampling error and true variability in the population of effect sizes we are studying. Prediction intervals are represented in the same unit as our other estimates (i.e., VE as a percentage).
 - a) *Formal Interpretation:* If we were to repeat our sampling of effect sizes (i.e., from primary studies) an infinite number of times, and then collected a new data point (i.e., a VE estimate from a new study), then 95% of the generated prediction intervals would be expected to capture the new data point.

1. **σ (Sigma):** σ represents the estimated standard deviation in the (true) population of VE (i.e., without sampling error). The unit of this index is the same as used during the meta-analytic process; in our case, σ is provided in log odds ratios. In three-level models, σ can be divided into two levels.
 - a) *Within-Study σ :* Indicates variability in VE within studies.
 - b) *Between-Study σ :* Indicates variability in VE between studies. The between-study σ is comparable in interpretation to the tau (τ) parameter produced in traditional random effects models.

1. **I^2 .** The value of I^2 (which ranges from 0 to 1) captures the proportion of variability in observed effect sizes which cannot be attributed to sampling error. For example, a value of 0 indicates that most of the variability in VE estimates may be due to sampling errors, and a value of 1 indicates that most of the variability can be attributed to true variation in VE across studies (accounting for any sampling error). This relative index of heterogeneity can be broken down into two levels:
 - a) *Within-Study I^2 :* Indicates the relative heterogeneity in VE observed within studies.
 - b) *Between-Study I^2 :* Indicates the relative heterogeneity in VE observed between studies. The between-study I^2 is comparable in interpretation to the I^2 produced in traditional random effects models.

Appendix 4: Definitions and glossary

Full vaccine series: Receipt of one of the following COVID-19 vaccines authorised by Health Canada:

- Two doses of AstraZeneca/COVISHIELD (AZD1222/ChAdOx1), Moderna (mRNA-1273), or Pfizer-BioNTech (BNT162b2);
- One dose of Janssen (Johnson & Johnson: Ad26.COV2.S); or
- A combination of the above

Fully vaccinated: A person who is at least 14 days post having received one of the following vaccine schedules:

- the full series of a COVID-19 vaccine authorized by Health Canada (see above); or
- the full series of the above vaccines plus an additional dose in immunocompromised individuals

Additional dose: A person who has received:

- a full series of a COVID-19 vaccine authorised by Health Canada (see above) plus an additional dose of a COVID-19 vaccine authorised by Health Canada; or
- the full series of the above vaccines plus two additional doses in immunocompromised individuals

Confirmed infection: A person with confirmation of infection with SARS-CoV-2 documented by the detection of at least 1 specific gene target by a validated laboratory-based nucleic acid amplification test (NAAT) assay (e.g. real-time PCR or nucleic acid sequencing) performed at a community, hospital, or reference laboratory (the National Microbiology Laboratory or a provincial public health laboratory) (2).

Symptomatic illness: A person with confirmation of SARS-CoV-2 infection, presenting symptoms that vary in type, frequency, and severity. The most common symptoms include fever, chills, new or worsening cough, fatigue, headache, and gastrointestinal symptoms (3).

Asymptomatic infection: A person with confirmation of SARS-CoV-2 infection but with no presentation of symptoms in the course of the disease.

Hospitalisation due to COVID-19: Inpatient admission to a hospital and/or ICU unit, associated with laboratory-confirmed SARS-CoV-2 infection.

Death due to COVID-19: Death resulting from a clinically compatible illness in a probable or confirmed COVID-19 case, with no presence of clear alternative causes unrelated to COVID-19 (e.g., trauma, poisoning, drug overdose).

Variants of concern (VOC): A SARS-CoV-2 variant is considered a VOC in Canada based on a set of criteria including increased transmissibility or detrimental change in COVID-19 epidemiology, increased virulence, decreased effectiveness of vaccines, and so on. As of August 05, 2021, Canada has designated the following SARS-CoV-2 variants as VOCs: Alpha (B.1.1.7), Beta (B.1.351, B.1.351.1., B.1.351.2, B.1.351.3, B.1.351.4), Gamma (P.1, P.1.1, P.1.2), Delta (B.1.617.2, AY.1, AY.2, AY.3, AY.3.1), and Omicron (B.1.1.529, BA.1, BA.2, B.A.3).

Vaccine effectiveness (VE): A measure of how well a vaccine protects people from getting the outcome of interest in real-world practice (For example: VE of 92% against infection means that 92% of people will be protected from becoming infected with COVID and 8% of people will still be at risk of becoming infected with COVID). In the context of the current report, we have utilised the term vaccine effectiveness to cover all studies. However, we are aware that the studies that have been included range from efficacy

through to effectiveness studies. We decided to use this terminology as it is consistent with how most evidence synthesis products describe these studies. To be consistent with this, in the French summary we have utilised the term efficacité, and it is noted that in French there is no distinction between the translations of efficacy and effectiveness.

AZ: AstraZeneca

CI: Confidence Intervals

Delta: variant of concern B.1.617.2

HCW: Healthcare workers

LTC: Long-term care

LTCF: Long-term care facility

MOD: Moderna

Obs: observational study

Omicron: variant of concern B.1.1.529

OR: odds ratio

PF: Pfizer

RCT: Randomized controlled trial

RoB: Risk of Bias

UK: United Kingdom

USA: United States of America

VOI: variant of interest

WHO: World Health Organization

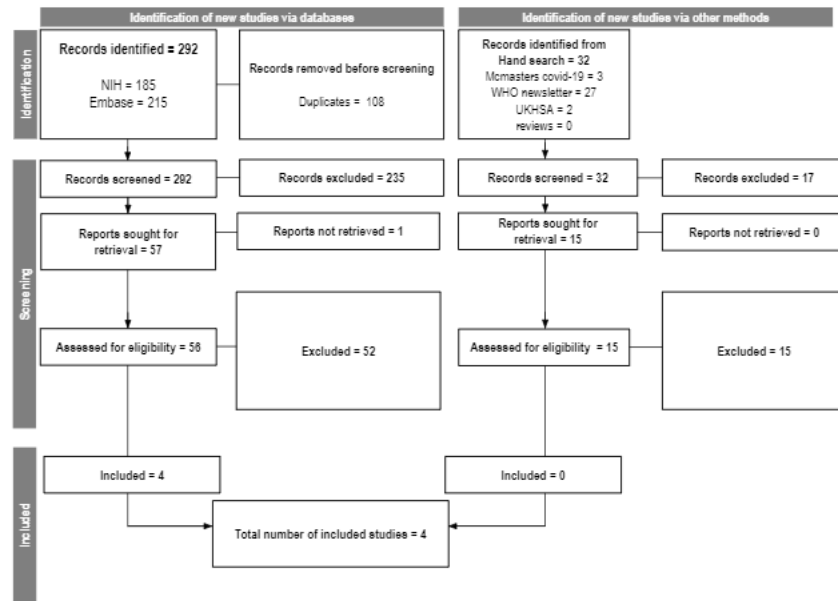
Appendix 5: Critical appraisal process

We appraised the quality of the individual studies using an adapted version of ROBINS-I. This tool classifies the Risk of Bias of a study as **Low, Moderate, Serious, Critical, or No Information**. *Low Risk of Bias indicates High Quality, and Critical Risk of Bias indicates Very Low (insufficient) Quality*. ROBINS-I appraises 7 bias domains and judges each study against an ideal reference randomised controlled trial. To improve the utility of ROBINS-I for assessing studies reporting vaccine effectiveness, we have focused on study characteristics that introduce bias as reported in the vaccine literature (see WHO. Evaluation of COVID-19 vaccine effectiveness. Interim Guidance. 17 March 2021). An overall judgement of “serious” or “critical” is given when the study is judged to be at critical risk of bias in at least one domain. Three or more serious risk of bias domains is given an overall risk of bias of critical.

Appendix 6: Data-extraction template

Study details	
Source	First author of study and year of publication
Location	Country data was collected in
COI	If conflicts of interest were reported
Funding	public or industry
Study type	RCT/cohort/data-linkage/test-negative/case-control/other
Publication format	Peer-reviewed / pre-print / report
Population(s)	general public/LTC/Households/HCW/Other
Total (N)	Total study sample
Age	Description of age of the population
Female	number or %
Definition of cases	How were COVID-19 cases defined
Definition of COVID hospitalisations	How were COVID-19 hospitalisations defined
Definition of COVID deaths	How were COVID-19 deaths defined
Vaccines	Details of what vaccines were included in the study
Booster dose	Did the study report on booster doses (Y/N)
Comparator	What comparison group was used to generate VE
Study calendar time	When was the study actually conducted
Outcomes	
Variant sub-group	Was a specific variant being studied (any, delta, or omicron)
Was VOC sequenced	Yes or no, only applicable if looking at a variant
Outcome	Cases, hospitalisations, or deaths
Specific vaccine	If individual vaccine data is reported
Vaccine class	mRNA, adenovirus, or mixed (reporting mRNA, adenovirus, and/or mixed doses)
Effect measure used	VE, RR, or other
Level of CIs	95% or 99%
Time window	Time since second dose administered
VE outcome	Reported point estimate
Lower CI	Reported lower CI
Upper CI	Reported upper CI
Adjustments	What variables were used to adjust for in analyses
Comments	

Appendix 7a: Flow chart of studies included in the current update:



Appendix 7b: Studies excluded from the current update (from databases and hand search):

Authors	Title	Journal	Reason for exclusion
Andersson et al	Comparative effectiveness of heterologous booster schedules with AZD1222, BNT162b2, or mRNA-1273 vaccines against COVID-19 during omicron predominance in the Nordic countries	medRxiv	wrong study duration
Aoshima et al	Real-world vaccine effectiveness of mRNA vaccines for SARS-CoV-2; a test-negative case-control study in a medium-sized clinic	Human Vaccines and Immunotherapeutic	wrong study duration
Argentina et al	Effectiveness of Covid-19 vaccines in preventing SARS-CoV-2 infection, hospitalizations and death among elderly nursing homes residents in a health area of Madrid	European Geriatric Medicine	wrong study design
Butt et al	Real-World Effectiveness of the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) mRNA Vaccines in Preventing Confirmed Infection in Patients on Chronic Hemodialysis	Clinical Infectious Diseases	wrong study duration
Canetti et al	Immunogenicity and efficacy of fourth BNT162b2 and mRNA1273 COVID-19 vaccine doses; three months follow-up.	Nature communications	wrong study duration
Carazo et al	Single-Dose Messenger RNA Vaccine Effectiveness Against Severe Acute Respiratory Syndrome Coronavirus 2 in Healthcare Workers Extending 16 Weeks Postvaccination: A Test-Negative Design from Quebec, Canada	Clinical Infectious Diseases	wrong outcome

Carazo et al	Prior infection- and/or vaccine-induced protection against Omicron BA.1, BA.2 and BA.4/BA.5-related hospitalisations in older adults: a test-negative case-control study in Quebec, Canada	medRxiv	wrong study duration
Catala et al	Observational methods for COVID-19 vaccine effectiveness research: a trial emulation and empirical evaluation	medRxiv	wrong study duration
Cegolon et al	Primary SARS-CoV-2 Infections, Re-infections and Vaccine Effectiveness during the Omicron Transmission Period in Healthcare Workers of Trieste and Gorizia (Northeast Italy), 1 December 2021-31 May 2022	Viruses	wrong study duration
Chambers et al	COVID-19 Vaccine Effectiveness among a Population-based Cohort of People Living with HIV	AIDS (London, England)	previously included
Chemaitelly et al	Long-term COVID-19 booster effectiveness by infection history and clinical vulnerability and immune imprinting	medRxiv	wrong study duration
Dalton et al	Relationships between social vulnerability and COVID-19 vaccination coverage and vaccine effectiveness	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	baseline is too long
Desai et al	Effect of 2 vs 3 Doses of COVID-19 Vaccine in Patients With Inflammatory Bowel Disease: A Population-based Propensity Matched Analysis	Inflammatory bowel diseases	wrong outcome
Dickerman et al	Comparative effectiveness of third doses of mRNA-based COVID-19 vaccines in US veterans	Nature Microbiology	wrong comparator
E.t et al	Protection against Omicron from Vaccination and Previous Infection in a Prison System	The New England journal of medicine	wrong outcome
Embi et al	Effectiveness of COVID-19 Vaccines at Preventing Emergency Department or Urgent Care Encounters and Hospitalizations Among Immunocompromised Adults: An Observational Study of Real-World Data Across 10 US States from August-December 2021	medRxiv	previously included
Experton et al	Enhanced Vaccine Effectiveness during the Delta Phase of the COVID-19 Pandemic in the Medicare Population Supports a Multilayered Prevention Approach.	Biology	data in figures
Gazit et al	BNT162b2 mRNA Vaccine Effectiveness Given Confirmed Exposure: Analysis of Household Members of Coronavirus Disease 2019 Patients	Clinical Infectious Diseases	wrong study design

Gim et al	Reduction in COVID-19 Vaccine Effectiveness against SARS-CoV-2 Variants in Seoul according to Age, Sex, and Symptoms: A Test-Negative Case-Control Study	International Journal of Environmental Research and Public Health	wrong outcome
Grewal et al	Effectiveness and Duration of Protection of a Fourth Dose of COVID-19 mRNA Vaccine among Long-Term Care Residents in Ontario, Canada	The Journal of infectious diseases	baseline is too long
Hsu et al	Primary and booster vaccination in reducing severe clinical outcomes associated with Omicron Na ⁺ ve infection.	Journal of infection and public health	wrong outcome
Huang et al	Comparing hybrid and regular COVID-19 vaccine-induced immunity against the Omicron epidemic	npj Vaccines	wrong outcome
Iersel et al	Number of COVID-19 hospitalisations averted by vaccination: Estimates for the Netherlands, January 6, 2021 through August 30, 2022	medRxiv	wrong outcome
Intawong et al	Effectiveness of heterologous third and fourth dose COVID-19 vaccine schedules for SARS-CoV-2 infection during delta and omicron predominance in Thailand: A test-negative, case-control study.	The Lancet regional health. Southeast Asia	data in figures
Ioannou et al	Effectiveness of mRNA COVID-19 Vaccine Boosters Against Infection, Hospitalization, and Death: A Target Trial Emulation in the Omicron (B.1.1.529) Variant Era.	Annals of internal medicine	data in figures
Kataria et al	Safety, immunogenicity & effectiveness of the COVID-19 vaccine among healthcare workers in a tertiary care hospital.	The Indian journal of medical research	data in figures
Khanam et al	Measuring the Effectiveness of COVID-19 Vaccines Used during a Surge of the Delta Variant of SARS-CoV-2 in Bangladesh: A Test-Negative Design Evaluation	Vaccines	wrong outcome
Kim et al	Messenger RNA Vaccine Effectiveness Against Coronavirus Disease 2019 Among Symptomatic Outpatients Aged ≥ 16 Years in the United States, February-May 2021	Journal of Infectious Diseases	wrong outcome
Kirsebom et al	Effectiveness of ChAdOx1-S COVID-19 booster vaccination against the Omicron and Delta variants in England.	Nature communications	previously included
Lau et al	Population-based sero-epidemiological estimates of real-world vaccine effectiveness against Omicron infection in an infection-naive population, Hong Kong, January to July 2022	medRxiv	wrong outcome
Lerner et al	mRNA Vaccination Decreases COVID-19-Associated Morbidity and Mortality Among Organ Transplant Recipients: A Contemporary Cohort Study.	Open forum infectious diseases	wrong outcome
Lind et al	Association between primary or booster COVID-19 mRNA vaccination and Omicron lineage BA.1	PLoS Medicine	no baseline

	SARS-CoV-2 infection in people with a prior SARS-CoV-2 infection: A testnegative case-control analysis		
Link-Gelles et al	Effectiveness of Bivalent mRNA Vaccines in Preventing Symptomatic SARS-CoV-2 Infection - Increasing Community Access to Testing Program, United States, September-November 2022.	MMWR. Morbidity and mortality weekly report	wrong outcome
M, Pinto-Alvarez et al	Real-world Evidence of COVID-19 Vaccines Effectiveness in Solid-organ Transplant Recipient Population in Colombia: A Study Nested in the Esperanza Cohort	Transplantation	wrong study duration
McConeghy et al	Infections, Hospitalizations, and Deaths among US Nursing Home Residents with vs Without a SARS-CoV-2 Vaccine Booster	JAMA Network Open	no clear baseline and follow up data
Mimura et al	Effectiveness of a Third Dose of COVID-19 mRNA Vaccine During the Omicron BA.1- and BA.2-Predominant Periods in Japan: The VENUS Study.	Open forum infectious diseases	duplicate
Miyauchi et al	Is a Booster Dose of COVID-19 Vaccines Effective on Newly Dominant Omicron Subvariants Among University Students? Comparison Between BA.1 and BA.2 Dominancy.	American journal of infection control	wrong outcome
Muhsen et al	Effectiveness of BNT162b2 mRNA Coronavirus Disease 2019 (COVID-19) Vaccine Against Acquisition of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) among Healthcare Workers in Long-Term Care Facilities: A Prospective Cohort Study	Clinical Infectious Diseases	wrong study duration
Nittayasoot et al	Real-World Effectiveness of COVID-19 Vaccines against Severe Outcomes during the Period of Omicron Predominance in Thailand: A Test-Negative Nationwide Case-Control Study	Vaccines	wrong study design
Peebles et al	Pfizer-BioNTech COVID-19 vaccine effectiveness against SARS-CoV-2 infection among long-term care facility staff with and without prior infection in New York City, January-June 2021.	The Journal of infectious diseases	wrong study duration
Rane et al	Effectiveness of Covid-19 vaccines against symptomatic and asymptomatic SARS-CoV-2 infections in an urgent care setting	Vaccine	data in calendar time
Risk et al	Comparative Effectiveness of Coronavirus Disease 2019 (COVID-19) Vaccines Against the Delta Variant	Clinical Infectious Diseases	only one time point
Sandhu et al	COVID-19 AND NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD): A SINGLE CENTER EXPERIENCE DURING THE VACCINATION ERA	Hepatology	no pdf
Shrestha et al	Effectiveness of the Coronavirus Disease 2019 (COVID-19) Bivalent Vaccine	medRxiv	wrong study duration

StÅrke et al	Cohort Profile: The Danish National Cohort Study of Effectiveness and Safety of SARS-CoV-2 vaccines (ENFORCE).	BMJ open	previously excluded
Stoliaroff-Pepin et al	Effectiveness of vaccines in preventing hospitalization due to COVID-19: A multicenter hospital-based case-control study, Germany, June 2021 to January 2022.	Vaccine	wrong study duration
Tenforde et al	Early Estimates of Bivalent mRNA Vaccine Effectiveness in Preventing COVID-19-Associated Emergency Department or Urgent Care Encounters and Hospitalizations Among Immunocompetent Adults - VISION Network, Nine States, September-November 2022.	MMWR. Morbidity and mortality weekly report	wrong study duration
The OpenSAFELY Collaborative et al	Comparative effectiveness of two- and three-dose schedules involving AZD1222 and BNT162b2 in people with kidney disease: a linked OpenSAFELY and UK Renal Registry cohort study	medRxiv	wrong comparator
Tsang et al	Effectiveness of BNT162b2 and CoronaVac COVID-19 vaccination against asymptomatic and symptomatic infection of SARS-CoV-2 omicron BA.2 in Hong Kong: a prospective cohort study	The Lancet. Infectious diseases	wrong study duration
Tseng et al	Effectiveness of mRNA-1273 against infection and COVID-19 hospitalization with SARS-CoV-2 Omicron subvariants: BA.1, BA.2, BA.2.12.1, BA.4, and BA.5	medRxiv	already included
Vargas et al	The Effectiveness of Covid 19 Vaccines Against New Onset Atrial Fibrillation in Hospitalized Covid 19 Patients	Circulation	conference abstract
W et al	Effectiveness of mRNA vaccines against SARS-CoV-2 infections during the periods of Delta and Omicron variant predominance in Japan: The VENUS Study	International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases	wrong study duration

Appendix 8: Studies excluded from the updates 1-13 (from databases only):

Authors	Title	Journal	Reason for exclusion
Abbasi	COVID-19 mRNA Vaccines Blunt Breakthrough Infection Severity	JAMA - Journal of the American Medical Association	wrong intervention
Abbasi	Oldest Adults Need 2 mRNA Vaccine Doses to Neutralize SARS-CoV-2	JAMA - Journal of the American Medical Association	wrong publication type
Abdool Karim & de Oliveira	New SARS-CoV-2 variants - Clinical, public health, and vaccine implications	New England Journal of Medicine	wrong intervention
Absalon et al.	Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine. Reply	The New England Journal of Medicine	wrong intervention
Abu Raddad et al.	Effectiveness of BNT162b2 and mRNA-1273 COVID-19 boosters against SARS-CoV-2 Omicron (B.1.1.529) infection in Qatar	Preprint - medRxiv	wrong outcome
Abu Raddad et al.	Waning of mRNA-1273 vaccine effectiveness against SARS-CoV-2 infection in Qatar	WHO COVID-19 Research Database	delayed exclusion - this is a letter of correspondence that refers to an original study
Abu Raddad et al.	Effect of vaccination and of prior infection on infectiousness of vaccine breakthrough infections and reinfections	Preprint - medRxiv	wrong outcome
Abu Raddad et al.	Protection afforded by the BNT162b2 and mRNA-1273 COVID-19 vaccines in fully vaccinated cohorts with and without prior infection	Preprint - medRxiv	wrong intervention
Abu Raddad et al.	Protection offered by mRNA-1273 versus BNT162b2 vaccines against SARS-CoV-2 infection and severe COVID-19 in Qatar	Preprint - medRxiv	wrong comparator
Abu-Raddad et al.	Effect of mRNA Vaccine Boosters against SARS-CoV-2 Omicron Infection in Qatar	New England Journal of Medicine	wrong study duration
Abu-Raddad et al.	Waning mRNA-1273 Vaccine Effectiveness against SARS-CoV-2 Infection in Qatar	New England Journal of Medicine	wrong publication type
Abu-Raddad et al.	Effectiveness of BNT162b2 and mRNA-1273 COVID-19 boosters against SARS-CoV-2 Omicron (B.1.1.529) infection in Qatar	Preprint - medRxiv	wrong study duration
Abu-Raddad et al.	Effect of mRNA Vaccine Boosters against SARS-CoV-2 Omicron Infection in Qatar	The New England journal of medicine	wrong study duration
Abu-Raddad et al.	Protection offered by mRNA-1273 versus BNT162b2 vaccines against SARS-CoV-2 infection and severe COVID-19 in Qatar	Preprint - medRxiv	wrong comparator
Abu-Raddad et al.	Effectiveness of the BNT162b2 Covid-19 Vaccine against the B.1.1.7 and B.1.351 Variants	The New England Journal of Medicine	wrong intervention

Abu-Raddad et al.	Pfizer-BioNTech mRNA BNT162b2 Covid-19 vaccine protection against variants of concern after one versus two doses	Journal of Travel Medicine	wrong intervention
Abu-Sinni et al.	COVID-19 vaccine - Long term immune decline and breakthrough infections	Vaccine	wrong comparator
Ackland et al.	Evolution of case fatality rates in the second wave of coronavirus in England: effects of false positives, a Variant of Concern and vaccination	Preprint - medRxiv	wrong intervention
Adam et al.	Correction to: SARS-CoV-2 mRNA Vaccine Effectiveness in Health Care Workers by Dosing Interval and Time Since Vaccination: Test-Negative Design, British Columbia, Canada	Open forum infectious diseases	wrong publication type
Adam et al.	Erratum: SARS-CoV-2 mRNA Vaccine Effectiveness in Health Care Workers by Dosing Interval and Time Since Vaccination: Test-Negative Design, British Columbia, Canada (Open Forum Infectious Diseases (2022) 9: 5 DOI: 10.1093/ofid/ofac178)	Open Forum Infectious Diseases	wrong publication type
Adams et al	Vaccine effectiveness of primary series and booster doses against covid-19 associated hospital admissions in the United States: living test negative design study.	BMJ (Clinical research ed.)	wrong comparator
Adams et al.	Vaccine Effectiveness of Primary Series and Booster Doses against Omicron Variant COVID-19-Associated Hospitalization in the United States	Preprint - medRxiv	wrong study duration
Adhikari & Spong	COVID-19 Vaccination in Pregnant and Lactating Women	JAMA - Journal of the American Medical Association	wrong study design
Adibi et al.	Continuing COVID-19 Vaccination of Front-Line Workers in British Columbia with the AstraZeneca Vaccine: Benefits in the Face of Increased Risk for Prothrombotic Thrombocytopenia	Preprint - medRxiv	wrong outcome
Ailsworth et al	Enhanced SARS-CoV-2 IgG durability following COVID-19 mRNA booster vaccination and comparison of BNT162b2 with mRNA-1273.	Annals of allergy	wrong outcome
Akaishi et al.	Effectiveness of mRNA COVID-19 Vaccines in Japan during the Nationwide Pandemic of the Delta Variant	Tohoku Journal of Experimental Medicine	wrong study duration (follow-up period not an average above 112 days)
Akaishi et al.	Effectiveness of mRNA COVID-19 Vaccines in Japan During the Nationwide Pandemic of the Delta Variant	The Tohoku journal of experimental medicine	wrong outcome, wrong comparator

Akaishi et al.	Effectiveness of third vaccine dose for coronavirus disease 2019 during the Omicron variant pandemic: a prospective observational study in Japan	Scientific reports	wrong study duration
Al Qahtani et al.	Post-vaccination outcomes in association with four COVID-19 vaccines in the Kingdom of Bahrain	Scientific reports	wrong study duration
Al Qahtani et al.	Morbidity and mortality from COVID-19 post-vaccination breakthrough infections in association with vaccines and the emergence of variants in Bahrain	Preprint - Research Square	wrong intervention
Alali et al.	Effectiveness of BNT162b2 and ChAdOx1 Vaccines against Symptomatic COVID-19 among Healthcare Workers in Kuwait: A Retrospective Cohort Study	Healthcare (Basel, Switzerland)	wrong outcome
Alali et al.	Effectiveness of BNT162b2 and ChAdOx1 vaccines against symptomatic COVID-19 among Healthcare Workers in Kuwait: A retrospective cohort study	Preprint - medRxiv	wrong intervention
Albach et al.	Successful BNT162b2 booster vaccinations in a patient with rheumatoid arthritis and initially negative antibody response	Annals of the Rheumatic Diseases	wrong study design
Aldridge et al.	Waning of SARS-CoV-2 antibodies targeting the Spike protein in individuals post second dose of ChAdOx1 and BNT162b2 COVID-19 vaccines and risk of breakthrough infections: analysis of the Virus Watch community cohort	Preprint - medRxiv	wrong comparator
Alencar et al.	High Effectiveness of SARS-CoV-2 Vaccines in Reducing COVID-19-Related Deaths in over 75-Year-Olds, Ceara State, Brazil	Tropical Medicine and Infectious Disease	wrong intervention
Alholm et al.	SARS-CoV-2 vaccination in gynecologic oncology	European Journal of Gynaecological Oncology	wrong publication type
Ali et al.	Disease severity and efficacy of homologous vaccination among patients infected with SARS-CoV-2 Delta or Omicron VOCs, compared to unvaccinated using main biomarkers	Journal of Medical Virology.	wrong outcome, wrong study design
Ali et al.	Evaluation of mRNA-1273 SARS-CoV-2 Vaccine in Adolescents	The New England Journal of Medicine	wrong intervention
Alkhafaji et al.	The Impact of COVID-19 Vaccine on Rate of Hospitalization and Outcome of COVID-19 Infection in a Single Center in the Eastern Province of Saudi Arabia	Research Square	wrong population
Allen et al.	Comparative transmission of SARS-CoV-2 Omicron (B.1.1.529) and Delta (B.1.617.2) variants and the impact of vaccination: national cohort study, England	Preprint - medRxiv	wrong study duration

Al-Momani et al	Effectiveness of Pfizer/BioNTech and Sinopharm COVID-19 vaccines in reducing hospital admissions in prince Hamza hospital, Jordan.	Frontiers in public health	wrong study duration
Almufty et al.	COVID-19 vaccine breakthrough infection among fully vaccinated healthcare workers in Duhok governorate, Iraqi Kurdistan: A retrospective cohort study	Journal of Medical Virology	wrong outcome
Alroy-Preis et al.	Impact and effectiveness of mRNA BNT162b2 vaccine against SARS-CoV-2 infections and COVID-19 cases, hospitalisations, and deaths following a nationwide vaccination campaign in Israel: an observational study using national surveillance data	The Lancet	wrong intervention
AlRuthia et al.	Demographic Characteristics and Status of Vaccinated Individuals with a History of COVID-19 Infection Pre- or Post-Vaccination: A Descriptive Study of a Nationally Representative Sample in Saudi Arabia	Vaccines	wrong comparator
Altarawneh et al.	Effects of Previous Infection and Vaccination on Symptomatic Omicron Infections	New England Journal of Medicine	wrong study duration
Altarawneh et al.	Effects of Previous Infection and Vaccination on Symptomatic Omicron Infections	The New England journal of medicine	wrong study duration
Altarawneh et al.	Effects of Previous Infection and Vaccination on Symptomatic Omicron Infections	The New England journal of medicine	wrong study duration
Altarawneh et al.	Effect of prior infection, vaccination, and hybrid immunity against symptomatic BA.1 and BA.2 Omicron infections and severe COVID-19 in Qatar	Preprint - medRxiv	wrong study duration
Altmann et al.	Immunity to SARS-CoV-2 variants of concern	Science	wrong publication type
Alves et al	Immunogenicity and safety of a 4th homologous booster dose of a SARS-CoV-2 recombinant spike protein vaccine (NVX-CoV2373): a phase 2, randomized, placebo-controlled trial	medRxiv preprint	wrong study duration
Amatya et al.	COVID-19 in fully vaccinated Everest trekkers in Nepal	Journal of Travel Medicine	wrong study design
Amirthalingam et al.	Higher serological responses and increased vaccine effectiveness demonstrate the value of extended vaccine schedules in combating COVID-19 in England	Preprint - medRxiv	wrong intervention
Amit et al.	COVID-19 vaccine efficacy data: solid enough to delay second dose? - Authors' reply	The Lancet	wrong study design
Amit et al.	Early rate reductions of SARS-CoV-2 infection and COVID-19 in BNT162b2 vaccine recipients	The Lancet	wrong intervention

