Title: Systematic literature review of the use of productivity losses/gains in cost-effectiveness analyses of immune-mediated disorders

Authors: Akira Yuasa[1], Naohiro Yonemoto[1], Kazumasa Kamei[1], Toshiaki Murofushi[2], Michael LoPresti[2], Ankush Taneja[3], Jake Horgan[4], Shunya Ikeda[5]

Affiliations:

1: Pfizer Japan Inc., Shibuya-ku, Tokyo 151-8589, Japan

2: INTAGE Healthcare Inc., Chiyoda-ku, Tokyo 101-0062, Japan

3: Lumanity, Gurugram, 122018, India

4: Lumanity, Sheffield, S1 2GQ, United Kingdom

5: Department of Public Health, School of Medicine, International University of Health and Welfare, Narita, 286-8686, Japan

Corresponding Author:

Name: Shunya Ikeda

Affiliation: Department of Public Health, School of Medicine, International University of Health and Welfare

Address: 4-3, Kozunomori, Narita, 286-8686, Japan

E-mail: shunya@iuhw.ac.jp

Appendix 1: Searches

Table S1: Embase.com searches 26 Oct 2020

S. No.	Query	Results
1	'crohn disease'/exp OR 'inflammatory bowel disease'/mj	103,699
2	'cleron disease':ab,ti,kw OR crohn*:ab,ti,kw OR ((regional* NEAR/2 enter*):ab,ti,kw)	84,566
3	'systemic lupus erythematosus'/exp	94,637
4	dermatovisceritism:ab,ti,kw OR erythematodes*:ab,ti,kw OR lupovisceritis:ab,ti,kw OR 'osler libman*':ab,ti,kw OR sle:ab,ti,kw OR 's.l.e':ab,ti,kw OR 's.l.e.':ab,ti,kw	55,312
5	(lupus NEAR/2 (dissesemina* OR erythema*)):ab,ti,kw	84,307
6	'rheumatoid arthritis'/exp OR 'ankylosing spondylitis'/exp OR 'psoriasis'/exp OR 'chronic urticaria'/exp OR 'psoriatic arthritis'/exp OR 'ulcerative colitis'/exp OR 'fibromyalgia'/exp OR 'juvenile rheumatoid arthritis'/exp	411,188
7	'ulcerative colitis':ab,ti,kw OR 'ulcerative colitis'/exp	85,824
8	((ulcer* OR mucos*) NEAR/2 (colit* OR colon* OR colorec*)):ab,ti,kw	83,515
9	(inflamm* NEAR/2 bowel*):ab,ti,kw	84,754
10	proctocolitis:ab,ti,kw OR proctosigmoiditis:ab,ti,kw OR rectocolitis:ab,ti,kw OR rectosigmoiditis:ab,ti,kw OR proctitis:ab,ti,kw	6,214
11	'rheumatoid arthritis':ab,ti,kw OR 'arthrosis deformans':ab,ti,kw OR beauvais:ab,ti,kw OR rheumarthritis:ab,ti,kw OR (((rheum* OR poly* OR inflam*) NEAR/2 (arthr* OR deforma* OR articular)):ab,ti,kw)	176,525
12	'ankylosing spondylitis':ab,ti,kw OR ((anky* NEAR/2 (spondyl* OR spine)):ab,ti,kw) OR bechterew:ab,ti,kw OR bekhterev:ab,ti,kw OR 'vertebral ankylosis':ab,ti,kw	25,420
13	psoria*:ab,ti,kw OR 'willan lepra':ab,ti,kw OR 'psoriatic arthritis':ab,ti,kw OR 'alibert bazin*':ab,ti,kw OR 'arthritis psoriatica':ab,ti,kw OR 'chronic urticaria':ab,ti,kw OR 'chronic idiopathic urticaria':ab,ti,kw OR 'chronic spontaneous urticaria':ab,ti,kw OR ((chronic NEAR/3 urticaria*):ab,ti,kw)	84,778
15	fibromyalgia:ab,ti,kw OR 'fibrositic nodule':ab,ti,kw OR fibrositis:ab,ti,kw	17,241
16	'juvenile idiopathic arthritis':ab,ti,kw OR ((juvenile* NEAR/2 (arthr* OR rheum* OR polyar*)):ab,ti,kw)	17,584
17	'pharmacoeconomics'/exp OR 'cost effectiveness analysis'/exp OR 'economic evaluation'/exp OR 'cost utility analysis'/exp OR 'decision tree'/exp OR markov*:ab,ti,kw OR ((decision NEXT/2 tree*):ab,ti,kw) OR ((decision NEXT/2 analy*):ab,ti,kw) OR (((incremental OR qaly OR 'quality adjusted life years') NEAR/3 cost*):ab,ti,kw) OR ((cost* NEAR/3 (effect* OR utility* OR benefit OR conseq* OR minimi* OR increment* OR qaly* OR ly* OR 'quality adjusted life year*' OR 'life year*')):ab,ti,kw) OR icer:ab,ti,kw OR qaly:ab,ti,kw OR 'quality adjusted life year*':ab,ti,kw OR (((markov* OR simulat* OR decisio* OR analy* OR economic* OR transitio* OR state*) NEAR/3 model*):ab,ti,kw) OR 'economic model'/exp OR 'markov chain'/exp OR 'simulation'/exp	1,116,749
18	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #15 OR #16	672,581
19	'tumor necrosis factor inhibitor'/exp OR 'monoclonal antibody'/exp OR 'immunotherapy'/exp OR 'biological therapy'/exp	2,176,079
20	#17 AND #18 AND #19	7,422

S. No.	Query	Results
21	'case study'/exp OR 'case report'/exp OR 'abstract report'/exp OR 'editorial'/exp OR 'letter'/exp OR 'note'/exp OR 'case study':ab,ti OR 'case report':ab,ti OR 'abstract report':ab,ti OR editorial:ab,ti OR letter:ab,ti OR comment:ab,ti OR note:ab,ti	4,291,558
22	'animal'/exp NOT ('animal'/exp AND 'human'/exp)	4,804,215
23	review:it OR 'review literature as topic'/exp OR 'literature review':ti NOT ('meta-analysis':it OR 'meta-analysis as topic'/mj OR 'systematic review':ti OR 'systematic literature review':ti OR 'meta-analysis':ab,ti OR 'meta analysis':ab,ti)	2,755,707
24	#21 OR #22 OR #23	12,967,613
25	#20 NOT #24 AND [2010-2020]/py	4,041
26	#20 NOT #24 AND [2010-2020]/py AND ([conference abstract]/lim OR [conference paper]/lim OR [conference review]/lim)	2,058
27	#20 NOT #24 AND [2010-2020]/py AND ([conference abstract]/lim OR [conference paper]/lim OR [conference review]/lim) AND [2018-2020]/py	488
28	#25 NOT #26	1,983
29	#27 OR #28	2,507
30	'cost control'/exp OR 'health care cost'/exp OR 'drug cost'/exp OR 'hospital cost'/exp OR 'cost of illness'/exp OR 'health care utilization'/exp OR 'resource management'/exp OR 'resource allocation'/exp OR ((healthcare NEXT/1 cost*):ab,ti,kw) OR ((unit NEXT/1 cost*):ab,ti,kw) OR ((cost* NEAR/3 (treat* OR therap*)):ab,ti,kw) OR (((total OR direct OR indirect OR medical OR drug OR administration OR laborat* OR diagnos* OR illness) NEAR/2 (cost OR costs)):ab,ti,kw) OR 'economic burden':ab,ti,kw OR 'hospitalization cost'/exp OR 'fee'/exp OR 'budget'/exp OR price:ab,ti,kw OR pricing:ab,ti,kw OR fee:ab,ti,kw OR fees:ab,ti,kw OR budget:ab,ti,kw OR budgets:ab,ti,kw OR (('pharmacoeconomics'/exp OR 'cost effectiveness analysis'/exp OR 'economic evaluation'/exp OR 'cost utility analysis'/exp OR 'decision tree'/exp OR markov*:ab,ti,kw OR ((decision NEXT/2 tree*):ab,ti,kw) OR ((decision NEXT/2 analy*):ab,ti,kw) OR (((incremental OR qaly OR 'quality adjusted life years') NEAR/3 cost*):ab,ti,kw) OR ((cost* NEAR/3 (effect* OR utility* OR benefit OR conseq* OR minimi* OR increment* OR qaly* OR ly* OR 'quality adjusted life year*' OR 'life year*')):ab,ti,kw) OR icer:ab,ti,kw OR qaly:ab,ti,kw OR 'quality adjusted life year*':ab,ti,kw OR (((markov* OR simulat* OR decisio* OR analy* OR economic* OR transitio* OR state*) NEAR/3 model*):ab,ti,kw) OR 'economic model'/exp OR 'markov chain'/exp OR 'simulation'/exp) AND ('tumor necrosis factor inhibitor'/exp OR 'monoclonal antibody'/exp OR 'immunotherapy'/exp OR 'biological therapy'/exp))	671,161
31	psoria*:ab,ti,kw OR 'willan lepra':ab,ti,kw OR 'psoriatic arthritis':ab,ti,kw OR 'alibert bazin*':ab,ti,kw OR 'arthritis psoriatica':ab,ti,kw OR 'chronic urticaria':ab,ti,kw OR 'chronic idiopathic urticaria':ab,ti,kw OR 'chronic spontaneous urticaria':ab,ti,kw OR ((chronic NEAR/3 urticaria*):ab,ti,kw) OR sulzberger:ab,ti,kw OR neurodermatitis:ab,ti,kw OR 'besniers*':ab,ti,kw OR (((atopic OR endogenous) NEAR/3 (dermat* OR eczema*)):ab,ti,kw) OR eczema*:ab,ti,kw OR dermatitis:ab,ti,kw	184,988
32	'atopic dermatitis'/exp OR 'psoriasis'/exp OR 'psoriatic arthritis'/exp OR 'chronic urticaria'/exp OR 'neurodermatitis'/exp OR 'eczema'/exp	160,968
33	#31 OR #32	528,176
34	#30 AND #33	16,959
35	#34 NOT #24 AND [2010-2020]/py	8,259
36	#34 NOT #24 AND [2010-2020]/py AND ([conference abstract]/lim OR [conference paper]/lim OR [conference review]/lim)	4,625

