(as supplied by the authors)

APPENDIX 1: LITERATURE SEARCH STRATEGY

OVERVIEW	
Interface:	Ovid
Databases:	EBM Reviews - Cochrane Central Register of Controlled Trials <April 2016> Embase Ovid MEDLINE Ovid MEDLINE In-Process & Other Non-Indexed Citations **Note:** Subject headings have been customized for each database. Duplicates between databases were removed in Ovid.
Date of Search:	May 3, 2016
Alerts:	Monthly search updates began May 4 and ran until March 1, 2017.
Study Types:	randomized controlled trials; controlled clinical trials
Limits:	Publication years: see multi-database strategie Humans

SYNTAX GUIDE	
/	At the end of a phrase, searches the phrase as a subject heading
MeSH	Medical Subject Heading
exp	Explode a subject heading
*	Before a word, indicates that the marked subject heading is a primary topic; or, after a word, a truncation symbol (wildcard) to retrieve plurals or varying endings
ADJ	Requires words are adjacent to each other (in any order)
ADJ#	Adjacency within # number of words (in any order)
.ti	Title
.ab	Abstract
.hw	Heading Word; usually includes subject headings and controlled vocabulary
.kf	Author keyword heading word (MEDLINE)
.kw	Author keyword (Embase)
.pt	Publication type

(as supplied by the authors)

MULTI-DATABASE STRATEGIES

biologic DMARDs – 2015 to present

#	Searches
1	Adalimumab/
2	Certolizumab Pegol/
3	Etanercept/
4	golimumab/ use oemezd
5	Infliximab/
6	tocilizumab/ use oemezd
7	Abatacept/
8	Rituximab/
9	(adalimumab or Humira or Trudexa or certolizumab pegol or Cimzia or Perstymab or etanercept or Enbrel or golimumab or Simponi or infliximab or Inflectra or Remicade or Remsima or Reemsima or Remmicade or Remykeyd or Revellex or anakinra or Kineret or Antril or tocilizumab or Actemra or Aktemra or RoActemra or atlizumab or abatacept or Orencia or Belatacept or Nulojix or rituximab or Rituxan or Mabtera or Mabthera or Reditux or Relito or Rituxim).ti,ab,kw,kf.
10	or/1-9
11	exp Arthritis, Rheumatoid/ use pmez
12	exp rheumatoid arthritis/ use oemezd
13	(rheumatic* or rheumatoid* or rheumatis*).ti,ab,kf,kw.
14	((Caplan* or Felty* or Sjogren* or Sicca*) adj3 syndrome*).ti,ab,kf,kw.
15	Still* Disease*.ti,ab,kf,kw.
16	or/11-15

(as supplied by the authors)

17	10 and 16
18	(Randomized Controlled Trial or Controlled Clinical Trial or Pragmatic Clinical Trial).pt.
19	Randomized Controlled Trial/
20	exp Randomized Controlled Trials as Topic/
21	"Randomized Controlled Trial (topic)"/
22	Controlled Clinical Trial/
23	exp Controlled Clinical Trials as Topic/
24	"Controlled Clinical Trial (topic)"/
25	Randomization/
26	Random Allocation/
27	Double-Blind Method/
28	Double Blind Procedure/
29	Double-Blind Studies/
30	Single-Blind Method/
31	Single Blind Procedure/
32	Single-Blind Studies/
33	Placebos/
34	Placebo/
35	Control Groups/
36	Control Group/
37	(random* or sham or placebo*).ti,ab,hw,kf,kw.
38	((singl* or doubl*) adj (blind* or dumm* or mask*)).ti,ab,hw,kf,kw.
39	((tripl* or trebl*) adj (blind* or dumm* or mask*)).ti,ab,hw,kf,kw.
40	(control* adj3 (study or studies or trial*)).ti,ab,kf,kw.

(as supplied by the authors)

41	(Nonrandom* or non random* or non-random* or quasi-random* or quasirandom*).ti,ab,hw,kf,kw.
42	allocated.ti,ab,hw.
43	((open label or open-label) adj5 (study or studies or trial*)).ti,ab,hw,kf,kw.
44	or/18-43
45	17 and 44
46	exp animals/
47	exp animal experimentation/ or exp animal experiment/
48	exp models animal/
49	nonhuman/
50	exp vertebrate/ or exp vertebrates/
51	or/46-50
52	exp humans/
53	exp human experimentation/ or exp human experiment/
54	or/52-53
55	51 not 54
56	45 not 55
57	56 not conference abstract.pt.
58	limit 57 to english language
59	limit 58 to yr="2015 -Current"
60	remove duplicates from 59

Methotrexate – 2014 to present

#	**Searches**

(as supplied by the authors)

1	Methotrexate/
2	(abitrexate or amethopterin* or amethpterin* or ametopterin* or antifolan or Artrait or Atrexal or Bertanel or Biotrexate or brimexate or canceren or cytotrex or ebetrex or ebetrexat* or emtexate or emthexat* or Emthrxate or emtrexate or enthexate or farmitrexat* or farmotrex or Hytas or Imutrex or ifamet or imeth or fermitrexat* or fauldexato or folex or hdmtx or lantarel or ledertrexate or lumexon or maxtrex or medsatrexate or Meisusheng or merox or metatrexan or metex or Metrex or Methoblastin or methohexate or methotrate or Methox or meticil or Metodik or methotrexat* or Methylaminopterin* or methrotrexate or methopterin* or methpterin* or metopterin* or Metotressato or Metotrexato or Metotreksat or metoject or Metrotex or mexate or MTX or Novatrex or Otrexup or Rasuvo or Rheumatrex or texate or tremetex or trexeron or Trexall or trixilem or Midu or Mtrex or Neotrexat* or Onkomet or Otaxem or Pterin or Quinux or Reumatrex or Sanotrexat* or Texorate or Trexan or Trexate or Trexol or Trexonate or Trexxol or Unitrexates or Viztreksat or Xantromid or Zexate).ti,ab,kw,kf.
3	1 or 2
4	exp Arthritis, Rheumatoid/ use pmez
5	exp rheumatoid arthritis/ use oemezd
6	(rheumatic* or rheumatoid* or rheumatis*).ti,ab,kf,kw.
7	((Caplan* or Felty* or Sjogren* or Sicca*) adj3 syndrome*).ti,ab,kf,kw.
8	Still* Disease*.ti,ab,kf,kw.
9	or/4-8
10	3 and 9
11	(Randomized Controlled Trial or Controlled Clinical Trial or Pragmatic Clinical Trial).pt.
12	Randomized Controlled Trial/
13	exp Randomized Controlled Trials as Topic/
14	"Randomized Controlled Trial (topic)"/
15	Controlled Clinical Trial/
16	exp Controlled Clinical Trials as Topic/
17	"Controlled Clinical Trial (topic)"/

(as supplied by the authors)

18	Randomization/
19	Random Allocation/
20	Double-Blind Method/
21	Double Blind Procedure/
22	Double-Blind Studies/
23	Single-Blind Method/
24	Single Blind Procedure/
25	Single-Blind Studies/
26	Placebos/
27	Placebo/
28	Control Groups/
29	Control Group/
30	(random* or sham or placebo*).ti,ab,hw,kf,kw.
31	((singl* or doubl*) adj (blind* or dumm* or mask*)).ti,ab,hw,kf,kw.
32	((tripl* or trebl*) adj (blind* or dumm* or mask*)).ti,ab,hw,kf,kw.
33	(control* adj3 (study or studies or trial*)).ti,ab,kf,kw.
34	(Nonrandom* or non random* or non-random* or quasi-random* or quasirandom*).ti,ab,hw,kf,kw.
35	allocated.ti,ab,hw.
36	((open label or open-label) adj5 (study or studies or trial*)).ti,ab,hw,kf,kw.
37	or/11-36
38	10 and 37
39	exp animals/
40	exp animal experimentation/ or exp animal experiment/
41	exp models animal/

(as supplied by the authors)

42	nonhuman/
43	exp vertebrate/ or exp vertebrates/
44	or/39-43
45	exp humans/
46	exp human experimentation/ or exp human experiment/
47	or/45-46
48	44 not 47
49	38 not 48
50	49 not conference abstract.pt.
51	limit 50 to english language
52	limit 51 to yr="2014 -Current"
53	remove duplicates from 52

Subsequent Entry Biologics (SEBs), products under development, small molecules, traditional DMARDs (hydroxychloroquine, sulfasalazine, leflunomide) – no date limit

#	Searches
1	exp Arthritis, Rheumatoid/ use pmez
2	exp rheumatoid arthritis/ use oemezd
3	(rheumatic* or rheumatoid* or rheumatis*).ti,ab,kf,kw.
4	((Caplan* or Felty* or Sjogren* or Sicca*) adj3 syndrome*).ti,ab,kf,kw.
5	Still* Disease*.ti,ab,kf,kw.
6	or/1-5
7	Infliximab/ or Adalimumab/ or Etanercept/
8	(adalimumab or Humira or Trudexa or infliximab or Inflectra or Remicade or Remsima or Reemsima or Remmicade or Remykeyd or Revellex or etanercept or

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	Enbrel).ti,ab,kw,kf.
9	7 or 8
10	(reference or innovator or originator or generic or generics or biosimilar or bio-similar or biosimilars or bio-similars or follow-on or subsequent-entry or SEB or SEBs or biobetter or biobetters or bio-better or bio-betters or biosuperior or biosuperiors or bio-superior or bio-superiors or next generation or second-generation or third-generation or next-gen).ti,ab.
11	(biologic* or biological*).ti,kw,kf.
12	exp *Biological Products/ use pmez
13	exp *biological product/ use oemezd
14	or/10-13
15	9 and 14
16	Hydroxychloroquine/
17	(Hydroxychloroquin* or Oxychlorochin* or Oxychloroquin* or Hydroxychlorochin* or Plaquenil or Idrossiclorochina or Oxichlorochinum or Hydroxyquine or Advaquenil or Arthroquin or Axokine or Chloguin or Diclor or Dimard or Dolquine or Duloc or Duroc or Ercoquin or Evoquin or Fen Le or Geniquin or Haloxin or HCQS or Hydroquin or Hydroquine or Hyquin or Ilinol or Immard or Metirel or Oxcq or Oxiklorin or Plakvenil or Plaquinol or Quensyl or Quinoric or Reconil or Reuquinol or Roquin or Supretic or Winflam or Yuma or Zyq or chloroquinol).ti,ab,kf,kw.
18	Sulfasalazine/ use pmez
19	salazosulfapyridine/ use oemezd
20	(Salicylazosulfapyridin* or salazosulfpyridin* or salazopyrin* or salazopyridin* or Sulphasalazin* or Salazosulfapyridin* or Pleon or azopyrin* or azosulfidin* or benzosulfa or colopleon or Ulcol or Ucine or Azulfidin* or azlufidin* or Azulfadin* or pyralin or Asulfidine or Azulfin or azulfid* or Bomecon or Disalazin or Falazine or Gastropyrin or Lazafin or Lazo or rorasul or Rosulfant or SAAZ or Salazex or Salazine or Salazo or Salazodin or Salivon or salisulf or Salopyr or Salopyrine or Saridin* or Sazo or Sulcolon or Sulfasalazin or Sulfasalizin* or sulfosalazin* or Sulfitis or Sulzin or Zopyrin).ti,ab,kw,kf.
21	leflunomide/
22	(leflunomid* or arava or Airuohua or Arabloc or Arastad or Aravida or Arheuma or Arolef or Arresto* or Artrilab or Cartina or Imaxetil or Inflaxen or Kinetos or Lara or

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	Leflu or Lefluar or Lefluartil or Leflyutab or Lefno or Lefora or Lefra-20 or Motoral or Movelef or Nodia or Repso or Rheufact or Rheumide or Rualba or Synomid or Youtong).ti,ab,kw,kf.
23	tofacitinib/
24	(Tofacitinib* or tasocitinib* or Xeljanz* or Kselyanz*).ti,ab,kw,kf.
25	baricitinib/
26	(Baricitinib* or ISP4442I3Y or LY3009104 or INCB028050 or ISP 4442I3Y or LY 3009104 or INCB 28050 or "INCB 028050").ti,ab,kf,kw.
27	sarilumab/
28	(Sarilumab* or NU90V55F8I or SAR153191 or REGN88 or SAR 153191 or REGN 88).ti,ab,kw,kf.
29	sirukumab/
30	(sirukumab* or 640443FU93 or CNTO136 or CNTO 136).ti,ab,kw,kf.
31	or/16-30
32	6 and (15 or 31)
33	(Randomized Controlled Trial or Controlled Clinical Trial or Pragmatic Clinical Trial).pt.
34	Randomized Controlled Trial/
35	exp Randomized Controlled Trials as Topic/
36	"Randomized Controlled Trial (topic)"/
37	Controlled Clinical Trial/
38	exp Controlled Clinical Trials as Topic/
39	"Controlled Clinical Trial (topic)"/
40	Randomization/
41	Random Allocation/
42	Double-Blind Method/
43	Double Blind Procedure/

(as supplied by the authors)

44	Double-Blind Studies/
45	Single-Blind Method/
46	Single Blind Procedure/
47	Single-Blind Studies/
48	Placebos/
49	Placebo/
50	Control Groups/
51	Control Group/
52	(random* or sham or placebo*).ti,ab,hw,kf,kw.
53	((singl* or doubl*) adj (blind* or dumm* or mask*)).ti,ab,hw,kf,kw.
54	((tripl* or trebl*) adj (blind* or dumm* or mask*)).ti,ab,hw,kf,kw.
55	(control* adj3 (study or studies or trial*)).ti,ab,kf,kw.
56	(Nonrandom* or non random* or non-random* or quasi-random* or quasirandom*).ti,ab,hw,kf,kw.
57	allocated.ti,ab,hw.
58	((open label or open-label) adj5 (study or studies or trial*)).ti,ab,hw,kf,kw.
59	or/33-58
60	32 and 59
61	exp animals/
62	exp animal experimentation/ or exp animal experiment/
63	exp models animal/
64	nonhuman/
65	exp vertebrate/ or exp vertebrates/
66	or/61-65
67	exp humans/

(as supplied by the authors)

68	exp human experimentation/ or exp human experiment/
69	or/67-68
70	66 not 69
71	60 not 70
72	71 not conference abstract.pt.
73	limit 72 to english language
74	remove duplicates from 73

OTHER DATABASES	
PubMed	A limited PubMed search was performed to capture records not found in MEDLINE. Same MeSH, keywords, limits, and study types used as per Ovid search, with appropriate syntax used.
The Cochrane Library	Same MeSH, keywords, and date limits used as per Ovid search, excluding study types and Human restrictions. Syntax adjusted for Cochrane Library databases.

Grey Literature

Dates for Search:	May to June 2016
Keywords:	Traditional DMARDs (methotrexate, hydroxychloroquine, sulfasalazine, leflunomide); Biologic DMARDs (adalimumab, certolizumab pegol, etanercept, golimumab, infliximab, anakinra, tocilizumab, abatacept, rituximab); Small Molecules (tofacitinib); Subsequent Entry Biologics (infliximab SEB); Products under development (adalimumab SEB, etanercept SEB, baricitinib, sarilumab, sirukumab) and rheumatoid arthritis
Limits:	Date limits used as per Ovid search

(as supplied by the authors)

Relevant websites from the following sections of the CADTH grey literature checklist *Grey Matters: a practical tool for searching health-related grey literature* (https://www.cadth.ca/grey-matters) were searched:

- Advisories & Warnings
- Clinical Practice Guidelines
- HTA Agency -- Standard
- HTA Agency -- International
- Databases
- Internet

(as supplied by the authors)

APPENDIX 2: STATISTICAL ANALYSIS PLAN

STATISTICAL PLAN - CADTH RA PROJECT

Objectives

The objective of this project is to determine the comparative efficacy and safety of conventional disease-modifying anti-rheumatic (DMARD) therapies (alone or in combination), biologics (including biosimilars), and JAK inhibitors in patients with moderate to severe rheumatoid arthritis (RA) who have failed or are intolerant to methotrexate (MTX).

More specifically, we are comparing all treatment effects to one another on each outcome of interest. The hypothesis is that all treatments have an equal effect on each outcome.

Study Population

The population of interest is patients with moderate to severe RA who have failed or are intolerant to MTX.

Studies may not clearly indicate if patients were inadequate responders to MTX (IR MTX) or DMARDs (IR DMARD). We anticipate that dividing data into further groups by previous DMARD-experience vs. MTX-experience would likely lead to low power and the analyses would likely miss important differences, especially regarding harms. Therefore, we will analyze patients with IR MTX and IR DMARD together for this systematic review and NMA in the main analysis. A sensitivity analysis will be conducted in which we remove any studies that do not clearly indicate if patients were inadequate responders to MTX.

Interventions and Comparators

Interventions of interest include monotherapy, double therapy, or triple therapy with the following conventional DMARDs: methotrexate (any dose, oral or parenteral), hydroxychloroquine (any dose, oral), sulfasalazine (any dose, oral), and leflunomide (any dose, oral).

Biologic DMARDs (biologics) that are eligible include:

1. adalimumab (40 mg every two weeks, subcutaneous [SC]),
2. certolizumab pegol (400 mg in two injections on day 0, 200 mg at weeks 2 and 4, then 200 mg every two weeks, SC),

3. etanercept (25 mg twice weekly, SC),
4. anakinra (100 mg/day, SC),
5. golimumab (2 mg/kg at baseline, week 4 and then every eight weeks, intravenous [IV] or 50 mg every four weeks, SC),
6. infliximab (3 mg/kg at baseline, weeks 2 and 6 and every eight weeks, IV),
7. tocilizumab (4 mg/kg every four weeks or increased to 8 mg/kg if lack of clinical response, IV or 162 mg every two weeks or increased to every week if lack of clinical response, SC),
8. abatacept (10 mg/kg every four weeks with initial infusions at baseline, weeks 2 and 4, IV or 125 mg once weekly after an initial loading dose and one more injection within a day, SC) and
9. rituximab (two 1000 mg doses two weeks apart, IV).

Oral inhibitors of Janus kinases that are eligible include: tofacitinib (5 mg twice daily, oral) and baricitinib (dose not yet approved, oral).

The biosimilars of interest for this project include: etanercept biosimilars (SC), infliximab biosimilars (SC) and adalimumab biosimilars (SC). Different biosimilars for the same biologic will be analyzed separately, since they may not be identical to one another.

All biologics, Janus kinase inhibitors and biosimilars are eligible as monotherapy or in combination with one of the above mentioned conventional DMARDs. There will be no class analyses conducted for this review.

Treatment Dose

Only the standard doses of the biologics and Janus kinase inhibitors approved by Health Canada will be considered for analysis as either interventions or comparators. The dose of biosimilars that will be analyzed will follow the standard dose of the biologic that it is attempting to replicate (e.g. 40 mg/kg subcutaneously every two weeks for adalimumab biosimilar). Any intervention or comparator that has not yet received approval by Health Canada at the time of analysis will have all available doses included. Different routes of administration for the same intervention or comparator (e.g. intravenous and subcutaneous) will be considered separately in the analysis as there may be differences in terms of adherence between intravenous and subcutaneous routes of administration for the same intervention.

(as supplied by the authors)

Treatment Duration

Duration of treatment must be a minimum of 12 weeks to be eligible for analysis. There is no upper limit on the length of the intervention. Analysis will be done on the controlled period of randomized controlled trials and clinical controlled trials while the intervention is being administered. Any follow-up period post-intervention or open-label extension phase (i.e. where all participants receive the same intervention) will not be eligible for analysis.

Outcomes

American College of Rheumatology (ACR) 20, 50, 70

The ACR response rates are binary composite outcomes consisting of the following outcomes on disease activity: tender and swollen joint counts, patient's assessment of pain, patient and physician's global assessments of disease activity and an acute-phase reactant value (either the erythrocyte sedimentation rate of a C-reactive protein level).[274]

A patient attains an ACR20 response when they have at least a 20% improvement in tender and swollen joint counts as well as three of the five remaining core set outcomes listed.[274] The same can be applied for the ACR50 and ACR70, only the response that must be achieved is 50% and 70%, respectively. The primary efficacy outcome for this analysis is the ACR50.

Disease Activity Score and Disease Activity Score with 28-Joint Counts (DAS/DAS28)

The DAS is a continuous composite outcome that consists of: 1) the number of painful joints (Ritchie Articular Index, 0-78 joints), 44-joint count for swollen joints, erythrocyte sedimentation rate (ESR) and patient global assessment of disease activity or general health using a visual analogue scale.[275] The DAS28 is similar to the DAS, but instead uses 28-joint counts for both tender and swollen joint counts. A reduction in the DAS or DAS28 indicates improvement. A change of 1.2 is clinically important for the DAS or DAS28.[275] The C-reactive protein can be used instead of the ESR; the DAS28-ESR will be the main version of the DAS28 considered, but the DAS28-CRP will be included in the analysis when the DAS28-ESR is not reported.

Results on the change from baseline to the end of treatment data will be analyzed; for adaptive design trials, results on the change from baseline to the time of adaptation will be analyzed as the reference case.

Health Assessment Questionnaire, Disability Index (HAQ-DI)

(as supplied by the authors)

Functional ability will be measured using the Health Assessment Questionnaire disability index (HAQ-DI), which is the gold standard outcome measure to use.[276] The scoring system ranges from 0 (no impairment of functional ability) to 3.0 (full impairment of functional ability). The minimal clinically important difference is 0.22 units.[276]

Results on the change from baseline to the end of treatment data will be analyzed; for adaptive design trials, results on the change from baseline to the time of adaptation will be analyzed as the reference case.

Remission

Remission will be assessed based on a DAS28 score of <2.6.[275] As with the DAS28, the version using CRP will be selected for analysis when ESR is not available. More recent measures of remission are available, but the DAS28 remission criteria have been available for a longer period of time and thus are more likely to be captured in older studies.

Radiographic Progression

There will be no restrictions on the type of radiographic progression measures eligible for analysis because there are several scores and modifications of those scores available. Two of the more common scores are described below.

The total Sharp score (TSS) assesses erosions (scale from 0 to 5) and joint space narrowing (scale from 0 to 4) in joints of the hand and wrist.[277] The modified total Sharp score (mTSS) uses the original Sharp score and adds joints of the feet to the assessment (scale from 0 to 10).[277]The minimal clinically important difference for patients with a longer disease duration and high disease activity is 4.5 units for the mTSS.[278]

Results on the change from baseline to the end of treatment data will be analyzed; for adaptive design trials, results on the change from baseline to the time of adaptation will be analyzed as the reference case.

Health-Related Quality of Life

Health-related quality of life will be measured using the Short Form-36 (SF-36) questionnaire. The SF-36 is a generic health measure and is commonly used in rheumatology.[279] For this review, the two summary (physical component summary [PCS] and mental component summary [MCS]) scores will be analyzed separately. Both component scores use a range from

0 (worse health) to 100 (better health). The minimal clinically important difference for the SF-36 is a change of 5 points, though this applies broadly rather than specifically to patients with RA.[279]

Results on the change from baseline to the end of treatment data will be analyzed; for adaptive design trials results on the change from baseline to the time of adaptation will be analyzed as the reference case.

Fatigue

No restrictions will be made on which fatigue scales or instruments are eligible for this review. We anticipate studies may report fatigue using the FACIT-F or FAS scales and thus details on these instruments are provided below.

The Functional Assessment Chronic Illness Therapy (FACIT-F) scale assesses various types of fatigue (physical, functional, and emotional), as well as the impacts fatigue has on the individual in terms of social interactions.[280] It involves a type of 5-point Likert scale; overall scores are from 0 (more fatigue) to 52 (less fatigue). The minimal clinically important difference is a change of 3 to 4 points.[280] The Fatigue Assessment Scale (FAS) involves ten questions on fatigue and how the individual feels they rate on a type of 5-point Likert scale in which higher scores indicating more fatigue.[281]

Results on the change from baseline to the end of treatment data will be analyzed; for adaptive design trials, results on the change from baseline to the time of adaptation will be analyzed as the reference case.

Pain

As with fatigue, there will be no restrictions on the scales or instruments accepted for pain in this review. Common adult pain scales include the Visual Analog Scale for Pain (VAS Pain) and Numeric Rating Scale for Pain (NRS Pain), which are described below.

Pain VAS uses a continuous 100 mm scale from 0 (“no pain”) to 100 (“worst imaginable pain”).[282] An individual marks their level of pain on the scale, which is then measured. The MCID is a change of 11 mm on the 100 mm scale.[282] Pain NRS is well correlated with the pain VAS. An individual will verbally rate their pain using the integers from 0 (“no pain”) to 10 (“worst imaginable pain”). A clinically important difference for the pain NRS is a reduction in pain by 2 points for various conditions.[282]

Results on the change from baseline to the end of treatment data will be analyzed; for adaptive design trials, results on the change from baseline to the time of adaptation will be analyzed as the reference case.

Serious Adverse Events

Serious adverse events are defined by the Food and Drug Administration when a patient: dies, has a life-threatening event, is hospitalized, experiences disability or permanent damage, experiences a congenital anomaly or birth defect as a result of exposure to an intervention before conception or during pregnancy, requires a device as an intervention to prevent permanent impairment or damage, or experiences a different medical event that is important and serious (e.g. drug dependence).[283]

Withdrawal due to adverse events

Any adverse event that results in a patient discontinuing the treatment and leaving the study is considered a withdrawal due to an adverse event (WDAE). This is the primary safety outcome for this analysis.

Cancer

Overall numbers of cancer events will be analyzed. Leukemia and lymphoma will be analyzed separately as they have been identified as notable harms by the clinical expert.

Other safety outcomes include: mortality, serious infections, tuberculosis, congestive heart failure, major adverse cardiac events, and herpes zoster.

Time Points for Analysis

Analyses will be conducted on the end of treatment time points for each of the above outcomes. The exception is for adaptive design trials. Adaptive design trials have been used in RA more recently to allow for planned modifications to participant treatment in the study at a pre-defined interim analysis.[113,114] In this report, we distinguish between four major types of adaptive designs: 1) early escape trials, 2) rescue therapy trials, 3) treatment switching trials based on non-response criteria; and 4) planned treatment switching trials (Table 1).

(as supplied by the authors)

Table 1. Definition of Adaptive Design Trials

Adaptive Design	Description
Early escape trial	After a pre-determined period (e.g. 12 or 16 weeks) receiving treatment, patients who do not attain a pre-defined level of disease response are withdrawn from the trial and may enter an open-label extension phase.
Rescue therapy trial	After a pre-determined period of receiving treatment, patients who do not attain a pre-defined level of disease response are permitted to receive rescue therapy (e.g. dose adjustment or addition of a DMARD or corticosteroid, receipt of one or more doses of active treatment for those in the comparator arm, increased dose of active drug).
Treatment switching trial (based on non-response)	After a pre-determined period (e.g. 12 or 16 weeks) receiving treatment, patients who do not attain a pre-defined level of disease response are switched to another treatment arm for the remainder of the study.
Treatment switching trial (planned)	Investigators plan *a priori* to have patients (e.g. in a control group) either switch to another arm or re-randomize patients to switch to one of a few possible treatment arms. The planned treatment switch could occur either: a) as the only adaptation in the study duration, or b) as the second adaptation after an initial adaptation (typically involving patients who had an inadequate response).

For studies that involve an adaptive design, we plan to analyze the end of treatment data using rate ratios adjusted for the length of exposure of participants to intervention who had an adaptation to their treatment course. This would account for each patient's actual treatment length and amount and improve accuracy of the effect estimate. For example, in early escape trials, the end of treatment data for an outcome would be weighted based on a participant's length of exposure to the treatment before discontinuation from the trial. In rescue therapy trials, an adjustment would be made to account for the amount and length of time rescue therapy was received by a participant. If patient-level data is not reported in the study, we will consider the data up until the time of adaptation for the main analysis. This will provide greater confidence in identifying if the results are due to the treatments rather than a combination of the treatments under investigation, a specific treatment sequence, cross-over effect, or any adaptations made to the treatment during the study.

In addition, it is common for early phase studies to report data at three months to demonstrate the treatment's efficacy compared to placebo[284] and three months has been shown to be a good predictor of long-term efficacy.[285] Nevertheless, to address concerns about losing data on more long-term outcomes such as radiographic progression, health-related quality of life and safety, a sensitivity analysis will be conducted on the primary efficacy (ACR50) and safety (WDAE) outcomes using the end of treatment data for the adaptive designs. Figure 1 outlines in general the four major adaptations and how we plan to analyze these types of studies in the main and sensitivity analyses.

(as supplied by the authors)

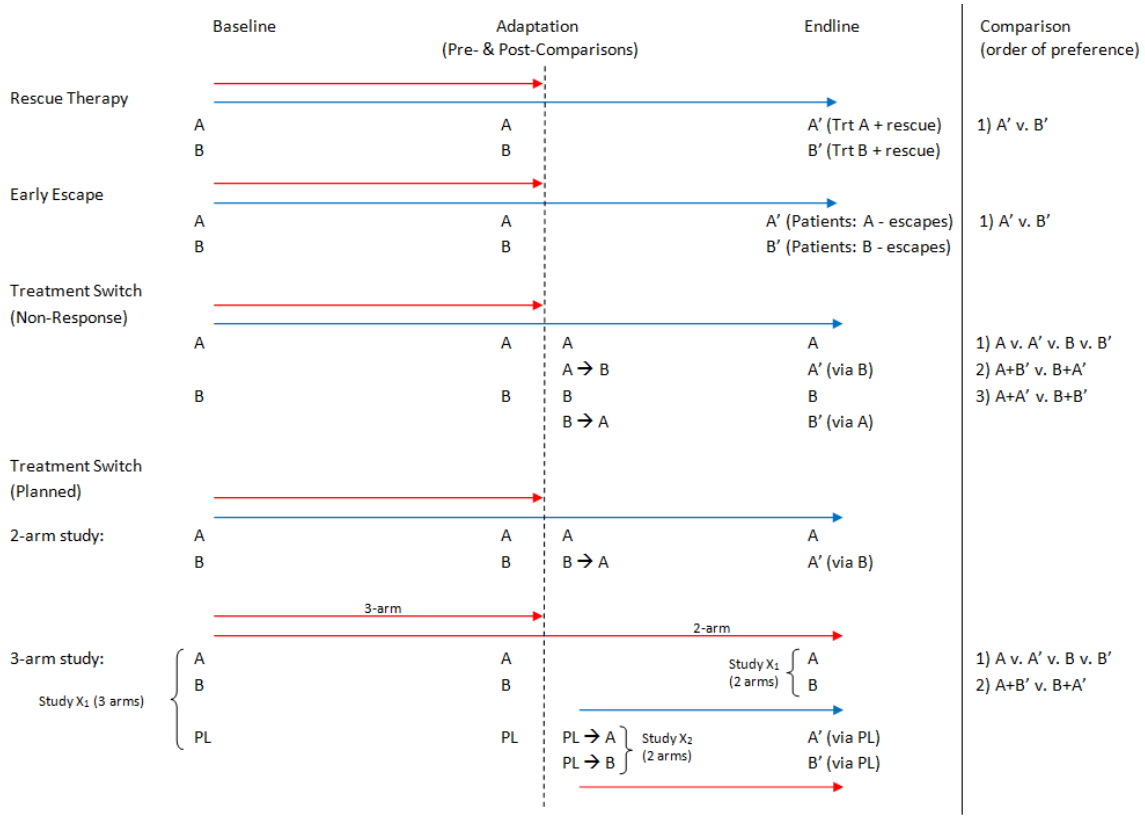

Figure 1. Analysis time points for adaptive design trials. Red lines indicate the main analysis and blue lines indicate sensitivity analyses. A represents any treatment eligible for the review and B represents either a comparator group or another treatment. For multi-arm planned treatment switch trials, PL is added to distinguish between the active treatments (A and B) and the comparator group (PL).

For a sensitivity analysis on the end of treatment, data for rescue therapy studies will have data where treatments A and B are modified slightly since patients may have had a change in background therapy or received a rescue dose of a biologic. Data for early escape studies will have data where the number of patients contributing data for treatments A and B will be smaller because of patients escaping the study.

In terms of treatment switch trials, we will analyze end of treatment data (for the sensitivity analysis) that is uncontaminated (i.e. patients who switched treatments have data reported separately from those who did not switch). If this is not reported, we will analyze contaminated data that maintains an intention to treat reporting and then contaminated data that is reported as per protocol. In the event that more than one adaptation occurs in a study (e.g. a planned treatment switch followed by early escape for those who are still not responding), data up until the end of the treatment switch phase of the trial will be considered because we anticipate the

data after the second adaptation will lose its meaning and ability to address the objective of our review.

Parameter Estimates

Binary outcomes will be analyzed using odds ratios. Based on a prevalence estimate, relative risks and risk differences will be derived.

For continuous outcomes, data for the mean change from baseline to end of the treatment period will be used in all analyses. Any studies that do not report in this format will have the change scores calculated using the baseline and end of treatment data. If measure of dispersion data (e.g., standard deviation, standard error, 95% confidence interval) is missing for either baseline or end of treatment, we will use the value that is available and assume it remains unchanged for the duration of the study in order to calculate the change score standard error. If a measure of dispersion data is missing for both baseline and end of treatment, the study will be excluded from the main analysis and a sensitivity analysis will be conducted in which the standard error is imputed using the median standard error reported in all studies from the evidence network. Certain continuous outcomes may be reported using different scales or instruments, which will require analysis using a standardized mean difference. Otherwise, the mean difference will be the parameter estimate used for continuous outcomes. Wherever possible, the raw data (i.e. that has not been adjusted for any baseline characteristics) reported in the included studies will be extracted and used for analysis.

Quality of Evidence

The Cochrane Risk of Bias tool will be used to assess the internal validity of each included study and identify studies of low methodological quality (i.e. high risk of bias overall) and high methodological quality (i.e. low risk of bias overall). A sensitivity analysis will be conducted in which only studies of high methodological quality will be analyzed. If the results differ, then the results will be reported based on only the studies of high methodological quality.

Attempts at reducing publication bias will be made through searching the grey literature, such as websites of regulatory agencies and clinical trial registries; any source that fits the selection criteria will be included in the review. In addition, publication bias will be assessed using a funnel plot if at least ten studies are available within an evidence network. Results from the funnel plot will be used in interpreting and reporting the findings for this review.

(as supplied by the authors)

Evidence Network Diagrams

The evidence network for each outcome will be displayed graphically in the form of a diagram. The lines will indicate direct comparisons of one intervention to another intervention (or comparator) and the thickness of the line will reflect the number of studies with this particular comparison. The vertices ("nodes") will represent individual interventions. Sizes of nodes will be directly proportional to the total sample size of participants contributing data to the node across all studies involving that intervention.

Datasets

Data extraction forms will capture information on the general study characteristics (e.g. first author's last name, year of publication, trial name, title, trial registry number, etc.), patient characteristics (e.g. age, sex, race, disease duration, methotrexate dose, etc.), and intervention characteristics (e.g. name of intervention, dose, frequency, route, etc.). In addition, each outcome will have its own form and will capture information on the time point, statistical power, dataset analyzed (e.g. intention to treat, per protocol, safety set, etc.), group names, sample size and either: 1) the mean (or median) change from baseline and measure of dispersion (or the interquartile range or range) for continuous outcomes, or 2) the number of participants with an event for binary outcomes. The intention to treat analysis will be extracted and analyzed in priority, followed by a modified intention to treat analysis and then a per protocol analysis for efficacy outcomes; for safety outcomes the safety set will be analyzed. Adaptive design trials will have data extracted either for individual patient data or, if not available, for the latest time point before adaptation (for the main analysis) and the end of treatment (for the sensitivity analysis).

Feasibility Assessment

Prior to commencing the network meta-analysis (NMA), baseline characteristics of studies included in the same evidence network will be compared to identify any potentially heterogeneous trials (e.g. based on differences in baseline characteristics or study design) to be excluded from analysis or, given a sufficient number of trials (e.g. ten trials for every outcome adjusted),[286] a meta-regression adjusting for the variable that is the source of heterogeneity.

In the event that any treatment has values of zero (e.g. for binary outcomes) or a very wide credible interval, we will exclude that trial so long as it is clinically feasible to do so. If it is not feasible to conduct a NMA for any of the following reasons: 1) heterogeneity, 2) a lack of trials (i.e. fewer than three or four trials), 3) a large number of zero events for binary data, or 4) outlier trials, then a meta-analysis will be attempted. If that is also not feasible, a descriptive analysis will be completed.

(as supplied by the authors)

Statistical Models: Network Meta-Analysis (NMA)

A NMA will be conducted in order to assess the comparative efficacy and safety of DMARD therapies (alone or in combination), biologics (including biosimilars), and JAK inhibitors in patients with moderate to severe RA who have failed or are intolerant to methotrexate. Given the large number of interventions available to patients combined with the paucity of evidence from head-to-head comparison trials, it is not possible to directly compare the biologics and conventional DMARDs through pairwise meta-analysis. A NMA is capable of using mixed treatment comparisons wherein direct evidence (from actual comparisons made within trials) and indirect evidence (estimated through the model) are combined to increase the robustness of the effect estimates when there is consistency in the evidence network.[287] Due to the anticipated complexity of the evidence networks, a NMA will be used, since it has the capacity to analyze a variety of network structures.[288]

Bayesian NMAs will be conducted for outcomes pre-specified in the protocol, after careful assessment of heterogeneity across trials in terms of subject characteristics, trial methodologies and treatment protocols. The effect estimate will depend on the outcome of interest and availability of data. For reference case NMAs, appropriate comparators will be considered. Both fixed and random effects models will be conducted; model selection will be based on the Deviance Information Criterion (DIC) and residual deviance. WinBUGS (MRC Biostatistics Unit, Cambridge, UK) will be used for Bayesian NMA using scripts developed at the Universities of Bristol and Leicester (www.bris.ac.uk/cobm/research/mpes/) that are appropriate for evidence structures under consideration.

Specific therapies will be identified as the reference group for all Bayesian network meta-analyses. Posterior densities for unknown parameters will be estimated using Markov Chain Monte Carlo (MCMC) methods. Basic parameters will be assigned non-informative or vague prior distributions; more informative priors will be considered; for example, an informative prior for the between-study variance will be considered following Turner et al.[289] Point estimates and 95% credible intervals will be used to summarize findings. The probability of a comparator being optimal will be estimated for each outcome based on the proportion of MCMC simulations in which its relative measure of effect was best.

Consistency between direct and indirect evidence will be formally assessed using back-calculation and node splitting techniques. Model diagnostics will also include trace plots and the Brooks-Gelman-Rubin statistic to assess and ensure model convergence. Three chains will be fit in WinBUGS for each analysis, each usually employing ~ 20,000 iterations, with a burn in of ~ 20,000 iterations. Provided sufficient data is available to inform the evidence network, meta-regression and/or subgroup analysis will be conducted for key demographic, medical and study design characteristics to test the robustness of reference case analyses. Investigation for

potential outliers will be conducted by looking at point estimates that differ greatly from the others.

Statistical Models: Meta-Analysis

Meta-analysis will be conducted when an NMA is not feasible (see Feasibility Assessment section). The data will first be summarized descriptively. A meta-analysis will be undertaken using fixed or random-effects models when data are available, sufficiently similar and of sufficient quality. The effect sizes for the identified dichotomous outcomes will be expressed in terms of the risk ratio (RR) or odds ratio (OR). In cases when events are rare, the Peto odds ratio will be used. For continuous outcomes, the mean differences will be used; if the data is not normally distributed the median differences will be used. If the included data are presented using more than one scale or instrument the standardized mean difference (SMD) will be used. It is essential to know both estimated relative and absolute differences in the important benefits and harms, absolute mean difference and relative percent change from baseline will be included in the summary of findings table.

Results will be assessed for both clinical diversity and methodological diversity. Clinical diversity will be assessed by checking that the populations, interventions, and comparators are not too different from each other such that combining them is not appropriate. Methodological diversity will be assessed by checking that the studies are similar in terms of study design and risk of bias. Once satisfied that the studies are minimally diverse and that it makes sense to pool them together in a meta-analysis, an assessment of the statistical heterogeneity will be undertaken by examining the forest plot and result of the I^2 statistic; the forest plots providing a visual sense of heterogeneity and the I^2 statistic indicating the presence of statistical heterogeneity. If the effects observed across trials are inconsistent, and vary to a large extent (e.g., I^2>50%), the results will again be explored to assess whether the differences can be explained by some clinical or methodological feature. Heterogeneity that cannot be reduced by pre-specified subgroup or meta-regression analyses will lead to an overall estimate with less confidence when interpreting the inference from the meta-analysis. In this case, a more conservative random-effects model approach would be used so that the uncertainty of the single effect estimate is reflected in wider confidence intervals. Investigation for potential outliers will be conducted by looking at point estimates that differ greatly from the others.

Summary of Sensitivity Analyses

Sensitivity analyses will be conducted by:

Removing studies of poor methodological quality

Analyzing the end of treatment data for adaptive design trials if patient-level data is not available

Analyzing old and new publications (i.e. studies published before 2007 and from 2007 onward) separately

Removing studies that do not clearly indicate if patients were inadequate responders to MTX (i.e. it is only stated that they did not respond to one or more conventional DMARDs)

Imputing the median standard error across all studies in an evidence network to get a standard error for the mean change from baseline in a study that does not report it or the baseline values

Subgroup Analyses and Meta-Regressions

There are currently no planned subgroup analyses or meta-regressions. For the outcomes where NMA is appropriate and feasible and sufficient data is available, meta-regression analyses may be carried out for the primary efficacy and safety outcomes (i.e. ACR50 and WDAE).

(as supplied by the authors)

APPENDIX 3: LIST OF INCLUDED STUDIES (AND COMPANION PUBLICATIONS)

1. Tofacitinib or adalimumab versus placebo in rheumatoid arthritis (New England Journal of Medicine (2012) 367, (508-519)). N Engl J Med. 2013;369:293.

2. Efficacy and Safety of Baricitinib in Japanese Patients with Active Rheumatoid Arthritis Receiving Background Methotrexate Therapy: A 12-week, Double-blind, Randomized Placebo-controlled Study. The Journal of rheumatology. 2016;43(5):998.

3. Erratum: Head-to-head comparison of certolizumab pegol versus adalimumab in rheumatoid arthritis: 2-year efficacy and safety results from the randomised EXXELERATE study (The Lancet (2016) 388(10061) (2763-2774) (S0140673616316518) (10.1016/S0140-6736(16)31651-8)). The Lancet. 2016;388:2742.

4. Erratum: Head-to-head comparison of certolizumab pegol versus adalimumab in rheumatoid arthritis: 2-year efficacy and safety results from the randomised EXXELERATE study (The Lancet (2016) 388(10061) (2763-2774)(S0140673616316518)(10.1016/S0140-6736(16)31651-8)). The Lancet. 2017;389:e2.

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6. Alzaidy AH, Numan IT, Jassim NA. Effects of adalimumab on bones destruction/repairing marker (CTX-I & preptin) in iraqi patients with rheumatoid arthritis. Pharmacie Globale. 2016;7.

7. Amgen. Efficacy and Safety Study of ABP 501 Compared to Adalimumab in Subjects With Moderate to Severe Rheumatoid Arthritis. [Gery Lit]. In press.

8. Bae SC, Gun SC, Mok CC, Khandker R, Nab HW, Koenig AS, et al. Improved health outcomes with Etanercept versus usual DMARD therapy in an Asian population with established rheumatoid arthritis. BMC Musculoskelet Disord. 2013;14.

9. Bae SC, Kim J, Choe JY, Park W, Lee SH, Park YB, et al. A phase III, multicentre, randomised, double-blind, active-controlled, parallel-group trial comparing safety and efficacy of HD203, with innovator etanercept, in combination with methotrexate, in patients with rheumatoid arthritis: the HERA study. Ann Rheum Dis. 2017;76(1):65-71.

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patients with active rheumatoid arthritis: the PLANETRA study. Ann Rheum Dis. 2013;72:1613-20.

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APPENDIX 4: LIST OF EXCLUDED STUDIES (WITH REASONS)

First Author	Year	Reference	Reason for Exclusion
Alam	2012	Alam MK, Sutradhar SR, Pandit H, Ahmed S, Bhattacharjee M, Miah AH, et al. Comparative study on methotrexate and hydroxychloroquine in the treatment of rheumatoid arthritis. Mymensingh Med J. 2012;21:391-8.	Wrong population
Aletaha	2017	Aletaha D, Bingham CO, Tanaka Y, Agarwal P, Kurrasch R, Tak PP, et al. Efficacy and safety of sirukumab in patients with active rheumatoid arthritis refractory to anti-TNF therapy (SIRROUND-T): A randomised, double-blind, placebo-controlled, parallel-group, multinational, phase 3 study. The Lancet. 2017;(no.	Wrong population
Alten	2010	Alten RE, Zerbini C, Jeka S, Irazoque F, Khatib F, Emery P, et al. Efficacy and safety of pamapimod in patients with active rheumatoid arthritis receiving stable methotrexate therapy. Ann Rheum Dis. 2010;69:364-7.	Wrong intervention
Alten	2011	Alten R, Gomez-Reino J, Durez P, Beaulieu A, Sebba A, Krammer G, et al. Efficacy and safety of the human anti-IL-1beta monoclonal antibody canakinumab in rheumatoid arthritis: results of a 12-week, Phase II, dose-finding study. BMC Musculoskelet Disord. 2011;12:153, 2011 Jul 07.	Wrong intervention
Andersen	1985	Andersen PA, West SG, Dell JRO, Via CS, Claypool RG, Kotzin BL. Weekly pulse methotrexate in rheumatoid arthritis. Clinical and immunologic effects in a randomized, double-blind study. Annals of internal medicine. 1985;103:489-96.	Wrong population
Asahina	2016	Asahina A, Etoh T, Igarashi A, Imafuku S, Saeki H, Shibasaki Y, et al. Oral tofacitinib efficacy, safety and tolerability in Japanese patients with moderate to severe plaque psoriasis and psoriatic arthritis: A randomized, double-blind, phase 3 study. J Dermatol. 2016.	Wrong population
Atsumi	2016	Atsumi T, Yamamoto K, Takeuchi T, Yamanaka H, Ishiguro N, Tanaka Y, et al. The first double-blind, randomised, parallel-group certolizumab pegol study in methotrexate-naive early rheumatoid arthritis patients with poor prognostic factors, C-OPERA, shows inhibition of radiographic progression. Ann Rheum Dis. 2016;75:75-83.	Wrong population
Atsumi	2017	Atsumi T, Tanaka Y, Yamamoto K, Takeuchi T, Yamanaka H, Ishiguro N, et al. Clinical benefit of 1-year certolizumab pegol (CZP) add-on therapy to methotrexate treatment in patients with early rheumatoid arthritis was observed following CZP discontinuation: 2-year results of the C-OPERA study, a phase III randomised trial.	Wrong population

(as supplied by the authors)

First Author	Year	Reference	Reason for Exclusion
		Ann Rheum Dis. 2017.	
Bao	2003	Bao C, Chen S, Gu Y, Lao Z, Ni L, Yu Q, et al. Leflunomide, a new disease-modifying drug for treating active rheumatoid arthritis in methotrexate-controlled phase II clinical trial. Chinese medical journal. 2003;116:1228-34.	Wrong population
Bathon	2003	Bathon JM, Genovese MC. The Early Rheumatoid Arthritis (ERA) trial comparing the efficacy and safety of etanercept and methotrexate. Clin Exp Rheumatol. 2003;21:S195-S7.	Wrong population
Bay-Jensen	2014	Bay-Jensen AC, Platt A, Byrjalsen I, Vergnoud P, Christiansen C, Karsdal MA. Effect of tocilizumab combined with methotrexate on circulating biomarkers of synovium, cartilage, and bone in the LITHE study. Semin Arthritis Rheum. 2014;43:470-8.	Wrong study design
Bijlsma	2016	Bijlsma JW, Welsing PM, Woodworth TG, Middelink LM, Petho-Schramm A, Bernasconi C, et al. Early rheumatoid arthritis treated with tocilizumab, methotrexate, or their combination (U-Act-Early): a multicentre, randomised, double-blind, double-dummy, strategy trial. Lancet. 2016.	Wrong population
Bissell	2016	Bissell LA, Hensor EM, Kozera L, Mackie SL, Burska AN, Nam JL, et al. Improvement in insulin resistance is greater when infliximab is added to methotrexate during intensive treatment of early rheumatoid arthritis-results from the IDEA study. Rheumatology (Oxford). 2016.	Wrong population
Blanco	2017	Blanco FJ, Moricke R, Dokoupilova E, Codding C, Neal J, Andersson M, et al. Secukinumab in active rheumatoid arthritis: A randomized, double-blind placebo and active comparator controlled phase 3 study. Arthritis Rheumatol. 2017.	Wrong population
Braun	2008	Braun J, Kastner P, Flaxenberg P, Wahrisch J, Hanke P, Demary W, et al. Comparison of the clinical efficacy and safety of subcutaneous versus oral administration of methotrexate in patients with active rheumatoid arthritis: results of a six-month, multicenter, randomized, double-blind, controlled, phase IV trial. Arthritis and rheumatism. 2008;58:73-81.	Wrong population
Bresnihan	1998	Bresnihan B, Alvaro-Gracia JM, Cobby M, Doherty M, Domljan Z, Emery P, et al. Treatment of rheumatoid arthritis with recombinant human interleukin-1 receptor antagonist. Arthritis and rheumatism. 1998;41:2196-204.	Wrong population
Burmester	2016	Burmester GR, Rubbert-Roth A, Cantagrel A, Hall S, Leszczynski P, Feldman D, et al. Efficacy and safety of subcutaneous tocilizumab versus intravenous tocilizumab in combination with traditional DMARDs in patients with RA at week 97 (SUMMACTA). Ann Rheum Dis. 2016;75:68-74.	Wrong comparator

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First Author	Year	Reference	Reason for Exclusion
Burmester	2013	Burmester GR, Blanco R, Charles-Schoeman C, Wollenhaupt J, Zerbini C, Benda B, et al. Tofacitinib (CP-690,550) in combination with methotrexate in patients with active rheumatoid arthritis with an inadequate response to tumour necrosis factor inhibitors: a randomised phase 3 trial. Lancet. 2013;381:451-60.	Wrong population
Burmester	2011	Burmester GR, Feist E, Kellner H, Braun J, Iking-Konert C, Rubbert-Roth A. Effectiveness and safety of the interleukin 6-receptor antagonist tocilizumab after 4 and 24 weeks in patients with active rheumatoid arthritis: The first phase IIIb real-life study (TAMARA). Ann Rheum Dis. 2011;70:755-9.	Wrong study design
Burmester	2014	Burmester GR, Rubbert-Roth A, Cantagrel A, Hall S, Leszczynski P, Feldman D, et al. A randomised, double-blind, parallel-group study of the safety and efficacy of subcutaneous tocilizumab versus intravenous tocilizumab in combination with traditional disease-modifying antirheumatic drugs in patients with moderate to severe rheumatoid arthritis (SUMMACTA study). Annals of the rheumatic diseases. 2014;73:69-74.	Wrong intervention
Burmester	2013	Burmester GR, Weinblatt ME, McInnes IB, Porter D, Barbarash O, Vatutin M, et al. Efficacy and safety of mavrilimumab in subjects with rheumatoid arthritis. Ann Rheum Dis. 2013;72:1445-52.	Wrong intervention
Burmester	2017	Burmester GR, McInnes IB, Kremer J, Miranda P, Korkosz M, Vencovsky J, et al. A randomised phase IIb study of mavrilimumab, a novel GM-CSF receptor alpha monoclonal antibody, in the treatment of rheumatoid arthritis. Ann Rheum Dis. 2017.	Wrong intervention
Buttgereit	2013	Buttgereit F, Mehta D, Kirwan J, Szechinski J, Boers M, Alten RE, et al. Low-dose prednisone chronotherapy for rheumatoid arthritis: A randomised clinical trial (CAPRA-2). Ann Rheum Dis. 2013;72:204-10.	Wrong intervention
Calguneri	1999	Calguneri M, Pay S, Caliskaner Z, Apras S, Kiraz S, Ertenli I, et al. Combination therapy versus monotherapy for the treatment of patients with rheumatoid arthritis. Clin Exp Rheumatol. 1999;17:699-704.	Wrong population
Capell	2007	Capell HA, Madhok R, Porter DR, Munro RA, McInnes IB, Hunter JA, et al. Combination therapy with sulfasalazine and methotrexate is more effective than either drug alone in patients with rheumatoid arthritis with a suboptimal response to sulfasalazine: results from the double-blind placebo-controlled MASCOT study. Ann Rheum Dis. 2007;66:235-41.	Wrong population
Cardiel	2010	Cardiel MH, Tak PP, Bensen W, Burch FX, Forejtova S, Badurski JE, et al. A phase 2 randomized, double-blind study of AMG 108, a fully human monoclonal antibody to IL-	Wrong intervention

(as supplied by the authors)

First Author	Year	Reference	Reason for Exclusion
		1R, in patients with rheumatoid arthritis. Arthritis Res Ther. 2010;12:R192, 2010.	
Carubbi	2015	Carubbi F, Zugaro L, Cipriani P, Conchiglia A, Gregori L, Danniballe C, et al. Safety and efficacy of intra-articular anti-tumor necrosis factor alpha agents compared to corticosteroids in a treat-to-target strategy in patients with inflammatory arthritis and monoarthritis flare. International Journal of Immunopathology and Pharmacology. 2015;29:252-66.	Wrong intervention
Charles-Schoeman	2016	Charles-Schoeman C, Wang X, Lee YY, Shahbazian A, Navarro-Millan I, Yang S, et al. Association of Triple Therapy With Improvement in Cholesterol Profiles Over Two-Year Followup in the Treatment of Early Aggressive Rheumatoid Arthritis Trial. Arthritis rheumatol. 2016;68:577-86.	Wrong population
Charles-Schoeman	2015	Charles-Schoeman C, Burmester G, Nash P, Zerbini CA, Soma K, Kwok K, et al. Efficacy and safety of tofacitinib following inadequate response to conventional synthetic or biological disease-modifying antirheumatic drugs. Ann Rheum Dis. 2015.	Wrong study design
Charles-Schoeman	2017	Charles-Schoeman C, Yin LY, Shahbazian A, Wang X, Elashoff D, Curtis JR, et al. Improvement of High-Density Lipoprotein Function in Patients With Early Rheumatoid Arthritis Treated With Methotrexate Monotherapy or Combination Therapies in a Randomized Controlled Trial. Arthritis rheumatol. 2017;69:46-57.	Wrong population
Chatzidionysiou	2016	Chatzidionysiou K, Turesson C, Teleman A, Knight A, Lindqvist E, Larsson P, et al. A multicentre, randomised, controlled, open-label pilot study on the feasibility of discontinuation of adalimumab in established patients with rheumatoid arthritis in stable clinical remission. Rmd open. 2016;2:e000133, 2016.	Wrong population
Chopra	2016	Chopra A, Chandrashekara S, Iyer R, Rajasekhar L, Shetty N, Veeravalli SM, et al. Itolizumab in combination with methotrexate modulates active rheumatoid arthritis: safety and efficacy from a phase 2, randomized, open-label, parallel-group, dose-ranging study. Clin Rheumatol. 2016;35:1059-64.	Wrong intervention
Choy	2013	Choy EH, Bendit M, McAleer D, Liu F, Feeney M, Brett S, et al. Safety, tolerability, pharmacokinetics and pharmacodynamics of an anti- oncostatin M monoclonal antibody in rheumatoid arthritis: results from phase II randomized, placebo-controlled trials. Arthritis Res Ther. 2013;15:R132, 2013.	Wrong intervention
Clegg	1997	Clegg DO, Dietz F, Duffy J, Willkens RF, Hurd E, Germain BF, et al. Safety and efficacy of hydroxychloroquine as maintenance therapy for rheumatoid arthritis after combination therapy with methotrexate and hydroxychloroquine. J Rheumatol. 1997;24:1896-902.	Wrong population

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First Author	Year	Reference	Reason for Exclusion
Cohen	2016	Cohen SB, Koenig A, Wang L, Kwok K, Mebus CA, Riese R, et al. Efficacy and safety of tofacitinib in US and non-US rheumatoid arthritis patients: pooled analyses of phase II and III. Clin Exp Rheumatol. 2016;34:32-6.	Wrong study design
Cohen	2006	Cohen SB, Emery P, Greenwald MW, Dougados M, Furie RA, Genovese MC, et al. Rituximab for rheumatoid arthritis refractory to anti-tumor necrosis factor therapy: Results of a multicenter, randomized, double-blind, placebo-controlled, phase III trial evaluating primary efficacy and safety at twenty-four weeks. Arthritis and rheumatism. 2006;54:2793-806.	Wrong population
Cohen	2010	Cohen SB, Keystone E, Genovese MC, Emery P, Peterfy C, Tak PP, et al. Continued inhibition of structural damage over 2 years in patients with rheumatoid arthritis treated with rituximab in combination with methotrexate. Ann Rheum Dis. 2010;69:1158-61.	Wrong study design
Combe	2016	Combe B, Furst DE, Keystone EC, Heijde Dvd, Luijtens K, Ionescu L, et al. Certolizumab Pegol Efficacy Across Methotrexate Regimens: A Pre-Specified Analysis of Two Phase III Trials. Arthritis Care Res (Hoboken). 2016;68:299-307.	Wrong population
Combe	2014	Combe B, Dasgupta B, Louw I, Pal S, Wollenhaupt J, Zerbini CA, et al. Efficacy and safety of golimumab as add-on therapy to disease-modifying antirheumatic drugs: results of the GO-MORE study. Ann Rheum Dis. 2014;73:1477-86.	Wrong population
Coombs	2010	Coombs JH, Bloom BJ, Breedveld FC, Fletcher MP, Gruben D, Kremer JM, et al. Improved pain, physical functioning and health status in patients with rheumatoid arthritis treated with CP-690,550, an orally active Janus kinase (JAK) inhibitor: results from a randomised, double-blind, placebo-controlled trial. Annals of the rheumatic diseases. 2010;69:413-6.	<12 weeks
Cuomo	2006	Cuomo G, Molinaro G, La Montagna G, Migliaresi S, Valentini G. [A comparison between the Simplified Disease Activity Index (SDAI) and the Disease Activity Score (DAS28) as measure of response to treatment in patients undergoing different therapeutic regimens]. Reumatismo. 2006;58:22-5.	Non-English
Curtis	2016	Curtis JR, Lee EB, Kaplan IV, Kwok K, Geier J, Benda B, et al. Tofacitinib, an oral Janus kinase inhibitor: Analysis of malignancies across the rheumatoid arthritis clinical development programme. Ann Rheum Dis. 2016;75:831-41.	Wrong study design
Curtis	2015	Curtis JR, Churchill M, Kivitz A, Samad A, Gauer L, Gervitz L, et al. A Randomized Trial Comparing Disease Activity Measures for the Assessment and Prediction of Response in Rheumatoid Arthritis Patients Initiating Certolizumab Pegol. Arthritis	Wrong intervention

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First Author	Year	Reference	Reason for Exclusion
		rheumatol. 2015;67:3104-12.	
Dale	2016	Dale J, Stirling A, Zhang R, Purves D, Foley J, Sambrook M, et al. Targeting ultrasound remission in early rheumatoid arthritis: the results of the TaSER study, a randomised clinical trial. Ann Rheum Dis. 2016.	Wrong population
Damjanov	2016	Damjanov N, Tlustochowicz M, Aelion J, Greenwald M, Diehl A, Bhattacharya I, et al. Safety and Efficacy of SBI-087, a Subcutaneous Agent for B Cell Depletion, in Patients with Active Rheumatoid Arthritis: Results from a Phase II Randomized, Double-blind, Placebo-controlled Study. J Rheumatol. 2016;43:2094-100.	Wrong intervention
Das	2007	Das SK, Pareek A, Mathur DS, Wanchu A, Srivastava R, Agarwal GG, et al. Efficacy and safety of hydroxychloroquine sulphate in rheumatoid arthritis: a randomized, double-blind, placebo controlled clinical trial--an Indian experience. Curr Med Res Opin. 2007;23:2227-34.	Wrong population
Das	2014	Das S, Vital EM, Horton S, Bryer D, El-Sherbiny Y, Rawstron AC, et al. Abatacept or tocilizumab after rituximab in rheumatoid arthritis? An exploratory study suggests non-response to rituximab is associated with persistently high IL-6 and better clinical response to IL-6 blocking therapy. Ann Rheum Dis. 2014;73:909-12.	Wrong study design
de Jong	2013	de Jong PH, Hazes JM, Barendregt PJ, Huisman M, van ZD, van der Lubbe PA, et al. Induction therapy with a combination of DMARDs is better than methotrexate monotherapy: first results of the tREACH trial. Ann Rheum Dis. 2013;72:72-8.	Wrong population
De Stefano	2010	De Stephano R, Frati E, Nargi F, Baldi C, Menza L, Hammoud M, et al. Comparison of combination therapies in the treatment of rheumatoid arthritis: leflunomide-anti-TNF-alpha versus methotrexate-anti-TNF-alpha. Clin Rheumatol. 2010;29:517-24.	Wrong intervention
den Broeder	2002	den Broeder A, van de Putte L, Rau R, Schattenkirchner M, Van Riel P, Sander O, et al. A single dose, placebo controlled study of the fully human anti-tumor necrosis factor-alpha antibody adalimumab (D2E7) in patients with rheumatoid arthritis. The Journal of rheumatology. 2002;29:2288-98.	<12 weeks
Dhaon	2016	Dhaon P, Das SK, Srivastava R, Agarwal G, Asthana A. Oral Methotrexate in split dose weekly versus oral or parenteral Methotrexate once weekly in Rheumatoid Arthritis: a short-term study. Int J Rheum Dis. 2016.	Wrong comparator
Dhir	2014	Dhir V, Singla M, Gupta N, Goyal P, Sagar V, Sharma A, et al. Randomized controlled trial comparing 2 different starting doses of methotrexate in rheumatoid arthritis. Clin Ther. 2014;36:1005-15.	Wrong intervention
Dougados	2015	Dougados M, Huizinga TW, Choy EH, Bingham CO, Aassi M, Bernasconi C.	Wrong study

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First Author	Year	Reference	Reason for Exclusion
		Evaluation of the Disease Activity Score in Twenty-Eight Joints-Based Flare Definitions in Rheumatoid Arthritis: Data From a Three-Year Clinical Trial. Arthritis Care Res (Hoboken). 2015;67:1762-6.	design
Dougados	2014	Dougados MR, Heijde DMvd, Brault Y, Koenig AS, Logeart IS. When to adjust therapy in patients with rheumatoid arthritis after initiation of etanercept plus methotrexate or methotrexate alone: findings from a randomized study (COMET). J Rheumatol. 2014;41:1922-34.	Wrong population
Dougados	2005	Dougados M, Emery P, Lemmel EM, Zerbini CA, Brin S, van RP. When a DMARD fails, should patients switch to sulfasalazine or add sulfasalazine to continuing leflunomide? Ann Rheum Dis. 2005;64:44-51.	Wrong population
Dumitru	2016	Dumitru RB, Horton S, Hodgson R, Wakefield RJ, Hensor EM, Emery P, et al. A prospective, single-centre, randomised study evaluating the clinical, imaging and immunological depth of remission achieved by very early versus delayed Etanercept in patients with Rheumatoid Arthritis (VEDERA). BMC Musculoskelet Disord. 2016;17:61, 2016.	Wrong population
Durez	2004	Durez P, Toukap AN, Lauwerys BR, Manicourt DH, Verschueren P, Westhovens R, et al. A randomised comparative study of the short term clinical and biological effects of intravenous pulse methylprednisolone and infliximab in patients with active rheumatoid arthritis despite methotrexate treatment. Ann Rheum Dis. 2004;63:1069-74.	Wrong intervention
Elmuntaser	2014	Elmuntaser K. Efficacy of leflunomide 100mg weekly compared to 10mg methotrexate weekly in patients with active rheumatoid arthritis. Clinical and experimental rheumatology. 2014;83:S43.	Conference abstract
Emery	2015	Emery P, Fleischmann RM, Strusberg I, Durez P, Nash P, Amante E, et al. Efficacy and safety of subcutaneous golimumab in methotrexate-naive patients with rheumatoid arthritis: 5-year results of the GO-BEFORE trial. Arthritis Care Res (Hoboken). 2015.	Wrong population
Emery	2015	Emery P, Bingham C, Burmester GR, Bykerk VP, Furst D, Mariette X, et al. Improvements in Workplace and Household Productivity Following 52 Weeks of Treatment with Certolizumab Pegol in Combination with Methotrexate in Dmard-Naive Patients with Severe, Active and Progressive Rheumatoid Arthritis: Results from the C-Early Randomized, Double-Blind, Controlled Phase 3 Study. Value in health : the journal of the International Society for Pharmacoeconomics and Outcomes Research.	Wrong population

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First Author	Year	Reference	Reason for Exclusion
		2015;18:A710, 2015.	
Emery	2015	Emery P, Bingham C, Burmester G, Bykerk V, Furst D, Mariette X, et al. Improvements in Patient-Reported outcomes Following 52 Weeks of Treatment with Certolizumab Pegol in Combination with Methotrexate in Dmard-Naive Patients with Severe, Active and Progressive Rheumatoid Arthritis: Results from the C-Early Randomized, Double-Blind, Controlled Phase 3 Study. Value in health : the journal of the International Society for Pharmacoeconomics and Outcomes Research. 2015;18:A707-A8.	Wrong population
Emery	2014	Emery P, Fleischmann RM, Hsia EC, Xu S, Zhou Y, Baker D. Efficacy of golimumab plus methotrexate in methotrexate-naive patients with severe active rheumatoid arthritis. Clin Rheumatol. 2014;33:1239-46.	Wrong population
Emery	2014	Emery P, Hammoudeh M, FitzGerald O, Combe B, Martin-Mola E, Buch MH, et al. Sustained remission with etanercept tapering in early rheumatoid arthritis. N Engl J Med. 2014;371:1781-92.	Wrong population
Emery	2013	Emery P, Fleischmann RM, Doyle MK, Strusberg I, Durez P, Nash P, et al. Golimumab, a human anti-tumor necrosis factor monoclonal antibody, injected subcutaneously every 4 weeks in patients with active rheumatoid arthritis who had never taken methotrexate: 1-year and 2-year clinical, radiologic, and physical function findings of a phase III, multicenter, randomized, double-blind, placebo-controlled study. Arthritis Care Res (Hoboken). 2013;65:1732-42.	Wrong population
Emery	2000	Emery P, Breedveld FC, Lemmel EM, Kaltwasser JP, Dawes PT, Gomor B, et al. A comparison of the efficacy and safety of leflunomide and methotrexate for the treatment of rheumatoid arthritis. Rheumatology. 2000;39:655-65.	Wrong population
Emery	2006	Emery P, Fleischmann R, Filipowicz-Sosnowska A, Schechtman J, Szczepanski L, Kavanaugh A, et al. The efficacy and safety of rituximab in patients with active rheumatoid arthritis despite methotrexate treatment: Results of a phase IIb randomized, double-blind, placebo-controlled, dose-ranging trial. Arthritis and Rheumatism. 2006;54:1390-400.	Wrong population
Emery	2008	Emery P, Breedveld FC, Hall S, Durez P, Chang DJ, Robertson D, et al. Comparison of methotrexate monotherapy with a combination of methotrexate and etanercept in active, early, moderate to severe rheumatoid arthritis (COMET): a randomised, double-blind, parallel treatment trial. Lancet. 2008;372:375-82.	Wrong population
Emery	2008	Emery P, Keystone E, Tony HP, Cantagrel A, van Vollenhoven R, Sanchez A, et al.	Wrong