Amodio et al.	Effectiveness of mRNA COVID-19 vaccination against SARS-CoV-2 infection and COVID-19 disease in Sicily over an eight-month period	SSRN	delayed exclusion - unvaccinated group include single-dose and non mRNA vaccines
Amodio et al.	Effectiveness of mRNA COVID-19 Vaccination on SARS-CoV-2 Infection and COVID-19 in Sicily over an Eight-Month Period	Vaccines	wrong study duration
Anderegg et al.	Assessing real-world vaccine effectiveness against severe forms of SARS-CoV-2 infection: an observational study from routine surveillance data in Switzerland	Swiss medical weekly	wrong study duration
Andersson et al	Comparative effectiveness of heterologous booster schedules with AZD1222, BNT162b2, or mRNA-1273 vaccines against COVID-19 during omicron predominance in the Nordic countries	WHO newsletter	wrong study duration
Andeweg et al	Protection of COVID-19 vaccination and previous infection against Omicron BA.1, BA.2 and Delta SARS-CoV-2 infections	medRxiv	Previously excluded preprints - new data reported
Andeweg et al.	Protection of COVID-19 vaccination and previous infection against Omicron BA.1 and Delta SARS-CoV-2 infections, the Netherlands, 22 November 2021- 19 January 2022	Preprint - medRxiv	wrong study duration
Andeweg et al.	Protection of COVID-19 vaccination and previous infection against Omicron BA.1 and Delta SARS-CoV-2 infections, the Netherlands, 22 November 2021-19 January 2022	Preprint - medRxiv	wrong study duration
Andrejko et al.	Prevention of Coronavirus Disease 2019 (COVID-19) by mRNA-Based Vaccines Within the General Population of California	Clinical Infectious Diseases	wrong study duration
Andrejko et al.	Waning of two-dose BNT162b2 and mRNA-1273 vaccine effectiveness against symptomatic SARSCoV-2 infection is robust to depletion-of-susceptibles bias	Preprint - medRxiv	already included
Andrejko et al.	Prevention of COVID-19 by mRNA-based vaccines within the general population of California	Clinical Infectious Diseases	wrong intervention
Andrejko et al.	Early evidence of COVID-19 vaccine effectiveness within the general population of California	Hand search; Preprint - medRxiv	wrong intervention
Andrews et al.	Effectiveness of COVID-19 vaccines against the Omicron (B.1.1.529) variant of concern	Preprint - medRxiv	duplicate

Andrews et al.	Effectiveness of COVID-19 vaccines against the Omicron (B.1.1.529) variant of concern	Preprint - medRxiv	wrong comparator
Andrews et al.	Effectiveness of COVID-19 booster vaccines against covid-19 related symptoms, hospitalisation and death in England	Nature medicine	wrong comparator
Angel et al.	Association between Vaccination with BNT162b2 and Incidence of Symptomatic and Asymptomatic SARS-CoV-2 Infections among Health Care Workers	JAMA	wrong intervention
Anjan et al.	Breakthrough COVID-19 infections after mRNA vaccination in Solid Organ Transplant Recipients in Miami, Florida	Transplantation	wrong intervention
Anonymous	Effectiveness of COVID-19 vaccines against hospitalisation with the Omicron variant in adults aged 75 years and older	UKHSA	wrong study duration and Abstract
Anonymous	Corrigendum: COVID-19 Vaccination Breakthrough Infections in a Real-World Setting: Using Community Reporters to Evaluate Vaccine Effectiveness (Infect Drug Resist., (2022), 1, (5167-5182), 10.2147/IDR.S373183)	Infection and Drug Resistance	wrong study design
Anonymous	Erratum: Department of Error (The Lancet (2022) 399(10331) (1254-1264), (S0140673622000113), (10.1016/S0140-6736(22)00011-3))	The Lancet	No PDF available
Anonymous	Exam 2: Effectiveness of SARS-CoV-2 vaccination in a Veterans Affairs Cohort of Inflammatory Bowel Disease Patients with Diverse Exposure to Immunosuppressive Medications	Gastroenterology	wrong publication type
Anonymous et al.	Covid-19 vaccine booster dose: demonstrated clinical efficacy during Delta variant predominance, and no new safety signals	Prescribe International	No pdf found
Araminda & Ramatillah	Evaluation comparison between Astrazeneca and Moderna vaccine's side effects and efficacy among Indonesia society based on sociodemography	International Journal of Applied Pharmaceutics	wrong study design
Aran	Estimating real-world COVID-19 vaccine effectiveness in Israel	Preprint - medRxiv	wrong intervention
Arashiro et al.	COVID-19 vaccine effectiveness against symptomatic SARS-CoV-2 infection during Delta-dominant and Omicron-dominant periods in Japan: a multi-center prospective case-control study (FASCINATE study)	Clinical infectious diseases	wrong study duration
Arashiro et al.	COVID-19 vaccine effectiveness against symptomatic SARS-CoV-2 infection during Delta-dominant and Omicron-dominant periods	Clinical infectious diseases	wrong study duration

	in Japan: a multi-center prospective case-control study (FASCINATE study)		
Arbel et al.	How many lives do COVID vaccines save? Evidence from Israel	American journal of infection control	wrong study design
Arbel et al.	How many lives do COVID vaccines save? Evidence from Israel	Preprint - medRxiv	wrong comparator
Arbel et al.	Effectiveness of a second BNT162b2 booster vaccine against hospitalization and death from COVID-19 in adults aged over 60 years	Nature medicine	wrong study duration
Arnold et al.	Are vaccines safe in patients with Long COVID? A prospective observational study	Preprint - medRxiv	wrong intervention
Arora et al.	Adverse events and breakthrough infections associated with COVID-19 vaccination in the Indian population	Journal of Medical Virology	wrong study duration
Arregoces-Castillo et al.	Effectiveness of COVID-19 vaccines in older adults in Colombia: a retrospective, population-based study of the ESPERANZA cohort	The Lancet. Healthy longevity	wrong outcome
Ashby et al.	Severity of COVID-19 after Vaccination among Hemodialysis Patients: An Observational Cohort Study	Clinical journal of the American Society of Nephrology	wrong study duration
Aslam et al.	Coronavirus disease 2019 vaccination is protective of clinical disease in solid organ transplant recipients	Transplant Infectious Disease	wrong outcome
Aslam et al.	Association of disease severity and death outcome with vaccination status of admitted COVID-19 patients in delta period of SARS-COV-2 in mixed variety of vaccine background	Saudi journal of biological sciences	wrong outcome
Aslam et al.	COVID-19 vaccination is protective of clinical disease in solid organ transplant recipients	Transplant infectious disease	wrong comparator
Auvigne et al.	Serious hospital events following symptomatic infection with Sars-CoV-2 Omicron and Delta variants: an exposed-unexposed cohort study in December 2021 from the COVID-19 surveillance databases in France	Preprint - medRxiv	wrong study duration
Azamgarhi et al.	BNT162b2 vaccine uptake and effectiveness in UK healthcare workers - a single centre cohort study	Nature Communications	wrong intervention
Baden et al.	Efficacy and safety of the mRNA-1273 SARS-CoV-2 vaccine	New England Journal of Medicine	wrong intervention
Baden et al.	Covid-19 in the Phase 3 Trial of mRNA-1273 During the Delta-variant Surge	Preprint - medRxiv	wrong intervention
Bahl et al.	Vaccination reduces need for emergency care in breakthrough COVID-19 infections: A multicenter cohort study	Preprint - medRxiv	wrong intervention
Bahreman et al	Rates of COVID-19-Associated Hospitalization in Immunocompromised Individuals in Omicron-era: A Population-Based	medRxiv	Wrong study duration

	Observational Study Using Surveillance Data in British Columbia, Canada		
Bailly et al.	BNT162b2 mRNA vaccination did not prevent an outbreak of SARS COV-2 variant 501Y.V2 in an elderly nursing home but reduced transmission and disease severity	Clinical Infectious Diseases	wrong intervention
Bajema et al.	Comparative Effectiveness and Antibody Responses to Moderna and Pfizer-BioNTech COVID-19 Vaccines among Hospitalized Veterans - Five Veterans Affairs Medical Centers, United States, February 1-September 30, 2021	MMWR. Morbidity and mortality weekly report	wrong comparator
Bajema et al.	Effectiveness of COVID-19 mRNA Vaccines Against COVID-19-Associated Hospitalization - Five Veterans Affairs Medical Centers, United States, February 1-August 6, 2021	MMWR. Morbidity and mortality weekly report	wrong outcome
Balicer et al.	Effectiveness of the BNT162b2 mRNA COVID-19 Vaccine in Pregnancy	Preprint – Research Square	wrong intervention
Baltas et al.	Post-vaccination COVID-19: A case-control study and genomic analysis of 119 breakthrough infections in partially vaccinated individuals	Clinical Infectious Diseases	wrong intervention
Banon et al.	BNT162b2 Messenger RNA COVID-19 Vaccine Effectiveness in Patients With Inflammatory Bowel Disease: Preliminary Real-World Data During Mass Vaccination Campaign	Gastroenterology	duplicate
Bansal et al.	Duration of COVID-19 mRNA Vaccine Effectiveness against Severe Disease	Vaccines	wrong study duration
Bansal et al.	Duration of COVID-19 mRNA Vaccine Effectiveness against Severe Disease	Preprint - medRxiv	wrong study duration
Bansal, et al.	Duration of COVID-19 mRNA Vaccine Effectiveness against Severe Disease	Vaccines	wrong study duration
Bar On et al.	BNT162b2 vaccine booster dose protection: A nationwide study from Israel	Preprint - medRxiv	wrong intervention
Barbosa et al.	High effectiveness of sars-cov-2 vaccines in reducing covid-19-related deaths in over 75-year-olds, Ceara State, Brazil	Tropical Medicine and Infectious Disease	duplicate
Barda et al.	Comparing immunogenicity and efficacy of two different mRNA-based COVID-19 vaccines as a fourth dose; six-month follow-up, Israel, 27 December 2021 to 24 July 2022	Euro surveillance	wrong comparison
Barda et al.	Effectiveness of a third dose of the BNT162b2 mRNA COVID-19 vaccine for preventing severe outcomes in Israel: an observational study	The Lancet	wrong comparator
Barda N et al	Comparing immunogenicity and efficacy of two different mRNA-based COVID-19 vaccines as	Euro surveillance	wrong study duration

	a fourth dose; six-month follow-up, Israel, 27 December 2021 to 24 July 2022		
Barlow et al.	Effectiveness of COVID-19 Vaccines Against SARS-CoV-2 Infection During a Delta Variant Epidemic Surge in Multnomah County, Oregon, July 2021	Preprint - medRxiv	wrong intervention
Barnabas et al.	A Public Health COVID-19 Vaccination Strategy to Maximize the Health Gains for Every Single Vaccine Dose	Annals of Internal Medicine	wrong outcome
Barnard et al.	Modelling the medium-term dynamics of SARS-CoV-2 transmission in England in the Omicron era	Nature communications	wrong study design
Bar-On et al.	Protection of BNT162b2 vaccine booster against Covid-19 in Israel	New England Journal of Medicine	wrong comparator
Barrière et al.	Impaired immunogenicity of BNT162b2 anti-SARS-CoV-2 vaccine in patients treated for solid tumors	Annals of Oncology	wrong outcome
Barros et al.	Estimating the early impact of vaccination against COVID-19 on deaths among elderly people in Brazil: Analyses of routinely-collected data on vaccine coverage and mortality	EClinicalMedicine	duplicated
Baum et al.	High vaccine effectiveness against severe Covid-19 in the elderly in Finland before and after the emergence of Omicron	medRxiv preprint	wrong study duration
Baum et al.	High vaccine effectiveness against severe Covid-19 in the elderly in Finland before and after the emergence of Omicron	Preprint - medRxiv	wrong study duration
Baum et al.	High vaccine effectiveness against severe Covid-19 in the elderly in Finland before and after the emergence of Omicron	BMC Infectious Diseases	wrong study duration
Baum et al.	Effectiveness of vaccination against SARS-CoV-2 infection and Covid-19 hospitalisation among Finnish elderly and chronically ill—An interim analysis of a nationwide cohort study	PloS one	wrong comparator
Baum et al.	Effectiveness of vaccination against SARS-CoV-2 infection and Covid-19 hospitalization among Finnish elderly and chronically ill—An interim analysis of a nationwide cohort study	Preprint - medRxiv	wrong intervention
Behera et al.	Effectiveness of COVID-19 vaccine (Covaxin) against breakthrough SARS-CoV-2 infection in India	Human Vaccines and Immunotherapeutics	wrong outcome
Bello Chavolla et al.	Effectiveness of a nation-wide COVID-19 vaccination program in Mexico		wrong study duration
Belmin et al.	First-Dose Coronavirus 2019 Vaccination Coverage among the Residents of Long-Term Care Facilities in France	Gerontology	wrong outcome

Ben Dov, et al.	Impact of tozinameran (BNT162b2) mRNA vaccine on kidney transplant and chronic dialysis patients: 3-5 months followup	Preprint - medRxiv	delayed exclusion - data mainly focusing on immunogenicity findings
Ben Tov et al.	BNT162b2 mRNA COVID-19 vaccine effectiveness in patients with coeliac disease autoimmunity: Real world data during mass vaccination campaign	Journal of Pediatric Gastroenterology and Nutrition	Wrong publication type
Ben-Aharon et al.	15590 Efficacy and toxicity of BNT162b2 vaccine in cancer patients	Annals of Oncology	duplicated
Benenson et al.	BNT162b2 mRNA Covid-19 Vaccine Effectiveness among Health Care Workers	The New England Journal of Medicine	wrong intervention
Benjamini et al.	Safety and efficacy of BNT162b mRNA Covid19 Vaccine in patients with chronic lymphocytic leukemia	Haematologica	wrong outcome
Benotmane et al.	Low immunization rates among kidney transplant recipients who received 2 doses of the mRNA-1273 SARS-CoV-2 vaccine	Kidney International	wrong outcome
Benotmane et al.	Weak anti-SARS-CoV-2 antibody response after the first injection of an mRNA COVID-19 vaccine in kidney transplant recipients	Kidney International	wrong outcome
Ben-Tov et al.	BNT162b2 Messenger RNA COVID-19 Vaccine Effectiveness in Patients With Inflammatory Bowel Disease: Preliminary Real-World Data During Mass Vaccination Campaign	Gastroenterology	wrong intervention
Berec et al.	Real-life protection provided by vaccination, booster doses and previous infection against covid-19 infection, hospitalisation or death over time in the Czech Republic: A whole country retrospective view	Preprint - medRxiv	wrong comparator
Berec et al.	Real-life protection provided by vaccination, booster doses and previous infection against covid-19 infection, hospitalisation or death over time in the Czech Republic: A whole country retrospective view	Preprint - medRxiv	delayed exclusion - baseline is calculated 0-2 months after 14 days post-receipt of second dose, which is beyond our 30.5 days average post-receipt of second dose threshold
Bergwerk et al.	Covid-19 Breakthrough Infections in Vaccinated Health Care Workers	The New England Journal of Medicine	wrong outcome

Berminham et al.	Estimating the effectiveness of first dose of COVID-19 vaccine against mortality in England: a quasi-experimental study	Preprint - medRxiv	wrong intervention
Bernal et al.	Early effectiveness of COVID-19 vaccination with BNT162b2 mRNA vaccine and ChAdOx1 adenovirus vector vaccine on symptomatic disease, hospitalisations and mortality in older adults in England	Preprint - medRxiv	wrong intervention
Bernal et al.	Effectiveness of BNT162b2 mRNA vaccine and ChAdOx1 adenovirus vector vaccine on mortality following COVID-19	Preprint - medRxiv	wrong intervention
Bernal et al.	Effectiveness of COVID-19 vaccines against the B.1.617.2 variant	The New England Journal of Medicine	wrong intervention
Berry et al.	Audit of vaccination status of health-care workers who tested positive for SARS-CoV-2	Journal of clinical virology plus	wrong outcome
Bestvina et al.	COVID-19 Outcomes, Patient Vaccination Status, and Cancer-Related Delays during the Omicron Wave: A Brief Report from the TERAVOLT Analysis	JTO clinical and research reports	wrong outcome
Bhatnagar et al.	Effectiveness of BBV152/Covaxin and AZD1222/Covishield vaccines against severe COVID-19 and B.1.617.2/Delta variant in India, 2021: a multi-centric hospital-based case-control study	International Journal of Infectious Diseases	wrong study duration
Bhattacharya et al.	Evaluation of the dose-effect association between the number of doses and duration since the last dose of COVID-19 vaccine, and its efficacy in preventing the disease and reducing disease severity: A single centre, cross-sectional analytical study from India	Diabetes and Metabolic Syndrome: Clinical Research and Reviews	wrong study design
Bianchi et al.	BNT162b2 mRNA COVID-19 vaccine effectiveness in the prevention of SARS-CoV-2 Infection: A preliminary report	Journal of Infectious Diseases	wrong intervention
Bianchi et al.	BNT162b2 mRNA COVID-19 Vaccine Effectiveness in the Prevention of SARS-CoV-2 Infection and Symptomatic Disease in Five-Month Follow-Up: A Retrospective Cohort Study	Vaccines	wrong outcome
Bianchi, et al.	BNT162b2 mRNA COVID-19 vaccine effectiveness in the prevention of SARS-CoV-2 Infection: A preliminary report	SSRN	delayed exclusion - K-M plot included the 14 days before full vaccination - the correct FUP is non-extractable (figure 1)
Bielopolski et al.	BNT162b2 vaccine effectiveness in chronic kidney disease patients-an observational study	Clinical kidney journal	wrong comparison

Bird et al.	Response to first vaccination against SARS-CoV-2 in patients with multiple myeloma	The Lancet Haematology	wrong intervention
Bjork et al.	Effectiveness of the BNT162b2 vaccine in preventing COVID-19 in the working age population - first results from a cohort study in Southern Sweden	Preprint - medRxiv	wrong intervention
Bjork et al.	COVID-19 vaccine effectiveness against severe disease from the Omicron BA.1 and BA.2 subvariants - surveillance results from southern Sweden, December 2021 to March 2022	Preprint - medRxiv	wrong study design
Bjork et al.	High level of protection against COVID-19 after two doses of BNT162b2 vaccine in the working age population-first results from a cohort study in Southern Sweden	Infectious Diseases	uplicated
Björk et al.	COVID-19 vaccine effectiveness against severe disease from SARS-CoV-2 Omicron BA.1 and BA.2 subvariants - surveillance results from southern Sweden, December 2021 to March 2022	Euro surveillance	wrong study duration
Blain et al.	Receptor binding domain-IgG levels correlate with protection in residents facing SARS-CoV-2 B.1.1.7 outbreaks	Allergy	wrong intervention
Blaiszik et al.	The Delta Variant Had Negligible Impact on COVID-19 Vaccine Effectiveness in the USA	Preprint - medRxiv	wrong study design
Bleicher et al.	Early exploration of COVID-19 vaccination safety and effectiveness during pregnancy: interim descriptive data from a prospective observational study	Vaccine	wrong outcome
Bliden et al.	Evolution of Anti-SARS-CoV-2 IgG Antibody and IgG Avidity Post Pfizer and Moderna mRNA Vaccinations	Preprint - medRxiv	wrong outcome
Bobdey et al.	Effectiveness of ChAdOx1 nCoV-19 Vaccine: Experience of a tertiary care institute	Medical Journal Armed Forces India	wrong intervention
Bobrovitz et al.	Protective effectiveness of prior SARS-CoV-2 infection and hybrid immunity against Omicron infection and severe disease: a systematic review and meta-regression		wrong publication type
Bollineni et al.	Characteristics and outcomes among vaccinated lung transplant patients with breakthrough COVID-19	Transplant infectious disease	wrong outcome
Bongiovanni et al.	Evaluation of the immune response to COVID-19 vaccine mRNA BNT162b2 and correlation with previous COVID-19 infection	Journal of Clinical Virology	wrong outcome
Bookstein Peretz et al.	Short-term outcome of pregnant women vaccinated with BNT162b2 mRNA COVID-19 vaccine	Ultrasound in Obstetrics & Gynecology	wrong intervention

Botton et al.	Effectiveness of Ad26.COVS Vaccine vs BNT162b2 Vaccine for COVID-19 Hospitalizations	JAMA Network Open	wrong comparator
Botton et al.	Effectiveness of Ad26.COVS Vaccine vs BNT162b2 Vaccine for COVID-19 Hospitalizations	JAMA network open	wrong comparator
Bouton et al.	COVID-19 vaccine impact on rates of SARS-CoV-2 cases and post vaccination strain sequences among healthcare workers at an urban academic medical center: a prospective cohort study	Preprint - medRxiv	wrong outcome
Bouton et al.	Coronavirus Disease 2019 Vaccine Impact on Rates of Severe Acute Respiratory Syndrome Coronavirus 2 Cases and Postvaccination Strain Sequences Among Health Care Workers at an Urban Academic Medical Center: A Prospective Cohort Study	Open forum infectious diseases	wrong intervention
Boyarsky et al.	Antibody response to 2-dose sars-cov-2 mrna vaccine series in solid organ transplant recipients	JAMA	wrong intervention
Braeye et al.	COVID-19 vaccine effectiveness against symptomatic infection and hospitalization in Belgium, July 2021-April 2022	Preprint - medRxiv	data in figures
Braeye et al.	Vaccine effectiveness against infection and onwards transmission of COVID-19: Analysis of Belgian contact tracing data, January-June 2021	Vaccine	wrong intervention
Braeye et al.	Vaccine effectiveness against onward transmission of SARS-CoV2-infection by variant of concern and time since vaccination, Belgian contact tracing, 2021	Vaccine	no usable data
Braeye et al.	COVID-19 Vaccine effectiveness against symptomatic infection and hospitalization in Belgium, July 2021-APRIL 2022	Preprint - medRxiv	no follow-up data
Branda et al.	Impact of the additional/booster dose of COVID-19 vaccine against severe disease during the epidemic phase characterized by the predominance of the Omicron variant in Italy, November 2021 - March 2022	Preprint - medRxi	wrong study duration
Brinkley-Rubinstein et al.	Breakthrough SARS-CoV-2 Infections in Prison after Vaccination	The New England Journal of Medicine	wrong intervention
Britton et al.	Effectiveness of COVID-19 mRNA Vaccines Against COVID-19-Associated Hospitalizations Among Immunocompromised Adults During SARS-CoV-2 Omicron Predominance - VISION Network, 10 States, December 2021-August 2022.	MMWR. Morbidity and mortality weekly report	wrong study duration

Britton et al.	Association of COVID-19 Vaccination with Symptomatic SARS-CoV-2 Infection by Time since Vaccination and Delta Variant Predominance	JAMA - Journal of the American Medical Association	duplicate
Britton et al.	Association of COVID-19 Vaccination With Symptomatic SARS-CoV-2 Infection by Time Since Vaccination and Delta Variant Predominance	JAMA	already assessed
Brosh-Nissimov et al.	BNT162b2 vaccine breakthrough: clinical characteristics of 152 fully vaccinated hospitalized COVID-19 patients in Israel	Clinical Microbiology and Infection	wrong outcome
Brouqui et al.	COVID-19 re-infection	European Journal of Clinical Investigation	wrong intervention
Brunelli et al.	Comparative Effectiveness of mRNA-Based BNT162b2 Vaccine versus Adenovirus Vector-Based Ad26.COVS.2 Vaccine for Prevention of COVID-19 among Dialysis Patients	Journal of the American Society of Nephrology: JASN	wrong comparator
Brunner et al.	Comparison of Antibody Response Durability of mRNA-1273, BNT162b2, and Ad26.COVS.2 SARS-CoV-2 Vaccines in Healthcare Workers	Preprint - medRxiv	wrong outcome
Brunner et al.	Comparison of Antibody Response Durability of mRNA-1273, BNT162b2, and Ad26.COVS.2 SARS-CoV-2 Vaccines in Healthcare Workers	New England Journal of Medicine	wrong outcome
Brunner et al.	SARS-CoV-2 Postvaccination Infections Among Staff Members of a Tertiary Care University Hospital—Vienna, January-July 2021; an Exploratory Study on 8 500 Employees with Better Outcome of Vector than m-RNA Vaccine	Preprint - SSRN	wrong intervention
Bruvoort et al.	Effectiveness of mRNA-1273 against delta, mu, and other emerging variants of SARS-CoV-2: test negative case-control study	BMJ (Clinical research ed.)	wrong comparator
Bruvoort et al.	Real-world effectiveness of the mRNA-1273 vaccine against COVID-19: Interim results from a prospective observational cohort study	Lancet Regional Health. Americas	wrong outcome
Bruvoort et al.	Effectiveness of mRNA-1273 against Delta, Mu, and other emerging variants	Preprint - medRxiv	delayed exclusion - baseline VE assessed at 14-60 (below our 30-day threshold)
Buchan et al.	Estimated Effectiveness of COVID-19 Vaccines Against Omicron or Delta Symptomatic Infection and Severe Outcomes	JAMA Network Open	previously included as preprint
Buchan et al.	Effectiveness of COVID-19 vaccines against Omicron or Delta symptomatic infection and severe outcomes	Preprint - medRxiv	duplicate

Buchan et al.	Effectiveness of COVID-19 vaccines against Omicron or Delta symptomatic infection and severe outcomes	Preprint - medRxiv	wrong comparator
Buchan et al.	Effectiveness of COVID-19 vaccines against Omicron or Delta infection	Preprint - medRxiv	delayed exclusion - study ID 05-3 is a more recent version of this study
Bukhari et al.	Real-World Effectiveness of COVID-19 Vaccines: the Diverging Pattern of COVID-19 Cases and Deaths in Countries with High Vaccination Rates	Preprint - SSRN	wrong intervention
Buonfrate et al.	Antibody response induced by the BNT162b2 mRNA COVID-19 vaccine in a cohort of health-care workers, with or without prior SARS-CoV-2 infection: a prospective study	Clinical Microbiology and Infection	wrong intervention
Burd et al.	The Israeli study of Pfizer BNT162b2 vaccine in pregnancy: Considering maternal and neonatal benefits	Journal of Clinical Investigation	wrong publication type
Butt et al.	Vaccine Effectiveness of Three vs. Two Doses of SARS-CoV-2 mRNA Vaccines in a High Risk National Population	Clinical infectious diseases	wrong study duration
Butt et al.	Real-world Effectiveness of the SARS-CoV-2 mRNA Vaccines in Preventing Confirmed Infection in Patients on Chronic Hemodialysis	Clinical infectious diseases	wrong study duration
Butt et al.	Effectiveness of the SARS-CoV-2 mRNA Vaccines in Pregnant Women	Preprint - Research Square	wrong intervention
Butt et al.	Outcomes among patients with breakthrough SARS-CoV-2 infection after vaccination in a high-risk national population	EClinicalMedicine	wrong intervention
Butt et al.	Rate and risk factors for breakthrough SARS-CoV-2 infection after vaccination	The Journal of Infection	wrong intervention
Butt et al.	SARS-CoV-2 Vaccine Effectiveness in a High-Risk National Population in a Real-World Setting	Annals of Internal Medicine	wrong intervention
Butt et al.	SARS-CoV-2 vaccine effectiveness in preventing confirmed infection in pregnant women	The Journal of clinical investigation	wrong study duration
Butt et al.	Relative Vaccine Effectiveness of a SARS-CoV-2 mRNA Vaccine Booster Dose Against the Omicron Variant	Clinical infectious diseases	wrong study duration; Data reported in figures only
Cabezas et al.	Effects of BNT162b2 mRNA Vaccination on COVID-19 Disease, Hospitalisation and Mortality in Nursing Homes and Healthcare Workers: A Prospective Cohort Study Including 28,594 Nursing Home Residents, 26,238	Hand search; Preprint - SSRN	duplicated

	Nursing Home Staff, and 61,951 Healthcare Workers in Catalonia		
Cabezas et al.	Effects of BNT162b2 mRNA Vaccination on COVID-19 Disease, Hospitalisation and Mortality in Nursing Homes and Healthcare Workers: A Prospective Cohort Study Including 28,594 Nursing Home Residents, 26,238 Nursing Home Staff, and 61,951 Healthcare Workers in Catalonia	Preprint - SSRN	wrong intervention
Cabezas, et al.	Associations of BNT162b2 vaccination with SARS-CoV-2 infection and hospital admission and death with covid-19 in nursing homes and healthcare workers in Catalonia: Prospective cohort study	BMJ	wrong outcome
Callaghan et al.	Real-world Effectiveness of the Pfizer-BioNTech BNT162b2 and Oxford-AstraZeneca ChAdOx1-S Vaccines Against SARS-CoV-2 in Solid Organ and Islet Transplant Recipients	Transplantation	wrong outcome
Callaghan et al.	Real-world Effectiveness of the Pfizer-BioNTech BNT162b2 and Oxford-AstraZeneca ChAdOx1-S Vaccines Against SARS-CoV-2 in Solid Organ and Islet Transplant Recipients	Transplantation	wrong outcome
Carazo et al.	Single-dose mRNA vaccine effectiveness against SARS-CoV-2 in healthcare workers extending 16 weeks post-vaccination: a test-negative design from Quebec, Canada	Preprint - medRxiv	wrong intervention
Carazo et al.	Single-dose mRNA vaccine effectiveness against SARS-CoV-2 in healthcare workers extending 16 weeks post-vaccination: a test-negative design from Quebec, Canada	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	uplicated
Cardona et al.	<p>SARS-CoV-2 Vaccinated Breakthrough Infections With Fatal and Critical Outcomes in the Department of Antioquia, Colombia</p>	Research Square	wrong outcome
Carioni et al.	Effectiveness of COVID-19 vaccines in a large European haemodialysis cohort	Nephrology Dialysis Transplantation	wrong study duration
Carrera et al.	How well do hemodialysis patients respond to the BNT162b2 mRNA COVID-19 vaccine	Journal of the American Society of Nephrology	wrong intervention
Castillo et al.	Vaccine effectiveness and duration of protection against symptomatic infections and severe Covid-19 outcomes in adults aged 50 years and over, France, January to mid-December 2021	Global epidemiology	wrong outcome
Castillo et al.	Vaccine effectiveness and duration of protection against symptomatic and severe Covid-19 during the first year of vaccination in France	Preprint - medRxiv	Already included