S. No.	Query	Results
37	#34 NOT #24 AND [2010-2020]/py AND ([conference abstract]/lim OR [conference paper]/lim OR [conference review]/lim) AND [2018-2020]/py	1,226
38	#35 NOT #36	3,628
39	#37 OR #38	4,859
40	#29 OR #39	3,797

Table S2: MEDLINE In process 26 Oct 2020

S. No.	Query	Results
1	"crohn disease"[MeSH Terms]	39,146
2	"inflammatory bowel diseases"[MeSH Major Topic]	69,825
3	"cleron disease"[Title/Abstract] OR crohn*[Title/Abstract] OR ((regional*[Title/Abstract] AND enter*[Title/Abstract])	54,085
4	"lupus erythematosus, systemic"[MeSH Terms]	59,910
5	dermatovisceritism[Title/Abstract] OR erythematodes*[Title/Abstract] OR lupovisceritis[Title/Abstract] OR "osler libman*"[Title/Abstract] OR sle[Title/Abstract] OR "s.l.e"[Title/Abstract] OR "s.l.e."[Title/Abstract]	35,071
6	(lupus[Title/Abstract] AND (dissesemina*[Title/Abstract] OR erythema*[Title/Abstract]))	62,139
7	"arthritis, rheumatoid"[MeSH Terms]	113,669
8	"spondylitis, ankylosing"[MeSH Terms]	14,782
9	"psoriasis"[MeSH Terms]	40,368
10	"chronic urticaria"[MeSH Terms]	127
11	"arthritis, psoriatic"[MeSH Terms]	6,226
12	"colitis, ulcerative"[MeSH Terms]	34,773
14	"fibromyalgia"[MeSH Terms]	8,517
15	"arthritis, juvenile"[MeSH Terms]	10,476
16	((ulcer*[Title/Abstract] OR mucos*[Title/Abstract]) AND (colit*[Title/Abstract] OR colon*[Title/Abstract] OR colorec*))[Title/Abstract] OR (inflamm*[Title/Abstract] AND bowel*[Title/Abstract]) OR proctocolitis[Title/Abstract] OR proctosigmoiditis[Title/Abstract] OR rectocolitis[Title/Abstract] OR rectosigmoiditis[Title/Abstract] OR proctitis[Title/Abstract]	123,250
17	"rheumatoid arthritis"[Title/Abstract] OR "arthrosis deformans"[Title/Abstract] OR beauvais[Title/Abstract] OR rheumarthritis[Title/Abstract] OR ((rheum*[Title/Abstract] OR poly*[Title/Abstract] OR inflam*[Title/Abstract]) AND (arthr*[Title/Abstract] OR deforma*[Title/Abstract] OR articular[Title/Abstract]))	174,956
18	"ankylosing spondylitis"[Title/Abstract] OR ((anky*[Title/Abstract] AND (spondyl*[Title/Abstract] OR spine[Title/Abstract])) OR bechterew[Title/Abstract] OR bekhterev[Title/Abstract] OR "vertebral ankylosis"[Title/Abstract]	16,686
19	psoria*[Title/Abstract] OR "willan lepra"[Title/Abstract] OR "psoriatic arthritis"[Title/Abstract] OR "alibert bazin*"[Title/Abstract] OR "arthritis psoriatica"[Title/Abstract] OR "chronic urticaria"[Title/Abstract] OR "chronic idiopathic urticaria"[Title/Abstract] OR "chronic spontaneous urticaria"[Title/Abstract] OR ((chronic[Title/Abstract] AND urticaria*[Title/Abstract]))	54,676

21	fibromyalgia[Title/Abstract] OR "fibrositic nodule"[Title/Abstract] OR fibrositis[Title/Abstract]	11,045
22	"juvenile idiopathic arthritis"[Title/Abstract] OR ((juvenile*[Title/Abstract] AND (arthr*[Title/Abstract] OR rheum*[Title/Abstract] OR polyar*[Title/Abstract]))	12,223
23	markov*[Title/Abstract] OR (decision[Title/Abstract] AND tree*[Title/Abstract]) OR (decision[Title/Abstract] AND analy*[Title/Abstract]) OR ((incremental[Title/Abstract] OR qaly[Title/Abstract] OR "quality adjusted life years")[Title/Abstract] AND cost*[Title/Abstract]) OR (cost*[Title/Abstract] AND (effect*[Title/Abstract] OR utility*[Title/Abstract] OR benefit[Title/Abstract] OR conseq*[Title/Abstract] OR minimi*[Title/Abstract] OR increment*[Title/Abstract] OR qaly*[Title/Abstract] OR ly[Title/Abstract] OR lys[Title/Abstract] OR "quality adjusted life year*"[Title/Abstract] OR "life year*"))[Title/Abstract] OR icer[Title/Abstract] OR qaly[Title/Abstract] OR "quality adjusted life year*"[Title/Abstract] OR ((markov*[Title/Abstract] OR simulat*[Title/Abstract] OR decisio*[Title/Abstract] OR analy*[Title/Abstract] OR economic*[Title/Abstract] OR transitio*[Title/Abstract] OR state*[Title/Abstract]) AND model*[Title/Abstract])	1,827,042
24	"economics, pharmaceutical"[MeSH Terms]	2,957
25	"cost benefit analysis"[MeSH Terms]	82,218
26	"decision trees"[MeSH Terms]	11,255
27	"models, economic"[MeSH Terms]	15,243
28	"markov chains"[MeSH Terms]	14,547
29	"patient simulation"[MeSH Terms]	5,080
30	"cost control"[MeSH Terms]	33,282
31	"drug costs"[MeSH Terms]	16,245
32	"patient acceptance of health care"[MeSH Terms]	154,146
33	"hospital costs"[MeSH Terms]	11,205
34	"health care costs"[MeSH Terms]	66,139
35	"resource allocation"[MeSH Terms]	17,716
36	"budgets"[MeSH Terms]	13,762
37	"cost of illness"[MeSH Terms]	27,702
38	"fees and charges"[MeSH Terms]	30,458
39	(healthcare[Title/Abstract] AND cost*[Title/Abstract]) OR (unit[Title/Abstract] AND cost*[Title/Abstract]) OR (cost*[Title/Abstract] AND (treat*[Title/Abstract] OR therap*[Title/Abstract])) OR ((total[Title/Abstract] OR direct[Title/Abstract] OR indirect[Title/Abstract] OR medical[Title/Abstract] OR drug[Title/Abstract] OR administration[Title/Abstract] OR laborat*[Title/Abstract] OR diagnos*[Title/Abstract] OR illness[Title/Abstract]) AND (cost[Title/Abstract] OR costs[Title/Abstract])) OR "economic burden"[Title/Abstract] OR price[Title/Abstract] OR pricing[Title/Abstract] OR fee[Title/Abstract] OR fees[Title/Abstract] OR budget[Title/Abstract] OR budgets[Title/Abstract]	443,442
40	"dermatitis, atopic"[MeSH Terms]	20,120
41	"neurodermatitis"[MeSH Terms]	1,535
42	"eczema"[MeSH Terms]	11,260
43	sulzberger[Title/Abstract] OR neurodermatitis[Title/Abstract] OR besniers*[Title/Abstract] OR ((atopic[Title/Abstract] OR endogenous[Title/Abstract]) AND (dermat*[Title/Abstract] OR eczema*[Title/Abstract])) OR eczema*[Title/Abstract] OR dermatitis[Title/Abstract]	76,905

44	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #14 OR #15 OR #16 OR #17 OR #18 OR #21 OR #22	509,821
45	#23 OR #24 OR #26 OR #27 OR #28 OR #29	1,872,840
46	#30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39	1,037,181
47	#40 OR #41 OR #42 OR #43	137,433
48	"antibodies, monoclonal"[MeSH Terms] OR "tumor necrosis factor inhibitors"[MeSH Terms] OR "immunotherapy"[MeSH Terms] OR "biological therapy"[MeSH Terms] OR "receptors, tumor necrosis factor"[MeSH Terms] OR "interleukin 1 receptor antagonist protein"[MeSH Terms] OR "immunoconjugates"[MeSH Terms]	942,303
49	#45 AND #48	54,359
50	#46 OR #49	1,074,161
51	(publisher[sb] NOT pubstatusnihms NOT pubstatuspmcsd NOT pmcbook) OR (pubstatusaheadofprint)	379,494
52	#47 AND #50 AND #51	104
53	#44 AND #45 AND #48 AND #51	796
54	#52 OR #53	900

Table S3: Cochrane searches (CDSR and CENTRAL) 26 Oct 2020

S. No.	Query	Results
1	MeSH descriptor: [Crohn Disease] explode all trees	1,586
2	[mh "Inflammatory Bowel Diseases"[mj]]	1,994
3	cleron disease:ab,ti,kw OR crohn*:ab,ti,kw OR ((regional* NEAR/2 enter*):ab,ti,kw)	4,784
4	MeSH descriptor: [Lupus Erythematosus, Systemic] explode all trees	1,034
5	dermatovisceritism:ab,ti,kw OR erythematodes*:ab,ti,kw OR lupovisceritis:ab,ti,kw OR "osler libman*":ab,ti,kw OR sle:ab,ti,kw OR "s.l.e":ab,ti,kw OR "s.l.e.":ab,ti,kw	1,687
6	(lupus NEAR/2 (dissesemina* OR erythema*)):ab,ti,kw	2,350
7	MeSH descriptor: [Arthritis, Rheumatoid] explode all trees	6,095
8	MeSH descriptor: [Spondylitis, Ankylosing] explode all trees	687
9	MeSH descriptor: [Psoriasis] explode all trees	3,293
10	MeSH descriptor: [Chronic Urticaria] explode all trees	5
11	MeSH descriptor: [Arthritis, Psoriatic] explode all trees	437
12	MeSH descriptor: [Colitis, Ulcerative] explode all trees	1,578
14	MeSH descriptor: [Fibromyalgia] explode all trees	1,378
15	MeSH descriptor: [Arthritis, Juvenile] explode all trees	297
16	((ulcer* OR mucos*) NEAR/2 (colit* OR colon* OR colorec*)):ab,ti,kw OR (inflamm* NEAR/2 bowel*):ab,ti,kw OR proctocolitis:ab,ti,kw OR proctosigmoiditis:ab,ti,kw OR rectocolitis:ab,ti,kw OR rectosigmoiditis:ab,ti,kw OR proctitis:ab,ti,kw	7,615
17	rheumatoid arthritis:ab,ti,kw OR "arthrosis deformans":ab,ti,kw OR beauvais:ab,ti,kw OR rheumarthritis:ab,ti,kw OR (((rheum* OR poly* OR inflam*) NEAR/2 (arthr* OR deforma* OR articular)):ab,ti,kw)	16,106
18	ankylosing spondylitis:ab,ti,kw OR ((anky* NEAR/2 (spondyl* OR spine)):ab,ti,kw) OR bechterew:ab,ti,kw OR bekhterev:ab,ti,kw OR "vertebral ankylosis":ab,ti,kw	2,016