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First Author	Year	Reference	Reason for Exclusion
		IL-6 receptor inhibition with tocilizumab improves treatment outcomes in patients with rheumatoid arthritis refractory to anti-tumour necrosis factor biologicals: results from a 24-week multicentre randomised placebo-controlled trial. Annals of the rheumatic diseases. 2008;67:1516-23.	population
Emery	2009	Emery P, Fleischmann RM, Moreland LW, Hsia EC, Strusberg I, Durez P, et al. Golimumab, a human anti-tumor necrosis factor alpha monoclonal antibody, injected subcutaneously every four weeks in methotrexate-naive patients with active rheumatoid arthritis: twenty-four-week results of a phase III, multicenter, randomized, double-blind, placebo-controlled study of golimumab before methotrexate as first-line therapy for early-onset rheumatoid arthritis. Arthritis and rheumatism. 2009;60:2272-83.	Wrong population
Emery	2010	Emery P, Breedveld F, van der HD, Ferraccioli G, Dougados M, Robertson D, et al. Two-year clinical and radiographic results with combination etanercept-methotrexate therapy versus monotherapy in early rheumatoid arthritis: a two-year, double-blind, randomized study. Arthritis and Rheumatism. 2010;62:674-82.	Wrong population
Emery	2017	Emery P, Bingham CO, III, Burmester GR, Bykerk VP, Furst DE, Mariette X, et al. Certolizumab pegol in combination with dose-optimised methotrexate in DMARD-naive patients with early, active rheumatoid arthritis with poor prognostic factors: 1-year results from C-EARLY, a randomised, double-blind, placebo-controlled phase III study. Ann Rheum Dis. 2017;76:96-104.	Wrong population
Eriksson	2016	Eriksson JK, Wallman JK, Miller H, Petersson IF, Ernestam S, Vivar N, et al. Infliximab versus Conventional Combination Treatment and 7-Year Work Loss in Early RA: Results of the Randomized Swefot Trial. Arthritis Care Res (Hoboken). 2016.	Wrong population
Esdaile	1995	Esdaile JM, Suissa S, Shiroky JB, Lamping D, Tsakonas E, Anderson D, et al. A randomized trial of hydroxychloroquine in early rheumatoid arthritis: The HERA study. Am J Med. 1995;98:156-68.	Wrong population
Faarvang	1993	Faarvang KL, Egsmose C, Kryger P, Podenphant J, Ingeman-Nielsen M, Hansen TM. Hydroxychloroquine and sulphasalazine alone and in combination in rheumatoid arthritis: a randomised double blind trial. Ann Rheum Dis. 1993;52:711-5.	Wrong population
Farr	1995	Farr M, Waterhouse L, Johnson AE, Kitas GD, Jubb RW, Bacon PA. A Double-blind controlled study comparing sulphasalazine with placebo in rheumatoid factor (RF)-negative rheumatoid arthritis. Clin Rheumatol. 1995;14:531-6.	Wrong population
Fautrel	2016	Fautrel B, Pham T, Alfaiate T, Gandjbakhch F, Foltz V, Morel J, et al. Step-down	Wrong

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First Author	Year	Reference	Reason for Exclusion
		strategy of spacing TNF-blocker injections for established rheumatoid arthritis in remission: results of the multicentre non-inferiority randomised open-label controlled trial (STRASS: Spacing of TNF-blocker injections in Rheumatoid ArthritiS Study). Ann Rheum Dis. 2016;75:59-67.	population
Ferraccioli	2002	Ferraccioli GF, Gremese E, Tomietto P, Favret G, Damato R, Poi ED. Analysis of improvements, full responses, remission and toxicity in rheumatoid patients treated with step-up combination therapy (methotrexate, cyclosporin A, sulphasalazine) or monotherapy for three years. Rheumatology. 2002;41:892-8.	Wrong population
Ferraz	1994	Ferraz MB, Pinheiro GR, Helfenstein M, Albuquerque E, Rezende C, Roimicher L, et al. Combination therapy with methotrexate and chloroquine in rheumatoid arthritis. A multicenter randomized placebo-controlled trial. Scandinavian journal of rheumatology. 1994;23:231-6.	Wrong intervention
Fiehn	2007	Fiehn C, Jacki S, Heilig B, Lampe M, Wiesmuller G, Richter C, et al. Eight versus 16-week re-evaluation period in rheumatoid arthritis patients treated with leflunomide or methotrexate accompanied by moderate dose prednisone. Rheumatology international. 2007;27:975-9.	Wrong population
Fleicshmann	2006	Fleischmann RM, Tesser J, Schiff MH, Schechtman J, Burmester GR, Bennett R, et al. Safety of extended treatment with anakinra in patients with rheumatoid arthritis. Annals of the rheumatic diseases. 2006;65:1006-12.	Wrong study design
Fleischmann	2016	Fleischmann R, Connolly SE, Maldonado MA, Schiff M. Estimating disease activity using multi-biomarker disease activity scores in patients with rheumatoid arthritis treated with abatacept or adalimumab. Arthritis Rheumatol. 2016.	Wrong study design
Fleischmann	2014	Fleischmann R, Goldman JA, Leirisalo-Repo M, Zanetakis E, El-Kadi H, Kellner H, et al. Infliximab efficacy in rheumatoid arthritis after an inadequate response to etanercept or adalimumab: results of a target-driven active switch study. Curr Med Res Opin. 2014;30:2139-49.	Wrong population
Fleischmann	2012	Fleischmann R, Kremer J, Cush J, Schulze-Koops H, Connell CA, Bradley JD, et al. Placebo-controlled trial of tofacitinib monotherapy in rheumatoid arthritis. The New England journal of medicine. 2012;367:495-507.	Wrong population
Fleischmann	2003	Fleischmann RM, Schechtman J, Bennett R, Handel ML, Burmester GR, Tesser J, et al. Anakinra, a recombinant human interleukin-1 receptor antagonist (r-metHuIL-1ra), in patients with rheumatoid arthritis: A large, international, multicenter, placebo-controlled trial. Arthritis and rheumatism. 2003;48:927-34.	Wrong population

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First Author	Year	Reference	Reason for Exclusion
Fleischmann	2016	Fleischmann R, Strand V, Wilkinson B, Kwok K, Bananis E. Relationship between clinical and patient-reported outcomes in a phase 3 trial of tofacitinib or MTX in MTX-naive patients with rheumatoid arthritis. Rmd open. 2016;2:e000232.	Wrong population
Fleischmann	2016	Fleischmann R, van AJ, Lin Y, Castelar-Pinheiro GD, Brzezicki J, Hrycaj P, et al. Sarilumab and Nonbiologic Disease-Modifying Antirheumatic Drugs in Patients With Active Rheumatoid Arthritis and Inadequate Response or Intolerance to Tumor Necrosis Factor Inhibitors. Arthritis rheumatol. 2017;69:277-90.	Wrong population
Fleischmann	2017	Fleischmann R, van AJ, Lin Y, Castelar-Pinheiro GD, Brzezicki J, Hrycaj P, et al. Sarilumab and Nonbiologic Disease-Modifying Antirheumatic Drugs in Patients With Active Rheumatoid Arthritis and Inadequate Response or Intolerance to Tumor Necrosis Factor Inhibitors. Arthritis rheumatol. 2017;69:277-90.	Wrong population
Fleischmann	2017	Fleischmann R, Schiff M, van der HD, Ramos-Remus C, Spindler A, Stanislav M, et al. Baricitinib, Methotrexate, or Combination in Patients With Rheumatoid Arthritis and No or Limited Prior Disease-Modifying Antirheumatic Drug Treatment. Arthritis rheumatol. 2017;69:506-17.	Wrong population
Fleishaker	2012	Fleishaker DL, Garcia Meijide JA, Petrov A, Kohen MD, Wang X, Menon S, et al. Maraviroc, a chemokine receptor-5 antagonist, fails to demonstrate efficacy in the treatment of patients with rheumatoid arthritis in a randomized, double-blind placebo-controlled trial. Arthritis Res Ther. 2012;14:R11, 2012.	Wrong intervention
Furst	1989	Furst DE, Koehnke R, Burmeister LF, Kohler J, Cargill I. Increasing methotrexate effect with increasing dose in the treatment of resistant rheumatoid arthritis. The Journal of rheumatology. 1989;16:313-20.	Wrong population
Furst	2007	Furst DE, Gaylis N, Bray V, Olech E, Yocum D, Ritter J, et al. Open-label, pilot protocol of patients with rheumatoid arthritis who switch to infliximab after an incomplete response to etanercept: the opposite study. Annals of the rheumatic diseases. 2007;66:893-9.	Wrong population
Genovese	2016	Genovese MC, Braun DK, Erickson JS, Berclaz PY, Banerjee S, Heffernan MP, et al. Safety and efficacy of open-label subcutaneous ixekizumab treatment for 48 weeks in a phase II study in biologic-naive and TNF-IR patients with rheumatoid arthritis. J Rheumatol. 2016;43:289-97.	Wrong intervention
Genovese	2016	Genovese MC, Kremer J, Zamani O, Ludivico C, Krogulec M, Xie L, et al. Baricitinib in Patients with Refractory Rheumatoid Arthritis. N Engl J Med. 2016;374:1243-52.	Wrong population
Genovese	2016	Genovese MC, Vollenhoven RFv, Pacheco-Tena C, Zhang Y, Kinnman N. VX-509	Wrong

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First Author	Year	Reference	Reason for Exclusion
		(Decernotinib), an Oral Selective JAK-3 Inhibitor, in Combination With Methotrexate in Patients With Rheumatoid Arthritis. Arthritis rheumatol. 2016;68:46-55.	intervention
Genovese	2004	Genovese MC, Cohen S, Moreland L, Lium D, Robbins S, Newmark R, et al. Combination therapy with etanercept and anakinra in the treatment of patients with rheumatoid arthritis who have been treated unsuccessfully with methotrexate. Arthritis and rheumatism. 2004;50:1412-9.	Wrong intervention
Genovese	2011	Genovese MC, Covarrubias A, Leon G, Mysler E, Keiserman M, Valente R, et al. Subcutaneous abatacept versus intravenous abatacept: a phase IIIb noninferiority study in patients with an inadequate response to methotrexate. Arthritis and rheumatism. 2011;63:2854-64.	Wrong intervention
Genovese	2005	Genovese MC, Becker JC, Schiff M, Luggen M, Sherrer Y, Kremer J, et al. Abatacept for rheumatoid arthritis refractory to tumor necrosis factor alpha inhibition. The New England journal of medicine. 2005;353:1114-23.	Wrong population
Genovese	2008	Genovese MC, Schiff M, Luggen M, Becker JC, Aranda R, Teng J, et al. Efficacy and safety of the selective co-stimulation modulator abatacept following 2 years of treatment in patients with rheumatoid arthritis and an inadequate response to anti-tumour necrosis factor therapy. Annals of the rheumatic diseases. 2008;67:547-54.	Wrong population
Genovese	2016	Genovese MC, Smolen JS, Weinblatt ME, Burmester GR, Meerwein S, Camp HS, et al. Efficacy and Safety of ABT-494, a Selective JAK-1 Inhibitor, in a Phase IIb Study in Patients With Rheumatoid Arthritis and an Inadequate Response to Methotrexate. Arthritis rheumatol. 2016;68:2857-66.	Wrong intervention
Genovese	2014	Genovese MC, Fleischmann R, Furst D, Janssen N, Carter J, Dasgupta B, et al. Efficacy and safety of olokizumab in patients with rheumatoid arthritis with an inadequate response to TNF inhibitor therapy: outcomes of a randomised Phase IIb study. Ann Rheum Dis. 2014;73:1607-15.	Wrong population
Gherghe	2016	Gherghe AM, Ramiro S, Landewe R, Mihai C, Heijde Dvd. Association of the different types of radiographic damage with physical function in patients with rheumatoid arthritis: analysis of the RAPID trials. Rmd open. 2016;2:e000219, 2016.	Wrong study design
Gottenberg	2016	Gottenberg JE, Brocq O, Perdriger A, Lassoued S, Berthelot JM, Wendling D, et al. NonTNF-targeted biologic vs a second anti-TNF drug to treat rheumatoid arthritis in patients with insufficient response to a first anti-TNF drug: A randomized clinical trial. JAMA - Journal of the American Medical Association. 2016;316:1172-80.	Wrong population
Greenwald	2011	Greenwald MW, Shergy WJ, Kaine JL, Sweetser MT, Gilder K, Linnik MD. Evaluation	Wrong

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First Author	Year	Reference	Reason for Exclusion
		of the safety of rituximab in combination with a tumor necrosis factor inhibitor and methotrexate in patients with active rheumatoid arthritis: Results from a randomized controlled trial. Arthritis and Rheumatism. 2011;63:622-32.	intervention
Gubar	2008	Gubar EE, Bochkova AG, Bunchuk NV. [Comparison of efficacy and tolerability of triple combination therapy (methotrexate + sulfasalazine + hydroxychloroquine) with methotrexate monotherapy in patients with rheumatoid arthritis]. Terapevticheskii arkhiv. 2008;80:25-30.	Non-English
Haagsma	1994	Haagsma CJ, van Riel PL, de Rooij DJ, Vree TB, Russel FJ, van't Hof MA, et al. Combination of methotrexate and sulphasalazine vs methotrexate alone: a randomized open clinical trial in rheumatoid arthritis patients resistant to sulphasalazine therapy. Br J Rheumatol. 1994;33:1049-55.	Wrong population
Halland	2012	Halland AM. Tocilizumab inhibits structural joint damage in rheumatoid arthritis patients with inadequate responses to methotrexate at one year - The LITHE study. European Musculoskeletal Review. 2012;7:108-11.	No PDF
Hanyu	1999	Hanyu T, Arai K, Ishikawa H. Long-term methotrexate (MTX) combination therapy versus MTX alone for active rheumatoid arthritis. Japanese Journal of Rheumatology. 1999;9:31-44.	Wrong population
Haschka	2016	Haschka J, Englbrecht M, Hueber AJ, Manger B, Kleyer A, Reiser M, et al. Relapse rates in patients with rheumatoid arthritis in stable remission tapering or stopping antirheumatic therapy: interim results from the prospective randomised controlled RETRO study. Ann Rheum Dis. 2016;75:45-51.	Wrong intervention
Hashimoto	2011	Hashimoto J, Garnero P, van der HD, Miyasaka N, Yamamoto K, Kawai S, et al. Humanized anti-interleukin-6-receptor antibody (tocilizumab) monotherapy is more effective in slowing radiographic progression in patients with rheumatoid arthritis at high baseline risk for structural damage evaluated with levels of biomarkers, radiography, and BMI: data from the SAMURAI study. Mod Rheumatol. 2011;21:10-5.	Wrong population
Heimans	2016	Heimans L, Akdemir G, Boer KV, Goekoop-Ruiterman YP, Molenaar ET, Groenendael JHv, et al. Two-year results of disease activity score (DAS)-remission-steered treatment strategies aiming at drug-free remission in early arthritis patients (the IMPROVED-study). Arthritis Res Ther. 2016;18:23, 2016.	Wrong population
Herwaarden	2015	Herwaarden Nv, Maas Avd, Minten MJ, Hoogen FHvd, Kievit W, Vollenhoven RFv, et al. Disease activity guided dose reduction and withdrawal of adalimumab or etanercept compared with usual care in rheumatoid arthritis: open label, randomised	Wrong population

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First Author	Year	Reference	Reason for Exclusion
		controlled, non-inferiority trial. BMJ. 2015;350:h1389, 2015.	
Hu	2001	Hu Y, Tu S, Liu P. A randomized, controlled, single-blind trial of leflunomide in the treatment of rheumatoid arthritis. Journal of Tongji Medical University = Tong ji yi ke da xue xue bao. 2001;21:72-4.	Wrong population
Huang	2012	Huang Z, Yang B, Shi Y, Cai B, Li Y, Feng W, et al. Anti-TNF-alpha therapy improves Treg and suppresses Teff in patients with rheumatoid arthritis. Cellular immunology. 2012;279:25-9.	Wrong population
Huang	2000	Bao C, Huang WSLC, Gu Y. Treatment of rheumatoid arthritis with leflunomide: a double blind, randomised controlled study. Clinical Journal of Rheumatology. 2000;4:44-6.	Non-English
Huffstutter	2017	Huffstutter JE, Kafka S, Brent LH, Matucci-Cerinic M, Tang KL, Chevrier M, et al. Clinical response to golimumab in rheumatoid arthritis patients who were receiving etanercept or adalimumab: results of a multicenter active treatment study. Curr Med Res Opin. 2017;()(pp:1-10.	Wrong population
Huizinga	2015	Huizinga TW, Conaghan PG, Martin-Mola E, Schett G, Amital H, Xavier RM, et al. Clinical and radiographic outcomes at 2 years and the effect of tocilizumab discontinuation following sustained remission in the second and third year of the ACT-RAY study. Annals of the rheumatic diseases. 2015;74:35-43.	Wrong study design
Iannone	2014	Iannone F, La MG, Bagnato G, Gremese E, Giardina A, Lapadula G. Safety of etanercept and methotrexate in patients with rheumatoid arthritis and hepatitis C virus infection: a multicenter randomized clinical trial. J Rheumatol. 2014;41:286-92.	Wrong population
Ichikawa	2005	Ichikawa Y, Saito T, Yamanaka H, Akizuki M, Kondo H, Kobayashi S, et al. Therapeutic effects of the combination of methotrexate and bucillamine in early rheumatoid arthritis: a multicenter, double-blind, randomized controlled study. Mod Rheumatol. 2005;15:323-8.	Wrong intervention
Ishaq	2011	Ishaq M, Muhammad JS, Hameed K, Mirza AI. Leflunomide or methotrexate? Comparison of clinical efficacy and safety in low socio-economic rheumatoid arthritis patients. Mod Rheumatol. 2011;21:375-80.	Wrong population
Ishiguro	2013	Ishiguro N, Yamamoto K, Katayama K, Kondo M, Sumida T, Mimori T, et al. Concomitant iguratimod therapy in patients with active rheumatoid arthritis despite stable doses of methotrexate: a randomized, double-blind, placebo-controlled trial. Mod Rheumatol. 2013;23:430-9.	Wrong intervention
Islam	2000	Islam MN, Alam MN, Haq SA, Moyenuzzaman M, Patwary MI, Rahman MH. Efficacy	Wrong

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First Author	Year	Reference	Reason for Exclusion
		of sulphasalazine plus methotrexate in rheumatoid arthritis. Bangladesh Med Res Counc Bull. 2000;26:1-7.	population
Iwahashi	2014	Iwahashi M, Inoue H, Matsubara T, Tanaka T, Amano K, Kanamono T, et al. Efficacy, safety, pharmacokinetics and immunogenicity of abatacept administered subcutaneously or intravenously in Japanese patients with rheumatoid arthritis and inadequate response to methotrexate: a Phase II/III, randomized study. Mod Rheumatol. 2014;24:885-91.	Wrong comparator
Jaimes-Hernandez	2012	Jaimes-Hernandez J, Melendez-Mercado CI, Mendoza-Fuentes A, randa-Pereira P, Castaneda-Hernandez G. Efficacy of leflunomide 100mg weekly compared to low dose methotrexate in patients with active rheumatoid arthritis. Double blind, randomized clinical trial. Reumatol. 2012;clin.. 8:243-9.	Wrong population
Johnsen	2006	Johnsen AK, Schiff MH, Mease PJ, Moreland LW, Maier AL, Coblyn JS, et al. Comparison of 2 doses of etanercept (50 vs 100 mg) in active rheumatoid arthritis: a randomized double blind study. The Journal of rheumatology. 2006;33:659-64.	Wrong intervention
Jones	2010	Jones G, Sebba A, Gu J, Lowenstein MB, Calvo A, Gomez-Reino JJ, et al. Comparison of tocilizumab monotherapy versus methotrexate monotherapy in patients with moderate to severe rheumatoid arthritis: the AMBITION study. Annals of the rheumatic diseases. 2009;69:88-96.	Wrong population
Joo	2012	Joo K, Heejung K, Lim MJ, Kwon SR, Park W. Safety and efficacy of TNFa inhibitor versus leflunomide in patients with rheumatoid arthritis inadequately responding to methotrexate in Korea. Int J Rheum Dis. 2012;15:53-4.	Conference abstract
Kaeley	2016	Kaeley GS, Evangelisto AM, Nishio MJ, Goss SL, Liu S, Kalabic J, et al. Methotrexate Dosage Reduction Upon Adalimumab Initiation: Clinical and Ultrasonographic Outcomes from the Randomized Noninferiority MUSICA Trial. J Rheumatol. 2016.	Wrong intervention
Kalden	2008	Kalden JR, Nusslein HG, Wollenhaupt J, Burmester GR, Kruger K, Antoni C. Combination treatment with infliximab and leflunomide in patients with active rheumatoid arthritis: safety and efficacy in an open-label clinical trial. Clin Exp Rheumatol. 2008;26:834-40.	Wrong study design
Kang	2012	Kang Ym Pw, Park YE, Choe JY, Bae SC, Cho CS, Shim SC, Lee SK, Suh CH, Cha HS, Song YW, You B, Lee SS, Lee SH, Park MC. Efficacy and safety of certolizumab pegol (CZP) with concomitant methotrexate (MTX) in Korean rheumatoid arthritis (RA) patients (pts) with an inadequate response to MTX. Ann Rheum Dis. 2012;71:666.	Conference abstract
Kavanaugh	2016	Kavanaugh A, Kremer J, Ponce L, Cseuz R, Reshetko OV, Stanislavchuk M, et al.	Wrong

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First Author	Year	Reference	Reason for Exclusion
		Filgotinib (GLPG0634/GS-6034), an oral selective JAK1 inhibitor, is effective as monotherapy in patients with active rheumatoid arthritis: results from a randomised, dose-finding study (DARWIN 2). Ann Rheum Dis. 2016.	intervention
Kay	2015	Kay J, Fleischmann R, Keystone E, Hsia EC, Hsu B, Mack M, et al. Golimumab 3-year safety update: an analysis of pooled data from the long-term extensions of randomised, double-blind, placebo-controlled trials conducted in patients with rheumatoid arthritis, psoriatic arthritis or ankylosing spondylitis. Ann Rheum Dis. 2015;74:538-46.	Wrong study design
Kekow	2010	Kekow J, Moots RJ, Emery P, Durez P, Koenig A, Singh A, et al. Patient-reported outcomes improve with etanercept plus methotrexate in active early rheumatoid arthritis and the improvement is strongly associated with remission: the COMET trial. Ann Rheum Dis. 2010;69:222-5.	Wrong population
Keystone	2016	Keystone EC, Genovese MC, Hall S, Bae SC, Han C, Gathany TA, et al. Safety and Efficacy of Subcutaneous Golimumab in Patients with Active Rheumatoid Arthritis despite Methotrexate Therapy: Final 5-year Results of the GO-FORWARD Trial. J Rheumatol. 2016;43:298-306.	Wrong study design
Keystone	2014	Keystone E, Landewe R, Vollenhoven Rv, Combe B, Strand V, Mease P, et al. Long-term safety and efficacy of certolizumab pegol in combination with methotrexate in the treatment of rheumatoid arthritis: 5-year results from the RAPID 1 trial and open-label extension. Ann Rheum Dis. 2014;73:2094-100.	Wrong study design
Keystone	2014	Keystone EC, Anisfeld A, Ogale S, Devenport JN, Curtis JR. Continued benefit of tocilizumab plus disease-modifying antirheumatic drug therapy in patients with rheumatoid arthritis and inadequate clinical responses by week 8 of treatment. J Rheumatol. 2014;41:216-26.	Wrong population
Keystone	2004	Keystone EC, Schiff MH, Kremer JM, Kafka S, Lovy M, DeVries T, et al. Once-weekly administration of 50 mg etanercept in patients with active rheumatoid arthritis: results of a multicenter, randomized, double-blind, placebo-controlled trial. Arthritis and rheumatism. 2004;50:353-63.	<12 weeks
Keystone	2007	Keystone E, Fleischmann R, Emery P, Furst DE, Vollenhoven Rv, Bathon J, et al. Safety and efficacy of additional courses of rituximab in patients with active rheumatoid arthritis: an open-label extension analysis. Arthritis and rheumatism. 2007;56:3896-908.	Wrong study design
Keystone	2008	Keystone E, Burmester GR, Furie R, Loveless JE, Emery P, Kremer J, et al.	Wrong

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First Author	Year	Reference	Reason for Exclusion
		Improvement in patient-reported outcomes in a rituximab trial in patients with severe rheumatoid arthritis refractory to anti-tumor necrosis factor therapy. Arthritis and rheumatism. 2008;59:785-93.	population
Keystone	2009	Keystone E, Emery P, Peterfy CG, Tak PP, Cohen S, Genovese MC, et al. Rituximab inhibits structural joint damage in patients with rheumatoid arthritis with an inadequate response to tumour necrosis factor inhibitor therapies. Ann Rheum Dis. 2009;68:216-21.	Wrong population
Kivitz	2014	Kivitz A, Olech E, Borofsky M, Zazueta BM, Navarro-Sarabia F, Radominski SC, et al. Subcutaneous tocilizumab versus placebo in combination with disease-modifying antirheumatic drugs in patients with rheumatoid arthritis. Arthritis Care Res (Hoboken). 2014;66:1653-61.	Wrong population
Kivitz	2016	Kivitz AJ, Gutierrez-Urena SR, Poiley J, Genovese MC, Kristy R, Shay K, et al. Peficitinib, a JAK inhibitor, in the treatment of moderate-to-severe rheumatoid arthritis in methotrexate-inadequate responders. Arthritis Rheumatol. 2016.	Wrong intervention
Klarenbeek	2011	Klarenbeek NB, Guler-Yuksel M, Kooij SMVD, Han KH, Ronday HK, Kerstens PJSM, et al. The impact of four dynamic, goal-steered treatment strategies on the 5-year outcomes of rheumatoid arthritis patients in the BeSt study. Ann Rheum Dis. 2011;70:1039-46.	Wrong population
Klareskog	2006	Klareskog L, Gaubitz M, Rodriguez-Valverde V, Malaise M, Dougados M, Wajdula J, et al. A long-term, open-label trial of the safety and efficacy of etanercept (Enbrel) in patients with rheumatoid arthritis not treated with other disease-modifying antirheumatic drugs. Annals of the rheumatic diseases. 2006;65:1578-84.	Wrong study design
Konijn	2016	Konijn NP, van Tuyl LH, Boers M, van dV, den UD, ter Wee MM, et al. The short-term effects of two high-dose, step-down prednisolone regimens on body composition in early rheumatoid arthritis. Rheumatology (Oxford). 2016.	Wrong population
Kraan	2000	Kraan MC, Reece RJ, Barg EC, Smeets TJ, Farnell J, Rosenburg R, et al. Modulation of inflammation and metalloproteinase expression in synovial tissue by leflunomide and methotrexate in patients with active rheumatoid arthritis. Findings in a prospective, randomized, double-blind, parallel-design clinical trial in thirty-nine patients at two centers. Arthritis and Rheumatism. 2000;43:1820-30.	Wrong population
Kremer	2016	Kremer JM, Blanco R, Halland AM, Brzosko M, Burgos-Vargas R, Mela CM, et al. Clinical efficacy and safety maintained up to 5 years in patients with rheumatoid arthritis treated with tocilizumab in a randomised trial. Clin Exp Rheumatol. 2016.	Wrong study design

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First Author	Year	Reference	Reason for Exclusion
Kremer	2015	Kremer JM, Kivitz AJ, Simon-Campos JA, Nasonov EL, Tony HP, Lee SK, et al. Evaluation of the effect of tofacitinib on measured glomerular filtration rate in patients with active rheumatoid arthritis: results from a randomised controlled trial. Arthritis Res Ther. 2015;17:95, 2015.	<12 weeks
Kremer	2002	Kremer JM, Genovese MC, Cannon GW, Caldwell JR, Cush JJ, Furst DE, et al. Concomitant leflunomide therapy in patients with active rheumatoid arthritis despite stable doses of methotrexate. A randomized, double-blind, placebo-controlled trial. Ann Intern Med. 2002;137:726-33.	<12 weeks
Kremer	2009	Kremer JM, Bloom BJ, Breedveld FC, Coombs JH, Fletcher MP, Gruben D, et al. The safety and efficacy of a JAK inhibitor in patients with active rheumatoid arthritis: Results of a double-blind, placebo-controlled phase IIa trial of three dosage levels of CP-690,550 versus placebo. Arthritis and rheumatism. 2009;60:1895-905.	<12 weeks
Kremer	2013	Kremer J, Li ZG, Hall S, Fleischmann R, Genovese M, Martin-Mola E, et al. Tofacitinib in combination with nonbiologic disease-modifying antirheumatic drugs in patients with active rheumatoid arthritis: a randomized trial. Annals of internal medicine. 2013;159:253-61.	Wrong population
Kremer	2003	Kremer JM, Weinblatt ME, Bankhurst AD, Bulpitt KJ, Fleischmann RM, Jackson CG, et al. Etanercept added to background methotrexate therapy in patients with rheumatoid arthritis: continued observations. Arthritis and rheumatism. 2003;48:1493-9.	Wrong study design
Kremer	2016	Kremer JM, Emery P, Camp HS, Friedman A, Wang L, Othman AA, et al. A Phase IIb Study of ABT-494, a Selective JAK-1 Inhibitor, in Patients With Rheumatoid Arthritis and an Inadequate Response to Anti-Tumor Necrosis Factor Therapy. Arthritis rheumatol. 2016;68:2867-77.	Wrong intervention
Lazzerini	2008	Lazzerini PE, Acampa M, Hammoud M, Maffei S, Capecchi PL, Selvi E, et al. Arrhythmic risk during acute infusion of infliximab: A prospective, single-blind, placebo-controlled, crossover study in patients with chronic arthritis. J Rheumatol. 2008;35:1958-65.	Wrong population
Lee	2014	Lee EB, Fleischmann R, Hall S, Wilkinson B, Bradley JD, Gruben D, et al. Tofacitinib versus methotrexate in rheumatoid arthritis. N Engl J Med. 2014;370:2377-86.	Wrong population
Li	2013	Li Z, Zhang F. Kay J. et al. Safety and efficacy of subcutaneous golimumab in Chinese patients with active rheumatoid arthritis despite MTX therapy: Results from a randomized, placebo-	Conference abstract

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First Author	Year	Reference	Reason for Exclusion
		controlled, phase 3 trial. Ann Rheum Dis. 2013;72.	
Li	2016	Li R, Zhao JX, Su Y, He J, Chen LN, Gu F, et al. High remission and low relapse with prolonged intensive DMARD therapy in rheumatoid arthritis (PRINT): A multicenter randomized clinical trial. Medicine (Baltimore). 2016;95:e3968, 2016.	Wrong population
Lindegaard	2016	Lindegaard HM, Johansen P, Grondal G, Jensen EC, Juul L, Schlemmer AM, et al. Doubling the single-dose infusion rate of tocilizumab in rheumatoid arthritis is safe and efficacious. Scand J Rheumatol. 2016:1-5.	Wrong comparator
Lisbona	2010	Lisbona MP, Maymo J, Perich J, Almirall M, Carbonell J. Rapid reduction in tenosynovitis of the wrist and fingers evaluated by MRI in patients with rheumatoid arthritis after treatment with etanercept. Annals of the rheumatic diseases. 2010;69:1117-22.	<12 weeks
Lunzer	2016	Lunzer R. Baricitinib, methotrexate, or baricitinib plus methotrexate in patients with early rheumatoid arthritis who had received limited or no treatment with disease-modifying anti-rheumatic drugs (DMARDs): Phase 3 trial results: Kommentar. Journal fur Mineralstoffwechsel. 2016;23:28.	Non-English
Machado	2016	Machado DA, Guzman R, Xavier RM, Simon JA, Mele L, Shen Q, et al. Two-Year Safety and Efficacy Experience in Patients with Methotrexate-Resistant Active Rheumatoid Arthritis Treated with Etanercept and Conventional Disease-Modifying Anti-rheumatic Drugs in the Latin American Region. Open Rheumatol J. 2016;10:13-25, 2016.:25.	Wrong study design
Mariette	2014	Mariette X, Rouanet S, Sibilia J, Combe B, Loet XL, Tebib J, et al. Evaluation of low-dose rituximab for the retreatment of patients with active rheumatoid arthritis: a non-inferiority randomised controlled trial. Ann Rheum Dis. 2014;73:1508-14.	Wrong comparator
Markusse	2016	Markusse IM, Akdemir G, Dirven L, Goekoop-Ruiterman YP, Groenendael JHv, Han KH, et al. Long-Term Outcomes of Patients With Recent-Onset Rheumatoid Arthritis After 10 Years of Tight Controlled Treatment: A Randomized Trial. Ann Intern Med. 2016;164:523-31.	Wrong population
Martin	2013	Martin DA, Churchill M, Flores-Suarez L, Cardiel MH, Wallace D, Martin R, et al. A phase Ib multiple ascending dose study evaluating safety, pharmacokinetics, and early clinical response of brodalumab, a human anti-IL-17R antibody, in methotrexate-resistant rheumatoid arthritis. Arthritis Res Ther. 2013;15:R164, 2013.	Wrong intervention
Mathur	2016	Mathur R, Singh H, Arya S, Singh V. Comparative evaluation of efficacy of leflunomide versus combination of methotrexate and hydroxychloroquine in patients of	Wrong population

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First Author	Year	Reference	Reason for Exclusion
		rheumatoid arthritis - An Indian experience. Indian Journal of Rheumatology. 2016;11:86-90.	
Matsubara	2012	Matsubara T Ih, Iwahashi M, Yamazaki A, Takeuchi T, the Japan Abatacept Study Group. A multi-center, double-dummy, double-blind study of subcutaneous (sc) abatacept (aba) compared with intravenous (iv) aba in Japanese rheumatoid arthritis patients with inadequate response to methotrexate. Ann Rheum Dis. 2012;71:197.	Conference abstract
Matsubara	2013	Matsubara T, Yamana S, Tohma S, Takeuchi T, Kondo H, Kohsaka H, et al. Tolerability and efficacy of abatacept in Japanese patients with rheumatoid arthritis: a phase I study. Mod Rheumatol. 2013;23:634-45.	Wrong comparator
McInnes	2015	McInnes IB, Thompson L, Giles JT, Bathon JM, Salmon JE, Beaulieu AD, et al. Effect of interleukin-6 receptor blockade on surrogates of vascular risk in rheumatoid arthritis: MEASURE, a randomised, placebo-controlled study. Ann Rheum Dis. 2015;74:694-702.	Wrong population
Mease	2016	Mease P, Gottlieb AB, Berman A, Drescher E, Xing J, Wong R, et al. The Efficacy and Safety of Clazakizumab, an Anti-Interleukin-6 Monoclonal Antibody, in a Phase 2b Study of Adults with Active Psoriatic Arthritis. Arthritis Rheumatol. 2016.	Wrong population
Modi	2017	Modi JV, Patel KR, Patel ZM, Patel HR, Dhanani SS, Shah BH. Dose response relationship of hydroxychloroquine sulphate in the treatment of rheumatoid arthritis: A randomised control study. International Journal of Pharmaceutical Sciences and Research. 2017;8:856-8.	<12 weeks
Nash	2016	Nash P, Vanhoof J, Hall S, Arulmani U, Tarzynski-Potempa R, Unnebrink K, et al. Randomized Crossover Comparison of Injection Site Pain with 40 mg/0.4 or 0.8 mL Formulations of Adalimumab in Patients with Rheumatoid Arthritis. Rheumatol Ther. 2016.	<12 weeks
Navarro Coy	2014	Navarro Coy NC, Brown S, Bosworth A, Davies CT, Emery P, Everett CC, et al. The 'Switch' study protocol: A randomised-controlled trial of switching to an alternative tumour-necrosis factor (TNF)-inhibitor drug or abatacept or rituximab in patients with rheumatoid arthritis who have failed an initial TNF-inhibitor drug. BMC Musculoskelet Disord. 2014;15.	Wrong population
Ni	2001	Ni LLZ. Leflunomide in treating rheumatoid arthritis: a double-blind study. Chinese Journal of New Drugs and Clinical Remedies. 2001;20:94-7.	Non-English
Nikas	2006	Nikas SN, Voulgari PV, Alamanos Y, Papadopoulos CG, Venetsanopoulou AI,	Wrong study

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First Author	Year	Reference	Reason for Exclusion
		Georgiadis AN, et al. Efficacy and safety of switching from infliximab to adalimumab: A comparative controlled study. Ann Rheum Dis. 2006;65:257-60.	design
Nishimoto	2004	Nishimoto N, Yoshizaki K, Miyasaka N, Yamamoto K, Kawai S, Takeuchi T, et al. Treatment of rheumatoid arthritis with humanized anti-interleukin-6 receptor antibody: a multicenter, double-blind, placebo-controlled trial. Arthritis and rheumatism. 2004;50:1761-9.	Wrong population
Nishimoto	2007	Nishimoto N, Hashimoto J, Miyasaka N, Yamamoto K, Kawai S, Takeuchi T, et al. Study of active controlled monotherapy used for rheumatoid arthritis, an IL-6 inhibitor (SAMURAI): evidence of clinical and radiographic benefit from an x ray reader-blinded randomised controlled trial of tocilizumab. Annals of the rheumatic diseases. 2007;66:1162-7.	Wrong population
Nishimoto	2009	Nishimoto N, Miyasaka N, Yamamoto K, Kawai S, Takeuchi T, Azuma J. Long-term safety and efficacy of tocilizumab, an anti-IL-6 receptor monoclonal antibody, in monotherapy, in patients with rheumatoid arthritis (the STREAM study): evidence of safety and efficacy in a 5-year extension study. Annals of the rheumatic diseases. 2009;68:1580-4.	Wrong study design
O'Dell	1996	O'Dell JR, Haire C, Erikson N, Drymalski W, Palmer W, Maloley P, et al. Efficacy of triple DMARD therapy in patients with RA with suboptimal response to methotrexate. J Rheumatol Suppl. 1996;44:72-4, 1996 Mar.:4.	Wrong study design
Ostergaard	2015	Ostergaard M, Jacobsson LT, Schaufelberger C, Hansen MS, Bijlsma JW, Dudek A, et al. MRI assessment of early response to certolizumab pegol in rheumatoid arthritis: a randomised, double-blind, placebo-controlled phase IIIb study applying MRI at weeks 0, 1, 2, 4, 8 and 16. Annals of the rheumatic diseases. 2015;74:1156-63.	<12 weeks
Ostergaard	2011	Ostergaard M, Emery P, Conaghan PG, Fleischmann R, Hsia EC, Xu W, et al. Significant improvement in synovitis, osteitis, and bone erosion following golimumab and methotrexate combination therapy as compared with methotrexate alone: a magnetic resonance imaging study of 318 methotrexate-naive rheumatoid arthritis patients. Arthritis and Rheumatism. 2011;63:3712-22.	Wrong population
Pal	2016	Pal S, Veeravalli SCM, Das SK, Shobha V, Uppuluri RR, Dharmanand BG, et al. Efficacy and safety of golimumab in Indian patients with rheumatoid arthritis: Subgroup data from GO-MORE study. Int J Rheum Dis. 2016;(no.	<12 weeks
Papp	2016	Papp K, Menter MA, Raman M, Disch D, Schlichting DE, Gaich C, et al. A Randomized Phase 2b Trial of Baricitinib, an Oral JAK1/JAK2 Inhibitor, in Patients	Wrong population

(as supplied by the authors)

First Author	Year	Reference	Reason for Exclusion
		with Moderate-to-Severe Psoriasis. Br J Dermatol. 2016.	
Pavelka	2014	Pavelka K, Burgos-Vargas R, Miranda P, Guzman R, Yen JH, Izzi MA, et al. Etanercept in moderate rheumatoid arthritis: PRESERVE study results from central/eastern Europe, Latin America and Asia. International Journal of Clinical Rheumatology. 2014;9:415-30.	Wrong population
Pavelka	2009	Pavelka K, Jarosova K, Suchy D, Senolt L, Chroust K, Dusek L, et al. Increasing the infliximab dose in rheumatoid arthritis patients: a randomised, double blind study failed to confirm its efficacy. Annals of the rheumatic diseases. 2009;68:1285-9.	Wrong comparator
Pescovitz	2009	Pescovitz MD, Greenbaum CJ, Krause-Steinrauf H, Becker DJ, Gitelman SE, Goland R, et al. Rituximab, B-lymphocyte depletion, and preservation of beta-cell function. The New England journal of medicine. 2009;361:2143-52.	Wrong population
Peterfy	2016	Peterfy C, Burmester GR, Bykerk VP, Combe BG, DiCarlo JC, Furst DE, et al. Sustained improvements in MRI outcomes with abatacept following the withdrawal of all treatments in patients with early, progressive rheumatoid arthritis. Ann Rheum Dis. 2016.	Wrong population
Peterfy	2013	Peterfy CG, Olech E, DiCarlo JC, Merrill JT, Countryman PJ, Gaylis NB. Monitoring cartilage loss in the hands and wrists in rheumatoid arthritis with magnetic resonance imaging in a multi-center clinical trial: IMPRESS (NCT00425932). Arthritis Res Ther. 2013;15:R44, 2013.	Wrong study design
Pinals	1986	Pinals RS, Kaplan SB, Lawson JG, Hepburn B. Sulfasalazine in rheumatoid arthritis. A double-blind, placebo-controlled trial. Arthritis and Rheumatism. 1986;29:1427-34.	Wrong population
Pincus	2003	Pincus T, Strand V, Koch G, Amara I, Crawford B, Wolfe F, et al. An index of the three core data set patient questionnaire measures distinguishes efficacy of active treatment from that of placebo as effectively as the American College of Rheumatology 20% response criteria (ACR20) or the Disease Activity Score (DAS) in a rheumatoid arthritis clinical trial. Arthritis and Rheumatism. 2003;48:625-30.	Wrong study design
Pinheiro	1993	Pinheiro GR, Helfenstein Junior M, Ferraz MB, Atra E. [A short-term randomized controlled study with methotrexate in rheumatoid arthritis]. Revista da Associacao Medica Brasileira. 1993;39:91-4.	Non-English
Poor	2004	Poor G, Strand V, Leflunomide Multinational Study G. Efficacy and safety of leflunomide 10 mg versus 20 mg once daily in patients with active rheumatoid arthritis: multinational double-blind, randomized trial. Rheumatology (Oxford). 2004;43:744-9.	Wrong study design
Porter	2016	Porter D, van MJ, Dale J, Messow CM, McConnachie A, Walker A, et al. Tumour	Wrong

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First Author	Year	Reference	Reason for Exclusion
		necrosis factor inhibition versus rituximab for patients with rheumatoid arthritis who require biological treatment (ORBIT): an open-label, randomised controlled, non-inferiority, trial. Lancet. 2016.	intervention
Quach	2016	Quach LT, Chang BH, Brophy MT, Soe TS, Hannagan K, O'Dell JR. Rheumatoid arthritis triple therapy compared with etanercept: difference in infectious and gastrointestinal adverse events. Rheumatology (Oxford). 2016.	Wrong population
Raffeiner	2015	Raffeiner B, Botsios C, Ometto F, Bernardi L, Stramare R, Todesco S, et al. Effects of half dose etanercept (25 mg once a week) on clinical remission and radiographic progression in patients with rheumatoid arthritis in clinical remission achieved with standard dose. Clin Exp Rheumatol. 2015;33:63-8.	Wrong study design
Ramirez-Lafita	2015	Ramirez-Lafita F. Disease activity- guided TNF inhibitor dose reduction was noninferior to continuing TNF inhibitors for RA flares. Ann Intern Med. 2015;163:JC9.	Conference abstract
Rau	2004	Rau R, Simianer S, van Riel PL, van de Putte LB, Kruger K, Schattenkirchner M, et al. Rapid alleviation of signs and symptoms of rheumatoid arthritis with intravenous or subcutaneous administration of adalimumab in combination with methotrexate. Scand J Rheumatol. 2004;33:145-53.	Wrong intervention
Reece	2002	Reece RJ, Kraan MC, Radjenovic A, Veale DJ, Connor PJO, Ridgway JP, et al. Comparative assessment of leflunomide and methotrexate for the treatment of rheumatoid arthritis, by dynamic enhanced magnetic resonance imaging. Arthritis and rheumatism. 2002;46:366-72.	Wrong population
Rubbert-Roth	2010	Rubbert-Roth A, Tak PP, Zerbini C, Tremblay JL, Carreno L, Armstrong G, et al. Efficacy and safety of various repeat treatment dosing regimens of rituximab in patients with active rheumatoid arthritis: results of a Phase III randomized study (MIRROR). Rheumatology. 2010;49:1683-93.	Wrong comparator
Salaffi	1995	Salaffi F, Carotti M, Cervini C. Serum soluble interleukin-2 receptor levels in rheumatoid arthritis: effect of methotrexate, sulphasalazine and hydroxychloroquine therapy. Clinical rheumatology. 1995;14:458-63.	Wrong population
Salgado	2013	Salgado E, Gomez-Reino JJ. The JAK inhibitor tofacitinib for active rheumatoid arthritis: Results from Phase III trials. International Journal of Clinical Rheumatology. 2013;8:315-26.	Wrong study design
Santhanam	2015	Santhanam S, Sankaralingam R, Natesan TT, Mani M. Rituximab in biologically naive rheumatoid arthritis patients and methotrexate non-responders - An Indian experience. Indian Journal of Rheumatology. 2015;10:177-8.	Wrong intervention

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First Author	Year	Reference	Reason for Exclusion
Schiff	2016	Schiff M, Weinblatt ME, Valente R, Citera G, Maldonado M, Massarotti E, et al. Reductions in disease activity in the AMPLE trial: clinical response by baseline disease duration. Rmd open. 2016;2:e000210, 2016.	Wrong study design
Schiff	2004	Schiff MH, DiVittorio G, Tesser J, Fleischmann R, Schechtman J, Hartman S, et al. The safety of anakinra in high-risk patients with active rheumatoid arthritis: six-month observations of patients with comorbid conditions. Arthritis and rheumatism. 2004;50:1752-60.	Wrong study design
Schiff	2014	Schiff MH, von KJ, Goldblum R, Tesser JR, Mueller RB. Rheumatoid arthritis secondary non-responders to TNF can attain an efficacious and safe response by switching to certolizumab pegol: A phase IV, randomised, multicentre, double-blind, 12-week study, followed by a 12-week open-label phase. Ann Rheum Dis. 2014;73:2174-7.	Wrong population
Schiff	2009	Schiff M, Pritchard C, Huffstutter JE, Rodriguez-Valverde V, Durez P, Zhou X, et al. The 6-month safety and efficacy of abatacept in patients with rheumatoid arthritis who underwent a washout after anti-tumour necrosis factor therapy or were directly switched to abatacept: the ARRIVE trial. Ann Rheum Dis. 2009;68:1708-14.	Wrong population
Scott	2015	Scott DL, Ibrahim F, Farewell V, Keeffe AGO, Walker D, Kelly C, et al. Tumour necrosis factor inhibitors versus combination intensive therapy with conventional disease modifying anti-rheumatic drugs in established rheumatoid arthritis: TACIT non-inferiority randomised controlled trial. BMJ. 2015;350:h1046, 2015.	Wrong intervention
Scott	2014	Scott DL, Ibrahim F, Farewell V, Keeffe AGO, Ma M, Walker D, et al. Randomised controlled trial of tumour necrosis factor inhibitors against combination intensive therapy with conventional disease-modifying antirheumatic drugs in established rheumatoid arthritis: the TACIT trial and associated systematic reviews. Health Technol Assess. 2014;18:i-xxiv.	Wrong intervention
Scott	2001	Scott DL, Smolen JS, Kalden JR, van de Putte LB, Larsen A, Kvien TK, et al. Treatment of active rheumatoid arthritis with leflunomide: two year follow up of a double blind, placebo controlled trial versus sulfasalazine. Ann Rheum Dis. 2001;60:913-23.	Wrong population
Shashikumar	2010	Shashikumar NS, Shivamurthy MC, Chandrashekara S. Evaluation of efficacy of combination of methotrexate and hydroxychloroquine with leflunomide in active rheumatoid arthritis. Indian journal of pharmacology. 2010;42:358-61.	Wrong population
Shim	2010	Shim S PSHBSC, et al. Efficacy and safety of abatacept in Korean patients with active	Conference

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First Author	Year	Reference	Reason for Exclusion
		rheumatoid arthritis and inadequate response to methotrexate: A phase III, multicenter, randomized, double-blind, placebocontrolled bridging study. Int J Rheum Dis. 2010;13:101.	abstract
Shuai	2002	Shuai Z, Liu S, Shun G, Xue J, Xue S. The phase II clinical trial of leflunomide in treatment of rheumatoid arthritis. Acta Universitatis Medicinalis Anhui. 2002;37:41-4.	Non-English
Singh	2012	Singh H, Mathur R, Arya S, et al. Comparison of efficacy of combination of methotrexate and hydroxychloroquine with leflunomide alone in patients of rheumatoid arthritis. Indian Journal of Rheumatology. 2012;7:S31.	Conference abstract
Smolen	2015	Smolen JS, Kay J, Doyle M, Landewe R, Matteson EL, Gaylis N, et al. Golimumab in patients with active rheumatoid arthritis after treatment with tumor necrosis factor alpha inhibitors: findings with up to five years of treatment in the multicenter, randomized, double-blind, placebo-controlled, phase 3 GO-AFTER study. Arthritis Res Ther. 2015;17:14, 2015.	Wrong study design
Smolen	2014	Smolen JS, Kay J, Matteson EL, Landewe R, Hsia EC, Xu S, et al. Insights into the efficacy of golimumab plus methotrexate in patients with active rheumatoid arthritis who discontinued prior anti-tumour necrosis factor therapy: post-hoc analyses from the GO-AFTER study. Ann Rheum Dis. 2014;73:1811-8.	Wrong study design
Smolen	1999	Smolen JS. Efficacy and safety of the new DMARD leflunomide: comparison to placebo and sulfasalazine in active rheumatoid arthritis. Scand J Rheumatol Suppl. 1999;112:15-21, 1999.:21.	Wrong population
Smolen	1999	Smolen JS, Kalden JR, Scott DL, Rozman B, Kvien TK, Larsen A, et al. Efficacy and safety of leflunomide compared with placebo and sulphasalazine in active rheumatoid arthritis: a double-blind, randomised, multicentre trial. European Leflunomide Study Group. Lancet. 1999;353:259-66.	Wrong population
Smolen	2013	Smolen JS, Nash P, Durez P, Hall S, Ilivanova E, Irazoque-Palazuelos F, et al. Maintenance, reduction, or withdrawal of etanercept after treatment with etanercept and methotrexate in patients with moderate rheumatoid arthritis (PRESERVE): a randomised controlled trial. Lancet. 2013;381:918-29.	Wrong population
Smolen	2015	Smolen JS, Emery P, Ferraccioli GF, Samborski W, Berenbaum F, Davies OR, et al. Certolizumab pegol in rheumatoid arthritis patients with low to moderate activity: the CERTAIN double-blind, randomised, placebo-controlled trial. Annals of the rheumatic diseases. 2015;74:843-50.	Wrong population

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First Author	Year	Reference	Reason for Exclusion
Smolen	2009	Smolen JS, Kay J, Doyle MK, Landewe R, Matteson EL, Wollenhaupt J, et al. Golimumab in patients with active rheumatoid arthritis after treatment with tumour necrosis factor alpha inhibitors (GO-AFTER study): a multicentre, randomised, double-blind, placebo-controlled, phase III trial. Lancet. 2009;374:210-21.	Wrong population
Smolen	2016	Smolen JS, Kremer JM, Gaich CL, DeLozier AM, Schlichting DE, Xie L, et al. Patient-reported outcomes from a randomised phase III study of baricitinib in patients with rheumatoid arthritis and an inadequate response to biological agents (RA-BEACON). Ann Rheum Dis. 2016.	Wrong population
Smolen	2013	Smolen JS, van der Heijde DM, Keystone EC, van Vollenhoven RF, Goldring MB, Guerette B, et al. Association of joint space narrowing with impairment of physical function and work ability in patients with early rheumatoid arthritis: protection beyond disease control by adalimumab plus methotrexate. Ann Rheum Dis. 2013;72:1156-62.	Wrong population
Smolen	2009	Smolen JS, Han C, van der Heijde DM, Emery P, Bathon JM, Keystone E, et al. Radiographic changes in rheumatoid arthritis patients attaining different disease activity states with methotrexate monotherapy and infliximab plus methotrexate: the impacts of remission and tumour necrosis factor blockade. Ann Rheum Dis. 2009;68:823-7.	Wrong population
Smolen	2017	Smolen JS, Agarwal SK, Ilivanova E, Xu XL, Miao Y, Zhuang Y, et al. A randomised phase II study evaluating the efficacy and safety of subcutaneously administered ustekinumab and guselkumab in patients with active rheumatoid arthritis despite treatment with methotrexate. Ann Rheum Dis. 2017.	Wrong intervention
Stohl	2012	Stohl W, Gomez-Reino J, Olech E, Dudler J, Fleischmann RM, Zerbini CA, et al. Safety and efficacy of ocrelizumab in combination with methotrexate in MTX-naive subjects with rheumatoid arthritis: the phase III FILM trial. Ann Rheum Dis. 2012;71:1289-96.	Wrong intervention
Strand	2015	Strand V, Kremer J, Wallenstein G, Kanik KS, Connell C, Gruben D, et al. Effects of tofacitinib monotherapy on patient-reported outcomes in a randomized phase 3 study of patients with active rheumatoid arthritis and inadequate responses to DMARDs. Arthritis Res Ther. 2015;17:307, 2015.	Wrong population
Strand	2015	Strand V, Burmester GR, Zerbini CA, Mebus CA, Zwillich SH, Gruben D, et al. Tofacitinib with methotrexate in third-line treatment of patients with active rheumatoid arthritis: patient-reported outcomes from a phase III trial. Arthritis Care Res (Hoboken). 2015;67:475-83.	Wrong population

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First Author	Year	Reference	Reason for Exclusion
Strand	2005	Strand V, Scott DL, Emery P, Kalden JR, Smolen JS, Cannon GW, et al. Physical function and health related quality of life: analysis of 2-year data from randomized, controlled studies of leflunomide, sulfasalazine, or methotrexate in patients with active rheumatoid arthritis. J Rheumatol. 2005;32:590-601.	Wrong population
Strand	1999	Strand V, Cohen S, Schiff M, Weaver A, Fleischmann R, Cannon G, et al. Treatment of active rheumatoid arthritis with leflunomide compared with placebo and methotrexate. Leflunomide Rheumatoid Arthritis Investigators Group. Archives of internal medicine. 1999;159:2542-50.	Wrong population
Strand	2012	Strand V, Burmester GR, Ogale S, Devenport J, John A, Emery P. Improvements in health-related quality of life after treatment with tocilizumab in patients with rheumatoid arthritis refractory to tumour necrosis factor inhibitors: results from the 24-week randomized controlled RADIATE study. Rheumatology (Oxford). 2012;51:1860-9.	Wrong population
Strand	2012	Strand V, Rentz AM, Cifaldi MA, Chen N, Roy S, Revicki D. Health-related quality of life outcomes of adalimumab for patients with early rheumatoid arthritis: results from a randomized multicenter study. J Rheumatol. 2012;39:63-72.	Wrong population
Strand	2016	Strand V, Lee EB, Fleischmann R, Alten RE, Koncz T, Zwillich SH, et al. Tofacitinib versus methotrexate in rheumatoid arthritis: patient-reported outcomes from the randomised phase III ORAL Start trial. Rmd open. 2016;2:e000308, 2016.	Wrong population
Strand	2016	Strand V, Kremer JM, Gruben D, Krishnaswami S, Zwillich SH, Wallenstein GV. Tofacitinib in Combination with Conventional synthetic DMARDs in Patients with Active Rheumatoid Arthritis: PROs from a Phase 3 Randomized Controlled Trial. Arthritis Care Res (Hoboken). 2016.	Wrong population
Tada	2012	Tada M, Koike T, Okano T, Sugioka Y, Wakitani S, Fukushima K, et al. Comparison of joint destruction between standard- and low-dose etanercept in rheumatoid arthritis from the Prevention of Cartilage Destruction by Etanercept (PRECEPT) study. Rheumatology. 2012;51:2164-9.	Wrong comparator
Takeuchi	2009	Takeuchi T, Miyasaka N, Inoue K, Abe T, Koike T, Rising s. Impact of trough serum level on radiographic and clinical response to infliximab plus methotrexate in patients with rheumatoid arthritis: results from the RISING study. Mod Rheumatol. 2009;19:478-87.	Wrong comparator
Tanaka	2016	Tanaka Y, Yamanaka H, Ishiguro N, Miyasaka N, Kawana K, Hiramatsu K, et al. Adalimumab discontinuation in patients with early rheumatoid arthritis who were	Wrong population

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First Author	Year	Reference	Reason for Exclusion
		initially treated with methotrexate alone or in combination with adalimumab: 1 year outcomes of the HOPEFUL-2 study. Rmd open. 2016;2:e000189, 2016.	
Tanaka	2016	Tanaka Y, Harigai M, Takeuchi T, Yamanaka H, Ishiguro N, Yamamoto K, et al. Prevention of joint destruction in patients with high disease activity or high C-reactive protein levels: Post hoc analysis of the GO-FORTH study. Mod Rheumatol. 2016;26:323-30.	Wrong study design
Tanaka	2015	Tanaka Y, Takeuchi T, Yamanaka H, Nakamura H, Toyoizumi S, Zwillich S. Efficacy and safety of tofacitinib as monotherapy in Japanese patients with active rheumatoid arthritis: a 12-week, randomized, phase 2 study. Mod Rheumatol. 2015;25:514-21.	Wrong population
Taylor	2011	Taylor PC, Quattrocchi E, Mallett S, Kurrasch R, Petersen J, Chang DJ. Ofatumumab, a fully human anti-CD20 monoclonal antibody, in biological-naive, rheumatoid arthritis patients with an inadequate response to methotrexate: a randomised, double-blind, placebo-controlled clinical trial. Ann Rheum Dis. 2011;70:2119-25.	Wrong intervention
Tesser	2004	Tesser J, Fleischmann R, Dore R, Bennett R, Solinger A, Joh T, et al. Concomitant Medication Use in a Large, International, Multicenter, Placebo Controlled Trial of Anakinra, a Recombinant Interleukin 1 Receptor Antagonist, in Patients with Rheumatoid Arthritis. J Rheumatol. 2004;31:649-54.	Wrong population
Thurmond	2016	Thurmond RL, Greenspan A, Radziszewski W, Xu XL, Miao Y, Chen B, et al. Toreforant, A Histamine H4 Receptor Antagonist, in Patients with Active Rheumatoid Arthritis Despite Methotrexate Therapy: Results of 2 Phase II Studies. J Rheumatol. 2016.	Wrong intervention
Trnavsky	1993	Trnavsky K, Gatterova J, Linduskova M, Peliskova Z. Combination therapy with hydroxychloroquine and methotrexate in rheumatoid arthritis. Z Rheumatol. 1993;52:292-6.	Non-English
Ummarino	2016	Ummarino D. Rheumatoid arthritis: RA-BEACON illuminates baricitinib. Nature Reviews Rheumatology. 2016;12.	Wrong study design
Van De Putte	2004	Van De Putte LBA, Atkins C, Malaise M, Sany J, Russell AS, van Riel PLCM, et al. Efficacy and safety of adalimumab as monotherapy in patients with rheumatoid arthritis for whom previous disease modifying antirheumatic drug treatment has failed. Ann Rheum Dis. 2004;63:508-16.	<12 weeks
van der Heijde	1989	van der Heijde DM, van Riel PL, Nuver-Zwart IH, Gribnau FW, vad de Putte LB. Effects of hydroxychloroquine and sulphasalazine on progression of joint damage in rheumatoid arthritis. Lancet. 1989;1:1036-8.	Wrong population

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First Author	Year	Reference	Reason for Exclusion
van der Heijde	2007	van der Heijde D, Burmester G, Melo-Gomes J, Codreanu C, Mola EM, Pedersen R, et al. The safety and efficacy of adding etanercept to methotrexate or methotrexate to etanercept in moderately active rheumatoid arthritis patients previously treated with monotherapy. Annals of the rheumatic diseases. 2007;67:182-8.	Wrong study design
van Vollenhoven	2016	Vollenhoven RFv, Ostergaard M, Leirisalo-Repo M, Uhlig T, Jansson M, Larsson E, et al. Full dose, reduced dose or discontinuation of etanercept in rheumatoid arthritis. Ann Rheum Dis. 2016;75:52-8.	Wrong population
van Vollenhoven	2011	van Vollenhoven RF, Kinnman N, Vincent E, Wax S, Bathon J. Atacicept in patients with rheumatoid arthritis and an inadequate response to methotrexate: results of a phase II, randomized, placebo-controlled trial. Arthritis and rheumatism. 2011;63:1782-92.	Wrong intervention
Verschueren	2015	Verschueren P, Cock DD, Corluy L, Joos R, Langenaken C, Taelman V, et al. Patients lacking classical poor prognostic markers might also benefit from a step-down glucocorticoid bridging scheme in early rheumatoid arthritis: week 16 results from the randomized multicenter CareRA trial. Arthritis Res Ther. 2015;17:97, 2015.	Wrong population
Verschueren	2017	Verschueren P, De CD, Corluy L, Joos R, Langenaken C, Taelman V, et al. Effectiveness of methotrexate with step-down glucocorticoid remission induction (COBRA Slim) versus other intensive treatment strategies for early rheumatoid arthritis in a treat-to-target approach: 1-year results of CareRA, a randomised pragmatic open-label superiority trial. Ann Rheum Dis. 2017;76:511-20.	Wrong population
Wada	2012	Wada T, Son Y, Ozaki Y, Nomura S, Iida H. Clinical and radiographic results from a 2-year comparison of once-weekly versus twice-weekly administration of etanercept in biologics-naive patients with rheumatoid arthritis. Mod Rheumatol. 2012;22:824-30.	Wrong comparator
Wagner	2013	Wagner C, Chen D, Fan H, Hsia EC, Mack M, Emery P, et al. Evaluation of serum biomarkers associated with radiographic progression in methotrexate-naive rheumatoid arthritis patients treated with methotrexate or golimumab. J Rheumatol. 2013;40:590-8.	Wrong population
Weinblatt	2014	Weinblatt ME, Genovese MC, Ho M, Hollis S, Rosiak-Jedrychowicz K, Kavanaugh A, et al. Effects of fostamatinib, an oral spleen tyrosine kinase inhibitor, in rheumatoid arthritis patients with an inadequate response to methotrexate: results from a phase III, multicenter, randomized, double-blind, placebo-controlled, parallel-group study. Arthritis rheumatol. 2014;66:3255-64.	Wrong intervention
Weinblatt	1985	Weinblatt ME, Coblyn JS, Fox DA, Fraser PA, Holdsworth DE, Glass DN, et al.	Wrong

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First Author	Year	Reference	Reason for Exclusion
		Efficacy of low-dose methotrexate in rheumatoid arthritis. The New England journal of medicine. 1985;312:818-22.	population
Weinblatt	2006	Weinblatt M, Combe B, Covucci A, Aranda R, Becker JC, Keystone E. Safety of the selective costimulation modulator abatacept in rheumatoid arthritis patients receiving background biologic and nonbiologic disease-modifying antirheumatic drugs: A one-year randomized, placebo-controlled study. Arthritis and rheumatism. 2006;54:2807-16.	Wrong intervention
Weinblatt	2006	Weinblatt ME, Keystone EC, Furst DE, Kavanaugh AF, Chartash EK, Segurado OG. Long term efficacy and safety of adalimumab plus methotrexate in patients with rheumatoid arthritis: ARMADA 4 year extended study. Annals of the rheumatic diseases. 2006;65:753-9.	Wrong study design
Weinblatt	2007	Weinblatt M, Schiff M, Goldman A, Kremer J, Luggen M, Li T, et al. Selective costimulation modulation using abatacept in patients with active rheumatoid arthritis while receiving etanercept: a randomised clinical trial. Annals of the rheumatic diseases. 2007;66:228-34.	Wrong intervention
Weinblatt	2008	Weinblatt ME, Schiff MH, Ruderman EM, Bingham CO, 3rd, Li J, Louie J, et al. Efficacy and safety of etanercept 50 mg twice a week in patients with rheumatoid arthritis who had a suboptimal response to etanercept 50 mg once a week: results of a multicenter, randomized, double-blind, active drug-controlled study. Arthritis and rheumatism. 2008;58:1921-30.	Wrong comparator
Weisman	2003	Weisman MH, Moreland LW, Furst DE, Weinblatt ME, Keystone EC, Paulus HE, et al. Efficacy, pharmacokinetic, and safety assessment of adalimumab, a fully human anti-tumor necrosis factor-alpha monoclonal antibody, in adults with rheumatoid arthritis receiving concomitant methotrexate: a pilot study. Clinical therapeutics. 2003;25:1700-21.	<12 weeks
Weisman	2007	Weisman MH, Paulus HE, Burch FX, Kivitz AJ, Fierer J, Dunn M, et al. A placebo-controlled, randomized, double-blinded study evaluating the safety of etanercept in patients with rheumatoid arthritis and concomitant comorbid diseases. Rheumatology. 2007;46:1122-5.	Wrong population
Westhovens	2014	Westhovens R, Kremer JM, Emery P, Russell AS, Alten R, Barre E, et al. Long-term safety and efficacy of abatacept in patients with rheumatoid arthritis and an inadequate response to methotrexate: a 7-year extended study. Clin Exp Rheumatol. 2014;32:553-62.	Wrong study design

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First Author	Year	Reference	Reason for Exclusion
Westhovens	2006	Westhovens R, Yocum D, Han J, Berman A, Strusberg I, Geusens P, et al. The safety of infliximab, combined with background treatments, among patients with rheumatoid arthritis and various comorbidities: a large, randomized, placebo-controlled trial. Arthritis and rheumatism. 2006;54:1075-86.	Wrong population
Westhovens	2009	Westhovens R, Kremer JM, Moreland LW, Emery P, Russell AS, Li T, et al. Safety and efficacy of the selective costimulation modulator abatacept in patients with rheumatoid arthritis receiving background methotrexate: a 5-year extended phase IIB study. The Journal of rheumatology. 2009;36:736-42.	Wrong intervention
Westhovens	2016	Westhovens R, Taylor PC, Alten R, Pavlova D, Enriquez-Sosa F, Mazur M, et al. Filgotinib (GLPG0634/GS-6034), an oral JAK1 selective inhibitor, is effective in combination with methotrexate (MTX) in patients with active rheumatoid arthritis and insufficient response to MTX: results from a randomised, dose-finding study (DARWIN 1). Ann Rheum Dis. 2016.	Wrong intervention
Wiland	2016	Wiland P, Dudler J, Veale D, Tahir H, Pedersen R, Bukowski J, et al. The Effect of Reduced or Withdrawn Etanercept-methotrexate Therapy on Patient-reported Outcomes in Patients with Early Rheumatoid Arthritis. J Rheumatol. 2016.	Wrong population
Williams	1985	Williams HJ, Willkens RF, Samuelson CO, Alarcon GS, Guttadauria M, Yarboro C, et al. Comparison of low-dose oral pulse methotrexate and placebo in the treatment of rheumatoid arthritis. A controlled clinical trial. Arthritis and rheumatism. 1985;28:721-30.	Wrong population
Williams	2016	Williams JH, Hutmacher MM, Zierhut ML, Becker JC, Gumbiner B, Spencer-Green G, et al. Comparative assessment of clinical response in patients with rheumatoid arthritis between PF-05280586, a proposed rituximab biosimilar, and rituximab. Br J Clin Pharmacol. 2016.	Wrong intervention
Xia	2011	Xia L, Lu J, Xiao W. Blockage of TNF-alpha by infliximab reduces CCL2 and CCR2 levels in patients with rheumatoid arthritis. Journal of investigative medicine : the official publication of the American Federation for Clinical Research. 2011;59:961-3.	Wrong population
Yamanaka	2015	Yamanaka H, Nagaoka S, Lee SK, Bae SC, Kasama T, Kobayashi H, et al. Discontinuation of etanercept after achievement of sustained remission in patients with rheumatoid arthritis who initially had moderate disease activity-results from the ENCOURAGE study, a prospective, international, multicenter randomized study. Mod Rheumatol. 2015:1-11.	Wrong population
Yazici	2013	Yazici Y, Curtis JR, Ince A, Baraf HS, Lepley DM, Devenport JN, et al. Early effects of	Wrong study

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First Author	Year	Reference	Reason for Exclusion
		tocilizumab in the treatment of moderate to severe active rheumatoid arthritis: a one-week sub-study of a randomised controlled trial (Rapid Onset and Systemic Efficacy [ROSE] Study). Clin Exp Rheumatol. 2013;31:358-64.	design
Yoo	2016	Yoo DH, Prodanovic N, Jaworski J, Miranda P, Ramiterre E, Lanzon A, et al. Efficacy and safety of CT-P13 (biosimilar infliximab) in patients with rheumatoid arthritis: comparison between switching from reference infliximab to CT-P13 and continuing CT-P13 in the PLANETRA extension study. Ann Rheum Dis. 2016.	Wrong study design
Yoo	2017	Yoo DH, Suh CH, Shim SC, Jeka S, Cons-Molina FF, Hrycaj P, et al. A multicentre randomised controlled trial to compare the pharmacokinetics, efficacy and safety of CT-P10 and innovator rituximab in patients with rheumatoid arthritis. Ann Rheum Dis. 2017;76:566-70.	Wrong intervention
Zeb	2016	Zeb S, Wazir N, Waqas M, Taqweem A. Comparison of short-term efficacy of leflunomide and methotrexate in active rheumatoid arthritis. Journal of Postgraduate Medical Institute. 2016;30:177-80.	Wrong population
Zhang	2004	Zhang X, Cui Y, r QL, Yao RY, Zhou H. [Methotrexate combined with leflunomide or hydroxychloroquine in the treatment of rheumatoid arteritis]. Zhonghua yi xue za zhi. 2004;84:1038-40.	Non-English
Zhou	2007	Zhou H, Jang H, Fleischmann RM, Bouman-Thio E, Xu Z, Marini JC, et al. Pharmacokinetics and safety of golimumab, a fully human anti-TNF-alpha monoclonal antibody, in subjects with rheumatoid arthritis. Journal of clinical pharmacology. 2007;47:383-96.	Wrong intervention
Zhu	2016	Zhu T, Keirns J, Howieson C, Kaibara A, Goldwater R, Kivitz AJ, et al. Pharmacokinetics, Pharmacodynamics, Safety, and Tolerability of ASP2408, a Potent Selective T-Cell Costimulation Modulator After Single and Multiple Ascending Doses in Healthy Volunteers and RA Patients. Clinical Pharmacology in Drug Development. 2016;5:408-25.	Wrong intervention

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APPENDIX 5: STUDY CHARACTERISTICS OF INCLUDED ADAPTIVE DESIGN STUDIES

Table 1. Table of Study Characteristics of Included Adaptive Design Studies

Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Burmester (2016), MONARCH	Rescue therapy	Non-responders in the ADA arm would receive qw (instead of q2w) admin of ADA (or matching placebo for SAR arm)	# TJC and SJC <20% from baseline to week 16	16 weeks	24 weeks	ADA 40mg q2w (SC)	SAR 200mg q2w (SC)					
Dougados (2017), RA-BUILD	Rescue therapy	Non-responders received BAR 4mg	# TJC and SJC <20% from baseline to weeks 12 and 14 or at investigator discretion after week 16	16 weeks	24 weeks	Placebo + csDMARD	BAR 2mg/day (P.O.) + csDMARD	BAR 4mg/day (P.O.) + csDMARD				
Emery (2010), SERENE	Rescue therapy	Non-biological DMARD for rest of study	# TJC and SJC <20% from baseline to between week 16 and 23	16 weeks	24 weeks	Placebo +MTX	RIT 500mg at 1 and 15 days (IV)+MTX	RIT 1000mg infusions at 1 and 15 days (IV)+MTX				
Fleischmann (2012)	Treatment switch	Patients in placebo, TOF 1mg or 3mg arms blindly reassigned to TOF 5mg bid	# TJC and SJC <20% from baseline to week 12	12 weeks	24 weeks	Placebo	TOF 5mg bid (P.O.)	TOF 10mg bid (P.O.)	TOF 15mg bid (P.O.)	ADA 40mg q2w (SC)	TOF 1mg bid (P.O.)	TOF 3mg bid (P.O.)