Cerqueira Silva et al.	Influence of age on the effectiveness and duration of protection in Vaxzevria and CoronaVac vaccines	Preprint - medRxiv	wrong intervention
Cerqueira-Silva et al.	Effectiveness of CoronaVac, ChAdOx1 nCoV-19, BNT162b2, and Ad26.COV2.S among individuals with previous SARS-CoV-2 infection in Brazil: a test-negative, case-control study	The Lancet Infectious Diseases	Already included
Cerqueira-Silva et al.	Vaccine effectiveness of heterologous CoronaVac plus BNT162b2 in Brazil	Nature Medicine	already assessed
Cerqueira-Silva et al.	Influence of age on the effectiveness and duration of protection of Vaxzevria and CoronaVac vaccines: A population-based study	Lancet Regional Health. Americas	wrong intervention
Cerqueira-Silva et al.	Effectiveness of CoronaVac, ChAdOx1 nCoV-19, BNT162b2, and Ad26.COV2.S among individuals with previous SARS-CoV-2 infection in Brazil: a test-negative, case-control study	The Lancet. Infectious diseases	wrong study duration
Chadeau Hyam et al.	REACT-1 round 15 final report: Increased breakthrough SARS-CoV-2 infections among adults who had received two doses of vaccine, but booster doses and first doses in children are providing important protection	Preprint - medRxiv	wrong comparator
Chadeau Hyam et al.	REACT-1 study round 14: High and increasing prevalence of SARS-CoV-2 infection among school-aged children during September 2021 and vaccine effectiveness against infection in England	Preprint - medRxiv	wrong comparator
Chadeau-Hyam et al.	SARS-CoV-2 infection and vaccine effectiveness in England (REACT-1): a series of cross-sectional random community surveys	The Lancet. Respiratory medicine	wrong comparator
Chagla	The BNT162b2 (BioNTech/Pfizer) vaccine had 95% efficacy against COVID-19 ≥ 7 days after the 2nd dose	Annals of Internal Medicine	wrong intervention
Chariyalertsak et al.	Effectiveness of heterologous 3rd and 4th dose COVID-19 vaccine schedules for SARS-CoV-2 infection during delta and omicron predominance in Thailand.	Preprint- Research Square	wrong study duration
Charles Pon Ruban et al.	Effectiveness of vaccination in preventing severe SARS CoV-2 infection in South India-a hospital-based cross-sectional study	Preprint - medRxiv	wrong study design
Charmet et al.	Impact of original, B.1.1.7, and B.1.351/P.1 SARS-CoV-2 lineages on vaccine effectiveness of two doses of COVID-19 mRNA vaccines: Results from a nationwide case-control study in France	The Lancet Regional Health-Europe	wrong intervention
Chatzilena et al.	Effectiveness of BNT162b2 COVID-19 Vaccination in Prevention of Hospitalisations and Severe Disease in Adults with Delta (B.1.617.2) and Omicron (B.1.1.529) Variant	WHO newsletter	Wrong population

	SARS-CoV-2 Infection: A Prospective Test Negative Case-Control Study		
Chauhan et al.	SARS-CoV-2 Vaccine-Induced Antibody Response and Reinfection in Persons with Past Natural Infection	Preprint - medRxiv	wrong intervention
Chemaitelly et al.	Long-term COVID-19 booster effectiveness by infection history and clinical vulnerability and immune imprinting	medRxiv preprint	previously included
Chemaitelly et al.	Duration of mRNA vaccine protection against SARS-CoV-2 Omicron BA.1 and BA.2 subvariants in Qatar		wrong study duration
Chemaitelly et al.	Duration of protection of BNT162b2 and mRNA-1273 COVID-19 vaccines against symptomatic SARS-CoV-2 Omicron infection in Qatar	Preprint - medRxiv	already assessed
Chemaitelly et al.	Duration of protection of BNT162b2 and mRNA-1273 COVID-19 vaccines against symptomatic SARS-CoV-2 Omicron infection in Qatar	Preprint - medRxiv	Already assessed before
Chemaitelly et al.	mRNA-1273 COVID-19 vaccine effectiveness against the B.1.1.7 and B.1.351 variants and severe COVID-19 disease in Qatar	Hand search; Nature Medicine	wrong intervention
Chemaitelly et al.	Pfizer-BioNTech mRNA BNT162b2 Covid-19 vaccine protection against variants of concern after one versus two doses	Journal of Travel Medicine	duplicate
Chemaitelly et al.	MRNA-1273 COVID-19 vaccine effectiveness against the B.1.1.7 and B.1.351 variants and severe COVID-19 disease in Qatar.	Nature Medicine	wrong intervention
Chen et al.	Clinical Characteristics of COVID-19 Patients Infected by the Omicron Variant of SARS-CoV-2	Frontiers in Medicine	wrong outcome
Chen et al.	Prediction of long-term kinetics of vaccine-elicited neutralizing antibody and time-varying vaccine-specific efficacy against the SARS-CoV-2 Delta variant by clinical endpoint	BMC medicine	wrong intervention
Cheng et al.	The effectiveness and safety of mRNA (BNT162b2) and inactivated (CoronaVac) COVID-19 vaccines among individuals with chronic kidney diseases	Kidney International	wrong study duration
Chevallier et al.	Effectiveness of a third dose of BNT162b2 anti-SARS-CoV-2 mRNA vaccine over a 6-month follow-up period in allogeneic hematopoietic stem cells recipients	Hematological Oncology	wrong study duration
Chico-Sánchez et al.	The effectiveness of mRNA vaccines to prevent SARS-CoV-2 infection and hospitalisation for COVID-19 according to the time elapsed since their administration in health professionals in the Valencian Autonomous Community (Spain)	Preventive medicine	wrong study duration

Chiew et al.	Effectiveness of primary series and booster vaccination against SARS-CoV-2 infection and hospitalisation among adolescents aged 12–17 years in Singapore: a national cohort study	WHO newsletter	Hand search
Chin et al	Protection against Omicron from Vaccination and Previous Infection in a Prison System.	The New England journal of medicine	wrong study duration
Chin et al.	Effectiveness of COVID-19 vaccines among incarcerated people in California state prisons: retrospective cohort study	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong study design
Chin et al.	Effectiveness of COVID-19 Vaccines among Incarcerated People in California State Prisons: A Retrospective Cohort Study	Preprint - medRxiv	wrong intervention
Chin et al.	Effectiveness of the mRNA-1273 Vaccine during a SARS-CoV-2 Delta Outbreak in a Prison	The New England journal of medicine	wrong outcome
Chodick et al.	The effectiveness of the TWO-DOSE BNT162b2 vaccine: analysis of real-world data	Clinical Infectious Diseases	wrong intervention
Christie et al.	Decreases in COVID-19 Cases, Emergency Department Visits, Hospital Admissions, and Deaths Among Older Adults Following the Introduction of COVID-19 Vaccine - United States, September 6, 2020-May 1, 2021	MMWR. Morbidity and mortality weekly report	wrong population
Chung et al.	Effectiveness of BNT162b2 and mRNA-1273 covid-19 vaccines against symptomatic SARS-CoV-2 infection and severe covid-19 outcomes in Ontario, Canada: Test negative design study	The BMJ	wrong intervention
Clemens et al.	Efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine against SARS-CoV-2 lineages circulating in Brazil; an exploratory analysis of a randomised controlled trial	Preprint - Research Square	wrong intervention
Clemens et al.	Efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine against SARS-CoV-2 lineages circulating in Brazil	Nature communications	uplicated
Clifford et al.	Effectiveness of BNT162b2 and ChAdOx1 against SARS-CoV-2 household transmission: a prospective cohort study in England	medRxiv	wrong comparator
Cocchio et al	COVID-19 Vaccine Effectiveness against Omicron Variant among Underage Subjects: The Veneto Region's Experience	Vaccines	Wrong population - kids
Cocchio et al.	Differences in Immunological Evasion of the Delta (B.1.617.2) and Omicron (B.1.1.529) SARS-CoV-2 Variants: A Retrospective Study on the Veneto Region's Population	International Journal of Environmental Research and Public Health	wrong study duration
Coggiola et al.	SARS-CoV-2 infection: efficacy of extensive vaccination of the healthcare workforce in a large Italian hospital	La Medicina del lavoro	wrong study design

Cohen et al.	<p>Comparative Efficacy over time of the mRNA-1273 (Moderna) vaccine and the BNT162b2 (Pfizer-BioNTech) vaccine</p><p> </p>	Research Square	wrong comparator
Cohen et al.	Effectiveness of the BNT162b vaccine fourth dose in reducing SARS-CoV-2 infection among healthcare workers in Israel, a multi-center cohort study	Preprint - medRxiv	wrong comparator
Cohn et al.	SARS-CoV-2 vaccine protection and deaths among US veterans during 2021	Science	wrong comparator
Cohn et al.	Breakthrough SARS-CoV-2 infections in 620,000 US Veterans, February 1, 2021 to August 13, 2021	Preprint - medRxiv	wrong intervention
Collie et al	Association between regular physical activity and the protective effect of vaccination against SARS-CoV-2 in a South African case-control study.	British journal of sports medicine	wrong outcome
Consonni et al.	Effectiveness of BNT162b2 COVID-19 vaccine among healthcare workers of a large hospital, Milan, Italy	Safety and Health at Work	already assessed
Consonni et al.	Effectiveness of COVID-19 vaccine in health care workers, Milan, Italy	Occupational and Environmental Medicine	Full text unavailable
Contractor et al	Effectiveness of Covid-19 vaccines (Covishield™ and Covaxin ®) in healthcare workers in Mumbai, India: A retrospective cohort analysis.	PloS one	wrong study duration
Cook et al.	Clinical characteristics and outcomes of COVID-19 breakthrough infections among vaccinated patients with systemic autoimmune rheumatic diseases	Preprint - medRxiv	wrong outcome
Copur et al.	Effectiveness of CoronaVac vaccination against COVID-19 development in healthcare workers: real-life data	WHO newsletter	Hand search
Corchado Garcia et al.	Real-world effectiveness of Ad26.COV2.S adenoviral vector vaccine for COVID-19	Preprint - medRxiv	wrong intervention
Corchado-Garcia et al.	Real-world effectiveness of Ad26. COV2. S adenoviral vector vaccine for COVID-19	SSRN	wrong study duration
Corchado-Garcia et al.	Analysis of the Effectiveness of the Ad26.COV2.S Adenoviral Vector Vaccine for Preventing COVID-19	JAMA network open	wrong outcome
Corral-Gudino et al.	The Omicron wave and the waning of COVID-19 vaccine effectiveness. Influence of vaccine booster and age on confirmed infection incidence	European journal of internal medicine	wrong study duration
Corral-Gudino, et al.	The Omicron wave and the waning of COVID-19 vaccine effectiveness. Influence of vaccine booster and age on confirmed infection incidence	European Journal of Internal Medicine	wrong study duration

Corrao et al.	Persistence of protection against SARS-CoV-2 clinical outcomes up to 9 months since vaccine completion: a retrospective observational analysis in Lombardy, Italy	The Lancet. Infectious diseases	already assessed
Corrao et al.	Persistence of protection against SARS-CoV-2 clinical outcomes up to 9 months since vaccine completion: a retrospective observational analysis in Lombardy, Italy	The Lancet Infectious Diseases	Data reported in figures only
Corrao et al.	Persistence of protection against SARS-CoV-2 clinical outcomes up to 9 months since vaccine completion: a retrospective observational analysis in Lombardy, Italy	The Lancet. Infectious diseases	wrong comparator
Corrao et al.	Persistence of protection against SARS-CoV-2 clinical outcomes up to 9 months since vaccine completion: a retrospective observational analysis in Lombardy, Italy	The Lancet Infectious Diseases	delayed exclusion - definition of unvaccinated group is unclear
Corrao et al.	Balancing Benefits and Harms of COVID-19 Vaccines: Lessons from the Ongoing Mass Vaccination Campaign in Lombardy, Italy	Vaccines	Wrong intervention
Costa Clemens at al	Effectiveness of the Fiocruz recombinant ChadOx1-nCoV19 against variants of SARS-CoV-2 in the Municipality of Botucatu-SP.	Frontiers in public health	wrong study duration
Couderc et al.	Acceptance, efficacy, and safety of COVID-19 vaccination in older patients with cancer	Journal of geriatric oncology	wrong study duration
Cox et al.	An observational cohort study on the incidence of SARS-CoV-2 infection and B.1.1.7 variant infection in healthcare workers by antibody and vaccination status	Clinical Infectious Diseases	duplicated
Dagan et al.	BNT162b2 mRNA Covid-19 Vaccine in a Nationwide Mass Vaccination Setting	The New England Journal of Medicine	wrong intervention
Dagan et al.	Effectiveness of the BNT162b2 mRNA COVID-19 vaccine in pregnancy	Nature Medicine	wrong intervention
Dagan et al.	Effectiveness of the first-generation SARS-CoV-2 mRNA vaccines against the omicron variant	Clinical microbiology and infection : the official publication of the European Society of Clinical Microbiology and Infectious Diseases	wrong study duration
Dagan N et al	Effectiveness of first-generation severe acute respiratory syndrome coronavirus 2 mRNA vaccines against the Omicron variant	Clinical Microbiology and Infection	wrong study design
Dahlem et al.	Humoral Response after SARS-CoV-2 mRNA Vaccination in a Cohort of Hemodialysis Patients and Kidney Transplant Recipients	Journal of the American Society of Nephrology	duplicated
Dale et al.	Investigation of A SARS-CoV-2 Delta (B.1.617.2) Variant Outbreak Among Residents	Clinical infectious diseases : an official	wrong study duration

	of a Skilled Nursing Facility and Vaccine Effectiveness Analysis - Maricopa County, Arizona, June-July 2021	publication of the Infectious Diseases Society of America	
Danthu et al.	Humoral Response after SARS-Cov-2 mRNA Vaccine in a Cohort of Hemodialysis Patients and Kidney Transplant Recipients	Journal of the American Society of Nephrology: JASN	wrong intervention
Das et al.	Relation of vaccination with severity, oxygen requirement and outcome of COVID-19 infection in Chattogram, Bangladesh	Preprint - medRxiv	wrong intervention
Dash et al.	Breakthrough SARS-CoV-2 infections in an eastern state of India: A preliminary report	Preprint - Research Square	wrong outcome
Dashdorj et al.	Direct Comparison of Antibody Responses to Four SARS-CoV-2 Vaccines in Mongolia	Preprint - medRxiv	wrong outcome
Dauriat et al.	Efficacy of 3 COVID-19 vaccine doses in lung transplant recipients: a multicentre cohort study.	The European respiratory journal	wrong outcome
De Gier et al.	COVID-19 vaccine effectiveness against mortality and risk of death from other causes after COVID-19 vaccination, the Netherlands, January 2021-January 2022	Preprint - medRxiv	wrong study duration
De Gier et al.	COVID-19 vaccine effectiveness against mortality and risk of death from other causes after COVID-19 vaccination, the Netherlands, January 2021-January 2022	medRxiv	data in figures
De Salazar et al.	High coverage COVID-19 mRNA vaccination rapidly controls SARS-CoV-2 transmission in long-term care facilities	Communications medicine	wrong study design
Deiana et al.	Impact of Full Vaccination with mRNA BNT162b2 on SARS-CoV-2 Infection: Genomic and Subgenomic Viral RNAs Detection in Nasopharyngeal Swab and Saliva of Health Care Workers	Microorganisms	wrong outcome
Del Cura-Bilbao et al.	Effectiveness of 3 COVID-19 Vaccines in Preventing SARS-CoV-2 Infections, January-May 2021, Aragon, Spain	Emerging infectious diseases	wrong outcome
Demir et al.	Differences in clinical outcomes of COVID-19 among vaccinated and unvaccinated kidney transplant recipients	Vaccine	wrong outcome
Dickerman et al.	Comparative effectiveness of BNT162B2 and mRNA-1273 vaccines in U.S. Veterans	New England Journal of Medicine	wrong comparator
Domi et al.	The BNT162b2 vaccine is associated with lower new COVID-19 cases in nursing home residents and staff	Journal of the American Geriatrics Society	wrong intervention
Donadio et al.	Asymptomatic COVID-19 cases among older patients despite BNT162b2 vaccination: A case series in a geriatric rehabilitation ward during an outbreak	The Journal of Infection	wrong intervention

Donato et al.	EFFECTIVENESS OF SARS-COV-2 VACCINATION IN PERITONEAL DIALYSIS PATIENTS	Nephrology Dialysis Transplantation	wrong intervention
Drawz et al.	Effectiveness of BNT162b2 and mRNA-1273 Second Doses and Boosters for SARS-CoV-2 infection and SARS-CoV-2 Related Hospitalizations: A Statewide Report from the Minnesota Electronic Health Record Consortium	Preprint - medRxiv	wrong comparator
Drawz et al.	Effectiveness of BNT162b2 and mRNA-1273 Second Doses and Boosters for SARS-CoV-2 infection and SARS-CoV-2 Related Hospitalizations: A Statewide Report from the Minnesota Electronic Health Record Consortium	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong comparator
Du et al.	Reinfection risk and vaccination effectiveness against Omicron	Preprint – Research Square	Handsearch – wrong study design
Du Plessis et al.	Efficacy of the ChAdOx1 nCoV-19 Covid-19 Vaccine against the B.1.351 Variant	New England Journal of Medicine	uplicated
Dulovic et al.	Diminishing immune responses against variants of concern in dialysis patients four months after SARS-CoV-2 mRNA vaccination	Preprint - medRxiv	wrong outcome
Ebinger et al.	Antibody responses to the BNT162b2 mRNA vaccine in individuals previously infected with SARS-CoV-2	Nature Medicine	wrong intervention
Ebinger et al.	Prior COVID-19 Infection and Antibody Response to Single Versus Double Dose mRNA SARS-CoV-2 Vaccination	Preprint - medRxiv	wrong outcome
Edelstein et al.	BNT 13b2 Pfizer vaccine protects against SARS-CoV-2 respiratory mucosal colonization even after prolonged exposure to positive family members	The Journal of Hospital Infection	wrong outcome
Efrati et al.	Safety and humoral responses to BNT162b2 mRNA vaccination of SARS-CoV-2 previously infected and naive populations	Scientific Reports	wrong outcome
Eick-Cost et al.	Effectiveness of mRNA-1273, BNT162b2, and JNJ-78436735 COVID-19 Vaccines among US Military Personnel before and during the Predominance of the Delta Variant	JAMA Network Open	wrong study duration
Ella et al.	Efficacy, safety, and lot to lot immunogenicity of an inactivated SARS-CoV-2 vaccine (BBV152): a, double-blind, randomised, controlled phase 3 trial	Preprint - medRxiv	wrong intervention
Elliott et al.	Rapid increase in Omicron infections in England during December 2021: REACT-1 study	Science	wrong outcome

Elliott et al.	REACT-1 round 13 final report: exponential growth, high prevalence of SARS-CoV-2 and vaccine effectiveness associated with Delta variant in England during May to July 2021	Hand search; Preprint - medRxiv	wrong intervention
Emani et al.	SARS-CoV2 Breakthrough Infections in Elderly Third Booster and Vaccinated Population Considered Vaccine Immune During Omicron (B.1.1.529) Variant Surge in Israel	Current Trends in Biotechnology and Pharmacy	wrong study duration
Emani et al.	Increasing SARS-CoV2 cases, hospitalizations and deaths among the vaccinated elderly populations during the Omicron (B.1.1.529) variant surge in UK	Preprint - medRxiv	wrong study duration
Emani et al.	Increasing SARS-CoV2 cases, hospitalizations, and deaths among the vaccinated populations during the Omicron (B.1.1.529) variant surge in UK		wrong study duration
Emani et al.	Increasing SARS-CoV2 cases, hospitalizations and deaths among the vaccinated elderly populations during the Omicron (B.1.1.529) variant surge in UK	Preprint - medRxiv	wrong population
Emani et al.	Increasing SARS-CoV2 cases, hospitalizations and deaths among the vaccinated elderly populations during the Omicron (B.1.1.529) variant surge in UK	medRxiv	wrong study duration
Emary et al.	Efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine against SARS-CoV-2 variant of concern 202012/01 (B.1.1.7): an exploratory analysis of a randomised controlled trial	The Lancet	wrong intervention
Embi et al.	Effectiveness of COVID-19 Vaccines at Preventing Emergency Department or Urgent Care Encounters and Hospitalizations Among Immunocompromised Adults: An Observational Study of Real-World Data Across 10 US States from August-December 2021		wrong comparator
Embi et al.	Effectiveness of two-dose vaccination with mRNA COVID-19 vaccines against COVID-19-associated hospitalizations among immunocompromised adults-Nine States, January-September 2021	American journal of transplantation : official journal of the American Society of Transplantation and the American Society of Transplant Surgeons	wrong outcome
Embi et al.	Effectiveness of 2-Dose Vaccination with mRNA COVID-19 Vaccines Against COVID-19-Associated Hospitalizations Among Immunocompromised Adults - Nine States, January-September 2021	MMWR. Morbidity and mortality weekly report	wrong study duration

Emborg et al.	Vaccine effectiveness of the BNT162b2 mRNA COVID-19 vaccine against RT-PCR confirmed SARS-CoV-2 infections, hospitalisations and mortality in prioritised risk groups	Preprint - medRxiv	wrong intervention
Epaulard et al.	Symptoms and severity in vaccinated and unvaccinated patients hospitalised with SARS-CoV-2 delta (B.1.617.2) variant infection	Preprint - medRxiv	wrong comparator
Espi et al.	A prospective observational study for justification, safety, and efficacy of a third dose of mRNA vaccine in patients receiving maintenance hemodialysis	Kidney international	wrong outcome
Espi et al.	Justification, safety, and efficacy of a third dose of mRNA vaccine in maintenance hemodialysis patients: a prospective observational study	Preprint - medRxiv	wrong outcome
Eyre et al.	The impact of SARS-CoV-2 vaccination on Alpha & Delta variant transmission. medRxiv 2021	Preprint]. [Google Scholar]	wrong study duration
Fabiani et al.	Relative effectiveness of a 2nd booster dose of COVID-19 mRNA vaccine up to four months post administration in individuals aged 80 years or more in Italy: A retrospective matched cohort study.	Vaccine	wrong study duration
Fabiani et al.	Effectiveness of mRNA vaccines and waning of protection against SARS-CoV-2 infection and severe covid-19 during predominant circulation of the delta variant in Italy: retrospective cohort study	BMJ (Clinical research ed.)	wrong comparator
Fabiani et al.	Effectiveness of an mRNA vaccine booster dose against SARS-CoV-2 infection and severe COVID-19 in persons aged ≥ 60 years and other high-risk groups during predominant circulation of the Delta variant in Italy, 19 July to 12 December 2021	Expert review of vaccines	Already assessed before
Fabiani et al.	Effectiveness of the comirnaty (BNT162b2, BioNTech/Pfizer) vaccine in preventing SARS-CoV-2 infection among healthcare workers, Treviso province, Veneto region, Italy, 27 December 2020 to 24 March 2021	Eurosurveillance	wrong intervention
Fabiani et al.	Risk of SARS-CoV-2 infection and subsequent hospital admission and death at different time intervals since first dose of COVID-19 vaccine administration, Italy, 27 December 2020 to mid-April 2021	Eurosurveillance	wrong intervention
Fabiani, M. et al.	Effectiveness of an mRNA vaccine booster dose against SARS-CoV-2 infection and severe COVID-19 in persons aged ≥ 60 years and other high-risk groups during predominant	Expert Review of Vaccines	wrong study duration

	circulation of the delta variant in Italy, 19 July to 12 December 2021		
Falsey et al.	Phase 3 Safety and Efficacy of AZD1222 (ChAdOx1 nCoV-19) Covid-19 Vaccine	The New England journal of medicine	wrong study duration
Fano et al.	COVID-19 vaccines coverage and effectiveness against SARS-CoV-2 infection among residents in the largest Health Authority of Lazio region (Italy): a population-based cohort study	Expert Review of Vaccines	No PDF available
Fano et al.	COVID-19 vaccines coverage and effectiveness against SARS-CoV-2 infection among residents in the largest Health Authority of Lazio region (Italy): a population-based cohort study	Expert review of vaccines	wrong study duration
Farah et al.	Effectiveness of Pfizer-BioNTech Vaccine Against COVID-19 Associated Hospitalizations among Lebanese Adults ,â•75 years- Lebanon, April-May 2021	Preprint - medRxiv	wrong outcome
Faria et al.	Performance of vaccination with CoronaVac in a cohort of healthcare workers (HCW) - preliminary report	Preprint - medRxiv	wrong intervention
Felip et al.	1591P Immune response after vaccination against SARS-COV-2 in lung cancer (LC) patients (p). Prospective study in the Medical Oncology Department at the Catalan Institute of Oncology-Badalona, Spain: COVID-lung vaccine	Annals of Oncology	wrong outcome
Feng et al.	Modelling COVID-19 Vaccine Breakthrough Infections in Highly Vaccinated Israel - the effects of waning immunity and third vaccination dose	Preprint - medRxiv	wrong study design
Feng et al.	Correlates of protection against symptomatic and asymptomatic SARS-CoV-2 infection	Preprint - medRxiv	wrong outcome
Ferdinands et al	Waning of vaccine effectiveness against moderate and severe covid-19 among adults in the US from the VISION network: test negative, case-control study	BMJ	previously included
Fernando et al.	Neutralizing SARS-CoV-2 Antibody Response and Protective Effect of 2 Doses of ChAdOx1 nCoV-19 and BBV152 Vaccines in hemodialysis Patients: A Preliminary Report	Kidney International Reports	wrong outcome
Fillmore et al.	Inadequate sars-cov-2 vaccine effectiveness in patients with multiple myeloma: A large nationwide veterans affairs study	Blood	wrong study duration
Firinu et al.	Evaluation of antibody response to BNT162b2 mRNA COVID-19 vaccine in patients affected by immune-mediated inflammatory diseases up to 5 months after vaccination	Preprint - Research Square	wrong outcome

Fisman et al.	Timing of Breakthrough Infection Risk After Vaccination Against SARS-CoV-2	Preprint - medRxiv	wrong comparator
Fisman et al.	Timing of Breakthrough Infection Risk After Vaccination Against SARS-CoV-2	Preprint - medRxiv	wrong comparator
Fisman et al.	Timing of Breakthrough Infection Risk After Vaccination Against SARS-CoV-2	Preprint - medRxiv	delayed exclusion - definition of unvaccinated group is unclear
Flacco et al.	Risk of SARS-CoV-2 reinfection 18 months after primary infection: population-level observational study	Preprint - medRxiv	wrong study duration
Florea et al.	Effectiveness of mRNA-1273 vaccine booster against COVID-19 in immunocompetent adults	Clinical infectious diseases	wrong study duration
Florea et al.	Durability of mRNA-1273 against COVID-19 in the time of Delta: Interim results from an observational cohort study	PloS one	wrong study duration
Florentino et al.	Vaccine effectiveness of two-dose BNT162b2 against symptomatic and severe COVID-19 among adolescents in Brazil and Scotland over time: a test-negative case-control study	The Lancet. Infectious diseases	wrong population
Folegatti et al.	Safety and immunogenicity of the ChAdOx1 nCoV-19	Hand search; The Lancet	wrong outcome
Fontan et al.	Time-Varying Effectiveness of Three Covid-19 Vaccines in Puerto Rico	Preprint - medRxiv	wrong outcome
Foulkes et al.	COVID-19 vaccine coverage in health-care workers in England and effectiveness of BNT162b2 mRNA vaccine against infection (SIREN): a prospective, multicentre, cohort study	The Lancet	wrong intervention
Fournier et al.	SARS-CoV-2 Vaccination and Protection Against Clinical Disease: A Retrospective Study, Bouches-du-Rhône District, Southern France, 2021	Frontiers in Microbiology	delayed exclusion - baseline is <14 days, which is beyond our 30.5 days average post-receipt of second dose threshold.
Frenck et al.	Safety, immunogenicity, and efficacy of the BNT162B2 covid-19 vaccine in adolescents	New England Journal of Medicine	wrong intervention
Friedrichs et al.	Immunogenicity and safety of anti-SARS-CoV-2 mRNA vaccines in patients with chronic inflammatory conditions and immunosuppressive therapy in a monocentric cohort	Annals of the Rheumatic Diseases	wrong intervention
Fu et al.	POS-941 the effectiveness of COVID-19 vaccine in reducing the severity and mortality rate among the end stage kidney disease with COVID-19	Kidney International Reports	Full-text not found

Fuca et al.	Antibody response to mRNA-1273 SARS-COV-2 vaccine in hemodialysis patients with and without prior COVID-19	Clinical Journal of the American Society of Nephrology	wrong intervention
Furer et al.	Immunogenicity induced by two and three doses of the BNT162b2 mRNA vaccine in patients with autoimmune inflammatory rheumatic diseases and immunocompetent controls: A longitudinal multicentre study	Annals of the Rheumatic Diseases	No useful data
Furer et al.	Immunogenicity and safety of the BNT162B2 mRNA COVID-19 vaccine in adult patients with autoimmune inflammatory rheumatic diseases and general population: A multicenter study	Annals of the Rheumatic Diseases	wrong intervention
Gaio et al.	COVID-19 vaccine effectiveness among healthcare workers in Portugal: results from a hospital-based cohort study, December 2020 to November 2021	Preprint - medRxiv	wrong comparator
Gaio et al.	COVID-19 vaccine effectiveness among healthcare workers in Portugal: results from a hospital-based cohort study, December 2020 to November 2021	Preprint - medRxiv	wrong intervention
Garazi et al.	Real-life data on monoclonal antibodies and antiviral drugs in Italian inborn errors of immunity patients during COVID-19 pandemic	Frontiers in Immunology	wrong outcome
Garvey et al.	Early observations on the impact of a healthcare worker COVID-19 vaccination programme at a major UK tertiary centre	The Journal of Infection	wrong intervention
Gazit et al.	Short term, relative effectiveness of four doses versus three doses of BNT162b2 vaccine in people aged 60 years and older in Israel: Retrospective, test negative, case-control study	The BMJ	wrong comparator
Gazit et al.	BNT162b2 mRNA Vaccine Effectiveness Given Confirmed Exposure: Analysis of Household Members of COVID-19 Patients	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong comparator
Gazit et al.	BNT162b2 mRNA Vaccine Effectiveness Given Confirmed Exposure; Analysis of Household Members of COVID-19 Patients	Preprint - medRxiv	wrong intervention
Gazit et al.	Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections	Preprint - medRxiv	wrong intervention
Gazit et al.	Relative Effectiveness of Four Doses Compared to Three Dose of the BNT162b2 Vaccine in Israel	Preprint - medRxiv	wrong intervention
Gazit et al.	Relative Effectiveness of Four Doses Compared to Three Dose of the BNT162b2 Vaccine in Israel	Preprint - medRxiv	wrong study duration

Geysels et al.	SARS-CoV-2 vaccine breakthrough infections among healthcare workers in a large Belgian hospital network	Infection Control and Hospital Epidemiology	wrong intervention
Ghadiri et al.	The study of COVID-19 infection following vaccination in patients with multiple sclerosis	Multiple sclerosis and related disorders	wrong outcome
Ghosh et al.	COVISHIELD (AZD1222) VaccINe effectiveness among healthcare and frontline Workers of INdian Armed Forces: Interim results of VIN-WIN cohort study	Medical Journal Armed Forces India	wrong intervention
Giansante et al.	COVID-19 vaccine effectiveness among the staff of the Bologna Health Trust, Italy, December 2020-April 2021	Acta Bio-medica: Atenei Parmensis	wrong intervention
Gilbert et al.	Immune Correlates Analysis of the mRNA-1273 COVID-19 Vaccine Efficacy Trial	Preprint - medRxiv	wrong intervention
Gilboa et al.	Durability of the immune response to a third BNT162b2 dose	Preprint - medRxiv	wrong outcome
Glampson et al.	North West London Covid-19 Vaccination Programme: Real-world evidence for Vaccine uptake and effectiveness: Retrospective Cohort Study	JMIR Public Health and Surveillance	wrong intervention
Glatman-Freedman et al.	Effectiveness of BNT162b2 Vaccine Booster against SARS-CoV-2 Infection and Breakthrough Complications, Israel	Emerging Infectious Diseases	Already included
Glatman-Freedman et al.	The BNT162b2 vaccine effectiveness against new COVID-19 cases and complications of breakthrough cases: A nation-wide retrospective longitudinal multiple cohort analysis using individualised data	EBioMedicine	wrong study duration
Glatman-Freedman et al.	Effectiveness of BNT162b2 Vaccine in Adolescents during Outbreak of SARS-CoV-2 Delta Variant Infection, Israel, 2021	Emerging infectious diseases	wrong study duration
Goes et al.	New infections by SARS-CoV-2 variants of concern after natural infections and post-vaccination in Rio de Janeiro, Brazil	Infection, Genetics and Evolution	wrong study design
Gohil et al.	Asymptomatic and Symptomatic COVID-19 Infections Among Health Care Personnel Before and After Vaccination	JAMA network open	wrong intervention
Goldberg et al.	Protection of previous SARS-CoV-2 infection is similar to that of BNT162b2 vaccine protection: A three-month nationwide experience from Israel	Preprint - medRxiv	wrong intervention
Goldberg et al.	Protection of previous SARS-CoV-2 infection is similar to that of BNT162b2 vaccine protection: A three-month nationwide experience from Israel	American journal of epidemiology	wrong study duration
Goldberg et al.	Waning Immunity after the BNT162b2 Vaccine in Israel	The New England journal of medicine	wrong comparator