19	psoria*:ab,ti,kw OR "willan lepra":ab,ti,kw OR "psoriatic arthritis":ab,ti,kw OR "alibert bazin*":ab,ti,kw OR "arthritis psoriatica":ab,ti,kw OR "chronic urticaria":ab,ti,kw OR "chronic idiopathic urticaria":ab,ti,kw OR "chronic spontaneous urticaria":ab,ti,kw OR ((chronic NEAR/3 urticaria*):ab,ti,kw)	9,588
21	fibromyalgia:ab,ti,kw OR "fibrositic nodule":ab,ti,kw OR fibrositis:ab,ti,kw	3,007
22	juvenile idiopathic arthritis:ab,ti,kw OR ((juvenile* NEAR/2 (arthr* OR rheum* OR polyar*)):ab,ti,kw)	867
23	markov*:ab,ti,kw OR ((decision NEXT/2 tree*):ab,ti,kw) OR ((decision NEXT/2 analy*):ab,ti,kw) OR (((incremental OR qaly OR "quality adjusted life years") NEAR/3 cost*):ab,ti,kw) OR ((cost* NEAR/3 (effect* OR utility* OR benefit OR conseq* OR minimi* OR increment* OR qaly* OR ly* OR "quality adjusted life year*" OR "life year*")):ab,ti,kw) OR icer:ab,ti,kw OR qaly:ab,ti,kw OR "quality adjusted life year*":ab,ti,kw OR (((markov* OR simulat* OR decisio* OR analy* OR economic* OR transitio* OR state*) NEAR/3 model*):ab,ti,kw)	45,389
24	MeSH descriptor: [Economics, Pharmaceutical] explode all trees	65
25	MeSH descriptor: [Cost-Benefit Analysis] explode all trees	6,928
26	MeSH descriptor: [Cost-Benefit Analysis] explode all trees	6,928
27	MeSH descriptor: [Decision Trees] explode all trees	160
28	MeSH descriptor: [Models, Economic] explode all trees	352
29	MeSH descriptor: [Markov Chains] explode all trees	265
30	MeSH descriptor: [Patient Simulation] explode all trees	465
31	MeSH descriptor: [Cost Control] explode all trees	581
32	MeSH descriptor: [Health Care Costs] explode all trees	3,414
33	MeSH descriptor: [Drug Costs] explode all trees	760
34	MeSH descriptor: [Hospital Costs] explode all trees	617
35	MeSH descriptor: [Cost of Illness] explode all trees	813
36	MeSH descriptor: [Patient Acceptance of Health Care] explode all trees	17,267
37	MeSH descriptor: [Resource Allocation] explode all trees	73
38	MeSH descriptor: [Budgets] explode all trees	27
39	MeSH descriptor: [Fees and Charges] explode all trees	250
40	((healthcare NEXT/1 cost*):ab,ti,kw) OR ((unit NEXT/1 cost*):ab,ti,kw) OR ((cost* NEAR/3 (treat* OR therap*)):ab,ti,kw) OR (((total OR direct OR indirect OR medical OR drug OR administration OR laborat* OR diagnos* OR illness) NEAR/2 (cost OR costs)):ab,ti,kw) OR 'economic burden':ab,ti,kw OR price:ab,ti,kw OR pricing:ab,ti,kw OR (fee OR fees):ab,ti,kw OR (budget OR budgets):ab,ti,kw	23,275
41	MeSH descriptor: [Dermatitis, Atopic] explode all trees	1,778
42	MeSH descriptor: [Neurodermatitis] explode all trees	70
43	MeSH descriptor: [Eczema] explode all trees	1,049
44	sulzberger:ab,ti,kw OR neurodermatitis:ab,ti,kw OR besniers*:ab,ti,kw OR (((atopic OR endogenous) NEAR/3 (dermat* OR eczema*)):ab,ti,kw) OR eczema*:ab,ti,kw OR dermatitis:ab,ti,kw	9,928
45	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #21 OR #22	42,449
46	#23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30	45,857
47	#41 OR #42 OR #43 OR #44 OR #9 OR #10 OR #11 OR #19	18,945

48	MeSH descriptor: [Antibodies, Monoclonal] explode all trees	13,160
49	MeSH descriptor: [Tumor Necrosis Factor Inhibitors] explode all trees	36
50	MeSH descriptor: [Immunotherapy] explode all trees	7,965
51	MeSH descriptor: [Biological Therapy] explode all trees	17,477
52	MeSH descriptor: [Receptors, Tumor Necrosis Factor] explode all trees	1,282
53	MeSH descriptor: [Interleukin 1 Receptor Antagonist Protein] explode all trees	307
54	MeSH descriptor: [Immunoconjugates] explode all trees	384
55	#48 OR #49 OR #50 OR #51 OR #52 OR #53 OR #54	31,601
56	#31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR (#46 AND #54)	41,476
57	#55 AND #45 AND #46 with Publication Year from 2010 to 2020, in Trials	87
58	#56 AND #47 with Publication Year from 2010 to 2020, in Trials	218
59	#55 AND #45 AND #46 with Cochrane Library publication date Between Jan 2010 and Dec 2020, in Cochrane Reviews	4
60	#56 AND #47 with Cochrane Library publication date Between Jan 2010 and Dec 2020, in Cochrane Reviews	5

Appendix 2: A list of data extracted

Please refer to separate Excel file for Appendix 2.

Appendix 3: Redefined variables used in the multivariate analysis

Category	Variables	Definition	Number of studies
Disease area	Rheumatoid arthritis	If disease of interest is rheumatoid arthritis	74
	Psoriasis	If disease of interest is psoriasis	64
	Inflammatory bowel disease	If diseases of interest are ulcerative colitis and Crohn's disease	45
	Others	If diseases of interest are other than above	17
Publication year	2010–2013	If study of interest was published from 2010 to 2013	53
	2014–2017	If study of interest was published from 2014 to 2017	60
	2018–2020	If study of interest was published from 2018 to 2020	87
Region	North America	If countries of interest are categorized North America by Ministry of Foreign Affairs of Japan	55
	Europe	If countries of interest are categorized Europe by Ministry of Foreign Affairs of Japan	108
	Asia	If countries of interest are categorized Asia by Ministry of Foreign Affairs of Japan	27
	Others	If countries of interest are other than above	10
Economic analysis	CEA	If study of interest conducted a CEA	54
	CUA	If study of interest conducted a CUA	137
	CEA + CUA	If study of interest conducted a CEA and CUA	9
Study sponsor	Pharmaceutical company	If study of interest was sponsored by a pharmaceutical company	124
	Non-pharmaceutical company and no funding	If study of interest was sponsored by a non-pharmaceutical company or no funding	51
	Not reported	If study of interest did not report the sponsor	25
Model type	Markov	If study of interest used Markov model	99
	Decision analytic/decision tree	If study of interest used a decision analytic/decision tree model	22
	Simulation model	If study of interest used a simulation model	33
	Non-modelling study	If study of interest was not model-based	43
	Not reported	If study of interest did not report details regarding modelling	3
Intervention(s)	Biologics and/or JAKi	If interventions of interest are included biologics and/or JAKi	171
	Others	If interventions of interest include other than above	29

Appendix 4: Details for discount rate, cost year, and geographical region of included studies