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Furst (2003), STAR	Rescue therapy	**Any non-responders** could receive a single increase in dose of csDMARD and/or corticosteroid therapy (max 10 mg/day) or receive treatment with a different csDMARD	ACR20 <20% at week 12	12 weeks	24 weeks	Placebo + csDMARD	ADA 40mg q2w (SC) + csDMARD					
Gabay (2013), ADACTA	Early escape	Non-responders received weekly SC injections (ADA and placebo)	# TJC and SJC <20% from baseline to week 16 or any time after	16 weeks	24 weeks	ADA 40mg q2w (SC)	TOC 8mg/kg q4w (IV)					
Genovese (2015), MOBILITY	Early escape	**Any non-responder** could receive "rescue therapy" with open-label SAR 200mg q2w	# TJC and SJC <20% at 2 consecutive assessments from week 16 onwards	16 weeks	52 weeks	Placebo +MTX	SAR 150mg q2w (SC)+MTX	SAR 200mg q2w (SC)+MTX				

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Genovese (2008), TOWARD	Rescue therapy	**Any non-responders** could: adjust background DMARD dose and/or receive different DMARD and/or receive IA or oral GCs	# TJC and SJC <20% from baseline to week 16	16 weeks	24 weeks	Placebo + csDMARD	TOC 8mg/kg q4w (IV) + csDMARD					
Hobbs (2015)	Treatment switch	All patients in placebo arm switched to receive ETN 50mg	NA - planned switch	12 weeks	24 weeks	Placebo + csDMARD	ETN 50mg qw (SC) + csDMARD					
Hoffman-La Roche (Sponsor) (2015)	Rescue therapy	Any nonresponder received TOC 8 mg/kg IV q4w from week 12 through to week 24	# TJC and SJC <20% improvement from baseline to week 12	12 weeks	24 weeks	Placebo + csDMARD	TOC 8 mg/kg IV q4w + csDMARD					
Kay (2008)	Treatment switch	Placebo arm was switched to receive INF 3 mg/kg every 8 weeks (after induction at 0, 2 and 6 weeks from start of switch)	NA - planned switch	16 weeks	52 weeks	Placebo +MTX	GOL 50 mg SC q4w+MTX	GOL 50 mg SC q2w+MTX	GOL 100 mg SC q4w+MTX	GOL 100 mg SC q2w+MTX		
Keystone (2015), I4V-MC-JADA	Treatment switch	Placebo and BAR 1mg groups only were re-randomized to either BAR 2mg bid or BAR 4mg qd	NA - planned switch	12 weeks	24 weeks	Placebo +MTX	BAR 1mg/day (P.O.) +MTX	BAR 2mg/day (P.O.) +MTX	BAR 4mg/day (P.O.) +MTX	BAR 8mg/day (P.O.) +MTX		

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Keystone (2004)	Rescue therapy	Any non-responder could receive csDMARD	ACR20 <20% at weeks 16 and onwards	16 weeks	52 weeks	Placebo +MTX	ADA 40mg q2w (SC)+MTX	ADA 20mg qw (SC)+MTX				
Keystone (2008), RAPID1	Early escape	Any non-responder was withdrawn into an open-label extension study to receive CERTO 400mg q2w	ACR20 <20% at weeks 12 and 14	16 weeks	52 weeks	Placebo +MTX	CERTO 200mg q2w after loading dose of 400mg at 0, 2 and 4 weeks (SC)+MTX	CERTO 400mg q2w after loading dose of 400mg at 0, 2 and 4 weeks (SC)+MTX				
Keystone (2009), GO-FOWARD	Treatment switch	Patients from any arm other than the GOL100mg + MTX arm could switch; those in Placebo+MTX arm received GOL50mg; GOL100mg arm received MTX; GOL50mg + MTX arm received GOL100mg + MTX	# TJC and SJC <20% from baseline to week 16	16 weeks	52 weeks	Placebo +MTX	GOL 100mg qw (SC)	GOL 50mg qw (SC)+MTX	GOL 100mg qw (SC)+MTX			

(as supplied by the authors)

Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Kim 2007	Early escape	Any non-responder could enter open-label phase and receive ADA 40mg q2w	# TJC and SJC <20% for at least 2 consecutive weeks from week 12 to week 22	18 weeks	24 weeks	Placebo +MTX	ADA 40mg q2w (SC)+MTX					
Kremer (2011), LITHE	Rescue therapy	**1st-step rescue:** Placebo+MTX, TOC4mg, TOC8mg arms received rescue therapy of TOC4mg, TOC8mg and TOC8mg, respectively. GCs were also given if needed; **2nd-step rescue:** All arms received TOC8mg through week 52; early escape was permitted only if non-response after 3 doses of 2nd-step rescue	# TJC and SJC <20% from baseline to week 16 (same criteria used to assess response after 3 doses of 1st- and 2nd-step rescue)	16 weeks	52 weeks	Placebo +MTX	TOC 4mg/kg q4w (IV)+MTX	TOC 8 mg/kg q4w (IV)+MTX				

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Kremer (2010)	Early escape	Any non-responders could enter early escape in a blinded manner	# TJC and SJC <20% from baseline to week 16 (and week 24 for dose adjustment portion)	16 weeks	48 weeks	Placebo +MTX	GOL 2mg/kg q12w (IV)	GOL 4mg/kg q12w (IV)	GOL 2mg/kg q12w (IV)+MTX	GOL 4mg/kg q12w (IV)+MTX		
Kremer (2012)	Treatment switch	Placebo arm reassigned to TOF 5mg bid for remaining 12 weeks (blinding remained)	# TJC and SJC <20% from baseline to week 12	12 weeks	24 weeks	Placebo +MTX	TOF 1mg/day (P.O.) +MTX	TOF 3mg/day (P.O.) +MTX	TOF 5mg/day (P.O.) +MTX	TOF 10mg/day (P.O.) +MTX	TOF 15mg /day (P.O.) +MTX	TOF 20mg /day (P.O.) +MTX
Kremer (2003)	Rescue therapy	Patients were allowed to receive any of the following: 1) changes to MTX dose; 2) addition of another csDMARD; 3) changes to dose of GCs (up to 10mg/day of GCs)	Clinician or investigator judgment	24 weeks	52 weeks	Placebo +MTX	ABA 2mg/kg (IV)+MTX	ABA 10mg/kg (IV)+MTX				

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Kremer (2006), AIM	Rescue therapy	Any non-responders were allowed to receive any of the following: 1) changes to MTX dose; 2) addition of another csDMARD; 3) changes to dose of GCs (up to 10mg/day of GCs)	Investigator judgment	24 weeks	52 weeks	Placebo +MTX	ABA 10mg/kg q4w after loading at 1, 15 and 30 days (IV)+MTX					
Li (2015)	Treatment switch	Placebo arm only - entered blinded "early escape" to GOL 50mg	# TJC and SJC <20% from baseline to week 16; Planned switch at week 24 for remaining placebo patients	16 weeks	52 weeks	Placebo +MTX	GOL 50mg q4w (SC)+MTX					
O'Dell (2013), RACAT	Treatment switch	Any non-responder would be switched to the other treatment arm	Reduction (i.e. improvement) in DAS28 <1.2 by week 24	24 weeks	48 weeks	SSZ 1g/day for 6 weeks, increased to 2g/day +HCQ 400mg qd	ETN 50mg qw (SC)+SSZ					

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Peterfy (2016), RA-SCORE	Rescue therapy	Increased MTX or received non-biologic DMARDs	# TJC and SJC <20% from baseline to week 16	16 weeks	52 weeks	Placebo +MTX	RIT 500mg on day 1 and 15 (IV)+MTX	RIT 1000mg on day 1 and 15 (IV)+MTX				
Schiff (2008), ATTEST	Treatment switch, then MTX dose adjust-ments allowed after day 198 if needed	Placebo arm reallocated (day 198) to ABA with blinding maintained; ABA 10mg/kg and INF 3mg/kg arms continued their treatment	NA - planned switch	26 weeks	26 weeks	Placebo +MTX	ABA 10mg/kg q4w (IV) after initial infusions on days 1, 15 and 29 (IV)+MTX	INF 3mg/kg q8w after initial infusions on days 1, 15, 43 and 85 (IV)+MTX				
Smolen (2008), OPTION	Rescue therapy	Non-responders could receive TOC 8mg/kg and/or IA steroids or an increase in dose of oral GCs (max 10mg/day)	# TJC and SJC <20% from baseline to week 16	16 weeks	24 Weeks	Placebo +MTX	TOC 4mg/kg q4w (IV)+MTX	TOC 8mg/kg q4w (IV)+MTX				
Smolen (2009), RAPID2	Early escape	Non-responders were withdrawn and could enter an open-label extension phase with CERTO 400mg q2w	ACR20 <20% at weeks 12 and 14	16 weeks	24 weeks	Placebo +MTX	CERTO 200mg q2w after initial dose of 400mg at 0, 2 and 4 weeks (SC)+MTX	CERTO 400mg q2w after initial dose of 400mg at 0, 2 and 4 weeks (SC)+MTX				

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Smolen (2014, Part A)	Treatment switch	**Planned** cross-over design from weeks 12-22	NA - planned switch	12 weeks	22 weeks	Placebo + csDMARD	SIR 100 mg SC q2w + csDMARD					
Smolen (2014, Part B)	Treatment switch	Placebo arm was switched to receive SIR 100 mg q2w+csDMARD from weeks 12 through to 24	NA - planned switch	12 weeks	24 weeks	Placebo + csDMARD	SIR 100 mg SC q2w + csDMARD	SIR 100 mg SC q4w + csDMARD	SIR 50 mg SC q4w + csDMARD	SIR 25 mg SC q4w + csDMARD		
Smolen (2016), EXXELERATE	Treatment switch then withdrawn if still non-responders at week 24	CERTO arm non-responders switched to ADA 40mg q2w; ADA arm non-responders switched to CERTO 400mg (wks 12, 14, 16 loading dose) then 200mg q2w; if still non-responders at week 24 (even after switching) they were deemed TNF inhibitor non-responders and withdrawn from study	DAS28-ESR ≥3.2 or a DAS28-ESR reduction from baseline of ≤1.2 at week 12	12 weeks	104 weeks	ADA 40mg q2w (SC)+MTX	CERTO 200mg q2w after initial 400mg at 0, 2 and 4 weeks (SC)+MTX					

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Takeuchi (2013), GO-MONO	Treatment switch	Placebo arm reassigned to GOL 50mg in a double-blind fashion	NA - planned switch	24 weeks	16 weeks	Placebo	GOL 50mg q4w (SC)	GOL 100mg q4w (SC)				
Tanaka (2012), GO-FORTH	Early escape	Any non-responder could enter double-blind early escape	# TJC and SJC <20% from baseline to week 14	16 weeks	24 weeks	Placebo +MTX	GOL 50mg q4w (SC)+MTX	GOL 100mg q4w (SC)+MTX				
Taylor (2017), RA BEAM	Rescue therapy	Any non-responder received BAR 2mg; after 24 weeks those in placebo arm were switched blindly to BAR 4mg	# TJC and SJC <20% from baseline to weeks 12 and 14 or at investigator discretion (based on joint count) afterwards	16 weeks	52 weeks	Placebo +MTX	ADA 40mg q2w (SC)+MTX	BAR 4mg qd (P.O.) +MTX				
van der Heijde (2013), ORAL scan	**Treatment switch**	Early escape at week 12; Planned switch at 6 months -- patients still in placebo arm blindly switched to pre-determined dose of TOF	# TJC and SJC <20% from baseline to week 12	12 weeks	52 weeks	Placebo +MTX	TOF 5mg bid (P.O.) +MTX	TOF 10mg bid (P.O.) +MTX				

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
van Vollenhoven (2012), ORAL Standard	Treatment switch	Placebo arm only was reassigned randomly to TOF 5mg or 10mg	# TJC and SJC <20% from baseline to week 12; at 6 months all remaining placebo patients were switched	12 weeks	52 weeks	Placebo +MTX	TOF 5mg bid (P.O.) +MTX	TOF 10mg bid (P.O.) +MTX	ADA 40mg q2w (SC)+MTX			
Weinblatt (2015)	Rescue therapy	No restrictions on who could receive rescue therapy; non-responders could early escape to open-label treatment with CLZ 200 mg q4w+MTX	Rescue therapy allowed after week 12 and not within 4 weeks of the week 24 assessment; early escape: # TJC and SJC <20% reduction from baseline to week 12	12 weeks	24 weeks	Placebo +MTX	ADA 40 mg SC q2w+MTX	CLZ 25 mg SC q4w+MTX	CLZ 100 mg SC q4w+MTX	CLZ 200 mg SC q4w+MTX	CLZ 100 mg SC q4w	CLZ 200 mg SC q4w
Weinblatt (2013), GO-FURTHER	Treatment switch	Placebo arm non-responders could switch to GOL 2mg/kg (induction at 16 and 20 weeks then q8w)	# TJC and SJC <10% from baseline to week 16	16 weeks	24 weeks	Placebo +MTX	GOL 2mg/kg q8w after initial dosing at 0 and 4 weeks (IV)+MTX					

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Author, Year	Type of Adaptive Design	Details	Measure used to determine "non-response"	Time Point Used[a]	Study Dura-tion	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Weinblatt (2003), ARMADA	Early escape	Any non-responders could enter the open-label continuation study **or** remain in the study (those who left were considered non-responders in primary and secondary analyses of week 24 data)	ACR20 <20% at week 16	16 weeks	24 weeks	Placebo +MTX	ADA 20mg q2w (SC)+MTX	ADA 40mg q2w (SC)+MTX	ADA 80mg q2w (SC)+MTX			
Yamamoto (2014), HIKARI	Early escape	Any non-responders could enter open-label extension	ACR20 <20% at weeks 12 and 14	16 weeks	24 weeks	Placebo	CERTO 200mg q2w after 400mg at 0, 2 and 4 weeks (SC)					
Yamamoto (2014), J-RAPID	Early escape	Any non-responders could enter open-label extension study	ACR20 <20% at weeks 12 and 14	16 weeks	24 weeks	Placebo +MTX	CERTO 100mg q2w after 200mg at 0, 2 and 4 weeks (SC)+MTX	CERTO 200mg q2w after 400mg at 0, 2 and 4 weeks (SC)+MTX	CERTO 400mg q2w after 400mg at 0, 2 and 4 weeks (SC)+MTX			
Yazici (2012), ROSE	Rescue therapy	Any non-responders received two courses of TOC 8mg/kg q4w in place of assigned study drug	# TJC and SJC <20% from baseline to week 16	16 weeks	24 weeks	Placebo + csDMARD	TOC 8mg/kg q4w (IV) + csDMARD					

[a]Represents the study duration that was analyzed (i.e. shorter than full study length for adaptive design studies)

[b]Certain studies included both standard and non-standard doses of treatments; this table lists all treatments as they appear in the study. However, only the included treatments listed in Table 2 are standard doses were included in the analysis.
ABA = abatacept; ADA = adalimumab; BAR = baricitinib; bid = twice daily; biw = twice weekly; CERTO = certolizumab pegol; CT-P13 = biosimilar of infliximab; csDMARD = conventional synthetic disease modifying anti-rheumatic drug; ETN = etanercept; GC = glucocorticoid; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = biosimilar of etanercept; IA = intra-articular; INF = infliximab; IV = intravenous; MTX = methotrexate; NA = not applicable; P.O. = orally; qw = every week; q2w = every two weeks; q4w = every four weeks; q8w = every eight weeks; qd = every day; RIT = rituximab; SAR = sarilumab; SB2 = biosimilar of infliximab; SB4 = biosimilar of etanercept; SC = subcutaneous; SIR = sirukumab; SJC = swollen joint count; SSZ = sulfasalazine; TJC = tender joint count; TNF = tumour necrosis factor; TOC = tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab

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APPENDIX 6: STUDY AND PATIENT CHARACTERISTICS OF INCLUDED STUDIES

Table 2. Table of Study Characteristics of Included Studies

Author, Year	RCT Design	Time Point Used[a]	Study Dura-tion	No. random-ized	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Abe (2006)	Parallel	14 weeks	14 weeks	151	Placebo+MTX	INF 3mg/kg at 0, 2 and 6 weeks (IV)+MTX	INF 10mg/kg (IV)+MTX				
Alzaidy (2016)	Parallel	48 weeks	48 weeks	125	Placebo+MTX	ADA+MTX (dose not described)					
Amgen (Sponsor) (2016)	Parallel	24 weeks	24 weeks	526	ADA 40mg q2w (SC)+MTX	ABP501 40mg q2w (SC)+MTX					
Bae (2017), HERA	Parallel	48 weeks	48 weeks	233	ETN 25mg biw (SC)+MTX	HD203 25mg+MTX					
Burmester (2016), MONARCH	Adaptive	16 weeks	24 weeks	369	ADA 40mg q2w (SC)	SAR 200mg q2w (SC)					
Chen (2009)	Parallel	12 weeks	12 weeks	47	Placebo+MTX	ADA 40mg q2w (SC)+MTX					
Chen (2016)	Parallel	12 weeks	12 weeks	600	Placebo+MTX	Anbainuo 25mg q2w (SC)					
Choe (2017)	Parallel	30 weeks	54 weeks	584	INF 3mg/kg q8w (IV)+MTX	SB2 3mg/kg q8w (IV)+MTX					
Choy (2012)	Parallel	24 weeks	24 weeks	247	Placebo+MTX	CERTO 400mg q4w (SC)+MTX					
Ciconelli (1996)	Parallel	24 weeks	24 weeks	38	Placebo+SSZ 2g/day	Methylpred-nisone 5mg/kg (IV pulses)+SSZ 2g/day					
Cohen (2002)	Parallel	24 weeks	24 weeks	419	Placebo+MTX	ANA 0.04mg/kg qd (SC)+MTX	ANA 0.1mg/kg qd (SC)+MTX	ANA 0.4mg/kg qd (SC)+MTX	ANA 1.0mg/kg qd (SC)+MTX	ANA 2.0mg/kg qd (SC) +MTX	

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Author, Year	RCT Design	Time Point Used[a]	Study Dura-tion	No. random-ized	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Cohen (2004)	Parallel	24 weeks	24 weeks	506	Placebo+MTX	ANA 100mg qd (SC)+MTX					
Combe (2006)	Parallel	104 weeks	104 week	260	Placebo+SSZ 2-3g/day (P.O.)	ETN 25mg biw (SC)	ETN 25mg biw (SC)+SSZ 2-3g/day (P.O.)				
Conaghan (2013), ASSET	Parallel	16 weeks	16 weeks	50	Placebo+MTX	ABA 10mg/kg q4w (IV)+MTX					
Dougados (2013), ACT-RAY	Parallel	24 weeks	24 weeks	556	TOC 8mg/kg q4w (IV)	TOC 8mg/kg q4w (IV)+MTX					
Dougados (2017), RA-BUILD	Adaptive	16 weeks	24 weeks	684	Placebo +csDMARD	BAR 2mg/day (P.O.) +csDMARD	BAR 4mg/day (P.O.) +csDMARD				
Edwards (2004)	Parallel	48 weeks	104 weeks	161	Placebo+MTX	RIT 1000mg at 1 and 15 days (IV)	RIT 1000 mg at 1 and 15 days (IV)+CTX	RIT 1000mg at 1 and 15 days (IV)+ MTX			
Emery (2017)	Parallel	24 weeks	24 weeks	596	ETN 50mg qw (SC)+MTX	SB4 50mg qw (SC)+MTX					
Emery (2010), SERENE	Adaptive	16 weeks	24 weeks	511	Placebo+MTX	RIT 500mg at 1 and 15 days (IV)+MTX	RIT 1000mg infusions at 1 and 15 days (IV)+MTX				
Fleischmann (2012)	Adaptive	12 weeks	24 weeks	386	Placebo	TOF 5mg bid (P.O.)	TOF 10mg bid (P.O.)	TOF 15mg bid (P.O.)	ADA 40mg q2w (SC)	TOF 1mg bid (P.O.)	TOF 3mg bid (P.O.)
Fleischmann (2009), FAST4WARD	Parallel	24 weeks	24 weeks	220	Placebo	CERTO 400mg q4w (SC)					
Furst (2015), DOSEFLEX	Withdrawal	16 weeks	16 weeks	333	Placebo+MTX	CERTO 200mg q2w (SC)	CERTO 400mg q2w (SC)				
Furst (2003), STAR	Adaptive	12 weeks	24 weeks	636	Placebo +csDMARD	ADA 40mg q2w (SC) +csDMARD					
Gabay (2013), ADACTA	Adaptive	16 weeks	24 weeks	326	ADA 40mg q2w (SC)	TOC 8mg/kg q4w (IV)					
Gashi (2014)	Parallel	24 weeks	24 weeks	33	ETN 25mg biw (SC)+MTX	RIT 1000mg at week 0 and 2 (IV)+MTX					

(as supplied by the authors)

Author, Year	RCT Design	Time Point Used[a]	Study Dura-tion	No. random-ized	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Genovese (2008), TOWARD	Adaptive	16 weeks	24 weeks	1220	Placebo +csDMARD	TOC 8mg/kg q4w (IV) +csDMARD					
Genovese (2015), MOBILITY	Adaptive	16 weeks	52 weeks	1197	Placebo+MTX	SAR 150mg q2w (SC)+MTX	SAR 200mg q2w (SC)+MTX				
Hobbs (2015)	Adaptive	12 weeks	24 weeks	210	Placebo +csDMARD	ETN 50mg qw (SC) +csDMARD					
Hoffmann-La Roche (Sponsor) (2015)	Adaptive	12 weeks	24 weeks	54	Placebo +csDMARD	TOC 8mg/kg q4w (IV) +csDMARD					
Jani (2016)	Parallel	12 weeks	12 weeks	120	ADA 40 q2w (SC)+MTX	ZRC-3197 40mg q2w (SC)+MTX					
Jobanputra (2012), RED SEA	Parallel	52 weeks	52 weeks	125	ETN 50mg qw (SC) +csDMARD	ADA 40mg q2w (SC) +csDMARD					
Kaine (2012)	Withdrawal	12 weeks	36 weeks	120	Placebo+MTX	ABA 125mg qw (SC)+MTX					
Kameda (2010), JESMR	Parallel	24 weeks	24 weeks	151	ETN 25mg biw (SC)	ETN 25mg biw (SC)+MTX					
Kaneko (2016), SURPRISE	Parallel	52 weeks	52 weeks	233	TOC 8mg/kg q4w (IV)+MTX	TOC 8mg/kg q4w (IV)					
Kavanaugh (2000)	Parallel	12 weeks	12 weeks	28	Placebo+MTX	INF 5mg/kg q8w (IV)+MTX	INF 10mg/kg q8w (IV)+MTX	INF 20mg/kg q8w (IV)+MTX			
Kay (2008)	Parallel	16 weeks	16 weeks	172	Placebo+MTX	GOL 50mg q4w (SC)+MTX	GOL 50mg q2w (SC)+MTX	GOL 100mg q4w (SC)+MTX	GOL 100mg q2w (SC)+MTX		
Kennedy (2014), ALTARA	Parallel	12 weeks	12 weeks	214	Placebo +csDMARD	ADA 40mg q2w (SC) +csDMARD	Pateclizumab 360mg +csDMARD				
Keystone (2015), I4V-MC-JADA	Adaptive	12 weeks	24 weeks	301	Placebo+MTX	BAR 1mg/day (P.O.)+MTX	BAR 2mg/day (P.O.)+MTX	BAR 4mg/day (P.O.)+MTX	BAR 8mg/day (P.O.)+MTX		
Keystone (2004)	Adaptive	16 weeks	52 weeks	619	Placebo+MTX	ADA 40mg q2w (SC)+MTX	ADA 20mg qw (SC)+MTX				

(as supplied by the authors)

Author, Year	RCT Design	Time Point Used[a]	Study Dura-tion	No. random-ized	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Keystone (2008), RAPID1	Adaptive	16 weeks	52 weeks	982	Placebo+MTX	CERTO 200mg q2w after loading dose of 400mg at 0, 2 and 4 weeks (SC)+MTX	CERTO 400mg q2w after loading dose of 400mg at 0, 2 and 4 weeks (SC)+MTX				
Keystone (2009), GO-FORWARD	Adaptive	16 weeks	104 weeks	444	Placebo+MTX	GOL 100mg qw (SC)	GOL 50mg qw (SC)+MTX	GOL 100mg qw (SC)+MTX			
Kim (2012), APPEAL	Parallel	16 weeks	16 weeks	300	csDMARD +MTX	ETN 25mg biw (SC)+MTX					
Kim (2007)	Adaptive	18 weeks	24 weeks	128	Placebo+MTX	ADA 40mg q2w (SC)+MTX					
Kim (2013)	Parallel	30 weeks	30 weeks	143	Placebo+MTX	INF 3mg/kg at 0, 2, 6, 14 and 22 weeks (SC)+MTX					
Klareskog (2004), TEMPO	Parallel	52 weeks	52 weeks	686	Placebo+MTX	ETN 25mg biw (SC)	ETN 25mg biw (SC)+MTX				
Kremer (2003)	Parallel	24 weeks	52 weeks	339	Placebo+MTX	ABA 2mg/kg (IV)+MTX	ABA 10mg/kg (IV)+MTX				
Kremer (2012)	Adaptive	12 weeks	24 weeks	509	Placebo+MTX	TOF 1mg/day (P.O.)+MTX	TOF 3mg/day (P.O.)+MTX	TOF 5mg/day (P.O.)+MTX	TOF 10mg/day (P.O.)+MTX	TOF 15mg/day (P.O.) +MTX	TOF 20mg/day (P.O.) +MTX
Kremer (2010)	Adaptive	16 weeks	48 weeks	643	Placebo+MTX	GOL 2mg/kg q12w (IV)	GOL 4mg/kg q12w (IV)	GOL 2mg/kg q12w (IV)+MTX	GOL 4mg/kg q12w (IV)+MTX		
Kremer (2011), LITHE	Adaptive	16 weeks	52 weeks	1190	Placebo+MTX	TOC 4mg/kg q4w (IV)+MTX	TOC 8 mg/kg q4w (IV)+MTX				
Kremer (2006), AIM	Adaptive	24 weeks	52 weeks	652	Placebo+MTX	ABA 10mg/kg q4w after loading at 1, 15 and 30 days (IV)+MTX					
Lan (2004)	Parallel	12 weeks	12 weeks	58	Placebo+MTX	ETN 25mg biw					

(as supplied by the authors)

Author, Year	RCT Design	Time Point Used[a]	Study Dura-tion	No. random-ized	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
						(SC)+MTX					
Li (2015)	Adaptive	16 weeks	24 weeks	264	Placebo+MTX	GOL 50mg q4w (SC)+MTX					
Loet (2008), OMEGA	Parallel	36 weeks	36 weeks	1207	ANA 100mg/day (SC)+MTX	ANA 100mg/day (SC)+SSZ	ANA 100mg/day (SC)+HCQ				
Machado (2014)	Parallel	24 weeks	24 weeks	429	csDMARD +MTX	ETN 50mg qw (SC)+MTX					
MacIssac (2014)	Parallel	14 weeks	14 weeks	61	Placebo +csDMARD	INF 3mg/kg at 0, 2, 6 and 14 weeks (IV) +csDMARD					
Maini (2006), CHARISMA	Parallel	16 weeks	16 weeks	359	Placebo+MTX	TOC 4mg/kg q4w (IV)	TOC 8mg/kg q4w (IV)	TOC 4mg/kg q4w (IV)+MTX	TOC 8mg/kg q4w (IV)+MTX	TOC 2mg/kg q4w (IV)	TOC 2mg/kg q4w (IV)+MTX
Maini (1998)	Parallel	26 weeks	26 weeks	101	Placebo+MTX	INF 3mg/kg at 0, 2, 6, 10 and 14 days (IV)+MTX	INF 3mg/kg at 0, 2, 6, 10 and 14 days (IV)	INF 10mg/kg at 0, 2, 6, 10 and 14 days (IV)+MTX	INF 10mg/kg at 0, 2, 6, 10 and 14 days (IV)	INF 1mg/kg at 0, 2, 6, 10 and 14 days (IV)+MTX	INF 1mg/kg at 0, 2, 6, 10 and 14 days (IV)
Maini (1999), ATTRACT	Parallel	30 weeks	54 weeks	428	Placebo+MTX	INF 3mg/kg q8w after infusions at 0, 2 and 6 weeks+MTX	INF 3mg/kg q4w after infusions at 0, 2 and 6 weeks+MTX	INF 10mg/kg q8w after infusions at 0, 2 and 6 weeks+MTX	INF 10mg/kg q4w after infusions at 0, 2 and 6 weeks+MTX		
Miyasaka (2008), CHANGE	Adaptive	8 weeks	24 weeks	352	Placebo	ADA 20mg q2w (SC)	ADA 40mg q2w (SC)	ADA 80mg q2w (SC)			
Mladenovic (1995)	Parallel	24 weeks	24 weeks	402	Placebo	LEF 5mg after 50mg loading dose	LEF 10mg after 100mg loading dose	LEF 25mg after 100mg loading dose			
Moreland (1999)	Parallel	26 weeks	26 weeks	246	Placebo	ETN 10mg q2w (SC)	ETN 25mg q2w (SC)				
Nishimoto (2009), SATORI	Parallel	24 weeks	24 weeks	127	Placebo+MTX	TOC 8mg/kg q4w (IV)					
O'Dell (2002)	Parallel	104 weeks	104 weeks	171	MTX17.5mg qw+HCQ	MTX 17.5mg qw+SSZ	MTX 17.5mg qw+HCQ				

(as supplied by the authors)

Author, Year	RCT Design	Time Point Used[a]	Study Dura-tion	No. random-ized	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
					200mg bid	500mg bid then 1g bid at 6 mo	200mg bid+SSZ 500mg bid then 1g bid at 6 mo				
O'Dell (1996)	Parallel	104 weeks	104 weeks	102	Placebo+MTX	HCQ 200mg bid+SSZ 500mg bid	MTX+HCQ 200mg bid+SSZ 500mg bid				
O'Dell (2013), RACAT	Adaptive	24 weeks	48 weeks	353	SSZ 1g/day for 6 weeks, increased to 2g/day+HCQ 400mg qd	ETN 50mg qw (SC)+SSZ					
Peterfy (2016), RA-SCORE	Adaptive	16 weeks	52 weeks	185	Placebo+MTX	RIT 500mg on day 1 and 15 (IV)+MTX	RIT 1000mg on day 1 and 15 (IV)+MTX				
Pope (2014), CAMEO	Withdrawal	24 weeks	76 weeks	205	ETN 50mg qw (SC)+MTX	ETN 50mg qw (SC)					
Samsung Bioepis Co (Sponsor) (2016)	Parallel	24 weeks	24 weeks	544	ADA 40mg q2w (SC)+MTX	SB5 40mg q2w (SC)+MTX					
Schiff (2013), AMPLE	Parallel	104 weeks	104 week	646	ABA 125mg qw (SC)	ADA 40mg q2w (SC)+MTX					
Schiff (2008), ATTEST	Adaptive	26 weeks	26 weeks	431	Placebo+MTX	ABA 10mg/kg q4w (IV) after initial infusions on days 1, 15 and 29 (IV)+MTX	INF 3mg/kg q8w after initial infusions on days 1, 15, 43 and 85 (IV)+MTX				
Smolen (2016), EXXELERATE	Adaptive	12 weeks	104 weeks	915	ADA 40mg q2w (SC)+MTX	CERTO 200mg q2w after initial 400mg at 0, 2 and 4 weeks (SC)+MTX					
Smolen (2014)	Adaptive	12 weeks	22 weeks	36	Placebo +csDMARD	SIR 100mg q2w (SC) +csDMARD					

(as supplied by the authors)

Author, Year	RCT Design	Time Point Used[a]	Study Dura-tion	No. random-ized	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Smolen (2008), OPTION	Adaptive	16 weeks	24 Weeks	623	Placebo+MTX	TOC 4mg/kg q4w (IV)+MTX	TOC 8mg/kg q4w (IV)+MTX				
Smolen (2009), RAPID2	Adaptive	16 weeks	24 weeks	619	Placebo+MTX	CERTO 200mg q2w after initial dose of 400mg at 0, 2 and 4 weeks (SC)+MTX	CERTO 400mg q2w after initial dose of 400mg at 0, 2 and 4 weeks (SC)+MTX				
Smolen (2014)	Adaptive	12 weeks	24 weeks	151	Placebo +csDMARD	SIR 100mg q2w (SC) +csDMARD	SIR 100mg q4w (SC) +csDMARD	SIR 50mg q4w (SC) +csDMARD	SIR 25mg q4w (SC) +csDMARD		
Takeuchi (2013)	Parallel	24 weeks	24 weeks	195	Placebo+MTX	ABA 2mg/kg (IV)+MTX	ABA 10mg/kg (IV)+MTX				
Takeuchi (2012), GO-MONO	Parallel	16 weeks	24 weeks	316	Placebo	GOL 50mg q4w (SC)	GOL 100mg q4w (SC)				
Takeuchi (2013)	Adaptive	52 weeks	52 weeks	550	MTX	ETN 10mg biw (SC)	ETN 25 mg biw (SC)				
Takeuchi (2015)	Parallel	54 weeks	54 weeks	108	INF 3mg/kg q8w after initial dosing at 0, 2 and 6 weeks (IV)+MTX	CT-P13 3mg/kg q8w after initial dosing at 0, 2 and 6 weeks (IV)+MTX					
Tanaka (2016)	Parallel	12 weeks	12 weeks	145	Placebo+MTX	BAR 1mg/day (P.O.)+MTX	BAR 2mg/day (P.O.)+MTX	BAR 4mg/day (P.O.)+MTX	BAR 8mg/day (P.O.)+MTX		
Tanaka (2011)	Parallel	12 weeks	12 weeks	140	Placebo+MTX	TOF 1mg bid (P.O.)+MTX	TOF 3mg bid (P.O.)+MTX	TOF 5mg bid (P.O.)+MTX	TOF 10mg bid (P.O.)+MTX		
Tanaka (2012), GO-FORTH	Adaptive	16 weeks	24 weeks	269	Placebo+MTX	GOL 50mg q4w (SC)+MTX	GOL 100mg q4w (SC)+MTX				
Taylor (2017), RA BEAM	Adaptive	16 weeks	52 weeks	1307	Placebo+MTX	ADA 40mg q2w (SC)+MTX	BAR 4mg qd (P.O.)+MTX				
Van de Putte (2003)	Adaptive	8 weeks	12 weeks	284	Placebo	ADA 20mg qw (SC)	ADA 40mg qw (SC)	ADA 80mg qw (SC)			
van der Heijde (2013), ORAL Standard	Adaptive	12 weeks	52 weeks	797	Placebo+MTX	TOF 5mg bid (P.O.)+MTX	TOF 10mg bid (P.O.)+MTX				

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Author, Year	RCT Design	Time Point Used[a]	Study Dura-tion	No. random-ized	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
Van Riel (2006)	Parallel	16 weeks	16 weeks	315	ETN 25mg biw (SC)	ETN 25mg biw (SC)+MTX					
van Vollenhoven (2011), AUGUST II	Parallel	26 weeks	26 weeks	311	Placebo+MTX	ADA 40mg q2w (SC)+MTX	Atacicept 150mg biw for 4 weeks then 150mg SC qw for 21 weeks (SC)+MTX	Atacicept 150mg biw for 25 weeks (SC)+MTX			
van Vollenhoven (2012)	Adaptive	12 weeks	52 weeks	717	Placebo+MTX	TOF 5mg bid (P.O.)+MTX	TOF 10mg bid (P.O.)+MTX	ADA 40mg q2w (SC)+MTX			
Weinblatt (2012)	Parallel	12 weeks	12 weeks	1063	Placebo +csDMARD	CERTO 200mg q2w after 400mg at 0, 2 and 4 weeks (SC) +csDMARD					
Weinblatt (2015)	Adaptive	12 weeks	24 weeks	418	Placebo+MTX	ADA 40mg (SC) q2w+MTX	CLZ 25mg q4w (SC)+MTX	CLZ 100mg q4w (SC)+MTX	CLZ 200mg q4w (SC)+MTX	CLZ 100mg q4w (SC)	CLZ 200mg q4w (SC)
Weinblatt (2013), GO-FURTHER	Adaptive	16 weeks	24 weeks	592	Placebo+MTX	GOL 2mg/kg q8w after initial dosing at 0 and 4 weeks (IV)+MTX					
Weinblatt (2003), ARMADA	Adaptive	16 weeks	24 weeks	271	Placebo+MTX	ADA 20mg q2w (SC)+MTX	ADA 40mg q2w (SC)+MTX	ADA 80mg q2w (SC)+MTX			
Weinblatt (1999)	Parallel	24 weeks	24 weeks	89	Placebo+MTX	ETN 25mg biw (SC)+MTX					
Yamamoto (2014), HIKARI	Adaptive	16 weeks	24 weeks	230	Placebo	CERTO 200mg q2w after 400mg at 0, 2 and 4 weeks (SC)					
Yamamoto (2014), J-RAPID	Adaptive	16 weeks	24 weeks	316	Placebo+MTX	CERTO 100mg q2w after 200mg at 0, 2 and 4	CERTO 200mg q2w after 400mg at 0, 2 and 4	CERTO 400mg q2w after 400mg at 0, 2 and 4			

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Author, Year	RCT Design	Time Point Used[a]	Study Dura-tion	No. random-ized	Arm 1[b]	Arm 2[b]	Arm 3[b]	Arm 4[b]	Arm 5[b]	Arm 6[b]	Arm 7[b]
						weeks (SC)+MTX	weeks (SC)+MTX	weeks (SC)+MTX			
Yazici (2012), ROSE	Adaptive	16 weeks	24 weeks	619	Placebo +csDMARD	TOC 8mg/kg q4w (IV) +csDMARD					
Yoo (2013), PLANETRA	Parallel	30 weeks	30 weeks	606	INF 3mg/kg q8w (IV) after initial dosing at 0, 2 and 6 weeks+MTX	CT-P13 3mg/kg q8w after initial dosing at 0, 2 and 6 weeks+MTX					
Zhang (2006)	Parallel	18 weeks	18 weeks	173	Placebo+MTX	INF 3 mg/kg at 0, 2, 6 and 14 weeks (IV)+MTX					

[a]Represents the study duration that was analyzed (at times shorter than full study length if an adaptive design was present or if only interim data has was reported to date)

[b]Certain studies included treatments that are and treatments that are not eligible for the review or used both standard and non-standard doses; this table lists all treatments as they appear in the study. However, only the included treatments listed in Table 2 are standard doses were included in the analysis.
ABA = abatacept; ABP501 = biosimilar adalimumab; ABNAI = AnBaiNuo (biosimilar etanercept); ADA = adalimumab; BAR = baricitinib; bid = twice daily; biw = twice weekly; CERTO = certolizumab pegol; csDMARD = conventional synthetic disease modifying anti-rheumatic drug; CT-P13 = biosimilar infliximab; ETN = etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = biosimilar etanercept; INF = infliximab; IV = intravenous; MTX = methotrexate; P.O. = orally; qw = every week; q2w = every two weeks; q4w = every four weeks; q8w = every eight weeks; qd = every day; RIT = rituximab; SAR = sarilumab; SB2 = biosimilar of infliximab; SB4 = biosimilar of etanercept; SB5 = biosimilar adalimumab; SC = subcutaneous; SIR = sirukumab; SSZ = sulfasalazine; TOC = tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab

Table 3. Table of Patient Characteristics of Included Studies

Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Bae 2017, HERA	ETN 25mg biw (SC)+MTX	115	51.3 (12.4)	101 (85.6)	0 (0)	8.05 (7.43)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Study	HD203 25mg+MTX	118	51.0 (12.0)	101 (87.8)	0 (0)	7.19 (7.39)
Peterfy 2016, RA-SCORE	Placebo + MTX	63	50.3 (11.9)	48 (76.2)	NR	4.4 (3.1)
	RIT 500mg on day 1 and 15 (IV) + MTX	62	48.7 (11.1)	45 (72.6)	NR	4.5 (2.9)
	RIT 1000mg on day 1 and 15 (IV) + MTX	60	50.7 (11.7)	50 (83.3)	NR	4.9 (2.9)
Tanaka 2016	Placebo + MTX	49	51.1 (12.0)	39 (80)	0 (0)	5.06 (3.96)
	BAR 1mg/day (P.O.) + MTX	24	52.7 (12.8)	22 (92)	0 (0)	6.22 (3.27)
	BAR 2mg/day (P.O.) + MTX	24	56.1 (11.5)	21 (88)	0 (0)	6.32 (4.18)
	BAR 4mg/day (P.O.) + MTX	24	57.5 (10.4)	19 (79)	0 (0)	5.86 (3.95)
	BAR 8mg/day (P.O.) + MTX	24	53.6 (11.3)	17 (71)	0 (0)	5.55 (4.62)
Choe 2017, NR	INF 3mg/kg q8w (IV) + MTX	293	52.6 (11.7)	236 (80.5)	254 (86.7)	6.6 (6.0)
	SB2 3mg/kg q8w (IV) + MTX	291	51.6 (11.9)	232 (79.7)	252 (86.6)	6.3 (5.9)
Emery 2017, NR	ETN 50mg qw (SC) + MTX	297	51.6 (11.63)	253 (85.2)	273 (91.9)	6.20 (4.41)
	SB4 50mg qw (SC) + MTX	299	52.1 (11.72)	249 (83.3)	279 (93.3)	6.0 (4.20)
Furst 2015, DOSEFLEX	Placebo + MTX	69	51.5 (13.2)	56 (81.2)	NR	6.5 (4.6)
	CERTO 200mg q2w (SC)	70	55.6 (10.7)	49 (70.0)	NR	5.9 (4.20)
	CERTO 400mg q2w (SC)	70	53.1 (13.8)	58 (82.9)	NR	6.4 (4.7)

(as supplied by the authors)

Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Genovese 2015, MOBILITY	Placebo + MTX	398	50.9 (11.2)	322 (81)	343 (86.2)	9.1 (0.3-44.0)
	SAR 150mg q2w (SC) + MTX	400	50.1 (11.9)	320 (80)	345 (86.3)	9.5 (0.3-44.7)
	SAR 200mg q2w (SC) + MTX	399	50.8 (11.8)	339 (85)	343 (86.0)	8.6 (0.3-34.2)
Jani 2016, NR	ADA 40 q2w (SC) + MTX	60	45 (10.92)	48 (80.0)	NR	4.0 (4.98)
	ZRC-3197 40mg q2w (SC) + MTX	60	45 (11.06)	51 (85.0)	NR	3.3 (4.19)
Keystone 2015, I4V-MC-JADA	MTX	98	49 (12)	85 (87)	NR	5.4 (4.3)
	BAR 1mg/day (P.O.) + MTX	49	53 (11)	42 (86)	NR	5.5 (3.9)
	BAR 2mg/day (P.O.) + MTX	52	51 (13)	44 (85)	NR	5.5 (4.4)
	BAR 4mg/day (P.O.) + MTX	52	53 (10)	37 (71)	NR	5.3 (4.5)
	BAR 8mg/day (P.O.) + MTX	50	53 (11)	41 (82)	NR	6.6 (5.0)
Li 2016, NR	MTX	132	46.7 (12.2)	104 (78.8)	0 (0)	8.0 (7.3)
	GOL 50mg q4w (SC) + MTX	132	47.7 (11.5)	110 (83.3)	0 (0)	7.6 (7.1)
Takeuchi 2015, NR	INF 3mg/kg q8w after initial dosing at 0, 2 and 6 weeks (IV) + MTX	51	53.8 (13.4)	41 (80.4)	0 (0)	8.0 (7.3)

(as supplied by the authors)

Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	CT-P13 3mg/kg q8w after initial dosing at 0, 2 and 6 weeks (IV) + MTX	50	54.5 (13.0)	40 (80.0)	0 (0)	7.1 (7.3)
Weinblatt 2015, NR	Placebo + MTX	61	51.4 (11.0)	46 (75.4)	43 (70.5)	6.4 (8.1)
	ADA 40mg (SC) q2w + MTX	59	52.8 (11.4)	48 (81.4)	47 (79.7)	6.1 (7.5)
	CLZ 25mg q4w (SC) + MTX	59	47.4 (11.0)	46 (78.0)	43 (72.9)	5.0 (5.6)
	CLZ 100mg q4w (SC) + MTX	60	49.9 (14.0)	53 (88.3)	46 (76.7)	5.6 (6.1)
	CLZ 200mg q4w (SC) + MTX	60	46.4 (11.9)	49 (81.7)	50 (83.3)	6.0 (7.2)
	CLZ 100mg q4w (SC)	60	55.0 (12.2)	52 (86.7)	47 (78.3)	7.4 (6.8)
	CLZ 200mg q4w (SC)	59	50.0 (12.5)	49 (83.1)	46 (78.0)	5.0 (5.5)
Dougados 2013, ACT-RAY	Placebo + TOC 8mg/kg q4w (IV)	32	55.8 (10.46)	21 (65.6)	NR	NR
	TOC 8mg/kg q4w (IV) + MTX	31	55.2 (14.12)	24 (77.4)	NR	NR
Gashi 2014, NR	RIT 2mg + MTX	20	47 (37-69)	15 (75.0)	NR	NR
	ETN 25mg BID + MTX	13	44 (19-69)	8 (61.5)	NR	NR
Smolen 2014, NR (Part A)	Placebo + csDMARD	19	46.2 (10.2)	11 (57.9)	18 (94.7)	7.5 (6.9)
	SIR 100mg q2w (SC) + csDMARD	17	50.1 (10.7)	14 (82.4)	16 (94.1)	7.3 (6.7)
Yoo 2013, PLANETRA	INF 3mg/kg q8w (IV) after initial dosing at 0, 2 and 6 weeks + MTX	304	50 (21-74)	256 (84.2)	222 (73.0)	NR

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	CT-P13 3mg/kg q8w after initial dosing at 0, 2 and 6 weeks + MTX	302	50 (18-75)	245 (81.1)	220 (72.8)	NR
Loet 2008, OMEGA	ANA 100mg/day (SC) + MTX	957	56 (20-86)	757 (79.1)	934 (97.6)	7.3 (0-50.5)
	ANA 100mg/day (SC) + SSZ	102	57 (23-80)	79 (77.5)	98 (96.1)	6.1 (0.4-48.6)
	ANA 100mg/day (SC) + HCQ	127	57 (24-80)	113 (89.0)	126 (99.2)	9.0 (0-51.9)
Ciconelli 1996, NR	Placebo + SSZ 2g/day	18	43.9 (9.7)	18 (100)	NR	6.9 (6.9)
	Methylprednisone 5mg/kg (IV pulses) + SSZ 2g/day	20	43.2 (11.9)	20 (100)	NR	6.1 (4.6)
Mladenovic 1995, NR	Placebo	102	52.8 (28-73)	77 (75.5)	NR	8.3 (0.8-26.3)
	LEF 5mg after 50mg loading dose	95	50.3 (24-74)	79 (83.2)	NR	7.7 (0.8-31.3)
	LEF 10mg after 100mg loading dose	101	51.4 (20-76)	87 (86.1)	NR	8.5 (0.9-31.8)
	LEF 25mg after 100mg loading dose	104	50.0 (21-74)	91 (87.5)	NR	8.8 (0.8-37.8)
Yamamoto 2014, HIKARI	Placebo	114	55.4 (9.8)	88 (77.2)	0 (0)	5.8 (4.3)
	CERTO 200mg q2w after 400mg at 0, 2 and 4 weeks (SC)	116	56.0 (10.2)	83 (71.6)	0 (0)	5.4 (4.0)
Yazici 2012, ROSE study	Placebo + csDMARD	205	55.8 (12.42)	172 (83.9)	170 (82.9)	8.52 (9.05)
	TOC 8mg/kg q4w (IV) + csDMARD	409	55.2 (12.06)	325 (79.5)	328 (80.2)	8.62 (8.93)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Van de Putte 2004, NR	Placebo	70	50.2 (11.9)	57 (81)	NR	9.4 (6.6)
	ADA 20mg qw (SC)	72	53.7 (13.3)	61 (85)	NR	10.4 (7.3)
	ADA 40mg qw (SC)	70	52.6 (11.6)	57 (81)	NR	10.0 (7.0)
	ADA 80mg qw (SC)	72	53.2 (12.3)	50 (69)	NR	10.1 (7.9)
O'Dell 2002, NR	MTX17.5mg qw + HCQ 200mg bid	58	50.9 (28-68)	45 (78)	NR	7.9 (10.0)
	MTX 17.5mg qw + SSZ 500mg bid then 1g bid at 6 mo	55	52.5 (25-71)	46 (84)	NR	5.8 (5.9)
	MTX 17.5mg qw + HCQ 200mg bid + SSZ 500mg bid then 1g bid at 6 mo	58	48.9 (26-66)	44 (76)	NR	6.9 (8.4)
Kim 2007, NR	Placebo + MTX	63	49.8 (10.5)	54 (85.7)	0 (0)	6.9 (4.5)
	ADA 40mg q2w (SC) + MTX	65	48.5 (10.2)	62 (95.4)	0 (0)	6.8 (4.2)
Yamamoto 2014, J-RAPID	Placebo + MTX	77	51.9 (11.1)	66 (85.7)	0 (0)	5.8 (4.1)
	CERTO 100mg q2w after 200mg at 0, 2 and 4 weeks (SC) + MTX	72	54.3 (10.6)	58 (80.6)	0 (0)	6.0 (4.1)
	CERTO 200mg q2w after 400mg at 0, 2 and 4 weeks (SC) + MTX	82	50.6 (11.4)	69 (84.1)	0 (0)	5.6 (4.2)
	CERTO 400mg q2w after 400mg at 0, 2 and 4 weeks (SC) + MTX	85	55.4 (10.3)	69 (81.2)	0 (0)	6.0 (3.9)
Choy 2012, NR	Placebo + MTX	121	55.6 (11.7)	80 (66.1)	(99.2)	9.9 (7.8)

(as supplied by the authors)

Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	CERTO 400mg q4w (SC) + MTX	126	53.0 (12.3)	91 (72.2)	(99.2)	9.4 (7.5)
Weinblatt 2013, GO-FURTHER	Placebo + MTX	197	51.4 (11.26)	157 (79.7)	(80.4)	7.0 (7.24)
	GOL 2mg/kg q8w after initial dosing at 0 and 4 weeks (IV) + MTX	395	51.9 (12.55)	326 (82.5)	(80.4)	6.9 (7.00)
MacIssac 2014, NR	Placebo + csDMARD	31	50 (11)	27 (90)	NR	NR
	INF 3mg/kg at 0, 2, 6 and 14 weeks (IV) + csDMARD	30	50 (10)	28 (93)	NR	NR
Abe 2006, NR	Placebo + MTX	47	55.1 (7.6)	35 (74.5)	0 (0)	7.5 (5.0)
	INF 3mg/kg at 0, 2 and 6 weeks (IV) + MTX	49	55.2 (10.9)	40 (81.6)	0 (0)	9.1 (7.4)
	INF 10mg/kg (IV) + MTX	51	56.8 (10.5)	40 (78.4)	0 (0)	7.1 (5.1)
Kaneko 2016, SURPRISE	MTX + TOC 8 mg/kg q4w (IV)	118	55.8 (11.7)	100 (87.0)	NR	3.6 (3.2)
	TOC 8 mg/kg q4w (IV)	115	56.3 (2.7)	96 (86.5)	NR	3.8 (3.1)
Dougados 2013, ACT-RAY	TOC 8mg/kg q4w (IV) + Placebo (of MTX)	276	53.6 (11.9)	217 (78.6)	NR	8.3 (8.4)
	TOC 8mg/kg q4w (IV) + MTX	277	53.0 (13.4)	227 (81.9)	NR	8.2 (8.0)
Kremer 2011, LITHE	Placebo + MTX	393	51.3 (12.4)	(83)	NR	9.0 (0.5-44.3)
	TOC 4mg/kg q4w (IV) + MTX	399	51.4 (12.6)	(84)	NR	9.4

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
						(0.5-43.2)
	TOC 8 mg/kg q4w (IV) + MTX	398	53.4 (11.7)	(82)	NR	9.3 (0.6-48.8)
van Vollenhoven 2012, ORAL Standard	Placebo to TOF 5mg bid (P.O.) + MTX	56	55.5 (13.7)	43 (76.8)	40 (71.4)	6.9
	Placebo to TOF 10mg bid (P.O.) + MTX	52	51.9 (13.7)	39 (75.0)	35 (67.3)	9.0
	TOF 5mg bid (P.O.) + MTX	204	53.0 (11.9)	174 (85.3)	151 (74.0)	7.6
	TOF 10mg bid (P.O.) + MTX	201	52.9 (11.8)	168 (83.6)	143 (71.1)	7.4
	ADA 40mg q2w (SC) + MTX	204	52.5 (11.7)	162 (79.4)	148 (72.5)	8.1
Combe 2006, NR	Placebo + SSZ 2-3g/day (P.O.)	50	53.3 (12.8)	41.0 (82.0)	NR	5.6 (4.4)
	ETN 25mg biw (SC)	103	51.3 (13.5)	81.0 (78.6)	NR	7.1 (5.2)
	ETN 25mg biw (SC) + SSZ 2-3g/day (P.O.)	101	50.6 (12.3)	81.0 (80.2)	NR	6.5 (5.1)
Conaghan 2013, ASSET	Placebo + MTX	23	52.5 (11.5)	16 (69.6)	19 (82.6)	2.35 (1.42)
	ABA 10mg/kg q4w (IV) + MTX	27	51.7 (11.2)	16 (59.3)	26 (96.3)	2.14 (1.50)
Emery 2010, SERENE	Placebo + MTX	172	52.16 (12.390)	147 (85.5)	142 (82.6)	7.48 (7.64)
	RIT 500mg at 1 and 15 days (IV) + MTX	168	51.91 (12.926)	133 (79.6)	134 (80.2)	7.10 (6.97)
	RIT 1000mg infusions at 1 and 15 days (IV) + MTX	172	51.30 (12.644)	138 (81.2)	137 (80.6)	6.61 (7.29)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Fleischmann 2012, NR	Placebo	59	53 (13.7)	52 (88.1)	43 (72.9)	10.8 (0.7-44.0)
	TOF 5mg bid (P.O.)	49	54 (13.5)	43 (87.8)	36 (73.5)	8.1 (0.5-38.0)
	TOF 10mg bid (P.O.)	61	52 (10.9)	53 (86.9)	44 (72.1)	8.6 (0.5-38.0)
	TOF 15mg bid (P.O.)	57	53 (13.0)	50 (87.7)	46 (80.7)	8.7 (0.8-38.0)
	ADA 40mg q2w (SC)	53	54 (11.9)	45 (84.9)	43 (81.1)	7.7 (0.8-50.0)
	TOF 1mg bid (P.O.)	54	55 (13.3)	46 (85.2)	44 (81.5)	9.4 (0.6-38.0)
	TOF 3mg bid (P.O.)	51	53 (12.2)	44 (86.3)	38 (74.5)	9.9 (0.8-30.0)
Furst 2003, STAR	Placebo + Standard Therapy	318	55.8 (12.4)	252 (79.2)	273 (85.8)	11.5 (9.7)
	ADA 40mg q2w (SC) + csDMARD	318	55.0 (12.8)	253 (79.6)	283 (89.0)	9.3 (8.8)
Gabay 2013,	ADA 40mg q2w (SC)	163	53.3 (12.4)	133 (82)	133 (82)	6.3 (6.9)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
ADACTA	TOC 8mg/kg q4w (IV)	163	54.4 (13.0)	129 (79)	145 (89)	7.3 (8.1)
Hobbs 2015, NR	Placebo + Standard Therapy	104	55.5 (12.8)	86 (82.7)	90 (86.5)	7.4 (8.1)
	ETN 50mg qw (SC) + Standard Therapy	106	56.5 (12.1)	75 (70.8)	91 (85.8)	8.3 (11.2)
Jobanputra 2012, RED SEA	ADA 40mg q2w (SC) + csDMARD	60	55.0 (12.5)	45 (75)	NR	7.0 (3.3-13.0)
	ETN 50mg qw (SC) + csDMARD	60	53.2 (13.4)	42 (70)	NR	5.5 (2.0-14.5)
Kaine 2012, ALLOW	Placebo + MTX	80	49.1 (12.8)	67 (83.8)	75 (93.8)	6.2 (5.8)
	ABA 125mg qw (SC)+MTX	40	48.9 (14.2)	34 (85.0)	38 (95.0)	7.4 (7.7)
Kameda 2010, JESMR	ETN 25mg biw (SC)	74	58.1 (12.6)	62 (87.3)	0 (0)	10.6 (10.5)
	ETN 25mg biw (SC)+MTX	77	56.5 (11.1)	60 (80.0)	0 (0)	8.1 (7.7)
Kim 2012, APPEAL	csDMARD + MTX	103	48.5 (11.3)	91 (88.4)	0 (0)	6.9 (8.5)
	ETN 25mg biw (SC)+MTX	197	48.4 (12.0)	180 (91.4)	0 (0)	6.5 (7.3)
Kim 2013, NR	Placebo + MTX	72	51.4 (11.4)	64 (88.9)	0 (0)	9.8 (0.7-45.7)
	INF 3mg/kg at 0, 2, 6, 14 and 22 weeks (SC) + MTX	71	49.3 (10.1)	64 (90.1)	0 (0)	7.4 (0.6-35.7)
Kremer 2003, NR	Placebo + MTX	119	54.7 (23-80)	79 (66)	104 (87)	8.9 (8.3)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	ABA 2mg/kg (IV) + MTX	105	54.4 (23-80)	66 (63)	91 (87)	9.7 (8.1)
	ABA 10mg/kg (IV) + MTX	115	55.8 (17-83)	87 (75)	100 (87)	9.7 (9.8)
Kremer 2010, NR	Placebo + MTX	129	50.2 (51.0)	103 (79.8)	92 (71.3)	7.4 (5.6)
	GOL 2mg/kg q12w (IV)	128	49.9 (51.0)	107 (83.6)	93 (72.7)	7.4 (4.9)
	GOL 4mg/kg q12w (IV)	129	48.4 (50.0)	105 (81.4)	86 (66.7)	8.4 (6.6)
	GOL 2mg/kg q12w (IV)+MTX	129	49.7 (51.0)	99 (76.7)	88 (68.2)	8.1 (5.2)
	GOL 4mg/kg q12w (IV)+MTX	128	49.6 (52.0)	103 (80.5)	88 (68.8)	9.4 (7.4)
Kremer 2012, NR	Placebo	69	53 (13.4)	56 (81.2)	58 (84.1)	9.2 (0.5-39.0)
	TOF 5mg/day (P.O.) + MTX	71	52 (12.8)	57 (80.3)	63 (88.7)	9.0 (0.5-46.0)
	TOF 10mg/day (P.O.) + MTX	74	56 (10.4)	55 (74.3)	64 (86.5)	7.5 (0.5-30.0)
	TOF 15mg/day (P.O.) + MTX	75	54 (11.1)	66 (88.0)	65 (86.7)	10.8 (0.6-65.0)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	TOF 20mg/day (P.O.) + MTX	80	54 (10.8)	63 (78.8)	72 (90.0)	9.8 (0.6-46.0)
	TOF 1mg/day (P.O.) + MTX	70	52 (11.6)	57 (81.4)	61 (87.1)	11.8 (0.5-40.8)
	TOF 3mg/day (P.O.) + MTX	68	51 (14.9)	52 (76.5)	54 (79.4)	9.4 (0.5-43.3)
Nishimoto 2009, SATORI	Placebo + MTX	64	50.8 (12.2)	48 (75.0)	0 (0)	8.7 (7.1)
	TOC 8mg/kg q4w (IV) + Placebo (of MTX)	61	52.6 (10.6)	55 (90.2)	0 (0)	8.5 (8.4)
O'Dell 2013, NR	SSZ 1g/day for 6 weeks, increased to 2g/day + HCQ 400mg qd	178	57.8 (13.0)	77 (43.3)	161 (90.4)	5.5 (9.3)
	ETN 50mg qw (SC) + SSZ	175	56.0 (13.2)	85 (48.6)	146 (83.4)	4.9 (8.0)
Pope 2014, CAMEO	ETN 50mg qw (SC) + MTX	107	54.4 (12.7)	84.0 (78.5)	103 (96.3)	9.3 (9.1)
	ETN 50mg qw (SC)	98	54.3 (11.9)	72.0 (73.5)	96 (98.0)	9.0 (8.2)
Schiff 2013, AMPLE	ABA 125mg qw (SC)	318	NR	NR	NR	NR
	ADA 40mg q2w (SC) + MTX	328	NR	NR	NR	NR
Takeuchi 2013, NR	Placebo + MTX	66	53.4 (12.0)	52 (78.8)	0 (0)	NR
	ABA 2mg/kg (IV) + MTX	67	52.5 (11.1)	57 (85.1)	0 (0)	NR