Goldin et al.	BNT162b2 mRNA COVID-19 (Comirnaty) Vaccine Effectiveness in Elderly Patients Who Live in Long-Term Care Facilities: A Nationwide Cohort	Gerontology	wrong outcome
Goldshstein et al.	Association Between BNT162b2 Vaccination and Incidence of SARS-CoV-2 Infection in Pregnant Women	JAMA	wrong intervention
Gomes et al.	Is the BioNTech-Pfizer COVID-19 vaccination effective in elderly populations? Results from population data from Bavaria, Germany	Preprint - medRxiv	wrong intervention
Gomes et al.	Is the BNT162b2 COVID-19 vaccine effective in elderly populations? Results from population data from Bavaria, Germany	PloS one	duplicated
Gonzalez et al.	Protection of homologous and heterologous boosters after primary schemes of rAd26-rAd5, ChAdOx1 nCoV-19 and BBIBP-CorV during the Omicron outbreak in adults of 50 years and older in Argentina: a test-negative case-control study	Mcmaster covid 19 newsletter	wrong study duration
Goulart Rosa et al	BNT162b2 against COVID-19 in Brazil using a test-negative design: Study protocol and statistical analysis plan.	PloS one	wrong publication type
Gounant et al.	Efficacy of SARS-CoV-2 vaccine in thoracic cancer patients: a prospective study supporting a third dose in patients with minimal serologic response after two vaccine doses	Preprint - medRxiv	wrong intervention
Gower et al.	Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant	New England Journal of Medicine	duplicated
Gower et al.	Effectiveness of the Pfizer-BioNTech and Oxford-AstraZeneca vaccines on covid-19 related symptoms, hospital admissions, and mortality in older adults in England: Test negative case-control study	The BMJ	duplicated
Gram et al.	Vaccine effectiveness against SARS-CoV-2 infection and COVID-19-related hospitalization with the Alpha, Delta and Omicron SARS-CoV-2 variants: a nationwide Danish cohort study	Preprint - medRxi	Already included
Gram et al.	Vaccine effectiveness against SARS-CoV-2 infection, hospitalization, and death when combining a first dose ChAdOx1 vaccine with a subsequent mRNA vaccine in Denmark: A nationwide population-based cohort study	PLoS medicine	wrong study duration
Gram et al.	Vaccine effectiveness when combining the ChAdOx1 vaccine as the first dose with an mRNA COVID-19 vaccine as the second dose	Preprint - medRxiv	wrong intervention

Grannis et al.	Interim estimates of COVID-19 vaccine effectiveness against COVID-19, associated emergency department or urgent care clinic encounters and hospitalizations among adults during SARS-CoV-2 B. 1.617. 2 (Delta) variant predominance, Nine States, June, August 2021	Morbidity and Mortality Weekly Report	wrong study duration
Grant et al.	Impact of SARS-CoV-2 Delta variant on incubation, transmission settings and vaccine effectiveness: Results from a nationwide case-control study in France	The Lancet regional health. Europe	wrong study duration
Gray et al.	SAFETY and EFFECTIVENESS of the Ad26.COVS VACCINE in SOUTH AFRICA	Topics in Antiviral Medicine	No PDF available
Gray et al.	Vaccine effectiveness against hospital admission in South African health care workers who received a homologous booster of Ad26.COVS during an Omicron COVID19 wave: Preliminary Results of the Sisonke 2 Study	Preprint - medRxiv	wrong intervention
Grewal et al.	Effectiveness of mRNA COVID-19 vaccine booster doses against Omicron severe outcomes	McMaster COVID-19	Wrong outcomes
Grewal et al.	Effectiveness of a fourth dose of covid-19 mRNA vaccine against the omicron variant among long term care residents in Ontario, Canada: Test negative design study	The BMJ	wrong study duration
Grewal et al.	Effectiveness and Duration of Protection of a Fourth Dose of COVID-19 mRNA Vaccine among Long-Term Care Residents in Ontario, Canada	WHO newsletter	Wrong baseline
Grewal et al.	Effectiveness of a fourth dose of covid-19 mRNA vaccine against the omicron variant among long term care residents in Ontario, Canada: test negative design study	BMJ (Clinical research ed.)	wrong study duration
Grewal et al.	Effectiveness of a Fourth Dose of COVID-19 Vaccine among Long-Term Care Residents in Ontario, Canada: Test-Negative Design Study		wrong study duration
Grgič Vitek et al.	mRNA vaccine effectiveness against hospitalisation due to severe acute respiratory infection (SARI) COVID-19 during Omicron variant predominance estimated from real-world surveillance data, Slovenia, February to March 2022	Euro surveillance : bulletin European sur les maladies transmissibles = European communicable disease bulletin	wrong study duration
Grima et al.	Relative Virulence of SARS-CoV-2 Among Vaccinated and Unvaccinated Individuals Hospitalized with SARS-CoV-2	Preprint - medRxiv	wrong study duration
Guarino et al.	Effectiveness of SARS-Cov-2 vaccination in liver transplanted patients: the debate is open!	Journal of Hepatology	wrong outcome

Guedalia et al	Effectiveness of a third BNT162b2 mRNA COVID-19 vaccination during pregnancy: a national observational study in Israel.	Nature communications	No useful data
Guedalia et al.	Effectiveness of BNT162b2 mRNA COVID-19 third vaccines during pregnancy: A national observational study in Israel	Preprint -Research Square	wrong study duration
Guha et al.	The incidence and in-hospital mortality of COVID-19 patients post-vaccination in eastern India	Preprint - medRxiv	wrong study design
Haas et al.	Impact and effectiveness of mRNA BNT162b2 vaccine against SARS-CoV-2 infections and COVID-19 cases, hospitalisations, and deaths following a nationwide vaccination campaign in Israel: an observational study using national surveillance data	The Lancet	wrong intervention
Haas et al.	Infections, Hospitalizations, and Deaths Averted Via Direct Effects of the Pfizer-BioNTech BNT162b2 mRNA COVID-19 Vaccine in a Nationwide Vaccination Campaign, Israel	Preprint - SSRN	wrong intervention
Hall et al.	Effectiveness and durability of protection against future SARS-CoV-2 infection conferred by COVID-19 vaccination and previous infection; findings from the UK SIREN prospective cohort study of healthcare workers March 2020 to September 2021	Preprint - medRxiv	delayed exclusion - a published version of this article is available
Hall et al.	Randomized Trial of a Third Dose of mRNA-1273 Vaccine in Transplant Recipients	New England Journal of Medicine	wrong comparator
Hall et al.	Protection against SARS-CoV-2 after covid-19 vaccination and previous infection	New England Journal of Medicine	Already assessed before
Hamad et al	The Effectiveness of mRNA COVID-19 Vaccine Against SARS-CoV-2 Infection in Hemodialysis Patients: A Case-Control Study	Journal of the American Society of Nephrology	no useful data
Hammerman et al.	Effectiveness of the BNT162b2 Vaccine after Recovery from Covid-19	The New England journal of medicine	wrong intervention
Hammerman et al.	Effectiveness of the BNT162B2 vaccine after recovery from CoviD-19	New England Journal of Medicine	wrong outcome
Hansen et al.	Trends in risk factors and symptoms associated with SARS-CoV-2 and Rhinovirus test positivity in King County, Washington: A Test-Negative Design Study of the Greater Seattle Coronavirus Assessment Network	Mcmaster covid 19 newsletter	Hand search
Hansen et al.	Vaccine effectiveness against SARS-CoV-2 infection with the Omicron or Delta variants following a two-dose or booster BNT162b2 or mRNA-1273 vaccination series: A Danish cohort study	Preprint - medRxiv	delayed exclusion - last follow-up period is 91-150 days, which is insufficient to

			meet our 112-day lower limit.
Hara et al.	Real-World Effectiveness of the mRNA COVID-19 Vaccines in Japan: A Case-Control Study	Vaccines	wrong study duration
Hardt et al.	Efficacy, safety, and immunogenicity of a booster regimen of Ad26.COV2.S vaccine against COVID-19 (ENSEMBLE2): results of a randomised, double-blind, placebo-controlled, phase 3 trial	The Lancet. Infectious diseases.	wrong study duration
Hardt et al.	Efficacy and Safety of a Booster Regimen of Ad26.COV2.S Vaccine against Covid-19	Preprint - medRxiv	wrong comparator
Hardt et al.	Efficacy and Safety of a Booster Regimen of Ad26.COV2.S Vaccine against Covid-19	Preprint - medRxiv	wrong intervention
Harris et al.	Impact of vaccination on household transmission of SARS-COV-2 in England	Hand search; Preprint - medRxiv	wrong intervention
Hatfield et al.	Effectiveness of COVID-19 vaccination against SARS-CoV-2 Infection among Residents of US Nursing Homes, Before and During the Delta variant Predominance, December 2020 - November 2021	Clinical infectious diseases	wrong study duration
Havers et al.	COVID-19-associated hospitalizations among vaccinated and unvaccinated adults ≥ 18 years - COVID-NET, 13 states, January 1 - July 24, 2021	Preprint - medRxiv	wrong outcome
He et al.	A comprehensive analysis of the efficacy and effectiveness of COVID-19 vaccines	Frontiers in immunology	wrong study design
Heath et al.	Safety and Efficacy of the NVX-CoV2373 COVID-19 Vaccine at Completion of the Placebo-Controlled Phase of a Randomized Controlled Trial.	Clinical infectious diseases	wrong drug
Herishanu et al.	Efficacy of the BNT162b2 mRNA COVID-19 vaccine in patients with chronic lymphocytic leukemia	Blood	wrong outcome
Hermosilla et al.	Comparative effectiveness and safety of homologous two-dose ChAdOx1 versus heterologous vaccination with ChAdOx1 and BNT162b2	Nature communications	wrong comparator
Hernandez Bernal et al.	A phase 3, randomised, double-blind, placebo-controlled clinical trial for adult evaluation of the efficacy and safety of a SARS-CoV-2 recombinant spike RBD protein vaccine (ABDALA-3 Study)	Mcmaster covid 19 newsletter	wrong intervention
Hernandez et al.	OA06.04 Immune Response after SARS-CoV-2 Vaccination in Lung Cancer Patients. Update of the Covid Lung Vaccine Cohort	Journal of Thoracic Oncology	wrong outcome, wrong publication type

Herzberg et al.	SARS-CoV-2-antibody response in health care workers after vaccination or natural infection in a longitudinal observational study	Preprint - medRxiv	wrong intervention
Heudel et al.	Reduced SARS-CoV-2 infection and death after two doses of COVID-19 vaccines in a series of 1503 cancer patients	Annals of Oncology	wrong intervention
Hines et al.	SARS-CoV-2 VACCINE EFFECTIVENESS for IN-HOSPITAL MORTALITY-ZAMBIA, 2021	Topics in Antiviral Medicine	wrong publication type
Hippisley Cox et al	QCovid 4 - Predicting risk of death or hospitalisation from COVID-19 in adults testing positive for SARS-CoV-2 infection during the Omicron wave in England	medRxiv	Wrong study type
Hitchings et al.	Effectiveness of the ChAdOx1 vaccine in the elderly during SARS-CoV-2 Gamma variant transmission in Brazil	Preprint - medRxiv	wrong intervention
Hitchings et al.	Effectiveness of ChAdOx1 vaccine in older adults during SARS-CoV-2 Gamma variant circulation in Sao Paulo	Nature Communications	uplicated
Hoehl et al.	A new group at increased risk of a SARS-CoV-2 infection emerges: The recently vaccinated	Vaccine	wrong intervention
Hollinghurst et al.	COVID-19 Infection Risk amongst 14,104 Vaccinated Care Home Residents: A national observational longitudinal cohort study in Wales, United Kingdom, December 2020 to March 2021	Preprint - medRxiv	wrong intervention
Homan et al	Covid-19 vaccination programme effectiveness against SARS-CoV-2 related infections, hospital admissions and deaths in the Apulia region of Italy: a one-year retrospective cohort study.	Scientific reports	wrong comparator
Hong et al.	COVID-19 VACCINES ARE HIGHLY EFFECTIVE IN PATIENTS WITH IBD: OUTCOMES FROM THE SCOUT IBD COHORT	Gastroenterology	wrong outcome
Hoque et al.	Serial evaluation of anti-SARS-CoV-2 IgG antibody and breakthrough infections in BNT162b2 Vaccinated migrant workers from Bangladesh	Preprint - medRxiv	wrong comparator
Horne et al.	Waning effectiveness of BNT162b2 and ChAdOx1 COVID-19 vaccines over six months since second dose: a cohort study using linked electronic health records	Preprint - medRxiv	Already included
Horne et al.	Waning effectiveness of BNT162b2 and ChAdOx1 covid-19 vaccines over six months since second dose: OpenSAFELY cohort study using linked electronic health records	The BMJ	data in figures
Horst	Covid-19 and Patients with IBD: Who Is at Highest Risk for Severe Complications?	Digestive Diseases and Sciences	wrong publication type

Horváth et al	Real-Time Monitoring of the Effectiveness of Six COVID-19 Vaccines against Laboratory-Confirmed COVID-19 in Hungary in 2021 Using the Screening Method.	Vaccines	no useful data
Hu et al.	Effectiveness of inactivated COVID-19 vaccines against severe illness in B.1.617.2 (Delta) variant-infected patients in Jiangsu, China	Preprint - medRxiv	wrong intervention
Hua et al	Effectiveness of Inactivated COVID-19 Vaccines against COVID-19 Caused by the SARS-CoV-2 Delta and Omicron Variants: A Retrospective Cohort Study.	Vaccines	wrong study duration
Huang et al.	Effectiveness of inactivated and Ad5-nCoV COVID-19 vaccines against SARS-CoV-2 Omicron BA. 2 variant infection, severe illness, and death	Mcmaster covid 19 newsletter	Hand search
Hulme et al.	Effectiveness of BNT162b2 booster doses in England: an observational study in OpenSAFELY-TPP	Preprint - medRxiv	wrong study duration
Hulme et al.	Comparative effectiveness of ChAdOx1 versus BNT162b2 COVID-19 vaccines in Health and Social Care workers in England: a cohort study using OpenSAFELY	Preprint - medRxiv	wrong intervention
Hulme et al.	Comparative effectiveness of BNT162b2 versus mRNA-1273 boosting in England: A cohort study in OpenSAFELY-TPP	medRxiv	wrong study duration
Hulme et al.	Comparative effectiveness of ChAdOx1 versus BNT162b2 covid-19 vaccines in health and social care workers in England: cohort study using OpenSAFELY	The BMJ	wrong outcome
Hung & Poland	Single-dose Oxford-AstraZeneca COVID-19 vaccine followed by a 12-week booster	The Lancet	wrong intervention
Hyams et al.	Effectiveness of BNT162b2 and ChAdOx1 nCoV-19 COVID-19 vaccination at preventing hospitalisations in people aged at least 80 years: a test-negative, case-control study	The Lancet Infectious Diseases	wrong intervention
Hyams et al.	Assessing the Effectiveness of BNT162b2 and ChAdOx1nCoV-19 COVID-19 Vaccination in Prevention of Hospitalisations in Elderly and Frail Adults: A Single Centre Test Negative Case-Control Study	Hand search; Preprint - SSRN	wrong intervention
Igari et al.	Antibody responses and SARS-CoV-2 infection after BNT162b2 mRNA booster vaccination among healthcare workers in Japan	Journal of infection and chemotherapy	wrong study duration
Iliaki et al.	COVID-19 Vaccine Efficacy in a Diverse Urban Healthcare Worker Population	Preprint - medRxiv	wrong intervention
Intawong et al	Heterologous third and fourth dose vaccines reduce severity and mortality in COVID-19	International journal of infectious diseases	wrong outcome

	patients during the periods of delta and omicron predominance in Thailand.		
Intawong et al.	Heterologous third and fourth dose vaccine to reduce severity and mortality in COVID-19 patients during delta and omicron predominance: A cohort study in Chiang Mai, Thailand	Research Square	wrong outcome
Ioannou et al.	Effectiveness of mRNA COVID-19 Vaccine Boosters Against Infection, Hospitalization, and Death: A Target Trial Emulation in the Omicron (B.1.1.529) Variant Era.	Annals of internal medicine	wrong comparator
Ioannou et al.	Effectiveness of mRNA COVID-19 vaccine boosters against infection, hospitalization and death: A target trial emulation in the omicron (B.1.1.529) variant era	Preprint - medRxiv	wrong study duration
Ioannou et al.	Effectiveness of mRNA COVID-19 vaccine boosters against infection, hospitalization and death: a target trial emulation in the omicron (B.1.1.529) variant era	Preprint - medRxiv	wrong outcome
Ioannou et al.	COVID-19 Vaccination Effectiveness Against Infection or Death in a National U.S. Health Care System : A Target Trial Emulation Study	Annals of internal medicine	wrong study duration
Ioannou et al.	COVID-19 Vaccination Effectiveness Against Infection or Death in a National U.S. Health Care System A Target Trial Emulation Study	Annals of Internal Medicine	wrong study duration
Irizarry et al.	Time-Varying Effectiveness of Three Covid-19 Vaccines in Puerto Rico	SSRN	delayed exclusion - study ID 18-3 is a more recent version of this study
Iskander et al.	Effectiveness of vaccination against reported SARS-CoV-2 infection in United States Coast Guard personnel between May and August 2021: A time-series analysis	Preprint - medRxiv	wrong comparator
Islam et al.	Comparative effectiveness over time of the mRNA-1273 (Moderna) vaccine and the BNT162b2 (Pfizer-BioNTech) vaccine	Nature communications	wrong study duration
Ismail et al.	Effectiveness of BNT162b2 mRNA and ChAdOx1 adenovirus vector COVID-19 vaccines on risk of hospitalisation among older adults in England: an observational study using surveillance data	Hand search - Public Health England preprint	wrong intervention
Isnardi et al.	An Argentinean cohort of patients with rheumatic and immune-mediated diseases vaccinated for SARS-CoV-2: the SAR-CoVAC Registry-protocol and preliminary data	Clinical rheumatology	wrong study duration

Isnardi et al.	SAFETY and EFFICACY of VACCINES for SARS-COV-2 in PATIENTS with RHEUMATIC and IMMUNEMEDIATED INFLAMMATORY DISEASES: DATA from the ARGENTINEAN REGISTRY SAR-COVAC	Annals of the Rheumatic Diseases	wrong outcome
Israel et al.	Large-scale study of antibody titer decay following BNT162b2 mRNA vaccine or SARS-CoV-2 infection	Preprint - medRxiv	wrong outcome
Israel, et al.	Elapsed time since BNT162b2 vaccine and risk of SARS-CoV-2 infection in a large cohort	Preprint - medRxiv	delayed exclusion - study included only vaccinated individuals. The authors presented risk of COVID infection according to the time since the vaccination (greater or lower than 146 days) in Table 3 (but no indication of individual level follow-up time).
Issac et al.	SARS-CoV-2 Breakthrough Infections among the Healthcare Workers Post-Vaccination with ChAdOx1 nCoV-19 Vaccine in the South Indian State of Kerala	Preprint - medRxiv	wrong intervention
Italian Istituto Superiore di Sanita	Impact of COVID-19 vaccination on the risk of SARS-CoV-2 infection and hospitalization and death in Italy	Report forwarded by PHAC	wrong comparator
Jablonska et al.	The real-life impact of vaccination on COVID-19 mortality in Europe and Israel	Preprint - medRxiv	wrong population
Jacobson et al.	Post-vaccination SARS-CoV-2 infections and incidence of presumptive B.1.427/B.1.429 variant among healthcare personnel at a northern California academic medical center	Clinical Infectious Diseases	wrong intervention
Jacobson et al.	Post-vaccination SARS-CoV-2 infections and incidence of the B.1.427/B.1.429 variant among healthcare personnel at a northern California academic medical center	Preprint - medRxiv	duplicate
Jacquemont et al.	Minimal change disease relapse following SARS-CoV-2 mRNA vaccine	Kidney International	wrong study design
Jagadeesh Kumar et al.	Clinical outcomes in vaccinated individuals hospitalized with Delta variant of SARS-CoV-2	Preprint - medRxiv	wrong intervention
Jalali et al.	Increased household transmission and immune escape of the SARS-CoV-2 Omicron variant	Preprint - medRxiv	wrong study duration

	compared to the Delta variant: evidence from Norwegian contact tracing and vaccination data		
Jalali et al.	Increased household transmission and immune escape of the SARS-CoV-2 Omicron variant compared to the Delta variant: evidence from Norwegian contact tracing and vaccination data	Preprint - medRxiv	wrong study duration
James et al.	Clinical effectiveness of SARS-CoV-2 vaccines and booster doses in patients with cancer: An analysis from the European OnCovid registry	Journal of Clinical Oncology	wrong publication type
Janzic et al.	Booster third dose of SARS-CoV-2 vaccine effectively lifts the waning immune response of solid cancer patients	Journal of Clinical Oncology	wrong publication type
Jara et al.	Effectiveness and duration of a second COVID-19 vaccine booster		wrong study duration
Jara et al.	Effectiveness of an Inactivated SARS-CoV-2 Vaccine in Chile	Hand search; New England Journal of Medicine	wrong intervention
Jara et al.	Effectiveness of homologous and heterologous booster doses for an inactivated SARS-CoV-2 vaccine: a large-scale prospective cohort study	The Lancet Global Health	wrong study duration
Jassat et al.	TRENDS IN CASES, HOSPITALISATION AND MORTALITY RELATED TO THE OMICRON BA.4/BA.5 SUB-VARIANTS IN SOUTH AFRICA	medRxiv	Wrong intervention
Jawad et al.	EVALUATION OF COVID-19 VACCINES EFFICACY IN IRAQI PEOPLES	Wiadomosci lekarskie (Warsaw, Poland : 1960)	wrong study duration
Jeulin et al.	Comparative analysis of post-vaccination anti-spike IgG antibodies in old Nursing Home Residents and in middle-aged Healthcare workers	Preprint - medRxiv	wrong outcome
Jiménez-Sepúlveda, Natali et al.	The Waning of BNT162b2 Vaccine Effectiveness for SARS-CoV-2 Infection Prevention over Time: A Test-Negative Study in Health Care Professionals of a Health Department from January 2021 to December 2021.	International journal of environmental research and public health	wrong study duration
John et al.	Effectiveness of COVID-19 viral vector vaccine Ad.26.COV2.S vaccine and comparison with mRNA vaccines in patients with cirrhosis	Journal of Hepatology	wrong study duration
John et al.	Effectiveness of mRNA vaccines in patients with cirrhosis with rising prevalence of SARS-CoV-2 delta variant	Journal of Hepatology	wrong study duration
John et al.	Effectiveness of COVID-19 Viral Vector Ad.26.COV2.S Vaccine and Comparison with mRNA Vaccines in Cirrhosis	Clinical gastroenterology and hepatology : the official clinical	wrong study duration

		practice journal of the American Gastroenterological Association	
Joshi et al.	Vaccine effectiveness to protect against moderate or severe disease in COVID cases: A prospective cohort study	Medical Journal Armed Forces India	wrong study duration
June Choe et al.	Safety and effectiveness of BNT162b2 mRNA Covid-19 vaccine in adolescents	Vaccine	wrong population
Junghans	Technical note: The calculated real world BNT162b2 vaccine efficacy was 88% when accounting for asymptomatic cases	Human vaccines & immunotherapeutics	wrong population
Kahn et al	Protection against infection with the Omicron BA.5 subvariant among people with previous SARS-CoV-2 infection - surveillance results from southern Sweden, June to August 2022	McMaster COVID-19	wrong study duration
Kale et al.	Clinicogenomic analysis of breakthrough infections by SARS CoV2 variants after ChAdOx1 nCoV-19 vaccination in healthcare workers	Hand search; Preprint - medRxiv	wrong intervention
Kamar et al.	Three Doses of an mRNA Covid-19 Vaccine in Solid-Organ Transplant Recipients	The New England Journal of Medicine	wrong intervention
Kannian et al.	Booster and anergic effects of the Covishield vaccine among healthcare workers in South India	Preprint - medRxiv	wrong outcome
Kataria et al	Safety, immunogenicity & effectiveness of the COVID-19 vaccine among healthcare workers in a tertiary care hospital.	The Indian journal of medical research	wrong study duration
Katz et al.	Early effectiveness of BNT162b2 Covid-19 vaccine in preventing SARS-CoV-2 infection in healthcare personnel in six Israeli hospitals (CoVEHPI)	Vaccine	wrong outcome
Katz et al.	Covid-19 Vaccine Effectiveness in Healthcare Personnel in six Israeli Hospitals (CoVEHPI)	Preprint - medRxiv	wrong intervention
Kaur et al.	Occurrence of COVID-19 in priority groups receiving ChAdOx1 nCoV-19 coronavirus vaccine (recombinant): a preliminary analysis from north India	Journal of Medical Virology	wrong intervention
Kaur et al.	Persistent Health Issues, Adverse Events, and Effectiveness of Vaccines during the Second Wave of COVID-19: A Cohort Study from a Tertiary Hospital in North India	Vaccines	data in figures
Keegan et al.	Progress of the Delta variant and erosion of vaccine effectiveness, a warning from Utah	Preprint - medRxiv	wrong study design
Keehner et al.	SARS-CoV-2 Infection after Vaccination in Health Care Workers in California	The New England Journal of Medicine	wrong intervention

Keehner, et al	Resurgence of SARS-CoV-2 Infection in a Highly Vaccinated Health System Workforce.	The New England Journal of Medicine	delayed exclusion - a series of cross-sectional analysis over months (no indication of individual level follow-up times)
Keeling et al.	Waning, boosting and a path to endemicity for SARS-CoV-2	Preprint - medRxiv	wrong population
Kemlin et al	Humoral and cellular immune correlates of protection against COVID-19 in kidney transplant recipients	medRxiv	Wrong population
Kepten et al.	BNT162B2 mRNA covid-19 vaccine in a nationwide mass vaccination setting	New England Journal of Medicine	duplicated
Kerr et al	Waning of first- and second-dose ChAdOx1 and BNT162b2 COVID-19 vaccinations: a pooled target trial study of 12.9 million individuals in England, Northern Ireland, Scotland and Wales.	International journal of epidemiology	wrong study duration
Kertes et al.	Effectiveness of the mRNA BNT162b2 vaccine six months after vaccination: Findings from a large Israeli HMO.	Hand search; Preprint - medRxiv	wrong control
Khan & Mahmud	Effectiveness of SARS-CoV-2 vaccination in a Veterans Affairs Cohort of Inflammatory Bowel Disease Patients with Diverse Exposure to Immunosuppressive Medications	Gastroenterology	wrong study duration
Khan et al.	mRNA COVID-19 vaccine effectiveness in liver transplant patients	Journal of Hepatology	wrong publication type
Khan et al.	Safety and effectiveness of the BNT162B2 mRNA COVID-19 vaccine in a nationwide cohort of patients with inflammatory bowel disease	Inflammatory Bowel Diseases	Full-text unavailable
Khan et al.	Safety and effectiveness of the BNT162B2 mRNA COVID-19 vaccine in a nationwide cohort of patients with inflammatory bowel disease	Gastroenterology	Full text unavailable
Khan et al.	Effectiveness of SARS-CoV-2 Vaccination in a Veterans Affairs Cohort of Patients With Inflammatory Bowel Disease With Diverse Exposure to Immunosuppressive Medications	Gastroenterology	wrong intervention
Khoury et al.	COVID-19 vaccine - Long term immune decline and breakthrough infections	Vaccine	wrong comparator
Kim et al.	Effectiveness of two and three mRNA COVID-19 vaccine doses against Omicron- and Delta-Related outpatient illness among adults, October 2021-February 2022	Influenza and other Respiratory Viruses	wrong comparator