Disease			Total	Rheumatoid arthritis*	Psoriasis*	Ulcerative colitis	Crohn's disease*	Ankylosing spondylitis	Chronic idiopathic urticaria	Systemic lupus erythematosus	Fibromyalgia
Number of studies			200 (100%)	74 (37.0%)	64 (32.0%)	27 (13.5%)	18 (9.0%)	9 (4.5%)	2 (1.0%)	1 (0.5%)	5 (2.5%)
Discount rate		3%	50 (25.0%)	31 (15.5%)	11 (5.5%)	3 (1.5%)	3 (1.5%)	1 (0.5%)	0 (0.0%)	1 (0.5%)	0 (0.0%)
		3.5%	32 (16.0%)	9 (4.5%)	10 (5.0%)	7 (3.5%)	2 (1.0%)	2 (1.0%)	1 (0.5%)	0 (0.0%)	1 (0.5%)
		5%	15 (7.5%)	4 (2.0%)	4 (2.0%)	4 (2.0%)	1 (0.5%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	1 (0.5%)
		Others†	25 (12.5%)	7 (3.5%)	3 (1.5%)	8 (4.0%)	3 (1.5%)	3 (1.5%)	1 (0.5%)	0 (0.0%)	0 (0.0%)
		No discount	17 (8.5%)	6 (3.0%)	4 (2.0%)	2 (1.0%)	4 (2.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)
		Not reported	61 (30.5%)	17 (8.5%)	32 (16.0%)	3 (1.5%)	5 (2.5%)	2 (1.0%)	0 (0.0%)	0 (0.0%)	2 (1.0%)
Cost year		2006–2010	42 (21.0%)	21 (10.5%)	8 (4.0%)	4 (2.0%)	4 (2.0%)	3 (1.5%)	0 (0.0%)	0 (0.0%)	2 (1.0%)
		2011–2015	55 (27.5%)	22 (11.0%)	12 (6.0%)	11 (5.5%)	5 (2.5%)	1 (0.5%)	1 (0.5%)	1 (0.5%)	2 (1.0%)
		2016–2020	64 (32.0%)	15 (7.5%)	28 (14.0%)	11 (5.5%)	7 (3.5%)	3 (1.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Not reported	39 (19.5%)	16 (8.0%)	16 (8.0%)	1 (0.5%)	2 (1.0%)	2 (1.0%)	1 (0.5%)	0 (0.0%)	1 (0.5%)
Geographical region	North America	Canada	7 (3.5%)	0 (0.0%)	2 (1.0%)	3 (1.5%)	1 (0.5%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		US	48 (24.0%)	15 (7.5%)	23 (11.5%)	5 (2.5%)	4 (2.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)
	Latin America and the Caribbean	Argentina	1 (0.5%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Brazil	2 (1.0%)	1 (0.5%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Colombia	1 (0.5%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Mexico	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)
	Europe	Finland	6 (3.0%)	4 (2.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		France	4 (2.0%)	3 (1.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Germany	9 (4.5%)	4 (2.0%)	4 (2.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Greece	3 (1.5%)	2 (1.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Italy	9 (4.5%)	4 (2.0%)	3 (1.5%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)
		Netherlands	15 (7.5%)	6 (3.0%)	2 (1.0%)	4 (2.0%)	0 (0.0%)	2 (1.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)
		Poland	6 (3.0%)	1 (0.5%)	0 (0.0%)	4 (2.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Scotland	1 (0.5%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Serbia	2 (1.0%)	2 (1.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Spain	12 (6.0%)	3 (1.5%)	4 (2.0%)	2 (1.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (1.0%)
		Sweden	10 (5.0%)	6 (3.0%)	2 (1.0%)	0 (0.0%)	2 (1.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		UK	30 (15.0%)	6 (3.0%)	11 (5.5%)	5 (2.5%)	4 (2.0%)	2 (1.0%)	1 (0.5%)	0 (0.0%)	1 (0.5%)
	Middle East and North Africa	Malta	1 (0.5%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Iran	4 (2.0%)	3 (1.5%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Disease			Total	Rheumatoid arthritis*	Psoriasis*	Ulcerative colitis	Crohn's disease*	Ankylosing spondylitis	Chronic idiopathic urticaria	Systemic lupus erythematosus	Fibromyalgia
East Asia and Pacific		Australia	1 (0.5%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		China	7 (3.5%)	6 (3.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Japan	9 (4.5%)	2 (1.0%)	5 (2.5%)	1 (0.5%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		South Korea	3 (1.5%)	2 (1.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Taiwan	3 (1.5%)	1 (0.5%)	2 (1.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Thailand	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Other	Multinational	4 (2.0%)	0 (0.0%)	1 (0.5%)	1 (0.5%)	2 (1.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Notes: *A single study reported data for three indications: Crohn's disease, psoriasis, and rheumatoid arthritis (Liu et al., 2012).

† Discount rates other than 3%, 3.5% and 5% were listed as "Others".

Appendix 5: Quality assessment of included studies using CHEERS checklist

Figure S1: Summary of quality assessment of included studies using CHEERS checklist
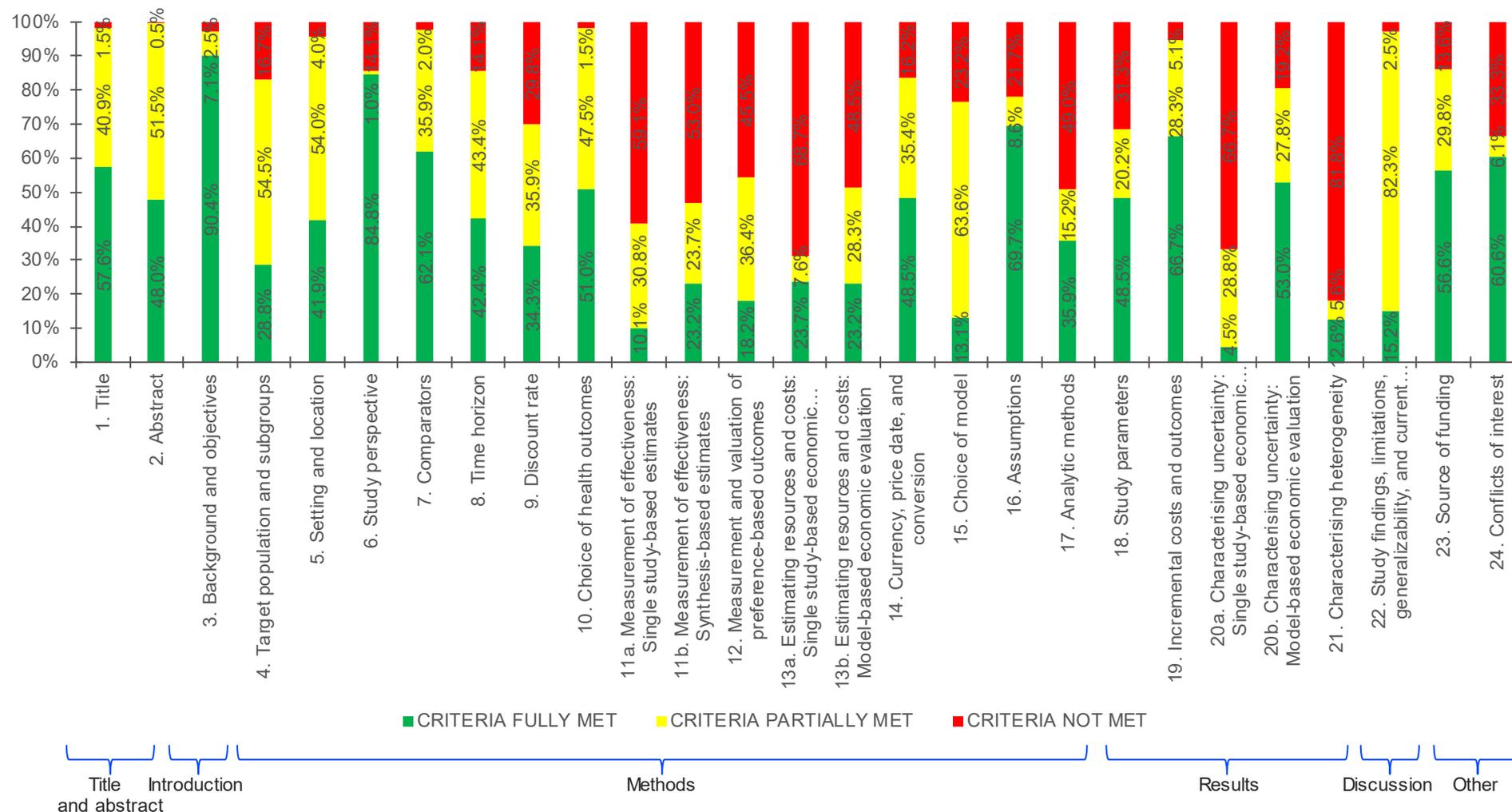
Table S4: Detailed results of quality assessment of included studies using CHEERS checklist

Question No. / Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Knight 2012	FS	FS	FS	PS	FS	FS	FS	FS	NS	FS	PS	NA	FS	NA	FS	PS	PS	FS	FS	FS	FS	NA	FS	FS	PS	FS	NS
Lee 2015	FS	FS	FS	PS	FS	FS	FS	NS	PS	PS	FS	NA	NA	NA	PS	NA	PS	FS	NS	FS	FS	NS	PS	NS	PS	PS	FS
Augustin 2018	FS	PS	FS	PS	PS	FS	PS	PS	NS	FS	NA	FS	NS	FS	NS	PS	PS	FS	NS	FS	PS	PS	PS	NS	PS	PS	FS
Van De Laar 2020	FS	FS	FS	NS	FS	FS	FS	FS	FS	FS	NA	PS	FS	NA	FS	FS	PS	FS	NS	FS	FS	NA	FS	NS	FS	FS	FS
Johansson 2018	FS	FS	FS	FS	PS	FS	FS	FS	FS	FS	NA	FS	FS	NA	FS	FS	FS	FS	NS	FS	FS	NA	FS	NS	PS	FS	FS
Kostic 2017	FS	PS	FS	NS	FS	FS	PS	PS	PS	PS	PS	NA	NS	NS	NS	PS	PS	PS	NS	FS	PS	NS	FS	NS	NS	PS	NS
Bansback 2017	PS	PS	FS	FS	FS	FS	PS	PS	PS	PS	NA	FS	PS	FS	NS	PS	PS	NS	FS	FS	FS	NS	FS	NS	FS	PS	NS
Bungey 2020	PS	FS	FS	PS	PS	FS	FS	FS	FS	FS	NA	PS	NA	NA	FS	FS	FS	FS	NS	FS	FS	NA	FS	NS	PS	FS	FS
Valle-Mercado 2013	FS	PS	FS	FS	FS	FS	FS	FS	FS	FS	PS	NA	NS	NA	NA	FS	PS	NA	FS	FS	FS	NA	FS	FS	PS	FS	NS
Vanier 2017	FS	PS	FS	FS	FS	FS	PS	NS	FS	PS	PS	PS	PS	NA	NA	FS	NA	NA	FS	PS	FS	PS	NA	NS	PS	PS	FS
Said 2013	PS	PS	FS	PS	FS	NS	PS	NS	NS	FS	NA	NA	PS	NA	NA	PS	NA	NA	NS	NS	FS	NS	NA	NA	PS	NS	FS
Stevenson 2017	PS	PS	PS	NS	PS	FS	PS	PS	PS	PS	NA	PS	NS	NS	NS	NS	PS	FS	NA	PS	PS	PS	FS	NA	PS	PS	NS
Sawyer 2013	PS	PS	FS	PS	PS	FS	PS	FS	PS	FS	NA	FS	PS	FS	NS	FS	PS	FS	NS	FS	FS	PS	PS	NS	PS	PS	FS
Kobelt 2011	PS	PS	PS	FS	PS	FS	PS	FS	PS	PS	PS	NA	PS	NA	PS	FS	PS	FS	PS	PS	PS	NS	PS	NS	FS	PS	FS
Cummins 2011	PS	PS	PS	PS	PS	FS	PS	PS	PS	PS	NA	PS	PS	NS	NS	PS	PS	FS	NA	FS	PS	NA	FS	NA	NS	FS	NS
Shi 2020	FS	FS	FS	FS	FS	NS	FS	NS	NS	PS	FS	NA	PS	FS	NA	PS	NA	NA	FS	FS	PS	NS	NA	FS	PS	NS	NS
Beresniak 2013	FS	FS	FS	PS	PS	FS	PS	FS	NS	PS	NA	NS	NA	NA	FS	PS	PS	FS	PS	NS	PS	NA	NS	NS	PS	FS	NS
Gissel 2016	FS	NS	FS	FS	FS	FS	FS	FS	FS	FS	PS	NA	NS	NA	NS	FS	PS	FS	FS	FS	FS	NA	FS	NS	PS	FS	FS