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	ABA 10mg/kg (IV) + MTX	62	53.4 (11.3)	49 (80.3)	0 (0)	NR
Takeuchi 2013, NR	Placebo + MTX	176	50.4 (11.9)	140 (79.9)	0 (0)	3.0 (2.7)
	ETN 10mg biw (SC)	192	51.5 (12.2)	154 (80.2)	0 (0)	2.9 (2.7)
	ETN 25mg biw (SC)	182	51.8 (11.1)	145 (79.7)	0 (0)	3.0 (2.6)
Takeuchi 2012, GO-MONO	Placebo	105	52.4 (11.1)	86 (81.9)	0 (0)	9.2 (8.6)
	GOL 50mg q4w (SC)	101	52.9 (11.3)	81 (80.2)	0 (0)	8.1 (8.4)
	GOL 100mg q4w (SC)	102	51.6 (11.9)	85 (83.3)	0 (0)	9.4 (8.5)
Tanaka 2011, NR	Placebo + MTX	28	50.6 (12.4)	25 (89.3)	0 (0)	8.4 (0.6-24.0)
	TOF 1mg bid (P.O.) + MTX	28	52.0 (9.4)	21 (75.0)	0 (0)	5.7 (0.4-31.0)
	TOF 3mg bid (P.O.) + MTX	28	53.3 (12.1)	24 (88.9)	0 (0)	8.7 (0.6-23.0)
	TOF 5mg bid (P.O.) + MTX	28	50.0 (9.8)	22 (81.5)	0 (0)	8.3 (1.1-26.0)
	TOF 10mg bid (P.O.) + MTX	28	50.6 (10.0)	25 (96.2)	0 (0)	7.1 (0.5-20.1)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Tanaka 2012, GO-FORTH	Placebo + MTX	88	51.1 (11.6)	73 (83.0)	0 (0)	8.7 (8.2)
	GOL 50mg q4w (SC) + MTX	86	50.4 (9.9)	73 (84.9)	0 (0)	8.8 (8.8)
	GOL 100mg q4w (SC) + MTX	87	50.0 (12.2)	78 (89.7)	0 (0)	8.1 (6.5)
Weinblatt 2003, ARMADA	Placebo + MTX	62	56.0 (10.8)	51 (82.3)	NR	11.1 (8.0)
	ADA 20mg q2w (SC) + MTX	69	53.5 (12.4)	52 (75.4)	NR	13.1 (8.1)
	ADA 40mg q2w (SC) + MTX	67	57.2 (11.4)	50 (74.6)	NR	12.2 (11.1)
	ADA 80mg q2w (SC) + MTX	73	55.5 (11.7)	55 (75.3)	NR	12.8 (9.9)
Weinblatt 2012, REALISTIC	Placebo + Standard Therapy	212	53.9 (12.7)	169 (79.7)	NR	8.9 (9.1)
	CERTO 200mg q2w after 400mg at 0, 2 and 4 weeks (SC) + Standard Therapy	851	55.4 (12.4)	660 (77.6)	NR	8.6 (8.8)
Chen 2009, NR	Placebo + MTX	12	53.0 (35.0-73.0)	11 (91.7)	0 (0)	8.3 (1.3-15.6)
	ADA 40mg q2w (SC) + MTX	35	53.0 (29.0-75.0)	26 (74.3)	0 (0)	6.2 (0.3-19.1)
Cohen 2002, NR	Placebo + MTX	74	53.0	(85.1)	67 (90.5)	7.8
	ANA 0.1mg/kg qd (SC) + MTX	74	53.0	(79.7)	67 (90.5)	8.8
	ANA 0.4mg/kg qd (SC) + MTX	77	52.8	(76.6)	64 (83.1)	7.0

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	ANA 1.0mg/kg qd (SC) + MTX	59	49.0	(84.7)	51 (86.4)	6.5
	ANA 2.0mg/kg qd (SC) + MTX	72	54.1	45 (62.5)	66 (91.7)	8
	ANA 0.04mg/kg qd (SC) + MTX	63	52.6	49 (77.8)	56 (88.9)	6.3
Cohen 2004, NR	Placebo + MTX	251	57	188 (75)	218 (87)	10
	ANA 100mg qd (SC) + MTX	250	56	198 (79)	215 (86)	11
Edwards 2004, NR	Placebo + MTX	40	54 (11)	32 (80.0)	NR	11.0 (7.1)
	RIT 1000mg at 1 and 15 days (IV)	40	54 (10)	29 (72.5)	NR	9.3 (5.5)
	RIT 1000 mg at 1 and 15 days (IV) + CTX	41	53 (10)	34 (82.9)	NR	9.8 (6.1)
	RIT 1000mg at 1 and 15 days (IV) + MTX	40	54 (12)	30 (75.0)	NR	11.5 (7.3)
Fleischmann 2009, FAST4WARD	Placebo	109	54.9 (11.6)	97 (89.0)	NR	10.4 (9.6)
	CERTO 400mg q4w (SC)	111	52.7 (12.7)	87 (78.4)	NR	8.7 (8.2)
Genovese 2008, TOWARD	Placebo + csDMARD	415	54 (13)	349 (84)	299 (72)	9.8 (9.1)
	TOC 8mg/kg q4w (IV) + csDMARD	805	53 (13)	652 (81)	580 (72)	9.8 (8.8)
Kavanaugh 2000, NR	Placebo + MTX	7	44.6 (12.5)	6 (86)	NR	4.9 (3.9)
	INF 5mg/kg q8w (IV) + MTX	7	47.0 (6.9)	5 (71)	NR	7.4 (2.7)
	INF 10mg/kg q8w (IV) + MTX	7	53.0 (11.0)	6 (86)	NR	7.5 (4.5)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	INF 20mg/kg q8w (IV) + MTX	7	37.4 (14.3)	7 (100)	NR	4.9 (3.3)
Kay 2008, NR	Placebo + MTX	35	52.0 (46.0-66.0)	26 (74.3)	NR	5.6 (1.4-10.9)
	GOL 50mg q4w (SC) + MTX	35	57.0 (50.0-64.0)	30 (85.7)	NR	8.2 (4.1-14.3)
	GOL 50mg q2w (SC) + MTX	34	48.0 (41.0-63.0)	23 (67.6)	NR	8.2 (2.9-12.8)
	GOL 100mg q4w (SC) + MTX	34	57.5 (47.0-66.0)	26 (76.5)	NR	6.3 (3.4-14.1)
	GOL 100mg q2w (SC) + MTX	34	53.5 (45.0-65.0)	27 (79.4)	NR	9.0 (4.1-14.2)
Keystone 2004, NR	Placebo + MTX	200	56.1 (12.0)	146 (73.0)	166 (83.0)	10.9 (8.8)
	ADA 40mg q2w (SC) + MTX	207	56.1 (13.5)	158 (76.3)	173 (83.6)	11.0 (9.2)
	ADA 20mg qw (SC) + MTX	212	57.3 (10.5)	160 (75.5)	181 (85.4)	11.0 (9.4)
Keystone 2008, RAPID1	Placebo + MTX	199	52.2 (11.2)	(83.9)	NR	6.2 (4.4)
	CERTO 200mg q2w after loading dose of 400mg at 0, 2 and 4 weeks (SC) + MTX	393	51.4 (11.6)	(82.4)	NR	6.1 (4.2)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	CERTO 400mg q2w after loading dose of 400mg at 0, 2 and 4 weeks (SC) + MTX	390	52.4 (11.7)	(83.6)	NR	6.2 (4.4)
Keystone 2009, GO-FORWARD	Placebo + MTX	133	52 (42-58)	109 (82.0)	NR	6.5 (3.1-11.9)
	GOL 100mg qw (SC)	133	51 (42-59)	105 (78.9)	NR	5.9 (2.4-12.2)
	GOL 50mg qw (SC) + MTX	89	52 (43-57)	72 (80.9)	NR	4.5 (2.1-9.7)
	GOL 100mg qw (SC) + MTX	89	50 (45-56)	72 (80.9)	NR	6.7 (2.4-14.3)
Klareskog 2004, TEMPO	Placebo + MTX	228	53.0 (12.8)	180 (79)	NR	6.8 (5.5)
	ETN 25mg biw (SC)	223	53.2 (13.8)	171 (77)	NR	6.3 (5.1)
	ETN 25mg biw (SC) + MTX	231	52.5 (12.4)	171 (74)	NR	6.8 (5.4)
Kremer 2006, AIM	Placebo + MTX	219	50.4 (12.4)	179 (81.7)	193 (88.1)	8.9 (7.1)
	ABA 10mg/kg q4w after loading at 1, 15 and 30 days (IV) + MTX	433	51.5 (12.9)	337 (77.8)	379 (87.5)	8.5 (7.3)
Lan 2004, NR	Placebo + MTX	29	50.79	26 (90)	0 (0)	NR
	ETN 25mg biw (SC) + MTX	29	47.55	24 (83)	0 (0)	NR

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Maini 1998, NR	Placebo + MTX	14	48.8 (12.3)	10 (71)	13 (93)	7.6 (4.0)
	INF 3mg/kg at 0, 2, 6, 10 and 14 days (IV) + MTX	15	58.9 (10.0)	10 (67)	14 (93)	12.1 (9.0)
	INF 3mg/kg at 0, 2, 6, 10 and 14 days (IV)	14	47.0 (15.0)	12 (86)	14 (100)	7.8 (4.3)
	INF 10mg/kg at 0, 2, 6, 10 and 14 days (IV) + MTX	14	50.4 (13.4)	11 (79)	15 (100)	11.1 (7.4)
	INF 10mg/kg at 0, 2, 6, 10 and 14 days (IV)	15	56.3 (9.1)	10 (67)	15 (100)	9.7 (7.4)
	INF 1mg/kg at 0, 2, 6, 10 and 14 days (IV) + MTX	14	53.6 (14.0)	10 (71)	13 (93)	14.3 (12.1)
	INF 1mg/kg at 0, 2, 6, 10 and 14 days (IV)	15	48.7 (13.9)	11 (73)	14 (93)	7.6 (6.0)
Maini 1999, ATTRACT	Placebo + MTX	88	51 (19.0-75.0)	70 (80)	78 (89)	8.9 (0.8–35.0)
	INF 3mg/kg q8w after infusions at 0, 2 and 6 weeks + MTX	86	56 (25.0-74.0)	70 (81)	80 (93)	8.4 (0.7–45.0)
	INF 3mg/kg q4w after infusions at 0, 2 and 6 weeks + MTX	86	51 (19.0-78.0)	66 (77)	76 (88)	7.2 (0.5–33.8)
	INF 10mg/kg q8w after infusions at 0, 2 and 6 weeks + MTX	87	55 (19.0-80.0)	67 (77)	79 (91)	9.0 (0.5–49.9)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	INF 10mg/kg q4w after infusions at 0, 2 and 6 weeks + MTX	81	52 (23.0-74.0)	59 (73)	76 (94)	8.7 (0.6–47.0)
Maini 2006, CHARISMA	MTX	49	50.9	38 (78)	NR	0.94
	TOC 4mg/kg q4w (IV)	54	49.3	41 (76)	NR	0.82
	TOC 8mg/kg q4w (IV)	52	50.1	38 (73)	NR	0.77
	TOC 4mg/kg q4w (IV) + MTX	49	50.2	37 (76)	NR	0.65
	TOC 8mg/kg q4w (IV) + MTX	50	50.1	39 (78)	NR	0.89
	TOC 2mg/kg q4w (IV)	53	52.2	44 (83)	NR	0.77
	TOC 2mg/kg q4w (IV) + MTX	52	49.2	45 (87)	NR	0.78
Miyasaka 2008, CHANGE	Placebo	87	53.4 (12.8)	67 (77.0)	0 (0)	8.4 (8.2)
	ADA 20mg q2w (SC)	87	54.8 (12.5)	69 (79.3)	0 (0)	10.0 (7.7)
	ADA 40mg q2w (SC)	91	56.9 (10.3)	72 (79.1)	0 (0)	9.9 (7.9)
	ADA 80mg q2w (SC)	87	54.3 (10.9)	72 (82.8)	0 (0)	9.5 (8.3)
Moreland 1999, NR	Placebo	80	51	(76)	(89)	12
	ETN 10mg q2w (SC)	76	53	(84)	(96)	13
	ETN 25mg q2w (SC)	78	53	(74)	(94)	11

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Schiff 2008, ATTEST	Placebo + MTX	110	49.4 (11.5)	(87.3)	(76.4)	8.4 (8.6)
	ABA 10mg/kg q4w (IV) after initial infusions on days 1, 15 and 29 (IV) + MTX	156	49.0 (12.5)	(83.3)	(80.8)	7.9 (8.5)
	INF 3mg/kg q8w after initial infusions on days 1, 15, 43 and 85 (IV) + MTX	165	49.1 (12.0)	(82.4)	(80.6)	7.3 (6.2)
Smolen 2008, OPTION	Placebo + MTX	204	50.6 (12.1)	159 (77.9)	NR	7·8 (7·2)
	TOC 4mg/kg q4w (IV) + MTX	214	51·4 (12·8)	175 (82.2)	NR	7·4 (7·4)
	TOC 8mg/kg q4w (IV) + MTX	205	50·8 (11·8)	175 (85.4)	NR	7·5 (7·3)
Smolen 2009, RAPID2	Placebo + MTX	127	51.5 (11.8)	107 (84.3)	NR	5.6 (3.9)
	CERTO 200mg q2w after initial dose of 400mg at 0, 2 and 4 weeks (SC) + MTX	246	52.2 (11.1)	206 (83.7)	NR	6.1 (4.1)
	CERTO 400mg q2w after initial dose of 400mg at 0, 2 and 4 weeks (SC) + MTX	246	51.9 (11.8)	192 (78.0)	NR	6.5 (4.3)
Weinblatt 1999, NR	Placebo + MTX	30	53	22 (73)	25 (83)	13
	ETN 25mg biw (SC) + MTX	59	48	53 (90)	45 (76)	13
O'Dell 1996, NR	MTX	36	50 (21-69)	25 (69)	NR	10 (8)
	HCQ 200mg bid + SSZ 500mg bid	35	49 (36-63)	26 (74)	NR	6 (6)
	MTX + HCQ 200mg bid + SSZ 500mg bid	31	50 (27-67)	20 (65)	NR	10 (10)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Van Vollenhoven 2011, AUGUST II	Placebo + MTX	76	54 (10.3)	64 (84)	NR	8.4 (7.4)
	Atacicept 150mg biw for 4 weeks then 150mg SC qw for 21 weeks (SC) + MTX	78	53 (11.3)	65 (83)	NR	7.8 (7.3)
	Atacicept 150mg biw for 25 weeks (SC) + MTX	78	53 (13.2)	66 (85)	NR	7.3 (6.5)
	ADA 40mg q2w (SC) + MTX	79	53 (11.5)	64 (81)	NR	8.8 (7.4)
van der Heijde 2013, ORAL scan	(PLACEBO to TOF 5mg bid (P.O.) + MTX) + MTX	81	53.2 (11.5)	65 (80.2)	36 (44.4)	8.8 (0.6-30.8)
	(PLACEBO to TOF 10mg bid (P.O.) + MTX) + MTX	79	52.1 (11.8)	72 (91.1)	36 (45.6)	9.5 (0.4-43.5)
	TOF 5mg bid (P.O.) + MTX	321	53.7 (11.6)	269 (83.8)	152 (47.4)	8.9 (0.3-43.0)
	TOF 10mg bid (P.O.) + MTX	316	52.0 (11.4)	273 (86.4)	144 (45.6)	9.0 (0.3-42.0)
Van Riel 2006, ADORE	ETN 25mg biw (SC)	159	53	126 (79.2)	158 (99.4)	10.0
	ETN 25mg biw (SC) + MTX	155	54	119 (76.8)	153 (98.7)	9.8
Zhang 2006, NR	PLACEBO + MTX	86	48.9 (8.0)	73 (84.9)	0 (0)	8.0 (6.2)
	INF 3 mg/kg at 0, 2, 6 and 14 weeks (IV) + MTX	87	47.9 (10.1)	74 (85.1)	0 (0)	7.1 (6.2)

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
Dougados 2017, RA-BUILD	PBO + csDMARD	228	51 (13)	189 (83)	NR	7 (8)
	BAR 2mg/day (P.O.) + csDMARD	229	52 (12)	184 (80)	NR	8 (8)
	BAR 4mg/day (P.O.) + csDMARD	227	52 (12)	187 (82)	NR	8 (8)
Machado 2014, NR	DMARD + MTX	142	48.6 (11.3)	128 (90.1)	65 (45.8)	9.0 (7.5)
	ETN 50mg qw (SC) + MTX	281	48.4 (12.0)	248 (88.3)	134 (47.7)	7.9 (7.0)
Chen 2016, NR	Placebo	119	48.10 (9.84)	107 (89.9)	0 (0)	NR
	Anbainuo 25mg q2w (SC)	239	49.89 (9.98)	213 (89.1)	0 (0)	NR
Smolen 2016, EXXELERATE	ADA 40mg q2w (SC) + MTX	safety (457); efficacy (454)	52.9 (12.8)	362 (79)	NR	5.8 (6.9)
	CERTO 200mg q2w after initial 400mg at 0, 2 and 4 weeks (SC) + MTX	safety (457); efficacy (454)	53.5 (12.3)	360 (79)	NR	6.0 (6.9)
Burmester 2016, MONARCH	SAR 200mg q2w (SC)	184	50.9 (12.6)	157 (85.3)	171 (92.9)	8.1 (8.1)
	ADA 40mg q2w (SC)	185	53.6 (11.9)	150 (81.1)	164 (88.6)	6.6 (7.8)
Kennedy 2014, ALTARA Study	Placebo	44	48.8 (14.0)	37 (84.1)	29 (65.9)	7.2 to 9.3 (overall)
	ADA 40mg q2w (SC) + csDMARD	85	50.6 (13.3)	68 (80.0)	48 (56.5)	
	Pateclizumab 360mg + csDMARD	85	50.2 (13.1)	78 (91.8)	53 (62.4)	
Taylor 2017, RA BEAM	Placebo	488	53 (2)	382 (78)	NR	10 (9)
	BAR 4mg qd (P.O.) + MTX	487	54 (2)	375 (77)	NR	10 (9)
	ADA 40mg q2w (SC) + MTX	330	53 (12)	251 (76)	NR	10 (9)
Weinblatt 1999, NR	Placebo + MTX	30	53	22 (73)	25 (83)	13

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Author Year, Trial name (if known)	Treatment Groups[a]	No. of participants	Age, mean (SD/range) years	Female, n (%)	Caucasian, n (%)	Disease duration, mean (SD/range) years
	ETN 25mg biw (SC) + MTX	59	48	53 (90)	45 (76)	13
Smolen 2014, NR (Part B)	Placebo + csDMARD	30	54.1 (12.7)	25 (83.3)	19 (63.3)	7.7 (6.8)
	SIR 100mg q2w (SC) + csDMARD	30	53.8 (13.0)	27 (90.0)	19 (63.3)	8.3 (6.3)
	SIR 100mg q4w (SC) + csDMARD	30	52.0 (11.0)	27 (90.0)	19 (63.3)	9.3 (8.1)
	SIR 50mg q4w (SC) + csDMARD	30	50.9 (10.3)	26 (86.7)	16 (53.3)	9.9 (9.4)
	SIR 25mg q4w (SC) + csDMARD	31	52.8 (9.4)	23 (74.2)	18 (58.1)	6.6 (7.0)
Samsung Bioepis[b] Co. 2016	ADA 40mg q2w (SC) + MTX	273	52.5 (11.91)	224 (82.1)	NR	NR
	SB5 40mg q2w (SC) + MTX	271	49.8 (12.67)	217 (80.1)	NR	NR
Hoffmann-La Roche[b] 2015	Placebo + csDMARD	19	54 (45-69)	17 (89.5)	NR	NR
	TOC 8mg/kg q4w (IV) + csDMARD	35	54 (28-79)	29 (82.9)	NR	NR
Amgen[b] 2016	ADA 40mg q2w (SC) + MTX	262	56.3 (11.47)	212 (80.92)	249 (95.04)	9.37 (8.047)
	ABP501 40mg q2w (SC) + MTX	264	55.4 (11.88)	214 (81.06)	251 (95.08)	9.41 (8.076)

[a]Certain studies included treatments that are and treatments that are not eligible for the review or used both standard and non-standard doses; this table lists all treatments as they appear in the study. However, only the included treatments listed in Table 2 are standard doses were included in the analysis.
[b]Study sponsor; trial authors were not listed as this was an NCT record
ABA = abatacept; ABP501 = biosimilar adalimumab; ANBAI = AnBaiNuo (biosimilar etanercept); ADA = adalimumab; BAR = baricitinib; bid = twice daily; biw = twice weekly; CERTO = certolizumab pegol; csDMARD = conventional synthetic disease modifying anti-rheumatic drug; CT-P13 = biosimilar infliximab; ETN = etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = biosimilar etanercept; INF = infliximab; IV = intravenous; MTX = methotrexate; P.O. = orally; qw = every week; q2w = every two weeks; q4w = every four weeks; q8w = every eight weeks; qd = every day; RIT = rituximab; SAR = sarilumab; SB2 = biosimilar of infliximab; SB4 = biosimilar of etanercept; SB5 = biosimilar adalimumab; SC = subcutaneous; SIR = sirukumab; SSZ = sulfasalazine; TOC = tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab

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APPENDIX 7: RISK OF BIAS ASSESSMENT

Table 4. Full Results of Risk of Bias Assessment

Author, Year	Sequence Generation	Allocation Concealment	Blinding (Objective outcomes)	Blinding (Subjective outcomes)	Incomplete Outcome Data for Efficacy	Incomplete Outcome Data for Safety	Other Risk of Bias	Overall Quality
Abe 2006	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Bae 2017	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	Low risk of bias	Low risk of bias	High risk
Burmester 2016	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	Low risk
Chen 2009	Unclear	Unclear	Low risk of bias	Unclear	Unclear	Unclear	Low risk of bias	Unclear
Chen 2016	Unclear	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Choe 2017	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk
Choy 2012	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	Unclear	Low risk of bias	High risk
Ciconelli 1996	Unclear	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	Low risk of bias	Unclear
Cohen 2002	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	High risk of bias	Low risk of bias	High risk
Cohen 2004	Unclear	Unclear	Low risk of bias	Unclear	Unclear	Unclear	Low risk of bias	Unclear
Combe 2006	Unclear	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear	Low risk of bias	High risk
Conaghan 2013	Unclear	Low risk of bias	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear

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Author, Year	Sequence Generation	Allocation Concealment	Blinding (Objective outcomes)	Blinding (Subjective outcomes)	Incomplete Outcome Data for Efficacy	Incomplete Outcome Data for Safety	Other Risk of Bias	Overall Quality
Dougados 2013	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Dougados 2017	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	High risk of bias	Low risk of bias	High risk
Edwards 2004	Unclear	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear	Low risk of bias	High risk
Emery 2017	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk
Emery 2010	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear
Fleischmann 2012	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear
Fleischmann 2009	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	High risk of bias	High risk of bias	Low risk of bias	High risk
Furst 2003	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear
Gabay 2013	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	Unclear	High risk of bias	High risk
Genovese 2015	Unclear	Low risk of bias	Low risk of bias	Unclear	High risk of bias	High risk of bias	High risk of bias	High risk
Genovese 2008	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	Unclear	High risk of bias	High risk
Hobbs 2015	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Jani 2016	Low risk of bias	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear

(as supplied by the authors)

Author, Year	Sequence Generation	Allocation Concealment	Blinding (Objective outcomes)	Blinding (Subjective outcomes)	Incomplete Outcome Data for Efficacy	Incomplete Outcome Data for Safety	Other Risk of Bias	Overall Quality
Jobanputra 2012	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	High risk of bias	Low risk of bias	High risk
Kameda 2010	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	High risk of bias	Low risk of bias	High risk
Kaneko 2016	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	Low risk of bias	Low risk of bias	Unclear	High risk
Kavanaugh 2000	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	Low risk
Kay 2008	Unclear	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Kennedy 2014	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	High risk of bias	Low risk of bias	High risk
Kermer 2003	Unclear	Low risk of bias	Low risk of bias	Unclear	High risk of bias	Unclear	Low risk of bias	High risk
Keystone 2015	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Keystone 2004	Unclear	Unclear	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	High risk of bias	High risk
Keystone 2008	Unclear	Unclear	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	High risk of bias	High risk
Keystone 2009	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk
Kim 2007	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	High risk of bias	High risk of bias	High risk
Kim 2012	Low risk of bias	Low risk of bias	Low risk of bias	High risk of	Low risk of bias	Low risk of bias	Low risk of bias	High risk

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Author, Year	Sequence Generation	Allocation Concealment	Blinding (Objective outcomes)	Blinding (Subjective outcomes)	Incomplete Outcome Data for Efficacy	Incomplete Outcome Data for Safety	Other Risk of Bias	Overall Quality
				bias				
Kim 2013	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Klareskog 2004	Unclear	Low risk of bias	Low risk of bias	Unclear	High risk of bias	High risk of bias	Low risk of bias	High risk
Kremer 2011	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	Unclear	High risk of bias	High risk
Kremer 2010	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk
Kremer 2012	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Kremer 2006	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	High risk of bias	High risk of bias	High risk of bias	High risk
Lan 2004	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Le Loet 2008	High risk of bias	High risk of bias	Low risk of bias	High risk of bias	High risk of bias	High risk of bias	Low risk of bias	High risk
Li 2016	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	High risk of bias	High risk of bias	High risk
Machado 2014	Low risk of bias	Unclear	Low risk of bias	High risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk
MacIssac 2014	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Maini 1998	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	Low risk of bias	High risk
Maini 1999	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	High risk of	High risk of	Low risk of bias	High risk

(as supplied by the authors)

Author, Year	Sequence Generation	Allocation Concealment	Blinding (Objective outcomes)	Blinding (Subjective outcomes)	Incomplete Outcome Data for Efficacy	Incomplete Outcome Data for Safety	Other Risk of Bias	Overall Quality
					bias	bias		
Maini 2006	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk
Mladenovic 1995	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk
Moreland 1999	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	Low risk of bias	High risk
Nishimoto 2009	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	Low risk of bias	High risk
O'Dell 2002	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	Low risk of bias	High risk
O'Dell 2013	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk
O'Dell 1996	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Unclear	Unclear	Low risk of bias	Unclear
Peterfy 2016	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	Low risk
Schiff 2013	Unclear	Unclear	Low risk of bias	High risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk
Schiff 2008	Unclear	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Smolen 2014	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear
Smolen 2008	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	High risk of bias	High risk of bias	High risk of bias	High risk

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Author, Year	Sequence Generation	Allocation Concealment	Blinding (Objective outcomes)	Blinding (Subjective outcomes)	Incomplete Outcome Data for Efficacy	Incomplete Outcome Data for Safety	Other Risk of Bias	Overall Quality
Smolen 2009	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	High risk of bias	High risk of bias	High risk
Smolen 2016	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear
Smolen 2017	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear
Smolen 2014	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear
Takeuchi 2015	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Takeuchi 2013	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Takeuchi 2012	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Tanaka 2016	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear
Tanaka 2011	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	Unclear	Low risk of bias	High risk
Tanaka 2012	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
van der Heijde 2013	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	High risk of bias	High risk of bias	High risk of bias	High risk
Van Riel 2006	Unclear	Unclear	Low risk of bias	High risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk
van Vollenhoven	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	Unclear	Low risk of bias	High risk

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Author, Year	Sequence Generation	Allocation Concealment	Blinding (Objective outcomes)	Blinding (Subjective outcomes)	Incomplete Outcome Data for Efficacy	Incomplete Outcome Data for Safety	Other Risk of Bias	Overall Quality
2012								
van Vollenhoven 2011	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk
Weinblatt 2015	Unclear	Unclear	Low risk of bias	Low risk of bias	Unclear	Low risk of bias	High risk of bias	Unclear
Weinblatt 2015	Unclear	Unclear	Low risk of bias	Unclear	Unclear	Unclear	Low risk of bias	Unclear
Weinblatt 2013	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	High risk of bias	Unclear	High risk of bias	High risk
Weinblatt 2003	Unclear	Unclear	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	High risk of bias	Unclear
Weinblatt 2012	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Low risk of bias	Unclear
Weinblatt 1999	Low risk of bias	Unclear	Low risk of bias	Low risk of bias	Unclear	Unclear	Low risk of bias	Unclear
Yamamoto 2014	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	High risk of bias	High risk
Yamamoto 2014	Low risk of bias	Low risk of bias	Low risk of bias	Low risk of bias	High risk of bias	High risk of bias	High risk of bias	High risk
Yazici 2012	Unclear	Unclear	Low risk of bias	Unclear	High risk of bias	High risk of bias	High risk of bias	High risk
Yoo 2013	Low risk of bias	Low risk of bias	Low risk of bias	Unclear	High risk of bias	Unclear	Low risk of bias	High risk
Zhang 2006	Unclear	Unclear	Low risk of bias	Unclear	Unclear	Unclear	Low risk of bias	Unclear

(as supplied by the authors)

APPENDIX 8: SENSITIVITY ANALYSES

Table 5. Summary of Sensitivity Analysis Results – MTX as a Common Comparator

Type of SA (number of comparisons)	**No difference in results**	**REF<0, SA=0**	**REF=0, SA>0**	**REF=0, SA<0**	**REF>0, SA=0**	**REF<0, SA>0**	**REF>0 , SA<0**
American College of Rheumatology 50 (ACR50)							
Biologic naïve* (n = 190)	146	3	4	0	37	0	0
Non-Asian* (n = 406)	309	10	28	3	56	0	0
Asian* (n = 91)	71	4	8	3	4	1	0
IR MTX Only (n = 378)	262	6	30	26	51	2	1
< year 2007 studies (n = 120)	71	3	9	15	19	0	3
No older triple DMARD* (n = 378)	290	10	22	1	55	0	0
EOT data (n = 465)	348	9	25	5	76	0	2
> year 2007 studies (n = 300)	235	7	27	0	31	0	0
All doses (n = 630)	557	10	20	4	39	0	0
Restricted time-point (12-16 weeks)* (n = 136)	99	0	6	16	15	0	0
Withdrawals due to Adverse Events (WDAE)							
Biologic naïve (n = 153)	146	0	0	1	6	0	0
Non-Asian (n = 325)	315	3	1	0	6	0	0
Asian (n = 66)	63	1	1	0	1	0	0
IR MTX Only (n = 300)	292	1	0	1	6	0	0
< year 2007 studies (n = 105)	105	0	0	0	0	0	0
No older triple csDMARD (n = 300)	297	0	0	3	0	0	0
EOT data (n = 371)	335	1	8	0	7	0	0
> year 2007 studies (n = 105)	100	1	1	3	0	0	0
All doses (n = 325)	311	3	8	2	1	0	0
Restricted time-point (12-16 weeks) (n = 66)	65	0	0	0	1	0	0
Impute Standard Error							
DAS28 (n = 435)	426	0	1	8	0	0	0

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HAQ-DI (n = 159)	137	19	0	2	0	1	0
Pain (n = 120)	100	20	0	0	0	0	0
Fatigue (n = 66)	66	0	0	0	0	0	0
SF-36 PCS (n = 36)	35	0	1	0	0	0	0
SF-36 MCS (n = 36)	36	0	0	0	0	0	0

Comparisons between the reference case and sensitivity analyses for binary outcomes were all completed using the log odds ratio (95% credible interval).

*Indicates a post hoc sensitivity analysis

csDMARD = conventional synthetic anti-rheumatic drug; EOT = end of treatment; REF<0: the reference case was statistically significant in favour of the comparator for outcomes where a positive result is better or in favour of the treatment where a negative result it better; REF=0: the reference case was not statistically significant; REF>0: the reference case was statistically significant in favour of the treatment for outcomes where a positive result is better or in favour of the comparator where a negative result is better; SA<0: the reference case was statistically significant in favour of the comparator for outcomes where a positive result is better or in favour of the treatment where a negative result it better; SA=0: the reference case was not statistically significant; SA>0: the reference case was statistically significant in favour of the treatment for outcomes where a positive result is better or in favour of the comparator where a negative result is better

(as supplied by the authors)

Table 6. Sensitivity Analysis Results, ACR50 (MTX as a Common Comparator) – All Treatment Doses

Treatment	Comparator	OR (95% CrI)
Placebo	Placebo+MTX	0.72 (0.35, 1.39)
csDMARD+MTX		1.90 (0.79, 4.78)
MTX+SSZ		0.98 (0.16, 6.27)
MTX+HCQ		4.67 (0.93, 22.11)
SSZ+HCQ		1.17 (0.37, 3.68)
MTX+SSZ+HCQ		5.09 (2.21, 12.74)
ETN_STD		3.24 (1.74, 6.56)
ETN_STD+MTX		7.00 (3.99, 13.67)
ABA_STD (IV)+MTX		4.13 (2.52, 6.95)
ADA_STD+MTX		3.79 (2.61, 5.59)
TOF_STD+MTX		5.52 (3.27, 9.30)
TOF_STD		4.12 (0.91, 17.64)
TOC_4 (IV)		1.48 (0.54, 4.06)
TOC_8 (IV)		3.83 (2.06, 7.16)
TOC_4 (IV)+MTX		2.70 (1.37, 5.25)
TOC_8 (IV)+MTX		4.33 (2.55, 7.59)
GOL_STD (SC)		3.63 (1.14, 11.16)
GOL_STD (SC)+MTX		6.46 (3.52, 12.30)
GOL_STD (IV)+MTX		2.90 (1.16, 7.70)
INF_STD+MTX		3.05 (1.78, 5.33)
CERTO_STD+MTX		5.35 (3.35, 8.70)
CERTO_STD		6.54 (2.10, 20.39)
RIT_STD		3.53 (0.87, 15.24)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD+MTX		5.28 (1.42, 22.65)
BAR_4+MTX		5.00 (2.75, 9.56)
HD203+MTX		12.59 (4.27, 43.00)
SB4+MTX		8.20 (2.90, 24.93)
ANBAI+MTX		8.53 (3.01, 27.07)
CT-P13+MTX		4.18 (1.75, 10.44)
SB2+MTX		2.62 (0.90, 7.66)
SB5+MTX		3.53 (1.28, 9.21)
ZRC-3197+MTX		3.62 (1.15, 11.03)
ABP501+MTX		3.42 (1.24, 9.03)
csDMARD+MTX	Placebo	2.64 (0.93, 8.26)
MTX+SSZ		1.37 (0.20, 9.95)
MTX+HCQ		6.47 (1.12, 36.62)
SSZ+HCQ		1.65 (0.43, 6.05)
MTX+SSZ+HCQ		7.12 (2.53, 22.33)
ETN_STD		4.51 (2.07, 10.95)
ETN_STD+MTX		9.66 (4.40, 24.58)
ABA_STD (IV)+MTX		5.70 (2.53, 14.09)
ADA_STD+MTX		5.26 (2.72, 10.86)
TOF_STD+MTX		7.62 (3.38, 18.68)
TOF_STD		5.58 (1.60, 20.78)
TOC_4 (IV)		2.10 (0.62, 7.10)
TOC_8 (IV)		5.32 (2.20, 13.62)
TOC_4 (IV)+MTX		3.74 (1.45, 10.03)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		6.04 (2.66, 14.97)
GOL_STD (SC)		5.06 (1.78, 14.94)
GOL_STD (SC)+MTX		9.09 (3.84, 21.86)
GOL_STD (IV)+MTX		4.04 (1.31, 13.25)
INF_STD+MTX		4.25 (1.87, 10.30)
CERTO_STD+MTX		7.40 (3.43, 17.78)
CERTO_STD		8.97 (3.93, 22.78)
RIT_STD		4.90 (1.00, 25.32)
RIT_STD+MTX		7.39 (1.71, 37.43)
BAR_4+MTX		6.91 (3.46, 15.13)
HD203+MTX		17.77 (5.14, 67.36)
SB4+MTX		11.47 (3.60, 42.01)
ANBAI+MTX		11.79 (3.47, 44.98)
CT-P13+MTX		5.76 (1.99, 18.38)
SB2+MTX		3.62 (1.09, 13.18)
SB5+MTX		4.87 (1.61, 15.71)
ZRC-3197+MTX		5.06 (1.39, 18.33)
ABP501+MTX		4.73 (1.48, 15.09)
MTX+SSZ	csDMARD+MTX	0.53 (0.07, 3.35)
MTX+HCQ		2.44 (0.42, 13.48)
SSZ+HCQ		0.62 (0.14, 2.54)
MTX+SSZ+HCQ		2.69 (0.95, 7.58)
ETN_STD		1.71 (0.72, 4.07)
ETN_STD+MTX		3.69 (1.87, 7.31)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (IV)+MTX		2.19 (0.79, 5.73)
ADA_STD+MTX		1.99 (0.73, 5.16)
TOF_STD+MTX		2.89 (1.01, 8.25)
TOF_STD		2.12 (0.39, 11.13)
TOC_4 (IV)		0.78 (0.21, 2.87)
TOC_8 (IV)		2.01 (0.67, 5.95)
TOC_4 (IV)+MTX		1.44 (0.44, 4.24)
TOC_8 (IV)+MTX		2.31 (0.78, 6.31)
GOL_STD (SC)		1.92 (0.44, 7.65)
GOL_STD (SC)+MTX		3.47 (1.13, 9.65)
GOL_STD (IV)+MTX		1.56 (0.40, 5.68)
INF_STD+MTX		1.62 (0.55, 4.46)
CERTO_STD+MTX		2.86 (1.02, 7.47)
CERTO_STD		3.38 (0.83, 14.37)
RIT_STD		1.84 (0.33, 10.69)
RIT_STD+MTX		2.78 (0.53, 16.23)
BAR_4+MTX		2.65 (0.86, 7.74)
HD203+MTX		6.77 (1.96, 21.70)
SB4+MTX		4.35 (1.49, 13.39)
ANBAI+MTX		4.58 (1.09, 17.85)
CT-P13+MTX		2.23 (0.60, 7.41)
SB2+MTX		1.39 (0.34, 5.40)
SB5+MTX		1.88 (0.48, 6.80)
ZRC-3197+MTX		1.91 (0.43, 7.97)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		1.82 (0.46, 6.66)
MTX+HCQ	MTX+SSZ	4.59 (0.99, 23.51)
SSZ+HCQ		1.16 (0.15, 9.73)
MTX+SSZ+HCQ		5.07 (1.12, 25.91)
ETN_STD		3.26 (0.56, 21.52)
ETN_STD+MTX		7.00 (1.24, 45.71)
ABA_STD (IV)+MTX		4.15 (0.64, 28.37)
ADA_STD+MTX		3.85 (0.56, 24.84)
TOF_STD+MTX		5.60 (0.81, 38.11)
TOF_STD		4.08 (0.40, 45.64)
TOC_4 (IV)		1.49 (0.20, 12.42)
TOC_8 (IV)		3.81 (0.56, 28.52)
TOC_4 (IV)+MTX		2.70 (0.38, 19.32)
TOC_8 (IV)+MTX		4.41 (0.66, 30.69)
GOL_STD (SC)		3.64 (0.47, 31.72)
GOL_STD (SC)+MTX		6.68 (0.95, 46.35)
GOL_STD (IV)+MTX		2.97 (0.40, 22.74)
INF_STD+MTX		3.06 (0.47, 21.40)
CERTO_STD+MTX		5.40 (0.82, 38.51)
CERTO_STD		6.78 (0.75, 53.08)
RIT_STD		3.51 (0.34, 41.36)
RIT_STD+MTX		5.30 (0.55, 55.75)
BAR_4+MTX		5.23 (0.72, 34.68)
HD203+MTX		12.71 (1.82, 101.70)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		8.32 (1.20, 66.17)
ANBAI+MTX		8.51 (1.10, 77.36)
CT-P13+MTX		4.10 (0.61, 33.79)
SB2+MTX		2.62 (0.33, 23.46)
SB5+MTX		3.59 (0.42, 27.36)
ZRC-3197+MTX		3.60 (0.41, 32.59)
ABP501+MTX		3.40 (0.41, 27.74)
SSZ+HCQ	MTX+HCQ	0.26 (0.04, 1.65)
MTX+SSZ+HCQ		1.10 (0.29, 4.23)
ETN_STD		0.70 (0.14, 3.75)
ETN_STD+MTX		1.53 (0.33, 7.61)
ABA_STD (IV)+MTX		0.90 (0.17, 4.83)
ADA_STD+MTX		0.81 (0.17, 4.24)
TOF_STD+MTX		1.20 (0.23, 6.48)
TOF_STD		0.88 (0.10, 7.93)
TOC_4 (IV)		0.32 (0.05, 2.20)
TOC_8 (IV)		0.83 (0.15, 4.68)
TOC_4 (IV)+MTX		0.58 (0.11, 3.25)
TOC_8 (IV)+MTX		0.94 (0.18, 5.00)
GOL_STD (SC)		0.77 (0.13, 5.69)
GOL_STD (SC)+MTX		1.41 (0.26, 7.80)
GOL_STD (IV)+MTX		0.63 (0.10, 4.06)
INF_STD+MTX		0.66 (0.13, 3.65)
CERTO_STD+MTX		1.16 (0.23, 6.05)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD		1.42 (0.20, 9.94)
RIT_STD		0.77 (0.09, 6.64)
RIT_STD+MTX		1.15 (0.14, 9.98)
BAR_4+MTX		1.09 (0.20, 6.06)
HD203+MTX		2.76 (0.44, 17.46)
SB4+MTX		1.79 (0.30, 11.11)
ANBAI+MTX		1.85 (0.27, 13.08)
CT-P13+MTX		0.89 (0.16, 5.61)
SB2+MTX		0.57 (0.08, 3.92)
SB5+MTX		0.77 (0.11, 4.77)
ZRC-3197+MTX		0.78 (0.11, 5.69)
ABP501+MTX		0.72 (0.12, 4.93)
MTX+SSZ+HCQ	SSZ+HCQ	4.37 (1.31, 15.24)
ETN_STD		2.79 (0.79, 10.60)
ETN_STD+MTX		6.03 (1.82, 21.28)
ABA_STD (IV)+MTX		3.53 (1.02, 12.64)
ADA_STD+MTX		3.22 (0.99, 10.93)
TOF_STD+MTX		4.68 (1.33, 17.40)
TOF_STD		3.42 (0.58, 21.72)
TOC_4 (IV)		1.26 (0.29, 6.08)
TOC_8 (IV)		3.24 (0.90, 12.90)
TOC_4 (IV)+MTX		2.31 (0.61, 9.17)
TOC_8 (IV)+MTX		3.69 (1.06, 13.44)
GOL_STD (SC)		3.07 (0.63, 15.19)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)+MTX		5.57 (1.57, 19.88)
GOL_STD (IV)+MTX		2.46 (0.58, 11.37)
INF_STD+MTX		2.61 (0.72, 9.17)
CERTO_STD+MTX		4.60 (1.30, 16.29)
CERTO_STD		5.44 (1.14, 27.68)
RIT_STD		3.02 (0.50, 19.43)
RIT_STD+MTX		4.43 (0.81, 31.04)
BAR_4+MTX		4.32 (1.18, 16.11)
HD203+MTX		10.90 (2.37, 51.04)
SB4+MTX		7.16 (1.55, 33.11)
ANBAI+MTX		7.30 (1.53, 38.10)
CT-P13+MTX		3.60 (0.86, 15.08)
SB2+MTX		2.24 (0.45, 10.73)
SB5+MTX		2.99 (0.69, 13.47)
ZRC-3197+MTX		3.06 (0.61, 15.90)
ABP501+MTX		2.87 (0.66, 12.94)
ETN_STD	MTX+SSZ+HCQ	0.64 (0.25, 1.60)
ETN_STD+MTX		1.37 (0.62, 3.13)
ABA_STD (IV)+MTX		0.81 (0.29, 2.14)
ADA_STD+MTX		0.74 (0.27, 1.85)
TOF_STD+MTX		1.09 (0.38, 2.88)
TOF_STD		0.79 (0.15, 4.26)
TOC_4 (IV)		0.29 (0.08, 1.05)
TOC_8 (IV)		0.75 (0.24, 2.16)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)+MTX		0.53 (0.16, 1.51)
TOC_8 (IV)+MTX		0.86 (0.30, 2.27)
GOL_STD (SC)		0.71 (0.17, 2.94)
GOL_STD (SC)+MTX		1.29 (0.41, 3.58)
GOL_STD (IV)+MTX		0.57 (0.15, 2.06)
INF_STD+MTX		0.60 (0.21, 1.66)
CERTO_STD+MTX		1.06 (0.37, 2.78)
CERTO_STD		1.27 (0.31, 5.20)
RIT_STD		0.70 (0.12, 3.67)
RIT_STD+MTX		1.04 (0.21, 5.73)
BAR_4+MTX		0.98 (0.32, 2.86)
HD203+MTX		2.49 (0.70, 8.66)
SB4+MTX		1.63 (0.48, 5.31)
ANBAI+MTX		1.69 (0.40, 6.62)
CT-P13+MTX		0.83 (0.24, 2.76)
SB2+MTX		0.51 (0.13, 2.00)
SB5+MTX		0.69 (0.18, 2.47)
ZRC-3197+MTX		0.71 (0.16, 3.03)
ABP501+MTX		0.66 (0.18, 2.49)
ETN_STD+MTX	ETN_STD	2.16 (1.30, 3.70)
ABA_STD (IV)+MTX		1.28 (0.55, 2.79)
ADA_STD+MTX		1.17 (0.53, 2.40)
TOF_STD+MTX		1.70 (0.71, 3.79)
TOF_STD		1.23 (0.27, 5.50)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		0.46 (0.14, 1.45)
TOC_8 (IV)		1.18 (0.47, 2.84)
TOC_4 (IV)+MTX		0.83 (0.31, 2.07)
TOC_8 (IV)+MTX		1.34 (0.58, 3.02)
GOL_STD (SC)		1.12 (0.32, 3.69)
GOL_STD (SC)+MTX		2.01 (0.80, 4.86)
GOL_STD (IV)+MTX		0.90 (0.28, 2.80)
INF_STD+MTX		0.94 (0.39, 2.13)
CERTO_STD+MTX		1.66 (0.71, 3.59)
CERTO_STD		2.00 (0.58, 6.66)
RIT_STD		1.09 (0.21, 5.51)
RIT_STD+MTX		1.64 (0.36, 7.92)
BAR_4+MTX		1.55 (0.64, 3.68)
HD203+MTX		3.92 (1.32, 12.12)
SB4+MTX		2.53 (0.92, 7.17)
ANBAI+MTX		2.59 (0.76, 9.61)
CT-P13+MTX		1.29 (0.42, 3.88)
SB2+MTX		0.81 (0.23, 2.72)
SB5+MTX		1.09 (0.32, 3.39)
ZRC-3197+MTX		1.10 (0.29, 4.05)
ABP501+MTX		1.05 (0.31, 3.26)
ABA_STD (IV)+MTX	ETN_STD+MTX	0.59 (0.27, 1.23)
ADA_STD+MTX		0.54 (0.25, 1.04)
TOF_STD+MTX		0.79 (0.35, 1.71)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOF_STD		0.57 (0.12, 2.62)
TOC_4 (IV)		0.21 (0.07, 0.66)
TOC_8 (IV)		0.55 (0.23, 1.27)
TOC_4 (IV)+MTX		0.39 (0.15, 0.90)
TOC_8 (IV)+MTX		0.62 (0.27, 1.32)
GOL_STD (SC)		0.52 (0.14, 1.74)
GOL_STD (SC)+MTX		0.92 (0.37, 2.14)
GOL_STD (IV)+MTX		0.42 (0.13, 1.25)
INF_STD+MTX		0.44 (0.19, 0.95)
CERTO_STD+MTX		0.77 (0.34, 1.56)
CERTO_STD		0.92 (0.27, 3.11)
RIT_STD		0.50 (0.10, 2.55)
RIT_STD+MTX		0.75 (0.17, 3.72)
BAR_4+MTX		0.72 (0.29, 1.66)
HD203+MTX		1.80 (0.67, 4.81)
SB4+MTX		1.18 (0.47, 2.80)
ANBAI+MTX		1.23 (0.36, 4.20)
CT-P13+MTX		0.60 (0.20, 1.66)
SB2+MTX		0.37 (0.11, 1.23)
SB5+MTX		0.50 (0.15, 1.53)
ZRC-3197+MTX		0.51 (0.14, 1.82)
ABP501+MTX		0.49 (0.15, 1.44)
ADA_STD+MTX	ABA_STD (IV)+MTX	0.91 (0.48, 1.71)
TOF_STD+MTX		1.34 (0.63, 2.77)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOF_STD		0.99 (0.20, 4.52)
TOC_4 (IV)		0.36 (0.11, 1.13)
TOC_8 (IV)		0.93 (0.41, 2.05)
TOC_4 (IV)+MTX		0.65 (0.28, 1.51)
TOC_8 (IV)+MTX		1.06 (0.50, 2.18)
GOL_STD (SC)		0.88 (0.24, 2.94)
GOL_STD (SC)+MTX		1.57 (0.71, 3.55)
GOL_STD (IV)+MTX		0.71 (0.25, 2.09)
INF_STD+MTX		0.74 (0.38, 1.39)
CERTO_STD+MTX		0.99 (0.34, 2.80)
CERTO_STD		1.31 (0.65, 2.50)
RIT_STD		1.58 (0.44, 5.39)
RIT_STD+MTX		0.85 (0.19, 4.00)
BAR_4+MTX		1.21 (0.55, 2.71)
HD203+MTX		3.08 (0.91, 11.39)
SB4+MTX		2.00 (0.61, 6.42)
ANBAI+MTX		2.07 (0.63, 7.09)
CT-P13+MTX		1.02 (0.39, 2.67)
SB2+MTX		0.63 (0.20, 1.94)
SB5+MTX		0.86 (0.28, 2.50)
ZRC-3197+MTX		0.88 (0.25, 2.95)
ABP501+MTX		0.84 (0.26, 2.45)
TOF_STD+MTX	ADA_STD+MTX	1.45 (0.81, 2.66)
TOF_STD		1.08 (0.24, 4.66)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		0.39 (0.14, 1.16)
TOC_8 (IV)		1.02 (0.49, 2.09)
TOC_4 (IV)+MTX		0.72 (0.33, 1.54)
TOC_8 (IV)+MTX		1.15 (0.59, 2.19)
GOL_STD (SC)		0.96 (0.29, 2.99)
GOL_STD (SC)+MTX		1.71 (0.86, 3.58)
GOL_STD (IV)+MTX		0.77 (0.28, 2.17)
INF_STD+MTX		0.81 (0.42, 1.55)
CERTO_STD+MTX		1.42 (0.83, 2.42)
CERTO_STD		1.73 (0.56, 5.40)
RIT_STD		0.93 (0.22, 4.23)
RIT_STD+MTX		1.39 (0.36, 6.14)
BAR_4+MTX		1.33 (0.70, 2.59)
HD203+MTX		3.36 (1.08, 11.64)
SB4+MTX		2.16 (0.72, 7.16)
ANBAI+MTX		2.26 (0.74, 7.41)
CT-P13+MTX		1.11 (0.42, 2.92)
SB2+MTX		0.69 (0.22, 2.13)
SB5+MTX		0.93 (0.37, 2.28)
ZRC-3197+MTX		0.96 (0.31, 2.85)
ABP501+MTX		0.90 (0.36, 2.24)
TOF_STD	TOF_STD+MTX	0.74 (0.15, 3.41)
TOC_4 (IV)		0.27 (0.09, 0.84)
TOC_8 (IV)		0.69 (0.31, 1.55)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)+MTX		0.49 (0.21, 1.14)
TOC_8 (IV)+MTX		0.79 (0.37, 1.64)
GOL_STD (SC)		0.66 (0.19, 2.26)
GOL_STD (SC)+MTX		1.17 (0.52, 2.67)
GOL_STD (IV)+MTX		0.53 (0.18, 1.59)
INF_STD+MTX		0.55 (0.26, 1.20)
CERTO_STD+MTX		0.96 (0.48, 2.01)
CERTO_STD		1.19 (0.34, 4.13)
RIT_STD		0.63 (0.14, 3.12)
RIT_STD+MTX		0.95 (0.23, 4.48)
BAR_4+MTX		0.91 (0.42, 2.09)
HD203+MTX		2.30 (0.67, 8.27)
SB4+MTX		1.49 (0.45, 5.17)
ANBAI+MTX		1.55 (0.47, 5.34)
CT-P13+MTX		0.75 (0.27, 2.18)
SB2+MTX		0.47 (0.14, 1.55)
SB5+MTX		0.64 (0.21, 1.86)
ZRC-3197+MTX		0.65 (0.19, 2.26)
ABP501+MTX		0.61 (0.21, 1.85)
TOC_4 (IV)	TOF_STD	0.37 (0.06, 2.18)
TOC_8 (IV)		0.95 (0.20, 4.81)
TOC_4 (IV)+MTX		0.66 (0.13, 3.54)
TOC_8 (IV)+MTX		1.06 (0.23, 5.48)
GOL_STD (SC)		0.90 (0.17, 4.68)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)+MTX		1.61 (0.34, 7.80)
GOL_STD (IV)+MTX		0.72 (0.13, 4.21)
INF_STD+MTX		0.75 (0.16, 3.63)
CERTO_STD+MTX		1.31 (0.28, 6.63)
CERTO_STD		1.65 (0.33, 7.49)
RIT_STD		0.85 (0.11, 7.49)
RIT_STD+MTX		1.29 (0.18, 11.68)
BAR_4+MTX		1.25 (0.27, 5.32)
HD203+MTX		3.14 (0.53, 19.56)
SB4+MTX		2.05 (0.35, 12.53)
ANBAI+MTX		2.12 (0.35, 14.46)
CT-P13+MTX		1.01 (0.20, 5.72)
SB2+MTX		0.66 (0.11, 3.99)
SB5+MTX		0.86 (0.16, 4.89)
ZRC-3197+MTX		0.89 (0.14, 5.76)
ABP501+MTX		0.84 (0.15, 4.92)
TOC_8 (IV)	TOC_4 (IV)	2.55 (0.95, 7.19)
TOC_4 (IV)+MTX		1.80 (0.63, 5.30)
TOC_8 (IV)+MTX		2.90 (1.09, 8.00)
GOL_STD (SC)		2.46 (0.55, 10.42)
GOL_STD (SC)+MTX		4.39 (1.31, 14.03)
GOL_STD (IV)+MTX		1.96 (0.50, 7.72)
INF_STD+MTX		2.04 (0.64, 6.52)
CERTO_STD+MTX		3.63 (1.15, 11.01)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD		4.32 (0.99, 19.67)
RIT_STD		2.39 (0.42, 14.00)
RIT_STD+MTX		3.56 (0.65, 21.10)
BAR_4+MTX		3.36 (1.05, 11.28)
HD203+MTX		8.57 (1.87, 40.98)
SB4+MTX		5.54 (1.29, 24.08)
ANBAI+MTX		5.74 (1.35, 26.63)
CT-P13+MTX		2.77 (0.74, 11.35)
SB2+MTX		1.76 (0.40, 7.65)
SB5+MTX		2.38 (0.58, 9.32)
ZRC-3197+MTX		2.40 (0.54, 10.98)
ABP501+MTX		2.29 (0.55, 9.66)
TOC_4 (IV)+MTX	TOC_8 (IV)	0.71 (0.34, 1.46)
TOC_8 (IV)+MTX		1.14 (0.68, 1.91)
GOL_STD (SC)		0.95 (0.27, 3.30)
GOL_STD (SC)+MTX		1.69 (0.70, 4.07)
GOL_STD (IV)+MTX		0.76 (0.25, 2.44)
INF_STD+MTX		0.80 (0.35, 1.84)
CERTO_STD+MTX		1.40 (0.66, 3.05)
CERTO_STD		1.70 (0.47, 6.16)
RIT_STD		0.93 (0.19, 4.53)
RIT_STD+MTX		1.39 (0.31, 6.64)
BAR_4+MTX		1.31 (0.55, 3.28)
HD203+MTX		3.32 (0.93, 13.06)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		2.17 (0.63, 7.69)
ANBAI+MTX		2.23 (0.64, 8.33)
CT-P13+MTX		1.09 (0.38, 3.45)
SB2+MTX		0.68 (0.20, 2.32)
SB5+MTX		0.92 (0.29, 2.89)
ZRC-3197+MTX		0.95 (0.26, 3.41)
ABP501+MTX		0.89 (0.27, 2.88)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.61 (0.87, 3.13)
GOL_STD (SC)		1.36 (0.36, 4.80)
GOL_STD (SC)+MTX		2.40 (0.95, 6.06)
GOL_STD (IV)+MTX		1.09 (0.34, 3.58)
INF_STD+MTX		1.13 (0.47, 2.73)
CERTO_STD+MTX		1.98 (0.88, 4.64)
CERTO_STD		2.45 (0.63, 8.93)
RIT_STD		1.32 (0.27, 6.49)
RIT_STD+MTX		1.98 (0.45, 9.44)
BAR_4+MTX		1.84 (0.75, 4.81)
HD203+MTX		4.67 (1.32, 19.06)
SB4+MTX		3.03 (0.90, 11.77)
ANBAI+MTX		3.20 (0.89, 11.89)
CT-P13+MTX		1.55 (0.52, 4.76)
SB2+MTX		0.98 (0.28, 3.48)
SB5+MTX		1.30 (0.40, 4.30)
ZRC-3197+MTX		1.33 (0.36, 5.14)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		1.27 (0.37, 4.11)
GOL_STD (SC)	TOC_8 (IV)+MTX	0.84 (0.24, 2.87)
GOL_STD (SC)+MTX		1.49 (0.66, 3.39)
GOL_STD (IV)+MTX		0.67 (0.23, 2.06)
INF_STD+MTX		0.71 (0.33, 1.51)
CERTO_STD+MTX		1.24 (0.60, 2.50)
CERTO_STD		1.51 (0.42, 5.24)
RIT_STD		0.81 (0.17, 3.77)
RIT_STD+MTX		1.23 (0.29, 5.67)
BAR_4+MTX		1.16 (0.51, 2.64)
HD203+MTX		2.92 (0.85, 10.98)
SB4+MTX		1.89 (0.60, 6.46)
ANBAI+MTX		1.97 (0.60, 7.01)
CT-P13+MTX		0.95 (0.34, 2.85)
SB2+MTX		0.60 (0.18, 1.95)
SB5+MTX		0.82 (0.26, 2.38)
ZRC-3197+MTX		0.83 (0.23, 2.91)
ABP501+MTX		0.78 (0.25, 2.37)
GOL_STD (SC)+MTX	GOL_STD (SC)	1.80 (0.56, 5.89)
GOL_STD (IV)+MTX		0.81 (0.19, 3.49)
INF_STD+MTX		0.84 (0.26, 3.03)
CERTO_STD+MTX		1.47 (0.44, 5.17)
CERTO_STD		1.80 (0.46, 7.15)
RIT_STD		0.96 (0.16, 6.08)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD+MTX		1.48 (0.26, 8.99)
BAR_4+MTX		1.39 (0.41, 4.66)
HD203+MTX		3.48 (0.75, 18.20)
SB4+MTX		2.26 (0.51, 11.02)
ANBAI+MTX		2.35 (0.51, 11.82)
CT-P13+MTX		1.15 (0.28, 4.96)
SB2+MTX		0.72 (0.16, 3.45)
SB5+MTX		0.96 (0.22, 4.33)
ZRC-3197+MTX		1.00 (0.20, 4.81)
ABP501+MTX		0.94 (0.22, 4.08)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.45 (0.14, 1.40)
INF_STD+MTX		0.47 (0.21, 1.11)
CERTO_STD+MTX		0.83 (0.37, 1.80)
CERTO_STD		1.00 (0.29, 3.50)
RIT_STD		0.53 (0.12, 2.73)
RIT_STD+MTX		0.82 (0.18, 3.94)
BAR_4+MTX		0.78 (0.32, 1.84)
HD203+MTX		1.93 (0.55, 8.00)
SB4+MTX		1.27 (0.39, 4.51)
ANBAI+MTX		1.32 (0.37, 4.89)
CT-P13+MTX		0.64 (0.22, 1.98)
SB2+MTX		0.40 (0.12, 1.40)
SB5+MTX		0.54 (0.17, 1.71)
ZRC-3197+MTX		0.56 (0.15, 2.01)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		0.53 (0.16, 1.64)
INF_STD+MTX	GOL_STD (IV)+MTX	1.06 (0.35, 3.00)
CERTO_STD+MTX		1.85 (0.64, 5.14)
CERTO_STD		2.24 (0.51, 9.46)
RIT_STD		1.20 (0.21, 6.94)
RIT_STD+MTX		1.81 (0.34, 10.19)
BAR_4+MTX		1.70 (0.55, 5.56)
HD203+MTX		4.36 (1.02, 20.81)
SB4+MTX		2.80 (0.68, 12.16)
ANBAI+MTX		2.93 (0.70, 12.95)
CT-P13+MTX		1.44 (0.39, 5.35)
SB2+MTX		0.90 (0.22, 3.63)
SB5+MTX		1.21 (0.29, 4.54)
ZRC-3197+MTX		1.24 (0.27, 5.43)
ABP501+MTX		1.16 (0.28, 4.54)
CERTO_STD+MTX	INF_STD+MTX	1.75 (0.85, 3.61)
CERTO_STD		2.13 (0.60, 7.39)
RIT_STD		1.16 (0.25, 5.36)
RIT_STD+MTX		1.74 (0.42, 8.08)
BAR_4+MTX		1.63 (0.75, 3.81)
HD203+MTX		4.13 (1.24, 15.41)
SB4+MTX		2.67 (0.84, 9.36)
ANBAI+MTX		2.78 (0.86, 9.75)
CT-P13+MTX		1.37 (0.68, 2.82)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		0.86 (0.34, 2.13)
SB5+MTX		1.15 (0.38, 3.34)
ZRC-3197+MTX		1.18 (0.35, 4.05)
ABP501+MTX		1.12 (0.36, 3.30)
CERTO_STD	CERTO_STD+MTX	1.22 (0.35, 3.95)
RIT_STD		0.66 (0.16, 3.02)
RIT_STD+MTX		0.99 (0.25, 4.31)
BAR_4+MTX		0.93 (0.44, 2.05)
HD203+MTX		2.36 (0.72, 8.58)
SB4+MTX		1.53 (0.49, 5.38)
ANBAI+MTX		1.59 (0.51, 5.35)
CT-P13+MTX		0.79 (0.28, 2.14)
SB2+MTX		0.49 (0.15, 1.53)
SB5+MTX		0.66 (0.23, 1.86)
ZRC-3197+MTX		0.68 (0.19, 2.25)
ABP501+MTX		0.64 (0.22, 1.82)
RIT_STD	CERTO_STD	0.54 (0.09, 3.61)
RIT_STD+MTX		0.82 (0.14, 5.21)
BAR_4+MTX		0.77 (0.25, 2.51)
HD203+MTX		1.98 (0.42, 9.70)
SB4+MTX		1.27 (0.29, 6.09)
ANBAI+MTX		1.30 (0.29, 6.53)
CT-P13+MTX		0.64 (0.15, 2.81)
SB2+MTX		0.40 (0.09, 1.95)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		0.54 (0.13, 2.39)
ZRC-3197+MTX		0.56 (0.12, 2.75)
ABP501+MTX		0.52 (0.12, 2.26)
RIT_STD+MTX	RIT_STD	1.50 (0.45, 5.18)
BAR_4+MTX		1.44 (0.30, 6.57)
HD203+MTX		3.55 (0.54, 23.77)
SB4+MTX		2.37 (0.38, 14.63)
ANBAI+MTX		2.42 (0.40, 14.95)
CT-P13+MTX		1.18 (0.21, 6.55)
SB2+MTX		0.74 (0.13, 4.43)
SB5+MTX		1.00 (0.17, 5.57)
ZRC-3197+MTX		1.02 (0.16, 6.38)
ABP501+MTX		0.98 (0.16, 5.36)
BAR_4+MTX	RIT_STD+MTX	0.96 (0.20, 3.96)
HD203+MTX		2.41 (0.37, 14.54)
SB4+MTX		1.54 (0.26, 8.84)
ANBAI+MTX		1.59 (0.27, 9.78)
CT-P13+MTX		0.78 (0.15, 4.04)
SB2+MTX		0.50 (0.09, 2.66)
SB5+MTX		0.66 (0.12, 3.51)
ZRC-3197+MTX		0.68 (0.11, 3.95)
ABP501+MTX		0.65 (0.11, 3.25)
HD203+MTX	BAR_4+MTX	2.53 (0.72, 9.34)
SB4+MTX		1.63 (0.48, 5.93)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ANBAI+MTX		1.69 (0.49, 5.93)
CT-P13+MTX		0.83 (0.28, 2.45)
SB2+MTX		0.52 (0.15, 1.80)
SB5+MTX		0.70 (0.22, 2.14)
ZRC-3197+MTX		0.72 (0.20, 2.49)
ABP501+MTX		0.68 (0.21, 2.02)
SB4+MTX	HD203+MTX	0.65 (0.16, 2.51)
ANBAI+MTX		0.68 (0.13, 3.23)
CT-P13+MTX		0.33 (0.07, 1.35)
SB2+MTX		0.21 (0.04, 0.93)
SB5+MTX		0.28 (0.06, 1.23)
ZRC-3197+MTX		0.28 (0.05, 1.36)
ABP501+MTX		0.27 (0.06, 1.12)
ANBAI+MTX	SB4+MTX	1.05 (0.22, 4.92)
CT-P13+MTX		0.51 (0.12, 2.05)
SB2+MTX		0.32 (0.07, 1.42)
SB5+MTX		0.44 (0.09, 1.81)
ZRC-3197+MTX		0.44 (0.09, 2.02)
ABP501+MTX		0.41 (0.09, 1.69)
CT-P13+MTX	ANBAI+MTX	0.49 (0.12, 1.95)
SB2+MTX		0.31 (0.07, 1.39)
SB5+MTX		0.41 (0.09, 1.82)
ZRC-3197+MTX		0.42 (0.09, 1.99)
ABP501+MTX		0.39 (0.09, 1.73)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX	CT-P13+MTX	0.63 (0.19, 1.92)
SB5+MTX		0.85 (0.22, 2.99)
ZRC-3197+MTX		0.87 (0.22, 3.58)
ABP501+MTX		0.82 (0.21, 3.02)
SB5+MTX	SB2+MTX	1.33 (0.33, 5.61)
ZRC-3197+MTX		1.37 (0.30, 6.51)
ABP501+MTX		1.31 (0.29, 5.46)
ZRC-3197+MTX	SB5+MTX	1.02 (0.26, 4.23)
ABP501+MTX		0.96 (0.27, 3.50)
ABP501+MTX	ZRC-3197+MTX	0.94 (0.24, 3.81)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 7. Sensitivity Analysis Results, ACR50 (MTX as a Common Comparator) – Studies Published Before 2007