Kim et al.	Effectiveness of Second mRNA COVID-19 Booster Vaccine in Immunocompromised Persons and Long-Term Care Facility Residents	Emerging infectious diseases	wrong publication
Kim et al.	mRNA Vaccine Effectiveness against COVID-19 among Symptomatic Outpatients Aged ≥16 Years in the United States, February - May 2021	The Journal of Infectious Diseases	wrong intervention
Kim et al.	mRNA Vaccine Effectiveness against COVID-19 among Symptomatic Outpatients Aged ≥16 Years in the United States, February - May 2021	The Journal of infectious diseases	wrong comparator
Kim et al.	Effectiveness of 2 and 3 mRNA COVID-19 Vaccines Doses against Omicron and Delta-Related Outpatient Illness among Adults, October 2021 - February 2022	Preprint - medRxiv	wrong comparison
Kim et al.	Effectiveness of Booster mRNA Vaccines against SARS-CoV-2 Infection in Elderly Population, South Korea, October 2021 - January 2022	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong study duration; Data reported in figures only
Kim et al.	Relative Effectiveness of COVID-19 Vaccination in Healthcare Workers: 3-Dose Versus 2-Dose Vaccination	Journal of Korean medical science	no useful data
Kim Y et al	Effectiveness of Second mRNA COVID-19 Booster Vaccine in Immunocompromised Persons and Long-Term Care Facility Residents	Emerging infectious diseases	no pdf
Kirsebom et al	Effectiveness of the COVID-19 vaccines against severe disease with Omicron sub-lineages BA.4 and BA.5 in England	medRxiv	previously added
Kirsebom et al.	Effectiveness of ChAdOx1-S COVID-19 Booster Vaccination against the Omicron and Delta variants in England	Preprint - medRxiv	already included before
Kislaya et al	COVID-19 mRNA vaccine effectiveness (second and first booster dose) against hospitalisation and death during Omicron BA.5 circulation: cohort study based on electronic health records, Portugal, May to July 2022	Euro surveillance	wrong study duration
Kislaya et al.	SARS-CoV-2 BA.5 vaccine breakthrough risk and severity compared with BA.2: a case-case and cohort study using Electronic Health Records in Portugal	Preprint - medRxiv	wrong study duration
Kislaya et al.	Comparative complete scheme and booster effectiveness of COVID-19 vaccines in preventing SARS-CoV-2 infections with SARS-CoV-2 Omicron (BA.1) and Delta (B.1.617.2) variants	Preprint - medRxiv	wrong comparator
Kislaya et al.	Comparative Effectiveness of Coronavirus Vaccine in Preventing Breakthrough Infections	Emerging infectious diseases	wrong study duration

	among Vaccinated Persons Infected with Delta and Alpha Variants		
Kislaya et al.	Comparative complete scheme and booster effectiveness of COVID-19 vaccines in preventing SARS-CoV-2 infections with SARS-CoV-2 Omicron (BA.1) and Delta (B.1.617.2) variants	Preprint - medRxiv	wrong comparison
Kislaya et al.	Delta variant and mRNA Covid-19 vaccines effectiveness: higher odds of vaccine infection breakthroughs	Preprint - medRxiv	wrong intervention
Kislaya et al.	SARS-CoV-2 BA.5 vaccine breakthrough risk and severity compared with BA.2: a case-case and cohort study using Electronic Health Records in Portugal	medRxiv	wrong study duration
Kiss et al.	Nationwide Effectiveness of First and Second SARS-CoV2 Booster Vaccines During the Delta and Omicron Pandemic Waves in Hungary (HUN-VE 2 Study)	Frontiers in Immunology	wrong study duration
Kiss et al.	Nationwide Effectiveness of First and Second SARS-CoV2 Booster Vaccines during the Delta and Omicron Pandemic Waves in Hungary (HUN-VE 2 Study)	Preprint - medRxiv	wrong intervention
Kiss et al.	Nationwide Effectiveness of First and Second SARS-CoV2 Booster Vaccines during the Delta and Omicron Pandemic Waves in Hungary (HUN-VE 2 Study)	Preprint - medRxiv	wrong intervention
Kissling et al.	Effectiveness of complete primary vaccination against COVID-19 at primary care and community level during predominant Delta circulation in Europe: multicentre analysis, I-MOVE-COVID-19 and ECDC networks, July to August 2021	Eurosurveillance	already included before
Kissling et al.	Vaccine effectiveness against symptomatic SARS-CoV-2 infection in adults aged 65 years and older in primary care: I-MOVE-COVID-19 project, Europe, December 2020 to May 2021	Hand search; Eurosurveillance	wrong intervention
Klaassen et al.	Population immunity to pre-Omicron and Omicron SARS-CoV-2 variants in US states and counties through December 1, 2021	Preprint - medRxiv	wrong intervention
Klaser et al.	COVID-19 due to the B.1.617.2 (Delta) variant compared to B.1.1.7 (Alpha) variant of SARS-CoV-2: two prospective observational cohort studies	Preprint - medRxiv	wrong study duration
Knobel et al.	Coronavirus disease 2019 (COVID-19) mRNA vaccine effectiveness in asymptomatic healthcare workers	Infection Control and Hospital Epidemiology	wrong intervention

Knobel et al.	COVID-19 mRNA vaccine effectiveness in asymptomatic healthcare workers	Infection Control and Hospital Epidemiology	wrong intervention
Knoll et al.	Oxford-AstraZeneca COVID-19 vaccine efficacy	The Lancet	wrong publication type
Kochuparambil et al	SARS-COV-2 Breakthrough Infections Among the Healthcare Workers Post-vaccination With ChAdOx1 nCoV-19 Vaccine in the South Indian State of Kerala	Clinical Pharmacology in Drug Development	wrong study duration
Kodera et al.	Estimation of mRNA COVID-19 Vaccination Effectiveness in Tokyo for Omicron Variants BA.2 and BA.5 -Effect of Social Behavior-	Mcmaster covid 19 newsletter	Hand search
Kodera et al.	Estimation of Real-World Vaccination Effectiveness of mRNA COVID-19 Vaccines against Delta and Omicron Variants in Japan	Vaccines	results in figures
Kodera S et al	Estimation of mRNA COVID-19 Vaccination Effectiveness in Tokyo for Omicron Variants BA.2 and BA.5 -Effect of Social Behavior-	medRxiv	wrong study duration
Koen et al.	Efficacy of the AZD1222 (ChAdOx1 nCoV-19) COVID-19 Vaccine Against SARS-CoV-2 Variants of Concern	Preprint - medRxiv	wrong study duration
Koen et al.	Efficacy of the AZD1222 (ChAdOx1 nCoV-19) COVID-19 Vaccine Against SARSCoV-2 Variants of Concern	medRxiv	wrong outcome, wrong study duration
Konig et al	Immunogenicity, efficacy and safety of mRNA-COVID-19 vaccines in people with multiple sclerosis	Multiple Sclerosis Journal	No pdf
Kontou et al.	Antibody response following a two-dose mRNA vaccination regimen, in health care workers of a tertiary hospital in Athens, Greece	Journal of Personalized Medicine	wrong intervention
Korves et al.	Relative effectiveness of booster vs. 2-dose mRNA Covid-19 vaccination in the Veterans Health Administration: Self-controlled risk interval analysis		wrong study duration
Korves et al.	Relative effectiveness of booster vs. 2-dose mRNA Covid-19 vaccination in the Veterans Health Administration: Self-controlled risk interval analysis	Preprint - medRxiv	wrong study duration
Koshy	Effectiveness of ChAdOx1 nCoV-19 Vaccine: Experience of a tertiary care institute	Medical Journal Armed Forces India	wrong outcome
Kridin et al.	Determinants and Effectiveness of BNT162b2 mRNA Vaccination Among Patients with Atopic Dermatitis: A Population-Based Study	American Journal of Clinical Dermatology	wrong outcome
Krishna et al.	Prevalence, severity, and risk factor of breakthrough infection after vaccination with either the Covaxin or the Covishield among	Journal of anaesthesiology, clinical pharmacology	wrong study design

	healthcare workers: A nationwide cross-sectional study		
Krisztina et al.	Real-time monitoring of the effectiveness of six COVID-19 vaccines in Hungary in 2021 using the screening method	Preprint - medRxiv	wrong intervention
Krisztina et al.	Real-time monitoring of the effectiveness of six COVID-19 vaccines in Hungary in 2021 using the screening method	Preprint - medRxiv	wrong comparison
Kugeler et al.	Estimating the number of symptomatic SARS-CoV-2 infections among vaccinated individuals in the United State - January-April, 2021	Preprint - medRxiv	wrong study design
Kustin et al.	Evidence for increased breakthrough rates of SARS-CoV-2 variants of concern in BNT162b2 mRNA vaccinated individuals	Preprint - medRxiv	wrong study design
Kwon et al.	mRNA Vaccine Effectiveness Against COVID-19 Hospitalization Among Solid Organ Transplant Recipients	The Journal of infectious diseases	wrong study duration
Lafuente-Lafuente et al.	COVID-19 Outbreaks in Nursing Homes Despite Full Vaccination with BNT162b2 of a Majority of Residents	Gerontology	wrong study duration
Lamacchia et al.	Clinical and immunological features of SARS-CoV-2 breakthrough infections in vaccinated individuals requiring hospitalization	Preprint - medRxiv	wrong outcome
Landre et al.	1600P Suboptimal response to COVID-19 mRNA vaccines in older patients with cancer	Annals of Oncology	wrong comparator
Lange et al.	Immune response to COVID-19 mRNA vaccine-a pilot study	Vaccines	wrong intervention
Lanini et al.	A single intramuscular injection of monoclonal antibody MAD0004J08 induces in healthy adults SARS-CoV-2 neutralising antibody titres exceeding those induced by infection and vaccination	Preprint - medRxiv	wrong intervention
Lanthier et al.	[In subjects 16 years of age and older, is messenger RNA vaccine BNT162b2 against COVID-19 effective and safe?]	La Revue de Médecine Interne	wrong intervention
Larese Filon et al.	Incidence of COVID-19 infection in hospital workers from March 1, 2020 to May 31, 2021 routinely tested, before and after vaccination with BNT162B2	Scientific reports	wrong study duration
Lauring et al.	Clinical severity of, and effectiveness of mRNA vaccines against, covid-19 from omicron, delta, and alpha SARS-CoV-2 variants in the United States: prospective observational study	BMJ (Clinical research ed.)	wrong outcome
Lauring et al.	Clinical Severity and mRNA Vaccine Effectiveness for Omicron, Delta, and Alpha SARS-CoV-2 Variants in the United States: A Prospective Observational Study	Preprint - medRxiv	wrong comparator

Layan et al.	Impact of BNT162b2 vaccination and isolation on SARS-CoV-2 transmission in Israeli households: an observational study	American journal of epidemiology	wrong outcome
Layan et al.	Impact of BNT162b2 vaccination and isolation on SARS-CoV-2 transmission in Israeli households: an observational study	Preprint - medRxiv	wrong intervention
Lee et al	COVID-19: Third dose booster vaccine effectiveness against breakthrough coronavirus infection, hospitalisations and death in patients with cancer: A population-based study	European journal of cancer	wrong study duration
Lee et al.	Vaccine effectiveness against COVID-19 breakthrough infections in patients with cancer (UKCCEP): a population-based test-negative case-control study	The Lancet Oncology	Excluded because of critical RoB
Lee et al.	POS-950 COVID-19 IN END STAGE KIDNEY DISEASE WITH RENAL REPLACEMENT THERAPIES: OUR EXPERIENCE IN PENANG	Kidney International Reports	Full-text not found
Lefèvre et al.	Beta SARS-CoV-2 variant and BNT162b2 vaccine effectiveness in long-term care facilities in France	The Lancet. Healthy longevity	wrong study duration
Lefèvre et al.	Impact of B. 1.351 (beta) SARS-CoV-2 variant on BNT162b2 mRNA vaccine effectiveness in long-term care facilities of eastern France: a retrospective cohort study	Preprint - medRxiv	uplicated
Lemos et al.	Estimation of the Odds Ratio in Vaccinated Individuals and Determination of Vaccine Efficacy against Sars-Cov-2 Infection in Angola – Part I	Preprint – preprints.org	Handsearch – wrong study duration
Leo	Effectiveness of the mRNA BNT162b2 vaccine against SARS-CoV-2 severe infections in the Israeli over 60 population: a temporal analysis done by using the national surveillance data	Preprint - medRxiv	wrong study duration
Lerner et al	mRNA Vaccination Decreases COVID-19-Associated Morbidity and Mortality Among Organ Transplant Recipients: A Contemporary Cohort Study.	Open forum infectious diseases	no useful data
Leung et al.	Homologous and heterologous boosting with CoronaVac and BNT162b2: a randomized trial (the Cobovax study)	medRxiv	immunogenicity, no useful data
Lev Zion et al.	COVID-19 vaccine effectiveness in inflammatory bowel disease patients on tumor-necrosis factor inhibitors: Real world data from a massvaccination campaign	Journal of Crohn's and Colitis	Full-text unavailable
Lev-Tzion et al.	COVID-19 vaccine effectiveness in inflammatory bowel disease patients on tumor-necrosis factor inhibitors: Real world data from a mass-vaccination campaign	Journal of Pediatric Gastroenterology and Nutrition	wrong outcome

Lev-Tzion et al.	COVID-19 vaccine is effective in inflammatory bowel disease patients and is not associated with disease exacerbation	Clinical gastroenterology and hepatology : the official clinical practice journal of the American Gastroenterological Association	wrong outcome
Lev-Tzion et al.	COVID-19 Vaccine Is Effective in Inflammatory Bowel Disease Patients and Is Not Associated With Disease Exacerbation	Clinical Gastroenterology and Hepatology	wrong comparison
Lewis et al	Vaccine Effectiveness against SARS-CoV-2 Variant P.1 in Nursing-Facility Residents, Washington, USA, April 2021	Emerging infectious diseases	data in figure
Lewis et al.	Effectiveness Associated with Vaccination after COVID-19 Recovery in Preventing Reinfection	JAMA Network Open	wrong study duration
Lewis et al.	Effectiveness of mRNA Vaccines Against COVID-19 Hospitalization by Age and Chronic Medical Conditions Burden Among Immunocompetent US Adults, March-August 2021	Journal of Infectious Diseases	wrong study duration
Lewis et al.	Effectiveness of the Ad26.COV2.S (Johnson & Johnson) COVID-19 Vaccine for Preventing COVID-19 Hospitalizations and Progression to High Disease Severity in the United States	Clinical infectious diseases	wrong comparator
Lewis et al.	Effectiveness of mRNA vaccines in preventing COVID-19 hospitalization by age and burden of chronic medical conditions among immunocompetent US adults, March-August 2021	The Journal of infectious diseases	wrong study duration
Lewnard et al.	Association of SARS-CoV-2 BA.4/BA.5 Omicron lineages with immune escape and clinical outcome	Preprint - medRxiv	Handsearch – wrong outcome
Lillie et al.	First dose of BNT162b2 mRNA vaccine in a Health Care Worker cohort is associated with reduced symptomatic and asymptomatic SARS-CoV-2 infection	Clinical Infectious Diseases	wrong intervention
Lim et al.	Antibody response to variants during Omicron outbreak after BNT162b2 booster in Korean healthcare workers	Preprint – Research Square	wrong outcome
Lim et al.	POS-962 A survey of covid-19 infection among vaccinated and unvaccinated patients on renal replacement therapy: a single centre experience	Kidney International Reports	Full-text not found
Lim et al.	Evaluation of BNT162b2 vaccine effectiveness in Malaysia: test negative case-control study	Vaccine	wrong study duration
Lin et al.	Effectiveness of COVID-19 vaccination among people living with HIV during an outbreak	Topics in Antiviral Medicine	wrong study duration

Lin et al.	Effectiveness of Covid-19 Vaccines over a 9-Month Period in North Carolina	The New England journal of medicine	wrong intervention
Lind et al.	Effectiveness of Primary and Booster COVID-19 mRNA Vaccination against Omicron Variant SARS-CoV-2 Infection in People with a Prior SARS-CoV-2 Infection	Preprint - medRxiv	Already included
Link Gelles et al	Association between COVID-19 mRNA vaccination and COVID-19 illness and severity during Omicron BA.4 and BA.5 sublineage periods		wrong study duration
Link-Gelles et al	Effectiveness of Bivalent mRNA Vaccines in Preventing Symptomatic SARS-CoV-2 Infection — Increasing Community Access to Testing Program, United States, September–November 2022	WHO newsletter	wrong study duration
Link-Gelles et al.	Effectiveness of 2, 3, and 4 COVID-19 mRNA Vaccine Doses Among Immunocompetent Adults During Periods when SARS-CoV-2 Omicron BA.1 and BA.2/BA.2.12.1 Sublineages Predominated - VISION Network, 10 States, December 2021-June 2022	MMWR. Morbidity and mortality weekly report	wrong comparator
Link-Gelles et al.	Association between COVID-19 mRNA vaccination and COVID-19 illness and severity during Omicron BA.4 and BA.5 sublineage periods	WHO newsletter	Wrong baseline
Lippi & Mattiuzzi	Primary COVID-19 vaccine cycle and booster doses efficacy: analysis of Italian nationwide vaccination campaign	European journal of public health	delayed exclusion - baseline is < 6 month, which is beyond our 30.5 days average post-receipt of second dose threshold
Lippi et al.	Real-world analysis of age-dependent efficacy of COVID-19 vaccination	Research Square	wrong comparator
Liu et al	Effectiveness of SARS-CoV-2-inactivated vaccine and the correlation to neutralizing antibodies: A test-negative case-control study.	Journal of medical virology	wrong study duration
Liu et al	Relative effectiveness of COVID-19 vaccination with 3 compared to 2 doses against SARS-CoV-2 B.1.1.529 (Omicron) among an Australian population with low prior rates of SARS-CoV-2 infection	Vaccine	wrong comparator
Liu et al.	Relative effectiveness of COVID-19 vaccination with 3 compared to 2 doses against SARS-CoV-2 B.1.1.529 (Omicron) among an Australian population with low prior rates of SARS-CoV-2 infection	Vaccine	wrong comparison

Liu et al.	A Retrospective Analysis of COVID-19 mRNA Vaccine Breakthrough Infections ,À Risk Factors and Vaccine Effectiveness	Preprint - medRxiv	delayed exclusion - no comparative data for unvaccinated individuals
Lo Sasso et al.	Evaluation of Anti-SARS-Cov-2 S-RBD IgG Antibodies after COVID-19 mRNA BNT162b2 Vaccine	Diagnostics (Basel, Switzerland)	wrong outcome
Lopez Bernal et al.	Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant	The New England Journal of Medicine	duplicated
Lopez Bernal et al.	Effectiveness of the Pfizer-BioNTech and Oxford-AstraZeneca vaccines on covid-19 related symptoms, hospital admissions, and mortality in older adults in England: test negative case-control study	BMJ (Clinical Research Ed.)	wrong intervention
Lopez-Munoz et al	SARS-CoV-2 Secondary Attack Rates in Vaccinated and Unvaccinated Household Contacts during Replacement of Delta with Omicron Variant, Spain	Europe PMC	Wrong study duration
Low et al	Assessment of Heterologous and Homologous Boosting With Inactivated COVID-19 Vaccine at 3 Months Compared With Homologous Boosting of BNT162b2 at 6 Months	JAMA network	Wrong study duration
Lu et al.	Heterologous boost with mRNA vaccines against SARS-CoV-2 Delta/Omicron variants following an inactivated whole-virus vaccine	Mcmaster covid 19 newsletter	wrong intervention
Lumley et al.	An observational cohort study on the incidence of SARS-CoV-2 infection and B.1.1.7 variant infection in healthcare workers by antibody and vaccination status	Preprint - medRxiv	duplicated
Lumley et al.	An observational cohort study on the incidence of SARS-CoV-2 infection and B.1.1.7 variant infection in healthcare workers by antibody and vaccination status	Clinical Infectious Diseases	wrong intervention
Lustig et al.	Superior immunogenicity and effectiveness of the third compared to the second BNT162b2 vaccine dose	Nature Immunology	wrong study duration
Lytras et al.	Comparative effectiveness and durability of COVID-19 vaccination against death and severe disease in an ongoing nationwide mass vaccination campaign	Journal of Medical Virology	already included before
Lytras et al.	Comparative effectiveness and durability of COVID-19 vaccination against death and severe disease in an ongoing nationwide mass vaccination campaign	Journal of medical virology	wrong comparator
Lytras et al.	Comparative effectiveness of COVID-19 vaccination against death and severe disease in	Preprint - medRxiv	duplicated

	an ongoing nationwide mass vaccination campaign		
Ma et al.	Effectiveness of Covid-19 Vaccines against the SARS-COV-2-Delta (B.1.617.2) in China-A Real World Study	Preprint - medRxiv	wrong outcome
Ma et al.	Effectiveness of Covid-19 Vaccines against the SARS-COV-2-Delta (B.1.617.2) in China - A Real World Study	Preprint - medRxiv	wrong study duration
Ma et al.	Effectiveness of adenovirus type 5 vectored and inactivated COVID-19 vaccines against symptomatic COVID-19, COVID-19 pneumonia, and severe COVID-19 caused by the B.1.617.2 (Delta) variant: Evidence from an outbreak in Yunnan, China, 2021	Vaccine	wrong study duration
Machado et al.	COVID-19 vaccine effectiveness against symptomatic SARS-CoV-2 infections, COVID-19 related hospitalizations and deaths, among individuals aged ≥ 65 years in Portugal: A cohort study based on data-linkage of national registries February-September 2021	PLoS ONE	wrong study duration
Machado et al.	SAFETY OF VACCINATION AGAINST SARS-COV-2 IN PEOPLE WITH RHEUMATIC AND MUSCULOSKELETAL DISEASES: RESULTS FROM THE EULAR CORONAVIRUS VACCINE (COVAX) PHYSICIAN-REPORTED REGISTRY	Rheumatology (United Kingdom)	wrong outcome
Madhi et al.	ChAdOx1 nCoV-19 Vaccine Efficacy against the B.1.351 Variant. Reply	The New England Journal of Medicine	wrong publication type
Madhi et al.	Safety and efficacy of the ChAdOx1 nCoV-19 (AZD1222) Covid-19 vaccine against the B.1.351 variant in South Africa	Preprint - medRxiv	duplicated
Maeda et al.	Effectiveness of mRNA COVID-19 vaccines against symptomatic SARS-CoV-2 infections during the Delta variant epidemic in Japan: Vaccine Effectiveness Real-time Surveillance for SARS-CoV-2 (VERSUS)	Preprint - medRxiv	wrong comparator
Maeda et al.	Effectiveness of mRNA COVID-19 vaccines against symptomatic SARS-CoV-2 infections during the Delta variant epidemic in Japan: Vaccine Effectiveness Real-time Surveillance for SARS-CoV-2 (VERSUS)	Preprint - medRxiv	wrong comparator
Maeda et al.	Effectiveness of mRNA COVID-19 vaccines against symptomatic SARS-CoV-2 infections during the Delta variant epidemic in Japan: Vaccine Effectiveness Real-time Surveillance for SARS-CoV-2 (VERSUS)	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong comparison
Magen et al.	Fourth Dose of BNT162b2 mRNA Covid-19 Vaccine in a Nationwide Setting	The New England journal of medicine	wrong comparison

Magen et al.	Fourth Dose of BNT162b2 mRNA Covid-19 Vaccine in a Nationwide Setting	New England Journal of Medicine	wrong study duration
Mahase et al.	Covid-19: Pfizer vaccine's efficacy declined from 96% to 84% four months after second dose, company reports	BMJ (Clinical Research Ed.)	wrong publication type
Malhotra et al.	COVID-19 infection, and reinfection, and vaccine effectiveness against symptomatic infection among health care workers in the setting of omicron variant transmission in New Delhi, India	The Lancet regional health	wrong intervention
Mallow et al.	Real world SARS-COV-2 vaccine effectiveness in a Miami academic institution	The American journal of emergency medicine	wrong study duration
Maltezou et al.	COVID-19 vaccination significantly reduces morbidity and absenteeism among healthcare personnel: A prospective multicenter study	Vaccine	wrong study duration
Maneikis et al.	Immunogenicity of the BNT162b2 COVID-19 mRNA vaccine and early clinical outcomes in patients with haematological malignancies in Lithuania: a national prospective cohort study	The Lancet Haematology	wrong intervention
Manley et al.	Vaccine Effectiveness of One, Two, or Three Doses of SARS-CoV-2 mRNA Vaccines in Maintenance Dialysis Patients	Journal of the American Society of Nephrology	No pdf
Manley et al.	SARS-CoV-2 vaccine effectiveness and breakthrough infections in maintenance dialysis patients	Preprint - medRxiv	wrong outcome
Manley et al.	SARS-CoV-2 vaccine effectiveness and breakthrough infections in maintenance dialysis patients	Preprint - medRxiv	wrong study duration
Marchevsky et al.	An exploratory analysis of the response to ChAdOx1 nCoV-19 (AZD1222) vaccine in males and females	eBioMedicine	wrong study duration
Marra et al.	Effectiveness of heterologous COVID-19 vaccine booster dosing in Brazilian healthcare workers, 2021	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong study duration
Marra et al.	Effectiveness of two COVID-19 vaccines (viral vector and inactivated viral vaccine) against SARS-CoV-2 infection in a cohort of healthcare workers	Infection control and hospital epidemiology	wrong outcome
Martellucci et al.	Effectiveness of COVID-19 Vaccines in the General Population of an Italian Region before and during the Omicron Wave	Vaccines	wrong study duration
Martellucci et al.	Effectiveness of COVID-19 Vaccines in the General Population of an Italian Region before and during the Omicron Wave	Vaccines	wrong study duration

Martin et al.	Comparison of immunogenicity and clinical effectiveness between BNT162b2 and ChAdOx1 SARS-CoV-2 vaccines in people with end-stage kidney disease receiving haemodialysis: A prospective, observational cohort study	The Lancet regional health. Europe	wrong comparison
Martinez-Baz et al.	Effectiveness of COVID-19 vaccines in preventing SARS-CoV-2 infection and hospitalisation, Navarre, Spain, January to April 2021	Eurosurveillance	wrong intervention
Martínez-Baz et al.	Product-specific COVID-19 vaccine effectiveness against secondary infection in close contacts, Navarre, Spain, April to August 2021	Euro surveillance : bulletin European sur les maladies transmissibles = European communicable disease bulletin	wrong comparator
Martinot et al.	Outbreak of SARS-CoV-2 infection in a long-term care facility after COVID-19 BNT162b2 mRNA vaccination	Clinical Microbiology and Infection	wrong intervention
Más-Bermejo et al.	Cuban Abdala vaccine: Effectiveness in preventing severe disease and death from COVID-19 in Havana, Cuba; A cohort study	WHO newsletter	wrong study duration
Massimo et al.	COVID-19 convalescent plasma donors: impact of vaccination on antibody levels, breakthrough infections and reinfection rate	Preprint - medRxiv	wrong intervention
Massonnaud et al.	Evaluating COVID-19 booster vaccination strategies in a partially vaccinated population: a modeling study	SSRN	wrong study design
Mateo-Urdiales et al.	Risk of SARS-CoV-2 infection and subsequent hospital admission and death at different time intervals since first dose of COVID-19 vaccine administration, Italy, 27 December 2020 to mid-April 2021	Hand search; Eurosurveillance	wrong intervention
Mateus et al.	Low dose mRNA-1273 COVID-19 vaccine generates durable T cell memory and antibodies enhanced by pre-existing crossreactive T cell memory	Preprint - medRxiv	wrong outcome
Mathema et al.	Post-vaccination SARS-COV-2 among healthcare workers in New Jersey: a genomic epidemiological study	Preprint - medRxiv	wrong intervention
Mattar et al.	Efficacy of the CoronaVac® Vaccine in a Region of the Colombian Amazon, Was Herd Immunity Achieved?	Preprint - Research Square	wrong intervention
Mattiuzzi & Lippi	Primary COVID-19 vaccine cycle and booster doses efficacy: analysis of Italian nationwide vaccination campaign	European journal of public health	wrong comparator

Mattiuzzi & Lippi	Efficacy of COVID-19 vaccine booster doses in older people	European geriatric medicine	wrong comparator
Mattiuzzi & Lippi	<p>COVID-19 vaccination is highly effective to prevent SARS-CoV-2 circulation</p>	Research Square	wrong comparator
Mayr et al.	Comparative COVID-19 Vaccine Effectiveness Over Time in Veterans	Open forum infectious diseases	wrong comparator
Mayr et al.	Comparative COVID-19 Vaccine Effectiveness Over Time in Veterans	Open Forum Infectious Diseases	wrong baseline
Mazagatos et al.	COVID-19 vaccine effectiveness against hospitalization due to SARS-CoV-2: A test-negative design study based on Severe Acute Respiratory Infection (SARI) sentinel surveillance in Spain	Influenza and other respiratory viruses	wrong comparator
Mazagatos et al.	Effectiveness of mRNA COVID-19 vaccines in preventing SARS-CoV-2 infections and COVID-19 hospitalisations and deaths in elderly long-term care facility residents, Spain, weeks 53 2020 to 13 2021	Eurosurveillance	wrong intervention
Mazuecos et al.	Breakthrough Infections Following mRNA SARS-CoV-2 Vaccination in Kidney Transplant Recipients	Transplantation	wrong outcome
McConaghy et al.	An assessment of the impact of the vaccination program on coronavirus disease 2019 (COVID-19) outbreaks in care homes in Northern Ireland-A pilot study	Infection Control and Hospital Epidemiology	wrong intervention
McConeghy et al.	Effectiveness of a Second COVID-19 Vaccine Booster Dose Against Infection, Hospitalization, or Death Among Nursing Home Residents - 19 States, March 29-July 25, 2022	Mmwr	
McConeghy et al.	Effectiveness of a SARS-CoV-2 mRNA vaccine booster dose for prevention of infection, hospitalization or death in two nation-wide nursing home systems	Preprint - medRxiv	wrong study duration
McConeghy et al.	Effectiveness of a SARS-CoV-2 mRNA vaccine booster dose for prevention of infection, hospitalization or death in two nation-wide nursing home systems	Preprint - medRxiv	wrong outcome
McCormick et al	SARS-CoV-2 infection risk among vaccinated and unvaccinated household members during the Alpha variant surge – Denver, Colorado, and San Diego, California, January–April 2021	Vaccine	Wrong study duration
McDade et al.	Durability of antibody response to vaccination and surrogate neutralization of emerging variants based on SARS-CoV-2 exposure history	Scientific Reports	wrong intervention
McEllistrem et al.	Introduction of the BNT162b2 vaccine during a COVID-19 nursing home outbreak	American Journal of Infection Control	wrong intervention

McEvoy et al.	Real-world Effectiveness of 2-dose SARS-CoV-2 Vaccination in Kidney Transplant Recipients	Preprint - medRxiv	wrong comparator
McKeigue et al.	Vaccine efficacy against severe COVID-19 in relation to delta variant (B.1.617.2) and time since second dose in patients in Scotland (REACT-SCOT): a case-control study	The Lancet Respiratory Medicine	data in figures
McKeigue et al.	Vaccine efficacy against severe COVID-19 in relation to delta variant (B.1.617.2) and time since second dose in patients in Scotland (REACT-SCOT): a case-control study	The Lancet. Respiratory medicine	wrong outcome
McKeigue et al.	Efficacy of vaccination against severe COVID-19 in relation to Delta variant and time since second dose: the REACT-SCOT case-control study	Preprint - medRxiv	wrong comparator
McKeon et al.	Real-world effectiveness and immunogenicity of mRNA-1273 in dialysis patients	Journal of the American Society of Nephrology	wrong intervention
McLean et al.	mRNA COVID-19 vaccine effectiveness against SARS-CoV-2 infection in a prospective community cohort, rural Wisconsin, November 2020-December 2021	Preprint - medRxiv	wrong outcome
McLean et al.	mRNA COVID-19 vaccine effectiveness against SARS-CoV-2 infection in a prospective community cohort, rural Wisconsin, November 2020 to December 2021	Influenza and other respiratory viruses	wrong study duration
McMenamin et al.	Vaccine effectiveness of one, two, and three doses of BNT162b2 and CoronaVac against COVID-19 in Hong Kong: a population-based observational study	The Lancet. Infectious diseases	wrong study duration
McMenamin et al.	Vaccine effectiveness of two and three doses of BNT162b2 and CoronaVac against COVID-19 in Hong Kong	Preprint - medRxiv	wrong study duration
Medeiros et al.	Reduced T cell and antibody responses to inactivated coronavirus vaccine among males and individuals above 55 years old	Preprint - medRxiv	wrong intervention
Medina-Pestana et al.	Inactivated Whole-virus Vaccine Triggers Low Response Against SARS-CoV-2 Infection Among Renal Transplant Patients: Prospective Phase 4 Study Results	Transplantation	wrong intervention
Meggiolaro et al.	Effectiveness of vaccination against symptomatic and asymptomatic SARS-CoV-2 infection: a systematic review and meta-analysis	Preprint - medRxiv	wrong study design
Mehta & Silveira	COVID-19 after two doses of mRNA vaccines in kidney transplant recipients	American Journal of Transplantation	wrong intervention
Mehta et al	Effectiveness of COVID-19 Booster on the Risk of Hospitalization Among Medicare Beneficiaries.	Mayo Clinic proceedings	wrong study duration