Question No. / Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Milev 2019	PS	FS	FS	PS	PS	FS	FS	PS	NS	NS	NA	PS	NS	FS	NS	FS	PS	FS	NS	FS	NS	PS	FS	FS	PS	PS	FS
Eriksson 2015	FS	FS	FS	FS	FS	FS	FS	PS	FS	FS	PS	NA	FS	NS	NA	FS	NA	NA	FS	NS	FS	FS	PS	NS	FS	FS	FS
Igarashi 2013	PS	PS	FS	PS	PS	NS	PS	PS	NS	PS	NA	FS	NS	PS	NA	NS	NA	NA	NA	FS	PS	NA	FS	NA	PS	PS	NS
Jalal 2016	FS	PS	FS	NS	PS	FS	PS	FS	PS	PS	PS	NA	PS	NA	PS	FS	PS	FS	PS	PS	PS	NS	FS	NS	PS	PS	FS
Udkoff 2017	FS	PS	FS	PS	PS	FS	FS	FS	PS	FS	FS	NA	PS	FS	FS	FS	FS	FS	FS	FS	FS	NA	FS	NS	PS	FS	UFS
Huoponen 2019	FS	PS	FS	FS	PS	FS	PS	PS	FS	PS	NA	NS	PS	NA	FS	FS	PS	FS	PS	PS	FS	NA	PS	NA	FS	FS	FS
Tzanetakos 2017	PS	FS	FS	PS	PS	FS	FS	FS	PS	PS	PS	NA	FS	NA	FS	FS	PS	FS	PS	PS	FS	NA	PS	PS	FS	FS	NS
Carlson 2015	FS	FS	FS	FS	FS	FS	FS	FS	PS	PS	FS	NA	PS	PS	NS	PS	PS	FS	NS	FS	FS	PS	FS	FS	PS	PS	NS
Schlueter 2019	FS	FS	FS	PS	FS	FS	FS	FS	FS	FS	NA	PS	FS	NA	PS	FS	FS	FS	NS	PS	FS	NA	PS	FS	FS	NS	FS
Fatemi 2020	FS	FS	NS	FS	FS	FS	PS	FS	PS	FS	NA	PS	FS	NA	PS	PS	FS	FS	NS	PS	FS	NA	FS	NS	FS	NS	FS
vandeLaar 2019	PS	PS	FS	PS	FS	FS	FS	FS	FS	FS	PS	NA	FS	NA	NS	FS	PS	FS	FS	PS	FS	NA	FS	NS	PS	FS	NS
Asche 2017	PS	PS	PS	NS	PS	FS	PS	NS	PS	PS	NA	NS	NA	NA	NS	PS	NS	FS	PS	NS	FS	NA	FS	NA	PS	FS	NS
Lekander 2010	PS	FS	FS	FS	PS	FS	PS	NS	FS	PS	FS	NS	PS	NS	NS	PS	PS	FS	FS	NS	FS	NS	FS	NS	PS	PS	NS
Tian 2019	FS	FS	FS	FS	FS	NS	PS	NS	NS	FS	PS	NA	NA	FS	NA	PS	NA	NA	FS	FS	PS	NS	NA	NS	PS	FS	PS
Wu 2015	FS	PS	FS	NS	FS	FS	PS	PS	PS	PS	NA	NS	PS	NA	NS	PS	PS	FS	PS	NS	FS	NA	FS	NS	PS	FS	WNS
Incerti 2020	FS	FS	FS	PS	FS	FS	PS	PS	PS	PS	PS	NA	NS	NS	NS	NS	PS	FS	NA	NS	PS	NA	NA	NS	PS	PS	NS
Chen 2019	FS	FS	FS	FS	FS	FS	FS	PS	FS	PS	PS	NA	NA	NA	PS	PS	PS	FS	NS	FS	FS	NS	FS	NS	PS	PS	NS
Athanasakis 2015	FS	PS	FS	PS	PS	FS	FS	FS	FS	FS	NA	FS	FS	FS	NS	FS	PS	FS	NS	NS	FS	PS	PS	NS	PS	PS	FS
Lekander 2013	PS	PS	FS	FS	PS	FS	PS	PS	NS	PS	NS	PS	NS	NS	NS	NS	PS	FS	FS	PS	FS	NS	NS	FS	PS	PS	NS
Núñez 2019	PS	PS	FS	PS	PS	NS	FS	NS	NS	FS	NA	FS	NS	FS	NS	FS	NA	PS	NS	FS	NS	NS	PS	NS	PS	PS	FS

Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Armstrong 2018	PS	PS	PS	PS	NS	NS	PS	NS	NS	PS	PS	NA	NA	NA	PS	PS	NA	NA	NA	PS	PS	NA	PS	PS	PS	FS	FS
Alemao 2018	FS	PS	FS	FS	PS	FS	PS	FS	FS	PS	NS	NA	PS	NA	PS	FS	PS	FS	NA	PS	FS	NA	PS	NA	PS	PS	NS
Puolakka 2012	FS	FS	FS	NS	PS	FS	FS	FS	NS	FS	NA	NS	NA	NA	FS	PS	FS	FS	PS	PS	PS	NA	NS	FS	PS	FS	FS
Soini 2012	FS	FS	FS	FS	FS	FS	FS	PS	PS	FS	NA	PS	PS	NA	FS	FS	PS	FS	NS	FS	FS	NA	PS	NS	PS	FS	NS
Bewley 2018	PS	PS	FS	FS	FS	FS	PS	FS	FS	PS	NA	FS	PS	NA	NS	NS	FS	FS	FS	FS	FS	FS	FS	NA	PS	PS	FS
Neubauer 2018	PS	PS	FS	NS	PS	FS	PS	PS	FS	PS	NA	NS	NA	NA	FS	FS	PS	FS	NA	PS	PS	NA	NA	NA	PS	NS	NS
Corbett 2017	FS	FS	FS	FS	FS	FS	FS	PS	PS	FS	NA	FS	NA	NA	FS	NA	PS	FS	NS	NS	FS	NS	PS	PS	FS	PS	NS
Stephens 2015	PS	PS	FS	PS	FS	FS	FS	FS	FS	FS	PS	NA	NS	NA	FS	FS	PS	FS	FS	FS	FS	NA	FS	NS	PS	FS	NS
Lekander 2013	PS	PS	FS	FS	PS	FS	FS	FS	FS	FS	NA	PS	PS	NA	PS	PS	PS	FS	FS	PS	FS	NA	FS	NA	PS	FS	FS
Park 2016	FS	FS	FS	PS	FS	FS	PS	PS	PS	PS	PS	NA	NA	NA	PS	PS	PS	FS	NS	FS	FS	NS	PS	NS	PS	PS	PS
TerWee 2017	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	NA	NA	NS	NS	NA	FS	NA	FS	FS	FS	FS	FS	FS	NS	FS	FS	NS
Wilson 2018	FS	PS	FS	PS	PS	FS	PS	PS	FS	PS	NS	NA	PS	NA	PS	PS	PS	FS	NS	PS	PS	NA	FS	NS	PS	PS	FIS
Kobelt 2014	PS	PS	FS	FS	PS	FS	PS	FS	PS	NS	NA	NS	PS	NA	PS	FS	FS	FS	PS	PS	FS	NA	PS	NS	FS	FS	KFS
Yuan 2010	FS	PS	FS	PS	PS	FS	FS	PS	PS	PS	NA	PS	PS	NS	NS	FS	PS	FS	NS	NS	FS	PS	PS	NA	PS	PS	YNS
Cárdenas 2016	FS	FS	FS	FS	FS	FS	PS	NS	NS	PS	PS	NA	NA	FS	NA	PS	NA	NA	FS	FS	FS	NS	NA	NS	PS	FS	FS
Wu 2019	PS	PS	FS	PS	PS	FS	PS	FS	PS	PS	NS	PS	NS	PS	NS	PS	NS	PS	FS	NS	PS	NS	NS	NS	PS	PS	NS
Punekar 2010	PS	PS	FS	NS	PS	FS	PS	PS	FS	PS	NA	FS	PS	PS	NS	NS	PS	FS	FS	PS	FS	PS	FS	NS	PS	FS	NS
Wu 2018	FS	FS	FS	PS	FS	FS	PS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	FS	NS	FS	PS	NS	FS	NS	PS	NS	WPS
Hallinen 2010	FS	FS	FS	FS	FS	FS	FS	PS	FS	FS	NA	PS	PS	NA	FS	FS	PS	FS	NS	NS	FS	NA	PS	NS	PS	FS	PS
Claxton 2018	PS	PS	FS	FS	PS	PS	FS	FS	PS	FS	NA	FS	FS	FS	NS	FS	PS	FS	FS	FS	PS	FS	NS	PS	FS	FS	CFS
Hidalgo-Vega 2015	PS	FS	FS	NS	FS	FS	FS	FS	FS	PS	NA	PS	PS	FS	NS	PS	PS	FS	NA	FS	FS	NA	FS	NS	PS	FS	FS