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	-
MTX+SSZ		1.60 (0.24, 10.82)
MTX+HCQ		6.83 (1.30, 34.36)
SSZ+HCQ		1.37 (0.46, 4.22)
MTX+SSZ+HCQ		7.63 (2.30, 26.50)
ETN_STD		20.27 (5.69, 93.41)
ETN_STD+MTX		18.62 (6.32, 73.85)
ABA_STD (IV)+MTX		3.62 (2.29, 5.89)
ABA_STD (SC)+MTX		5.34 (3.09, 9.64)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		0.97 (0.35, 2.57)
TOC_8 (IV)		1.74 (0.66, 4.46)
TOC_4 (IV)+MTX		1.48 (0.57, 3.86)
TOC_8 (IV)+MTX		3.01 (1.16, 7.77)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		2.90 (1.67, 5.10)
CERTO_STD+MTX		-
RIT_STD		3.51 (1.06, 13.59)
RIT_STD+MTX		5.42 (1.65, 20.68)
BAR_4+MTX		-
HD203+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+SSZ	csDMARD+MTX	-
MTX+HCQ		-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+HCQ	MTX+SSZ	4.08 (1.04, 20.37)
SSZ+HCQ		0.85 (0.13, 5.95)
MTX+SSZ+HCQ		4.56 (1.20, 22.35)
ETN_STD		*13.17 (1.20, 147.23)*
ETN_STD+MTX		*12.26 (1.23, 122.00)*
ABA_STD (IV)+MTX		2.27 (0.32, 16.25)
ABA_STD (SC)+MTX		3.33 (0.46, 24.41)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		0.59 (0.07, 5.06)
TOC_8 (IV)		1.06 (0.13, 9.12)
TOC_4 (IV)+MTX		0.90 (0.11, 7.65)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		1.83 (0.22, 15.77)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		1.79 (0.25, 13.13)
CERTO_STD+MTX		-
RIT_STD		2.22 (0.23, 21.63)
RIT_STD+MTX		3.37 (0.35, 33.58)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SSZ+HCQ	MTX+HCQ	0.20 (0.04, 1.02)
MTX+SSZ+HCQ		1.11 (0.38, 3.41)
ETN_STD		3.06 (0.36, 28.28)
ETN_STD+MTX		2.81 (0.36, 24.02)
ABA_STD (IV)+MTX		0.53 (0.10, 2.99)
ABA_STD (SC)+MTX		0.78 (0.14, 4.54)
ADA_STD+MTX		-
TOF_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		0.14 (0.02, 0.93)
TOC_8 (IV)		0.25 (0.04, 1.68)
TOC_4 (IV)+MTX		0.21 (0.03, 1.42)
TOC_8 (IV)+MTX		0.43 (0.07, 2.98)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		0.42 (0.08, 2.45)
CERTO_STD+MTX		-
RIT_STD		0.51 (0.07, 4.24)
RIT_STD+MTX		0.81 (0.11, 6.58)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	5.51 (1.70, 19.28)
ETN_STD		*15.15 (2.62, 100.89)*
ETN_STD+MTX		13.97 (2.80, 82.19)
ABA_STD (IV)+MTX		2.64 (0.78, 8.81)
ABA_STD (SC)+MTX		3.90 (1.12, 13.93)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		0.71 (0.16, 3.13)
TOC_8 (IV)		1.27 (0.28, 5.53)
TOC_4 (IV)+MTX		1.06 (0.24, 4.74)
TOC_8 (IV)+MTX		2.19 (0.52, 9.86)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		2.09 (0.62, 7.24)
CERTO_STD+MTX		-
RIT_STD		2.56 (0.51, 14.10)
RIT_STD+MTX		3.98 (0.78, 21.85)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	2.76 (0.44, 18.65)
ETN_STD+MTX		2.55 (0.46, 15.39)
ABA_STD (IV)+MTX		0.48 (0.12, 1.72)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		0.70 (0.18, 2.70)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		0.13 (0.02, 0.61)
TOC_8 (IV)		0.23 (0.04, 1.08)
TOC_4 (IV)+MTX		0.19 (0.04, 0.94)
TOC_8 (IV)+MTX		0.39 (0.08, 1.92)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		0.38 (0.10, 1.44)
CERTO_STD+MTX		-
RIT_STD		0.46 (0.09, 2.91)
RIT_STD+MTX		0.73 (0.13, 4.41)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	0.92 (0.49, 1.73)
ABA_STD (IV)+MTX		0.18 (0.04, 0.69)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		0.26 (0.05, 1.04)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		0.05 (0.01, 0.24)
TOC_8 (IV)		0.08 (0.01, 0.43)
TOC_4 (IV)+MTX		0.07 (0.01, 0.36)
TOC_8 (IV)+MTX		0.14 (0.02, 0.73)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		0.14 (0.03, 0.57)
CERTO_STD+MTX		-
RIT_STD		0.17 (0.02, 1.11)
RIT_STD+MTX		0.26 (0.04, 1.73)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX	ETN_STD+MTX	-
ABA_STD (IV)+MTX		0.19 (0.05, 0.63)
ABA_STD (SC)+MTX		0.29 (0.07, 0.95)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		0.05 (0.01, 0.23)
TOC_8 (IV)		0.09 (0.02, 0.40)
TOC_4 (IV)+MTX		0.08 (0.01, 0.35)
TOC_8 (IV)+MTX		0.16 (0.03, 0.69)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		0.16 (0.04, 0.53)
CERTO_STD+MTX		-
RIT_STD		0.19 (0.03, 1.06)
RIT_STD+MTX		0.29 (0.05, 1.70)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	1.47 (0.71, 3.13)
ADA_STD+MTX		-
TOF_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		0.27 (0.09, 0.79)
TOC_8 (IV)		0.48 (0.16, 1.38)
TOC_4 (IV)+MTX		0.41 (0.14, 1.17)
TOC_8 (IV)+MTX		0.83 (0.29, 2.38)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		0.80 (0.39, 1.65)
CERTO_STD+MTX		-
RIT_STD		0.97 (0.26, 4.05)
RIT_STD+MTX		1.50 (0.41, 6.18)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ADA_STD+MTX	ABA_STD (SC)+MTX	-
TOF_STD+MTX		-
TOC_4 (IV)		0.18 (0.06, 0.55)
TOC_8 (IV)		0.33 (0.10, 0.95)
TOC_4 (IV)+MTX		0.28 (0.09, 0.82)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		0.57 (0.18, 1.68)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		0.54 (0.25, 1.20)
CERTO_STD+MTX		-
RIT_STD		0.66 (0.17, 2.78)
RIT_STD+MTX		1.02 (0.27, 4.25)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOF_STD+MTX	ADA_STD+MTX	-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_4 (IV)	TOF_STD+MTX	-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_8 (IV)	TOC_4 (IV)	1.78 (0.71, 4.66)
TOC_4 (IV)+MTX		1.51 (0.60, 3.95)
TOC_8 (IV)+MTX		3.10 (1.25, 7.91)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		2.98 (0.98, 9.38)
CERTO_STD+MTX		-
RIT_STD		3.68 (0.78, 19.11)
RIT_STD+MTX		5.64 (1.19, 29.05)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	0.85 (0.34, 2.17)
TOC_8 (IV)+MTX		1.73 (0.71, 4.27)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		1.67 (0.57, 5.11)
CERTO_STD+MTX		-
RIT_STD		2.01 (0.45, 10.48)
RIT_STD+MTX		3.15 (0.67, 16.15)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	2.04 (0.84, 5.12)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		1.96 (0.65, 6.00)
CERTO_STD+MTX		-
RIT_STD		2.38 (0.51, 12.55)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD+MTX		3.72 (0.79, 19.03)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	-
GOL_STD (IV)+MTX		-
INF_STD+MTX		0.97 (0.32, 2.86)
CERTO_STD+MTX		-
RIT_STD		1.18 (0.26, 6.03)
RIT_STD+MTX		1.82 (0.39, 9.23)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		-
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX	GOL_STD (IV)+MTX	-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
CERTO_STD+MTX	INF_STD+MTX	-
RIT_STD		1.21 (0.33, 5.29)
RIT_STD+MTX		1.89 (0.50, 8.00)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
RIT_STD	CERTO_STD+MTX	-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
RIT_STD+MTX	RIT_STD	1.55 (0.57, 4.29)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	-
SB4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SB4+MTX	HD203+MTX	-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ANBAI+MTX	SB4+MTX	-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
CT-P13+MTX	ANBAI+MTX	-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX	CT-P13+MTX	-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SB5+MTX	SB2+MTX	-
ZRC-3197+MTX		-
ABP501+MTX		-
ZRC-3197+MTX	SB5+MTX	-
ABP501+MTX		-
ABP501+MTX	ZRC-3197+MTX	-

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 8. Sensitivity Analysis Results, ACR50 – Studies Published From 2007 Onward

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	0.79 (0.31, 2.04)
MTX+SSZ		-
MTX+HCQ		-
SSZ+HCQ		1.82 (0.59, 5.66)
MTX+SSZ+HCQ		-
ETN_STD		0.97 (0.46, 2.01)
ETN_STD+MTX		2.93 (1.39, 6.15)
ABA_STD (IV)+MTX		4.67 (2.34, 10.15)
ABA_STD (SC)+MTX		3.41 (1.45, 7.88)
ADA_STD+MTX		3.70 (2.55, 5.33)
TOF_STD+MTX		5.64 (3.49, 9.33)
TOC_4 (IV)		-
TOC_8 (IV)		4.84 (2.57, 9.79)
TOC_4 (IV)+MTX		3.27 (1.60, 6.83)
TOC_8 (IV)+MTX		4.84 (2.91, 8.55)
GOL_STD (SC)+MTX		5.92 (3.34, 10.90)
GOL_STD (IV)+MTX		2.92 (1.26, 6.76)
INF_STD+MTX		3.28 (1.41, 7.89)
CERTO_STD+MTX		5.11 (3.38, 8.17)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		5.23 (3.16, 9.21)
HD203+MTX		5.24 (1.67, 16.68)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		3.43 (1.17, 10.00)
ANBAI+MTX		8.56 (3.13, 25.36)
CT-P13+MTX		4.40 (1.61, 13.21)
SB2+MTX		2.83 (0.90, 9.23)
SB5+MTX		3.47 (1.43, 8.13)
ZRC-3197+MTX		3.54 (1.21, 10.27)
ABP501+MTX		3.30 (1.40, 7.84)
MTX+SSZ	csDMARD+MTX	-
MTX+HCQ		-
SSZ+HCQ		2.32 (0.82, 6.50)
MTX+SSZ+HCQ		-
ETN_STD		1.24 (0.52, 2.86)
ETN_STD+MTX		3.71 (2.05, 6.67)
ABA_STD (IV)+MTX		5.93 (1.86, 20.45)
ABA_STD (SC)+MTX		4.35 (1.20, 15.41)
ADA_STD+MTX		4.67 (1.69, 12.99)
TOF_STD+MTX		7.19 (2.47, 21.20)
TOC_4 (IV)		-
TOC_8 (IV)		6.15 (2.02, 20.35)
TOC_4 (IV)+MTX		4.15 (1.27, 13.74)
TOC_8 (IV)+MTX		6.17 (2.14, 18.65)
GOL_STD (SC)+MTX		7.54 (2.50, 23.13)
GOL_STD (IV)+MTX		3.72 (1.03, 13.17)
INF_STD+MTX		4.17 (1.18, 15.26)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		6.49 (2.32, 18.82)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		6.65 (2.30, 20.47)
HD203+MTX		6.69 (2.32, 19.24)
SB4+MTX		4.35 (1.62, 11.67)
ANBAI+MTX		10.92 (2.72, 45.97)
CT-P13+MTX		5.62 (1.43, 24.51)
SB2+MTX		3.61 (0.81, 16.48)
SB5+MTX		4.39 (1.21, 15.91)
ZRC-3197+MTX		4.51 (1.08, 18.58)
ABP501+MTX		4.20 (1.17, 15.07)
MTX+HCQ	MTX+SSZ	-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SSZ+HCQ	MTX+HCQ	-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		0.53 (0.18, 1.51)
ETN_STD+MTX		1.60 (0.69, 3.74)
ABA_STD (IV)+MTX		2.58 (0.69, 10.28)
ABA_STD (SC)+MTX		1.88 (0.45, 7.59)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		2.03 (0.62, 6.65)
TOF_STD+MTX		3.10 (0.90, 10.90)
TOC_4 (IV)		-
TOC_8 (IV)		2.65 (0.75, 10.12)
TOC_4 (IV)+MTX		1.81 (0.47, 6.75)
TOC_8 (IV)+MTX		2.66 (0.78, 9.49)
GOL_STD (SC)+MTX		3.27 (0.91, 11.74)
GOL_STD (IV)+MTX		1.61 (0.38, 6.58)
INF_STD+MTX		1.80 (0.44, 7.61)
CERTO_STD+MTX		2.82 (0.86, 9.54)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		2.88 (0.85, 10.36)
HD203+MTX		2.89 (0.85, 9.81)
SB4+MTX		1.88 (0.60, 6.00)
ANBAI+MTX		4.72 (1.03, 22.29)
CT-P13+MTX		2.43 (0.54, 12.10)
SB2+MTX		1.56 (0.31, 8.02)
SB5+MTX		1.90 (0.45, 7.86)
ZRC-3197+MTX		1.95 (0.41, 9.09)
ABP501+MTX		1.81 (0.44, 7.39)
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	3.00 (1.65, 5.66)
ABA_STD (IV)+MTX		4.80 (1.79, 14.48)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		3.51 (1.15, 10.88)
ADA_STD+MTX		3.79 (1.69, 8.88)
TOF_STD+MTX		5.79 (2.45, 14.45)
TOC_4 (IV)		-
TOC_8 (IV)		4.97 (1.96, 14.20)
TOC_4 (IV)+MTX		3.36 (1.23, 9.79)
TOC_8 (IV)+MTX		4.98 (2.08, 12.87)
GOL_STD (SC)+MTX		6.09 (2.45, 16.25)
GOL_STD (IV)+MTX		3.00 (0.98, 9.29)
INF_STD+MTX		3.37 (1.13, 10.75)
CERTO_STD+MTX		5.24 (2.33, 13.00)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		5.37 (2.27, 14.27)
HD203+MTX		5.39 (1.88, 16.01)
SB4+MTX		3.53 (1.32, 9.69)
ANBAI+MTX		8.81 (2.55, 33.28)
CT-P13+MTX		4.54 (1.32, 17.83)
SB2+MTX		2.91 (0.76, 11.87)
SB5+MTX		3.56 (1.14, 11.27)
ZRC-3197+MTX		3.64 (1.01, 13.32)
ABP501+MTX	ETN_STD+MTX	3.38 (1.11, 10.64)
ABA_STD (IV)+MTX		1.60 (0.59, 4.71)
ABA_STD (SC)+MTX		1.17 (0.38, 3.56)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		1.26 (0.55, 2.90)
TOF_STD+MTX		1.93 (0.80, 4.83)
TOC_4 (IV)		-
TOC_8 (IV)		1.66 (0.64, 4.70)
TOC_4 (IV)+MTX		1.12 (0.40, 3.18)
TOC_8 (IV)+MTX		1.66 (0.68, 4.22)
GOL_STD (SC)+MTX		2.03 (0.80, 5.28)
GOL_STD (IV)+MTX		1.00 (0.32, 3.06)
INF_STD+MTX		1.12 (0.37, 3.56)
CERTO_STD+MTX		1.75 (0.76, 4.24)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.79 (0.74, 4.62)
HD203+MTX		1.80 (0.74, 4.35)
SB4+MTX		1.17 (0.54, 2.55)
ANBAI+MTX		2.94 (0.84, 10.90)
CT-P13+MTX		1.51 (0.44, 5.78)
SB2+MTX		0.97 (0.25, 3.92)
SB5+MTX		1.19 (0.37, 3.72)
ZRC-3197+MTX		1.21 (0.33, 4.39)
ABP501+MTX		1.13 (0.37, 3.53)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.73 (0.23, 2.09)
ADA_STD+MTX		0.79 (0.33, 1.72)
TOF_STD+MTX		1.20 (0.49, 2.80)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		-
TOC_8 (IV)		1.04 (0.39, 2.72)
TOC_4 (IV)+MTX		0.70 (0.24, 1.88)
TOC_8 (IV)+MTX		1.04 (0.42, 2.46)
GOL_STD (SC)+MTX		1.27 (0.48, 3.13)
GOL_STD (IV)+MTX		0.63 (0.19, 1.82)
INF_STD+MTX		0.70 (0.30, 1.52)
CERTO_STD+MTX		1.10 (0.46, 2.47)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.12 (0.45, 2.70)
HD203+MTX		1.13 (0.28, 4.24)
SB4+MTX		0.74 (0.19, 2.55)
ANBAI+MTX		1.83 (0.51, 6.63)
CT-P13+MTX		0.94 (0.35, 2.59)
SB2+MTX		0.61 (0.19, 1.81)
SB5+MTX		0.74 (0.22, 2.17)
ZRC-3197+MTX		0.76 (0.20, 2.64)
ABP501+MTX		0.71 (0.22, 2.07)
ADA_STD+MTX	ABA_STD (SC)+MTX	1.08 (0.51, 2.32)
TOF_STD+MTX		1.66 (0.66, 4.28)
TOC_4 (IV)		-
TOC_8 (IV)		1.42 (0.51, 4.38)
TOC_4 (IV)+MTX		0.96 (0.32, 2.95)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		1.42 (0.54, 4.01)
GOL_STD (SC)+MTX		1.74 (0.64, 4.97)
GOL_STD (IV)+MTX		0.86 (0.26, 2.81)
INF_STD+MTX		0.96 (0.29, 3.30)
CERTO_STD+MTX		1.49 (0.63, 3.84)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.53 (0.62, 4.12)
HD203+MTX		1.54 (0.37, 6.44)
SB4+MTX		1.01 (0.26, 3.94)
ANBAI+MTX		2.52 (0.68, 9.88)
CT-P13+MTX		1.29 (0.35, 5.33)
SB2+MTX		0.83 (0.20, 3.62)
SB5+MTX		1.02 (0.34, 3.02)
ZRC-3197+MTX		1.04 (0.30, 3.70)
ABP501+MTX		0.97 (0.33, 2.89)
TOF_STD+MTX	ADA_STD+MTX	1.53 (0.90, 2.67)
TOC_4 (IV)		-
TOC_8 (IV)		1.31 (0.64, 2.94)
TOC_4 (IV)+MTX		0.88 (0.40, 2.04)
TOC_8 (IV)+MTX		1.31 (0.71, 2.58)
GOL_STD (SC)+MTX		1.60 (0.82, 3.31)
GOL_STD (IV)+MTX		0.79 (0.32, 1.98)
INF_STD+MTX		0.89 (0.36, 2.31)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		1.38 (0.87, 2.36)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.41 (0.82, 2.63)
HD203+MTX		1.42 (0.43, 4.77)
SB4+MTX		0.93 (0.30, 2.85)
ANBAI+MTX		2.32 (0.80, 7.31)
CT-P13+MTX		1.19 (0.41, 3.83)
SB2+MTX		0.77 (0.23, 2.65)
SB5+MTX		0.94 (0.43, 2.05)
ZRC-3197+MTX		0.96 (0.35, 2.62)
ABP501+MTX		0.89 (0.41, 1.96)
TOC_4 (IV)	TOF_STD+MTX	-
TOC_8 (IV)		0.86 (0.39, 2.01)
TOC_4 (IV)+MTX		0.58 (0.24, 1.39)
TOC_8 (IV)+MTX		0.86 (0.42, 1.82)
GOL_STD (SC)+MTX		1.05 (0.49, 2.28)
GOL_STD (IV)+MTX		0.52 (0.19, 1.36)
INF_STD+MTX		0.58 (0.22, 1.58)
CERTO_STD+MTX		0.91 (0.48, 1.76)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.93 (0.47, 1.93)
HD203+MTX		0.93 (0.27, 3.24)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		0.61 (0.18, 1.96)
ANBAI+MTX		1.52 (0.50, 4.97)
CT-P13+MTX		0.78 (0.25, 2.57)
SB2+MTX		0.50 (0.15, 1.78)
SB5+MTX		0.61 (0.23, 1.56)
ZRC-3197+MTX		0.63 (0.20, 1.94)
ABP501+MTX		0.58 (0.22, 1.50)
TOC_8 (IV)	TOC_4 (IV)	-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	0.68 (0.28, 1.53)
TOC_8 (IV)+MTX		1.00 (0.58, 1.66)
GOL_STD (SC)+MTX		1.22 (0.50, 2.90)
GOL_STD (IV)+MTX		0.60 (0.20, 1.69)
INF_STD+MTX		0.68 (0.22, 1.96)
CERTO_STD+MTX		1.05 (0.47, 2.31)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.08 (0.46, 2.52)
HD203+MTX		1.09 (0.28, 3.97)
SB4+MTX		0.71 (0.19, 2.41)
ANBAI+MTX		1.77 (0.52, 6.12)
CT-P13+MTX		0.91 (0.27, 3.20)
SB2+MTX		0.59 (0.15, 2.16)
SB5+MTX		0.72 (0.22, 2.06)
ZRC-3197+MTX		0.73 (0.20, 2.51)
ABP501+MTX		0.68 (0.22, 1.94)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.48 (0.74, 3.09)
GOL_STD (SC)+MTX		1.82 (0.72, 4.63)
GOL_STD (IV)+MTX		0.89 (0.29, 2.69)
INF_STD+MTX		1.00 (0.34, 3.10)
CERTO_STD+MTX		1.56 (0.68, 3.74)
RIT_STD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD+MTX		-
BAR_4+MTX		1.60 (0.67, 4.13)
HD203+MTX		1.60 (0.41, 6.32)
SB4+MTX		1.04 (0.29, 3.86)
ANBAI+MTX		2.63 (0.75, 9.63)
CT-P13+MTX		1.35 (0.39, 5.00)
SB2+MTX		0.86 (0.22, 3.45)
SB5+MTX		1.06 (0.33, 3.24)
ZRC-3197+MTX		1.08 (0.30, 3.92)
ABP501+MTX		1.01 (0.32, 3.07)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	1.22 (0.55, 2.67)
GOL_STD (IV)+MTX		0.60 (0.21, 1.59)
INF_STD+MTX		0.68 (0.25, 1.84)
CERTO_STD+MTX		1.05 (0.53, 2.10)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.08 (0.52, 2.31)
HD203+MTX		1.08 (0.30, 3.74)
SB4+MTX		0.71 (0.21, 2.29)
ANBAI+MTX		1.77 (0.56, 5.82)
CT-P13+MTX		0.91 (0.29, 2.99)
SB2+MTX		0.59 (0.16, 2.06)
SB5+MTX		0.72 (0.25, 1.91)
ZRC-3197+MTX		0.73 (0.22, 2.37)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		0.68 (0.24, 1.83)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.49 (0.17, 1.37)
INF_STD+MTX		0.55 (0.20, 1.57)
CERTO_STD+MTX		0.86 (0.42, 1.80)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.89 (0.40, 1.96)
HD203+MTX		0.88 (0.24, 3.18)
SB4+MTX		0.58 (0.17, 1.91)
ANBAI+MTX		1.44 (0.44, 4.97)
CT-P13+MTX		0.74 (0.23, 2.60)
SB2+MTX		0.48 (0.13, 1.78)
SB5+MTX		0.58 (0.20, 1.63)
ZRC-3197+MTX		0.60 (0.17, 2.01)
ABP501+MTX	GOL_STD (IV)+MTX	0.56 (0.19, 1.55)
INF_STD+MTX		1.12 (0.35, 3.77)
CERTO_STD+MTX		1.75 (0.70, 4.68)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.79 (0.69, 5.06)
HD203+MTX		1.80 (0.44, 7.66)
SB4+MTX		1.17 (0.30, 4.60)
ANBAI+MTX		2.93 (0.80, 11.47)
CT-P13+MTX		1.51 (0.41, 6.10)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		0.97 (0.24, 4.10)
SB5+MTX		1.18 (0.36, 3.96)
ZRC-3197+MTX		1.21 (0.31, 4.70)
ABP501+MTX		1.13 (0.34, 3.74)
CERTO_STD+MTX	INF_STD+MTX	1.56 (0.60, 4.11)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.60 (0.58, 4.44)
HD203+MTX		1.61 (0.38, 6.53)
SB4+MTX		1.05 (0.26, 3.95)
ANBAI+MTX		2.61 (0.68, 10.34)
CT-P13+MTX		1.35 (0.75, 2.59)
SB2+MTX		0.86 (0.40, 1.88)
SB5+MTX		1.06 (0.30, 3.48)
ZRC-3197+MTX		1.07 (0.27, 4.14)
ABP501+MTX		1.01 (0.29, 3.31)
RIT_STD	CERTO_STD+MTX	-
RIT_STD+MTX		-
BAR_4+MTX		1.02 (0.53, 2.00)
HD203+MTX		1.03 (0.29, 3.45)
SB4+MTX		0.67 (0.20, 2.06)
ANBAI+MTX		1.67 (0.55, 5.33)
CT-P13+MTX		0.86 (0.28, 2.71)
SB2+MTX		0.56 (0.16, 1.89)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		0.68 (0.25, 1.65)
ZRC-3197+MTX		0.69 (0.22, 2.07)
ABP501+MTX		0.65 (0.25, 1.57)
RIT_STD+MTX	RIT_STD	-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	1.00 (0.27, 3.47)
SB4+MTX		0.66 (0.19, 2.09)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ANBAI+MTX		1.64 (0.51, 5.35)
CT-P13+MTX		0.84 (0.26, 2.83)
SB2+MTX		0.54 (0.15, 1.92)
SB5+MTX		0.66 (0.24, 1.67)
ZRC-3197+MTX		0.68 (0.20, 2.07)
ABP501+MTX		0.63 (0.23, 1.59)
SB4+MTX	HD203+MTX	0.65 (0.20, 2.11)
ANBAI+MTX		1.64 (0.35, 7.90)
CT-P13+MTX		0.84 (0.18, 4.18)
SB2+MTX		0.54 (0.11, 2.82)
SB5+MTX		0.66 (0.16, 2.75)
ZRC-3197+MTX		0.67 (0.14, 3.18)
ABP501+MTX		0.63 (0.15, 2.62)
ANBAI+MTX	SB4+MTX	2.51 (0.57, 11.47)
CT-P13+MTX		1.29 (0.30, 6.05)
SB2+MTX		0.83 (0.18, 4.06)
SB5+MTX		1.01 (0.25, 3.97)
ZRC-3197+MTX		1.03 (0.23, 4.60)
ABP501+MTX		0.96 (0.25, 3.83)
CT-P13+MTX	ANBAI+MTX	0.52 (0.12, 2.37)
SB2+MTX		0.33 (0.07, 1.59)
SB5+MTX		0.40 (0.10, 1.52)
ZRC-3197+MTX		0.41 (0.09, 1.79)
ABP501+MTX		0.38 (0.10, 1.45)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX	CT-P13+MTX	0.64 (0.23, 1.69)
SB5+MTX		0.79 (0.19, 2.92)
ZRC-3197+MTX		0.80 (0.17, 3.45)
ABP501+MTX		0.75 (0.18, 2.78)
SB5+MTX	SB2+MTX	1.22 (0.28, 5.09)
ZRC-3197+MTX		1.24 (0.26, 5.97)
ABP501+MTX		1.16 (0.27, 4.85)
ZRC-3197+MTX	SB5+MTX	1.02 (0.29, 3.68)
ABP501+MTX		0.95 (0.32, 2.90)
ABP501+MTX	ZRC-3197+MTX	0.93 (0.26, 3.28)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 9. Sensitivity Analysis Results, ACR50 (MTX as a Common Comparator) – End of Treatment Data for Adaptive Design Trials

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	1.56 (0.53, 4.78)
MTX+SSZ		1.13 (0.15, 7.74)
MTX+HCQ		4.53 (0.78, 28.79)
SSZ+HCQ		1.17 (0.31, 4.38)
MTX+SSZ+HCQ		5.17 (1.88, 15.03)
ETN_STD		2.33 (1.02, 5.63)
ETN_STD+MTX		5.74 (2.79, 12.18)
ABA_STD (IV)+MTX		3.29 (1.87, 6.07)
ABA_STD (SC)+MTX		5.42 (1.68, 17.51)
ADA_STD+MTX		5.84 (3.68, 9.38)
TOF_STD+MTX		5.11 (2.40, 11.15)
TOC_4 (IV)		1.73 (0.53, 5.34)
TOC_8 (IV)		4.34 (2.12, 8.94)
TOC_4 (IV)+MTX		3.19 (1.63, 6.09)
TOC_8 (IV)+MTX		5.16 (2.75, 9.51)
GOL_STD (SC)+MTX		4.33 (2.25, 8.72)
GOL_STD (IV)+MTX		3.60 (1.19, 11.10)
INF_STD+MTX		2.11 (1.13, 3.97)
CERTO_STD+MTX		6.52 (3.71, 11.55)
RIT_STD		0.83 (0.13, 4.30)
RIT_STD+MTX		3.16 (1.44, 6.96)
BAR_4+MTX		9.82 (3.83, 25.92)
HD203+MTX		10.41 (2.77, 42.91)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		6.77 (1.90, 26.26)
ANBAI+MTX		8.71 (2.49, 32.79)
CT-P13+MTX		3.03 (1.09, 8.60)
SB2+MTX		1.80 (0.54, 6.49)
SB5+MTX		5.38 (1.56, 18.65)
ZRC-3197+MTX		5.71 (1.48, 22.02)
ABP501+MTX		5.24 (1.62, 16.69)
MTX+SSZ	csDMARD+MTX	0.72 (0.09, 5.44)
MTX+HCQ		2.92 (0.45, 20.13)
SSZ+HCQ		0.74 (0.14, 3.70)
MTX+SSZ+HCQ		3.30 (0.97, 11.44)
ETN_STD		1.49 (0.53, 4.18)
ETN_STD+MTX		3.68 (1.69, 8.31)
ABA_STD (IV)+MTX		2.13 (0.60, 7.15)
ABA_STD (SC)+MTX		3.51 (0.68, 16.89)
ADA_STD+MTX		3.76 (1.11, 11.98)
TOF_STD+MTX		3.29 (0.85, 12.29)
TOC_4 (IV)		1.09 (0.21, 5.26)
TOC_8 (IV)		2.81 (0.71, 10.09)
TOC_4 (IV)+MTX		2.03 (0.55, 7.24)
TOC_8 (IV)+MTX		3.30 (0.90, 11.47)
GOL_STD (SC)+MTX		2.78 (0.77, 10.00)
GOL_STD (IV)+MTX		2.32 (0.48, 10.58)
INF_STD+MTX		1.35 (0.38, 4.74)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		4.20 (1.21, 14.30)
RIT_STD		0.54 (0.06, 3.82)
RIT_STD+MTX		2.02 (0.52, 7.65)
BAR_4+MTX		6.30 (1.46, 26.10)
HD203+MTX		6.68 (1.68, 27.88)
SB4+MTX		4.36 (1.13, 17.13)
ANBAI+MTX		5.60 (0.99, 30.66)
CT-P13+MTX		1.94 (0.44, 8.74)
SB2+MTX		1.17 (0.22, 6.03)
SB5+MTX		3.50 (0.62, 17.34)
ZRC-3197+MTX		3.64 (0.62, 20.66)
ABP501+MTX		3.38 (0.65, 16.33)
MTX+HCQ	MTX+SSZ	4.04 (0.78, 23.48)
SSZ+HCQ		1.03 (0.12, 9.52)
MTX+SSZ+HCQ		4.57 (0.91, 26.02)
ETN_STD		2.06 (0.29, 16.48)
ETN_STD+MTX		5.07 (0.78, 37.86)
ABA_STD (IV)+MTX		2.90 (0.40, 24.07)
ABA_STD (SC)+MTX		4.83 (0.49, 49.01)
ADA_STD+MTX		5.16 (0.71, 41.35)
TOF_STD+MTX		4.53 (0.57, 39.53)
TOC_4 (IV)		1.52 (0.15, 15.72)
TOC_8 (IV)		3.83 (0.50, 33.31)
TOC_4 (IV)+MTX		2.81 (0.36, 24.39)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		4.55 (0.60, 38.21)
GOL_STD (SC)+MTX		3.85 (0.50, 32.10)
GOL_STD (IV)+MTX		3.18 (0.36, 32.04)
INF_STD+MTX		1.87 (0.25, 15.29)
CERTO_STD+MTX		5.77 (0.76, 46.34)
RIT_STD		0.74 (0.05, 9.57)
RIT_STD+MTX		2.82 (0.35, 24.36)
BAR_4+MTX		8.82 (1.01, 81.21)
HD203+MTX		9.42 (1.06, 93.13)
SB4+MTX		6.03 (0.69, 58.97)
ANBAI+MTX		7.88 (0.74, 87.62)
CT-P13+MTX		2.71 (0.29, 25.38)
SB2+MTX		1.64 (0.16, 16.64)
SB5+MTX		4.88 (0.47, 50.81)
ZRC-3197+MTX		5.11 (0.46, 56.37)
ABP501+MTX		4.74 (0.48, 47.42)
SSZ+HCQ	MTX+HCQ	0.26 (0.03, 1.81)
MTX+SSZ+HCQ		1.13 (0.26, 4.77)
ETN_STD		0.51 (0.08, 3.10)
ETN_STD+MTX		1.27 (0.22, 6.98)
ABA_STD (IV)+MTX		0.72 (0.11, 4.58)
ABA_STD (SC)+MTX		1.20 (0.13, 9.85)
ADA_STD+MTX		1.30 (0.19, 7.98)
TOF_STD+MTX		1.13 (0.16, 7.56)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		0.38 (0.04, 3.00)
TOC_8 (IV)		0.95 (0.13, 6.23)
TOC_4 (IV)+MTX		0.70 (0.10, 4.51)
TOC_8 (IV)+MTX		1.13 (0.16, 7.04)
GOL_STD (SC)+MTX		0.96 (0.13, 6.27)
GOL_STD (IV)+MTX		0.80 (0.10, 6.46)
INF_STD+MTX		0.47 (0.07, 3.00)
CERTO_STD+MTX		1.44 (0.21, 9.03)
RIT_STD		0.18 (0.01, 2.09)
RIT_STD+MTX		0.69 (0.09, 4.89)
BAR_4+MTX		2.19 (0.28, 15.39)
HD203+MTX		2.32 (0.28, 18.19)
SB4+MTX		1.51 (0.19, 11.34)
ANBAI+MTX		1.93 (0.20, 17.08)
CT-P13+MTX		0.67 (0.09, 5.35)
SB2+MTX		0.40 (0.04, 3.48)
SB5+MTX		1.19 (0.13, 9.87)
ZRC-3197+MTX		1.25 (0.13, 11.45)
ABP501+MTX		1.17 (0.13, 9.42)
MTX+SSZ+HCQ	SSZ+HCQ	4.42 (1.16, 18.08)
ETN_STD		2.01 (0.46, 9.10)
ETN_STD+MTX		4.92 (1.25, 20.47)
ABA_STD (IV)+MTX		2.84 (0.68, 11.80)
ABA_STD (SC)+MTX		4.68 (0.80, 26.66)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		5.02 (1.24, 20.19)
TOF_STD+MTX		4.39 (0.94, 20.23)
TOC_4 (IV)		1.47 (0.25, 8.36)
TOC_8 (IV)		3.73 (0.82, 16.54)
TOC_4 (IV)+MTX		2.74 (0.62, 11.87)
TOC_8 (IV)+MTX		4.45 (1.01, 18.95)
GOL_STD (SC)+MTX		3.74 (0.83, 16.88)
GOL_STD (IV)+MTX		3.09 (0.56, 17.74)
INF_STD+MTX		1.81 (0.43, 8.01)
CERTO_STD+MTX		5.57 (1.34, 23.74)
RIT_STD		0.72 (0.07, 5.84)
RIT_STD+MTX		2.72 (0.57, 12.71)
BAR_4+MTX		8.35 (1.69, 44.57)
HD203+MTX		9.05 (1.49, 57.74)
SB4+MTX		5.86 (1.00, 35.73)
ANBAI+MTX		7.48 (1.17, 48.13)
CT-P13+MTX		2.63 (0.48, 14.48)
SB2+MTX		1.55 (0.27, 10.05)
SB5+MTX		4.65 (0.76, 27.91)
ZRC-3197+MTX		4.89 (0.73, 30.94)
ABP501+MTX		4.54 (0.77, 26.02)
ETN_STD	MTX+SSZ+HCQ	0.45 (0.15, 1.36)
ETN_STD+MTX		1.11 (0.43, 2.84)
ABA_STD (IV)+MTX		0.64 (0.19, 2.04)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		1.05 (0.21, 4.92)
ADA_STD+MTX		1.14 (0.35, 3.47)
TOF_STD+MTX		0.99 (0.27, 3.57)
TOC_4 (IV)		0.33 (0.07, 1.49)
TOC_8 (IV)		0.85 (0.23, 2.92)
TOC_4 (IV)+MTX		0.62 (0.17, 2.05)
TOC_8 (IV)+MTX		1.00 (0.28, 3.22)
GOL_STD (SC)+MTX		0.85 (0.23, 2.83)
GOL_STD (IV)+MTX		0.71 (0.15, 3.17)
INF_STD+MTX		0.41 (0.12, 1.33)
CERTO_STD+MTX		1.26 (0.37, 3.97)
RIT_STD		0.16 (0.02, 1.12)
RIT_STD+MTX		0.61 (0.16, 2.23)
BAR_4+MTX		1.92 (0.46, 7.58)
HD203+MTX		2.01 (0.46, 9.06)
SB4+MTX		1.32 (0.31, 5.72)
ANBAI+MTX		1.70 (0.31, 8.78)
CT-P13+MTX		0.59 (0.13, 2.52)
SB2+MTX		0.35 (0.07, 1.77)
SB5+MTX		1.05 (0.20, 4.96)
ZRC-3197+MTX		1.10 (0.19, 5.90)
ABP501+MTX		1.02 (0.20, 4.72)
ETN_STD+MTX	ETN_STD	2.46 (1.30, 4.78)
ABA_STD (IV)+MTX		1.43 (0.50, 3.89)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		2.34 (0.52, 9.57)
ADA_STD+MTX		2.52 (0.92, 6.42)
TOF_STD+MTX		2.21 (0.69, 6.68)
TOC_4 (IV)		0.74 (0.16, 3.02)
TOC_8 (IV)		1.87 (0.59, 5.55)
TOC_4 (IV)+MTX		1.37 (0.44, 3.93)
TOC_8 (IV)+MTX		2.21 (0.74, 6.20)
GOL_STD (SC)+MTX		1.87 (0.61, 5.47)
GOL_STD (IV)+MTX		1.57 (0.38, 6.10)
INF_STD+MTX		0.90 (0.31, 2.62)
CERTO_STD+MTX		2.80 (0.98, 7.78)
RIT_STD		0.36 (0.04, 2.24)
RIT_STD+MTX		1.36 (0.41, 4.25)
BAR_4+MTX		4.22 (1.18, 14.94)
HD203+MTX		4.47 (1.21, 16.76)
SB4+MTX		2.91 (0.83, 10.68)
ANBAI+MTX		3.76 (0.77, 17.58)
CT-P13+MTX		1.31 (0.34, 5.03)
SB2+MTX		0.78 (0.17, 3.56)
SB5+MTX		2.33 (0.49, 10.16)
ZRC-3197+MTX		2.46 (0.47, 11.68)
ABP501+MTX	ETN_STD+MTX	2.26 (0.50, 9.38)
ABA_STD (IV)+MTX		0.57 (0.22, 1.42)
ABA_STD (SC)+MTX		0.95 (0.23, 3.66)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		1.02 (0.42, 2.40)
TOF_STD+MTX		0.89 (0.30, 2.51)
TOC_4 (IV)		0.30 (0.07, 1.15)
TOC_8 (IV)		0.76 (0.26, 2.11)
TOC_4 (IV)+MTX		0.55 (0.20, 1.44)
TOC_8 (IV)+MTX		0.89 (0.33, 2.31)
GOL_STD (SC)+MTX		0.76 (0.27, 2.04)
GOL_STD (IV)+MTX		0.63 (0.16, 2.30)
INF_STD+MTX		0.37 (0.14, 0.95)
CERTO_STD+MTX		1.13 (0.43, 2.87)
RIT_STD		0.15 (0.02, 0.86)
RIT_STD+MTX		0.55 (0.18, 1.57)
BAR_4+MTX		1.71 (0.52, 5.56)
HD203+MTX		1.81 (0.57, 5.85)
SB4+MTX		1.19 (0.40, 3.54)
ANBAI+MTX		1.52 (0.33, 6.81)
CT-P13+MTX		0.53 (0.15, 1.86)
SB2+MTX		0.32 (0.08, 1.36)
SB5+MTX		0.94 (0.22, 3.79)
ZRC-3197+MTX		0.98 (0.20, 4.52)
ABP501+MTX		0.92 (0.22, 3.53)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	1.64 (0.44, 5.88)
ADA_STD+MTX		1.78 (0.81, 3.71)
TOF_STD+MTX		1.55 (0.59, 4.07)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		0.52 (0.14, 1.85)
TOC_8 (IV)		1.32 (0.52, 3.24)
TOC_4 (IV)+MTX		0.97 (0.39, 2.30)
TOC_8 (IV)+MTX		1.57 (0.65, 3.57)
GOL_STD (SC)+MTX		1.31 (0.54, 3.25)
GOL_STD (IV)+MTX		1.09 (0.31, 3.87)
INF_STD+MTX		0.64 (0.30, 1.37)
CERTO_STD+MTX		1.98 (0.86, 4.44)
RIT_STD		0.25 (0.03, 1.44)
RIT_STD+MTX		0.96 (0.35, 2.51)
BAR_4+MTX		3.00 (0.97, 8.90)
HD203+MTX		3.13 (0.74, 14.31)
SB4+MTX		2.06 (0.50, 8.92)
ANBAI+MTX		2.66 (0.63, 11.15)
CT-P13+MTX		0.92 (0.30, 2.82)
SB2+MTX		0.55 (0.15, 2.08)
SB5+MTX		1.64 (0.42, 6.33)
ZRC-3197+MTX		1.73 (0.39, 7.47)
ABP501+MTX		1.59 (0.43, 5.66)
ADA_STD+MTX	ABA_STD (SC)+MTX	1.08 (0.37, 3.16)
TOF_STD+MTX		0.94 (0.25, 3.62)
TOC_4 (IV)		0.32 (0.06, 1.63)
TOC_8 (IV)		0.81 (0.20, 3.16)
TOC_4 (IV)+MTX		0.58 (0.15, 2.27)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		0.95 (0.25, 3.55)
GOL_STD (SC)+MTX		0.80 (0.21, 3.10)
GOL_STD (IV)+MTX		0.66 (0.13, 3.36)
INF_STD+MTX		0.39 (0.10, 1.49)
CERTO_STD+MTX		1.20 (0.34, 4.24)
RIT_STD		0.15 (0.02, 1.19)
RIT_STD+MTX		0.58 (0.14, 2.44)
BAR_4+MTX		1.80 (0.46, 7.52)
HD203+MTX		1.92 (0.33, 11.98)
SB4+MTX		1.25 (0.22, 7.61)
ANBAI+MTX		1.59 (0.29, 9.54)
CT-P13+MTX		0.56 (0.12, 2.73)
SB2+MTX		0.33 (0.06, 1.89)
SB5+MTX		0.99 (0.21, 4.76)
ZRC-3197+MTX		1.04 (0.20, 5.53)
ABP501+MTX		0.97 (0.21, 4.45)
TOF_STD+MTX	ADA_STD+MTX	0.87 (0.41, 1.89)
TOC_4 (IV)		0.29 (0.08, 0.99)
TOC_8 (IV)		0.75 (0.31, 1.73)
TOC_4 (IV)+MTX		0.54 (0.24, 1.20)
TOC_8 (IV)+MTX		0.88 (0.40, 1.89)
GOL_STD (SC)+MTX		0.74 (0.32, 1.68)
GOL_STD (IV)+MTX		0.62 (0.19, 2.10)
INF_STD+MTX		0.36 (0.16, 0.82)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		1.12 (0.58, 2.12)
RIT_STD		0.14 (0.02, 0.80)
RIT_STD+MTX		0.54 (0.22, 1.35)
BAR_4+MTX		1.68 (0.69, 4.26)
HD203+MTX		1.78 (0.44, 7.69)
SB4+MTX		1.16 (0.30, 4.85)
ANBAI+MTX		1.49 (0.39, 6.06)
CT-P13+MTX		0.52 (0.17, 1.65)
SB2+MTX		0.31 (0.09, 1.20)
SB5+MTX		0.92 (0.30, 2.84)
ZRC-3197+MTX		0.97 (0.28, 3.47)
ABP501+MTX		0.90 (0.30, 2.59)
TOC_4 (IV)	TOF_STD+MTX	0.33 (0.08, 1.31)
TOC_8 (IV)		0.85 (0.30, 2.39)
TOC_4 (IV)+MTX		0.63 (0.23, 1.67)
TOC_8 (IV)+MTX		1.01 (0.38, 2.68)
GOL_STD (SC)+MTX		0.85 (0.31, 2.34)
GOL_STD (IV)+MTX		0.71 (0.18, 2.74)
INF_STD+MTX		0.41 (0.15, 1.13)
CERTO_STD+MTX		1.28 (0.50, 3.24)
RIT_STD		0.16 (0.02, 1.01)
RIT_STD+MTX		0.62 (0.20, 1.89)
BAR_4+MTX		1.92 (0.60, 6.10)
HD203+MTX		2.04 (0.44, 9.88)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		1.34 (0.30, 6.13)
ANBAI+MTX		1.70 (0.39, 7.85)
CT-P13+MTX		0.59 (0.16, 2.23)
SB2+MTX		0.35 (0.09, 1.58)
SB5+MTX		1.06 (0.26, 4.12)
ZRC-3197+MTX		1.11 (0.25, 4.97)
ABP501+MTX		1.03 (0.27, 3.74)
TOC_8 (IV)	TOC_4 (IV)	2.54 (0.81, 7.98)
TOC_4 (IV)+MTX		1.86 (0.59, 5.89)
TOC_8 (IV)+MTX		3.00 (0.99, 9.30)
GOL_STD (SC)+MTX		2.52 (0.69, 9.54)
GOL_STD (IV)+MTX		2.10 (0.42, 10.73)
INF_STD+MTX		1.22 (0.34, 4.78)
CERTO_STD+MTX		3.76 (1.08, 14.04)
RIT_STD		0.49 (0.05, 3.58)
RIT_STD+MTX		1.83 (0.47, 7.45)
BAR_4+MTX		5.76 (1.34, 25.58)
HD203+MTX		6.13 (1.02, 37.30)
SB4+MTX		3.95 (0.72, 23.67)
ANBAI+MTX		5.08 (0.95, 29.55)
CT-P13+MTX		1.77 (0.39, 8.59)
SB2+MTX		1.06 (0.20, 6.13)
SB5+MTX		3.13 (0.59, 17.12)
ZRC-3197+MTX		3.30 (0.57, 19.14)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		3.06 (0.61, 15.72)
TOC_4 (IV)+MTX	TOC_8 (IV)	0.73 (0.34, 1.56)
TOC_8 (IV)+MTX		1.18 (0.64, 2.17)
GOL_STD (SC)+MTX		0.99 (0.38, 2.70)
GOL_STD (IV)+MTX		0.83 (0.23, 3.13)
INF_STD+MTX		0.48 (0.19, 1.29)
CERTO_STD+MTX		1.49 (0.60, 3.74)
RIT_STD		0.19 (0.03, 1.14)
RIT_STD+MTX		0.73 (0.25, 2.08)
BAR_4+MTX		2.27 (0.70, 7.49)
HD203+MTX		2.40 (0.52, 11.72)
SB4+MTX		1.56 (0.36, 7.41)
ANBAI+MTX		2.01 (0.46, 8.93)
CT-P13+MTX		0.70 (0.20, 2.52)
SB2+MTX		0.42 (0.10, 1.85)
SB5+MTX		1.24 (0.30, 5.12)
ZRC-3197+MTX		1.32 (0.28, 5.95)
ABP501+MTX		1.20 (0.31, 4.68)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.62 (0.86, 3.10)
GOL_STD (SC)+MTX		1.36 (0.54, 3.58)
GOL_STD (IV)+MTX		1.13 (0.32, 4.24)
INF_STD+MTX		0.66 (0.27, 1.71)
CERTO_STD+MTX		2.04 (0.87, 5.03)
RIT_STD		0.26 (0.03, 1.58)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD+MTX		0.99 (0.36, 2.78)
BAR_4+MTX		3.09 (0.99, 9.97)
HD203+MTX		3.29 (0.73, 15.61)
SB4+MTX		2.14 (0.51, 9.69)
ANBAI+MTX		2.74 (0.67, 12.22)
CT-P13+MTX		0.96 (0.28, 3.38)
SB2+MTX		0.57 (0.14, 2.43)
SB5+MTX		1.69 (0.42, 6.99)
ZRC-3197+MTX		1.79 (0.41, 8.16)
ABP501+MTX		1.65 (0.43, 6.39)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	0.84 (0.34, 2.16)
GOL_STD (IV)+MTX		0.70 (0.20, 2.53)
INF_STD+MTX		0.41 (0.17, 1.00)
CERTO_STD+MTX		1.26 (0.55, 2.95)
RIT_STD		0.16 (0.02, 0.93)
RIT_STD+MTX		0.61 (0.23, 1.65)
BAR_4+MTX		1.91 (0.62, 5.98)
HD203+MTX		2.02 (0.46, 9.51)
SB4+MTX		1.31 (0.32, 5.91)
ANBAI+MTX		1.70 (0.41, 7.33)
CT-P13+MTX		0.59 (0.18, 2.00)
SB2+MTX		0.35 (0.09, 1.44)
SB5+MTX		1.04 (0.26, 4.19)
ZRC-3197+MTX		1.11 (0.25, 4.88)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		1.01 (0.27, 3.87)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.83 (0.23, 3.10)
INF_STD+MTX		0.48 (0.19, 1.23)
CERTO_STD+MTX		1.49 (0.62, 3.60)
RIT_STD		0.19 (0.03, 1.13)
RIT_STD+MTX		0.73 (0.26, 2.04)
BAR_4+MTX		2.26 (0.70, 7.44)
HD203+MTX		2.40 (0.53, 11.67)
SB4+MTX		1.57 (0.36, 7.08)
ANBAI+MTX		2.01 (0.47, 8.80)
CT-P13+MTX		0.70 (0.20, 2.40)
SB2+MTX		0.42 (0.10, 1.75)
SB5+MTX		1.24 (0.30, 5.06)
ZRC-3197+MTX		1.31 (0.29, 5.97)
ABP501+MTX	GOL_STD (IV)+MTX	1.21 (0.31, 4.60)
INF_STD+MTX		0.58 (0.17, 2.12)
CERTO_STD+MTX		1.81 (0.51, 6.18)
RIT_STD		0.23 (0.03, 1.66)
RIT_STD+MTX		0.88 (0.22, 3.36)
BAR_4+MTX		2.74 (0.62, 12.01)
HD203+MTX		2.88 (0.52, 17.22)
SB4+MTX		1.88 (0.34, 10.70)
ANBAI+MTX		2.41 (0.45, 13.69)
CT-P13+MTX		0.84 (0.18, 3.91)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		0.50 (0.10, 2.68)
SB5+MTX		1.48 (0.28, 8.00)
ZRC-3197+MTX		1.57 (0.27, 8.85)
ABP501+MTX		1.45 (0.28, 7.40)
CERTO_STD+MTX	INF_STD+MTX	3.10 (1.33, 7.24)
RIT_STD		0.40 (0.05, 2.25)
RIT_STD+MTX		1.51 (0.55, 3.97)
BAR_4+MTX		4.66 (1.47, 14.38)
HD203+MTX		4.92 (1.14, 22.69)
SB4+MTX		3.24 (0.76, 14.35)
ANBAI+MTX		4.15 (0.97, 17.71)
CT-P13+MTX		1.44 (0.63, 3.31)
SB2+MTX		0.86 (0.30, 2.56)
SB5+MTX		2.57 (0.62, 10.36)
ZRC-3197+MTX		2.70 (0.59, 11.72)
ABP501+MTX		2.48 (0.65, 9.21)
RIT_STD	CERTO_STD+MTX	0.13 (0.02, 0.72)
RIT_STD+MTX		0.48 (0.19, 1.27)
BAR_4+MTX		1.51 (0.52, 4.46)
HD203+MTX		1.60 (0.37, 7.21)
SB4+MTX		1.04 (0.25, 4.49)
ANBAI+MTX		1.34 (0.33, 5.74)
CT-P13+MTX		0.46 (0.14, 1.54)
SB2+MTX		0.28 (0.07, 1.12)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		0.83 (0.23, 3.09)
ZRC-3197+MTX		0.87 (0.21, 3.57)
ABP501+MTX		0.81 (0.22, 2.76)
RIT_STD+MTX	RIT_STD	3.77 (0.78, 24.07)
BAR_4+MTX		*12.01 (1.77, 101.39)*
HD203+MTX		*12.55 (1.46, 142.31)*
SB4+MTX		8.15 (1.01, 85.37)
ANBAI+MTX		*10.56 (1.33, 104.27)*
CT-P13+MTX		3.67 (0.53, 32.33)
SB2+MTX		2.21 (0.29, 20.41)
SB5+MTX		6.49 (0.84, 61.93)
ZRC-3197+MTX		6.83 (0.79, 67.97)
ABP501+MTX		6.33 (0.84, 55.04)
BAR_4+MTX	RIT_STD+MTX	3.10 (0.92, 10.71)
HD203+MTX		3.33 (0.69, 16.61)
SB4+MTX		2.15 (0.48, 10.46)
ANBAI+MTX		2.76 (0.61, 12.60)
CT-P13+MTX		0.96 (0.27, 3.61)
SB2+MTX		0.57 (0.14, 2.55)
SB5+MTX		1.70 (0.39, 7.44)
ZRC-3197+MTX		1.79 (0.37, 8.64)
ABP501+MTX		1.66 (0.40, 6.83)
HD203+MTX	BAR_4+MTX	1.07 (0.20, 5.75)
SB4+MTX		0.69 (0.14, 3.58)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ANBAI+MTX		0.88 (0.18, 4.43)
CT-P13+MTX		0.31 (0.08, 1.23)
SB2+MTX		0.18 (0.04, 0.87)
SB5+MTX		0.55 (0.13, 2.35)
ZRC-3197+MTX		0.57 (0.12, 2.69)
ABP501+MTX		0.53 (0.13, 2.16)
SB4+MTX	HD203+MTX	0.65 (0.13, 3.23)
ANBAI+MTX		0.84 (0.13, 5.52)
CT-P13+MTX		0.29 (0.05, 1.58)
SB2+MTX		0.17 (0.03, 1.07)
SB5+MTX		0.52 (0.08, 3.22)
ZRC-3197+MTX		0.54 (0.08, 3.62)
ABP501+MTX		0.51 (0.08, 2.94)
ANBAI+MTX	SB4+MTX	1.28 (0.20, 8.17)
CT-P13+MTX		0.44 (0.08, 2.34)
SB2+MTX		0.27 (0.04, 1.65)
SB5+MTX		0.79 (0.13, 4.69)
ZRC-3197+MTX		0.84 (0.12, 5.38)
ABP501+MTX		0.77 (0.13, 4.31)
CT-P13+MTX	ANBAI+MTX	0.35 (0.07, 1.84)
SB2+MTX		0.21 (0.04, 1.27)
SB5+MTX		0.62 (0.10, 3.61)
ZRC-3197+MTX		0.65 (0.10, 4.07)
ABP501+MTX		0.60 (0.10, 3.30)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX	CT-P13+MTX	0.60 (0.15, 2.35)
SB5+MTX		1.78 (0.35, 9.06)
ZRC-3197+MTX		1.87 (0.33, 9.93)
ABP501+MTX		1.73 (0.35, 8.32)
SB5+MTX	SB2+MTX	2.95 (0.50, 17.34)
ZRC-3197+MTX		3.15 (0.48, 19.38)
ABP501+MTX		2.90 (0.50, 15.18)
ZRC-3197+MTX	SB5+MTX	1.05 (0.19, 5.81)
ABP501+MTX		0.98 (0.21, 4.60)
ABP501+MTX	ZRC-3197+MTX	0.92 (0.17, 4.84)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 10. Sensitivity Analysis Results, ACR50 (MTX as a Common Comparator) – Only Studies Clearly Including Inadequate Responders to MTX

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	5.07 (1.36, 23.76)
MTX+SSZ		-
MTX+HCQ		-
SSZ+HCQ		11.97 (2.85, 61.62)
MTX+SSZ+HCQ		-
ETN_STD		10.98 (2.96, 51.47)
ETN_STD+MTX		18.78 (5.89, 80.16)
ABA_STD (IV)+MTX		4.06 (2.65, 6.46)
ABA_STD (SC)+MTX		3.70 (1.63, 8.15)
ADA_STD+MTX		4.00 (2.91, 5.47)
TOF_STD+MTX		5.78 (3.59, 9.45)
TOC_4 (IV)		1.51 (0.60, 3.74)
TOC_8 (IV)		3.77 (2.19, 6.60)
TOC_4 (IV)+MTX		2.72 (1.51, 4.80)
TOC_8 (IV)+MTX		4.26 (2.70, 6.83)
GOL_STD (SC)+MTX		5.96 (3.36, 10.88)
GOL_STD (IV)+MTX		2.93 (1.29, 6.77)
INF_STD+MTX		2.99 (1.83, 4.85)
CERTO_STD+MTX		5.29 (3.50, 8.26)
RIT_STD		3.53 (0.96, 14.61)
RIT_STD+MTX		5.50 (1.53, 22.44)
BAR_4+MTX		5.38 (3.30, 9.16)
HD203+MTX		*34.19 (7.91, 178.22)*

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		*22.26 (5.61, 110.94)*
ANBAI+MTX		8.59 (3.23, 24.93)
CT-P13+MTX		4.04 (1.89, 8.92)
SB2+MTX		2.60 (1.06, 6.44)
SB5+MTX		3.73 (1.62, 8.46)
ZRC-3197+MTX		3.90 (1.37, 11.00)
ABP501+MTX		3.58 (1.56, 8.11)
MTX+SSZ	csDMARD+MTX	-
MTX+HCQ		-
SSZ+HCQ		2.34 (0.85, 6.42)
MTX+SSZ+HCQ		-
ETN_STD		2.18 (0.91, 4.95)
ETN_STD+MTX		3.73 (2.09, 6.65)
ABA_STD (IV)+MTX		0.80 (0.16, 3.23)
ABA_STD (SC)+MTX		0.72 (0.13, 3.35)
ADA_STD+MTX		0.79 (0.16, 3.05)
TOF_STD+MTX		1.14 (0.23, 4.65)
TOC_4 (IV)		0.30 (0.05, 1.48)
TOC_8 (IV)		0.75 (0.15, 3.13)
TOC_4 (IV)+MTX		0.54 (0.10, 2.21)
TOC_8 (IV)+MTX		0.84 (0.17, 3.37)
GOL_STD (SC)+MTX		1.17 (0.22, 4.96)
GOL_STD (IV)+MTX		0.57 (0.10, 2.71)
INF_STD+MTX		0.59 (0.12, 2.35)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		1.05 (0.22, 4.13)
RIT_STD		0.69 (0.10, 4.81)
RIT_STD+MTX		1.07 (0.15, 7.33)
BAR_4+MTX		1.06 (0.21, 4.32)
HD203+MTX		6.71 (2.38, 19.03)
SB4+MTX		4.40 (1.69, 11.19)
ANBAI+MTX		1.70 (0.28, 8.65)
CT-P13+MTX		0.80 (0.14, 3.61)
SB2+MTX		0.51 (0.09, 2.48)
SB5+MTX		0.73 (0.13, 3.44)
ZRC-3197+MTX		0.75 (0.12, 4.13)
ABP501+MTX		0.70 (0.12, 3.30)
MTX+HCQ	MTX+SSZ	-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SSZ+HCQ	MTX+HCQ	-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		0.93 (0.32, 2.54)
ETN_STD+MTX		1.59 (0.70, 3.64)
ABA_STD (IV)+MTX		0.34 (0.06, 1.55)
ABA_STD (SC)+MTX		0.31 (0.05, 1.59)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		0.33 (0.06, 1.45)
TOF_STD+MTX		0.48 (0.09, 2.22)
TOC_4 (IV)		0.12 (0.02, 0.69)
TOC_8 (IV)		0.32 (0.06, 1.47)
TOC_4 (IV)+MTX		0.23 (0.04, 1.06)
TOC_8 (IV)+MTX		0.36 (0.07, 1.61)
GOL_STD (SC)+MTX		0.50 (0.09, 2.37)
GOL_STD (IV)+MTX		0.24 (0.04, 1.28)
INF_STD+MTX		0.25 (0.05, 1.13)
CERTO_STD+MTX		0.44 (0.08, 1.98)
RIT_STD		0.29 (0.04, 2.27)
RIT_STD+MTX		0.46 (0.06, 3.42)
BAR_4+MTX		0.45 (0.08, 2.06)
HD203+MTX		2.87 (0.87, 9.48)
SB4+MTX		1.87 (0.62, 5.69)
ANBAI+MTX		0.72 (0.11, 4.18)
CT-P13+MTX		0.34 (0.06, 1.74)
SB2+MTX		0.22 (0.03, 1.19)
SB5+MTX		0.31 (0.05, 1.64)
ZRC-3197+MTX		0.32 (0.05, 1.93)
ABP501+MTX		0.30 (0.05, 1.58)
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	1.71 (0.95, 3.27)
ABA_STD (IV)+MTX		0.37 (0.08, 1.50)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		0.33 (0.06, 1.57)
ADA_STD+MTX		0.36 (0.08, 1.40)
TOF_STD+MTX		0.53 (0.10, 2.13)
TOC_4 (IV)		0.14 (0.02, 0.69)
TOC_8 (IV)		0.34 (0.07, 1.47)
TOC_4 (IV)+MTX		0.25 (0.05, 1.04)
TOC_8 (IV)+MTX		0.39 (0.08, 1.58)
GOL_STD (SC)+MTX		0.54 (0.10, 2.29)
GOL_STD (IV)+MTX		0.27 (0.05, 1.26)
INF_STD+MTX		0.27 (0.05, 1.09)
CERTO_STD+MTX		0.48 (0.10, 1.92)
RIT_STD		0.32 (0.05, 2.25)
RIT_STD+MTX		0.50 (0.07, 3.31)
BAR_4+MTX		0.49 (0.10, 2.02)
HD203+MTX		3.07 (1.09, 9.15)
SB4+MTX		2.01 (0.79, 5.45)
ANBAI+MTX		0.78 (0.13, 4.11)
CT-P13+MTX		0.37 (0.07, 1.70)
SB2+MTX		0.23 (0.04, 1.16)
SB5+MTX		0.33 (0.06, 1.62)
ZRC-3197+MTX		0.35 (0.06, 1.95)
ABP501+MTX	ETN_STD+MTX	0.32 (0.06, 1.53)
ABA_STD (IV)+MTX		0.22 (0.05, 0.76)
ABA_STD (SC)+MTX		0.19 (0.04, 0.80)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		0.21 (0.05, 0.71)
TOF_STD+MTX		0.31 (0.07, 1.09)
TOC_4 (IV)		0.08 (0.01, 0.36)
TOC_8 (IV)		0.20 (0.04, 0.74)
TOC_4 (IV)+MTX		0.14 (0.03, 0.53)
TOC_8 (IV)+MTX		0.23 (0.05, 0.80)
GOL_STD (SC)+MTX		0.32 (0.07, 1.15)
GOL_STD (IV)+MTX		0.15 (0.03, 0.64)
INF_STD+MTX		0.16 (0.03, 0.55)
CERTO_STD+MTX		0.28 (0.06, 0.97)
RIT_STD		0.19 (0.03, 1.19)
RIT_STD+MTX		0.29 (0.04, 1.78)
BAR_4+MTX		0.29 (0.06, 1.02)
HD203+MTX		1.80 (0.75, 4.29)
SB4+MTX		1.18 (0.55, 2.47)
ANBAI+MTX		0.46 (0.08, 2.12)
CT-P13+MTX		0.21 (0.04, 0.86)
SB2+MTX		0.14 (0.03, 0.59)
SB5+MTX		0.20 (0.04, 0.83)
ZRC-3197+MTX		0.20 (0.04, 1.00)
ABP501+MTX		0.19 (0.04, 0.79)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.91 (0.35, 2.23)
ADA_STD+MTX		0.98 (0.56, 1.67)
TOF_STD+MTX		1.42 (0.73, 2.72)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		0.37 (0.13, 1.01)
TOC_8 (IV)		0.93 (0.46, 1.86)
TOC_4 (IV)+MTX		0.67 (0.32, 1.36)
TOC_8 (IV)+MTX		1.05 (0.55, 1.97)
GOL_STD (SC)+MTX		1.47 (0.70, 3.06)
GOL_STD (IV)+MTX		0.72 (0.28, 1.82)
INF_STD+MTX		0.74 (0.41, 1.29)
CERTO_STD+MTX		1.30 (0.70, 2.40)
RIT_STD		0.87 (0.22, 3.78)
RIT_STD+MTX		1.35 (0.34, 5.82)
BAR_4+MTX		1.32 (0.68, 2.60)
HD203+MTX		8.47 (1.80, 46.02)
SB4+MTX		5.47 (1.27, 28.53)
ANBAI+MTX		2.12 (0.71, 6.69)
CT-P13+MTX		0.99 (0.43, 2.31)
SB2+MTX		0.64 (0.24, 1.64)
SB5+MTX		0.92 (0.35, 2.28)
ZRC-3197+MTX		0.96 (0.30, 2.93)
ABP501+MTX		0.88 (0.34, 2.19)
ADA_STD+MTX	ABA_STD (SC)+MTX	1.08 (0.52, 2.30)
TOF_STD+MTX		1.56 (0.64, 3.96)
TOC_4 (IV)		0.41 (0.12, 1.39)
TOC_8 (IV)		1.02 (0.39, 2.75)
TOC_4 (IV)+MTX		0.74 (0.28, 1.99)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		1.16 (0.47, 2.97)
GOL_STD (SC)+MTX		1.62 (0.61, 4.43)
GOL_STD (IV)+MTX		0.79 (0.26, 2.56)
INF_STD+MTX		0.81 (0.32, 2.14)
CERTO_STD+MTX		1.43 (0.61, 3.56)
RIT_STD		0.97 (0.21, 4.88)
RIT_STD+MTX		1.51 (0.33, 7.46)
BAR_4+MTX		1.45 (0.60, 3.78)
HD203+MTX		9.35 (1.77, 56.83)
SB4+MTX		6.10 (1.23, 35.59)
ANBAI+MTX		2.34 (0.66, 8.84)
CT-P13+MTX		1.09 (0.36, 3.47)
SB2+MTX		0.70 (0.21, 2.40)
SB5+MTX		1.01 (0.35, 2.96)
ZRC-3197+MTX		1.06 (0.31, 3.62)
ABP501+MTX		0.97 (0.34, 2.81)
TOF_STD+MTX	ADA_STD+MTX	1.45 (0.86, 2.46)
TOC_4 (IV)		0.38 (0.14, 0.99)
TOC_8 (IV)		0.94 (0.50, 1.80)
TOC_4 (IV)+MTX		0.68 (0.35, 1.30)
TOC_8 (IV)+MTX		1.06 (0.61, 1.89)
GOL_STD (SC)+MTX		1.49 (0.78, 2.96)
GOL_STD (IV)+MTX		0.73 (0.30, 1.81)
INF_STD+MTX		0.75 (0.42, 1.33)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		1.32 (0.84, 2.16)
RIT_STD		0.89 (0.23, 3.75)
RIT_STD+MTX		1.38 (0.37, 5.75)
BAR_4+MTX		1.34 (0.80, 2.38)
HD203+MTX		8.56 (1.92, 45.92)
SB4+MTX		5.57 (1.35, 28.56)
ANBAI+MTX		2.15 (0.77, 6.51)
CT-P13+MTX		1.01 (0.44, 2.37)
SB2+MTX		0.65 (0.25, 1.69)
SB5+MTX		0.93 (0.44, 2.00)
ZRC-3197+MTX		0.98 (0.36, 2.61)
ABP501+MTX		0.90 (0.42, 1.91)
TOC_4 (IV)	TOF_STD+MTX	0.26 (0.09, 0.73)
TOC_8 (IV)		0.65 (0.32, 1.36)
TOC_4 (IV)+MTX		0.47 (0.22, 0.98)
TOC_8 (IV)+MTX		0.74 (0.38, 1.44)
GOL_STD (SC)+MTX		1.03 (0.48, 2.21)
GOL_STD (IV)+MTX		0.51 (0.19, 1.33)
INF_STD+MTX		0.52 (0.26, 1.02)
CERTO_STD+MTX		0.91 (0.49, 1.74)
RIT_STD		0.61 (0.15, 2.74)
RIT_STD+MTX		0.95 (0.24, 4.18)
BAR_4+MTX		0.93 (0.47, 1.90)
HD203+MTX		5.92 (1.26, 33.12)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		3.85 (0.88, 20.51)
ANBAI+MTX		1.48 (0.50, 4.79)
CT-P13+MTX		0.70 (0.28, 1.78)
SB2+MTX		0.45 (0.16, 1.25)
SB5+MTX		0.65 (0.25, 1.61)
ZRC-3197+MTX		0.67 (0.22, 2.05)
ABP501+MTX		0.62 (0.24, 1.55)
TOC_8 (IV)	TOC_4 (IV)	2.49 (1.02, 6.30)
TOC_4 (IV)+MTX		1.80 (0.71, 4.60)
TOC_8 (IV)+MTX		2.82 (1.18, 6.98)
GOL_STD (SC)+MTX		3.94 (1.35, 11.92)
GOL_STD (IV)+MTX		1.94 (0.56, 6.69)
INF_STD+MTX		1.97 (0.70, 5.67)
CERTO_STD+MTX		3.50 (1.29, 9.85)
RIT_STD		2.35 (0.49, 12.74)
RIT_STD+MTX		3.63 (0.76, 19.85)
BAR_4+MTX		3.56 (1.26, 10.39)
HD203+MTX		22.83 (4.06, 149.16)
SB4+MTX		14.88 (2.82, 91.38)
ANBAI+MTX		5.71 (1.49, 23.57)
CT-P13+MTX		2.67 (0.81, 9.01)
SB2+MTX		1.71 (0.47, 6.30)
SB5+MTX		2.47 (0.72, 8.54)
ZRC-3197+MTX		2.58 (0.64, 10.26)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		2.37 (0.70, 8.07)
TOC_4 (IV)+MTX	TOC_8 (IV)	0.72 (0.37, 1.34)
TOC_8 (IV)+MTX		1.13 (0.72, 1.76)
GOL_STD (SC)+MTX		1.58 (0.70, 3.57)
GOL_STD (IV)+MTX		0.78 (0.29, 2.09)
INF_STD+MTX		0.79 (0.38, 1.64)
CERTO_STD+MTX		1.41 (0.70, 2.83)
RIT_STD		0.94 (0.23, 4.24)
RIT_STD+MTX		1.46 (0.36, 6.55)
BAR_4+MTX		1.43 (0.68, 3.05)
HD203+MTX		9.08 (1.88, 52.09)
SB4+MTX		5.88 (1.33, 31.72)
ANBAI+MTX		2.28 (0.73, 7.57)
CT-P13+MTX		1.07 (0.41, 2.81)
SB2+MTX		0.69 (0.24, 1.99)
SB5+MTX		0.99 (0.36, 2.65)
ZRC-3197+MTX		1.04 (0.32, 3.31)
ABP501+MTX		0.95 (0.35, 2.50)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.56 (0.92, 2.77)
GOL_STD (SC)+MTX		2.20 (0.98, 5.06)
GOL_STD (IV)+MTX		1.08 (0.40, 3.00)
INF_STD+MTX		1.10 (0.52, 2.36)
CERTO_STD+MTX		1.94 (0.97, 4.10)
RIT_STD		1.30 (0.31, 6.10)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD+MTX		2.04 (0.50, 9.37)
BAR_4+MTX		1.98 (0.94, 4.37)
HD203+MTX		12.63 (2.62, 74.00)
SB4+MTX		8.18 (1.83, 45.70)
ANBAI+MTX		3.17 (1.03, 10.72)
CT-P13+MTX		1.49 (0.58, 4.00)
SB2+MTX		0.95 (0.33, 2.83)
SB5+MTX		1.37 (0.50, 3.77)
ZRC-3197+MTX		1.44 (0.44, 4.70)
ABP501+MTX		1.32 (0.49, 3.60)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	1.40 (0.66, 2.96)
GOL_STD (IV)+MTX		0.69 (0.27, 1.77)
INF_STD+MTX		0.70 (0.35, 1.38)
CERTO_STD+MTX		1.24 (0.66, 2.35)
RIT_STD		0.83 (0.21, 3.70)
RIT_STD+MTX		1.29 (0.33, 5.63)
BAR_4+MTX		1.26 (0.64, 2.53)
HD203+MTX		8.05 (1.71, 45.02)
SB4+MTX		5.22 (1.20, 27.61)
ANBAI+MTX		2.02 (0.68, 6.44)
CT-P13+MTX		0.95 (0.38, 2.36)
SB2+MTX		0.61 (0.22, 1.68)
SB5+MTX		0.88 (0.33, 2.24)
ZRC-3197+MTX		0.91 (0.29, 2.84)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		0.84 (0.33, 2.14)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.49 (0.18, 1.35)
INF_STD+MTX		0.50 (0.23, 1.08)
CERTO_STD+MTX		0.89 (0.43, 1.84)
RIT_STD		0.59 (0.14, 2.70)
RIT_STD+MTX		0.93 (0.22, 4.11)
BAR_4+MTX		0.90 (0.42, 1.98)
HD203+MTX		5.76 (1.21, 33.15)
SB4+MTX		3.74 (0.82, 20.45)
ANBAI+MTX		1.44 (0.46, 4.81)
CT-P13+MTX		0.68 (0.26, 1.83)
SB2+MTX		0.43 (0.15, 1.28)
SB5+MTX		0.63 (0.22, 1.73)
ZRC-3197+MTX		0.65 (0.20, 2.15)
ABP501+MTX	GOL_STD (IV)+MTX	0.60 (0.22, 1.64)
INF_STD+MTX		1.02 (0.39, 2.65)
CERTO_STD+MTX		1.80 (0.71, 4.66)
RIT_STD		1.22 (0.26, 6.16)
RIT_STD+MTX		1.90 (0.41, 9.37)
BAR_4+MTX		1.84 (0.70, 4.92)
HD203+MTX		11.73 (2.20, 74.37)
SB4+MTX		7.61 (1.54, 45.06)
ANBAI+MTX		2.94 (0.81, 11.32)
CT-P13+MTX		1.38 (0.45, 4.34)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		0.88 (0.26, 3.03)
SB5+MTX		1.28 (0.39, 4.08)
ZRC-3197+MTX		1.33 (0.35, 5.03)
ABP501+MTX		1.22 (0.38, 3.88)
CERTO_STD+MTX	INF_STD+MTX	1.77 (0.94, 3.43)
RIT_STD		1.19 (0.30, 5.31)
RIT_STD+MTX		1.84 (0.47, 8.17)
BAR_4+MTX		1.80 (0.91, 3.70)
HD203+MTX		11.45 (2.46, 63.50)
SB4+MTX		7.46 (1.74, 39.53)
ANBAI+MTX		2.90 (0.96, 9.18)
CT-P13+MTX		1.35 (0.75, 2.53)
SB2+MTX		0.87 (0.41, 1.88)
SB5+MTX		1.24 (0.48, 3.23)
ZRC-3197+MTX		1.30 (0.41, 4.09)
ABP501+MTX		1.20 (0.46, 3.07)
RIT_STD	CERTO_STD+MTX	0.67 (0.17, 2.94)
RIT_STD+MTX		1.04 (0.26, 4.44)
BAR_4+MTX		1.02 (0.53, 1.94)
HD203+MTX		6.48 (1.41, 34.61)
SB4+MTX		4.22 (0.99, 21.59)
ANBAI+MTX		1.63 (0.55, 5.05)
CT-P13+MTX		0.76 (0.32, 1.85)
SB2+MTX		0.49 (0.18, 1.32)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		0.71 (0.28, 1.69)
ZRC-3197+MTX		0.74 (0.24, 2.16)
ABP501+MTX		0.68 (0.27, 1.62)
RIT_STD+MTX	RIT_STD	1.54 (0.51, 4.87)
BAR_4+MTX		1.52 (0.35, 6.32)
HD203+MTX		9.73 (1.24, 75.57)
SB4+MTX		6.37 (0.86, 47.47)
ANBAI+MTX		2.43 (0.45, 12.95)
CT-P13+MTX		1.14 (0.23, 5.14)
SB2+MTX		0.73 (0.14, 3.58)
SB5+MTX		1.04 (0.20, 4.90)
ZRC-3197+MTX		1.09 (0.19, 5.84)
ABP501+MTX		1.00 (0.20, 4.73)
BAR_4+MTX	RIT_STD+MTX	0.97 (0.22, 4.01)
HD203+MTX		6.23 (0.84, 48.86)
SB4+MTX		4.10 (0.57, 30.72)
ANBAI+MTX		1.56 (0.29, 8.30)
CT-P13+MTX		0.73 (0.15, 3.29)
SB2+MTX		0.47 (0.09, 2.27)
SB5+MTX		0.67 (0.13, 3.15)
ZRC-3197+MTX		0.70 (0.13, 3.73)
ABP501+MTX		0.64 (0.13, 3.02)
HD203+MTX	BAR_4+MTX	6.38 (1.36, 35.13)
SB4+MTX		4.13 (0.95, 21.96)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ANBAI+MTX		1.60 (0.52, 5.16)
CT-P13+MTX		0.75 (0.30, 1.89)
SB2+MTX		0.48 (0.17, 1.34)
SB5+MTX		0.69 (0.26, 1.73)
ZRC-3197+MTX		0.72 (0.23, 2.19)
ABP501+MTX		0.67 (0.26, 1.64)
SB4+MTX	HD203+MTX	0.65 (0.21, 2.03)
ANBAI+MTX		0.25 (0.04, 1.49)
CT-P13+MTX		0.12 (0.02, 0.61)
SB2+MTX		0.08 (0.01, 0.42)
SB5+MTX		0.11 (0.02, 0.59)
ZRC-3197+MTX		0.11 (0.02, 0.70)
ABP501+MTX		0.10 (0.02, 0.56)
ANBAI+MTX	SB4+MTX	0.39 (0.06, 2.14)
CT-P13+MTX		0.18 (0.03, 0.87)
SB2+MTX		0.12 (0.02, 0.61)
SB5+MTX		0.17 (0.03, 0.83)
ZRC-3197+MTX		0.17 (0.03, 0.99)
ABP501+MTX		0.16 (0.03, 0.80)
CT-P13+MTX	ANBAI+MTX	0.47 (0.13, 1.67)
SB2+MTX		0.30 (0.08, 1.15)
SB5+MTX		0.43 (0.11, 1.54)
ZRC-3197+MTX		0.45 (0.10, 1.89)
ABP501+MTX		0.41 (0.11, 1.48)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX	CT-P13+MTX	0.64 (0.24, 1.70)
SB5+MTX		0.92 (0.29, 2.83)
ZRC-3197+MTX		0.96 (0.26, 3.48)
ABP501+MTX		0.89 (0.29, 2.68)
SB5+MTX	SB2+MTX	1.44 (0.42, 4.85)
ZRC-3197+MTX		1.50 (0.38, 5.99)
ABP501+MTX		1.38 (0.41, 4.57)
ZRC-3197+MTX	SB5+MTX	1.05 (0.30, 3.62)
ABP501+MTX		0.96 (0.33, 2.85)
ABP501+MTX	ZRC-3197+MTX	0.92 (0.26, 3.18)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 11. Sensitivity Analysis Results, ACR50 (MTX as a Common Comparator) – Restricted Time Point Analysis (12-16 weeks)