Mehta et al.	Effectiveness of COVID-19 Booster on the Risk of Hospitalization Among Medicare Beneficiaries	Mayo Clinic Proceedings	cumulative data
Menascu et al.	Safety and efficacy of COVID-19 Pfizer-BNT162b2 m-RNA vaccine in young MS population	Multiple Sclerosis Journal	wrong comparator
Menni et al.	Vaccine side-effects and SARS-CoV-2 infection after vaccination in users of the COVID Symptom Study app in the UK: a prospective observational study	The Lancet Infectious Diseases	wrong intervention
Menni et al.	COVID-19 vaccine waning and effectiveness and side-effects of boosters: a prospective community study from the ZOE COVID Study	The Lancet. Infectious diseases	Excluded for RoB
Meo et al.	Effect of Pfizer/BioNTech and Oxford/AstraZeneca vaccines against COVID-19 morbidity and mortality in real-world settings at countrywide vaccination campaign in Saudi Arabia	European review for medical and pharmacological sciences	wrong outcome
Meo et al.	COVID-19 vaccines: Comparison of biological, pharmacological characteristics and adverse effects of Pfizer/BioNTech and Moderna vaccines	European Review for Medical and Pharmacological Sciences	wrong study design
Meunier et al.	Efficacy and safety of SARS-CoV-2 vaccination in liver transplant recipients	Journal of Hepatology	wrong publication type
Meyer et al.	BNT162b2 vaccination reduced infections and transmission in a COVID-19 outbreak in a nursing home in Germany, 2021	Influenza and other respiratory viruses	wrong study duration
Meylan	Efficacy and safety of BioNTech/Pfizer and Moderna vaccines	Revue Medicale Suisse	wrong publication type
Meylan	Safety and efficacy of the Oxford-AstraZeneca vaccine: Interim analysis of four randomized controlled trials	Revue Medicale Suisse	wrong intervention
Michos et al.	Association of total and neutralizing SARS-CoV-2 spike -receptor binding domain antibodies with epidemiological and clinical characteristics after immunization with the 1st and 2nd doses of the BNT162b2 vaccine	Vaccine	wrong outcome
Mielke et al.	Fully Vaccinated and Boosted Patients Requiring Hospitalization for COVID-19: an Observational Cohort Analysis	Preprint - medRxiv	wrong outcome
Mielke et al.	Boosters reduce in-hospital mortality in patients with COVID-19: An observational cohort analysis	Lancet Regional Health. Americas	wrong study duration
Mimura et al	Effectiveness of mRNA vaccines against SARS-CoV-2 infections during the periods of Delta and Omicron variant predominance in Japan: The VENUS Study.	International journal of infectious diseases	wrong study duration

Mirahmadizadeh et al.	Effectiveness of Coronavirus Disease 2019 Vaccines in Preventing Infection, Hospital Admission, and Death: A Historical Cohort Study Using Iranian Registration Data During Vaccination Program	Open forum infectious diseases	wrong study duration
Mirahmadizadeh et al.	"Effectiveness of COVID-19 Vaccines in preventing Infectiousness, Hospitalization and Mortality: A Historical Cohort Study Using Iranian Registration Data During Vaccination program"	Preprint - medRxiv	wrong outcome
Mirahmadizadeh et al.	„Effectiveness of COVID-19 Vaccines in preventing Infectiousness, Hospitalization and Mortality: A Historical Cohort Study Using Iranian Registration Data During Vaccination program	Preprint - medRxiv	wrong study duration
Miron et al.	Effectiveness of COVID-19 Vaccines BNT162b2 and mRNA-1273 by Days from Vaccination: A Reanalysis of Clinical Trial Data	Preprint - SSRN	wrong intervention
Mittelman et al.	Effectiveness of the BNT162b2mRNA Covid-19 Vaccine in Patients with Hematological Neoplasms	Blood	wrong study duration
Miyauchi et al.	Is a Booster Dose of COVID-19 Vaccines Effective on Newly Dominant Omicron Subvariants Among University Students? Comparison Between BA.1 and BA.2 Dominancy.	American journal of infection control	wrong study duration
Miyauchi et al.	Real-World Effectiveness of a Booster Dose of the COVID-19 Vaccines among Japanese University Students	Vaccines	wrong comparator
Mizrahi et al.	Correlation of SARS-CoV-2 Breakthrough Infections to Time-from-vaccine; Preliminary Study	Preprint - medRxiv	wrong outcome
Mizrahi et al.	Correlation of SARS-CoV-2-breakthrough infections to time-from-vaccine	Nature Communications	uplicated
Moein et al.	COVID-19 INFECTION AND BREAKTHROUGH INFECTION IN POST LIVER TRANSPLANT PATIENTS	Gastroenterology	wrong publication type
Moffa et al.	Description of Hospitalizations due to the Severe Acute Respiratory Syndrome Coronavirus 2 Omicron Variant Based on Vaccination Status	Open forum infectious diseases	wrong study duration
Moghnieh et al.	Immunogenicity and Effectiveness of Primary and Booster Vaccine Combination Strategies during Periods of SARS-CoV-2 Delta and Omicron Variants.	Vaccines	wrong study duration
Molani et al.	Time to reinfection and vaccine breakthrough SARS-CoV-2 infections: a retrospective cohort study	Preprint - medRxiv	wrong outcome

Moline et al.	Effectiveness of COVID-19 mRNA vaccines against infection during an outbreak of SARS-CoV-2 Beta (B.1.351) variant in a skilled nursing facility - Virginia, March-April 2021	Clinical infectious diseases: an official publication of the Infectious Diseases Society of America	wrong study duration
Moline et al.	Effectiveness of COVID-19 Vaccines in Preventing Hospitalization Among Adults Aged >=65 Years - COVID-NET, 13 States, February-April 2021	Morbidity and Mortality Weekly Report	wrong intervention
Moncunill et al.	Determinants of early antibody responses to COVID-19 mRNA vaccines in exposed and naive healthcare workers	Preprint - medRxiv	wrong study duration
Monge et al.	Effectiveness of mRNA vaccine boosters against infection with the SARS-CoV-2 omicron (B.1.1.529) variant in Spain: a nationwide cohort study	The Lancet. Infectious diseases	wrong study duration
Monge et al.	Effectiveness of a second dose of an mRNA vaccine against SARS-CoV-2 Omicron infection in individuals previously infected by other variants	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong study duration
Monge et al.	Direct and Indirect Effectiveness of mRNA Vaccination against Severe Acute Respiratory Syndrome Coronavirus 2 in Long-Term Care Facilities, Spain	Emerging Infectious Diseases	wrong intervention
Monge et al.	Direct and Indirect Effectiveness of mRNA Vaccination against Severe Acute Respiratory Syndrome Coronavirus 2 in Long-Term Care Facilities, Spain	Emerging infectious diseases	wrong study duration
Monge et al.	Effectiveness of vaccines against SARS-CoV-2 used in Spain: infection, hospitalization and mortality in people aged fifty/fifty-nine	Revista espanola de salud publica	foreign language
Monge et al.	Effectiveness of mRNA vaccine boosters against infection with the SARS-CoV-2 omicron (B.1.1.529) variant in Spain: a nationwide cohort study	The Lancet Infectious Diseases	wrong study duration
Montejano-Hervas et al.	Safety, Effectiveness, and Immunogenicity 6 Months After BNT162B2 mRNA Vaccine in Frail Nursing Home Residents	Drugs and Aging	wrong outcome
Mor et al.	BNT162b2 Vaccination efficacy is marginally affected by the SARS-CoV-2 B.1.351 variant in fully vaccinated individuals	Preprint - medRxiv	wrong population
Mor et al.	BNT162b2 vaccine effectiveness was marginally affected by the SARS-CoV-2 beta variant in fully vaccinated individuals	Journal of clinical epidemiology	duplicated
Moreira et al.	Safety and Efficacy of a Third Dose of BNT162b2 Covid-19 Vaccine	The New England journal of medicine	wrong outcome

Mosconi et al.	Efficacy of SARS-CoV-2 Vaccination in Dialysis Patients: Epidemiological Analysis and Evaluation of the Clinical Progress	Journal of Clinical Medicine	wrong study duration
Moustsen Helms et al.	Vaccine effectiveness after 1st and 2nd dose of the BNT162b2 mRNA Covid-19 Vaccine in long-term care facility residents and healthcare workers—a Danish cohort study	Preprint - medRxiv	wrong intervention
Muadchimkaew et al	Effect of Inactivated SARS-CoV-2 Vaccines and ChAdOx1 nCoV-19 Vaccination to Prevent COVID-19 in Thai Households (VacPrevent trial)	International Journal of Infectious Diseases	wrong study duration
Mues et al.	Real-world comparative effectiveness of mRNA-1273 and BNT162b2 vaccines among immunocompromised adults identified in administrative claims data in the United States	Vaccine.	wrong comparison
Muhsen et al.	Effectiveness of BNT162b2 mRNA COVID-19 vaccine against acquisitions of SARS-CoV-2 among health care workers in long-term care facilities: a prospective cohort study	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong study duration
Muhsen et al.	Effectiveness of BNT162b2 mRNA COVID-19 vaccine against acquisitions of SARS-CoV-2 among health care workers in long-term care facilities: a prospective cohort study	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong study duration
Mukim et al.	Covid-19 Vaccines available in India	Combinatorial chemistry & high throughput screening	Full-text unavailable
Muller et al.	Booster Vaccination Decreases 28-Day All-Cause Mortality of the Elderly Hospitalized Due to SARS-CoV-2 Delta Variant	Vaccines	wrong outcome
Munitz et al.	BNT162b2 vaccination effectively prevents the rapid rise of SARS-CoV-2 variant B.1.1.7 in high-risk populations in Israel	Cell Reports Medicine	wrong intervention
Munro et al.	Safety, immunogenicity, and reactogenicity of BNT162b2 and mRNA-1273 COVID-19 vaccines given as fourth-dose boosters following two doses of ChAdOx1 nCoV-19 or BNT162b2 and a third dose of BNT162b2 (COV-BOOST): a multicentre, blinded, phase 2, randomised trial	The Lancet Infectious Diseases	wrong study duration
Murali et al.	Effectiveness of the ChAdOx1 nCoV-19 Coronavirus Vaccine (Covishield™) in Preventing SARS-CoV2 Infection, Chennai, Tamil Nadu, India, 2021	Vaccines	wrong study duration
Murali et al.	Effectiveness of ChAdOx1 nCoV-19 Corona Virus Vaccine (Covishield™) in preventing	Preprint - medRxiv	wrong study duration

	SARS-CoV2 infection, Chennai, Tamil Nadu, India, 2021		
Murari et al.	Retrospective Cohort Study of COVID-19 in Patients of the Brazilian Public Health System with SARS-CoV-2 Omicron Variant Infection	Vaccines	wrong study design
Murari et al.	Retrospective cohort study of COVID-19 in patients of the Brazilian public health system with SARS-COV-2 Omicron variant infection		wrong study duration
Murillo-Zamora et al.	Effectiveness of BNT162b2 COVID-19 Vaccine in Preventing Severe Symptomatic Infection among Healthcare Workers	Medicina (Kaunas, Lithuania)	wrong intervention
Murt et al.	Antibody responses to the SARS-CoV-2 vaccines in hemodialysis patients: Is inactivated vaccine effective?	Therapeutic apheresis and dialysis : official peer-reviewed journal of the International Society for Apheresis, the Japanese Society for Apheresis, the Japanese Society for Dialysis Therapy	wrong comparator
Musser et al.	Delta variants of SARS-CoV-2 cause significantly increased vaccine breakthrough COVID-19 cases in Houston, Texas	Preprint - medRxiv	wrong study design
Naaber et al.	Declined antibody responses to COVID-19 mRNA vaccine within first three months	Preprint - medRxiv	wrong outcome
Nadig et al.	Individuals with recent prior SARS-CoV-2 infection are at reduced risk of Omicron infection and associated hospitalization	medRxiv	Wrong study duration
Naito et al.	Real-world evidence for the effectiveness and breakthrough of BNT162b2 mRNA COVID-19 vaccine at a medical center in Japan	Human vaccines & immunotherapeutics	wrong outcome
Naleway et al.	Incidence of SARS-CoV-2 Infection, Emergency Department Visits, and Hospitalizations Because of COVID-19 Among Persons Aged ≥12 Years, by COVID-19 Vaccination Status - Oregon and Washington, July 4-September 25, 2021	MMWR. Morbidity and mortality weekly report	wrong study duration
Nanduri et al.	Effectiveness of Pfizer-BioNTech and Moderna Vaccines in Preventing SARS-CoV-2 Infection Among Nursing Home Residents Before and During Widespread Circulation of the SARS-CoV-2 B.1.617.2 (Delta) Variant - National Healthcare Safety Network, March 1-August 1, 2021	Morbidity and Mortality Weekly Report	wrong study design
Naranbhai et al.	Comparative immunogenicity and effectiveness of mRNA-1273, BNT162b2 and Ad26.COV2.S COVID-19 vaccines	Preprint - medRxiv	wrong population

Nasreen et al.	Effectiveness of COVID-19 vaccines against hospitalization and death in Canada: A multiprovincial test-negative design study	Preprint - medRxiv	wrong outcome
Nasreen et al.	Effectiveness of COVID-19 vaccines against symptomatic SARS-CoV-2 infection and severe outcomes with variants of concern in Ontario	Nature microbiology	wrong study duration
Nasreen et al.	Effectiveness of COVID-19 vaccines against hospitalization and death in Canada: A multi provincial test-negative design study		wrong outcome
Nasreen et al.	Effectiveness of COVID-19 vaccines against variants of concern in Ontario, Canada	Preprint - medRxiv	wrong intervention
Nasreen et al.	Effectiveness of COVID-19 vaccines against variants of concern, Canada	Hand search; Preprint - medRxiv	wrong intervention
Nasreen et al.	Effectiveness of mRNA and ChAdOx1 COVID-19 vaccines against symptomatic SARS-CoV-2 infection and severe outcomes with variants of concern in Ontario	Preprint - medRxiv	wrong study duration
Nasreen et al.	Effectiveness of COVID-19 vaccines against hospitalization and death in Canada: A multiprovincial test-negative design study	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong outcome
Natarajan et al.	Effectiveness of Homologous and Heterologous COVID-19 Booster Doses Following 1 Ad.26.COV2.S (Janssen [Johnson & Johnson]) Vaccine Dose Against COVID-19-Associated Emergency Department and Urgent Care Encounters and Hospitalizations Among Adults - VISION Network, 10 States, December 2021-March 2022	MMWR. Morbidity and mortality weekly report	wrong study duration
Navarrete et al	COVID-19 Infection in Dialysis Patients: Efficacy of Vaccination	Journal of the American Society of Nephrology	wrong publication type
Naylor et al.	Effectiveness of first, second, and third COVID-19 vaccine doses in solid organ transplant recipients: A population-based cohort study from Canada	American Journal of Transplantation	wrong study duration
Naylor et al.	Effectiveness of first, second, and third COVID-19 vaccine doses in solid organ transplant recipients: A population-based cohort study from Canada	American journal of transplantation: official journal of the American Society of Transplantation and the American Society of Transplant Surgeons	wrong study duration

Ng et al.	Analysis of COVID-19 Incidence and Severity Among Adults Vaccinated With 2-Dose mRNA COVID-19 or Inactivated SARS-CoV-2 Vaccines With and Without Boosters in Singapore	JAMA network open	wrong study duration
Nguyen et al.	Comparative effectiveness of ChAdOx1 versus BNT162b2 vaccines against SARS-CoV-2 infections in England and Wales: A cohort analysis using trial emulation in the Virus Watch community data	Preprint - medRxiv	wrong comparator
Nguyen et al.	Comparative effectiveness of different primary vaccination courses on mRNA based booster vaccines against SARS-COV-2 infections: A time-varying cohort analysis using trial emulation in the Virus Watch community cohort	Preprint - medRxiv	wrong comparator
Nomura et al.	Age and smoking predict antibody titres at 3 months after the second dose of the BNT162b2 COVID-19 vaccine	Preprint - medRxiv	wrong outcome
Nordstrom et al	Safety and effectiveness of COVID-19 mRNA vaccination and risk factors for hospitalisation caused by the omicron variant in 0.8 million adolescents: A nationwide cohort study in Sweden		wrong population
Nordstrom et al.	Effectiveness of a fourth dose of mRNA COVID-19 vaccine against all-cause mortality in long-term care facility residents and in the oldest old: A nationwide, retrospective cohort study in Sweden	The Lancet regional health. Europe	wrong study duration
Nordström et al.	Effectiveness of heterologous ChAdOx1 nCoV-19 and mRNA prime-boost vaccination against symptomatic Covid-19 infection in Sweden: A nationwide cohort study	The Lancet regional health. Europe	wrong study duration
Nunes et al.	mRNA vaccines effectiveness against COVID-19 hospitalizations and deaths in older adults: a cohort study based on data-linkage of national health registries in Portugal	Preprint - medRxiv	wrong intervention
Nunes et al.	mRNA vaccine effectiveness against COVID-19-related hospitalisations and deaths in older adults: a cohort study based on data linkage of national health registries in Portugal, February to August 2021	Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin	wrong study duration
Nunez Lopez et al.	Effectiveness of the BNT162b2 mRNA Covid-19 vaccine in Spanish healthcare workers	Enfermedades Infecciosas y Microbiologia Clinica	wrong intervention

Nyberg et al.	Comparative analysis of the risks of hospitalisation and death associated with SARS-CoV-2 omicron (B.1.1.529) and delta (B.1.617.2) variants in England: a cohort study	Lancet (London, England)	wrong outcome
Ogawa et al.	Severity Predictors of COVID-19 in SARS-CoV-2 Variant, Delta and Omicron Period; Single Center Study	medRxiv	Wrong outcome
Oliveira et al.	Assessment of Clinical Effectiveness of BNT162b2 COVID-19 Vaccine in US Adolescents	JAMA network open	wrong population
Oliver et al.	Vaccine Effectiveness Against SARS-CoV-2 Infection and Severe Outcomes in the Maintenance Dialysis Population in Ontario, Canada	Journal of the American Society of Nephrology	wrong study duration
Oliver et al.	Vaccine Effectiveness Against SARS-CoV-2 Infection and Severe Outcomes in the Maintenance Dialysis Population in Ontario, Canada	Journal of the American Society of Nephrology : JASN	wrong study duration
Olson et al.	Effectiveness of BNT162B2 Vaccine against Critical Covid-19 in Adolescents	New England Journal of Medicine	wrong population
Olson et al.	Effectiveness of Pfizer-BioNTech mRNA Vaccination Against COVID-19 Hospitalization Among Persons Aged 12-18 Years - United States, June-September 2021	MMWR. Morbidity and mortality weekly report	wrong study duration
Ono et al.	Comparative effectiveness of BNT162b2 and mRNA-1273 booster dose after BNT162b2 primary vaccination against the Omicron variants: A retrospective cohort study using large-scale population-based registries in Japan	Clinical infectious diseases	wrong comparison
Oster et al.	Association Between Exposure Characteristics and the Risk for COVID-19 Infection Among Health Care Workers With and Without BNT162b2 Vaccination	JAMA network open	wrong study design
Ostropolets & Hripcsak	COVID-19 vaccination effectiveness rates by week and sources of bias	Preprint - medRxiv	delayed exclusion - VE for full vaccination is not stratified by time since full vaccination
Ostropolets et al.	COVID-19 vaccination effectiveness rates by week and sources of bias: a retrospective cohort study	BMJ open	wrong intervention
Paetzold et al.	The effects of rapid mass vaccination against SARS-CoV-2 and its Variants-of-Concern: Evidence from an early VoCs hotspot	Preprint – Research Square	wrong study design
Painter et al.	Rapid induction of antigen-specific CD4+ T cells guides coordinated humoral and cellular	Preprint - bioRxiv	wrong outcome

	immune responses to SARS-CoV-2 mRNA vaccination		
Pajon et al.	Initial Analysis of Viral Dynamics and Circulating Viral Variants During the mRNA-1273 Phase 3 COVE Trial	Preprint - medRxiv	wrong study duration
Palich et al.	Weak immunogenicity after a single dose of SARS-CoV-2 mRNA vaccine in treated cancer patients	Annals of Oncology	wrong outcome
Palinkas et al.	Effectiveness of COVID-19 Vaccination in Preventing All-Cause Mortality among Adults during the Third Wave of the Epidemic in Hungary: Nationwide Retrospective Cohort Study	Vaccines	wrong outcome
Palinkas et al.	Effectiveness of COVID-19 Vaccination in Preventing All-Cause Mortality among Adults during the Third Wave of the Epidemic in Hungary: Nationwide Retrospective Cohort Study	Vaccines	wrong study duration/timeline is not clear/no baseline data
Palladino et al.	A quantitative risk-benefit analysis of ChAdOx1 nCoV-19 vaccine among people under 60 in Italy	Preprint - medRxiv	wrong study design
Panasoff et al.	Specific antibody response of patients with common variable immunodeficiency to BNT162b2 coronavirus disease 2019 vaccination	Annals of Allergy, Asthma and Immunology	wrong outcome
Papousek et al.	Experience with the production of COVID-19 convalescent plasma in a tertiary hospital	Vox Sanguinis	wrong outcome
Paranthaman et al.	Effectiveness of BNT162b2 and ChAdOx-1 vaccines in residents of long-term care facilities in England using a time-varying proportional hazards model	Age and Ageing	Excluded for RoB
Pardo-Seco et al.	Evaluation of BNT162b2 Vaccine Effectiveness in Galicia, Northwest Spain	International journal of environmental research and public health	wrong study duration
Parenica et al.	COVID-19 vaccine booster significantly decreases the risk of intensive care unit hospitalization in heart failure patients during the Omicron variant wave: A population-based study.	Frontiers in cardiovascular medicine	wrong study duration
Paris et al.	Effectiveness of mRNA-BNT162b2, mRNA-1273, and ChAdOx1 nCoV-19 vaccines against COVID-19 in healthcare workers: an observational study using surveillance data	Clinical Microbiology and Infection	wrong intervention
Parry et al.	Extended interval BNT162b2 vaccination enhances peak antibody generation in older people	Preprint - medRxiv	wrong outcome

Parry et al.	Antibody responses after first and second Covid-19 vaccination in patients with chronic lymphocytic leukaemia	Blood Cancer Journal	wrong outcome
Parry et al.	Antibody responses after first and second Covid-19 vaccination in patients with chronic lymphocytic leukaemia	Blood cancer Journal	wrong outcome
Pascucci et al.	Evaluation of the Effectiveness and Safety of the BNT162b2 COVID-19 Vaccine in the Vaccination Campaign among the Health Workers of Fondazione Policlinico Universitario Agostino Gemelli IRCCS	International journal of environmental research and public health	wrong study duration
Passalacqua et al.	Efficacy of SARS-CoV-2 vaccination in cancer patients during treatment: A prospective observational study (ANTICOV trial)	Tumori	wrong study duration
Patalon et al.	Waning effectiveness of the third dose of the BNT162b2 mRNA COVID-19 vaccine	Nature Communications	wrong study duration
Patalon et al.	Waning Effectiveness of the Third Dose of the BNT162b2 mRNA COVID-19 Vaccine		wrong comparator
Paternina-Caicedo et al.	Effectiveness of CoronaVac and BNT162b2 COVID-19 mass vaccination in Colombia: A population-based cohort study	Lancet Regional Health. Americas	wrong study duration
Pattni et al.	Effectiveness of the BNT162b2 (Pfizer-BioNTech) and the ChAdOx1 nCoV-19 (Oxford-AstraZeneca) vaccines for reducing susceptibility to infection with the Delta variant (B.1.617.2) of SARS-CoV-2	Preprint - medRxiv	wrong outcome
Paulsen et al.	Immune Thrombocytopenic Purpura after vaccination with COVID-19 Vaccine (ChAdOx1 nCov-19)	Blood	wrong study design
Pawlowski et al.	FDA-authorized mRNA COVID-19 vaccines are effective per real-world evidence synthesized across a multi-state health system	Med (New York, N.Y.)	wrong intervention
Payne et al.	Sustained T cell immunity, protection and boosting using extended dosing intervals of BNT162b2	Hand search; Preprint - SSRN	wrong outcome
Peet et al.	COVID-19 infection and vaccination in patients with autoinflammatory diseases on biologics	Pediatric Rheumatology	wrong outcome
Pefaur Penna et al.	POS-912 EFFECTIVENESS OF SARS-COV 2 VACCINATION IN KIDNEY TRANSPLANT PATIENTS IN CHILE	Kidney International Reports	Full-text not found
Pegu et al.	Durability of mRNA-1273 vaccine-induced antibodies against SARS-CoV-2 variants	Science (New York, N.Y.)	wrong outcome
Peled et al.	BNT162b2 vaccination in heart transplant recipients: Clinical experience and antibody response	Journal of Heart and Lung Transplantation	wrong intervention
Perkmann et al.	Serum antibody response to BNT162b2 after natural SARS-CoV-2 infection	European Journal of Clinical Investigation	wrong outcome

Perry et al.	COVID-19 vaccine uptake and effectiveness in adults aged 50 years and older in Wales UK: a 1.2m population data-linkage cohort approach	Human Vaccines and Immunotherapeutics	wrong study duration
Petrie et al.	Effectiveness of COVID-19 mRNA vaccine booster dose relative to primary series during a period of Omicron circulation	Preprint - medRxiv	wrong study duration
Petrovic et al.	Early Effectiveness of Four SARS-CoV-2 Vaccines in Preventing COVID-19 among Adults Aged ≥60 Years in Vojvodina, Serbia	Vaccines	wrong study duration
Piekos et al.	The effect of COVID-19 vaccination and booster on maternal-fetal outcomes: a retrospective multicenter cohort study	medRxiv	Wrong population
Piernas et al.	Associations of BMI with COVID-19 vaccine uptake, vaccine effectiveness, and risk of severe COVID-19 outcomes after vaccination in England: a population-based cohort study	The lancet. Diabetes & endocrinology	wrong study duration
Pilishvili et al.	Interim Estimates of Vaccine Effectiveness of Pfizer-BioNTech and Moderna COVID-19 Vaccines Among Health Care Personnel - 33 U.S. Sites, January-March 2021	Morbidity and Mortality Weekly Report	wrong intervention
Pinto-Álvarez et al.	Real-world Evidence of COVID-19 Vaccines Effectiveness in Solid-organ Transplant Recipient Population in Colombia: A Study Nested in the Esperanza Cohort.	Transplantation	wrong outcome
Plumb et al.	Effectiveness of COVID-19 mRNA Vaccination in Preventing COVID-19-Associated Hospitalization Among Adults with Previous SARS-CoV-2 Infection - United States, June 2021-February 2022	MMWR. Morbidity and mortality weekly report	wrong study duration
Polinski et al.	Durability of the Single-Dose Ad26.COV2.S Vaccine in the Prevention of COVID-19 Infections and Hospitalizations in the US Before and During the Delta Variant Surge	JAMA network open	wrong outcome
Polinski et al.	Durability of the Single-Dose Ad26.COV2.S Vaccine in the Prevention of COVID-19 Infections and Hospitalizations in the US before and during the Delta Variant Surge	JAMA Network Open	wrong study duration
Polinski et al.	Effectiveness of the Single-Dose Ad26.COV2.S COVID Vaccine	Preprint - medRxiv	wrong outcome
Porru et al.	Post-Vaccination SARS-CoV-2 Infections among Health Workers at the University Hospital of Verona, Italy: A Retrospective Cohort Survey	Vaccines	wrong outcome
Porru et al.	Post-Vaccination SARS-CoV-2 Infections among Health Workers at the University Hospital of Verona, Italy: A Retrospective Cohort Survey	Vaccines	wrong outcome

Pouwels et al.	Impact of Delta on viral burden and vaccine effectiveness against new SARS-CoV-2 infections in the UK	Preprint - medRxiv	wrong intervention
Pouwels et al.	Effect of Delta variant on viral burden and vaccine effectiveness against new SARS-CoV-2 infections in the UK	Nature medicine	uplicated
Powell et al.	Protection against symptomatic disease with the delta and omicron BA.1/BA.2 variants of SARS-CoV-2 after infection and vaccination in adolescents: national observational test-negative case control study, August 2021 to March 2022, England	medRxiv	wrong population
Pozdnyakova et al.	Decreased Antibody Responses to Ad26.COVS Relative to SARS-CoV-2 mRNA Vaccines in Patients with Inflammatory Bowel Disease	Gastroenterology	wrong outcome
Pozzetto et al.	Immunogenicity and efficacy of heterologous ChadOx1/BNT162b2 vaccination	Preprint - Research Square	wrong intervention
Prabhu et al.	Antibody Response to Coronavirus Disease 2019 (COVID-19) Messenger RNA Vaccination in Pregnant Women and Transplacental Passage Into Cord Blood	Obstetrics and Gynecology	wrong intervention
Pramod et al.	Effectiveness of Covishield vaccine in preventing Covid-19 - A test-negative case-control study	Vaccine	wrong study duration
Prasad et al.	COVID-19 Vaccination Associated with Reduced Post-Operative SARS-CoV-2 Infection and Morbidity	Annals of Surgery	wrong intervention
Prasad et al.	Effectiveness of a COVID-19 Additional Primary or Booster Vaccine Dose in Preventing SARS-CoV-2 Infection Among Nursing Home Residents During Widespread Circulation of the Omicron Variant - United States, February 14-March 27, 2022	MMWR. Morbidity and mortality weekly report	wrong study duration
Pratesi et al.	BNT162b2 mRNA SARS-CoV-2 vaccine elicits high avidity and neutralizing antibodies in healthcare workers	Vaccines	wrong outcome
Pratò et al.	SARS-CoV-2 Transmission Risk to Household and Family Contacts by Vaccinated Healthcare Workers	Journal of Occupational and Environmental Medicine	wrong intervention
Premikha et al.	Comparative Effectiveness of mRNA and Inactivated Whole Virus Vaccines against COVID-19 Infection and Severe Disease in Singapore	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong comparator