Question No. / Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Stawowczyk 2016	FS	PS	NS	NS	FS	FS	PS	FS	FS	PS	NS	PS	NS	NS	NS	FS	PS	FS	FS	FS	FS	PS	FS	NA	PS	NS	NS
Muszbek 2019	PS	PS	NS	PS	NS	FS	PS	PS	PS	PS	NA	PS	PS	NS	NS	NS	PS	FS	NA	NS	FS	NA	FS	NA	PS	FS	NS
Rencz 2017	FS	FS	FS	NS	PS	FS	FS	PS	PS	FS	NA	PS	PS	PS	NS	FS	PS	FS	NS	FS	FS	NA	FS	NA	PS	FS	FS
Stawowczyk 2016	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	PS	NA	FS	PS	PS	FS	FS	FS	FS	FS	FS	NA	FS	FS	PS	FS	FS
Schipper 2011	FS	FS	FS	PS	FS	FS	NS	PS	PS	PS	NS	NS	NA	NA	PS	PS	PS	FS	NS	NS	PS	PS	NS	NS	PS	PS	PS
Kuster 2016	PS	FS	FS	PS	FS	FS	FS	FS	FS	FS	PS	NA	NS	NA	FS	FS	PS	FS	FS	FS	FS	NA	FS	FS	PS	FS	KFS
Diamantopoulos 2014	FS	FS	FS	PS	FS	FS	PS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	FS	NS	FS	PS	NS	FS	NS	PS	FS	FS
Moradi 2016	FS	FS	FS	FS	PS	NS	FS	PS	PS	FS	NA	PS	PS	FS	NS	FS	PS	FS	NS	PS	FS	PS	PS	NA	PS	NS	NS
Armstrong 2016	FS	PS	FS	PS	NS	NS	FS	PS	NS	PS	PS	NA	NS	NS	NS	PS	NA	NA	FS	NS	FS	PS	NA	NS	PS	FS	NS
Saito 2013	FS	FS	FS	FS	PS	FS	FS	PS	NS	FS	NA	PS	PS	FS	FS	FS	PS	FS	NS	FS	FS	NS	PS	NA	PS	PS	FS
Ung 2014	FS	FS	FS	FS	FS	PS	FS	PS	PS	FS	NA	FS	PS	FS	FS	FS	PS	FS	NS	FS	NS	PS	PS	NA	PS	PS	FS
Foley 2018	FS	FS	FS	FS	FS	FS	FS	PS	PS	PS	PS	NA	NA	NA	PS	PS	PS	FS	NS	FS	PS	PS	FS	NS	PS	PS	NS
Tang 2012	FS	FS	FS	FS	FS	FS	FS	PS	FS	FS	NA	FS	PS	FS	NS	FS	PS	FS	FS	FS	FS	PS	FS	NA	FS	NS	TANG
Balak 2020	PS	FS	FS	PS	PS	FS	PS	FS	NS	FS	NA	PS	NA	NA	FS	PS	NA	FS	NS	PS	PS	NA	PS	PS	PS	FS	FS
Goeree 2018	PS	PS	FS	FS	PS	FS	FS	FS	FS	FS	NA	FS	PS	FS	FS	FS	FS	FS	FS	FS	FS	NS	FS	NS	PS	PS	GFES
Nguyen 2012	PS	PS	FS	PS	PS	FS	PS	FS	PS	PS	FS	PS	FS	NA	FS	PS	PS	FS	PS	PS	FS	NS	PS	PS	PS	PS	FS
Yang 2016	PS	FS	FS	PS	PS	FS	PS	NS	NS	FS	FS	NA	NA	NA	PS	PS	NA	NA	FS	NS	PS	NA	NA	NS	PS	NS	FS
Betts 2016	FS	PS	FS	PS	NS	NS	FS	NS	NS	FS	PS	NA	NS	NS	NA	FS	NA	NA	NS	NS	FS	PS	PS	NS	PS	FS	BFS
Quartuccio 2015	FS	FS	FS	PS	FS	FS	FS	PS	PS	PS	PS	NA	NA	NA	PS	PS	PS	PS	PS	NS	PS	NS	FS	NS	PS	NS	NS
Bolin 2019	PS	PS	FS	NS	PS	NS	FS	PS	FS	FS	NA	PS	NS	FS	FS	PS	PS	FS	NS	FS	FS	PS	PS	NA	PS	FS	FS
Kanters 2018	FS	FS	FS	PS	FS	FS	FS	FS	FS	FS	PS	NA	PS	PS	PS	PS	PS	NS	FS	PS	FS	NA	FS	NS	PS	FS	NS

Question No. / Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Borse 2018	PS	FS	NS	FS	FS	FS	FS	FS	FS	FS	NA	FS	PS	PS	NS	FS	FS	FS	FS	NS	FS	NA	FS	NA	FS	FS	NS
Stern 2017	PS	PS	FS	NS	FS	FS	FS	FS	FS	PS	NA	PS	PS	NS	NS	NS	PS	FS	NA	FS	FS	PS	FS	NA	PS	FS	NS
Cimmino 2011	FS	FS	FS	NS	PS	FS	FS	PS	NS	FS	NA	FS	NA	NA	FS	PS	FS	FS	PS	FS	PS	NA	NS	NA	PS	FS	NS
Baji 2018	FS	FS	FS	NS	PS	FS	FS	PS	PS	FS	NA	PS	NS	PS	NS	FS	PS	FS	NS	FS	FS	NA	FS	NA	PS	FS	FS
Stawowczyk 2016	FS	FS	FS	PS	FS	FS	FS	FS	FS	FS	PS	NA	FS	NA	NS	FS	PS	FS	FS	FS	FS	NA	FS	FS	PS	FS	NS
Whittingtone 2019	FS	FS	FS	PS	FS	FS	PS	PS	PS	PS	NS	NS	NA	NA	FS	PS	PS	FS	NS	FS	FS	NS	PS	NS	PS	PS	NS
Feldman 2017	PS	PS	FS	FS	PS	NS	PS	PS	NS	PS	NA	PS	NS	NS	NA	PS	NA	NA	PS	NS	PS	NS	NA	NS	PS	FS	FS
Trigo-Vicente 2018	FS	FS	FS	NS	PS	FS	FS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	PS	NS	NS	PS	PS	FS	NS	PS	NS	PS
Chaudhary 2013	FS	FS	FS	PS	PS	FS	PS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	FS	NS	FS	PS	PS	FS	NS	PS	PS	PS
Goeree 2019	PS	FS	FS	PS	PS	FS	FS	PS	FS	FS	NA	FS	PS	FS	NS	FS	FS	PS	FS	FS	FS	PS	FS	FS	PS	PS	FS
Wu 2020	FS	PS	FS	PS	NS	NS	FS	PS	NS	PS	NA	NS	NA	NA	NS	PS	NA	FS	PS	NA	FS	NA	FS	NS	PS	FS	WNS
Scott 2020	PS	PS	FS	PS	FS	FS	PS	PS	NS	PS	NA	PS	NS	PS	NS	FS	FS	FS	NS	FS	FS	NA	FS	NS	FS	FS	FS
Purmonen 2019	FS	FS	FS	PS	PS	FS	FS	FS	PS	FS	NA	FS	PS	FS	NS	FS	FS	PS	NS	FS	FS	PS	FS	NA	PS	FS	FS
Liu 2012	PS	PS	FS	NS	PS	NS	NS	PS	NS	PS	FS	PS	NS	NS	NS	NS	PS	NS	NS	NS	PS	NA	NA	NS	PS	FS	FS
Hernandez 2020	FS	FS	FS	PS	PS	FS	FS	FS	FS	PS	FS	NA	PS	NA	FS	FS	PS	FS	PS	NS	FS	NA	FS	NA	FS	FS	FS
Diamantopoulos 2012	FS	FS	FS	PS	FS	FS	FS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	FS	NS	FS	PS	NS	PS	NS	PS	FS	NS
Hansson-Hedblom 2018	PS	FS	FS	FS	PS	FS	FS	PS	FS	PS	FS	NA	PS	NA	FS	FS	PS	FS	PS	PS	FS	NA	PS	PS	FS	PS	FS
Beilman 2016	FS	FS	FS	PS	FS	NS	FS	PS	PS	PS	NS	NS	NS	NS	PS	PS	PS	FS	NS	NS	FS	NA	FS	NS	PS	FS	FS

Question No. Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Marchetti 2013	FS	PS	PS	PS	FS	FS	PS	PS	FS	FS	NA	NS	PS	NS	NS	NS	PS	FS	PS	PS	FS	NA	FS	NS	FS	NS	FS
Augustin 2020	FS	PS	FS	PS	PS	NS	FS	PS	NS	FS	NA	FS	NA	NA	FS	FS	PS	NS	NS	FS	PS	NA	PS	NS	PS	FS	FS
Gherardi 2018	PS	FS	FS	FS	FS	FS	FS	FS	FS	FS	NA	FS	PS	FS	PS	FS	FS	FS	FS	FS	FS	NA	FS	NS	PS	FS	FS
Petryszyn 2020	FS	FS	FS	PS	FS	FS	FS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	FS	NS	FS	PS	PS	PS	NS	PS	NS	PS
Saraux 2020	PS	PS	FS	PS	PS	FS	FS	FS	NS	FS	NA	PS	NS	NS	NS	PS	PS	FS	FS	NS	NS	PS	PS	NS	PS	FS	FS
Phisalprapa 2020	FS	FS	FS	PS	PS	FS	FS	NS	PS	PS	PS	NA	NA	NA	PS	NA	PS	FS	NS	FS	PS	PS	FS	NS	PS	PS	PS
Doherty 2012	PS	PS	FS	NS	FS	FS	FS	FS	FS	FS	NA	PS	FS	NA	FS	FS	FS	FS	PS	FS	FS	NA	PS	NS	PS	NS	FS
Chi 2014	PS	PS	FS	NS	NS	NS	PS	NS	NS	PS	FS	NA	NS	NA	PS	PS	PS	FS	FS	NS	PS	NA	NS	NS	FS	NS	FS
Sawah 2017	PS	PS	FS	PS	PS	NS	FS	NS	NS	FS	NA	FS	NS	NS	NS	FS	NA	PS	FS	NS	NS	PS	NS	FS	PS	PS	FS
Martin 2011	FS	PS	FS	NS	PS	NS	PS	FS	PS	PS	NA	FS	NS	NS	NA	PS	NS	NA	NA	NS	PS	NS	FS	NS	PS	FS	FS
Feldman 2018	FS	PS	FS	PS	PS	FS	PS	NS	PS	PS	PS	NA	NS	NS	NS	NS	NS	NS	FS	PS	FS	FS	PS	NS	PS	FS	NS
Duvetorp 2019	FS	PS	FS	PS	PS	FS	FS	PS	FS	FS	PS	NA	PS	FS	NS	FS	PS	FS	FS	FS	FS	PS	FS	NS	PS	FS	NS
Shaffer 2020	FS	FS	FS	PS	FS	NS	FS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	NS	NS	PS	PS	NS	PS	NS	PS	NS	FS
Wu 2012	PS	PS	FS	PS	PS	FS	FS	PS	PS	FS	NA	PS	FS	FS	NS	PS	PS	FS	FS	FS	FS	PS	FS	NS	PS	FS	FS
Ansaripour 2017	FS	FS	FS	PS	FS	FS	FS	PS	NS	PS	PS	NA	NA	NA	PS	PS	PS	FS	NS	FS	FS	NS	FS	NS	PS	FS	FS
Saeki 2020	PS	PS	FS	PS	PS	FS	FS	FS	PS	PS	NA	NS	FS	NA	FS	FS	FS	FS	PS	PS	PS	NA	FS	NS	PS	FS	FS
Neilson 2010	PS	FS	FS	FS	FS	FS	PS	PS	FS	FS	NA	NA	PS	NA	FS	FS	PS	FS	PS	FS	FS	NA	FS	NS	FS	FS	NS
Fournier 2019	FS	PS	PS	PS	PS	FS	PS	PS	PS	PS	NA	NS	NS	NA	PS	PS	NS	FS	PS	NS	FS	NA	FS	NS	PS	FS	FS
Holko 2018	FS	FS	FS	PS	FS	FS	FS	FS	FS	FS	PS	NA	PS	NA	PS	FS	PS	FS	FS	FS	FS	NA	FS	FS	PS	FS	FS
Wang 2014	PS	PS	FS	PS	FS	FS	NS	PS	NS	PS	FS	NA	NS	NS	NA	NS	NA	NA	NA	NS	PS	NA	NA	NS	PS	NS	FS