Treatment	Comparator	OR (95% CrI)
Placebo	Placebo+MTX	-
csDMARD+MTX		7.85 (1.59, 47.42)
MTX+SSZ		-
MTX+HCQ		-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		*20.88 (4.38, 130.84)*
ETN_STD+MTX		*19.24 (4.75, 104.58)*
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		4.07 (3.01, 5.55)
TOF_STD+MTX		5.80 (3.74, 9.05)
TOF_STD		-
TOC_4 (IV)		1.26 (0.52, 3.03)
TOC_8 (IV)		2.26 (0.95, 5.24)
TOC_4 (IV)+MTX		2.52 (1.41, 4.22)
TOC_8 (IV)+MTX		3.91 (2.49, 6.25)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		5.91 (3.41, 10.44)
GOL_STD (IV)+MTX		2.92 (1.43, 6.22)
INF_STD+MTX		5.00 (1.43, 22.24)
CERTO_STD+MTX		5.42 (3.70, 8.62)
CERTO_STD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		5.26 (3.41, 8.72)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		8.62 (3.62, 22.49)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		3.97 (1.53, 10.49)
ABP501+MTX		-
csDMARD+MTX	Placebo	-
MTX+SSZ		-
MTX+HCQ		-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+SSZ	csDMARD+MTX	-
MTX+HCQ		-
SSZ+HCQ		-
MTX+SSZ+HCQ		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ETN_STD		2.67 (0.94, 7.50)
ETN_STD+MTX		2.47 (1.18, 5.30)
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		0.52 (0.08, 2.64)
TOF_STD+MTX		0.74 (0.12, 3.88)
TOF_STD		-
TOC_4 (IV)		0.16 (0.02, 0.98)
TOC_8 (IV)		0.29 (0.04, 1.73)
TOC_4 (IV)+MTX		0.32 (0.05, 1.70)
TOC_8 (IV)+MTX		0.50 (0.08, 2.66)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		0.75 (0.12, 4.21)
GOL_STD (IV)+MTX		0.37 (0.05, 2.21)
INF_STD+MTX		0.62 (0.07, 6.35)
CERTO_STD+MTX		0.70 (0.11, 3.78)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.67 (0.11, 3.59)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		1.11 (0.15, 6.80)
CT-P13+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		0.50 (0.07, 3.35)
ABP501+MTX		-
MTX+HCQ	MTX+SSZ	-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SSZ+HCQ	MTX+HCQ	-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	0.93 (0.46, 1.91)
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		0.19 (0.03, 0.97)
TOF_STD+MTX		0.27 (0.04, 1.43)
TOF_STD		-
TOC_4 (IV)		0.06 (0.01, 0.37)
TOC_8 (IV)		0.11 (0.01, 0.65)
TOC_4 (IV)+MTX		0.12 (0.02, 0.64)
TOC_8 (IV)+MTX		0.19 (0.03, 0.95)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		0.28 (0.04, 1.52)
GOL_STD (IV)+MTX		0.14 (0.02, 0.82)
INF_STD+MTX		0.24 (0.03, 2.29)
CERTO_STD+MTX		0.26 (0.04, 1.37)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.25 (0.04, 1.32)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		0.41 (0.06, 2.53)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		0.19 (0.02, 1.22)
ABP501+MTX		-
ABA_STD (IV)+MTX	ETN_STD+MTX	-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		0.21 (0.04, 0.88)
TOF_STD+MTX		0.30 (0.05, 1.30)
TOF_STD		-
TOC_4 (IV)		0.06 (0.01, 0.34)
TOC_8 (IV)		0.12 (0.02, 0.60)
TOC_4 (IV)+MTX		0.13 (0.02, 0.57)
TOC_8 (IV)+MTX		0.20 (0.04, 0.88)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		0.31 (0.05, 1.41)
GOL_STD (IV)+MTX		0.15 (0.02, 0.74)
INF_STD+MTX		0.25 (0.03, 2.19)
CERTO_STD+MTX		0.28 (0.05, 1.24)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.28 (0.05, 1.23)
HD203+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		-
ANBAI+MTX		0.45 (0.07, 2.36)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		0.20 (0.03, 1.15)
ABP501+MTX		-
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ADA_STD+MTX	ABA_STD (SC)+MTX	-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOF_STD+MTX	ADA_STD+MTX	1.42 (0.88, 2.30)
TOF_STD		-
TOC_4 (IV)		0.31 (0.12, 0.78)
TOC_8 (IV)		0.56 (0.22, 1.36)
TOC_4 (IV)+MTX		0.62 (0.32, 1.11)
TOC_8 (IV)+MTX		0.96 (0.56, 1.69)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		1.45 (0.78, 2.76)
GOL_STD (IV)+MTX		0.72 (0.33, 1.61)
INF_STD+MTX		1.23 (0.34, 5.55)
CERTO_STD+MTX		1.33 (0.89, 2.17)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.29 (0.81, 2.21)
HD203+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		-
ANBAI+MTX		2.12 (0.84, 5.82)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		0.98 (0.39, 2.43)
ABP501+MTX		-
TOF_STD	TOF_STD+MTX	-
TOC_4 (IV)		0.22 (0.08, 0.58)
TOC_8 (IV)		0.39 (0.15, 0.99)
TOC_4 (IV)+MTX		0.43 (0.21, 0.85)
TOC_8 (IV)+MTX		0.68 (0.36, 1.28)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		1.02 (0.51, 2.08)
GOL_STD (IV)+MTX		0.51 (0.22, 1.17)
INF_STD+MTX		0.86 (0.23, 4.01)
CERTO_STD+MTX		0.94 (0.54, 1.75)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.91 (0.50, 1.75)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		1.49 (0.56, 4.32)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		0.68 (0.24, 1.95)
ABP501+MTX		-
TOC_4 (IV)	TOF_STD	-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_8 (IV)	TOC_4 (IV)	1.80 (0.65, 4.82)
TOC_4 (IV)+MTX		1.98 (0.82, 4.75)
TOC_8 (IV)+MTX		3.10 (1.33, 7.48)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		4.67 (1.70, 13.64)
GOL_STD (IV)+MTX		2.33 (0.74, 7.29)
INF_STD+MTX		4.03 (0.87, 21.96)
CERTO_STD+MTX		4.32 (1.68, 11.72)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		4.20 (1.60, 11.53)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		6.82 (2.05, 24.78)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		3.15 (0.87, 11.62)
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	1.11 (0.47, 2.64)
TOC_8 (IV)+MTX		1.72 (0.76, 4.16)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		2.61 (0.97, 7.43)
GOL_STD (IV)+MTX		1.29 (0.42, 4.07)
INF_STD+MTX		2.24 (0.48, 12.24)
CERTO_STD+MTX		2.41 (0.97, 6.58)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		2.32 (0.91, 6.53)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		3.84 (1.15, 13.94)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		1.75 (0.50, 6.55)
ABP501+MTX		-
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.55 (0.97, 2.73)
GOL_STD (SC)		-
GOL_STD (SC)+MTX		2.35 (1.12, 5.21)
GOL_STD (IV)+MTX		1.16 (0.48, 2.97)
INF_STD+MTX		2.00 (0.51, 9.88)
CERTO_STD+MTX		2.15 (1.15, 4.65)
CERTO_STD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		2.09 (1.07, 4.59)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		3.44 (1.27, 10.53)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		1.58 (0.55, 4.93)
ABP501+MTX		-
GOL_STD (SC)	TOC_8 (IV)+MTX	-
GOL_STD (SC)+MTX		1.51 (0.73, 3.16)
GOL_STD (IV)+MTX		0.75 (0.32, 1.76)
INF_STD+MTX		1.28 (0.33, 6.02)
CERTO_STD+MTX		1.39 (0.77, 2.67)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.35 (0.72, 2.66)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		2.21 (0.83, 6.25)
CT-P13+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		1.01 (0.35, 2.98)
ABP501+MTX		-
GOL_STD (SC)+MTX	GOL_STD (SC)	-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.49 (0.20, 1.25)
INF_STD+MTX		0.85 (0.21, 4.09)
CERTO_STD+MTX		0.92 (0.46, 1.87)
CERTO_STD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.89 (0.44, 1.85)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		1.46 (0.52, 4.46)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		0.67 (0.22, 2.04)
ABP501+MTX		-
INF_STD+MTX	GOL_STD (IV)+MTX	1.73 (0.39, 8.95)
CERTO_STD+MTX		1.85 (0.82, 4.50)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.79 (0.78, 4.40)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		2.96 (0.94, 9.65)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		1.36 (0.40, 4.53)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		-
CERTO_STD+MTX	INF_STD+MTX	1.09 (0.24, 4.08)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.05 (0.23, 4.05)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		1.72 (0.31, 8.24)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		0.78 (0.14, 3.79)
ABP501+MTX		-
CERTO_STD	CERTO_STD+MTX	-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.97 (0.53, 1.75)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		1.60 (0.57, 4.40)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		0.73 (0.26, 2.01)
ABP501+MTX		-
RIT_STD	CERTO_STD	-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
RIT_STD+MTX	RIT_STD	-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	-
SB4+MTX		-
ANBAI+MTX		1.65 (0.60, 4.64)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		0.75 (0.26, 2.11)
ABP501+MTX		-
SB4+MTX	HD203+MTX	-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ANBAI+MTX	SB4+MTX	-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
CT-P13+MTX	ANBAI+MTX	-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		0.46 (0.12, 1.70)
ABP501+MTX		-
SB2+MTX	CT-P13+MTX	-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SB5+MTX	SB2+MTX	-
ZRC-3197+MTX		-
ABP501+MTX		-
ZRC-3197+MTX	SB5+MTX	-
ABP501+MTX		-
ABP501+MTX	ZRC-3197+MTX	-

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

(as supplied by the authors)

Table 12. Sensitivity Analysis Results, ACR50 (MTX as a Common Comparator) – Only Studies with Patients with Inadequate Response to MTX who were also Biologic Naïve

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	1.26 (0.48, 4.09)
MTX+SSZ		1.48 (0.16, 13.53)
MTX+HCQ		6.40 (0.87, 50.30)
SSZ+HCQ		1.33 (0.35, 5.24)
MTX+SSZ+HCQ		7.13 (1.75, 32.20)
ETN_STD		2.00 (0.94, 4.94)
ETN_STD+MTX		4.72 (2.40, 11.09)
ABA_STD (IV)+MTX		2.92 (1.05, 8.33)
ABA_STD (SC)+MTX		3.31 (1.09, 10.09)
ADA_STD+MTX		3.59 (2.23, 5.75)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		5.38 (2.44, 12.44)
GOL_STD (IV)+MTX		2.94 (1.01, 8.45)
INF_STD+MTX		2.66 (1.14, 6.29)
CERTO_STD+MTX		3.42 (1.47, 8.01)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		4.55 (2.20, 9.48)
HD203+MTX		-
SB4+MTX		5.50 (1.74, 21.43)
ANBAI+MTX		-
CT-P13+MTX		2.83 (0.77, 10.86)
SB2+MTX		-
SB5+MTX		3.36 (1.09, 10.30)
ZRC-3197+MTX		3.46 (0.97, 12.73)
ABP501+MTX		-
MTX+SSZ	csDMARD+MTX	1.16 (0.10, 12.52)
MTX+HCQ		5.07 (0.49, 45.20)
SSZ+HCQ		1.05 (0.17, 5.43)
MTX+SSZ+HCQ		5.66 (0.88, 32.33)
ETN_STD		1.59 (0.58, 4.03)
ETN_STD+MTX		3.71 (1.75, 7.90)
ABA_STD (IV)+MTX		2.31 (0.48, 9.36)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		2.64 (0.50, 11.19)
ADA_STD+MTX		2.83 (0.80, 8.29)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		4.25 (1.04, 15.04)
GOL_STD (IV)+MTX		2.32 (0.47, 9.43)
INF_STD+MTX		2.10 (0.50, 7.50)
CERTO_STD+MTX		2.71 (0.63, 9.59)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		3.61 (0.89, 12.06)
HD203+MTX		-
SB4+MTX		4.36 (1.24, 15.41)
ANBAI+MTX		-
CT-P13+MTX		2.26 (0.38, 11.15)
SB2+MTX		-
SB5+MTX		2.66 (0.52, 11.28)
ZRC-3197+MTX		2.73 (0.48, 13.29)
ABP501+MTX		-
MTX+HCQ	MTX+SSZ	4.29 (0.89, 23.34)
SSZ+HCQ		0.90 (0.10, 8.22)
MTX+SSZ+HCQ		4.81 (0.97, 26.18)
ETN_STD		1.37 (0.14, 14.76)
ETN_STD+MTX		3.23 (0.33, 34.40)
ABA_STD (IV)+MTX		1.99 (0.17, 22.74)
ABA_STD (SC)+MTX		2.22 (0.19, 26.66)
ADA_STD+MTX		2.43 (0.25, 23.03)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		3.64 (0.35, 38.98)
GOL_STD (IV)+MTX		1.99 (0.17, 23.03)
INF_STD+MTX		1.81 (0.16, 18.99)
CERTO_STD+MTX		2.34 (0.22, 24.26)
RIT_STD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD+MTX		-
BAR_4+MTX		3.12 (0.30, 31.00)
HD203+MTX		-
SB4+MTX		3.78 (0.32, 50.05)
ANBAI+MTX		-
CT-P13+MTX		1.94 (0.15, 24.93)
SB2+MTX		-
SB5+MTX		2.28 (0.19, 27.11)
ZRC-3197+MTX		2.39 (0.18, 28.99)
ABP501+MTX		-
SSZ+HCQ	MTX+HCQ	0.21 (0.03, 1.53)
MTX+SSZ+HCQ		1.12 (0.27, 4.54)
ETN_STD		0.31 (0.04, 2.86)
ETN_STD+MTX		0.73 (0.09, 6.67)
ABA_STD (IV)+MTX		0.45 (0.05, 4.38)
ABA_STD (SC)+MTX		0.52 (0.05, 5.13)
ADA_STD+MTX		0.56 (0.07, 4.38)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.84 (0.09, 7.24)
GOL_STD (IV)+MTX		0.46 (0.05, 4.41)
INF_STD+MTX		0.42 (0.04, 3.64)
CERTO_STD+MTX		0.53 (0.06, 4.73)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.72 (0.08, 5.95)
HD203+MTX		-
SB4+MTX		0.86 (0.09, 9.71)
ANBAI+MTX		-
CT-P13+MTX		0.44 (0.04, 4.92)
SB2+MTX		-
SB5+MTX		0.53 (0.05, 5.20)
ZRC-3197+MTX		0.54 (0.05, 5.78)
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	5.35 (1.32, 23.43)
ETN_STD		1.51 (0.32, 7.71)
ETN_STD+MTX		3.53 (0.81, 18.10)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (IV)+MTX		2.18 (0.40, 12.24)
ABA_STD (SC)+MTX		2.48 (0.42, 14.60)
ADA_STD+MTX		2.69 (0.63, 11.38)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		4.04 (0.84, 20.13)
GOL_STD (IV)+MTX		2.21 (0.40, 12.15)
INF_STD+MTX		1.99 (0.40, 10.01)
CERTO_STD+MTX		2.57 (0.52, 12.74)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		3.44 (0.72, 15.85)
HD203+MTX		-
SB4+MTX		4.15 (0.71, 29.08)
ANBAI+MTX		-
CT-P13+MTX		2.15 (0.33, 14.61)
SB2+MTX		-
SB5+MTX		2.52 (0.43, 14.84)
ZRC-3197+MTX		2.61 (0.40, 16.96)
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	0.28 (0.05, 1.54)
ETN_STD+MTX		0.66 (0.13, 3.57)
ABA_STD (IV)+MTX		0.41 (0.07, 2.36)
ABA_STD (SC)+MTX		0.46 (0.07, 2.83)
ADA_STD+MTX		0.50 (0.10, 2.23)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.75 (0.14, 3.85)
GOL_STD (IV)+MTX		0.41 (0.07, 2.39)
INF_STD+MTX		0.37 (0.07, 1.95)
CERTO_STD+MTX		0.48 (0.08, 2.48)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.64 (0.12, 3.11)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
HD203+MTX		-
SB4+MTX		0.77 (0.12, 5.62)
ANBAI+MTX		-
CT-P13+MTX		0.40 (0.05, 2.78)
SB2+MTX		-
SB5+MTX		0.47 (0.07, 2.86)
ZRC-3197+MTX		0.49 (0.07, 3.25)
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	2.34 (1.30, 4.53)
ABA_STD (IV)+MTX		1.47 (0.37, 5.10)
ABA_STD (SC)+MTX		1.66 (0.38, 6.17)
ADA_STD+MTX		1.80 (0.64, 4.32)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		2.69 (0.81, 8.23)
GOL_STD (IV)+MTX		1.47 (0.36, 5.17)
INF_STD+MTX		1.33 (0.39, 4.11)
CERTO_STD+MTX		1.72 (0.49, 5.23)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		2.29 (0.70, 6.46)
HD203+MTX		-
SB4+MTX		2.75 (0.89, 9.27)
ANBAI+MTX		-
CT-P13+MTX		1.43 (0.28, 6.42)
SB2+MTX		-
SB5+MTX		1.69 (0.39, 6.27)
ZRC-3197+MTX		1.73 (0.35, 7.53)
ABP501+MTX	ETN_STD+MTX	-
ABA_STD (IV)+MTX		0.62 (0.16, 2.07)
ABA_STD (SC)+MTX		0.71 (0.17, 2.49)
ADA_STD+MTX		0.76 (0.28, 1.70)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)+MTX		1.14 (0.36, 3.20)
GOL_STD (IV)+MTX		0.63 (0.15, 2.07)
INF_STD+MTX		0.57 (0.17, 1.63)
CERTO_STD+MTX		0.73 (0.21, 2.07)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.97 (0.30, 2.54)
HD203+MTX		-
SB4+MTX		1.18 (0.43, 3.19)
ANBAI+MTX		-
CT-P13+MTX		0.61 (0.12, 2.59)
SB2+MTX		-
SB5+MTX		0.72 (0.17, 2.50)
ZRC-3197+MTX		0.74 (0.15, 3.00)
ABP501+MTX		-
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	1.14 (0.24, 5.12)
ADA_STD+MTX		1.23 (0.39, 3.78)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		1.84 (0.50, 7.00)
GOL_STD (IV)+MTX		1.00 (0.23, 4.35)
INF_STD+MTX		0.91 (0.33, 2.50)
CERTO_STD+MTX		1.17 (0.30, 4.40)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.56 (0.44, 5.58)
HD203+MTX		-
SB4+MTX		1.87 (0.41, 10.51)
ANBAI+MTX		-
CT-P13+MTX		0.98 (0.23, 4.10)
SB2+MTX		-
SB5+MTX		1.15 (0.25, 5.32)
ZRC-3197+MTX		1.18 (0.23, 6.10)
ABP501+MTX		-
ADA_STD+MTX	ABA_STD (SC)+MTX	1.08 (0.39, 2.98)
TOF_STD+MTX		-
TOC_4 (IV)		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		1.62 (0.42, 6.60)
GOL_STD (IV)+MTX		0.88 (0.19, 4.16)
INF_STD+MTX		0.80 (0.20, 3.33)
CERTO_STD+MTX		1.03 (0.29, 3.79)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.37 (0.39, 4.91)
HD203+MTX		-
SB4+MTX		1.66 (0.34, 9.83)
ANBAI+MTX		-
CT-P13+MTX		0.86 (0.16, 4.93)
SB2+MTX		-
SB5+MTX		1.01 (0.24, 4.33)
ZRC-3197+MTX		1.04 (0.23, 5.09)
ABP501+MTX		-
TOF_STD+MTX	ADA_STD+MTX	-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		1.50 (0.60, 3.95)
GOL_STD (IV)+MTX		0.82 (0.26, 2.63)
INF_STD+MTX		0.74 (0.28, 1.97)
CERTO_STD+MTX		0.95 (0.43, 2.16)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.27 (0.59, 2.75)
HD203+MTX		-
SB4+MTX		1.53 (0.44, 6.50)
ANBAI+MTX		-
CT-P13+MTX		0.79 (0.20, 3.34)
SB2+MTX		-
SB5+MTX		0.94 (0.34, 2.62)
ZRC-3197+MTX		0.97 (0.29, 3.23)
ABP501+MTX		-
TOC_4 (IV)	TOF_STD+MTX	-
TOC_8 (IV)		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_8 (IV)	TOC_4 (IV)	-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.55 (0.14, 2.05)
INF_STD+MTX		0.50 (0.15, 1.58)
CERTO_STD+MTX		0.64 (0.19, 2.00)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.85 (0.28, 2.48)
HD203+MTX		-
SB4+MTX		1.03 (0.25, 4.89)
ANBAI+MTX		-
CT-P13+MTX		0.53 (0.11, 2.47)
SB2+MTX		-
SB5+MTX		0.63 (0.15, 2.44)
ZRC-3197+MTX		0.65 (0.14, 2.90)
ABP501+MTX	GOL_STD (IV)+MTX	-
INF_STD+MTX		0.91 (0.24, 3.55)
CERTO_STD+MTX		1.17 (0.30, 4.55)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.55 (0.43, 5.58)
HD203+MTX		-
SB4+MTX		1.87 (0.40, 10.76)
ANBAI+MTX		-
CT-P13+MTX		0.97 (0.18, 5.32)
SB2+MTX		-
SB5+MTX		1.15 (0.24, 5.28)
ZRC-3197+MTX		1.19 (0.23, 6.33)
ABP501+MTX		-
CERTO_STD+MTX	INF_STD+MTX	1.29 (0.38, 4.25)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.72 (0.55, 5.17)
HD203+MTX		-
SB4+MTX		2.07 (0.50, 10.29)
ANBAI+MTX		-
CT-P13+MTX		1.07 (0.39, 2.94)
SB2+MTX		-
SB5+MTX		1.26 (0.31, 5.14)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		1.31 (0.28, 6.04)
ABP501+MTX		-
RIT_STD	CERTO_STD+MTX	-
RIT_STD+MTX		-
BAR_4+MTX		1.33 (0.46, 3.87)
HD203+MTX		-
SB4+MTX		1.60 (0.39, 8.13)
ANBAI+MTX		-
CT-P13+MTX		0.83 (0.18, 4.07)
SB2+MTX		-
SB5+MTX		0.98 (0.26, 3.59)
ZRC-3197+MTX		1.02 (0.24, 4.31)
ABP501+MTX		-
RIT_STD+MTX	RIT_STD	-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	-
SB4+MTX		1.20 (0.31, 5.78)
ANBAI+MTX		-
CT-P13+MTX		0.62 (0.14, 2.90)
SB2+MTX		-
SB5+MTX		0.74 (0.20, 2.62)
ZRC-3197+MTX		0.76 (0.18, 3.18)
ABP501+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX	HD203+MTX	-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ANBAI+MTX	SB4+MTX	-
CT-P13+MTX		0.52 (0.08, 2.98)
SB2+MTX		-
SB5+MTX		0.61 (0.10, 2.98)
ZRC-3197+MTX		0.63 (0.10, 3.50)
ABP501+MTX		-
CT-P13+MTX	ANBAI+MTX	-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SB2+MTX	CT-P13+MTX	-
SB5+MTX		1.17 (0.21, 6.64)
ZRC-3197+MTX		1.23 (0.19, 7.68)
ABP501+MTX		-
SB5+MTX	SB2+MTX	-
ZRC-3197+MTX		-
ABP501+MTX		-
ZRC-3197+MTX	SB5+MTX	1.03 (0.22, 4.96)
ABP501+MTX		-
ABP501+MTX	ZRC-3197+MTX	-

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 13. Sensitivity Analysis Results, ACR50 (MTX as a Common Comparator) – Excluding Trials of Only Asian Participants

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	0.54 (0.21, 1.46)
MTX+SSZ		1.76 (0.27, 10.90)
MTX+HCQ		7.39 (1.40, 41.93)
SSZ+HCQ		1.68 (0.80, 3.63)
MTX+SSZ+HCQ		8.20 (2.61, 28.16)
ETN_STD		1.42 (0.80, 2.64)
ETN_STD+MTX		2.93 (1.76, 5.31)
ABA_STD (IV)+MTX		3.39 (2.14, 5.43)
ABA_STD (SC)+MTX		3.53 (1.62, 7.63)
ADA_STD+MTX		3.82 (2.74, 5.28)
TOF_STD+MTX		4.99 (3.01, 8.17)
TOC_4 (IV)		1.36 (0.55, 3.30)
TOC_8 (IV)		3.00 (1.62, 5.48)
TOC_4 (IV)+MTX		2.52 (1.39, 4.41)
TOC_8 (IV)+MTX		3.77 (2.36, 6.09)
GOL_STD (SC)+MTX		6.05 (2.76, 14.24)
GOL_STD (IV)+MTX		2.93 (1.35, 6.43)
INF_STD+MTX		2.78 (1.51, 5.24)
CERTO_STD+MTX		4.80 (3.12, 7.61)
RIT_STD		3.55 (0.96, 14.00)
RIT_STD+MTX		5.45 (1.53, 21.93)
BAR_4+MTX		4.66 (2.73, 7.96)
HD203+MTX		-
SB4+MTX		3.43 (1.46, 8.86)
ANBAI+MTX		-
CT-P13+MTX		3.00 (1.16, 7.87)
SB2+MTX		2.40 (0.94, 6.21)
SB5+MTX		3.54 (1.60, 7.88)
ZRC-3197+MTX		3.68 (1.33, 10.20)
ABP501+MTX		3.42 (1.55, 7.44)
MTX+SSZ	csDMARD+MTX	3.24 (0.40, 24.51)
MTX+HCQ		13.64 (2.09, 92.30)
SSZ+HCQ		3.10 (1.08, 8.62)
MTX+SSZ+HCQ		15.18 (3.54, 64.78)
ETN_STD		2.62 (1.06, 6.39)
ETN_STD+MTX		5.44 (2.51, 11.87)
ABA_STD (IV)+MTX		6.28 (2.14, 17.58)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		6.55 (1.82, 21.59)
ADA_STD+MTX		7.08 (2.48, 18.77)
TOF_STD+MTX		9.23 (2.99, 26.31)
TOC_4 (IV)		2.50 (0.64, 8.99)
TOC_8 (IV)		5.56 (1.71, 16.71)
TOC_4 (IV)+MTX		4.66 (1.45, 13.42)
TOC_8 (IV)+MTX		7.01 (2.32, 19.53)
GOL_STD (SC)+MTX		11.18 (3.20, 39.33)
GOL_STD (IV)+MTX		5.42 (1.54, 17.90)
INF_STD+MTX		5.17 (1.60, 15.50)
CERTO_STD+MTX		8.87 (3.06, 25.20)
RIT_STD		6.57 (1.27, 33.68)
RIT_STD+MTX		10.09 (2.01, 52.72)
BAR_4+MTX		8.63 (2.77, 25.15)
HD203+MTX		-
SB4+MTX		6.40 (2.23, 18.28)
ANBAI+MTX		-
CT-P13+MTX		5.55 (1.39, 20.51)
SB2+MTX		4.46 (1.12, 16.22)
SB5+MTX		6.57 (1.80, 22.04)
ZRC-3197+MTX		6.83 (1.62, 26.15)
ABP501+MTX		6.35 (1.76, 20.97)
MTX+HCQ	MTX+SSZ	4.21 (1.02, 19.38)
SSZ+HCQ		0.95 (0.15, 6.49)
MTX+SSZ+HCQ		4.65 (1.17, 21.31)
ETN_STD		0.81 (0.12, 5.70)
ETN_STD+MTX		1.68 (0.26, 11.65)
ABA_STD (IV)+MTX		1.92 (0.29, 13.48)
ABA_STD (SC)+MTX		2.02 (0.27, 15.12)
ADA_STD+MTX		2.18 (0.33, 14.69)
TOF_STD+MTX		2.85 (0.42, 19.85)
TOC_4 (IV)		0.77 (0.10, 6.19)
TOC_8 (IV)		1.70 (0.24, 12.39)
TOC_4 (IV)+MTX		1.43 (0.20, 10.26)
TOC_8 (IV)+MTX		2.15 (0.32, 15.04)
GOL_STD (SC)+MTX		3.48 (0.47, 27.66)
GOL_STD (IV)+MTX		1.67 (0.22, 12.68)
INF_STD+MTX		1.58 (0.23, 11.65)
CERTO_STD+MTX		2.73 (0.42, 19.07)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		2.01 (0.20, 20.93)
RIT_STD+MTX		3.15 (0.31, 32.59)
BAR_4+MTX		2.64 (0.39, 18.49)
HD203+MTX		-
SB4+MTX		1.96 (0.27, 15.21)
ANBAI+MTX		-
CT-P13+MTX		1.71 (0.22, 14.32)
SB2+MTX		1.37 (0.17, 11.19)
SB5+MTX		2.02 (0.27, 15.53)
ZRC-3197+MTX		2.09 (0.26, 17.67)
ABP501+MTX		1.95 (0.26, 14.84)
SSZ+HCQ	MTX+HCQ	0.23 (0.04, 1.20)
MTX+SSZ+HCQ		1.11 (0.34, 3.72)
ETN_STD		0.19 (0.03, 1.09)
ETN_STD+MTX		0.40 (0.07, 2.21)
ABA_STD (IV)+MTX		0.46 (0.08, 2.54)
ABA_STD (SC)+MTX		0.48 (0.07, 2.94)
ADA_STD+MTX		0.52 (0.09, 2.79)
TOF_STD+MTX		0.67 (0.11, 3.81)
TOC_4 (IV)		0.18 (0.03, 1.18)
TOC_8 (IV)		0.40 (0.07, 2.39)
TOC_4 (IV)+MTX		0.34 (0.05, 1.99)
TOC_8 (IV)+MTX		0.51 (0.08, 2.88)
GOL_STD (SC)+MTX		0.82 (0.12, 5.37)
GOL_STD (IV)+MTX		0.40 (0.06, 2.51)
INF_STD+MTX		0.38 (0.06, 2.26)
CERTO_STD+MTX		0.65 (0.11, 3.66)
RIT_STD		0.48 (0.05, 4.12)
RIT_STD+MTX		0.74 (0.08, 6.53)
BAR_4+MTX		0.63 (0.10, 3.57)
HD203+MTX		-
SB4+MTX		0.47 (0.07, 3.01)
ANBAI+MTX		-
CT-P13+MTX		0.40 (0.06, 2.77)
SB2+MTX		0.32 (0.04, 2.22)
SB5+MTX		0.48 (0.07, 3.05)
ZRC-3197+MTX		0.50 (0.07, 3.39)
ABP501+MTX		0.46 (0.07, 2.84)
MTX+SSZ+HCQ	SSZ+HCQ	4.88 (1.53, 16.35)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ETN_STD		0.85 (0.39, 1.87)
ETN_STD+MTX		1.75 (0.91, 3.50)
ABA_STD (IV)+MTX		2.02 (0.83, 4.85)
ABA_STD (SC)+MTX		2.10 (0.70, 6.12)
ADA_STD+MTX		2.28 (0.97, 5.13)
TOF_STD+MTX		2.97 (1.17, 7.24)
TOC_4 (IV)		0.81 (0.24, 2.61)
TOC_8 (IV)		1.78 (0.66, 4.62)
TOC_4 (IV)+MTX		1.50 (0.56, 3.78)
TOC_8 (IV)+MTX		2.25 (0.91, 5.37)
GOL_STD (SC)+MTX		3.61 (1.19, 11.13)
GOL_STD (IV)+MTX		1.75 (0.58, 5.12)
INF_STD+MTX		1.66 (0.63, 4.36)
CERTO_STD+MTX		2.86 (1.19, 6.88)
RIT_STD		2.11 (0.46, 10.15)
RIT_STD+MTX		3.26 (0.73, 15.86)
BAR_4+MTX		2.78 (1.08, 6.88)
HD203+MTX		-
SB4+MTX		2.05 (0.79, 5.55)
ANBAI+MTX		-
CT-P13+MTX		1.78 (0.53, 5.99)
SB2+MTX		1.43 (0.43, 4.69)
SB5+MTX		2.11 (0.69, 6.24)
ZRC-3197+MTX		2.20 (0.62, 7.60)
ABP501+MTX		2.05 (0.66, 5.91)
ETN_STD	MTX+SSZ+HCQ	0.17 (0.05, 0.60)
ETN_STD+MTX		0.36 (0.10, 1.20)
ABA_STD (IV)+MTX		0.41 (0.11, 1.41)
ABA_STD (SC)+MTX		0.43 (0.10, 1.69)
ADA_STD+MTX		0.47 (0.13, 1.53)
TOF_STD+MTX		0.61 (0.16, 2.10)
TOC_4 (IV)		0.17 (0.04, 0.71)
TOC_8 (IV)		0.36 (0.09, 1.33)
TOC_4 (IV)+MTX		0.31 (0.08, 1.10)
TOC_8 (IV)+MTX		0.46 (0.12, 1.58)
GOL_STD (SC)+MTX		0.74 (0.17, 3.11)
GOL_STD (IV)+MTX		0.36 (0.08, 1.43)
INF_STD+MTX		0.34 (0.08, 1.27)
CERTO_STD+MTX		0.59 (0.16, 2.02)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		0.43 (0.07, 2.59)
RIT_STD+MTX		0.67 (0.11, 4.03)
BAR_4+MTX		0.57 (0.15, 2.02)
HD203+MTX		-
SB4+MTX		0.42 (0.10, 1.72)
ANBAI+MTX		-
CT-P13+MTX		0.37 (0.08, 1.64)
SB2+MTX		0.29 (0.06, 1.32)
SB5+MTX		0.43 (0.10, 1.74)
ZRC-3197+MTX		0.45 (0.09, 2.05)
ABP501+MTX		0.42 (0.09, 1.63)
ETN_STD+MTX	ETN_STD	2.06 (1.34, 3.32)
ABA_STD (IV)+MTX		2.38 (1.11, 4.96)
ABA_STD (SC)+MTX		2.49 (0.91, 6.41)
ADA_STD+MTX		2.69 (1.32, 5.18)
TOF_STD+MTX		3.50 (1.57, 7.44)
TOC_4 (IV)		0.95 (0.32, 2.76)
TOC_8 (IV)		2.11 (0.87, 4.83)
TOC_4 (IV)+MTX		1.77 (0.74, 3.92)
TOC_8 (IV)+MTX		2.65 (1.21, 5.60)
GOL_STD (SC)+MTX		4.24 (1.58, 12.06)
GOL_STD (IV)+MTX		2.07 (0.76, 5.39)
INF_STD+MTX		1.96 (0.82, 4.56)
CERTO_STD+MTX		3.39 (1.60, 7.03)
RIT_STD		2.49 (0.60, 11.05)
RIT_STD+MTX		3.82 (0.93, 17.00)
BAR_4+MTX		3.28 (1.44, 7.11)
HD203+MTX		-
SB4+MTX		2.43 (1.06, 5.69)
ANBAI+MTX		-
CT-P13+MTX		2.10 (0.69, 6.42)
SB2+MTX		1.69 (0.55, 5.05)
SB5+MTX		2.50 (0.89, 6.61)
ZRC-3197+MTX		2.59 (0.78, 8.23)
ABP501+MTX	ETN_STD+MTX	2.42 (0.87, 6.31)
ABA_STD (IV)+MTX		1.16 (0.55, 2.28)
ABA_STD (SC)+MTX		1.20 (0.44, 2.98)
ADA_STD+MTX		1.31 (0.65, 2.37)
TOF_STD+MTX		1.70 (0.77, 3.44)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		0.46 (0.15, 1.29)
TOC_8 (IV)		1.02 (0.43, 2.24)
TOC_4 (IV)+MTX		0.86 (0.36, 1.81)
TOC_8 (IV)+MTX		1.28 (0.59, 2.56)
GOL_STD (SC)+MTX		2.06 (0.77, 5.54)
GOL_STD (IV)+MTX		1.00 (0.37, 2.53)
INF_STD+MTX		0.95 (0.40, 2.10)
CERTO_STD+MTX		1.63 (0.79, 3.23)
RIT_STD		1.20 (0.29, 5.17)
RIT_STD+MTX		1.85 (0.45, 8.13)
BAR_4+MTX		1.59 (0.70, 3.29)
HD203+MTX		-
SB4+MTX		1.17 (0.58, 2.38)
ANBAI+MTX		-
CT-P13+MTX		1.02 (0.33, 2.94)
SB2+MTX		0.82 (0.27, 2.32)
SB5+MTX		1.21 (0.43, 3.04)
ZRC-3197+MTX		1.25 (0.39, 3.88)
ABP501+MTX		1.17 (0.42, 2.88)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	1.04 (0.42, 2.53)
ADA_STD+MTX		1.13 (0.64, 1.97)
TOF_STD+MTX		1.47 (0.74, 2.85)
TOC_4 (IV)		0.40 (0.14, 1.10)
TOC_8 (IV)		0.88 (0.41, 1.90)
TOC_4 (IV)+MTX		0.74 (0.35, 1.52)
TOC_8 (IV)+MTX		1.11 (0.57, 2.16)
GOL_STD (SC)+MTX		1.78 (0.72, 4.74)
GOL_STD (IV)+MTX		0.86 (0.35, 2.15)
INF_STD+MTX		0.82 (0.43, 1.58)
CERTO_STD+MTX		1.41 (0.76, 2.73)
RIT_STD		1.05 (0.26, 4.46)
RIT_STD+MTX		1.60 (0.42, 6.95)
BAR_4+MTX		1.37 (0.67, 2.76)
HD203+MTX		-
SB4+MTX		1.01 (0.39, 2.89)
ANBAI+MTX		-
CT-P13+MTX		0.89 (0.34, 2.30)
SB2+MTX		0.71 (0.27, 1.84)
SB5+MTX		1.05 (0.41, 2.62)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		1.09 (0.35, 3.33)
ABP501+MTX		1.01 (0.40, 2.49)
ADA_STD+MTX	ABA_STD (SC)+MTX	1.08 (0.54, 2.19)
TOF_STD+MTX		1.42 (0.58, 3.37)
TOC_4 (IV)		0.39 (0.12, 1.25)
TOC_8 (IV)		0.85 (0.32, 2.28)
TOC_4 (IV)+MTX		0.72 (0.27, 1.86)
TOC_8 (IV)+MTX		1.07 (0.43, 2.70)
GOL_STD (SC)+MTX		1.72 (0.58, 5.52)
GOL_STD (IV)+MTX		0.83 (0.28, 2.51)
INF_STD+MTX		0.79 (0.30, 2.14)
CERTO_STD+MTX		1.36 (0.60, 3.25)
RIT_STD		1.01 (0.22, 5.00)
RIT_STD+MTX		1.55 (0.35, 7.71)
BAR_4+MTX		1.32 (0.54, 3.23)
HD203+MTX		-
SB4+MTX		0.97 (0.31, 3.38)
ANBAI+MTX		-
CT-P13+MTX		0.85 (0.25, 2.91)
SB2+MTX		0.68 (0.20, 2.32)
SB5+MTX		1.00 (0.37, 2.79)
ZRC-3197+MTX		1.04 (0.32, 3.41)
ABP501+MTX		0.97 (0.36, 2.65)
TOF_STD+MTX	ADA_STD+MTX	1.31 (0.76, 2.21)
TOC_4 (IV)		0.36 (0.14, 0.92)
TOC_8 (IV)		0.78 (0.39, 1.56)
TOC_4 (IV)+MTX		0.66 (0.34, 1.26)
TOC_8 (IV)+MTX		0.99 (0.56, 1.77)
GOL_STD (SC)+MTX		1.59 (0.68, 4.01)
GOL_STD (IV)+MTX		0.77 (0.33, 1.80)
INF_STD+MTX		0.73 (0.37, 1.48)
CERTO_STD+MTX		1.26 (0.80, 2.07)
RIT_STD		0.93 (0.24, 3.79)
RIT_STD+MTX		1.43 (0.38, 6.07)
BAR_4+MTX		1.22 (0.70, 2.14)
HD203+MTX		-
SB4+MTX		0.90 (0.36, 2.48)
ANBAI+MTX		-
CT-P13+MTX		0.78 (0.29, 2.16)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		0.63 (0.23, 1.70)
SB5+MTX		0.93 (0.45, 1.92)
ZRC-3197+MTX		0.97 (0.37, 2.52)
ABP501+MTX		0.89 (0.44, 1.83)
TOC_4 (IV)	TOF_STD+MTX	0.27 (0.10, 0.76)
TOC_8 (IV)		0.60 (0.27, 1.33)
TOC_4 (IV)+MTX		0.50 (0.23, 1.08)
TOC_8 (IV)+MTX		0.75 (0.38, 1.52)
GOL_STD (SC)+MTX		1.22 (0.47, 3.35)
GOL_STD (IV)+MTX		0.59 (0.23, 1.53)
INF_STD+MTX		0.56 (0.26, 1.25)
CERTO_STD+MTX		0.96 (0.51, 1.88)
RIT_STD		0.71 (0.17, 3.10)
RIT_STD+MTX		1.09 (0.28, 4.81)
BAR_4+MTX		0.93 (0.46, 1.92)
HD203+MTX		-
SB4+MTX		0.69 (0.26, 2.02)
ANBAI+MTX		-
CT-P13+MTX		0.60 (0.21, 1.79)
SB2+MTX		0.48 (0.17, 1.40)
SB5+MTX		0.71 (0.29, 1.78)
ZRC-3197+MTX		0.74 (0.25, 2.22)
ABP501+MTX		0.68 (0.28, 1.70)
TOC_8 (IV)	TOC_4 (IV)	2.20 (0.89, 5.45)
TOC_4 (IV)+MTX		1.85 (0.74, 4.56)
TOC_8 (IV)+MTX		2.78 (1.18, 6.67)
GOL_STD (SC)+MTX		4.45 (1.38, 15.52)
GOL_STD (IV)+MTX		2.15 (0.66, 7.33)
INF_STD+MTX		2.06 (0.69, 6.15)
CERTO_STD+MTX		3.53 (1.33, 9.99)
RIT_STD		2.63 (0.53, 13.78)
RIT_STD+MTX		4.03 (0.83, 21.33)
BAR_4+MTX		3.43 (1.20, 9.87)
HD203+MTX		-
SB4+MTX		2.54 (0.74, 9.58)
ANBAI+MTX		-
CT-P13+MTX		2.21 (0.61, 8.22)
SB2+MTX		1.77 (0.49, 6.47)
SB5+MTX		2.61 (0.79, 8.66)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		2.71 (0.71, 10.56)
ABP501+MTX		2.51 (0.76, 8.26)
TOC_4 (IV)+MTX	TOC_8 (IV)	0.84 (0.44, 1.58)
TOC_8 (IV)+MTX		1.26 (0.80, 2.00)
GOL_STD (SC)+MTX		2.02 (0.75, 5.84)
GOL_STD (IV)+MTX		0.98 (0.37, 2.69)
INF_STD+MTX		0.93 (0.39, 2.23)
CERTO_STD+MTX		1.60 (0.77, 3.50)
RIT_STD		1.19 (0.27, 5.40)
RIT_STD+MTX		1.82 (0.44, 8.44)
BAR_4+MTX		1.56 (0.69, 3.51)
HD203+MTX		-
SB4+MTX		1.15 (0.41, 3.58)
ANBAI+MTX		-
CT-P13+MTX		1.00 (0.33, 3.12)
SB2+MTX		0.80 (0.27, 2.48)
SB5+MTX		1.19 (0.43, 3.23)
ZRC-3197+MTX		1.24 (0.37, 4.03)
ABP501+MTX		1.14 (0.42, 3.08)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.49 (0.90, 2.62)
GOL_STD (SC)+MTX		2.41 (0.92, 6.83)
GOL_STD (IV)+MTX		1.16 (0.45, 3.14)
INF_STD+MTX		1.11 (0.49, 2.62)
CERTO_STD+MTX		1.90 (0.95, 4.12)
RIT_STD		1.42 (0.34, 6.39)
RIT_STD+MTX		2.18 (0.53, 9.84)
BAR_4+MTX		1.85 (0.86, 4.16)
HD203+MTX		-
SB4+MTX		1.36 (0.50, 4.26)
ANBAI+MTX		-
CT-P13+MTX		1.19 (0.40, 3.68)
SB2+MTX		0.96 (0.33, 2.94)
SB5+MTX		1.41 (0.53, 3.83)
ZRC-3197+MTX		1.47 (0.46, 4.76)
ABP501+MTX		1.36 (0.52, 3.68)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	1.60 (0.64, 4.28)
GOL_STD (IV)+MTX		0.78 (0.31, 1.96)
INF_STD+MTX		0.74 (0.34, 1.61)
CERTO_STD+MTX		1.27 (0.68, 2.46)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		0.94 (0.23, 4.05)
RIT_STD+MTX		1.45 (0.36, 6.33)
BAR_4+MTX		1.24 (0.60, 2.50)
HD203+MTX		-
SB4+MTX		0.91 (0.34, 2.63)
ANBAI+MTX		-
CT-P13+MTX		0.80 (0.28, 2.29)
SB2+MTX		0.64 (0.22, 1.82)
SB5+MTX		0.94 (0.37, 2.37)
ZRC-3197+MTX		0.98 (0.32, 2.96)
ABP501+MTX		0.91 (0.36, 2.22)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.49 (0.15, 1.45)
INF_STD+MTX		0.46 (0.16, 1.24)
CERTO_STD+MTX		0.80 (0.30, 1.97)
RIT_STD		0.59 (0.12, 2.78)
RIT_STD+MTX		0.90 (0.19, 4.44)
BAR_4+MTX		0.77 (0.28, 1.96)
HD203+MTX		-
SB4+MTX		0.57 (0.17, 1.91)
ANBAI+MTX		-
CT-P13+MTX		0.50 (0.14, 1.67)
SB2+MTX		0.40 (0.11, 1.35)
SB5+MTX		0.59 (0.18, 1.78)
ZRC-3197+MTX		0.61 (0.16, 2.20)
ABP501+MTX	GOL_STD (IV)+MTX	0.56 (0.18, 1.68)
INF_STD+MTX		0.95 (0.35, 2.55)
CERTO_STD+MTX		1.63 (0.68, 4.11)
RIT_STD		1.21 (0.26, 5.94)
RIT_STD+MTX		1.86 (0.42, 9.19)
BAR_4+MTX		1.59 (0.61, 4.09)
HD203+MTX		-
SB4+MTX		1.17 (0.37, 3.97)
ANBAI+MTX		-
CT-P13+MTX		1.02 (0.30, 3.49)
SB2+MTX		0.82 (0.24, 2.78)
SB5+MTX		1.21 (0.39, 3.69)
ZRC-3197+MTX		1.25 (0.35, 4.50)
ABP501+MTX		1.17 (0.38, 3.53)
CERTO_STD+MTX	INF_STD+MTX	1.72 (0.82, 3.74)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		1.27 (0.30, 5.80)
RIT_STD+MTX		1.96 (0.47, 8.99)
BAR_4+MTX		1.67 (0.73, 3.76)
HD203+MTX		-
SB4+MTX		1.23 (0.43, 3.84)
ANBAI+MTX		-
CT-P13+MTX		1.08 (0.52, 2.20)
SB2+MTX		0.86 (0.42, 1.77)
SB5+MTX		1.28 (0.46, 3.47)
ZRC-3197+MTX		1.32 (0.40, 4.31)
ABP501+MTX		1.23 (0.45, 3.29)
RIT_STD	CERTO_STD+MTX	0.73 (0.18, 3.15)
RIT_STD+MTX		1.13 (0.29, 4.93)
BAR_4+MTX		0.97 (0.48, 1.87)
HD203+MTX		-
SB4+MTX		0.72 (0.27, 2.01)
ANBAI+MTX		-
CT-P13+MTX		0.63 (0.22, 1.75)
SB2+MTX		0.50 (0.17, 1.38)
SB5+MTX		0.74 (0.30, 1.72)
ZRC-3197+MTX		0.77 (0.26, 2.20)
ABP501+MTX		0.71 (0.29, 1.64)
RIT_STD+MTX	RIT_STD	1.54 (0.51, 4.78)
BAR_4+MTX		1.32 (0.30, 5.37)
HD203+MTX		-
SB4+MTX		0.97 (0.19, 4.84)
ANBAI+MTX		-
CT-P13+MTX		0.84 (0.16, 4.25)
SB2+MTX		0.68 (0.13, 3.38)
SB5+MTX		0.99 (0.20, 4.63)
ZRC-3197+MTX		1.04 (0.18, 5.43)
ABP501+MTX		0.96 (0.19, 4.49)
BAR_4+MTX	RIT_STD+MTX	0.86 (0.19, 3.40)
HD203+MTX		-
SB4+MTX		0.63 (0.12, 3.10)
ANBAI+MTX		-
CT-P13+MTX		0.55 (0.10, 2.71)
SB2+MTX		0.44 (0.08, 2.17)
SB5+MTX		0.65 (0.13, 2.92)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		0.67 (0.12, 3.50)
ABP501+MTX		0.62 (0.13, 2.82)
HD203+MTX	BAR_4+MTX	-
SB4+MTX		0.74 (0.27, 2.21)
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SB4+MTX	HD203+MTX	-
ANBAI+MTX		-
CT-P13+MTX		0.64 (0.22, 1.94)
SB2+MTX		0.51 (0.18, 1.52)
SB5+MTX		0.76 (0.30, 1.90)
ZRC-3197+MTX		0.79 (0.26, 2.41)
ABP501+MTX		0.73 (0.29, 1.79)
ANBAI+MTX	SB4+MTX	-
CT-P13+MTX		0.87 (0.23, 3.11)
SB2+MTX		0.70 (0.18, 2.45)
SB5+MTX		1.03 (0.29, 3.31)
ZRC-3197+MTX		1.07 (0.27, 4.06)
ABP501+MTX		1.00 (0.28, 3.13)
CT-P13+MTX	ANBAI+MTX	-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SB2+MTX	CT-P13+MTX	0.80 (0.29, 2.22)
SB5+MTX		1.18 (0.34, 4.06)
ZRC-3197+MTX		1.23 (0.30, 4.96)
ABP501+MTX		1.14 (0.33, 3.87)
SB5+MTX	SB2+MTX	1.48 (0.43, 5.06)
ZRC-3197+MTX		1.53 (0.38, 6.07)
ABP501+MTX		1.42 (0.42, 4.84)
ZRC-3197+MTX	SB5+MTX	1.04 (0.31, 3.48)
ABP501+MTX		0.96 (0.35, 2.67)
ABP501+MTX	ZRC-3197+MTX	0.93 (0.28, 3.04)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

(as supplied by the authors)

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 14. Sensitivity Analysis Results, ACR50 (MTX as a Common Comparator) – Including Only Trials of Asian Only Participants

Treatment	Comparator	OR (95% CrI)
Placebo	Placebo+MTX	7.74 (1.46, 56.40)
csDMARD+MTX		-
MTX+SSZ		-
MTX+HCQ		-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		*19.05 (4.39, 119.30)*
ETN_STD+MTX		14.47 (4.17, 61.75)
ABA_STD (IV)+MTX		3.77 (1.53, 9.99)
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		8.21 (2.75, 27.18)
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		5.91 (2.71, 13.42)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		2.86 (1.43, 6.16)
INF_STD+MTX		8.88 (2.93, 29.48)
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		*34.45 (6.34, 250.50)*
HD203+MTX		-
SB4+MTX		8.56 (3.41, 24.33)
ANBAI+MTX		6.37 (1.88, 22.87)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
csDMARD+MTX	Placebo	-
MTX+SSZ		-
MTX+HCQ		-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+SSZ	csDMARD+MTX	-
MTX+HCQ		-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		2.47 (1.12, 5.45)
ETN_STD+MTX		1.86 (0.19, 16.79)
ABA_STD (IV)+MTX		0.49 (0.05, 3.30)
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		1.06 (0.11, 8.16)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		0.76 (0.09, 4.81)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		0.37 (0.05, 2.34)
INF_STD+MTX		1.14 (0.12, 8.85)
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		4.48 (1.42, 14.04)
HD203+MTX		-
SB4+MTX		1.11 (0.12, 7.93)
ANBAI+MTX		0.82 (0.08, 6.82)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+HCQ	MTX+SSZ	-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SSZ+HCQ	MTX+HCQ	-
MTX+SSZ+HCQ		-
ETN_STD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		-
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		0.76 (0.09, 5.76)
ABA_STD (IV)+MTX	ETN_STD+MTX	0.20 (0.03, 1.13)
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		0.43 (0.05, 2.80)
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		0.31 (0.04, 1.64)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		0.15 (0.02, 0.79)
INF_STD+MTX		0.47 (0.06, 3.10)
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.81 (0.78, 4.12)
HD203+MTX		-
SB4+MTX		0.45 (0.05, 2.72)
ANBAI+MTX		0.33 (0.04, 2.37)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		-
ABP501+MTX		0.26 (0.05, 1.29)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		0.57 (0.10, 3.16)
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		0.41 (0.08, 1.79)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		0.20 (0.04, 0.84)
INF_STD+MTX		0.61 (0.10, 3.53)
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		2.40 (0.27, 23.56)
HD203+MTX		-
SB4+MTX		0.59 (0.11, 3.02)
ANBAI+MTX		0.44 (0.07, 2.59)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX	ABA_STD (SC)+MTX	-
TOF_STD+MTX		-
TOF_STD		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOF_STD+MTX	ADA_STD+MTX	-
TOF_STD		-
TOC_4 (IV)		2.18 (0.51, 9.86)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		1.56 (0.45, 5.26)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		0.76 (0.23, 2.51)
INF_STD+MTX		2.34 (0.53, 10.75)
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		9.14 (1.31, 81.96)
HD203+MTX		-
SB4+MTX		2.28 (0.59, 9.03)
ANBAI+MTX		1.68 (0.35, 8.09)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOF_STD	TOF_STD+MTX	-
TOC_4 (IV)		0.42 (0.06, 2.75)
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		0.30 (0.05, 1.61)
GOL_STD (SC)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (IV)+MTX		0.15 (0.03, 0.76)
INF_STD+MTX		0.46 (0.06, 2.97)
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		1.78 (0.17, 20.69)
HD203+MTX		-
SB4+MTX		0.44 (0.07, 2.52)
ANBAI+MTX		0.33 (0.04, 2.27)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_4 (IV)	TOF_STD	-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_8 (IV)	TOC_4 (IV)	-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	-
TOC_8 (IV)+MTX		-
GOL_STD (SC)		0.72 (0.17, 2.77)
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		0.35 (0.09, 1.32)
INF_STD+MTX		1.08 (0.21, 5.54)
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		4.24 (0.54, 39.83)
HD203+MTX		-
SB4+MTX		1.05 (0.23, 4.68)
ANBAI+MTX		0.77 (0.14, 4.13)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	-
GOL_STD (SC)		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
GOL_STD (SC)	TOC_8 (IV)+MTX	-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ZRC-3197+MTX		-
ABP501+MTX		-
GOL_STD (SC)+MTX	GOL_STD (SC)	-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.48 (0.17, 1.47)
INF_STD+MTX		1.50 (0.38, 6.28)
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		5.85 (0.90, 49.53)
HD203+MTX		-
SB4+MTX		1.45 (0.43, 5.36)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ANBAI+MTX		1.08 (0.25, 4.85)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
INF_STD+MTX	GOL_STD (IV)+MTX	-
CERTO_STD+MTX		-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		3.10 (0.80, 12.37)
CERTO_STD+MTX	INF_STD+MTX	-
CERTO_STD		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		12.18 (1.86, 96.68)
HD203+MTX		-
SB4+MTX		3.01 (0.88, 10.32)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ANBAI+MTX		2.23 (0.80, 6.10)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
CERTO_STD	CERTO_STD+MTX	-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		3.90 (0.50, 37.55)
HD203+MTX		-
SB4+MTX		0.97 (0.21, 4.42)
ANBAI+MTX		0.72 (0.13, 4.02)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
RIT_STD	CERTO_STD	-
RIT_STD+MTX		-
SAR_200		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
RIT_STD+MTX	RIT_STD	-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	-
SB4+MTX		0.60 (0.10, 3.31)
ANBAI+MTX		0.44 (0.06, 2.89)
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SB4+MTX	HD203+MTX	0.25 (0.03, 1.81)
ANBAI+MTX		0.18 (0.02, 1.53)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ANBAI+MTX	SB4+MTX	-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		0.74 (0.15, 3.69)
CT-P13+MTX	ANBAI+MTX	-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SB2+MTX	CT-P13+MTX	-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SB5+MTX	SB2+MTX	-
ZRC-3197+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		-
ZRC-3197+MTX	SB5+MTX	-
ABP501+MTX		-
ABP501+MTX	ZRC-3197+MTX	-

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 15. Sensitivity Analysis Results, ACR50 (MTX as a Common Comparator) – Exclude Triple csDMARD Therapy Trials Published Before 2000