Predecki et al.	Comparison of humoral and cellular responses in kidney transplant recipients receiving BNT162b2 and ChAdOx1 SARS-CoV-2 vaccines	Preprint - medRxiv	wrong outcome
Predecki et al.	Humoral and T-cell responses to SARS-CoV-2 vaccination in patients receiving immunosuppression	Annals of the Rheumatic Diseases	wrong outcome
Price et al.	BNT162b2 Protection against the Omicron Variant in Children and Adolescents	New England Journal of Medicine	wrong population, youth
Prieto Alhambra et al.	Comparative effectiveness and safety of homologous two-dose ChAdOx1 versus heterologous vaccination with ChAdOx1 and BNT162b2: a cohort analysis	Research Square	wrong comparator
Pritchard et al.	Impact of vaccination on new SARS-CoV-2 infections in the UK	Nature Medicine	wrong intervention
Promlek et al	Effectiveness of Coronavac and ChAdOx1 COVID-19 vaccines against severe illness in Thailand: A retrospective cohort study		cumulative data wrong outcome
Prunas et al.	Waning Effectiveness of the BNT162b2 Vaccine Against Infection in Adolescents	Preprint - medRxiv	wrong population
Prunas et al.	Vaccination with BNT162b2 reduces transmission of SARS-CoV-2 to household contacts in Israel	Preprint - medRxiv	wrong study design
Puranik et al	Comparative effectiveness of mRNA-1273 and BNT162b2 against symptomatic SARS-CoV-2 infection	Med (New York, N.Y.)	wrong study duration
Puranik et al.	Comparative effectiveness of mRNA-1273 and BNT162b2 against symptomatic SARS-CoV-2 infection	Med (New York, N.Y.)	wrong comparator
Puranik et al.	Comparison of Two Highly-Effective mRNA Vaccines for COVID-19 During Periods of Alpha and Delta Variant Prevalence	Preprint - medRxiv	uplicated
Puranik, et al.	Comparison of two highly-effective mRNA vaccines for COVID-19 during periods of Alpha and Delta variant prevalence	Preprint - medRxiv	delayed exclusion - retrospective cohort study
Ramirez et al.	Correspondence on 'Immunogenicity and safety of anti-SARS-CoV-2 mRNA vaccines in patients with chronic inflammatory conditions and immunosuppressive therapy in a monocentric cohort'	Annals of the Rheumatic Diseases	wrong outcome
Ramirez et al.	SARS-CoV-2 Breakthrough Infections in Fully Vaccinated Individuals	Preprint - medRxiv	wrong outcome
Ranzani et al	Effectiveness of an Inactivated Covid-19 Vaccine with Homologous and Heterologous Boosters against Omicron in Brazil	medRxiv	Wrong study duration
Ranzani et al	Effectiveness of an inactivated Covid-19 vaccine with homologous and heterologous boosters against Omicron in Brazil.	Nature communications	wrong outcome

Ranzani et al.	Vaccine effectiveness of ChAdOx1 nCoV-19 against COVID-19 in a socially vulnerable community in Rio de Janeiro, Brazil: author's response	Clinical Microbiology and Infection	wrong publication type
Ranzani et al.	Effectiveness of an Inactivated Covid-19 Vaccine with Homologous and Heterologous Boosters against the Omicron (B.1.1.529) Variant		wrong outcome
Ranzani et al.	Vaccine effectiveness of ChAdOx1 nCoV-19 against COVID-19 in a socially vulnerable community in Rio de Janeiro, Brazil: a test-negative design study	Clinical Microbiology and Infection	wrong study duration
Ranzani et al.	Vaccine effectiveness of ChAdOx1 nCoV-19 against COVID-19 in a socially vulnerable community in Rio de Janeiro, Brazil: a test-negative design study	Clinical microbiology and infection: the official publication of the European Society of Clinical Microbiology and Infectious Diseases	wrong study duration
Rearte et al.	Effectiveness of rAd26-rAd5, ChAdOx1 nCoV-19, and BBIBP-CorV vaccines for risk of infection with SARS-CoV-2 and death due to COVID-19 in people older than 60 years in Argentina: a test-negative, case-control, and retrospective longitudinal study	Lancet (London, England)	wrong outcome
Redjoul et al.	Antibody response after second BNT162b2 dose in allogeneic HSCT recipients	The Lancet	wrong outcome
Redmond et al.	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in vaccinated and unvaccinated healthcare personnel in a Veterans' Affairs healthcare system	Infection Control and Hospital Epidemiology	wrong intervention
Regev Yochay et al.	4th Dose COVID mRNA Vaccines' Immunogenicity & Efficacy Against Omicron VOC	Preprint - medRxiv	wrong comparator
Regev-Yochay et al.	4th Dose COVID mRNA Vaccines' Immunogenicity & Efficacy Against Omicron VOC	Preprint - medRxiv	wrong comparator
Rennert et al.	Covid-19 vaccine effectiveness against general SARS-CoV-2 infection from the omicron variant: A retrospective cohort study	Preprint - medRxiv	duplicate
Rennert et al.	Covid-19 vaccine effectiveness against general SARS-CoV-2 infection from the omicron variant: A retrospective cohort study	Preprint - medRxiv	wrong study duration
Rennert et al.	Effectiveness and protection duration of Covid-19 vaccines and previous infection against any SARS-CoV-2 infection in young adults	Nature Communications	data in figures

Revon-Riviere et al.	The BNT162b2 mRNA COVID-19 vaccine in adolescents and young adults with cancer: A monocentric experience	European Journal of Cancer	wrong intervention
Revon-Riviere et al.	The BNT162b2 mRNA COVID-19 vaccine in adolescents and young adults with cancer: A monocentric experience	European Journal of Cancer	wrong study duration
Reynolds et al.	COVID-19 Vaccination Breakthrough Infections in a Real-World Setting: Using Community Reporters to Evaluate Vaccine Effectiveness	Infection and drug resistance	wrong study duration
Reynolds et al.	COVID-19 vaccination breakthrough infections in a real-world setting: Using community reporters to evaluate vaccine effectiveness	Preprint - medRxiv	wrong study design
Risk et al	COVID-19 vaccine effectiveness against omicron (B.1.1.529) variant infection and hospitalisation in patients taking immunosuppressive medications: a retrospective cohort study	The Lancet Rheumatology	no useful data
Risk et al.	Comparative Effectiveness of COVID-19 Vaccines against the Delta Variant	Clinical infectious diseases: an official publication of the Infectious Diseases Society of America	wrong comparator
Risk et al.	COVID-19 vaccine effectiveness against omicron (B.1.1.529) variant infection and hospitalisation in patients taking immunosuppressive medications: a retrospective cohort study	The Lancet. Rheumatology	no useful data
Roberts et al.	Estimating COVID-19 Vaccination Effectiveness Using Electronic Health Records of an Academic Medical Center in Michigan	Preprint - medRxiv	wrong study duration
Roberts et al.	Estimating COVID-19 Vaccination Effectiveness Using Electronic Health Records of an Academic Medical Center in Michigan	Preprint - medRxiv	wrong comparator
Robilotti et al.	Effectiveness of mRNA booster vaccine among health Care workers in New York City during the omicron surge, December 2021- January 2022	Clinical microbiology and infection	wrong study duration
Robilotti et al.	Effectiveness of MRNA booster vaccine among healthcare workers in New York City during the Omicron surge, December 2021 to January 2022	Clinical Microbiology and Infection.	wrong outcome
Robilotti et al.	Clinical and Genomic Characterization of SARS CoV-2 infections in mRNA Vaccinated Health Care Personnel in New York City	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong study duration

Robilotti et al.	Effectiveness of mRNA booster vaccine among health Care workers in New York City during the omicron surge, December 2021- January 2022	Clinical microbiology and infection : the official publication of the European Society of Clinical Microbiology and Infectious Diseases	wrong study duration
Rodríguez-Espinosa et al.	Incidence of severe breakthrough SARS-CoV-2 infections in vaccinated kidney transplant and haemodialysis patients	Journal of nephrology	wrong comparator
Roest et al.	BNT162b2 mRNA Covid-19 vaccine in a nationwide mass vaccination setting	New England Journal of Medicine	uplicated
Rosenberg et al.	New COVID-19 Cases and Hospitalizations Among Adults,	Hand search; Morbidity and Mortality Weekly Report	wrong intervention
Rosenberg et al.	COVID-19 Vaccine Effectiveness by Product and Timing in New York State	Preprint - medRxiv	wrong outcome
Rosero-Bixby	Vaccine effectiveness of Pfizer-BioNTech and Oxford-AstraZeneca to prevent severe COVID-19 in Costa Rica by September and October 2021: A nationwide, observational study of hospitalisations prevalence	Europe PMC	wrong study duration
Rosero-Bixby	Vaccine effectiveness of Pfizer-BioNTech and Oxford-AstraZeneca to prevent severe COVID-19 in Costa Rica by September and October 2021: A nationwide, observational study of hospitalisations prevalence	Preprint - medRxiv	wrong study duration
Rosero-Bixby et al.	The Effectiveness of Pfizer-BioNTech and Oxford-AstraZeneca Vaccines to Prevent Severe COVID-19 in Costa Rica: Nationwide, Ecological Study of Hospitalization Prevalence	JMIR public health and surveillance	wrong study duration
Rossi et al	Evaluation of the risk of SARS-CoV-2 Infection and Hospitalization in Vaccinated and Previously Infected Subjects Based on Real World Data.		wrong study duration
Rovida, et al.	SARS-CoV-2 vaccine breakthrough infections are asymptomatic or mildly symptomatic and are infrequently transmitted	Preprint - medRxiv	delayed exclusion - not enough time of follow up (4 months criterion)
Rudan et al.	BNT162b2 COVID-19 vaccination uptake, safety, effectiveness and waning in children and young people aged 12–17 years in Scotland	WHO newsletter	Hand search
Russo et al.	Boosters and time from the last anti-COVID-19 vaccine dose: lead public health choices by real-time epidemiological assessment	Epidemiologia e prevenzione	wrong comparator
Russo et al.	SARS-COV-2 vaccination with BNT162B2 in renal transplant patients: Risk factors for	Clinical Transplantation	wrong outcome

	impaired response and immunological implications		
Rzyski et al.	COVID-19 Vaccinations and Rates of Infections, Hospitalizations, ICU Admissions, and Deaths in Europe during SARS-CoV-2 Omicron wave in the first quarter of 2022	Journal of medical virology	wrong study design
S.a et al	Comparative analysis of mRNA and inactivated COVID-19 vaccines: A study from Faisalabad district of Pakistan	The journal of the Royal College of Physicians of Edinburgh	wrong study duration
Saadh et al.	Efficacy of COVID-19 vaccines	Microbial pathogenesis	wrong study duration
Saban et al.	Changes in infectivity, severity and vaccine effectiveness against delta COVID-19 variant ten months into the vaccination program: The Israeli case	Preventive medicine	wrong intervention
Sabnis et al.	Break-through COVID-19 infection rate with Indian strain in Single-center Healthcare Workers: A real world data	Preprint - medRxiv	wrong outcome
Saciuk et al.	Pfizer-BioNTech vaccine effectiveness against Sars-Cov-2 infection: Findings from a large observational study in Israel	Preventive medicine	wrong study duration
Saciuk et al.	Pfizer-BioNTech Vaccine Effectiveness Against SARS-CoV-2 Infection: Findings From a Large Observational Study in Israel	Hand search; Preprint - SSRN	uplicated
Saciuk et al.	Pfizer-BioNTech Vaccine Effectiveness Against SARS-CoV-2 Infection: Findings from a Large Observational Study in Israel	Preprint - SSRN	wrong intervention
Saciuk et al.	Effectiveness of a third dose of BNT162b2 mRNA vaccine	The Journal of infectious diseases	wrong comparator
Sacks	The single-dose J&J vaccine had 67% efficacy against moderate to severe-critical COVID-19 at ≥ 14 d	Annals of Internal Medicine	wrong publication type
Sadigh et al.	Evaluating risk factors associated with COVID-19 infections among vaccinated people early in the U.S. vaccination campaign: an observational study of five states, January-March 2021	BMC Infectious Diseases	wrong study duration
Sadigh et al.	Evaluating risk factors associated with COVID-19 infections among vaccinated people early in the U.S. vaccination campaign: an observational study of five states, January-March 2021	BMC infectious diseases	wrong outcome
Sadoff et al	Final Analysis of Efficacy and Safety of Single-Dose Ad26.COV2.S	NEJM	wrong study duration
Sadoff et al.	Final Analysis of Efficacy and Safety of Single-Dose Ad26.COV2.S	New England Journal of Medicine	wrong outcome
Sadoff et al.	Safety and Efficacy of Single-Dose Ad26.COV2.S Vaccine against Covid-19	The New England Journal of Medicine	delayed exclusion - data is in graphs and not easily

			extractable at this point in time
Sagiraju et al.	The effectiveness of SARS-CoV-2 vaccination in preventing severe illness and death—real-world data from a cohort of patients hospitalized with COVID-19	Preprint - medRxiv	wrong intervention
Salo et al.	The indirect effect of mRNA-based COVID-19 vaccination on healthcare workers' unvaccinated household members	Nature Communications	wrong outcome
Sansone et al.	Effectiveness of BNT162b2 vaccine against SARS-CoV-2 among healthcare workers	La Medicina del Lavoro	wrong intervention
Sarkar et al.	Seroprevalence and Dynamics of anti-SARS-CoV-2 antibody among healthcare workers following ChAdOx1 nCoV-19 vaccination	Preprint - medRxiv	wrong intervention
Saul et al.	Reanalysis of the Pfizer mRNA BNT162b2 SARS-CoV-2 vaccine data fails to find any increased efficacy following the boost: Implications for vaccination policy and our understanding of the mode of action	Preprint - medRxiv	wrong intervention
Saure et al.	Dynamic IgG seropositivity after rollout of CoronaVac and BNT162b2 COVID-19 vaccines in Chile: a sentinel surveillance study	The Lancet Infectious Diseases	wrong outcome
Schrag et al.	Estimation of COVID-19 mRNA Vaccine Effectiveness Against Medically Attended COVID-19 in Pregnancy During Periods of Delta and Omicron Variant Predominance in the United States	JAMA Network Open	wrong comparator
Schrag et al.	Estimation of COVID-19 mRNA Vaccine Effectiveness Against Medically Attended COVID-19 in Pregnancy During Periods of Delta and Omicron Variant Predominance in the United States	JAMA network open	wrong comparison
Scobie et al.	Monitoring incidence of covid-19 cases, hospitalizations, and deaths, by vaccination status, 13 US jurisdictions, April 4, 2021	Morbidity and Mortality Weekly Report	wrong comparator
Selby et al.	Effect of severe acute respiratory coronavirus virus 2 (SARS-CoV-2) mRNA vaccination in healthcare workers with high-risk coronavirus disease 2019 (COVID-19) exposure	Infection Control and Hospital Epidemiology	wrong intervention
Self et al.	Comparative Effectiveness of Moderna, Pfizer-BioNTech, and Janssen (Johnson & Johnson) Vaccines in Preventing COVID-19 Hospitalizations Among Adults Without Immunocompromising Conditions - United States, March-August 2021	MMWR. Morbidity and mortality weekly report	wrong comparator
Semenzato et al.	Vaccine effectiveness against severe COVID-19 outcomes within the French overseas territories: A cohort study of 2-doses vaccinated individuals	PLoS ONE	wrong study duration

	matched to unvaccinated ones followed up until September 2021 and based on the National Health Data System		
Sempere et al.	Safety and effectiveness of vaccines against SARS-COV-2 in patients with liver cancer. VacHep registry: response analysis 4 weeks after the second dose	Journal of Hepatology	no PDF
Sentis et al	Estimation of COVID-19 vaccine effectiveness against hospitalisation in individuals aged ≥ 65 years using electronic health registries; a pilot study in four EU/EEA countries, October 2021 to March 2022	Eurosurveillance	wrong study duration
Sentís et al.	Estimation of COVID-19 vaccine effectiveness against hospitalisation in individuals aged ≥ 65 years using electronic health registries; a pilot study in four EU/EEA countries, October 2021 to March 2022	Euro surveillance	wrong study duration
Shah et al.	Effect of vaccination on transmission of COVID-19: an observational study in healthcare workers and their households	Preprint - medRxiv	wrong intervention
Shapiro et al.	Efficacy of booster doses in augmenting waning immune responses to COVID-19 vaccine in patients with cancer	Cancer cell	wrong comparator
Sharma et al.	Effectiveness of a third dose of BNT162b2 or mRNA-1273 vaccine for preventing post-vaccination COVID-19 infection: an observational study	Preprint - medRxiv	wrong outcome
Sharma et al.	Effectiveness of mRNA-based vaccines during the emergence of SARS-CoV-2 Omicron variant	Clinical infectious diseases: an official publication of the Infectious Diseases Society of America	wrong study duration; Data reported in figures only
Sharma et al.	COVID-19 Vaccine Breakthrough Infections in Veterans Health Administration	Preprint - medRxiv	wrong comparator
Shashar et al	Clinical Efficacy of the Fourth Dose of the BNT162b2 Vaccine in Chronic Dialysis Patients	Journal of the American Society of Nephrology	wrong publication type
Sheikh et al.	Severity of omicron variant of concern and effectiveness of vaccine boosters against symptomatic disease in Scotland (EAVE II): a national cohort study with nested test-negative design	The Lancet Infectious Diseases	already screened
Sheikh et al.	BNT162b2 and ChAdOx1 nCoV-19 vaccine effectiveness against death from the delta variant	New England Journal of Medicine	wrong study duration
Sheikh et al.	Severity of omicron variant of concern and effectiveness of vaccine boosters against symptomatic disease in Scotland (EAVE II): a	The Lancet. Infectious diseases	wrong outcome

	national cohort study with nested test-negative design		
Sheikh et al.	SARS-CoV-2 Delta VOC in Scotland: demographics, risk of hospital admission, and vaccine effectiveness	The Lancet	wrong intervention
Shen et al.	Efficacy of COVID-19 vaccines in patients taking immunosuppressants	Annals of the Rheumatic Diseases	wrong outcome
Shen et al.	Efficacy of COVID-19 vaccines in patients taking immunosuppressants	Annals of the rheumatic diseases	wrong outcome
Shinde et al.	Efficacy of NVX-CoV2373 Covid-19 Vaccine against the B.1.351 Variant	Hand search; New England Journal of Medicine	wrong intervention
Shostak et al.	Early humoral response among lung transplant recipients vaccinated with BNT162b2 vaccine	The Lancet Respiratory Medicine	wrong intervention
Shrestha et al.	Coronavirus Disease 2019 (COVID-19) Vaccine Boosting in Persons Already Protected by Natural or Vaccine-Induced Immunity	Preprint - medRxiv	wrong comparator
Shrestha, et al.	Necessity of COVID-19 vaccination in previously infected individuals	Preprint - medRxiv	delayed exclusion – no useful data (authors presented only the number of individuals at risk among all the groups of interest)
Shrotri et al.	Duration of vaccine effectiveness against SARS-CoV2 infection, hospitalisation, and death in residents and staff of Long-Term Care Facilities (VIVALDI): a prospective cohort study, England, Dec 2020-Dec 2021	Preprint - medRxiv	no usable data; wrong study duration
Shrotri et al.	Duration of vaccine effectiveness against SARS-CoV2 infection, hospitalisation, and death in residents and staff of Long-Term Care Facilities (VIVALDI): a prospective cohort study, England, Dec 2020-Dec 2021	Preprint - medRxiv	wrong outcome
Sibbel et al.	Real-World Effectiveness and Immunogenicity of BNT162b2 and mRNA-1273 SARS-CoV-2 Vaccines in Patients on Hemodialysis	Journal of the American Society of Nephrology	wrong intervention
Sibbel et al.	Real-World Effectiveness and Immunogenicity of BNT162b2 and mRNA-1273 SARS-CoV-2 Vaccines in Patients on Hemodialysis	Journal of the American Society of Nephrology: JASN	wrong study duration
Silva-Valencia et al.	Relative vaccine effectiveness of the booster dose of COVID-19 vaccine for preventing death in individuals with a primary regimen based on the BBIBP-CorV, ChAdOx1-S, or BNT162b2 vaccines during the Omicron wave in Peru: A nested case-control study using national population data.	Vaccine	no clear timeline

Silverman et al.	Vaccine Effectiveness during Outbreak of COVID-19 Alpha (B.1.1.7) Variant in Men's Correctional Facility, United States	Emerging Infectious Diseases	wrong study duration
Silverman et al.	Vaccine Effectiveness during Outbreak of COVID-19 Alpha (B.1.1.7) Variant in Men's Correctional Facility, United States	Emerging Infectious Diseases	wrong study duration
Silzle et al.	Effectiveness of the BNT162b2 mRNA COVID-19 vaccine in patients with multiple myeloma three and six months after vaccination	Swiss Medical Weekly	wrong outcome
Sim et al.	Effectiveness of Booster and Influenza Vaccines against COVID-19 among Healthcare Workers, Taiwan	Emerging Infectious Diseases	wrong study duration
Sim et al.	Effectiveness of Booster and Influenza Vaccines against COVID-19 among Healthcare Workers, Taiwan	Emerging infectious diseases	no PDF
Simwanza et al.	COVID-19 Vaccine Effectiveness during a Prison Outbreak when Omicron was the Dominant Circulating Variant—Zambia, December 2021	WHO newsletter	Hand search
Singer et al.	Effectiveness of BNT162b2 mRNA COVID-19 vaccine against SARS-CoV-2 variant Beta (B.1.351) among persons identified through contact tracing in Israel: A prospective cohort study	EClinicalMedicine	wrong study duration
Singer et al.	Effectiveness of BNT162b2 mRNA COVID-19 Vaccine Against SARS-CoV-2 Variant Beta (B.1.351) Among Persons Identified Through Contact Tracing in Israel	Preprint - SSRN	wrong intervention
Singh et al.	Antibody Response after First-dose of ChAdOx1-nCOV (Covishield) and BBV-152 (Covaxin) amongst Health Care Workers in India: Preliminary Results of Cross-sectional Coronavirus Vaccine-induced Antibody Titre (COVAT) study	Preprint - medRxiv	wrong intervention
Skowronski & de Serres	Safety and efficacy of the BNT162B2 mRNA covid-19 vaccine	New England Journal of Medicine	wrong intervention
Skowronski et al.	Comparative single-dose mRNA and ChAdOx1 vaccine effectiveness against SARS-CoV-2, including variants of concern: test-negative design, British Columbia, Canada	The Journal of infectious diseases	wrong intervention
Skowronski et al.	Two-dose SARS-CoV-2 vaccine effectiveness with mixed schedules and extended dosing intervals: test-negative design studies from British Columbia and Quebec, Canada	Clinical infectious diseases: an official publication of the Infectious Diseases Society of America	Already included
Smid et al.	Protection by vaccines and previous infection against the Omicron variant of SARS-CoV-2	The Journal of infectious diseases	no usable data

Smith et al.	Genomic and Virological Characterization of SARS-CoV-2 Variants in a Subset of Unvaccinated and Vaccinated U.S. Military Personnel	Preprint - medRxiv	wrong population
Sobieszczyk et al.	Asymptomatic Infection and Duration of Viral Shedding in Symptomatic Breakthrough Infections in a Phase 3 Study of AZD1222 (ChAdOx1 nCoV-19)	Open Forum Infectious Diseases	conference abstract
Solante et al.	Expert Review of Global Real-World Data on COVID-19 Vaccine Booster Effectiveness & Safety During the Omicron-dominant Phase of the Pandemic	Research Square	
Song et al.	COVID-19 omicron variants demonstrated different virulence in infected patients with cancer: The real-world evidence from the National COVID Cohort Collaborative (N3C)	Journal of Clinical Oncology	wrong publication type
Sonmezer et al.	Relative Vaccine Effectiveness of the Third Dose of CoronaVac or BNT162b2 Following a Two-Dose CoronaVac Regimen: A Prospective Observational Cohort Study from an Adult Vaccine Center in Turkey	Vaccines	wrong study duration
Sonmezer et al.	Relative Vaccine Effectiveness of the Third Dose of CoronaVac or BNT162b2 Following a Two-Dose CoronaVac Regimen: A Prospective Observational Cohort Study from an Adult Vaccine Center in Turkey	Vaccines	wrong study duration
Sookaromdee et al.	Effectiveness of mRNA Covid-19 vaccine in healthcare workers	Enfermedades infecciosas y microbiología clínica (English ed.)	foreign language
Spensley et al.	Comparison of vaccine effectiveness against the Omicron (B.1.1.529) variant in patients receiving haemodialysis	Preprint - medRxiv	wrong outcome
Spensley et al.	Comparison of vaccine effectiveness against the Omicron (B.1.1.529) variant in patients receiving haemodialysis	Preprint - medRxiv	wrong study duration
Spitzer et al.	Association of a Third Dose of BNT162b2 Vaccine With Incidence of SARS-CoV-2 Infection Among Health Care Workers in Israel	JAMA	wrong comparator
Spreco et al.	Effectiveness of the BNT162b2 mRNA Vaccine Compared with Hybrid Immunity in Populations Prioritized and Non-Prioritized for COVID-19 Vaccination in 2021-2022: A Naturalistic Case-Control Study in Sweden	Vaccines	wrong outcome
Sritipsukho et al.	Comparing real-life effectiveness of various COVID-19 vaccine regimens during the delta variant-dominant pandemic: a test-negative case-control study	Emerging Microbes and Infections	wrong outcome

Sritipsukho et al.	Comparing real-life effectiveness of various COVID-19 vaccine regimens during the delta variant-dominant pandemic: A test-negative case-control study	Emerging microbes & infections	wrong study duration
Sritipsukho et al.	Comparing real-life effectiveness of various COVID-19 vaccine regimens during the delta variant-dominant pandemic: A test-negative case-control study	Emerging microbes & infections	wrong study duration
Staerkeen et al	Cohort Profile: The Danish National Cohort Study of Effectiveness and Safety of SARS-CoV-2 vaccines (ENFORCE)		
Starrfelt et al.	Age and product dependent vaccine effectiveness against SARS-CoV-2 infection and hospitalisation among adults in Norway: A national cohort study, January - September 2021	Preprint - medRxiv	wrong comparator
Starrfelt et al.	Age and product dependent vaccine effectiveness against SARS-CoV-2 infection and hospitalisation among adults in Norway: a national cohort study, January ,Åi September 2021	Preprint - medRxiv	wrong outcome
Starrfelt et al.	High vaccine effectiveness against COVID-19 infection and severe disease among residents and staff of long-term care facilities in Norway, November – June 2021	Preprint - medRxiv	delayed exclusion – no useful data (no information about individual level follow up; authors presented only person time at risk)
Starrfelt et al.	Age and product dependent vaccine effectiveness against SARS-CoV-2 infection and hospitalisation among adults in Norway: a national cohort study, July-November 2021	BMC medicine	Previously included
Starrfelt. et al.	Age and product dependent vaccine effectiveness against SARS-CoV-2 infection and hospitalisation among adults in Norway: a national cohort study, July - November 2021	Preprint - medRxiv	Already included
Stirrup et al	Clinical effectiveness of SARS-CoV-2 booster vaccine against Omicron infection in residents and staff of Long-Term Care Facilities: a prospective cohort study (VIVALDI)	Preprint - medRxiv	Excluded for RoB
Stirrup et al	Clinical effectiveness of SARS-CoV-2 booster vaccine against Omicron infection in residents and staff of Long-Term Care Facilities: a prospective cohort study (VIVALDI)	medRxiv	Previously reviewed
Stirrup et al.	Clinical effectiveness of SARS-CoV-2 booster vaccine against Omicron infection in residents and staff of Long-Term Care Facilities: a prospective cohort study (VIVALDI)	Preprint - medRxiv	Excluded for RoB

Stoliaroff Pepin et al.	Effectiveness of vaccines in preventing hospitalization due to COVID-19: A multicenter hospital-based case-control study, Germany, June 2021 to January 2022	Preprint - medRxiv	wrong study duration
Stoliaroff-Pepin et al.	Effectiveness of vaccines in preventing hospitalization due to COVID-19: A multicenter hospital-based case-control study, Germany, June 2021 to January 2022	Preprint - medRxiv	wrong study duration
Stowe et al.	Effectiveness of COVID-19 vaccines against Omicron and Delta hospitalisation, a test negative case-control study	WHO newsletter	Previously included
Stowe et al.	Effectiveness of COVID-19 vaccines against hospital admission with the Delta (B.1.617.2) variant	Hand search; Public Health England pre-prints	wrong intervention
Suah et al.	Waning COVID-19 Vaccine Effectiveness for BNT162b2 and CoronaVac in Malaysia: An Observational Study	Preprint - medRxiv	wrong outcome
Suah et al.	Waning COVID-19 Vaccine Effectiveness for BNT162b2 and CoronaVac in Malaysia: An Observational Study	Preprint - medRxiv	wrong outcome
Suah et al.	Waning COVID-19 Vaccine Effectiveness for BNT162b2 and CoronaVac in Malaysia: An Observational Study	International Journal of Infectious Diseases	wrong outcome
Suah et al.	PICK-ing Malaysia's Epidemic Apart: Effectiveness of a Diverse COVID-19 Vaccine Portfolio	Vaccines	wrong outcome
Suah et al.	Real-world effectiveness of homologous and heterologous BNT162b2, CoronaVac, and AZD1222 booster vaccination against Delta and Omicron SARS-CoV-2 infection	Emerging microbes & infections	wrong intervention
Sultan et al.	Distinct Vaccine Efficacy Rates Among Health Care Workers During a COVID-19 Outbreak in Jordan	Preprint - medRxiv	wrong outcome
Sultan et al.	Distinct Vaccine Efficacy Rates Among Health Care Workers During a COVID-19 Outbreak in Jordan	Preprint - medRxiv	wrong outcome
Summer et al	Impact of Age and Symptom Development on SARS-CoV-2 Transmission in Households With Children—Maryland, New York, and Utah, August 2020–October 2021	Open forum infectious disease	Wrong study duration
Sun et al	Rapidly shifting immunologic landscape and severity of SARS-CoV-2 in the Omicron era in South Africa	medRxiv	Wrong study duration
Sun et al.	COVID-19 BOOSTER VACCINE EFFECTIVENESS in PEOPLE with and WITHOUT IMMUNE DYSFUNCTION	Topics in Antiviral Medicine	Conference report
Surie et al	Effectiveness of Monovalent mRNA Vaccines Against COVID-19-Associated Hospitalization Among Immunocompetent Adults During	MMWR. Morbidity and mortality weekly report	wrong comparator