Question No. / Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Cummins 2012	FS	FS	FS	PS	PS	FS	PS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	FS	NS	FS	PS	PS	FS	NS	PS	FS	FS
deJong 2016	FS	PS	FS	FS	FS	FS	FS	FS	NS	FS	NA	NA	NS	PS	NA	FS	NA	FS	NS	FS	FS	FS	NS	NS	PS	FS	FS
Brown 2018	PS	FS	FS	PS	FS	FS	FS	PS	NA	FS	FS	FS	FS	FS	NA	FS	NA	NA	FS	FS	FS	FS	PS	NA	FS	FS	NS
Buchanan 2018	PS	PS	FS	FS	PS	FS	FS	FS	FS	FS	FS	NA	PS	FS	NS	FS	PS	FS	FS	FS	FS	PS	FS	FS	PS	PS	FS
Panaccione 2020	PS	FS	FS	FS	FS	FS	FS	PS	NS	FS	FS	NA	PS	NA	FS	FS	FS	NS	FS	FS	FS	NA	FS	NS	FS	FS	FS
Yokomizo 2016	FS	PS	PS	PS	PS	PS	PS	FS	NS	PS	NS	NA	NS	NA	PS	PS	PS	FS	PS	PS	PS	NA	PS	NS	PS	PS	NS
Aliyev 2019	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	PS	NA	FS	NA	FS	FS	PS	FS	FS	PS	FS	NA	FS	NS	PS	FS	NS
Blackhouse 2012	FS	PS	FS	PS	PS	FS	FS	PS	PS	PS	NA	FS	PS	FS	FS	PS	PS	FS	NS	FS	FS	PS	PS	NS	PS	NS	FS
Emery 2018	PS	FS	FS	PS	PS	FS	FS	FS	FS	FS	NA	FS	NS	FS	NS	FS	PS	PS	NS	FS	FS	PS	FS	FS	FS	FS	FS
Wilson 2017	FS	FS	FS	PS	FS	FS	PS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	FS	NS	FS	PS	NS	FS	NS	PS	FS	PS
Villacorta 2013	FS	FS	FS	PS	PS	FS	FS	PS	PS	PS	NA	PS	FS	FS	NA	PS	PS	FS	NS	FS	FS	NS	FS	NS	PS	PS	FS
Saini 2012	PS	PS	FS	PS	PS	FS	FS	FS	FS	FS	NA	NS	PS	NA	PS	PS	PS	FS	FS	NS	FS	NA	FS	NS	FS	FS	FS
Bojke 2011	PS	PS	FS	PS	NS	FS	FS	PS	PS	PS	PS	PS	PS	NS	NS	PS	PS	FS	PS	PS	PS	PS	PS	NS	PS	PS	NS
Hyde 2018	PS	PS	FS	NS	NS	NS	FS	FS	NS	PS	NA	NS	NA	NA	NS	PS	NA	NA	NS	NS	FS	NA	NA	NS	FS	FS	FS
Trigo-Vicente 2020	FS	FS	FS	NS	PS	FS	PS	PS	PS	PS	PS	NA	NA	NA	PS	NA	PS	PS	NS	NS	PS	PS	FS	NS	PS	NS	NS
Dos Santos 2020	FS	PS	FS	FS	PS	FS	FS	FS	FS	NS	NA	PS	PS	NS	PS	PS	PS	FS	FS	PS	FS	NA	PS	NA	FS	PS	FS
Vellopoulou 2020	FS	FS	FS	NS	FS	FS	FS	PS	FS	PS	PS	NA	NA	NA	PS	NA	PS	FS	NS	FS	FS	NS	FS	NS	PS	PS	FS
Teeple 2019	FS	PS	FS	PS	PS	NS	PS	PS	NS	PS	NA	FS	NS	PS	NA	PS	NA	NA	NA	NS	PS	NA	NA	NS	PS	FS	NS
Kowalik 2018	PS	PS	FS	PS	FS	FS	FS	NS	NS	PS	PS	NA	FS	NS	NA	FS	NA	NA	NS	NS	FS	PS	NS	NS	NS	NS	FS
Lohan 2019	FS	FS	FS	PS	PS	FS	FS	PS	PS	FS	NA	FS	NS	FS	NS	PS	PS	PS	NS	FS	FS	PS	FS	FS	PS	FS	FS

Question No. / Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Tian 2020	PS	PS	FS	PS	PS	FS	FS	PS	FS	FS	NA	PS	FS	FS	NS	FS	PS	FS	NS	FS	FS	PS	FS	FS	PS	FS	FS
Portu 2010	PS	PS	FS	PS	PS	FS	PS	NS	NS	PS	PS	NA	NA	NA	PS	PS	NA	NA	NA	PS	PS	NA	PS	NA	FS	NS	PS
Mulligen 2020	PS	PS	FS	FS	FS	FS	FS	FS	FS	FS	FS	NA	PS	FS	NA	PS	NA	NA	FS	FS	FS	FS	NA	NS	FS	FS	PS
Jia 2020	PS	PS	FS	NS	PS	FS	PS	FS	NS	PS	NA	PS	PS	NS	NS	NS	PS	FS	NA	NS	PS	PS	FS	NA	PS	PS	NS
Verhoeven 2020	PS	PS	FS	PS	PS	FS	FS	PS	FS	FS	PS	NA	FL	NS	NS	FS	NA	NA	FS	NS	FS	FS	PS	NS	FS	PS	FS
Malottki 2011	PS	PS	FS	PS	PS	FS	PS	NS	PS	PS	NA	NS	PS	NA	NS	PS	NS	FS	PS	NS	FS	NA	FS	NS	PS	FS	NS
Gandjour 2019	FS	PS	FS	FS	FS	FS	FS	FS	FS	FS	NA	FS	FS	FS	FS	FS	PS	FS	FS	FS	FS	PS	FS	FS	PS	FS	FS
Schweikert 2020	FS	FS	FS	PS	PS	FS	FS	PS	PS	PS	NA	FS	PS	NA	PS	FS	PS	FS	NS	NS	FS	NS	FS	NS	PS	PS	FS
Hendrix 2018	FS	FS	FS	NS	PS	FS	FS	FS	PS	FS	NA	FS	PS	FS	FS	FS	FS	NS	FS	FS	PS	FS	NA	PS	FS	FS	FS
Dretzke 2011	FS	FS	FS	NS	FS	FS	FS	FS	FS	FS	NA	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	PS	PS	NA	FS	FS	FS
Johansson 2018	FS	PS	FS	PS	PS	FS	FS	PS	FS	FS	NA	FS	PS	FS	NS	FS	PS	FS	FS	FS	FS	PS	FS	NS	PS	PS	FS
Igarashi 2019	FS	FS	FS	PS	PS	FS	FS	FS	FS	FS	NA	FS	FS	FS	NS	PS	PS	FS	NS	FS	FS	PS	FS	NS	PS	FS	NS
Specchia 2014	PS	PS	FS	PS	PS	FS	FS	PS	PS	FS	NA	FS	FS	NA	PS	FS	PS	NS	NS	NS	FS	PS	PS	NS	PS	PS	FS
Tran-Duy 2011	PS	PS	FS	FS	PS	FS	PS	FS	FS	FS	NA	PS	PS	NA	PS	FS	PS	FS	FS	FS	FS	NA	FS	NS	PS	FS	FS
Teeple 2020	PS	PS	FS	FS	PS	NS	FS	NS	NS	FS	PS	NA	NS	FS	NS	FS	NA	FS	FS	NS	NS	NS	PS	NS	PS	FS	FS
Wu 2018	PS	PS	PS	NS	PS	FS	PS	NS	PS	PS	NS	NS	NA	NA	NS	PS	NS	NA	PS	NS	PS	NS	FS	NS	PS	FS	NS
Pan 2011	FS	FS	PS	PS	FS	FS	PS	FS	PS	PS	PS	NA	NA	NA	PS	PS	PS	FS	NS	FS	PS	NS	PS	NS	PS	PS	NS
Xia 2018	FS	PS	FS	PS	FS	NS	FS	NS	NS	FS	PS	NA	NS	FS	NA	FS	NA	NA	FS	NS	NS	PS	NS	NS	FS	PS	NS
Corbett 2016	PS	FS	FS	PS	PS	FS	FS	FS	PS	FS	NA	FS	PS	FS	NS	FS	FS	FS	FS	NS	FS	PS	PS	PS	PS	FS	FS
Barbieri 2019	FS	PS	FS	PS	PS	FS	PS	FS	FS	PS	NA	PS	PS	NA	NS	NS	PS	FS	FS	NS	PS	PS	PS	NS	PS	FS	FS
Luciano 2014	PS	PS	FS	FS	FS	FS	FS	FS	NA	FS	NA	NA	PS	NA	NA	PS	NA	NA	FS	FS	FS	NA	NA	NA	PS	FS	FS
Luciano 2017	PS	FS	FS	FS	FS	FS	FS	FS	NA	FS	NA	NA	PS	NA	NA	FS	NA	NA	FS	FS	FS	NA	NA	NA	PS	FS	FS