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	1.18 (0.50, 3.25)
MTX+SSZ		-
MTX+HCQ		-
SSZ+HCQ		2.75 (0.95, 9.25)
MTX+SSZ+HCQ		-
ETN_STD		1.91 (0.98, 4.15)
ETN_STD+MTX		4.38 (2.40, 9.37)
ABA_STD (IV)+MTX		4.15 (2.59, 6.88)
ABA_STD (SC)+MTX		3.68 (1.49, 9.12)
ADA_STD+MTX		3.99 (2.83, 5.66)
TOF_STD+MTX		5.81 (3.47, 9.95)
TOC_4 (IV)		1.52 (0.56, 3.98)
TOC_8 (IV)		3.81 (2.11, 6.93)
TOC_4 (IV)+MTX		2.71 (1.41, 5.14)
TOC_8 (IV)+MTX		4.31 (2.60, 7.26)
GOL_STD (SC)+MTX		5.98 (3.26, 11.30)
GOL_STD (IV)+MTX		2.93 (1.20, 7.29)
INF_STD+MTX		3.02 (1.80, 5.18)
CERTO_STD+MTX		5.35 (3.40, 8.72)
RIT_STD		3.56 (0.91, 15.82)
RIT_STD+MTX		5.53 (1.45, 23.69)
BAR_4+MTX		5.48 (3.16, 9.97)
HD203+MTX		7.89 (2.63, 27.66)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		5.12 (1.88, 16.46)
ANBAI+MTX		8.63 (3.01, 26.74)
CT-P13+MTX		4.16 (1.81, 10.16)
SB2+MTX		2.62 (0.95, 7.21)
SB5+MTX		3.75 (1.48, 9.48)
ZRC-3197+MTX		3.87 (1.27, 11.88)
ABP501+MTX		3.58 (1.42, 9.05)
MTX+SSZ	csDMARD+MTX	-
MTX+HCQ		-
SSZ+HCQ		2.33 (0.76, 7.13)
MTX+SSZ+HCQ		-
ETN_STD		1.62 (0.69, 3.63)
ETN_STD+MTX		3.72 (1.94, 7.04)
ABA_STD (IV)+MTX		3.51 (1.17, 9.40)
ABA_STD (SC)+MTX		3.13 (0.77, 10.65)
ADA_STD+MTX		3.39 (1.15, 8.59)
TOF_STD+MTX		4.92 (1.60, 13.54)
TOC_4 (IV)		1.28 (0.31, 4.66)
TOC_8 (IV)		3.23 (1.00, 9.15)
TOC_4 (IV)+MTX		2.30 (0.67, 6.65)
TOC_8 (IV)+MTX		3.65 (1.18, 9.93)
GOL_STD (SC)+MTX		5.07 (1.55, 14.72)
GOL_STD (IV)+MTX		2.49 (0.63, 8.58)
INF_STD+MTX		2.57 (0.83, 6.99)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		4.54 (1.52, 12.05)
RIT_STD		3.03 (0.54, 16.71)
RIT_STD+MTX		4.68 (0.87, 25.33)
BAR_4+MTX		4.66 (1.49, 13.13)
HD203+MTX		6.69 (2.11, 21.16)
SB4+MTX		4.37 (1.50, 12.68)
ANBAI+MTX		7.34 (1.69, 29.34)
CT-P13+MTX		3.55 (0.96, 11.74)
SB2+MTX		2.24 (0.51, 8.13)
SB5+MTX		3.20 (0.78, 11.02)
ZRC-3197+MTX		3.28 (0.71, 13.17)
ABP501+MTX		3.04 (0.74, 10.39)
MTX+HCQ	MTX+SSZ	-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
SSZ+HCQ	MTX+HCQ	-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		0.69 (0.24, 1.97)
ETN_STD+MTX		1.59 (0.64, 3.97)
ABA_STD (IV)+MTX		1.51 (0.42, 4.89)
ABA_STD (SC)+MTX		1.34 (0.28, 5.39)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		1.45 (0.41, 4.50)
TOF_STD+MTX		2.11 (0.57, 6.90)
TOC_4 (IV)		0.55 (0.11, 2.34)
TOC_8 (IV)		1.38 (0.36, 4.70)
TOC_4 (IV)+MTX		0.98 (0.25, 3.39)
TOC_8 (IV)+MTX		1.57 (0.42, 5.16)
GOL_STD (SC)+MTX		2.18 (0.56, 7.52)
GOL_STD (IV)+MTX		1.06 (0.24, 4.31)
INF_STD+MTX		1.10 (0.30, 3.58)
CERTO_STD+MTX		1.95 (0.54, 6.24)
RIT_STD		1.30 (0.20, 8.06)
RIT_STD+MTX		2.01 (0.33, 12.32)
BAR_4+MTX		2.00 (0.53, 6.75)
HD203+MTX		2.87 (0.77, 10.64)
SB4+MTX		1.87 (0.54, 6.47)
ANBAI+MTX		3.14 (0.62, 14.24)
CT-P13+MTX		1.52 (0.35, 5.91)
SB2+MTX		0.96 (0.19, 4.06)
SB5+MTX		1.36 (0.29, 5.61)
ZRC-3197+MTX		1.40 (0.27, 6.49)
ABP501+MTX		1.30 (0.27, 5.17)
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
GOL_STD (IV)+MTX		-
INF_STD+MTX		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
ANBAI+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ZRC-3197+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	2.29 (1.38, 3.99)
ABA_STD (IV)+MTX		2.18 (0.89, 4.95)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABA_STD (SC)+MTX		1.93 (0.56, 5.84)
ADA_STD+MTX		2.09 (0.89, 4.44)
TOF_STD+MTX		3.03 (1.20, 7.13)
TOC_4 (IV)		0.79 (0.22, 2.54)
TOC_8 (IV)		1.99 (0.75, 4.85)
TOC_4 (IV)+MTX		1.42 (0.51, 3.54)
TOC_8 (IV)+MTX		2.26 (0.89, 5.21)
GOL_STD (SC)+MTX		3.13 (1.16, 7.82)
GOL_STD (IV)+MTX		1.54 (0.46, 4.67)
INF_STD+MTX		1.58 (0.62, 3.70)
CERTO_STD+MTX		2.81 (1.14, 6.36)
RIT_STD		1.87 (0.38, 9.40)
RIT_STD+MTX		2.88 (0.61, 14.14)
BAR_4+MTX		2.87 (1.11, 6.96)
HD203+MTX		4.15 (1.41, 12.58)
SB4+MTX		2.69 (1.02, 7.49)
ANBAI+MTX		4.52 (1.20, 16.30)
CT-P13+MTX		2.18 (0.70, 6.44)
SB2+MTX		1.37 (0.38, 4.45)
SB5+MTX		1.97 (0.57, 6.04)
ZRC-3197+MTX		2.02 (0.51, 7.34)
ABP501+MTX	ETN_STD+MTX	1.87 (0.54, 5.69)
ABA_STD (IV)+MTX		0.95 (0.39, 2.02)
ABA_STD (SC)+MTX		0.85 (0.25, 2.42)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ADA_STD+MTX		0.91 (0.39, 1.82)
TOF_STD+MTX		1.32 (0.53, 2.94)
TOC_4 (IV)		0.34 (0.10, 1.07)
TOC_8 (IV)		0.87 (0.33, 2.01)
TOC_4 (IV)+MTX		0.62 (0.22, 1.47)
TOC_8 (IV)+MTX		0.99 (0.39, 2.16)
GOL_STD (SC)+MTX		1.36 (0.51, 3.22)
GOL_STD (IV)+MTX		0.67 (0.20, 1.96)
INF_STD+MTX		0.69 (0.28, 1.52)
CERTO_STD+MTX		1.23 (0.51, 2.61)
RIT_STD		0.81 (0.17, 4.05)
RIT_STD+MTX		1.26 (0.27, 6.09)
BAR_4+MTX		1.26 (0.49, 2.84)
HD203+MTX		1.80 (0.69, 4.66)
SB4+MTX		1.18 (0.50, 2.73)
ANBAI+MTX		1.97 (0.53, 6.86)
CT-P13+MTX		0.95 (0.31, 2.66)
SB2+MTX		0.60 (0.17, 1.86)
SB5+MTX		0.86 (0.25, 2.53)
ZRC-3197+MTX		0.88 (0.22, 3.05)
ABP501+MTX		0.82 (0.23, 2.38)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.89 (0.31, 2.45)
ADA_STD+MTX		0.96 (0.52, 1.72)
TOF_STD+MTX		1.40 (0.68, 2.83)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_4 (IV)		0.37 (0.12, 1.06)
TOC_8 (IV)		0.92 (0.42, 1.96)
TOC_4 (IV)+MTX		0.65 (0.28, 1.43)
TOC_8 (IV)+MTX		1.04 (0.51, 2.09)
GOL_STD (SC)+MTX		1.44 (0.65, 3.16)
GOL_STD (IV)+MTX		0.71 (0.25, 1.95)
INF_STD+MTX		0.73 (0.38, 1.36)
CERTO_STD+MTX		1.29 (0.65, 2.52)
RIT_STD		0.86 (0.20, 4.08)
RIT_STD+MTX		1.33 (0.32, 6.01)
BAR_4+MTX		1.33 (0.62, 2.80)
HD203+MTX		1.90 (0.57, 7.05)
SB4+MTX		1.24 (0.40, 4.32)
ANBAI+MTX		2.09 (0.64, 7.01)
CT-P13+MTX		1.00 (0.40, 2.55)
SB2+MTX		0.63 (0.21, 1.82)
SB5+MTX		0.90 (0.31, 2.53)
ZRC-3197+MTX		0.93 (0.27, 3.10)
ABP501+MTX		0.86 (0.30, 2.41)
ADA_STD+MTX	ABA_STD (SC)+MTX	1.08 (0.47, 2.51)
TOF_STD+MTX		1.58 (0.57, 4.41)
TOC_4 (IV)		0.41 (0.11, 1.53)
TOC_8 (IV)		1.04 (0.35, 3.10)
TOC_4 (IV)+MTX		0.74 (0.24, 2.21)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)+MTX		1.17 (0.41, 3.34)
GOL_STD (SC)+MTX		1.63 (0.54, 4.90)
GOL_STD (IV)+MTX		0.80 (0.22, 2.91)
INF_STD+MTX		0.82 (0.29, 2.37)
CERTO_STD+MTX		1.45 (0.55, 3.97)
RIT_STD		0.98 (0.19, 5.45)
RIT_STD+MTX		1.51 (0.30, 8.20)
BAR_4+MTX		1.49 (0.55, 4.30)
HD203+MTX		2.13 (0.53, 10.29)
SB4+MTX		1.39 (0.37, 6.20)
ANBAI+MTX		2.35 (0.59, 10.00)
CT-P13+MTX		1.13 (0.33, 4.06)
SB2+MTX		0.71 (0.18, 2.78)
SB5+MTX		1.02 (0.31, 3.37)
ZRC-3197+MTX		1.05 (0.27, 4.03)
ABP501+MTX		0.97 (0.29, 3.20)
TOF_STD+MTX	ADA_STD+MTX	1.45 (0.82, 2.62)
TOC_4 (IV)		0.38 (0.13, 1.06)
TOC_8 (IV)		0.95 (0.48, 1.90)
TOC_4 (IV)+MTX		0.68 (0.32, 1.40)
TOC_8 (IV)+MTX		1.08 (0.58, 2.02)
GOL_STD (SC)+MTX		1.50 (0.74, 3.07)
GOL_STD (IV)+MTX		0.74 (0.28, 1.95)
INF_STD+MTX		0.76 (0.40, 1.44)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		1.34 (0.81, 2.30)
RIT_STD		0.89 (0.22, 4.12)
RIT_STD+MTX		1.39 (0.35, 6.05)
BAR_4+MTX		1.37 (0.76, 2.59)
HD203+MTX		1.98 (0.62, 7.26)
SB4+MTX		1.29 (0.45, 4.38)
ANBAI+MTX		2.16 (0.71, 7.05)
CT-P13+MTX		1.04 (0.42, 2.72)
SB2+MTX		0.66 (0.22, 1.92)
SB5+MTX		0.94 (0.39, 2.22)
ZRC-3197+MTX		0.97 (0.34, 2.81)
ABP501+MTX		0.89 (0.38, 2.11)
TOC_4 (IV)	TOF_STD+MTX	0.26 (0.08, 0.77)
TOC_8 (IV)		0.66 (0.29, 1.46)
TOC_4 (IV)+MTX		0.47 (0.20, 1.05)
TOC_8 (IV)+MTX		0.74 (0.35, 1.55)
GOL_STD (SC)+MTX		1.03 (0.46, 2.31)
GOL_STD (IV)+MTX		0.50 (0.18, 1.44)
INF_STD+MTX		0.52 (0.25, 1.09)
CERTO_STD+MTX		0.92 (0.46, 1.85)
RIT_STD		0.62 (0.14, 2.94)
RIT_STD+MTX		0.95 (0.22, 4.47)
BAR_4+MTX		0.95 (0.44, 2.05)
HD203+MTX		1.36 (0.40, 5.14)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB4+MTX		0.88 (0.28, 3.16)
ANBAI+MTX		1.49 (0.46, 5.06)
CT-P13+MTX		0.72 (0.27, 2.01)
SB2+MTX		0.45 (0.15, 1.39)
SB5+MTX		0.64 (0.23, 1.81)
ZRC-3197+MTX		0.67 (0.20, 2.22)
ABP501+MTX		0.61 (0.22, 1.71)
TOC_8 (IV)	TOC_4 (IV)	2.51 (0.97, 6.84)
TOC_4 (IV)+MTX		1.79 (0.65, 4.96)
TOC_8 (IV)+MTX		2.85 (1.12, 7.56)
GOL_STD (SC)+MTX		3.96 (1.26, 12.88)
GOL_STD (IV)+MTX		1.94 (0.52, 7.41)
INF_STD+MTX		1.99 (0.67, 6.20)
CERTO_STD+MTX		3.53 (1.22, 10.78)
RIT_STD		2.38 (0.45, 13.89)
RIT_STD+MTX		3.68 (0.69, 20.72)
BAR_4+MTX		3.63 (1.20, 11.51)
HD203+MTX		5.28 (1.21, 25.97)
SB4+MTX		3.42 (0.84, 15.85)
ANBAI+MTX		5.74 (1.36, 25.64)
CT-P13+MTX		2.76 (0.76, 10.56)
SB2+MTX		1.73 (0.43, 7.13)
SB5+MTX		2.48 (0.65, 9.61)
ZRC-3197+MTX		2.56 (0.58, 11.31)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		2.36 (0.62, 9.12)
TOC_4 (IV)+MTX	TOC_8 (IV)	0.71 (0.34, 1.43)
TOC_8 (IV)+MTX		1.13 (0.69, 1.86)
GOL_STD (SC)+MTX		1.57 (0.67, 3.74)
GOL_STD (IV)+MTX		0.77 (0.26, 2.26)
INF_STD+MTX		0.79 (0.36, 1.77)
CERTO_STD+MTX		1.40 (0.67, 3.02)
RIT_STD		0.94 (0.21, 4.59)
RIT_STD+MTX		1.46 (0.33, 6.90)
BAR_4+MTX		1.44 (0.64, 3.37)
HD203+MTX		2.07 (0.59, 8.26)
SB4+MTX		1.34 (0.43, 5.02)
ANBAI+MTX		2.28 (0.67, 8.10)
CT-P13+MTX		1.10 (0.39, 3.16)
SB2+MTX		0.69 (0.21, 2.21)
SB5+MTX		0.98 (0.33, 2.95)
ZRC-3197+MTX		1.01 (0.29, 3.59)
ABP501+MTX		0.94 (0.31, 2.79)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.59 (0.87, 3.01)
GOL_STD (SC)+MTX		2.22 (0.90, 5.50)
GOL_STD (IV)+MTX		1.08 (0.37, 3.33)
INF_STD+MTX		1.11 (0.49, 2.61)
CERTO_STD+MTX		1.97 (0.91, 4.50)
RIT_STD		1.33 (0.29, 6.71)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD+MTX		2.05 (0.46, 9.99)
BAR_4+MTX		2.03 (0.88, 4.97)
HD203+MTX		2.92 (0.82, 12.04)
SB4+MTX		1.90 (0.59, 7.41)
ANBAI+MTX		3.19 (0.93, 11.87)
CT-P13+MTX		1.54 (0.54, 4.65)
SB2+MTX		0.97 (0.30, 3.25)
SB5+MTX		1.38 (0.45, 4.31)
ZRC-3197+MTX		1.42 (0.39, 5.24)
ABP501+MTX		1.32 (0.43, 4.06)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	1.39 (0.62, 3.12)
GOL_STD (IV)+MTX		0.68 (0.24, 1.91)
INF_STD+MTX		0.70 (0.34, 1.47)
CERTO_STD+MTX		1.24 (0.63, 2.50)
RIT_STD		0.83 (0.19, 3.96)
RIT_STD+MTX		1.28 (0.31, 5.97)
BAR_4+MTX		1.27 (0.60, 2.80)
HD203+MTX		1.83 (0.55, 7.06)
SB4+MTX		1.19 (0.39, 4.28)
ANBAI+MTX		2.00 (0.61, 6.95)
CT-P13+MTX		0.96 (0.36, 2.67)
SB2+MTX		0.61 (0.20, 1.87)
SB5+MTX		0.87 (0.30, 2.49)
ZRC-3197+MTX		0.89 (0.26, 3.06)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		0.83 (0.29, 2.38)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.49 (0.16, 1.46)
INF_STD+MTX		0.50 (0.22, 1.14)
CERTO_STD+MTX		0.89 (0.41, 1.96)
RIT_STD		0.60 (0.13, 2.97)
RIT_STD+MTX		0.92 (0.21, 4.46)
BAR_4+MTX		0.92 (0.40, 2.12)
HD203+MTX		1.32 (0.38, 5.29)
SB4+MTX		0.86 (0.26, 3.19)
ANBAI+MTX		1.44 (0.42, 5.17)
CT-P13+MTX		0.70 (0.24, 2.02)
SB2+MTX		0.44 (0.13, 1.43)
SB5+MTX		0.62 (0.21, 1.90)
ZRC-3197+MTX		0.64 (0.18, 2.31)
ABP501+MTX	GOL_STD (IV)+MTX	0.60 (0.19, 1.81)
INF_STD+MTX		1.03 (0.36, 2.91)
CERTO_STD+MTX		1.82 (0.66, 5.06)
RIT_STD		1.22 (0.24, 6.95)
RIT_STD+MTX		1.88 (0.37, 10.33)
BAR_4+MTX		1.87 (0.65, 5.51)
HD203+MTX		2.69 (0.66, 12.54)
SB4+MTX		1.74 (0.46, 7.72)
ANBAI+MTX		2.95 (0.74, 12.38)
CT-P13+MTX		1.41 (0.42, 5.01)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		0.89 (0.23, 3.44)
SB5+MTX		1.28 (0.35, 4.62)
ZRC-3197+MTX		1.32 (0.31, 5.56)
ABP501+MTX		1.21 (0.34, 4.39)
CERTO_STD+MTX	INF_STD+MTX	1.77 (0.87, 3.63)
RIT_STD		1.18 (0.28, 5.73)
RIT_STD+MTX		1.83 (0.44, 8.52)
BAR_4+MTX		1.82 (0.84, 3.98)
HD203+MTX		2.62 (0.77, 10.03)
SB4+MTX		1.70 (0.54, 6.11)
ANBAI+MTX		2.86 (0.87, 9.90)
CT-P13+MTX		1.38 (0.71, 2.76)
SB2+MTX		0.87 (0.37, 2.03)
SB5+MTX		1.24 (0.42, 3.60)
ZRC-3197+MTX		1.28 (0.37, 4.43)
ABP501+MTX		1.18 (0.40, 3.40)
RIT_STD	CERTO_STD+MTX	0.67 (0.16, 3.15)
RIT_STD+MTX		1.03 (0.25, 4.70)
BAR_4+MTX		1.03 (0.50, 2.13)
HD203+MTX		1.48 (0.44, 5.53)
SB4+MTX		0.96 (0.32, 3.34)
ANBAI+MTX		1.61 (0.50, 5.43)
CT-P13+MTX		0.78 (0.29, 2.10)
SB2+MTX		0.49 (0.16, 1.48)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB5+MTX		0.70 (0.25, 1.88)
ZRC-3197+MTX		0.72 (0.22, 2.34)
ABP501+MTX		0.67 (0.24, 1.80)
RIT_STD+MTX	RIT_STD	1.54 (0.47, 5.21)
BAR_4+MTX		1.53 (0.32, 6.87)
HD203+MTX		2.22 (0.35, 14.48)
SB4+MTX		1.44 (0.24, 8.83)
ANBAI+MTX		2.43 (0.39, 14.18)
CT-P13+MTX		1.16 (0.22, 6.01)
SB2+MTX		0.73 (0.12, 4.03)
SB5+MTX		1.04 (0.19, 5.46)
ZRC-3197+MTX		1.07 (0.17, 6.33)
ABP501+MTX		0.99 (0.18, 5.18)
BAR_4+MTX	RIT_STD+MTX	0.99 (0.22, 4.34)
HD203+MTX		1.43 (0.23, 8.94)
SB4+MTX		0.93 (0.16, 5.61)
ANBAI+MTX		1.55 (0.26, 9.07)
CT-P13+MTX		0.75 (0.14, 3.76)
SB2+MTX		0.47 (0.08, 2.52)
SB5+MTX		0.67 (0.12, 3.47)
ZRC-3197+MTX		0.69 (0.12, 3.95)
ABP501+MTX		0.64 (0.12, 3.31)
HD203+MTX	BAR_4+MTX	1.44 (0.42, 5.53)
SB4+MTX		0.93 (0.29, 3.35)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ANBAI+MTX		1.58 (0.47, 5.45)
CT-P13+MTX		0.76 (0.28, 2.14)
SB2+MTX		0.48 (0.15, 1.50)
SB5+MTX		0.68 (0.23, 1.92)
ZRC-3197+MTX		0.71 (0.20, 2.35)
ABP501+MTX		0.65 (0.22, 1.82)
SB4+MTX	HD203+MTX	0.65 (0.18, 2.35)
ANBAI+MTX		1.10 (0.21, 5.10)
CT-P13+MTX		0.53 (0.12, 2.14)
SB2+MTX		0.33 (0.07, 1.44)
SB5+MTX		0.48 (0.10, 1.97)
ZRC-3197+MTX		0.49 (0.09, 2.32)
ABP501+MTX		0.46 (0.09, 1.86)
ANBAI+MTX	SB4+MTX	1.68 (0.35, 7.40)
CT-P13+MTX		0.81 (0.19, 3.01)
SB2+MTX		0.51 (0.11, 2.07)
SB5+MTX		0.73 (0.16, 2.82)
ZRC-3197+MTX		0.75 (0.15, 3.34)
ABP501+MTX		0.70 (0.15, 2.67)
CT-P13+MTX	ANBAI+MTX	0.48 (0.12, 1.94)
SB2+MTX		0.30 (0.07, 1.31)
SB5+MTX		0.43 (0.10, 1.79)
ZRC-3197+MTX		0.45 (0.09, 2.09)
ABP501+MTX		0.41 (0.10, 1.69)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX	CT-P13+MTX	0.63 (0.21, 1.84)
SB5+MTX		0.90 (0.24, 3.13)
ZRC-3197+MTX		0.93 (0.22, 3.76)
ABP501+MTX		0.86 (0.24, 2.95)
SB5+MTX	SB2+MTX	1.43 (0.36, 5.62)
ZRC-3197+MTX		1.47 (0.32, 6.62)
ABP501+MTX		1.36 (0.35, 5.33)
ZRC-3197+MTX	SB5+MTX	1.03 (0.27, 4.05)
ABP501+MTX		0.95 (0.28, 3.19)
ABP501+MTX	ZRC-3197+MTX	0.92 (0.24, 3.60)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 16. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – All Treatment Doses

Treatment	Reference	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	2.09 (0.61, 7.26)
SSZ+HCQ		0.41 (0.09, 1.48)
MTX+SSZ+HCQ		0.40 (0.08, 1.39)
ETN_STD		0.79 (0.47, 1.51)
ETN_STD+MTX		0.67 (0.38, 1.18)
ABA_STD (IV)+MTX		0.74 (0.36, 1.44)
ADA_STD+MTX		1.54 (0.84, 3.43)
TOF_STD+MTX		2.00 (1.00, 3.87)
TOC_4 (IV)		1.13 (0.33, 4.34)
TOC_8 (IV)		0.92 (0.41, 2.50)
TOC_4 (IV)+MTX		1.32 (0.32, 5.04)
TOC_8 (IV)+MTX		1.33 (0.47, 4.07)
GOL_STD (SC)+MTX		1.24 (0.33, 4.16)
INF_STD+MTX		1.43 (0.74, 2.59)
INF_STD		1.73 (0.09, 32.95)
CERTO_STD+MTX		1.19 (0.42, 3.33)
RIT_STD		1.16 (0.13, 13.25)
RIT_STD+MTX		0.39 (0.02, 7.08)
BAR_4+MTX		0.30 (0.01, 1.54)
HD203+MTX		0.61 (0.21, 1.83)
SB4+MTX		0.53 (0.20, 1.39)
CT-P13+MTX		1.22 (0.51, 2.96)
SB2+MTX		3.25 (1.12, 9.84)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB5+MTX		0.24 (0.03, 2.17)
ABP501+MTX		4.41 (0.66, 23.69)
SSZ+HCQ	csDMARD+MTX	0.19 (0.02, 1.00)
MTX+SSZ+HCQ		0.18 (0.03, 0.95)
ETN_STD		0.39 (0.12, 1.08)
ETN_STD+MTX		0.33 (0.11, 0.81)
ABA_STD (IV)+MTX		0.34 (0.09, 1.50)
ADA_STD+MTX		0.72 (0.17, 3.27)
TOF_STD+MTX		0.94 (0.22, 4.21)
TOC_4 (IV)		0.53 (0.10, 3.32)
TOC_8 (IV)		0.42 (0.09, 1.94)
TOC_4 (IV)+MTX		0.62 (0.11, 3.58)
TOC_8 (IV)+MTX		0.64 (0.12, 2.85)
GOL_STD (SC)+MTX		0.63 (0.09, 2.85)
INF_STD+MTX		0.66 (0.17, 2.81)
INF_STD		0.86 (0.05, 13.92)
CERTO_STD+MTX		0.56 (0.11, 2.68)
RIT_STD		0.50 (0.05, 8.58)
RIT_STD+MTX		0.17 (0.01, 4.18)
BAR_4+MTX		0.15 (0.01, 0.97)
HD203+MTX		0.29 (0.07, 1.07)
SB4+MTX		0.25 (0.07, 0.92)
CT-P13+MTX		0.57 (0.13, 2.64)
SB2+MTX		1.51 (0.28, 8.30)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB5+MTX		0.11 (0.01, 2.44)
ABP501+MTX		1.93 (0.25, 15.88)
MTX+SSZ+HCQ	SSZ+HCQ	0.96 (0.19, 5.21)
ETN_STD		1.91 (0.52, 11.78)
ETN_STD+MTX		1.58 (0.47, 9.80)
ABA_STD (IV)+MTX		1.84 (0.41, 10.06)
ADA_STD+MTX		3.67 (1.04, 23.69)
TOF_STD+MTX		4.91 (1.22, 25.36)
TOC_4 (IV)		2.56 (0.50, 21.01)
TOC_8 (IV)		2.16 (0.46, 14.78)
TOC_4 (IV)+MTX		2.92 (0.61, 29.58)
TOC_8 (IV)+MTX		3.17 (0.64, 23.45)
GOL_STD (SC)+MTX		3.06 (0.61, 19.03)
INF_STD+MTX		3.48 (0.84, 18.80)
INF_STD		*4.62 (0.22, 111.94)*
CERTO_STD+MTX		2.99 (0.62, 20.01)
RIT_STD		2.65 (0.32, 48.42)
RIT_STD+MTX		0.95 (0.04, 30.14)
BAR_4+MTX		0.70 (0.03, 6.63)
HD203+MTX		1.50 (0.29, 9.87)
SB4+MTX		1.23 (0.29, 8.66)
CT-P13+MTX		2.97 (0.63, 18.49)
SB2+MTX		7.96 (1.50, 51.99)
SB5+MTX		0.58 (0.06, 8.26)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
ABP501+MTX		*10.18 (1.16, 114.89)*
ETN_STD	MTX+SSZ+HCQ	1.99 (0.52, 10.84)
ETN_STD+MTX		1.68 (0.43, 9.12)
ABA_STD (IV)+MTX		1.87 (0.42, 11.21)
ADA_STD+MTX		3.94 (1.02, 23.36)
TOF_STD+MTX		5.38 (1.13, 25.23)
TOC_4 (IV)		2.78 (0.41, 23.78)
TOC_8 (IV)		2.52 (0.43, 13.59)
TOC_4 (IV)+MTX		3.64 (0.50, 24.51)
TOC_8 (IV)+MTX		3.38 (0.54, 23.31)
GOL_STD (SC)+MTX		3.22 (0.58, 18.77)
INF_STD+MTX		3.60 (0.87, 17.01)
INF_STD		*4.21 (0.20, 116.40)*
CERTO_STD+MTX		3.15 (0.63, 20.11)
RIT_STD		3.08 (0.22, 39.53)
RIT_STD+MTX		1.03 (0.03, 22.83)
BAR_4+MTX		0.85 (0.04, 9.36)
HD203+MTX		1.50 (0.32, 9.97)
SB4+MTX		1.30 (0.26, 8.82)
CT-P13+MTX		3.09 (0.67, 16.96)
SB2+MTX		8.38 (1.55, 51.68)
SB5+MTX		0.64 (0.04, 8.47)
ABP501+MTX		*10.94 (1.38, 100.18)*
ETN_STD+MTX	ETN_STD	0.83 (0.49, 1.43)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
ABA_STD (IV)+MTX		0.91 (0.36, 2.17)
ADA_STD+MTX		1.89 (0.80, 5.18)
TOF_STD+MTX		2.56 (0.94, 6.22)
TOC_4 (IV)		1.38 (0.35, 6.65)
TOC_8 (IV)		1.15 (0.40, 3.66)
TOC_4 (IV)+MTX		1.65 (0.35, 7.62)
TOC_8 (IV)+MTX		1.68 (0.45, 5.78)
GOL_STD (SC)+MTX		1.57 (0.38, 4.94)
INF_STD+MTX		1.75 (0.74, 3.93)
INF_STD		2.13 (0.13, 38.28)
CERTO_STD+MTX		1.50 (0.47, 4.40)
RIT_STD		1.40 (0.16, 16.12)
RIT_STD+MTX		0.49 (0.02, 8.27)
BAR_4+MTX		0.39 (0.02, 2.23)
HD203+MTX		0.76 (0.27, 2.19)
SB4+MTX		0.65 (0.23, 1.67)
CT-P13+MTX		1.52 (0.56, 3.94)
SB2+MTX		4.18 (1.13, 13.90)
SB5+MTX		0.30 (0.03, 3.66)
ABP501+MTX		5.34 (0.88, 30.30)
ABA_STD (IV)+MTX	ETN_STD+MTX	1.08 (0.43, 2.76)
ADA_STD+MTX		2.24 (0.99, 6.21)
TOF_STD+MTX		3.02 (1.16, 7.57)
TOC_4 (IV)		1.66 (0.44, 7.61)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
TOC_8 (IV)		1.34 (0.48, 4.34)
TOC_4 (IV)+MTX		1.98 (0.44, 8.41)
TOC_8 (IV)+MTX		1.95 (0.58, 6.55)
GOL_STD (SC)+MTX		1.84 (0.41, 6.26)
INF_STD+MTX		2.10 (0.87, 4.74)
INF_STD		2.51 (0.14, 40.85)
CERTO_STD+MTX		1.77 (0.56, 5.23)
RIT_STD		1.69 (0.19, 19.26)
RIT_STD+MTX		0.58 (0.03, 10.56)
BAR_4+MTX		0.47 (0.02, 2.49)
HD203+MTX		0.91 (0.36, 2.23)
SB4+MTX		0.77 (0.34, 1.72)
CT-P13+MTX		1.81 (0.69, 4.80)
SB2+MTX		4.78 (1.30, 16.53)
SB5+MTX		0.35 (0.04, 4.34)
ABP501+MTX		6.27 (1.07, 35.87)
ADA_STD+MTX	ABA_STD (IV)+MTX	2.18 (0.79, 5.98)
TOF_STD+MTX		2.76 (1.04, 7.12)
TOC_4 (IV)		1.50 (0.36, 7.02)
TOC_8 (IV)		1.21 (0.39, 4.74)
TOC_4 (IV)+MTX		1.79 (0.42, 7.24)
TOC_8 (IV)+MTX		1.76 (0.48, 7.25)
GOL_STD (SC)+MTX		1.64 (0.38, 7.89)
INF_STD+MTX		1.85 (0.81, 4.89)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
INF_STD		2.34 (0.11, 43.16)
CERTO_STD+MTX		1.59 (0.48, 5.85)
RIT_STD		1.42 (0.22, 19.20)
RIT_STD+MTX		0.49 (0.03, 11.69)
BAR_4+MTX		0.38 (0.02, 3.09)
HD203+MTX		0.81 (0.20, 3.20)
SB4+MTX		0.70 (0.19, 2.52)
CT-P13+MTX		1.60 (0.55, 5.30)
SB2+MTX		4.41 (1.35, 14.07)
SB5+MTX		0.30 (0.03, 3.26)
ABP501+MTX		5.47 (0.86, 41.39)
TOF_STD+MTX	ADA_STD+MTX	1.31 (0.53, 2.68)
TOC_4 (IV)		0.71 (0.17, 3.33)
TOC_8 (IV)		0.59 (0.19, 2.02)
TOC_4 (IV)+MTX		0.89 (0.17, 3.79)
TOC_8 (IV)+MTX		0.83 (0.21, 3.04)
GOL_STD (SC)+MTX		0.83 (0.18, 2.87)
INF_STD+MTX		0.87 (0.33, 2.52)
INF_STD		1.22 (0.04, 20.19)
CERTO_STD+MTX		0.75 (0.31, 1.96)
RIT_STD		0.70 (0.09, 7.80)
RIT_STD+MTX		0.25 (0.01, 4.51)
BAR_4+MTX		0.22 (0.01, 1.31)
HD203+MTX		0.39 (0.11, 1.33)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB4+MTX		0.33 (0.09, 1.10)
CT-P13+MTX		0.77 (0.24, 2.40)
SB2+MTX		2.06 (0.51, 8.35)
SB5+MTX		0.16 (0.02, 1.11)
ABP501+MTX		2.74 (0.55, 12.30)
TOC_4 (IV)	TOF_STD+MTX	0.55 (0.15, 2.29)
TOC_8 (IV)		0.46 (0.15, 1.74)
TOC_4 (IV)+MTX		0.66 (0.16, 2.73)
TOC_8 (IV)+MTX		0.67 (0.18, 2.57)
GOL_STD (SC)+MTX		0.63 (0.14, 2.05)
INF_STD+MTX		0.67 (0.32, 1.80)
INF_STD		0.84 (0.04, 16.91)
CERTO_STD+MTX		0.57 (0.19, 1.91)
RIT_STD		0.54 (0.08, 7.70)
RIT_STD+MTX		0.19 (0.01, 4.32)
BAR_4+MTX		0.16 (0.01, 1.08)
HD203+MTX		0.30 (0.09, 1.17)
SB4+MTX		0.25 (0.08, 0.92)
CT-P13+MTX		0.60 (0.22, 1.91)
SB2+MTX		1.55 (0.50, 5.83)
SB5+MTX		0.13 (0.01, 1.09)
ABP501+MTX		2.17 (0.35, 12.15)
TOC_8 (IV)	TOC_4 (IV)	0.81 (0.26, 2.85)
TOC_4 (IV)+MTX		1.12 (0.34, 4.26)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
TOC_8 (IV)+MTX		1.16 (0.36, 3.85)
GOL_STD (SC)+MTX		1.30 (0.09, 5.34)
INF_STD+MTX		1.40 (0.24, 4.94)
INF_STD		1.28 (0.09, 34.74)
CERTO_STD+MTX		1.06 (0.22, 5.15)
RIT_STD		1.10 (0.06, 17.13)
RIT_STD+MTX		0.30 (0.01, 9.36)
BAR_4+MTX		0.25 (0.01, 2.14)
HD203+MTX		0.53 (0.10, 2.75)
SB4+MTX		0.47 (0.09, 2.06)
CT-P13+MTX		1.20 (0.20, 4.83)
SB2+MTX		3.16 (0.46, 16.26)
SB5+MTX		0.22 (0.01, 2.79)
ABP501+MTX		3.87 (0.27, 31.47)
TOC_4 (IV)+MTX	TOC_8 (IV)	1.45 (0.43, 4.64)
TOC_8 (IV)+MTX		1.45 (0.59, 3.37)
GOL_STD (SC)+MTX		1.44 (0.21, 7.48)
INF_STD+MTX		1.58 (0.47, 4.51)
INF_STD		1.68 (0.11, 35.77)
CERTO_STD+MTX		1.26 (0.34, 4.83)
RIT_STD		1.34 (0.10, 15.89)
RIT_STD+MTX		0.39 (0.01, 9.04)
BAR_4+MTX		0.32 (0.02, 2.18)
HD203+MTX		0.69 (0.16, 2.83)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB4+MTX		0.56 (0.15, 2.04)
CT-P13+MTX		1.33 (0.36, 5.04)
SB2+MTX		3.59 (0.75, 13.60)
SB5+MTX		0.27 (0.02, 3.14)
ABP501+MTX		4.77 (0.50, 33.25)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	0.98 (0.33, 3.35)
GOL_STD (SC)+MTX		0.96 (0.09, 6.33)
INF_STD+MTX		1.04 (0.22, 4.62)
INF_STD		1.12 (0.08, 31.09)
CERTO_STD+MTX		0.84 (0.18, 4.94)
RIT_STD		1.00 (0.06, 14.84)
RIT_STD+MTX		0.29 (0.01, 7.68)
BAR_4+MTX		0.23 (0.01, 1.79)
HD203+MTX		0.47 (0.09, 2.72)
SB4+MTX		0.39 (0.08, 1.86)
CT-P13+MTX		0.89 (0.18, 4.70)
SB2+MTX		2.45 (0.41, 12.67)
SB5+MTX		0.16 (0.01, 2.50)
ABP501+MTX		3.30 (0.26, 30.36)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	1.03 (0.13, 4.69)
INF_STD+MTX		1.13 (0.27, 3.49)
INF_STD		1.09 (0.09, 26.21)
CERTO_STD+MTX		0.87 (0.22, 3.86)
RIT_STD		0.92 (0.07, 14.44)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
RIT_STD+MTX		0.25 (0.01, 8.43)
BAR_4+MTX		0.23 (0.01, 1.82)
HD203+MTX		0.47 (0.11, 2.11)
SB4+MTX		0.39 (0.10, 1.57)
CT-P13+MTX		0.98 (0.20, 3.54)
SB2+MTX		2.55 (0.47, 10.73)
SB5+MTX		0.18 (0.01, 2.80)
ABP501+MTX		3.34 (0.30, 26.13)
INF_STD+MTX	GOL_STD (SC)+MTX	1.05 (0.38, 4.50)
INF_STD		1.26 (0.09, 32.07)
CERTO_STD+MTX		0.92 (0.20, 5.17)
RIT_STD		0.87 (0.07, 14.85)
RIT_STD+MTX		0.33 (0.01, 8.35)
BAR_4+MTX		0.23 (0.01, 2.94)
HD203+MTX		0.50 (0.09, 2.73)
SB4+MTX		0.41 (0.10, 2.06)
CT-P13+MTX		0.89 (0.29, 4.54)
SB2+MTX		2.53 (0.68, 12.83)
SB5+MTX		0.19 (0.02, 2.66)
ABP501+MTX		3.17 (0.50, 28.19)
INF_STD	INF_STD+MTX	0.76 (0.05, 15.80)
CERTO_STD+MTX		0.86 (0.24, 2.72)
RIT_STD		0.78 (0.08, 12.16)
RIT_STD+MTX		0.25 (0.01, 5.66)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
BAR_4+MTX		0.21 (0.01, 1.33)
HD203+MTX		0.43 (0.12, 1.52)
SB4+MTX		0.37 (0.11, 1.25)
CT-P13+MTX		0.85 (0.50, 1.56)
SB2+MTX		2.33 (0.98, 5.33)
SB5+MTX		0.17 (0.02, 1.64)
ABP501+MTX		2.92 (0.52, 20.01)
CERTO_STD+MTX	INF_STD	0.62 (0.04, 14.11)
RIT_STD		0.83 (0.03, 24.34)
RIT_STD+MTX		0.19 (0.00, 10.25)
BAR_4+MTX		0.20 (0.00, 6.55)
HD203+MTX		0.37 (0.02, 7.46)
SB4+MTX		0.30 (0.02, 4.94)
CT-P13+MTX		0.66 (0.04, 14.73)
SB2+MTX		1.98 (0.07, 37.26)
SB5+MTX		0.14 (0.004, 13.34)
ABP501+MTX		2.56 (0.09, 82.27)
RIT_STD	CERTO_STD+MTX	0.94 (0.08, 11.52)
RIT_STD+MTX		0.30 (0.01, 6.48)
BAR_4+MTX		0.28 (0.01, 1.70)
HD203+MTX		0.52 (0.12, 2.29)
SB4+MTX		0.44 (0.13, 1.73)
CT-P13+MTX		1.02 (0.29, 3.87)
SB2+MTX		2.72 (0.65, 12.38)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB5+MTX		0.20 (0.02, 1.91)
ABP501+MTX		3.71 (0.56, 18.99)
RIT_STD+MTX	RIT_STD	0.28 (0.03, 6.72)
BAR_4+MTX		0.23 (0.01, 6.56)
HD203+MTX		0.55 (0.04, 5.25)
SB4+MTX		0.45 (0.03, 5.22)
CT-P13+MTX		1.11 (0.08, 11.57)
SB2+MTX		2.91 (0.17, 31.72)
SB5+MTX		0.21 (0.01, 3.17)
ABP501+MTX		3.54 (0.27, 52.93)
BAR_4+MTX	RIT_STD+MTX	0.88 (0.01, 47.28)
HD203+MTX		1.48 (0.07, 36.53)
SB4+MTX		1.38 (0.07, 35.73)
CT-P13+MTX		3.42 (0.15, 65.24)
SB2+MTX		9.11 (0.30, 231.37)
SB5+MTX		0.61 (0.01, 33.18)
ABP501+MTX		*11.30 (0.50, 249.39)*
HD203+MTX	BAR_4+MTX	2.09 (0.61, 7.26)
SB4+MTX		0.41 (0.09, 1.48)
CT-P13+MTX		0.40 (0.08, 1.39)
SB2+MTX		0.79 (0.47, 1.51)
SB5+MTX		0.67 (0.38, 1.18)
ABP501+MTX		0.74 (0.36, 1.44)
SB4+MTX	HD203+MTX	1.54 (0.84, 3.43)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
CT-P13+MTX		2.00 (1.00, 3.87)
SB2+MTX		1.13 (0.33, 4.34)
SB5+MTX		0.92 (0.41, 2.50)
ABP501+MTX		1.32 (0.32, 5.04)
CT-P13+MTX	SB4+MTX	1.33 (0.47, 4.07)
SB2+MTX		1.24 (0.33, 4.16)
SB5+MTX		1.43 (0.74, 2.59)
ABP501+MTX		1.73 (0.09, 32.95)
SB2+MTX	CT-P13+MTX	1.19 (0.42, 3.33)
SB5+MTX		1.16 (0.13, 13.25)
ABP501+MTX		0.39 (0.02, 7.08)
SB5+MTX	SB2+MTX	0.30 (0.01, 1.54)
ABP501+MTX		0.61 (0.21, 1.83)
ABP501+MTX	SB5+MTX	0.53 (0.20, 1.39)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 17. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – Studies Published Before 2007

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	-
SSZ+HCQ		0.36 (0.06, 1.77)
MTX+SSZ+HCQ		0.40 (0.07, 1.99)
ETN_STD		0.76 (0.38, 1.65)
ETN_STD+MTX		0.72 (0.37, 1.45)
ABA_STD (IV)+MTX		0.86 (0.33, 2.32)
ABA_STD (SC)+MTX		0.09 (0.0002, 1.90)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		1.47 (0.34, 6.83)
TOC_8 (IV)		1.22 (0.27, 6.04)
TOC_4 (IV)+MTX		1.64 (0.38, 7.84)
TOC_8 (IV)+MTX		1.59 (0.36, 7.70)
GOL_STD (SC)+MTX		-
INF_STD+MTX		0.99 (0.40, 2.50)
INF_STD		2.16 (0.04, 95.49)
CERTO_STD+MTX		-
RIT_STD		2.48 (0.14, 85.29)
RIT_STD+MTX		1.00 (0.02, 38.28)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
SSZ+HCQ	csDMARD+MTX	-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	1.08 (0.16, 7.63)
ETN_STD		2.12 (0.38, 14.57)
ETN_STD+MTX		1.99 (0.35, 13.12)
ABA_STD (IV)+MTX		2.39 (0.37, 17.90)
ABA_STD (SC)+MTX		0.24 (0.0004, 8.51)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		4.06 (0.46, 43.16)
TOC_8 (IV)		3.38 (0.38, 37.26)
TOC_4 (IV)+MTX		4.59 (0.53, 50.10)
TOC_8 (IV)+MTX		4.39 (0.49, 48.42)
GOL_STD (SC)+MTX		-
INF_STD+MTX		2.72 (0.44, 20.11)
INF_STD		6.01 (0.08, 384.91)
CERTO_STD+MTX		-
RIT_STD		7.03 (0.28, 336.97)
RIT_STD+MTX		*2.83 (0.04, 141.32)*
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	1.93 (0.33, 13.30)
ETN_STD+MTX		1.81 (0.32, 12.09)
ABA_STD (IV)+MTX		2.19 (0.32, 16.93)
ABA_STD (SC)+MTX		0.21 (0.0004, 7.71)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		3.80 (0.39, 39.88)
TOC_8 (IV)		3.06 (0.32, 34.50)
TOC_4 (IV)+MTX		4.25 (0.44, 45.42)
TOC_8 (IV)+MTX		4.05 (0.42, 44.48)
GOL_STD (SC)+MTX		-
INF_STD+MTX		2.51 (0.38, 18.01)
INF_STD		*5.41 (0.08, 327.34)*
CERTO_STD+MTX		-
RIT_STD		*6.38 (0.23, 324.73)*
RIT_STD+MTX		*2.52 (0.04, 149.90)*
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	0.94 (0.49, 1.74)
ABA_STD (IV)+MTX		1.13 (0.32, 3.80)
ABA_STD (SC)+MTX		0.11 (0.0003, 2.68)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		1.92 (0.36, 10.30)
TOC_8 (IV)		1.61 (0.29, 9.07)
TOC_4 (IV)+MTX		2.15 (0.41, 11.76)
TOC_8 (IV)+MTX		2.08 (0.40, 11.76)
GOL_STD (SC)+MTX		-
INF_STD+MTX		1.29 (0.40, 4.08)
INF_STD		*2.83 (0.05, 134.02)*
CERTO_STD+MTX		-
RIT_STD		*3.24 (0.17, 122.24)*
RIT_STD+MTX		1.30 (0.02, 51.06)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		-
ABA_STD (IV)+MTX	ETN_STD+MTX	1.20 (0.36, 3.92)
ABA_STD (SC)+MTX		0.12 (0.0003, 2.76)
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		2.05 (0.40, 10.69)
TOC_8 (IV)		1.71 (0.32, 9.37)
TOC_4 (IV)+MTX		2.28 (0.45, 12.18)
TOC_8 (IV)+MTX		2.22 (0.44, 12.22)
GOL_STD (SC)+MTX		-
INF_STD+MTX		1.38 (0.43, 4.25)
INF_STD		*3.00 (0.05, 138.52)*
CERTO_STD+MTX		-
RIT_STD		*3.47 (0.18, 127.23)*
RIT_STD+MTX		1.38 (0.02, 55.81)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.10 (0.0002, 2.61)
ADA_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOF_STD+MTX		-
TOC_4 (IV)		1.70 (0.28, 10.56)
TOC_8 (IV)		1.42 (0.23, 9.44)
TOC_4 (IV)+MTX		1.91 (0.32, 12.54)
TOC_8 (IV)+MTX		1.84 (0.31, 11.76)
GOL_STD (SC)+MTX		-
INF_STD+MTX		1.14 (0.30, 4.49)
INF_STD		*2.49 (0.04, 118.87)*
CERTO_STD+MTX		-
RIT_STD		*2.88 (0.14, 109.62)*
RIT_STD+MTX		1.17 (0.02, 47.18)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ADA_STD+MTX	ABA_STD (SC)+MTX	-
TOF_STD+MTX		-
TOC_4 (IV)		*17.15 (0.53, 9358.12)*
TOC_8 (IV)		*14.35 (0.43, 8664.59)*
TOC_4 (IV)+MTX		*19.47 (0.59, 11014.85)*
TOC_8 (IV)+MTX		*18.47 (0.60, 10097.06)*

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)+MTX		-
INF_STD+MTX		*11.03 (0.47, 5913.54)*
INF_STD		*26.63 (0.17, 34200.65)*
CERTO_STD+MTX		-
RIT_STD		*33.02 (0.37, 25848.30)*
RIT_STD+MTX		*13.74 (0.07, 9837.92)*
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOF_STD+MTX	ADA_STD+MTX	-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_4 (IV)	TOF_STD+MTX	-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)	TOC_4 (IV)	0.84 (0.19, 3.50)
TOC_4 (IV)+MTX		1.12 (0.28, 4.58)
TOC_8 (IV)+MTX		1.08 (0.27, 4.49)
GOL_STD (SC)+MTX		-
INF_STD+MTX		0.67 (0.11, 3.94)
INF_STD		1.43 (0.02, 80.80)
CERTO_STD+MTX		-
RIT_STD		1.70 (0.06, 74.07)
RIT_STD+MTX		0.70 (0.01, 32.85)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	1.34 (0.32, 5.93)
TOC_8 (IV)+MTX		1.29 (0.30, 5.61)
GOL_STD (SC)+MTX		-
INF_STD+MTX		0.81 (0.13, 4.74)
INF_STD		1.71 (0.03, 94.16)
CERTO_STD+MTX		-
RIT_STD		2.06 (0.07, 91.01)
RIT_STD+MTX		0.82 (0.01, 39.10)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	0.96 (0.23, 3.97)
GOL_STD (SC)+MTX		-
INF_STD+MTX		0.60 (0.10, 3.43)
INF_STD		1.26 (0.02, 73.48)
CERTO_STD+MTX		-
RIT_STD		1.53 (0.06, 64.59)
RIT_STD+MTX		0.61 (0.01, 28.82)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	-
INF_STD+MTX		0.62 (0.10, 3.45)
INF_STD		1.33 (0.02, 77.48)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		-
RIT_STD		1.56 (0.06, 68.17)
RIT_STD+MTX		0.64 (0.01, 29.70)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
INF_STD+MTX	GOL_STD (SC)+MTX	-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
INF_STD	INF_STD+MTX	2.22 (0.04, 92.67)
CERTO_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		2.53 (0.12, 95.30)
RIT_STD+MTX		1.02 (0.02, 42.27)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
CERTO_STD+MTX	INF_STD	-
RIT_STD		*1.21 (0.01, 232.99)*
RIT_STD+MTX		0.49 (0.002, 81.37)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
RIT_STD	CERTO_STD+MTX	-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
RIT_STD+MTX	RIT_STD	0.41 (0.01, 5.95)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		-
SB4+MTX	HD203+MTX	-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
CT-P13+MTX	SB4+MTX	-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
SB2+MTX	CT-P13+MTX	-
SB5+MTX		-
ABP501+MTX		-
SB5+MTX	SB2+MTX	-
ABP501+MTX		-
ABP501+MTX	SB5+MTX	-

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 18. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – Studies Published from 2007 Onward

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	-
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		0.88 (0.17, 4.33)
ABA_STD (SC)+MTX		0.51 (0.16, 1.64)
ADA_STD+MTX		1.47 (0.67, 3.26)
TOF_STD+MTX		1.93 (0.98, 4.01)
TOC_4 (IV)		-
TOC_8 (IV)		0.66 (0.07, 4.67)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		0.97 (0.08, 9.42)
GOL_STD (SC)+MTX		1.04 (0.33, 3.15)
INF_STD+MTX		3.55 (0.78, 21.39)
INF_STD		-
CERTO_STD+MTX		1.22 (0.47, 3.21)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.31 (0.03, 1.86)
CT-P13+MTX		3.10 (0.61, 20.15)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		7.95 (1.36, 61.74)
SB5+MTX		0.28 (0.04, 1.50)
ABP501+MTX		3.68 (0.71, 23.20)
SSZ+HCQ	csDMARD+MTX	-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		-
ABA_STD (IV)+MTX	ETN_STD+MTX	-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.56 (0.08, 4.49)
ADA_STD+MTX		1.64 (0.28, 10.37)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOF_STD+MTX		2.19 (0.39, 12.65)
TOC_4 (IV)		-
TOC_8 (IV)		0.75 (0.05, 9.64)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		1.11 (0.05, 17.78)
GOL_STD (SC)+MTX		1.17 (0.17, 8.42)
INF_STD+MTX		3.99 (0.98, 22.87)
INF_STD		-
CERTO_STD+MTX		1.37 (0.20, 9.02)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.34 (0.02, 4.36)
CT-P13+MTX		3.47 (0.77, 21.96)
SB2+MTX		9.03 (1.70, 63.50)
SB5+MTX		0.30 (0.02, 3.60)
ABP501+MTX		4.16 (0.42, 50.10)
ADA_STD+MTX	ABA_STD (SC)+MTX	2.87 (1.22, 7.07)
TOF_STD+MTX		3.80 (1.16, 12.86)
TOC_4 (IV)		-
TOC_8 (IV)		1.28 (0.11, 11.95)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		1.91 (0.12, 23.17)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)+MTX		2.04 (0.39, 10.30)
INF_STD+MTX		7.16 (0.96, 59.56)
INF_STD		-
CERTO_STD+MTX		2.39 (0.69, 8.71)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.59 (0.04, 4.91)
CT-P13+MTX		6.17 (0.77, 57.23)
SB2+MTX		*15.96 (1.77, 165.01)*
SB5+MTX		0.55 (0.07, 3.16)
ABP501+MTX		7.17 (1.36, 46.99)
TOF_STD+MTX	ADA_STD+MTX	1.31 (0.59, 3.07)
TOC_4 (IV)		-
TOC_8 (IV)		0.44 (0.04, 3.66)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		0.65 (0.05, 6.93)
GOL_STD (SC)+MTX		0.70 (0.18, 2.76)
INF_STD+MTX		2.45 (0.41, 17.13)
INF_STD		-
CERTO_STD+MTX		0.83 (0.32, 2.09)
RIT_STD		-
RIT_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.21 (0.02, 1.48)
CT-P13+MTX		2.12 (0.33, 16.33)
SB2+MTX		5.42 (0.74, 48.28)
SB5+MTX		0.19 (0.03, 0.86)
ABP501+MTX		2.48 (0.60, 13.30)
TOC_4 (IV)	TOF_STD+MTX	-
TOC_8 (IV)		0.34 (0.03, 2.71)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		0.50 (0.04, 5.32)
GOL_STD (SC)+MTX		0.53 (0.14, 1.93)
INF_STD+MTX		1.84 (0.33, 12.47)
INF_STD		-
CERTO_STD+MTX		0.63 (0.21, 1.85)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.16 (0.01, 1.07)
CT-P13+MTX		1.60 (0.27, 11.97)
SB2+MTX		4.12 (0.61, 35.41)
SB5+MTX		0.14 (0.02, 0.79)
ABP501+MTX		1.90 (0.35, 11.79)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)	TOC_4 (IV)	-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	-
TOC_8 (IV)+MTX		1.48 (0.47, 4.75)
GOL_STD (SC)+MTX		1.60 (0.16, 19.32)
INF_STD+MTX		5.56 (0.47, 95.97)
INF_STD		-
CERTO_STD+MTX		1.85 (0.21, 20.88)
RIT_STD		-
RIT_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.45 (0.02, 7.84)
CT-P13+MTX		4.81 (0.39, 88.32)
SB2+MTX		*12.50 (0.94, 250.64)*
SB5+MTX		0.42 (0.03, 6.49)
ABP501+MTX		5.81 (0.44, 91.01)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	1.09 (0.09, 16.30)
INF_STD+MTX		3.70 (0.25, 78.18)
INF_STD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		1.25 (0.11, 18.16)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.30 (0.01, 6.57)
CT-P13+MTX		3.20 (0.21, 71.95)
SB2+MTX		*8.34 (0.48, 203.16)*
SB5+MTX		0.28 (0.01, 5.56)
ABP501+MTX		3.91 (0.24, 77.17)
INF_STD+MTX	GOL_STD (SC)+MTX	3.42 (0.50, 27.30)
INF_STD		-
CERTO_STD+MTX		1.17 (0.27, 5.22)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.30 (0.02, 2.41)
CT-P13+MTX		2.97 (0.41, 26.18)
SB2+MTX		7.78 (0.94, 75.11)
SB5+MTX		0.26 (0.03, 2.09)
ABP501+MTX		3.52 (0.49, 30.97)
INF_STD	INF_STD+MTX	-
CERTO_STD+MTX		0.34 (0.04, 2.12)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.08 (0.004, 0.94)
CT-P13+MTX		0.86 (0.50, 1.63)
SB2+MTX		2.23 (0.91, 5.79)
SB5+MTX		0.07 (0.01, 0.82)
ABP501+MTX		1.01 (0.09, 12.10)
CERTO_STD+MTX	INF_STD	-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
RIT_STD	CERTO_STD+MTX	-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		0.25 (0.02, 1.87)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		2.53 (0.37, 21.63)
SB2+MTX		6.57 (0.84, 63.12)
SB5+MTX		0.23 (0.03, 1.37)
ABP501+MTX		3.03 (0.54, 20.17)
RIT_STD+MTX	RIT_STD	-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		-
SB4+MTX	HD203+MTX	-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
CT-P13+MTX	SB4+MTX	*10.63 (0.86, 259.82)*
SB2+MTX		*27.63 (1.98, 738.04)*
SB5+MTX		0.93 (0.06, 17.20)
ABP501+MTX		*12.52 (1.06, 250.13)*
SB2+MTX	CT-P13+MTX	2.58 (0.86, 7.69)
SB5+MTX		0.09 (0.01, 0.99)
ABP501+MTX		1.17 (0.10, 14.70)
SB5+MTX	SB2+MTX	0.03 (0.002, 0.42)
ABP501+MTX		0.45 (0.03, 6.55)
ABP501+MTX	SB5+MTX	*13.32 (1.59, 168.34)*

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 19. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – End of Treatment Data for Adaptive Design Trials