	BA.1/BA.2 and BA.4/BA.5 Predominant Periods of SARS-CoV-2 Omicron Variant in the United States - IVY Network, 18 States, December 26, 2021-August 31, 2022.		
Svoboda et al.	Safety and Efficacy of Sars-Cov-2 Vaccines in Hodgkin Lymphoma Patients Receiving PD-1 Inhibitors	Blood	wrong outcome
Swift et al.	Effectiveness of Messenger RNA Coronavirus Disease 2019 (COVID19) Vaccines Against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Infection in a Cohort of Healthcare Personnel	Clinical Infectious Diseases	wrong study duration
Swift et al.	Effectiveness of mRNA COVID-19 vaccines against SARS-CoV-2 infection in a cohort of healthcare personnel	Clinical Infectious Diseases	wrong intervention
Syed et al.	Effectiveness of COVID-19 vaccines	Journal of Infection	Already included
Syed et al.	Effectiveness of COVID-19 vaccines	Journal of Infection	Already included
Tadesse et al	Impact of vaccination with SCB-2019 COVID-19 vaccine on transmission of SARS-CoV-2 infection:a household contact study in the Philippines	medRxiv	Wrong study intervention
Tahor et al.	Evidence for increased breakthrough rates of SARS-CoV-2 variants of concern in BNT162b2-mRNA-vaccinated individuals	Nature Medicine	uplicated
Tai et al.	Booster protection against Omicron infection in a highly vaccinated cohort	Preprint - medRxiv	wrong study duration
Tak Cheng et al.	The effectiveness and safety of mRNA (BNT162b2) and inactivated (CoronaVac) COVID-19 vaccines among individuals with chronic kidney diseases	Kidney international	wrong study duration
Tan et al	Infectiousness of SARS-CoV-2 breakthrough infections and reinfections during the Omicron wave	medRxiv	Wrong outcome (attack rate)
Tan et al.	Effectiveness of a Fourth Dose of COVID-19 mRNA Vaccine Against Omicron Variant Among Elderly People in Singapore	Annals of internal medicine.	wrong study duration
Tan et al.	Vaccine effectiveness against Delta, Omicron BA.1, and BA.2 in a highly vaccinated Asian setting: a test-negative design study	Clinical Microbiology and Infection.	wrong comparison
Tan et al.	Vaccine effectiveness against Delta, Omicron BA.1 and BA.2 in a highly vaccinated Asian setting: a test-negative design study	Clinical microbiology and infection : the official publication of the European Society of Clinical Microbiology and Infectious Diseases	wrong study duration
Tande et al.	Impact of the COVID-19 Vaccine on Asymptomatic Infection Among Patients	Clinical Infectious Diseases	wrong intervention

	Undergoing Pre-Procedural COVID-19 Molecular Screening		
Tande et al.	mRNA Vaccine Effectiveness Against Asymptomatic SARS-CoV-2 Infection Over a Seven-Month Period	Infection Control and Hospital Epidemiology	wrong study design
Tang et al.	Relative vaccine effectiveness against Delta and Omicron COVID-19 after homologous inactivated vaccine boosting: a retrospective cohort study.	BMJ open	wrong study duration
Tang et al.	COVID-19 mRNA vaccine effectiveness against hospitalisation and death in veterans according to frailty status during the SARS-CoV-2 delta (B.1.617.2) variant surge in the USA: a retrospective cohort study	The Lancet. Healthy longevity	wrong study duration
Tang et al.	Asymptomatic and Symptomatic SARS-CoV-2 Infections after BNT162b2 Vaccination in a Routinely Screened Workforce	JAMA - Journal of the American Medical Association	wrong intervention
Tang et al.	BNT162b2 and mRNA-1273 COVID-19 vaccine effectiveness against the Delta (B.1.617.2) variant in Qatar	Preprint - medRxiv	wrong study design
Tang et al.	BNT162b2 and mRNA-1273 COVID-19 vaccine effectiveness against the SARS-CoV-2 Delta variant in Qatar	Nature Medicine	uplicated
Tanislav et al.	Effect of SARS-CoV-2 vaccination among health care workers in a geriatric care unit after a B.1.1.7-variant outbreak	Public Health	wrong intervention
Taquet et al.	Six-month sequelae of post-vaccination SARS-CoV-2 infection: a retrospective cohort study of 10,024 breakthrough infections	Preprint - medRxiv	wrong outcome
Tartof et al.	Effectiveness Associated With BNT162b2 Vaccine Against Emergency Department and Urgent Care Encounters for Delta and Omicron SARS-CoV-2 Infection Among Adolescents Aged 12 to 17 Years	JAMA Netw Open	Handsearch – wrong population
Tartof et al.	Effectiveness and durability of BNT162b2 vaccine against hospital and emergency department admissions due to SARS-CoV-2 omicron sub-lineages BA.1 and BA.2 in a large health system in the USA: a test-negative, case-control study	The Lancet. Respiratory medicine	wrong study duration
Tartof et al.	BNT162b2 vaccine effectiveness against SARS-CoV-2 omicron BA.4 and BA.5.	The Lancet. Infectious diseases	wrong study duration
Tartof et al.	Durability of BNT162b2 vaccine against hospital and emergency department admissions due to the omicron and delta variants in a large health system in the USA: a test-negative case-control study	The Lancet Respiratory Medicine	already screened

Tartof et al.	Effectiveness of a third dose of BNT162b2 mRNA COVID-19 vaccine in a large US health system: A retrospective cohort study	SSRN	delayed exclusion - duplicate of Study ID 21-3
Tartof et al.	Effectiveness of mRNA BNT162b2 COVID-19 vaccine up to 6 months in a large integrated health system in the USA: a retrospective cohort study	Lancet (London, England)	duplicated
Tartof et al.	Durability of BNT162b2 vaccine against hospital and emergency department admissions due to the omicron and delta variants in a large health system in the USA: a test-negative case-control study	The Lancet. Respiratory medicine	wrong study duration
Taubel et al.	Can a second booster dose be delayed in patients who have had COVID-19?	Preprint - medRxiv	wrong outcome
Tene et al.	Assessment of effectiveness of 1 dose of BNT162B2 vaccine for SARS-CoV-2 infection 13 to 24 days after immunization	JAMA network open	wrong intervention
Tene et al.	The effectiveness of the TWO-DOSE BNT162b2 vaccine: analysis of real-world data	Clinical Infectious Diseases	wrong intervention
Tenforde et al.	Effectiveness of SARS-CoV-2 mRNA Vaccines for Preventing Covid-19 Hospitalizations in the United States	Clinical Infectious Diseases	wrong study design
Tenforde et al.	Effectiveness of a Third Dose of Pfizer-BioNTech and Moderna Vaccines in Preventing COVID-19 Hospitalization Among Immunocompetent and Immunocompromised Adults - United States, August-December 2021	MMWR. Morbidity and mortality weekly report	wrong study duration
Tenforde et al.	Effectiveness of Pfizer-BioNTech and Moderna Vaccines Against COVID-19 Among Hospitalized Adults Aged ≥ 65 Years - United States, January-March 2021	Morbidity and Mortality Weekly Report	wrong intervention
Tenforde et al.	Effectiveness of mRNA Vaccination in Preventing COVID-19-Associated Invasive Mechanical Ventilation and Death - United States, March 2021-January 2022	MMWR. Morbidity and mortality weekly report	wrong outcome
Tenforde et al.	Effectiveness of Severe Acute Respiratory Syndrome Coronavirus 2 Messenger RNA Vaccines for Preventing Coronavirus Disease 2019 Hospitalizations in the United States	Clinical Infectious Diseases	wrong study duration
Tenforde et al.	Protection of mRNA vaccines against hospitalized COVID-19 in adults over the first year following authorization in the United States	Clinical infectious diseases: an official publication of the Infectious Diseases Society of America	wrong study duration
Tenforde, et al.	Sustained Effectiveness of Pfizer-BioNTech and Moderna Vaccines Against COVID-19 Associated Hospitalizations Among Adults - United States, March-July 2021	Morbidity and Mortality Weekly Report (MMWR) - CDC	wrong outcome

Thakkar et al.	Efficacy and longevity of immune response to 3rd COVID-19 vaccine and effectiveness of a 4th dose in severely immunocompromised patients with cancer	medRxiv	wrong outcome
Thangaraj et al.	Predominance of delta variant among the COVID-19 vaccinated and unvaccinated individuals, India, May 2021	The Journal of Infection	wrong outcome
The OpenSAFELY Collaborative	Comparative effectiveness of two- and three-dose schedules involving AZD1222 and BNT162b2 in people with kidney disease: a linked OpenSAFELY and UK Renal Registry cohort study	Preprint - medRxiv	wrong comparator
Thiruvengadam et al.	Effectiveness of ChAdOx1 nCoV-19 vaccine against SARS-CoV-2 infection during the delta (B.1.617.2) variant surge in India: a test-negative, case-control study and a mechanistic study of post-vaccination immune responses	The Lancet. Infectious diseases	wrong study duration
Thiruvengadam et al.	Cellular Immune Responses are Preserved and May Contribute to Chadox1 ChAdOx1 nCoV-19 Vaccine Effectiveness Against Infection Due to SARS-CoV-2 B.1.617.2 Delta Variant Despite Reduced Virus Neutralisation	Preprint - SSRN	wrong intervention
Thomas et al.	Efficacy and safety of the BNT162b2 mRNA COVID-19 vaccine in participants with a history of cancer: subgroup analysis of a global phase 3 randomized clinical trial	Vaccine	wrong comparator
Thomas et al.	1558O COVID-19 vaccine in participants (ptcpts) with cancer: Subgroup analysis of efficacy/safety from a global phase III randomized trial of the BNT162b2 (tozinameran) mRNA vaccine	Annals of Oncology	wrong outcome
Thomas et al.	Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine through 6 Months	The New England journal of medicine	duplicate
Thomas, et al.	Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine through 6 Months	The New England Journal of Medicine	delayed exclusion - pre-print version of the article (the published version is included in the main document)
Thompson et al.	Effectiveness of a Third Dose of mRNA Vaccines Against COVID-19-Associated Emergency Department and Urgent Care Encounters and Hospitalizations Among Adults During Periods of Delta and Omicron Variant Predominance - VISION Network, 10 States, August 2021-January 2022	MMWR. Morbidity and mortality weekly report	wrong comparator

Thompson et al.	Interim Estimates of Vaccine Effectiveness of BNT162b2 and mRNA-1273 COVID-19 Vaccines in Preventing SARS-CoV-2 Infection Among Health Care Personnel, First Responders, and Other Essential and Frontline Workers - Eight U.S. Locations, December 2020-March 2021	Morbidity and Mortality Weekly Report	wrong intervention
Thompson et al.	Prevention and Attenuation of Covid-19 with the BNT162b2 and mRNA-1273 Vaccines	New England Journal of Medicine	wrong intervention
Thompson et al.	Effectiveness of covid-19 vaccines in ambulatory and inpatient care settings	New England Journal of Medicine	duplicated
Toback et al.	Safety, Immunogenicity, and Efficacy of a COVID-19 Vaccine (NVX-CoV2373) Co-administered With Seasonal Influenza Vaccines	Preprint - medRxiv	wrong intervention
Toker et al.	Vaccination status among patients with the need for emergency hospitalizations related to COVID-19	The American journal of emergency medicine	wrong comparator
Toniasso et al.	Reduction in COVID-19 prevalence in healthcare workers in a university hospital in southern Brazil after the start of vaccination	International Journal of Infectious Diseases: IJID	wrong intervention
Torres et al.	Clinical efficacy of SARS-CoV-2 vaccination in hemodialysis patients	Kidney international reports	data in figures
Torres et al.	Clinical Efficacy of SARS-CoV-2 Vaccination in Hemodialysis Patients	Kidney International Reports.	cumulative data
Tran et al.	Efficacy of COVID-19 vaccination on the symptoms of patients with long COVID: a target trial emulation using data from the ComPaRe e-cohort in France	SSRN	wrong outcome
Trapani et al.	COVID-19 vaccines in patients with cancer	The Lancet Oncology	wrong publication type
Tré-Hardy et al.	Waning antibodies in SARS-CoV-2 naïve vaccines: Results of a three-month interim analysis of ongoing immunogenicity and efficacy surveillance of the mRNA-1273 vaccine in healthcare workers	The Journal of Infection	wrong intervention
Tré-Hardy, et al.	Six-month interim analysis of ongoing immunogenicity surveillance of the mRNA-1273 vaccine in healthcare workers: A third dose is expected	Journal of Infection	delayed exclusion - data mainly focusing on immunogenicity findings.
Tsang et al	Effectiveness of BNT162b2 and CoronaVac COVID-19 Vaccination Against Asymptomatic and Symptomatic Infection of SARS-CoV-2 Omicron BA.2 in Hong Kong	The Lancet	Wrong study duration
Tsapepas et al.	Clinically Significant COVID-19 Following SARS-CoV-2 Vaccination in Kidney Transplant Recipients	American Journal of Kidney Diseases	wrong outcome

Tseng et al.	Effectiveness of mRNA-1273 against SARS-CoV-2 omicron and delta variants	Preprint - medRxiv	wrong comparator
Tseng et al.	Effectiveness of mRNA-1273 against SARS-CoV-2 Omicron and Delta variants	Nature medicine	wrong comparator
Tseng et al.	Effectiveness of mRNA-1273 against SARS-CoV-2 omicron and delta variants	Nature medicine	delayed exclusion - baseline is 14-90 days, which is beyond our 30.5 days average post-receipt of second dose threshold
Tseng et al.	Effectiveness of mRNA-1273 against SARS-CoV-2 Omicron and Delta variants	Nature Medicine	wrong comparator
Tsiatis et al.	Estimating vaccine efficacy over time after a randomized study is unblinded	Biometrics	wrong study design
Tsundue et al.	First and second doses of Covishield vaccine provided high level of protection against SARS-CoV-2 infection in highly transmissible settings: results from a prospective cohort of participants residing in congregate facilities in India	BMJ global health	wrong study design
Tucker et al.	Evaluating clinical effectiveness of SARS-CoV-2 vaccine in solid organ transplant recipients: A propensity score matched analysis	Transplant infectious disease : an official journal of the Transplantation Society	no VE data, wrong time points
Turbyfill et al	Comparison of test-negative and syndrome-negative controls in SARS-CoV-2 vaccine effectiveness evaluations for preventing COVID-19 hospitalizations in the United States.	Vaccine	wrong study duration
Turtle et al	Outcome of COVID-19 in hospitalised immunocompromised patients: an analysis of the WHO ISARIC CCP-UK prospective cohort study	medRxiv	Wrong outcome
Tyagi et al.	Breakthrough COVID19 infections after vaccinations in healthcare and other workers in a chronic care medical facility in New Delhi, India	Diabetes & Metabolic Syndrome	wrong outcome
Tylicki et al.	COVID-19 vaccination reduces mortality in patients on maintenance hemodialysis	Frontiers in Medicine	wrong outcome
UKHSA (November 3, 2022)	COVID-19 vaccine surveillance report Week 44	UKHSA	
UKHSA (updated December 1, 2022)	COVID-19 vaccine surveillance report Week 48	UKHSA	

UKSHA	COVID-19 vaccine surveillance report Week 35		Wrong study design - Review
Ul Munamm et al	Comparative analysis of mRNA and inactivated COVID-19 vaccines: A study from Faisalabad district of Pakistan.	The journal of the Royal College of Physicians of Edinburgh	wrong study duration
Uschner et al.	Breakthrough SARS-CoV-2 Infections after Vaccination in North Carolina	Preprint - medRxiv	wrong outcome
Uzun et al.	COVID-19: vaccination vs. hospitalization	Infection	wrong outcome
Vahidy et al.	Real-world Effectiveness of COVID-19 mRNA Vaccines against Hospitalizations and Deaths in a Retrospective Cohort	Open Forum Infectious Diseases	conference abstract
Vahidy et al.	Real World Effectiveness of COVID-19 mRNA Vaccines against Hospitalizations and Deaths in the United States	Preprint - medRxiv	article withdrawn
Vaishya et al.	SARS-CoV-2 infection after COVID-19 immunization in healthcare workers: A retrospective, pilot study	The Indian Journal of Medical Research	NO PDF
van Ewijk et al	COVID-19 vaccine effectiveness against SARS-CoV-2 infection during the Delta period, a nationwide study adjusting for chance of exposure, the Netherlands, July to December 2021.	Euro surveillance	wrong study duration
van Ewijk et al	COVID-19 outbreak in an elderly care home: Very low vaccine effectiveness and late impact of booster vaccination campaign.	Vaccine	wrong study duration
Vasileiou et al.	Interim findings from first-dose mass COVID-19 vaccination roll-out and COVID-19 hospital admissions in Scotland: a national prospective cohort study	The Lancet	wrong intervention
Vasileiou et al.	Effectiveness of First Dose of COVID-19 Vaccines Against Hospital Admissions in Scotland: National Prospective Cohort Study of 5.4 Million People	Hand search; Preprint - SSRN	wrong intervention
Veerapu et al.	COVID-19 vaccines effectiveness against SARS-CO-V-2 infection among persons attending RT-PCR centre at a Medical College Hospital in Telangana: A case control study	Preprint - medRxiv	already screened
Veerapu et al.	COVID-19 vaccines effectiveness against SARS-CO-V-2 infection among persons attending RT-PCR centre at a Medical College Hospital in Telangana: A case control study	Preprint - medRxiv	Wrong comparator
Vergnes	Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine	The New England Journal of Medicine	wrong intervention
Victor et al.	Protective Effect of COVID-19 Vaccine Among Health Care Workers During the Second Wave of the Pandemic in India	Mayo Clinic proceedings	wrong intervention

Victora et al.	Estimating the early impact of vaccination against COVID-19 on deaths among elderly people in Brazil: Analyses of routinely-collected data on vaccine coverage and mortality	EClinicalMedicine	wrong study design
Vijayasingham et al.	Sex-disaggregated data in COVID-19 vaccine trials	The Lancet	wrong study design
Villela et al.	Effectiveness of Mass Vaccination in Brazil against Severe COVID-19 Cases	Preprint - medRxiv	wrong outcome
Vitek et al	mRNA vaccine effectiveness against hospitalisation due to severe acute respiratory infection (SARI) COVID-19 during Omicron variant predominance estimated from real-world surveillance data, Slovenia, February to March 2022	Eurosurveillance	wrong study duration
Vitek et al.	Vaccine effectiveness against severe acute respiratory infections (SARI) COVID-19 hospitalisations estimated from real-world surveillance data, Slovenia, October 2021	Eurosurveillance	wrong comparator
Vivaldi et al.	Risk factors for SARS-CoV-2 infection after primary vaccination with ChAdOx1 nCoV-19 or BNT1262b2 and after booster vaccination with BNT1262b2 or mRNA-1273: a population-based cohort study (COVIDENCE UK)	Preprint - medRxiv	wrong outcome
Vivaldi et al.	Correlation between post-vaccination titres of combined IgG, IgA, and IgM anti-Spike antibodies and protection against breakthrough SARS-CoV-2 infection: a population-based longitudinal study (COVIDENCE UK)	Preprint - medRxiv	wrong comparator
Voko et al.	Effectiveness and Waning of Protection With Different SARS-CoV-2 Primary and Booster Vaccines During the Delta Pandemic Wave in 2021 in Hungary (HUN-VE 3 Study)	Frontiers in Immunology	wrong study duration
Voko et al.	Effectiveness and waning of protection with different SARS-CoV-2 primary and booster vaccines during the Delta pandemic wave in 2021 in Hungary (HUN-VE 3 study)	Preprint - medRxiv	no useful data, baseline is long
Vokó et al.	Nationwide effectiveness of five SARS-CoV-2 vaccines in Hungary-the HUN-VE study	Clinical microbiology and infection : the official publication of the European Society of Clinical Microbiology and Infectious Diseases	wrong study duration
Voysey et al.	Safety and efficacy of the ChAdOx1 nCoV-19 vaccine (AZD1222) against SARS-CoV-2: an interim analysis of four randomised controlled trials in Brazil, South Africa, and the UK	The Lancet	wrong intervention

Voysey et al.	Single-dose administration and the influence of the timing of the booster dose on immunogenicity and efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine: a pooled analysis of four randomised trials	The Lancet	wrong intervention
Wadei et al.	COVID-19 infection in solid organ transplant recipients after SARS-CoV-2 vaccination	American Journal of Transplantation	wrong intervention
Wagner et al.	COVID-19 vaccine: mRNA-1273 is effective and safe	Pneumologie	foreign language
Waldhorn et al.	Six-Month Efficacy and Toxicity Profile of BNT162b2 Vaccine in Cancer Patients with Solid Tumors	Cancer discovery	wrong comparator
Waldhorn, et al.	Six Month Efficacy and Toxicity Profile of BNT162b2 Vaccine in Cancer Patients with Solid Tumors	Cancer Discovery	delayed exclusion - data mainly focusing on immunogenicity findings.
Wall et al	Second SARS-CoV-2 Booster Vaccination Significantly Reduces Haemodialysis Patients' Susceptibility to Infection With Omicron Variant	Journal of the American Society of Nephrology	no pdf
Wan et al	Vaccine effectiveness of BNT162b2 and CoronaVac against SARS-CoV-2 Omicron BA.2 infection, hospitalisation, severe complications, cardiovascular disease and mortality in patients with diabetes mellitus: A case control study	Journal of Infection	wrong study duration
Wan et al	Effectiveness of BNT162b2 and CoronaVac vaccinations against SARS-CoV-2 omicron infection in people aged 60 years or above: a case-control study.	Journal of travel medicine	wrong study duration
Wan et al.	Vaccine effectiveness of BNT162b2 and CoronaVac against SARS-CoV-2 Omicron BA.2 infection, hospitalisation, severe complications, cardiovascular disease and mortality in patients with diabetes mellitus: A case control study	The Journal of infection	wrong study duration
Wang et al	Impact of Vaccination, Prior Infection and Therapy on Omicron Infection and Mortality.	The Journal of infectious diseases	wrong study duration
Wang et al.	Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine	The New England Journal of Medicine	wrong intervention
Wang et al.	The impacts of COVID-19 vaccine timing, number of doses, and risk prioritization on mortality in the US	Preprint - medRxiv	wrong study design
Wang et al.	Increased risk for COVID-19 breakthrough infection in fully vaccinated patients with substance use disorders in the United States between December 2020 and August 2021	World Psychiatry	wrong comparator
Wang et al.	Impact of Vaccination, Prior Infection, and Therapy on Delta and Omicron Variants	Preprint - medRxiv	wrong comparator

Waxman et al.	Comparison of Natural and BNT162b2 Vaccine-induced Immunity, with and without an Enhancer or Booster Dose, on the Risk of COVID-19-Related Hospitalization in Israel	Research Square	wrong study duration
Waxman et al.	Comparing COVID-19-related hospitalization rates among individuals with infection-induced and vaccine-induced immunity in Israel	Nature communications	wrong outcome; wrong duration
Wei et al.	Household transmission of SARS-CoV-2 during the Omicron wave in Shanghai, China: a case-ascertained study		wrong study duration
Weigert et al	Association of vaccine-induced or hybrid immunity with COVID-19-related mortality during the Omicron wave -- a retrospective observational study in elderly Bavarians	McMaster COVID-19	wrong study duration
Westerhof et al	Symptom presentation among SARS-CoV-2 positive cases and the impact of COVID-19 vaccination; three prospective household cohorts	medRxiv	Wrong study duration
Westholter & Taube	SARS-CoV-2 outbreak in a long-term care facility after vaccination with BNT162b2	Clinical Infectious Diseases	wrong intervention
Whitaker et al.	Pfizer-BioNTech and Oxford AstraZeneca COVID-19 vaccine effectiveness and immune response among individuals in clinical risk groups	The Journal of infection	wrong study duration
Whitaker et al.	Pfizer-BioNTech and Oxford AstraZeneca COVID-19 vaccine effectiveness and immune response among individuals in clinical risk groups	Hand search - Public Health England preprints	wrong intervention
White et al.	Incident SARS-CoV-2 Infection among mRNA-Vaccinated and Unvaccinated Nursing Home Residents	The New England Journal of Medicine	wrong intervention
Wickert et al.	Estimates of Single Dose and Full Dose BNT162b2 Vaccine Effectiveness among USAF Academy cadets, 1 Mar - 1 May 2021	Preprint - medRxiv	wrong intervention
Widdifield et al.	Vaccine effectiveness against SARS-CoV-2 infection and severe outcomes among individuals with immune-mediated inflammatory diseases tested between March 1 and Nov 22, 2021, in Ontario, Canada: a population-based analysis	The Lancet. Rheumatology	wrong study duration
Williams et al.	Measuring vaccine efficacy against infection and disease in clinical trials: sources and magnitude of bias in COVID-19 vaccine efficacy estimates	Preprint - medRxiv	wrong intervention
Williams et al.	COVID-19 Outbreak Associated with a SARS-CoV-2 P.1 Lineage in a Long-Term Care Home after Implementation of a Vaccination Program – Ontario, April-May 2021	Hand search; Clinical Infectious Diseases	wrong intervention

Winchester et al	Protection conferred by Delta and BA.1/BA.2 infection against BA.4/BA.5 infection and hospitalization: A Retrospective Cohort Study	McMaster COVID-19	wrong study duration
Winkelman et al.	Trends in COVID-19 Vaccine Administration and Effectiveness Through October 2021	JAMA network open	wrong outcome
Wirth et al.	When emulating a trial, do as the trialists do: Missteps in estimating relative effectiveness of a SARS-CoV-2 vaccine booster dose	Clinical infectious diseases : an official publication of the Infectious Diseases Society of America	wrong study design
Wise et al.	Covid-19: New data on Oxford AstraZeneca vaccine backs 12 week dosing interval	BMJ (Clinical Research Ed.)	wrong publication type
Wise et al.	Covid-19: People who have had infection might only need one dose of mRNA vaccine	BMJ (Clinical Research Ed.)	wrong publication type
Wise et al.	Covid-19: People who have had infection might only need one dose of mRNA vaccine	BMJ (Clinical Research Ed.)	duplicated
Wise et al.	Covid-19: Pfizer BioNTech vaccine reduced cases by 94% in Israel, shows peer reviewed study	BMJ (Clinical Research Ed.)	wrong publication type
Wright et al.	Comparative vaccine effectiveness against severe COVID-19 over time in US hospital administrative data: a case-control study	The Lancet Respiratory Medicine	data in figures
Wright et al.	Comparative vaccine effectiveness against severe COVID-19 over time in US hospital administrative data: a case-control study	The Lancet. Respiratory medicine	wrong comparator
Wu et al.	1562MO Effectiveness of COVID-19 vaccination in cancer patients: A nationwide Veterans Affairs study	Annals of Oncology	wrong outcome
Xie et al.	Comparative effectiveness of the BNT162b2 vs ChAdOx1 vaccine against Covid-19	Preprint - medRxiv	wrong comparator
Xie et al.	Comparative effectiveness of the BNT162b2 and ChAdOx1 vaccines against Covid-19 in people over 50	Nature Communications	wrong outcome
Xiong et al.	Age and Gender Disparities in Adverse Events Following COVID-19 Vaccination: Real-World Evidence Based on Big Data for Risk Management	Frontiers in Medicine	wrong intervention
Xu et al	Effectiveness of inactivated COVID-19 vaccines against mild disease, pneumonia, and severe disease among persons infected with SARS-CoV-2 Omicron variant: Real-world study in Jilin Province, China	Emerging microbes & infections	wrong study duration
Xu et al.	Effectiveness of COVID-19 Vaccines Over 13 Months Covering the Period of the Emergence of the Omicron Variant in the Swedish Population	WHO newsletter	Data in figures

Y.-Y et al	Effectiveness of Second mRNA COVID-19 Booster Vaccine in Immunocompromised Persons and Long-Term Care Facility Residents	Emerging infectious diseases	wrong study duration
Yadav et al.	The high mortality and impact of vaccination on COVID-19 in hemodialysis population in India during the second wave	Kidney International Reports	wrong intervention
Yamamoto et al.	Neutralizing antibodies following three doses of BNT162b2 vaccine, breakthrough infection, and symptoms during the Omicron predominant wave		wrong study duration
Yan et al.	Rate and risk factors for breakthrough SARS-CoV-2 infection after vaccination	Journal of Infection	wrong intervention
Yan et al.	Effectiveness of BNT162b2 and CoronaVac vaccinations against mortality and severe complications after SARS-CoV-2 Omicron BA.2 infection: a case-control study	Emerging microbes & infections	wrong study duration
Yang et al.	Effectiveness of CoronaVac and BNT162b2 vaccine against SARS-CoV-2 Omicron BA.2 infections in Hong Kong	The Journal of infectious diseases	wrong study design
Yassi et al.	Infection control, occupational and public health measures including mRNA-based vaccination against SARS-CoV-2 infections to protect healthcare workers from variants of concern: a 14-month observational study using surveillance data	Preprint - medRxiv	wrong intervention
Yelin et al.	Associations of the BNT162b2 COVID-19 vaccine effectiveness with patient age and comorbidities	Preprint - medRxiv	wrong intervention
Yi et al.	Impact of national Covid-19 vaccination Campaign, South Korea	Vaccine	wrong outcome; wrong study duration
Yoshifuji et al.	Investigation for the efficacy of COVID-19 vaccine in Japanese CKD patients treated with hemodialysis	Renal replacement therapy	wrong outcome
Young Xu et al.	Effectiveness of mRNA COVID-19 Booster Vaccines against Omicron and Delta Variants among US Veterans	Preprint - medRxiv	wrong study duration
Young Xu et al.	Coverage and Effectiveness of mRNA COVID-19 Vaccines among Veterans	Preprint - medRxiv	wrong intervention
Young-Xu et al.	Effectiveness of mRNA COVID-19 vaccines against Omicron and Delta variants in a matched test-negative case-control study among US veterans	BMJ open	wrong study duration
Young-Xu et al.	Estimated Effectiveness of COVID-19 Messenger RNA Vaccination Against SARS-CoV-2 Infection Among Older Male Veterans Health Administration Enrollees, January to September 2021	JAMA Netw Open.	Excluded for RoB

Young-Xu et al.	Effectiveness of mRNA COVID-19 Vaccines against Omicron among Veterans	Preprint - medRxiv	wrong study duration
Young-Xu et al.	Effectiveness of mRNA COVID-19 Booster Vaccines against Omicron and Delta Variants among US Veterans	Preprint - medRxiv	wrong study duration
Young-Xu et al.	Coverage and Estimated Effectiveness of mRNA COVID-19 Vaccines Among US Veterans	JAMA network open	wrong study duration
Yu Chen et al.	POS-977 RISK OF COVID-19 INFECTION POST VACCINATION PROGRAMME IN PATIENTS WITH END STAGE KIDNEY DISEASE IN PENANG STATE	Kidney International Reports	Full-text not found
Zacay et al.	BNT162b2 Vaccine Effectiveness in Preventing Asymptomatic Infection With SARS-CoV-2 Virus: A Nationwide Historical Cohort Study	Open Forum Infectious Diseases	wrong intervention
Zambrano et al.	Effectiveness of BNT162b2 (Pfizer-BioNTech) mRNA Vaccination Against Multisystem Inflammatory Syndrome in Children Among Persons Aged 12-18 Years - United States, July-December 2021	MMWR. Morbidity and mortality weekly report	wrong outcome
Zaqout et al.	The initial impact of a national BNT162b2 mRNA COVID-19 vaccine rollout	International Journal of Infectious Diseases: IJID	wrong intervention
Zeng et al.	Effectiveness of fourth dose COVID-19 vaccine against the Omicron variant compared to no vaccination	medRxiv.	wrong intervention
Zeng et al.	Effectiveness of fourth dose COVID-19 vaccine against the Omicron variant compared to no vaccination	medRxiv	wrong study duration
Zheutlin et al.	Durability of Protection against COVID-19 Breakthrough Infections and Severe Disease by Vaccines in the United States	Preprint - medRxiv	wrong comparator
Zheutlin et al.	Durability of Protection against COVID-19 Breakthrough Infections and Severe Disease by Vaccines in the United States	Preprint - medRxiv	wrong comparator