Question No. / Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Lloyd 2012	PS	PS	FS	PS	PS	FS	FS	FS	NS	FS	NA	PS	PS	NA	PS	PS	PS	FS	FS	FS	FS	NS	FS	FS	PS	FS	NS
Ornelas 2012	PS	PS	FS	PS	PS	FS	FS	FS	FS	FS	NA	PS	PS	NA	PS	FS	PS	PS	FS	FS	FS	NS	FS	PS	PS	FS	FS
Ornelas 2012	PS	FS	FS	PS	PS	FS	FS	FS	FS	FS	NA	PS	PS	NA	PS	PS	PS	FS	FS	FS	FS	NA	FS	PS	PS	FS	NS
Purmonen 2018	FS	FS	FS	FS	PS	FS	FS	PS	PS	FS	NA	FS	FS	FS	FS	FS	FS	FS	FS	NS	FS	NA	FS	NS	PS	FS	FS
Tran-Duy 2015	FS	PS	FS	PS	FS	FS	FS	PS	FS	FS	PS	NA	FS	NA	NS	FS	PS	FS	FS	PS	FS	NA	FS	FS	PS	FS	FS
Fautrel 2010	FS	FS	FS	FS	FS	FS	FS	FS	NS	FS	NA	NA	NS	PS	NA	FS	NA	NS	NS	FS	FS	NS	NS	NS	PS	FS	NS
Connolly 2014	FS	FS	FS	NS	PS	FS	FS	PS	FS	FS	NA	PS	PS	NA	FS	FS	PS	NS	NS	NS	FS	NA	NS	NA	PS	PS	NS
Saro 2015	PS	PS	PS	FS	PS	FS	PS	PS	NS	PS	PS	NA	NA	FS	NA	FS	NA	NA	FS	NS	FS	PS	NA	FS	PS	FS	SFS
Archer 2016	FS	FS	FS	PS	FS	FS	PS	FS	PS	FS	NA	FS	FS	FS	NS	FS	PS	FS	FS	NS	FS	PS	PS	FS	FS	FS	FS
Klijn 2018	FS	FS	PS	FS	FS	FS	PS	FS	NS	PS	FS	FS	PS	NS	PS	FS	PS	PS	NS	NS	PS	NS	NS	NS	PS	PS	KFS
Anis 2011	PS	PS	NS	NS	PS	NS	PS	NS	NS	PS	NA	NS	PS	NS	NS	PS	PS	FS	NS	NS	PS	NS	PS	NS	PS	PS	FS
Ferrandiz 2012	FS	FS	FS	PS	FS	FS	FS	PS	NS	PS	NA	PS	NA	NA	PS	PS	NS	FS	PS	NS	FS	NA	FS	NS	PS	FS	FS
Capri 2019	FS	PS	FS	PS	PS	FS	PS	FS	FS	PS	NS	NA	PS	NS	NS	NS	PS	FS	FS	PS	FS	PS	FS	NS	FS	FS	FS
Ueno 2020	NS	PS	FS	NS	PS	NS	FS	PS	NS	FS	NA	FS	NA	NA	FS	FS	NA	NA	NS	FS	FS	NA	NA	NS	FS	FS	FS
Takahashi 2017	FS	PS	FS	PS	FS	NS	FS	NS	NS	FS	NS	NA	NA	PS	NA	PS	NA	NA	NA	NS	NS	NA	NS	NA	PS	NS	FS
Park 2020	FS	PS	FS	NS	PS	FS	PS	PS	NS	PS	PS	NA	NA	NA	PS	FS	PS	FS	NA	PS	FS	NA	PS	NA	PS	PS	FS
Sawyer 2015	PS	PS	FS	PS	PS	FS	FS	FS	FS	FS	NA	FS	PS	NA	PS	FS	PS	FS	FS	FS	FS	NA	FS	NA	PS	FS	NS
Ahn 2013	PS	PS	PS	PS	PS	FS	PS	PS	NS	PS	FS	PS	NS	NS	FS	PS	PS	FS	NS	NS	PS	NS	FS	NS	PS	NS	AFS
Ghabri 2020	PS	PS	FS	PS	FS	FS	FS	FS	PS	FS	NA	FS	FS	NS	FS	FS	PS	NS	NS	NS	NS	PS	PS	NS	NS	PS	NS
Imafuku 2018	NS	PS	FS	PS	PS	NS	FS	NS	NS	FS	NA	FS	NS	FS	NS	FS	NA	PS	NS	NS	NS	NS	NS	NS	PS	FS	FS
Benucci 2011	FS	FS	FS	PS	PS	NS	NS	NS	NS	PS	NS	NS	NS	NS	NS	NS	NS	FS	NS	NS	FS	NS	NS	NS	PS	NS	NS
Connolly 2012	PS	PS	FS	PS	PS	FS	FS	PS	PS	FS	PS	NS	NS	NS	PS	PS	PS	NS	PS	FS	PS	PS	FS	NS	PS	PS	FS

Question No. Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24
Tanaka 2015	FS	PS	PS	PS	FS	FS	FS	PS	PS	FS	FS	NA	PS	FS	NS	FS	PS	FS	NS	FS	FS	PS	PS	NA	PS	FS	FS
Catt 2019	FS	PS	FS	PS	PS	FS	PS	FS	NA	PS	PS	PS	PS	NA	FS	PS	PS	FS	PS	PS	FS	NS	FS	NS	PS	PS	FS
Kim 2019	FS	FS	FS	PS	FS	FS	PS	NS	NS	PS	NA	FS	NA	PS	NA	PS	NA	NA	PS	PS	PS	NS	NA	NS	PS	FS	FS
Wehler 2020	PS	FS	FS	FS	PS	FS	FS	FS	NS	FS	NA	FS	NA	NA	FS	FS	FS	NA	NS	NS	FS	NA	NA	NS	FS	FS	FS
Riveros 2014	PS	FS	FS	FS	PS	FS	FS	FS	FS	FS	NA	PS	NS	FS	FS	FS	PS	FS	NS	FS	FS	PS	FS	NA	PS	NS	FS
Ahmadiani 2016	PS	PS	FS	PS	PS	FS	PS	PS	NS	PS	FS	NA	FS	NA	FS	PS	NA	FS	NA	PS	PS	NA	PS	NS	PS	NS	FS
Yang 2012	FS	PS	FS	PS	PS	FS	FS	NS	NS	FS	PS	NA	PS	NA	PS	PS	PS	PS	PS	NS	FS	NA	PS	PS	PS	FS	FS
Tanaka 2017	NS	PS	FS	PS	PS	FS	FS	PS	PS	FS	NA	PS	FS	NS	NS	FS	PS	FS	FS	NS	PS	PS	PS	NS	FS	PS	FS
Aiello 2019	FS	FS	FS	FS	PS	FS	FS	FS	PS	FS	NA	FS	NS	NA	NS	FS	PS	FS	FS	FS	FS	NA	FS	NS	PS	FS	FS
Hashemi-Meshkini 2016	FS	FS	PS	PS	PS	FS	PS	FS	PS	PS	PS	NA	FS	NS	PS	FS	FS	FS	NA	PS	PS	NA	FS	NA	FS	FS	FS
Merkesdal 2010	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	PS	NA	PS	NA	FS	FS	PS	FS	FS	FS	FS	NA	FS	NS	PS	FS	FS
Schweikert 2020	FS	FS	FS	PS	FS	FS	FS	FS	PS	FS	NA	FS	FS	FS	NS	FS	FS	FS	NS	NS	FS	NA	FS	NS	PS	FS	FS
Kostic 2014	FS	FS	FS	NS	PS	FS	PS	PS	PS	PS	PS	NA	NS	NS	PS	NS	PS	PS	NA	PS	FS	NS	FS	NS	NS	PS	NS
Jansen 2017	FS	FS	FS	PS	FS	FS	FS	FS	FS	FS	PS	NA	FS	NA	FS	FS	PS	PS	FS	FS	FS	NA	FS	FS	PS	FS	NS
Jingyang 2017	FS	PS	FS	FS	FS	FS	FS	FS	FS	PS	PS	NA	FS	FS	NA	NS	PS	FS	NA	FS	FS	FS	FS	FS	FS	FS	FS
Graham 2016	FS	FS	FS	PS	FS	FS	FS	FS	FS	FS	PS	NA	PS	NA	PS	FS	PS	FS	FS	FS	FS	NA	FS	PS	PS	FS	FS

Key: FS, full satisfied; NA, not available; NS, not satisfied; PS, partially satisfied.

Notes: Cheers checklist Questions:

1. Title
2. Abstract
3. Background and objectives
4. Target population and subgroups
5. Setting and location

Question No. / Study Detail	1	2	3	4	5	6	7	8	9	10	11a	11b	12	13a	13b	14	15	16	17	18	19	20a	20b	21	22	23	24

6. Study perspective

7. Comparators

8. Time horizon

9. Discount rate

10. Choice of health outcomes

11a. Measurement of effectiveness: Single study-based estimates

11b. Measurement of effectiveness: Synthesis-based estimates

12. Measurement and valuation of preference-based outcomes

13a. Estimating resources and costs: Single study-based economic evaluation

13b. Estimating resources and costs: Model-based economic evaluation

14. Currency, price date, and conversion

15. Choice of model

16. Assumptions

17. Analytic methods

18. Study parameters

19. Incremental costs and outcomes

20a. Characterising uncertainty: Single study-based economic evaluation

20b. Characterising uncertainty: Model-based economic evaluation

21. Characterising heterogeneity

22. Study findings, limitations, generalizability, and current knowledge

23. Source of funding

24. Conflicts of interest