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	2.05 (0.58, 7.29)
SSZ+HCQ		0.36 (0.06, 1.65)
MTX+SSZ+HCQ		0.41 (0.06, 1.96)
ETN_STD		0.81 (0.41, 1.83)
ETN_STD+MTX		0.68 (0.35, 1.35)
ABA_STD (IV)+MTX		0.80 (0.36, 1.57)
ABA_STD (SC)+MTX		0.58 (0.16, 1.93)
ADA_STD+MTX		1.70 (0.76, 3.60)
TOF_STD+MTX		2.60 (1.24, 5.48)
TOC_4 (IV)		1.26 (0.31, 5.21)
TOC_8 (IV)		0.95 (0.31, 3.38)
TOC_4 (IV)+MTX		1.38 (0.37, 5.89)
TOC_8 (IV)+MTX		1.40 (0.42, 5.21)
GOL_STD (SC)+MTX		1.00 (0.33, 3.03)
INF_STD+MTX		1.22 (0.58, 2.62)
INF_STD		1.89 (0.05, 96.06)
CERTO_STD+MTX		1.59 (0.63, 3.76)
RIT_STD		2.71 (0.19, 56.32)
RIT_STD+MTX		1.14 (0.03, 25.97)
BAR_4+MTX		0.30 (0.001, 11.78)
HD203+MTX		0.60 (0.16, 2.21)
SB4+MTX		0.53 (0.16, 1.70)
CT-P13+MTX		1.09 (0.41, 3.10)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		2.78 (0.80, 9.72)
SB5+MTX		0.31 (0.03, 1.75)
ABP501+MTX		4.26 (0.77, 28.56)
SSZ+HCQ	csDMARD+MTX	0.17 (0.02, 1.33)
MTX+SSZ+HCQ		0.20 (0.02, 1.47)
ETN_STD		0.40 (0.12, 1.40)
ETN_STD+MTX		0.34 (0.11, 0.99)
ABA_STD (IV)+MTX		0.39 (0.09, 1.59)
ABA_STD (SC)+MTX		0.28 (0.05, 1.70)
ADA_STD+MTX		0.82 (0.18, 3.78)
TOF_STD+MTX		1.25 (0.30, 5.80)
TOC_4 (IV)		0.60 (0.10, 3.91)
TOC_8 (IV)		0.47 (0.09, 2.63)
TOC_4 (IV)+MTX		0.66 (0.11, 4.46)
TOC_8 (IV)+MTX		0.68 (0.12, 3.94)
GOL_STD (SC)+MTX		0.49 (0.09, 2.65)
INF_STD+MTX		0.61 (0.14, 2.49)
INF_STD		0.91 (0.02, 57.97)
CERTO_STD+MTX		0.77 (0.16, 3.75)
RIT_STD		1.37 (0.06, 33.55)
RIT_STD+MTX		0.54 (0.01, 17.87)
BAR_4+MTX		0.14 (0.0004, 8.32)
HD203+MTX		0.29 (0.06, 1.37)
SB4+MTX		0.25 (0.06, 1.07)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		0.54 (0.11, 2.60)
SB2+MTX		1.36 (0.24, 7.85)
SB5+MTX		0.15 (0.01, 1.46)
ABP501+MTX		2.10 (0.27, 20.76)
MTX+SSZ+HCQ	SSZ+HCQ	1.13 (0.17, 7.40)
ETN_STD		2.32 (0.42, 15.63)
ETN_STD+MTX		1.91 (0.34, 13.50)
ABA_STD (IV)+MTX		2.22 (0.39, 15.21)
ABA_STD (SC)+MTX		1.64 (0.21, 13.20)
ADA_STD+MTX		4.72 (0.84, 32.49)
TOF_STD+MTX		7.34 (1.31, 47.42)
TOC_4 (IV)		3.52 (0.44, 33.05)
TOC_8 (IV)		2.71 (0.40, 22.47)
TOC_4 (IV)+MTX		3.84 (0.49, 38.13)
TOC_8 (IV)+MTX		3.96 (0.56, 33.99)
GOL_STD (SC)+MTX		2.85 (0.44, 22.20)
INF_STD+MTX		3.46 (0.59, 24.14)
INF_STD		5.42 (0.10, 412.82)
CERTO_STD+MTX		4.42 (0.73, 31.82)
RIT_STD		*7.56 (0.32, 278.38)*
RIT_STD+MTX		*3.38 (0.04, 121.03)*
BAR_4+MTX		0.87 (0.003, 34.78)
HD203+MTX		1.66 (0.21, 16.73)
SB4+MTX		1.50 (0.21, 12.42)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		3.01 (0.47, 23.29)
SB2+MTX		7.83 (1.02, 65.17)
SB5+MTX		0.85 (0.05, 11.21)
ABP501+MTX		*12.40 (1.16, 160.61)*
ETN_STD	MTX+SSZ+HCQ	2.01 (0.36, 15.33)
ETN_STD+MTX		1.66 (0.30, 12.45)
ABA_STD (IV)+MTX		1.96 (0.34, 13.69)
ABA_STD (SC)+MTX		1.43 (0.18, 14.54)
ADA_STD+MTX		4.16 (0.72, 35.87)
TOF_STD+MTX		6.40 (1.11, 53.20)
TOC_4 (IV)		3.16 (0.39, 33.28)
TOC_8 (IV)		2.41 (0.35, 22.02)
TOC_4 (IV)+MTX		3.49 (0.44, 39.06)
TOC_8 (IV)+MTX		3.51 (0.46, 35.84)
GOL_STD (SC)+MTX		2.56 (0.36, 20.80)
INF_STD+MTX		3.07 (0.53, 20.93)
INF_STD		*4.65 (0.09, 321.50)*
CERTO_STD+MTX		3.94 (0.62, 33.52)
RIT_STD		*7.00 (0.28, 264.81)*
RIT_STD+MTX		2.89 (0.04, 86.31)
BAR_4+MTX		0.77 (0.002, 38.94)
HD203+MTX		1.46 (0.19, 14.61)
SB4+MTX		1.30 (0.18, 12.17)
CT-P13+MTX		2.71 (0.42, 20.97)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		6.99 (0.93, 59.50)
SB5+MTX		0.76 (0.04, 10.84)
ABP501+MTX		*11.17 (1.03, 155.87)*
ETN_STD+MTX	ETN_STD	0.84 (0.43, 1.47)
ABA_STD (IV)+MTX		0.99 (0.31, 2.48)
ABA_STD (SC)+MTX		0.72 (0.14, 2.80)
ADA_STD+MTX		2.10 (0.64, 5.82)
TOF_STD+MTX		3.20 (1.04, 8.57)
TOC_4 (IV)		1.53 (0.32, 7.33)
TOC_8 (IV)		1.18 (0.31, 5.12)
TOC_4 (IV)+MTX		1.68 (0.37, 8.56)
TOC_8 (IV)+MTX		1.71 (0.41, 7.61)
GOL_STD (SC)+MTX		1.22 (0.33, 4.46)
INF_STD+MTX		1.51 (0.51, 4.14)
INF_STD		*2.26 (0.07, 125.84)*
CERTO_STD+MTX		1.98 (0.55, 5.86)
RIT_STD		3.39 (0.20, 73.70)
RIT_STD+MTX		1.35 (0.03, 35.06)
BAR_4+MTX		0.36 (0.001, 16.09)
HD203+MTX		0.73 (0.20, 2.53)
SB4+MTX		0.65 (0.19, 1.92)
CT-P13+MTX		1.33 (0.39, 4.57)
SB2+MTX		3.42 (0.78, 14.00)
SB5+MTX		0.37 (0.03, 2.46)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		5.30 (0.77, 40.25)
ABA_STD (IV)+MTX	ETN_STD+MTX	1.17 (0.40, 2.95)
ABA_STD (SC)+MTX		0.84 (0.19, 3.42)
ADA_STD+MTX		2.48 (0.85, 6.97)
TOF_STD+MTX		3.81 (1.37, 10.54)
TOC_4 (IV)		1.86 (0.40, 8.78)
TOC_8 (IV)		1.40 (0.40, 5.84)
TOC_4 (IV)+MTX		2.00 (0.46, 10.00)
TOC_8 (IV)+MTX		2.06 (0.53, 8.91)
GOL_STD (SC)+MTX		1.48 (0.39, 5.37)
INF_STD+MTX		1.80 (0.68, 4.87)
INF_STD		*2.73 (0.08, 151.56)*
CERTO_STD+MTX		2.33 (0.72, 7.04)
RIT_STD		4.04 (0.24, 89.12)
RIT_STD+MTX		1.62 (0.04, 42.99)
BAR_4+MTX		0.43 (0.002, 19.14)
HD203+MTX		0.88 (0.29, 2.66)
SB4+MTX		0.77 (0.29, 2.02)
CT-P13+MTX		1.57 (0.51, 5.51)
SB2+MTX		4.09 (1.02, 17.29)
SB5+MTX		0.45 (0.04, 3.00)
ABP501+MTX		6.32 (1.01, 47.56)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.72 (0.17, 3.07)
ADA_STD+MTX		2.14 (0.77, 6.28)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOF_STD+MTX		3.25 (1.21, 9.93)
TOC_4 (IV)		1.62 (0.34, 8.52)
TOC_8 (IV)		1.21 (0.35, 5.46)
TOC_4 (IV)+MTX		1.72 (0.40, 9.36)
TOC_8 (IV)+MTX		1.78 (0.45, 8.30)
GOL_STD (SC)+MTX		1.25 (0.35, 5.32)
INF_STD+MTX		1.54 (0.70, 3.83)
INF_STD		*2.37 (0.06, 133.62)*
CERTO_STD+MTX		2.00 (0.66, 6.49)
RIT_STD		3.51 (0.22, 78.26)
RIT_STD+MTX		1.41 (0.03, 34.92)
BAR_4+MTX		0.39 (0.001, 15.13)
HD203+MTX		0.75 (0.18, 3.41)
SB4+MTX		0.66 (0.18, 2.86)
CT-P13+MTX		1.34 (0.50, 4.54)
SB2+MTX		3.49 (1.00, 13.83)
SB5+MTX		0.39 (0.03, 2.71)
ABP501+MTX		5.48 (0.87, 43.55)
ADA_STD+MTX	ABA_STD (SC)+MTX	2.95 (1.14, 8.14)
TOF_STD+MTX		4.47 (1.37, 15.99)
TOC_4 (IV)		2.17 (0.33, 14.76)
TOC_8 (IV)		1.69 (0.32, 10.30)
TOC_4 (IV)+MTX		2.41 (0.40, 16.93)
TOC_8 (IV)+MTX		2.47 (0.45, 15.06)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)+MTX		1.75 (0.33, 10.41)
INF_STD+MTX		2.17 (0.50, 9.68)
INF_STD		*3.33 (0.07, 193.64)*
CERTO_STD+MTX		2.73 (0.85, 9.26)
RIT_STD		*4.57 (0.25, 121.15)*
RIT_STD+MTX		1.94 (0.04, 60.04)
BAR_4+MTX		0.53 (0.002, 19.83)
HD203+MTX		1.04 (0.17, 6.57)
SB4+MTX		0.92 (0.16, 5.33)
CT-P13+MTX		1.89 (0.39, 10.26)
SB2+MTX		4.86 (0.86, 29.52)
SB5+MTX		0.53 (0.05, 3.46)
ABP501+MTX		7.49 (1.29, 58.62)
TOF_STD+MTX	ADA_STD+MTX	1.52 (0.75, 3.31)
TOC_4 (IV)		0.74 (0.15, 3.67)
TOC_8 (IV)		0.58 (0.14, 2.40)
TOC_4 (IV)+MTX		0.81 (0.18, 4.30)
TOC_8 (IV)+MTX		0.85 (0.20, 3.66)
GOL_STD (SC)+MTX		0.59 (0.16, 2.49)
INF_STD+MTX		0.73 (0.25, 2.20)
INF_STD		1.12 (0.03, 62.87)
CERTO_STD+MTX		0.94 (0.45, 1.86)
RIT_STD		1.50 (0.10, 39.10)
RIT_STD+MTX		0.63 (0.01, 17.92)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		0.18 (0.001, 5.84)
HD203+MTX		0.35 (0.08, 1.67)
SB4+MTX		0.31 (0.08, 1.30)
CT-P13+MTX		0.64 (0.18, 2.45)
SB2+MTX		1.64 (0.39, 7.42)
SB5+MTX		0.18 (0.02, 0.87)
ABP501+MTX		2.56 (0.57, 14.60)
TOC_4 (IV)	TOF_STD+MTX	0.49 (0.09, 2.28)
TOC_8 (IV)		0.37 (0.10, 1.52)
TOC_4 (IV)+MTX		0.53 (0.12, 2.68)
TOC_8 (IV)+MTX		0.54 (0.13, 2.32)
GOL_STD (SC)+MTX		0.39 (0.10, 1.51)
INF_STD+MTX		0.48 (0.16, 1.39)
INF_STD		0.73 (0.02, 41.39)
CERTO_STD+MTX		0.62 (0.23, 1.48)
RIT_STD		1.04 (0.07, 24.90)
RIT_STD+MTX		0.42 (0.01, 11.13)
BAR_4+MTX		0.12 (0.0005, 4.35)
HD203+MTX		0.23 (0.05, 1.03)
SB4+MTX		0.20 (0.05, 0.80)
CT-P13+MTX		0.42 (0.12, 1.53)
SB2+MTX		1.07 (0.25, 4.64)
SB5+MTX		0.12 (0.01, 0.65)
ABP501+MTX		1.66 (0.31, 11.01)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)	TOC_4 (IV)	0.76 (0.22, 2.88)
TOC_4 (IV)+MTX		1.11 (0.27, 4.54)
TOC_8 (IV)+MTX		1.12 (0.32, 4.16)
GOL_STD (SC)+MTX		0.79 (0.14, 4.76)
INF_STD+MTX		0.97 (0.20, 4.67)
INF_STD		1.59 (0.03, 82.85)
CERTO_STD+MTX		1.25 (0.23, 6.72)
RIT_STD		2.08 (0.10, 64.91)
RIT_STD+MTX		0.90 (0.01, 28.65)
BAR_4+MTX		0.25 (0.001, 10.35)
HD203+MTX		0.47 (0.07, 3.13)
SB4+MTX		0.42 (0.07, 2.50)
CT-P13+MTX		0.85 (0.16, 4.70)
SB2+MTX		2.23 (0.33, 14.47)
SB5+MTX		0.24 (0.01, 2.35)
ABP501+MTX		3.45 (0.37, 40.17)
TOC_4 (IV)+MTX	TOC_8 (IV)	1.43 (0.38, 5.14)
TOC_8 (IV)+MTX		1.44 (0.59, 3.72)
GOL_STD (SC)+MTX		1.03 (0.20, 5.06)
INF_STD+MTX		1.26 (0.30, 4.72)
INF_STD		*1.97 (0.04, 108.42)*
CERTO_STD+MTX		1.64 (0.36, 6.67)
RIT_STD		2.73 (0.15, 74.14)
RIT_STD+MTX		1.19 (0.02, 31.31)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		0.32 (0.001, 11.40)
HD203+MTX		0.61 (0.10, 3.33)
SB4+MTX		0.55 (0.10, 2.80)
CT-P13+MTX		1.10 (0.24, 5.15)
SB2+MTX		2.87 (0.49, 15.07)
SB5+MTX		0.32 (0.02, 2.52)
ABP501+MTX		4.42 (0.56, 41.26)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.02 (0.28, 3.74)
GOL_STD (SC)+MTX		0.73 (0.12, 4.08)
INF_STD+MTX		0.90 (0.18, 3.94)
INF_STD		1.38 (0.03, 78.73)
CERTO_STD+MTX		1.16 (0.20, 5.64)
RIT_STD		1.92 (0.08, 58.15)
RIT_STD+MTX		0.84 (0.01, 24.78)
BAR_4+MTX		0.22 (0.001, 9.09)
HD203+MTX		0.43 (0.06, 2.63)
SB4+MTX		0.39 (0.06, 2.15)
CT-P13+MTX		0.79 (0.15, 4.20)
SB2+MTX		2.01 (0.30, 12.22)
SB5+MTX		0.22 (0.01, 1.96)
ABP501+MTX		3.15 (0.32, 30.78)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	0.72 (0.13, 3.58)
INF_STD+MTX		0.87 (0.20, 3.51)
INF_STD		1.37 (0.03, 76.10)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		1.12 (0.24, 4.85)
RIT_STD		1.84 (0.10, 51.83)
RIT_STD+MTX		0.83 (0.01, 22.31)
BAR_4+MTX		0.22 (0.001, 7.76)
HD203+MTX		0.42 (0.07, 2.40)
SB4+MTX		0.38 (0.07, 2.00)
CT-P13+MTX		0.75 (0.15, 3.74)
SB2+MTX		1.97 (0.32, 11.35)
SB5+MTX		0.21 (0.01, 1.82)
ABP501+MTX		3.01 (0.37, 29.20)
INF_STD+MTX	GOL_STD (SC)+MTX	1.25 (0.32, 4.71)
INF_STD		*1.95 (0.05, 103.23)*
CERTO_STD+MTX		1.59 (0.35, 6.52)
RIT_STD		2.79 (0.14, 62.05)
RIT_STD+MTX		1.13 (0.02, 36.86)
BAR_4+MTX		0.30 (0.001, 10.44)
HD203+MTX		0.58 (0.11, 3.31)
SB4+MTX		0.53 (0.11, 2.54)
CT-P13+MTX		1.08 (0.24, 4.72)
SB2+MTX		2.81 (0.51, 13.80)
SB5+MTX		0.31 (0.02, 2.49)
ABP501+MTX		4.28 (0.54, 38.67)
INF_STD	INF_STD+MTX	1.53 (0.04, 75.34)
CERTO_STD+MTX		1.29 (0.39, 4.24)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		2.24 (0.14, 55.70)
RIT_STD+MTX		0.92 (0.02, 22.13)
BAR_4+MTX		0.24 (0.001, 8.49)
HD203+MTX		0.48 (0.11, 2.10)
SB4+MTX		0.43 (0.11, 1.68)
CT-P13+MTX		0.87 (0.47, 1.85)
SB2+MTX		2.24 (0.83, 6.32)
SB5+MTX		0.25 (0.02, 1.68)
ABP501+MTX		3.54 (0.52, 27.28)
CERTO_STD+MTX	INF_STD	0.84 (0.01, 34.95)
RIT_STD		*1.49 (0.01, 116.40)*
RIT_STD+MTX		0.54 (0.002, 77.32)
BAR_4+MTX		0.14 (0.0003, 38.02)
HD203+MTX		0.32 (0.01, 12.54)
SB4+MTX		0.28 (0.005, 11.38)
CT-P13+MTX		0.57 (0.01, 19.95)
SB2+MTX		1.43 (0.03, 56.37)
SB5+MTX		0.14 (0.002, 12.59)
ABP501+MTX		*2.37 (0.03, 128.51)*
RIT_STD	CERTO_STD+MTX	1.64 (0.10, 43.82)
RIT_STD+MTX		0.69 (0.01, 18.16)
BAR_4+MTX		0.19 (0.001, 6.69)
HD203+MTX		0.37 (0.08, 1.92)
SB4+MTX		0.33 (0.08, 1.52)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		0.68 (0.18, 2.87)
SB2+MTX		1.74 (0.39, 8.55)
SB5+MTX		0.19 (0.02, 1.09)
ABP501+MTX		2.69 (0.53, 17.85)
RIT_STD+MTX	RIT_STD	0.40 (0.01, 6.85)
BAR_4+MTX		0.10 (0.0002, 8.13)
HD203+MTX		0.22 (0.01, 4.72)
SB4+MTX		0.19 (0.01, 3.59)
CT-P13+MTX		0.39 (0.02, 6.86)
SB2+MTX		1.01 (0.04, 19.95)
SB5+MTX		0.11 (0.002, 2.92)
ABP501+MTX		1.67 (0.05, 45.60)
BAR_4+MTX	RIT_STD+MTX	0.26 (0.0004, 45.38)
HD203+MTX		0.54 (0.02, 29.20)
SB4+MTX		0.48 (0.02, 24.88)
CT-P13+MTX		0.98 (0.04, 49.70)
SB2+MTX		*2.50 (0.08, 143.60)*
SB5+MTX		0.26 (0.01, 20.11)
ABP501+MTX		*4.18 (0.10, 281.46)*
HD203+MTX	BAR_4+MTX	*2.06 (0.04, 592.88)*
SB4+MTX		*1.79 (0.04, 545.66)*
CT-P13+MTX		*3.68 (0.09, 965.84)*
SB2+MTX		*9.42 (0.21, 2954.25)*
SB5+MTX		*0.98 (0.02, 292.66)*

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		*15.20 (0.33, 4345.95)*
SB4+MTX	HD203+MTX	0.89 (0.21, 3.76)
CT-P13+MTX		1.80 (0.38, 9.86)
SB2+MTX		4.66 (0.79, 29.96)
SB5+MTX		0.50 (0.03, 4.80)
ABP501+MTX		7.32 (0.89, 74.07)
CT-P13+MTX	SB4+MTX	2.05 (0.46, 10.01)
SB2+MTX		5.31 (0.97, 29.96)
SB5+MTX		0.57 (0.04, 5.20)
ABP501+MTX		8.21 (1.03, 80.00)
SB2+MTX	CT-P13+MTX	2.57 (0.73, 8.46)
SB5+MTX		0.28 (0.02, 2.19)
ABP501+MTX		4.03 (0.53, 33.55)
SB5+MTX	SB2+MTX	0.11 (0.01, 0.95)
ABP501+MTX		1.57 (0.18, 15.07)
ABP501+MTX	SB5+MTX	*14.59 (1.69, 245.18)*

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 20. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – Only Studies Clearly Including Inadequate Responders to MTX

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	3.23 (0.37, 33.82)
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		1.94 (0.23, 19.32)
ETN_STD+MTX		1.03 (0.16, 9.44)
ABA_STD (IV)+MTX		0.75 (0.36, 1.55)
ABA_STD (SC)+MTX		0.41 (0.13, 1.35)
ADA_STD+MTX		1.21 (0.56, 2.63)
TOF_STD+MTX		1.80 (0.90, 3.91)
TOC_4 (IV)		1.26 (0.31, 5.16)
TOC_8 (IV)		0.98 (0.32, 3.11)
TOC_4 (IV)+MTX		1.41 (0.36, 5.81)
TOC_8 (IV)+MTX		1.40 (0.43, 4.98)
GOL_STD (SC)+MTX		1.00 (0.33, 3.10)
INF_STD+MTX		1.41 (0.67, 3.08)
INF_STD		2.55 (0.08, 99.09)
CERTO_STD+MTX		1.09 (0.42, 2.90)
RIT_STD		2.54 (0.18, 67.22)
RIT_STD+MTX		1.04 (0.05, 24.75)
BAR_4+MTX		0.29 (0.02, 1.80)
HD203+MTX		0.96 (0.11, 10.36)
SB4+MTX		0.80 (0.11, 8.70)
CT-P13+MTX		1.22 (0.48, 3.29)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		3.14 (0.98, 10.90)
SB5+MTX		0.24 (0.02, 1.22)
ABP501+MTX		3.08 (0.58, 19.91)
SSZ+HCQ	csDMARD+MTX	-
MTX+SSZ+HCQ		-
ETN_STD		0.59 (0.16, 2.29)
ETN_STD+MTX		0.33 (0.12, 0.86)
ABA_STD (IV)+MTX		0.23 (0.02, 2.45)
ABA_STD (SC)+MTX		0.13 (0.01, 1.49)
ADA_STD+MTX		0.37 (0.03, 3.77)
TOF_STD+MTX		0.55 (0.05, 5.60)
TOC_4 (IV)		0.39 (0.02, 4.94)
TOC_8 (IV)		0.30 (0.02, 3.65)
TOC_4 (IV)+MTX		0.43 (0.03, 5.58)
TOC_8 (IV)+MTX		0.43 (0.03, 5.44)
GOL_STD (SC)+MTX		0.31 (0.02, 3.54)
INF_STD+MTX		0.45 (0.04, 4.21)
INF_STD		0.82 (0.01, 47.37)
CERTO_STD+MTX		0.33 (0.03, 3.70)
RIT_STD		0.80 (0.02, 46.85)
RIT_STD+MTX		0.31 (0.01, 19.28)
BAR_4+MTX		0.09 (0.003, 1.59)
HD203+MTX		0.30 (0.07, 1.23)
SB4+MTX		0.26 (0.07, 0.91)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		0.38 (0.03, 3.84)
SB2+MTX		0.98 (0.07, 11.66)
SB5+MTX		0.07 (0.003, 1.20)
ABP501+MTX		0.95 (0.06, 16.18)
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	0.55 (0.22, 1.35)
ABA_STD (IV)+MTX		0.38 (0.03, 3.82)
ABA_STD (SC)+MTX		0.21 (0.02, 2.46)
ADA_STD+MTX		0.60 (0.06, 5.91)
TOF_STD+MTX		0.92 (0.09, 8.93)
TOC_4 (IV)		0.63 (0.04, 8.79)
TOC_8 (IV)		0.49 (0.04, 6.90)
TOC_4 (IV)+MTX		0.70 (0.05, 10.75)
TOC_8 (IV)+MTX		0.69 (0.06, 9.55)
GOL_STD (SC)+MTX		0.51 (0.04, 5.77)
INF_STD+MTX		0.71 (0.07, 6.57)
INF_STD		1.32 (0.02, 78.57)
CERTO_STD+MTX		0.55 (0.05, 6.09)
RIT_STD		1.31 (0.04, 94.92)
RIT_STD+MTX		0.51 (0.01, 32.33)
BAR_4+MTX		0.14 (0.005, 2.38)
HD203+MTX		0.49 (0.12, 1.95)
SB4+MTX		0.42 (0.12, 1.44)
CT-P13+MTX		0.62 (0.05, 6.22)
SB2+MTX		1.60 (0.13, 18.01)
SB5+MTX		0.11 (0.01, 1.98)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		1.54 (0.10, 28.11)
ABA_STD (IV)+MTX	ETN_STD+MTX	0.71 (0.07, 5.69)
ABA_STD (SC)+MTX		0.39 (0.03, 3.74)
ADA_STD+MTX		1.13 (0.11, 9.14)
TOF_STD+MTX		1.70 (0.17, 12.45)
TOC_4 (IV)		1.17 (0.09, 13.33)
TOC_8 (IV)		0.91 (0.09, 9.85)
TOC_4 (IV)+MTX		1.31 (0.11, 15.12)
TOC_8 (IV)+MTX		1.31 (0.13, 13.87)
GOL_STD (SC)+MTX		0.95 (0.09, 8.83)
INF_STD+MTX		1.34 (0.14, 10.11)
INF_STD		*2.42 (0.05, 131.76)*
CERTO_STD+MTX		1.02 (0.10, 9.12)
RIT_STD		*2.44 (0.08, 132.56)*
RIT_STD+MTX		0.94 (0.02, 51.88)
BAR_4+MTX		0.26 (0.01, 3.87)
HD203+MTX		0.90 (0.33, 2.55)
SB4+MTX		0.77 (0.32, 1.81)
CT-P13+MTX		1.16 (0.11, 9.40)
SB2+MTX		3.01 (0.28, 29.05)
SB5+MTX		0.20 (0.01, 2.99)
ABP501+MTX		2.87 (0.21, 42.27)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.55 (0.13, 2.24)
ADA_STD+MTX		1.61 (0.54, 4.70)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOF_STD+MTX		2.40 (0.87, 7.11)
TOC_4 (IV)		1.67 (0.35, 8.17)
TOC_8 (IV)		1.32 (0.34, 4.99)
TOC_4 (IV)+MTX		1.88 (0.40, 9.21)
TOC_8 (IV)+MTX		1.88 (0.47, 7.94)
GOL_STD (SC)+MTX		1.34 (0.36, 4.97)
INF_STD+MTX		1.85 (0.75, 5.05)
INF_STD		*3.41 (0.10, 147.97)*
CERTO_STD+MTX		1.44 (0.43, 5.01)
RIT_STD		3.32 (0.22, 97.22)
RIT_STD+MTX		1.39 (0.06, 36.89)
BAR_4+MTX		0.39 (0.02, 2.92)
HD203+MTX		1.31 (0.12, 16.30)
SB4+MTX		1.09 (0.12, 13.09)
CT-P13+MTX		1.60 (0.55, 5.24)
SB2+MTX		4.17 (1.17, 16.89)
SB5+MTX		0.31 (0.03, 1.85)
ABP501+MTX		4.12 (0.68, 29.78)
ADA_STD+MTX	ABA_STD (SC)+MTX	2.90 (1.23, 7.20)
TOF_STD+MTX		4.41 (1.34, 14.47)
TOC_4 (IV)		3.02 (0.49, 18.73)
TOC_8 (IV)		2.37 (0.46, 11.86)
TOC_4 (IV)+MTX		3.40 (0.58, 20.91)
TOC_8 (IV)+MTX		3.46 (0.65, 17.78)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)+MTX		2.47 (0.46, 12.30)
INF_STD+MTX		3.40 (0.85, 13.09)
INF_STD		*6.18 (0.17, 287.44)*
CERTO_STD+MTX		2.63 (0.71, 9.52)
RIT_STD		*6.15 (0.39, 180.91)*
RIT_STD+MTX		2.46 (0.09, 75.72)
BAR_4+MTX		0.69 (0.03, 6.33)
HD203+MTX		2.32 (0.20, 32.79)
SB4+MTX		1.94 (0.18, 26.90)
CT-P13+MTX		2.94 (0.67, 13.21)
SB2+MTX		7.61 (1.46, 40.00)
SB5+MTX		0.56 (0.06, 3.20)
ABP501+MTX		7.28 (1.41, 48.52)
TOF_STD+MTX	ADA_STD+MTX	1.50 (0.66, 3.43)
TOC_4 (IV)		1.04 (0.21, 5.18)
TOC_8 (IV)		0.81 (0.20, 3.22)
TOC_4 (IV)+MTX		1.17 (0.24, 5.81)
TOC_8 (IV)+MTX		1.18 (0.28, 5.00)
GOL_STD (SC)+MTX		0.84 (0.20, 3.24)
INF_STD+MTX		1.16 (0.41, 3.37)
INF_STD		2.11 (0.06, 81.53)
CERTO_STD+MTX		0.90 (0.35, 2.31)
RIT_STD		2.12 (0.15, 56.83)
RIT_STD+MTX		0.84 (0.04, 23.13)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		0.24 (0.01, 1.95)
HD203+MTX		0.80 (0.08, 9.93)
SB4+MTX		0.68 (0.07, 8.14)
CT-P13+MTX		1.00 (0.31, 3.40)
SB2+MTX		2.61 (0.67, 10.84)
SB5+MTX		0.20 (0.02, 0.84)
ABP501+MTX		2.47 (0.63, 13.94)
TOC_4 (IV)	TOF_STD+MTX	0.69 (0.15, 3.34)
TOC_8 (IV)		0.54 (0.14, 2.11)
TOC_4 (IV)+MTX		0.78 (0.16, 3.86)
TOC_8 (IV)+MTX		0.78 (0.19, 3.27)
GOL_STD (SC)+MTX		0.56 (0.14, 2.10)
INF_STD+MTX		0.77 (0.28, 2.17)
INF_STD		1.41 (0.04, 57.40)
CERTO_STD+MTX		0.60 (0.20, 1.80)
RIT_STD		1.40 (0.10, 37.79)
RIT_STD+MTX		0.58 (0.02, 13.50)
BAR_4+MTX		0.16 (0.01, 1.13)
HD203+MTX		0.53 (0.06, 6.32)
SB4+MTX		0.45 (0.05, 5.38)
CT-P13+MTX		0.66 (0.21, 2.28)
SB2+MTX		1.73 (0.44, 7.34)
SB5+MTX		0.13 (0.01, 0.70)
ABP501+MTX		1.68 (0.34, 11.17)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)	TOC_4 (IV)	0.77 (0.23, 2.84)
TOC_4 (IV)+MTX		1.13 (0.30, 4.34)
TOC_8 (IV)+MTX		1.13 (0.33, 4.15)
GOL_STD (SC)+MTX		0.78 (0.14, 4.99)
INF_STD+MTX		1.11 (0.23, 5.46)
INF_STD		*1.96 (0.05, 128.77)*
CERTO_STD+MTX		0.85 (0.16, 4.88)
RIT_STD		2.08 (0.11, 68.31)
RIT_STD+MTX		0.83 (0.03, 21.85)
BAR_4+MTX		0.22 (0.01, 2.49)
HD203+MTX		0.78 (0.05, 12.05)
SB4+MTX		0.66 (0.05, 9.33)
CT-P13+MTX		0.96 (0.18, 5.17)
SB2+MTX		2.51 (0.41, 15.77)
SB5+MTX		0.18 (0.01, 1.57)
ABP501+MTX		2.48 (0.29, 25.84)
TOC_4 (IV)+MTX	TOC_8 (IV)	1.46 (0.42, 4.76)
TOC_8 (IV)+MTX		1.45 (0.62, 3.41)
GOL_STD (SC)+MTX		1.01 (0.21, 5.23)
INF_STD+MTX		1.45 (0.37, 5.71)
INF_STD		*2.57 (0.07, 127.10)*
CERTO_STD+MTX		1.10 (0.25, 4.96)
RIT_STD		2.69 (0.16, 74.29)
RIT_STD+MTX		1.06 (0.04, 25.46)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		0.28 (0.01, 2.83)
HD203+MTX		1.01 (0.07, 12.54)
SB4+MTX		0.85 (0.07, 10.12)
CT-P13+MTX		1.25 (0.28, 5.69)
SB2+MTX		3.22 (0.63, 17.39)
SB5+MTX		0.23 (0.02, 1.73)
ABP501+MTX		3.11 (0.42, 28.28)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.00 (0.29, 3.54)
GOL_STD (SC)+MTX		0.70 (0.12, 4.50)
INF_STD+MTX		1.00 (0.21, 4.54)
INF_STD		*1.79 (0.05, 105.00)*
CERTO_STD+MTX		0.77 (0.14, 4.15)
RIT_STD		1.81 (0.10, 58.32)
RIT_STD+MTX		0.73 (0.03, 19.39)
BAR_4+MTX		0.20 (0.01, 2.08)
HD203+MTX		0.69 (0.04, 10.15)
SB4+MTX		0.59 (0.05, 8.22)
CT-P13+MTX		0.86 (0.17, 4.49)
SB2+MTX		2.23 (0.36, 13.83)
SB5+MTX		0.16 (0.01, 1.38)
ABP501+MTX		2.17 (0.25, 21.54)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	0.70 (0.13, 3.70)
INF_STD+MTX		0.99 (0.24, 4.17)
INF_STD		1.78 (0.05, 87.71)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		0.77 (0.16, 3.64)
RIT_STD		1.86 (0.11, 49.55)
RIT_STD+MTX		0.73 (0.03, 16.98)
BAR_4+MTX		0.19 (0.01, 2.15)
HD203+MTX		0.68 (0.05, 9.06)
SB4+MTX		0.58 (0.05, 7.24)
CT-P13+MTX		0.85 (0.18, 4.17)
SB2+MTX		2.23 (0.41, 12.55)
SB5+MTX		0.16 (0.01, 1.25)
ABP501+MTX		2.15 (0.29, 19.11)
INF_STD+MTX	GOL_STD (SC)+MTX	1.39 (0.37, 5.57)
INF_STD		*2.52 (0.07, 129.93)*
CERTO_STD+MTX		1.06 (0.24, 4.84)
RIT_STD		2.54 (0.15, 91.10)
RIT_STD+MTX		0.99 (0.04, 34.50)
BAR_4+MTX		0.28 (0.01, 2.41)
HD203+MTX		0.96 (0.08, 13.42)
SB4+MTX		0.81 (0.08, 10.38)
CT-P13+MTX		1.20 (0.29, 5.56)
SB2+MTX		3.14 (0.62, 16.84)
SB5+MTX		0.23 (0.02, 1.84)
ABP501+MTX		3.04 (0.41, 27.91)
INF_STD	INF_STD+MTX	1.82 (0.06, 70.39)
CERTO_STD+MTX		0.77 (0.23, 2.56)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		1.79 (0.11, 55.59)
RIT_STD+MTX		0.74 (0.03, 19.45)
BAR_4+MTX		0.20 (0.01, 1.62)
HD203+MTX		0.68 (0.07, 8.04)
SB4+MTX		0.58 (0.07, 6.35)
CT-P13+MTX		0.85 (0.49, 1.65)
SB2+MTX		2.24 (0.91, 5.88)
SB5+MTX		0.17 (0.02, 0.99)
ABP501+MTX		2.19 (0.37, 15.35)
CERTO_STD+MTX	INF_STD	0.43 (0.01, 14.48)
RIT_STD		*1.02 (0.01, 105.74)*
RIT_STD+MTX		0.42 (0.003, 31.75)
BAR_4+MTX		0.11 (0.001, 5.44)
HD203+MTX		0.39 (0.01, 20.15)
SB4+MTX		0.32 (0.01, 15.97)
CT-P13+MTX		0.47 (0.01, 15.91)
SB2+MTX		1.24 (0.03, 45.88)
SB5+MTX		0.08 (0.001, 4.02)
ABP501+MTX		1.21 (0.02, 57.97)
RIT_STD	CERTO_STD+MTX	2.35 (0.15, 64.07)
RIT_STD+MTX		0.95 (0.04, 26.98)
BAR_4+MTX		0.26 (0.01, 2.18)
HD203+MTX		0.90 (0.08, 11.27)
SB4+MTX		0.75 (0.07, 9.18)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		1.11 (0.29, 4.45)
SB2+MTX		2.92 (0.65, 14.07)
SB5+MTX		0.21 (0.02, 1.21)
ABP501+MTX		2.80 (0.51, 20.41)
RIT_STD+MTX	RIT_STD	0.41 (0.02, 5.34)
BAR_4+MTX		0.11 (0.001, 2.65)
HD203+MTX		0.38 (0.01, 14.28)
SB4+MTX		0.32 (0.01, 11.50)
CT-P13+MTX		0.48 (0.02, 8.68)
SB2+MTX		1.24 (0.04, 25.74)
SB5+MTX		0.08 (0.002, 2.05)
ABP501+MTX		1.19 (0.04, 27.49)
BAR_4+MTX	RIT_STD+MTX	0.27 (0.003, 9.66)
HD203+MTX		0.92 (0.02, 51.32)
SB4+MTX		0.81 (0.01, 40.81)
CT-P13+MTX		1.16 (0.04, 31.85)
SB2+MTX		3.03 (0.10, 89.84)
SB5+MTX		0.22 (0.005, 7.04)
ABP501+MTX		*2.95 (0.09, 113.64)*
HD203+MTX	BAR_4+MTX	*3.60 (0.18, 110.61)*
SB4+MTX		3.01 (0.18, 86.92)
CT-P13+MTX		4.26 (0.49, 93.22)
SB2+MTX		*11.35 (1.17, 245.18)*
SB5+MTX		0.81 (0.04, 22.20)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		*11.01 (0.77, 392.29)*
SB4+MTX	HD203+MTX	0.85 (0.22, 3.20)
CT-P13+MTX		1.27 (0.10, 13.30)
SB2+MTX		3.28 (0.24, 38.90)
SB5+MTX		0.23 (0.01, 4.13)
ABP501+MTX		3.18 (0.19, 54.00)
CT-P13+MTX	SB4+MTX	1.51 (0.12, 14.48)
SB2+MTX		3.83 (0.32, 43.16)
SB5+MTX		0.26 (0.01, 4.31)
ABP501+MTX		3.78 (0.24, 62.49)
SB2+MTX	CT-P13+MTX	2.64 (0.84, 7.96)
SB5+MTX		0.19 (0.02, 1.24)
ABP501+MTX		2.53 (0.38, 19.22)
SB5+MTX	SB2+MTX	0.07 (0.01, 0.54)
ABP501+MTX		0.97 (0.13, 8.26)
ABP501+MTX	SB5+MTX	*13.82 (1.57, 185.49)*

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 21. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – Restricted Time Point Analysis (12-16 weeks)

Treatment	Reference	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	*5.02 (0.11, 291.49)*
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		1.24 (0.03, 68.92)
ETN_STD+MTX		0.85 (0.02, 38.90)
ABA_STD (IV)+MTX		*0.86 (0.004, 214.43)*
ADA_STD+MTX		1.69 (0.63, 5.08)
TOF_STD+MTX		2.08 (0.99, 4.67)
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		1.31 (0.33, 5.45)
INF_STD+MTX		0.96 (0.08, 20.64)
INF_STD		*2.36 (0.04, 233.22)*
CERTO_STD+MTX		1.44 (0.31, 7.38)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.28 (0.01, 1.67)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB5+MTX		-
ABP501+MTX		-
SSZ+HCQ	csDMARD+MTX	-
MTX+SSZ+HCQ		-
ETN_STD		0.25 (0.03, 1.59)
ETN_STD+MTX		0.17 (0.03, 0.71)
ABA_STD (IV)+MTX		*0.17 (0.0002, 108.74)*
ADA_STD+MTX		0.34 (0.01, 18.14)
TOF_STD+MTX		0.42 (0.01, 20.88)
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.25 (0.004, 16.14)
INF_STD+MTX		0.20 (0.002, 21.61)
INF_STD		*0.45 (0.001, 156.80)*
CERTO_STD+MTX		0.29 (0.004, 17.27)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.05 (0.0004, 3.07)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB5+MTX		-
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	0.68 (0.22, 1.99)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
ABA_STD (IV)+MTX		*0.71 (0.001, 394.26)*
ADA_STD+MTX		1.38 (0.02, 62.55)
TOF_STD+MTX		1.68 (0.03, 74.96)
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		1.02 (0.02, 57.05)
INF_STD+MTX		0.79 (0.01, 81.94)
INF_STD		*1.82 (0.01, 547.85)*
CERTO_STD+MTX		1.17 (0.02, 63.94)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.20 (0.002, 12.06)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ABA_STD (IV)+MTX	ETN_STD+MTX	*1.05 (0.002, 551.70)*
ADA_STD+MTX		2.03 (0.04, 83.51)
TOF_STD+MTX		2.46 (0.05, 95.68)
TOC_4 (IV)		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		1.52 (0.03, 69.76)
INF_STD+MTX		*1.18 (0.02, 102.82)*
INF_STD		2.65 (0.01, 762.80)
CERTO_STD+MTX		1.74 (0.03, 79.76)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.30 (0.003, 14.86)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ADA_STD+MTX	ABA_STD (IV)+MTX	*1.91 (0.01, 458.98)*
TOF_STD+MTX		*2.41 (0.01, 595.26)*
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		*1.60 (0.005, 340.36)*
INF_STD+MTX		*1.04 (0.002, 444.97)*

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
INF_STD		*2.92 (0.004, 3554.61)*
CERTO_STD+MTX		*1.65 (0.01, 453.05)*
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.30 (0.001, 95.11)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOF_STD+MTX	ADA_STD+MTX	1.23 (0.46, 3.03)
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.77 (0.13, 4.38)
INF_STD+MTX		0.56 (0.03, 13.20)
INF_STD		*1.43 (0.02, 138.38)*
CERTO_STD+MTX		0.86 (0.25, 2.84)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.15 (0.01, 1.28)
HD203+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_4 (IV)	TOF_STD+MTX	-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.63 (0.13, 3.07)
INF_STD+MTX		0.45 (0.03, 10.63)
INF_STD		*1.17 (0.02, 112.28)*
CERTO_STD+MTX		0.70 (0.16, 3.29)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.13 (0.01, 0.93)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_8 (IV)	TOC_4 (IV)	-
TOC_4 (IV)+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
INF_STD+MTX	GOL_STD (SC)+MTX	0.74 (0.04, 17.83)
INF_STD		*1.78 (0.02, 242.74)*
CERTO_STD+MTX		1.11 (0.13, 9.54)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.20 (0.01, 2.12)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
INF_STD	INF_STD+MTX	*2.55 (0.04, 174.16)*
CERTO_STD+MTX		1.53 (0.05, 31.85)
RIT_STD		-
RIT_STD+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
BAR_4+MTX		0.26 (0.01, 6.69)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
CERTO_STD+MTX	INF_STD	0.58 (0.01, 46.67)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.10 (0.001, 11.00)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
RIT_STD	CERTO_STD+MTX	-
RIT_STD+MTX		-
BAR_4+MTX		0.18 (0.01, 2.04)
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB5+MTX		-
ABP501+MTX		-
RIT_STD+MTX	RIT_STD	-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
SB4+MTX	HD203+MTX	-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
CT-P13+MTX	SB4+MTX	-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
SB2+MTX	CT-P13+MTX	-
SB5+MTX		-
ABP501+MTX		-
SB5+MTX	SB2+MTX	-
ABP501+MTX		-
ABP501+MTX	SB5+MTX	-

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 22. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – Only Studies with Patients with Inadequate Response to MTX who were Biologic Naïve

Treatment	Comparator	OR (95% CI)
csDMARD+MTX	Placebo+MTX	2.08 (0.62, 7.21)
SSZ+HCQ		0.37 (0.06, 1.87)
MTX+SSZ+HCQ		0.42 (0.07, 1.92)
ETN_STD		0.79 (0.41, 1.71)
ETN_STD+MTX		0.67 (0.35, 1.32)
ABA_STD (IV)+MTX		0.71 (0.12, 3.54)
ABA_STD (SC)+MTX		0.35 (0.08, 1.43)
ADA_STD+MTX		1.00 (0.34, 3.08)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.66 (0.13, 2.59)
INF_STD+MTX		1.40 (0.55, 4.08)
INF_STD		3.11 (0.05, 168.68)
CERTO_STD+MTX		0.98 (0.34, 2.86)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.28 (0.01, 2.23)
HD203+MTX		-
SB4+MTX		0.51 (0.16, 1.64)
CT-P13+MTX		1.00 (0.30, 3.82)

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
SB2+MTX		3.16 (0.79, 13.56)
SB5+MTX		0.18 (0.02, 1.31)
ABP501+MTX		-
SSZ+HCQ	csDMARD+MTX	0.18 (0.02, 1.33)
MTX+SSZ+HCQ		0.20 (0.02, 1.41)
ETN_STD		0.38 (0.12, 1.29)
ETN_STD+MTX		0.32 (0.12, 0.89)
ABA_STD (IV)+MTX		0.33 (0.04, 2.61)
ABA_STD (SC)+MTX		0.17 (0.03, 1.05)
ADA_STD+MTX		0.49 (0.10, 2.41)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.32 (0.04, 1.99)
INF_STD+MTX		0.67 (0.14, 3.48)
INF_STD		1.51 (0.02, 84.86)
CERTO_STD+MTX		0.47 (0.09, 2.33)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.13 (0.004, 1.50)
HD203+MTX		-
SB4+MTX		0.25 (0.06, 0.97)

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
CT-P13+MTX		0.48 (0.09, 3.02)
SB2+MTX		1.50 (0.24, 10.63)
SB5+MTX		0.08 (0.01, 0.89)
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	1.10 (0.17, 7.45)
ETN_STD		2.16 (0.39, 15.00)
ETN_STD+MTX		1.81 (0.32, 12.72)
ABA_STD (IV)+MTX		1.91 (0.16, 19.41)
ABA_STD (SC)+MTX		0.96 (0.11, 8.65)
ADA_STD+MTX		2.77 (0.41, 20.80)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		1.80 (0.20, 15.77)
INF_STD+MTX		3.82 (0.57, 28.11)
INF_STD		*8.64 (0.12, 571.92)*
CERTO_STD+MTX		2.71 (0.38, 20.55)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.73 (0.02, 11.15)
HD203+MTX		-
SB4+MTX		1.38 (0.20, 11.86)

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
CT-P13+MTX		2.75 (0.35, 23.27)
SB2+MTX		8.66 (0.98, 80.72)
SB5+MTX		0.50 (0.03, 5.99)
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	1.92 (0.36, 13.01)
ETN_STD+MTX		1.61 (0.30, 10.86)
ABA_STD (IV)+MTX		1.75 (0.16, 17.71)
ABA_STD (SC)+MTX		0.86 (0.10, 7.15)
ADA_STD+MTX		2.46 (0.39, 16.83)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		1.59 (0.17, 14.78)
INF_STD+MTX		3.43 (0.58, 24.70)
INF_STD		*7.55 (0.11, 581.14)*
CERTO_STD+MTX		2.38 (0.38, 18.19)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.66 (0.02, 9.85)
HD203+MTX		-
SB4+MTX		1.23 (0.19, 10.94)
CT-P13+MTX		2.46 (0.36, 20.68)

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
SB2+MTX		7.79 (1.02, 69.41)
SB5+MTX		0.43 (0.03, 5.52)
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	0.85 (0.45, 1.44)
ABA_STD (IV)+MTX		0.89 (0.13, 4.92)
ABA_STD (SC)+MTX		0.44 (0.08, 2.08)
ADA_STD+MTX		1.25 (0.33, 4.71)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.82 (0.14, 3.65)
INF_STD+MTX		1.75 (0.52, 6.18)
INF_STD		*3.87 (0.06, 218.55)*
CERTO_STD+MTX		1.22 (0.33, 4.28)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.35 (0.01, 3.12)
HD203+MTX		-
SB4+MTX		0.64 (0.20, 1.83)
CT-P13+MTX		1.25 (0.30, 5.58)
SB2+MTX		3.97 (0.81, 19.32)
SB5+MTX		0.22 (0.02, 1.83)

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
ABP501+MTX		-
ABA_STD (IV)+MTX	ETN_STD+MTX	1.05 (0.16, 6.01)
ABA_STD (SC)+MTX		0.53 (0.11, 2.52)
ADA_STD+MTX		1.50 (0.42, 5.65)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.98 (0.17, 4.40)
INF_STD+MTX		2.10 (0.64, 7.43)
INF_STD		*4.62 (0.07, 269.08)*
CERTO_STD+MTX		1.45 (0.40, 5.12)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.41 (0.01, 3.76)
HD203+MTX		-
SB4+MTX		0.76 (0.29, 1.91)
CT-P13+MTX		1.50 (0.37, 6.81)
SB2+MTX		4.74 (0.98, 23.48)
SB5+MTX		0.26 (0.02, 2.19)
ABP501+MTX		-
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.50 (0.06, 4.86)
ADA_STD+MTX		1.41 (0.21, 12.11)

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.92 (0.10, 8.72)
INF_STD+MTX		1.98 (0.48, 10.82)
INF_STD		*4.48 (0.07, 286.57)*
CERTO_STD+MTX		1.38 (0.20, 11.19)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.39 (0.01, 6.45)
HD203+MTX		-
SB4+MTX		0.73 (0.10, 5.73)
CT-P13+MTX		1.41 (0.29, 9.21)
SB2+MTX		4.46 (0.81, 31.91)
SB5+MTX		0.25 (0.01, 3.98)
ABP501+MTX		-
ADA_STD+MTX	ABA_STD (SC)+MTX	2.85 (1.15, 7.46)
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
GOL_STD (SC)+MTX		1.85 (0.20, 14.60)
INF_STD+MTX		3.99 (0.77, 24.90)
INF_STD		*9.01 (0.13, 567.36)*
CERTO_STD+MTX		2.78 (0.71, 11.74)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.78 (0.02, 10.12)
HD203+MTX		-
SB4+MTX		1.45 (0.23, 9.50)
CT-P13+MTX		2.85 (0.47, 20.82)
SB2+MTX		8.97 (1.27, 71.31)
SB5+MTX		0.51 (0.05, 3.39)
ABP501+MTX		-
TOF_STD+MTX	ADA_STD+MTX	-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.66 (0.08, 4.05)
INF_STD+MTX		1.39 (0.33, 6.58)
INF_STD		*3.04 (0.05, 177.33)*
CERTO_STD+MTX		0.97 (0.35, 2.83)
RIT_STD		-
RIT_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
BAR_4+MTX		0.28 (0.01, 2.93)
HD203+MTX		-
SB4+MTX		0.51 (0.10, 2.61)
CT-P13+MTX		0.99 (0.20, 5.74)
SB2+MTX		3.12 (0.54, 19.81)
SB5+MTX		0.18 (0.02, 0.90)
ABP501+MTX		-
TOC_4 (IV)	TOF_STD+MTX	-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
TOC_8 (IV)	TOC_4 (IV)	-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	-
INF_STD+MTX		-
INF_STD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
INF_STD+MTX	GOL_STD (SC)+MTX	2.19 (0.40, 14.17)
INF_STD		*4.86 (0.07, 345.16)*
CERTO_STD+MTX		1.48 (0.25, 11.09)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.42 (0.01, 5.70)
HD203+MTX		-
SB4+MTX		0.78 (0.13, 5.71)
CT-P13+MTX		1.58 (0.24, 12.05)
SB2+MTX		4.90 (0.69, 41.89)
SB5+MTX		0.27 (0.02, 3.43)
ABP501+MTX		-
INF_STD	INF_STD+MTX	*2.19 (0.04, 116.28)*
CERTO_STD+MTX		0.70 (0.15, 2.93)

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.20 (0.01, 1.92)
HD203+MTX		-
SB4+MTX		0.37 (0.07, 1.65)
CT-P13+MTX		0.72 (0.33, 1.54)
SB2+MTX		2.23 (0.84, 6.27)
SB5+MTX		0.13 (0.01, 1.14)
ABP501+MTX		-
CERTO_STD+MTX	INF_STD	0.32 (0.005, 20.19)
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.08 (0.001, 6.81)
HD203+MTX		-
SB4+MTX		0.17 (0.003, 12.39)
CT-P13+MTX		0.33 (0.01, 19.89)
SB2+MTX		1.02 (0.02, 66.49)
SB5+MTX		0.06 (0.001, 5.36)
ABP501+MTX		-
RIT_STD	CERTO_STD+MTX	-
RIT_STD+MTX		-
BAR_4+MTX		0.28 (0.01, 2.79)
HD203+MTX		-
SB4+MTX		0.52 (0.11, 2.57)

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
CT-P13+MTX		1.02 (0.20, 5.84)
SB2+MTX		3.18 (0.58, 20.31)
SB5+MTX		0.18 (0.02, 1.27)
ABP501+MTX		-
RIT_STD+MTX	RIT_STD	-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	-
SB4+MTX		1.87 (0.17, 72.68)
CT-P13+MTX		*3.62 (0.33, 150.81)*
SB2+MTX		*11.63 (0.92, 470.60)*
SB5+MTX		0.64 (0.03, 36.02)

(as supplied by the authors)

Treatment	Comparator	OR (95% CI)
ABP501+MTX		-
SB4+MTX	HD203+MTX	-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
CT-P13+MTX	SB4+MTX	1.94 (0.37, 11.66)
SB2+MTX		6.20 (1.03, 40.29)
SB5+MTX		0.34 (0.02, 3.53)
ABP501+MTX		-
SB2+MTX	CT-P13+MTX	3.12 (0.89, 11.06)
SB5+MTX		0.18 (0.01, 1.84)
ABP501+MTX		-
SB5+MTX	SB2+MTX	0.06 (0.004, 0.61)
ABP501+MTX		-
ABP501+MTX	SB5+MTX	-

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 23. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – Excluding Trials of Only Asian Participants

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	1.04 (0.20, 5.14)
SSZ+HCQ		0.36 (0.07, 1.58)
MTX+SSZ+HCQ		0.42 (0.07, 1.99)
ETN_STD		0.79 (0.43, 1.57)
ETN_STD+MTX		0.68 (0.35, 1.27)
ABA_STD (IV)+MTX		0.82 (0.37, 1.81)
ABA_STD (SC)+MTX		0.41 (0.12, 1.24)
ADA_STD+MTX		1.17 (0.55, 2.41)
TOF_STD+MTX		1.71 (0.83, 3.59)
TOC_4 (IV)		1.47 (0.34, 6.29)
TOC_8 (IV)		1.20 (0.30, 5.29)
TOC_4 (IV)+MTX		1.67 (0.40, 7.37)
TOC_8 (IV)+MTX		1.67 (0.45, 6.90)
GOL_STD (SC)+MTX		0.68 (0.15, 2.62)
INF_STD+MTX		1.45 (0.58, 3.60)
INF_STD		*2.88 (0.06, 103.03)*
CERTO_STD+MTX		1.05 (0.42, 2.76)
RIT_STD		2.05 (0.15, 52.30)
RIT_STD+MTX		0.81 (0.02, 22.04)
BAR_4+MTX		0.28 (0.01, 2.30)
HD203+MTX		-
SB4+MTX		0.53 (0.17, 1.50)
CT-P13+MTX		1.05 (0.33, 3.25)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		3.30 (0.89, 12.23)
SB5+MTX		0.21 (0.02, 1.21)
ABP501+MTX		3.02 (0.59, 20.35)
SSZ+HCQ	csDMARD+MTX	0.33 (0.04, 3.15)
MTX+SSZ+HCQ		0.42 (0.04, 3.80)
ETN_STD		0.76 (0.16, 3.97)
ETN_STD+MTX		0.64 (0.15, 3.03)
ABA_STD (IV)+MTX		0.79 (0.14, 5.21)
ABA_STD (SC)+MTX		0.39 (0.05, 2.91)
ADA_STD+MTX		1.13 (0.20, 6.99)
TOF_STD+MTX		1.64 (0.28, 10.35)
TOC_4 (IV)		1.44 (0.16, 12.40)
TOC_8 (IV)		1.16 (0.15, 10.43)
TOC_4 (IV)+MTX		1.62 (0.19, 14.40)
TOC_8 (IV)+MTX		1.62 (0.20, 14.31)
GOL_STD (SC)+MTX		0.63 (0.07, 5.75)
INF_STD+MTX		1.38 (0.23, 9.72)
INF_STD		*2.80 (0.04, 177.51)*
CERTO_STD+MTX		1.02 (0.16, 6.92)
RIT_STD		2.03 (0.09, 74.37)
RIT_STD+MTX		0.78 (0.01, 30.63)
BAR_4+MTX		0.26 (0.01, 4.13)
HD203+MTX		-
SB4+MTX		0.50 (0.09, 3.00)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		0.99 (0.15, 7.81)
SB2+MTX		3.13 (0.41, 27.61)
SB5+MTX		0.21 (0.01, 2.40)
ABP501+MTX		2.97 (0.31, 37.64)
MTX+SSZ+HCQ	SSZ+HCQ	1.22 (0.16, 7.98)
ETN_STD		2.26 (0.45, 14.45)
ETN_STD+MTX		1.92 (0.37, 11.98)
ABA_STD (IV)+MTX		2.33 (0.44, 14.56)
ABA_STD (SC)+MTX		1.13 (0.16, 8.82)
ADA_STD+MTX		3.26 (0.61, 22.15)
TOF_STD+MTX		4.81 (0.91, 32.04)
TOC_4 (IV)		4.12 (0.50, 36.38)
TOC_8 (IV)		3.37 (0.44, 32.59)
TOC_4 (IV)+MTX		4.72 (0.57, 42.82)
TOC_8 (IV)+MTX		4.66 (0.62, 42.48)
GOL_STD (SC)+MTX		1.88 (0.24, 15.80)
INF_STD+MTX		4.07 (0.73, 30.57)
INF_STD		*8.42 (0.13, 452.60)*
CERTO_STD+MTX		2.96 (0.52, 21.20)
RIT_STD		6.09 (0.32, 241.53)
RIT_STD+MTX		2.30 (0.03, 94.44)
BAR_4+MTX		0.77 (0.02, 11.47)
HD203+MTX		-
SB4+MTX		1.50 (0.23, 11.08)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		2.95 (0.46, 23.50)
SB2+MTX		9.12 (1.28, 86.66)
SB5+MTX		0.59 (0.05, 6.85)
ABP501+MTX		*8.77 (0.97, 110.61)*
ETN_STD	MTX+SSZ+HCQ	1.87 (0.35, 12.65)
ETN_STD+MTX		1.60 (0.30, 10.09)
ABA_STD (IV)+MTX		1.96 (0.34, 13.76)
ABA_STD (SC)+MTX		0.95 (0.14, 7.47)
ADA_STD+MTX		2.76 (0.50, 17.60)
TOF_STD+MTX		4.06 (0.74, 26.92)
TOC_4 (IV)		3.56 (0.37, 34.47)
TOC_8 (IV)		2.88 (0.35, 28.33)
TOC_4 (IV)+MTX		3.98 (0.44, 40.61)
TOC_8 (IV)+MTX		3.94 (0.48, 40.00)
GOL_STD (SC)+MTX		1.56 (0.19, 14.25)
INF_STD+MTX		3.43 (0.57, 26.29)
INF_STD		*7.18 (0.10, 378.80)*
CERTO_STD+MTX		2.48 (0.42, 17.60)
RIT_STD		*5.04 (0.23, 194.61)*
RIT_STD+MTX		1.88 (0.03, 87.18)
BAR_4+MTX		0.64 (0.02, 9.36)
HD203+MTX		-
SB4+MTX		1.23 (0.18, 9.57)
CT-P13+MTX		2.47 (0.36, 20.41)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		7.84 (1.02, 71.24)
SB5+MTX		0.50 (0.04, 5.67)
ABP501+MTX		*7.30 (0.84, 100.58)*
ETN_STD+MTX	ETN_STD	0.86 (0.47, 1.45)
ABA_STD (IV)+MTX		1.03 (0.37, 2.80)
ABA_STD (SC)+MTX		0.51 (0.13, 1.82)
ADA_STD+MTX		1.49 (0.53, 3.82)
TOF_STD+MTX		2.17 (0.78, 5.67)
TOC_4 (IV)		1.86 (0.37, 8.97)
TOC_8 (IV)		1.52 (0.32, 7.57)
TOC_4 (IV)+MTX		2.11 (0.43, 10.39)
TOC_8 (IV)+MTX		2.09 (0.48, 10.11)
GOL_STD (SC)+MTX		0.86 (0.15, 3.76)
INF_STD+MTX		1.82 (0.58, 5.60)
INF_STD		*3.64 (0.07, 142.74)*
CERTO_STD+MTX		1.33 (0.43, 4.09)
RIT_STD		2.58 (0.18, 68.03)
RIT_STD+MTX		1.00 (0.02, 29.52)
BAR_4+MTX		0.35 (0.01, 3.15)
HD203+MTX		-
SB4+MTX		0.66 (0.23, 1.80)
CT-P13+MTX		1.33 (0.34, 4.76)
SB2+MTX		4.14 (0.96, 17.94)
SB5+MTX		0.27 (0.03, 1.71)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		3.87 (0.65, 27.22)
ABA_STD (IV)+MTX	ETN_STD+MTX	1.21 (0.44, 3.29)
ABA_STD (SC)+MTX		0.60 (0.16, 2.20)
ADA_STD+MTX		1.73 (0.64, 4.65)
TOF_STD+MTX		2.54 (0.97, 6.81)
TOC_4 (IV)		2.19 (0.44, 10.49)
TOC_8 (IV)		1.78 (0.38, 9.05)
TOC_4 (IV)+MTX		2.48 (0.52, 12.18)
TOC_8 (IV)+MTX		2.48 (0.58, 12.09)
GOL_STD (SC)+MTX		1.00 (0.18, 4.50)
INF_STD+MTX		2.14 (0.71, 6.78)
INF_STD		*4.33 (0.09, 168.01)*
CERTO_STD+MTX		1.56 (0.51, 5.01)
RIT_STD		3.06 (0.22, 80.72)
RIT_STD+MTX		1.18 (0.03, 34.88)
BAR_4+MTX		0.41 (0.02, 3.78)
HD203+MTX		-
SB4+MTX		0.78 (0.32, 1.80)
CT-P13+MTX		1.54 (0.42, 5.82)
SB2+MTX		4.86 (1.15, 21.41)
SB5+MTX		0.31 (0.03, 2.09)
ABP501+MTX		4.54 (0.78, 32.79)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.49 (0.12, 1.98)
ADA_STD+MTX		1.41 (0.47, 4.31)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOF_STD+MTX		2.05 (0.71, 6.28)
TOC_4 (IV)		1.79 (0.33, 8.99)
TOC_8 (IV)		1.48 (0.30, 7.74)
TOC_4 (IV)+MTX		2.04 (0.40, 10.71)
TOC_8 (IV)+MTX		2.04 (0.44, 10.01)
GOL_STD (SC)+MTX		0.81 (0.14, 3.95)
INF_STD+MTX		1.76 (0.59, 5.30)
INF_STD		*3.49 (0.07, 133.89)*
CERTO_STD+MTX		1.28 (0.39, 4.62)
RIT_STD		2.46 (0.18, 70.04)
RIT_STD+MTX		0.95 (0.02, 27.00)
BAR_4+MTX		0.34 (0.01, 3.28)
HD203+MTX		-
SB4+MTX		0.64 (0.17, 2.40)
CT-P13+MTX		1.26 (0.35, 4.68)
SB2+MTX		4.03 (0.95, 16.51)
SB5+MTX		0.25 (0.03, 1.78)
ABP501+MTX		3.74 (0.60, 30.94)
ADA_STD+MTX	ABA_STD (SC)+MTX	2.89 (1.22, 7.26)
TOF_STD+MTX		4.25 (1.26, 14.50)
TOC_4 (IV)		3.63 (0.56, 24.17)
TOC_8 (IV)		2.97 (0.51, 19.18)
TOC_4 (IV)+MTX		4.10 (0.66, 26.92)
TOC_8 (IV)+MTX		4.11 (0.71, 25.33)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)+MTX		1.68 (0.24, 9.63)
INF_STD+MTX		3.62 (0.83, 16.49)
INF_STD		*7.22 (0.13, 307.97)*
CERTO_STD+MTX		2.60 (0.76, 9.55)
RIT_STD		*5.22 (0.28, 154.78)*
RIT_STD+MTX		2.00 (0.04, 65.37)
BAR_4+MTX		0.69 (0.02, 7.40)
HD203+MTX		-
SB4+MTX		1.29 (0.27, 6.42)
CT-P13+MTX		2.61 (0.51, 13.67)
SB2+MTX		8.16 (1.41, 49.30)
SB5+MTX		0.52 (0.06, 3.20)
ABP501+MTX		7.58 (1.41, 54.33)
TOF_STD+MTX	ADA_STD+MTX	1.46 (0.63, 3.43)
TOC_4 (IV)		1.25 (0.25, 6.71)
TOC_8 (IV)		1.03 (0.23, 5.46)
TOC_4 (IV)+MTX		1.42 (0.28, 7.74)
TOC_8 (IV)+MTX		1.42 (0.32, 6.93)
GOL_STD (SC)+MTX		0.59 (0.10, 2.71)
INF_STD+MTX		1.24 (0.37, 4.31)
INF_STD		2.46 (0.05, 90.83)
CERTO_STD+MTX		0.90 (0.37, 2.27)
RIT_STD		1.78 (0.11, 47.28)
RIT_STD+MTX		0.71 (0.01, 19.71)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		0.24 (0.01, 2.24)
HD203+MTX		-
SB4+MTX		0.45 (0.12, 1.67)
CT-P13+MTX		0.90 (0.22, 3.62)
SB2+MTX		2.80 (0.64, 13.61)
SB5+MTX		0.19 (0.02, 0.87)
ABP501+MTX		2.58 (0.63, 14.85)
TOC_4 (IV)	TOF_STD+MTX	0.86 (0.17, 4.36)
TOC_8 (IV)		0.70 (0.15, 3.60)
TOC_4 (IV)+MTX		0.98 (0.20, 5.19)
TOC_8 (IV)+MTX		0.99 (0.22, 4.73)
GOL_STD (SC)+MTX		0.40 (0.07, 1.84)
INF_STD+MTX		0.85 (0.26, 2.76)
INF_STD		1.70 (0.03, 65.04)
CERTO_STD+MTX		0.61 (0.20, 1.89)
RIT_STD		1.21 (0.08, 32.56)
RIT_STD+MTX		0.47 (0.01, 13.85)
BAR_4+MTX		0.16 (0.01, 1.49)
HD203+MTX		-
SB4+MTX		0.31 (0.08, 1.09)
CT-P13+MTX		0.61 (0.16, 2.43)
SB2+MTX		1.92 (0.44, 8.73)
SB5+MTX		0.12 (0.01, 0.75)
ABP501+MTX		1.78 (0.34, 13.16)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)	TOC_4 (IV)	0.82 (0.25, 3.12)
TOC_4 (IV)+MTX		1.14 (0.30, 4.43)
TOC_8 (IV)+MTX		1.13 (0.35, 4.00)
GOL_STD (SC)+MTX		0.45 (0.05, 3.26)
INF_STD+MTX		0.99 (0.18, 5.39)
INF_STD		1.99 (0.04, 88.59)
CERTO_STD+MTX		0.73 (0.12, 4.02)
RIT_STD		1.50 (0.07, 43.34)
RIT_STD+MTX		0.58 (0.01, 19.85)
BAR_4+MTX		0.19 (0.01, 2.33)
HD203+MTX		-
SB4+MTX		0.35 (0.06, 2.15)
CT-P13+MTX		0.71 (0.12, 4.28)
SB2+MTX		2.25 (0.31, 15.83)
SB5+MTX		0.14 (0.01, 1.36)
ABP501+MTX		2.11 (0.24, 22.47)
TOC_4 (IV)+MTX	TOC_8 (IV)	1.37 (0.38, 4.69)
TOC_8 (IV)+MTX		1.38 (0.59, 3.28)
GOL_STD (SC)+MTX		0.55 (0.07, 3.61)
INF_STD+MTX		1.19 (0.22, 5.94)
INF_STD		*2.36 (0.04, 110.83)*
CERTO_STD+MTX		0.89 (0.15, 4.42)
RIT_STD		1.79 (0.08, 53.04)
RIT_STD+MTX		0.67 (0.01, 22.15)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		0.23 (0.01, 2.76)
HD203+MTX		-
SB4+MTX		0.43 (0.07, 2.40)
CT-P13+MTX		0.86 (0.14, 4.89)
SB2+MTX		2.74 (0.39, 17.60)
SB5+MTX		0.17 (0.01, 1.52)
ABP501+MTX		2.50 (0.27, 26.55)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.00 (0.30, 3.50)
GOL_STD (SC)+MTX		0.41 (0.05, 2.65)
INF_STD+MTX		0.86 (0.16, 4.84)
INF_STD		1.77 (0.03, 75.11)
CERTO_STD+MTX		0.64 (0.10, 3.69)
RIT_STD		1.31 (0.06, 36.53)
RIT_STD+MTX		0.49 (0.01, 15.93)
BAR_4+MTX		0.17 (0.005, 1.98)
HD203+MTX		-
SB4+MTX		0.32 (0.05, 1.81)
CT-P13+MTX		0.62 (0.10, 3.93)
SB2+MTX		1.95 (0.28, 14.01)
SB5+MTX		0.12 (0.01, 1.19)
ABP501+MTX		1.84 (0.20, 19.77)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	0.41 (0.05, 2.50)
INF_STD+MTX		0.86 (0.17, 4.23)
INF_STD		1.70 (0.03, 81.53)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		0.63 (0.11, 3.17)
RIT_STD		1.29 (0.06, 40.04)
RIT_STD+MTX		0.48 (0.01, 16.09)
BAR_4+MTX		0.17 (0.01, 1.91)
HD203+MTX		-
SB4+MTX		0.32 (0.05, 1.65)
CT-P13+MTX		0.62 (0.10, 3.44)
SB2+MTX		1.99 (0.29, 12.49)
SB5+MTX		0.12 (0.01, 1.11)
ABP501+MTX		1.83 (0.20, 19.47)
INF_STD+MTX	GOL_STD (SC)+MTX	2.15 (0.45, 12.44)
INF_STD		*4.54 (0.06, 202.35)*
CERTO_STD+MTX		1.56 (0.31, 10.20)
RIT_STD		*3.15 (0.15, 100.08)*
RIT_STD+MTX		1.20 (0.02, 44.35)
BAR_4+MTX		0.40 (0.01, 5.66)
HD203+MTX		-
SB4+MTX		0.78 (0.13, 5.26)
CT-P13+MTX		1.54 (0.28, 10.79)
SB2+MTX		4.86 (0.78, 36.97)
SB5+MTX		0.31 (0.03, 3.26)
ABP501+MTX		4.60 (0.55, 53.84)
INF_STD	INF_STD+MTX	2.01 (0.04, 64.97)
CERTO_STD+MTX		0.72 (0.20, 2.68)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		1.36 (0.10, 41.80)
RIT_STD+MTX		0.55 (0.01, 17.48)
BAR_4+MTX		0.19 (0.01, 1.92)
HD203+MTX		-
SB4+MTX		0.36 (0.08, 1.44)
CT-P13+MTX		0.72 (0.36, 1.43)
SB2+MTX		2.26 (0.91, 5.74)
SB5+MTX		0.14 (0.01, 1.03)
ABP501+MTX		2.09 (0.32, 18.07)
CERTO_STD+MTX	INF_STD	0.37 (0.01, 19.85)
RIT_STD		0.70 (0.01, 85.54)
RIT_STD+MTX		0.25 (0.002, 40.98)
BAR_4+MTX		0.09 (0.001, 8.00)
HD203+MTX		-
SB4+MTX		0.18 (0.004, 9.43)
CT-P13+MTX		0.36 (0.01, 18.38)
SB2+MTX		1.12 (0.03, 57.17)
SB5+MTX		0.07 (0.001, 5.15)
ABP501+MTX		1.05 (0.02, 81.53)
RIT_STD	CERTO_STD+MTX	1.92 (0.12, 57.17)
RIT_STD+MTX		0.77 (0.02, 23.43)
BAR_4+MTX		0.26 (0.01, 2.65)
HD203+MTX		-
SB4+MTX		0.50 (0.11, 2.07)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		1.00 (0.23, 4.15)
SB2+MTX		3.16 (0.63, 14.79)
SB5+MTX		0.20 (0.02, 1.25)
ABP501+MTX		2.91 (0.52, 20.53)
RIT_STD+MTX	RIT_STD	0.38 (0.01, 6.47)
BAR_4+MTX		0.13 (0.001, 3.84)
HD203+MTX		-
SB4+MTX		0.25 (0.01, 4.17)
CT-P13+MTX		0.52 (0.02, 7.95)
SB2+MTX		1.64 (0.05, 26.47)
SB5+MTX		0.10 (0.002, 2.43)
ABP501+MTX		1.50 (0.04, 36.38)
BAR_4+MTX	RIT_STD+MTX	0.33 (0.003, 23.83)
HD203+MTX		-
SB4+MTX		0.66 (0.02, 30.02)
CT-P13+MTX		1.31 (0.04, 63.88)
SB2+MTX		*4.13 (0.12, 204.18)*
SB5+MTX		0.25 (0.004, 15.21)
ABP501+MTX		3.84 (0.10, 202.96)
HD203+MTX	BAR_4+MTX	-
SB4+MTX		1.92 (0.17, 54.54)
CT-P13+MTX		*3.77 (0.34, 127.87)*
SB2+MTX		*11.94 (0.95, 414.06)*
SB5+MTX		0.77 (0.04, 29.40)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		*11.76 (0.79, 485.41)*
SB4+MTX	HD203+MTX	-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
CT-P13+MTX	SB4+MTX	1.99 (0.43, 9.87)
SB2+MTX		6.22 (1.17, 35.23)
SB5+MTX		0.40 (0.03, 3.22)
ABP501+MTX		5.88 (0.82, 51.01)
SB2+MTX	CT-P13+MTX	3.14 (1.01, 10.02)
SB5+MTX		0.20 (0.02, 1.62)
ABP501+MTX		2.90 (0.40, 28.67)
SB5+MTX	SB2+MTX	0.06 (0.01, 0.53)
ABP501+MTX		0.93 (0.11, 9.64)
ABP501+MTX	SB5+MTX	*14.94 (1.74, 189.81)*

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 24. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – Including Only Trials of Asian Only Participants

Treatment	Reference	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	*5.58 (0.11, 365.77)*
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		0.92 (0.02, 43.25)
ABA_STD (IV)+MTX		0.11 (0.0002, 2.35)
ADA_STD+MTX		*35.62 (0.54, 3506047.88)*
TOF_STD+MTX		2.54 (0.34, 26.10)
TOC_4 (IV)		-
TOC_8 (IV)		0.67 (0.07, 5.50)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		4.19 (0.37, 141.46)
INF_STD+MTX		1.40 (0.35, 5.95)
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.15 (0.0000, 7.28)
HD203+MTX		0.80 (0.02, 47.94)
SB4+MTX		-
CT-P13+MTX		2.43 (0.34, 17.98)
SB2+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB5+MTX		-
ABP501+MTX		-
SSZ+HCQ	csDMARD+MTX	-
MTX+SSZ+HCQ		-
ETN_STD		-
ETN_STD+MTX		0.17 (0.03, 0.78)
ABA_STD (IV)+MTX		0.02 (0.0000, 3.06)
ADA_STD+MTX		*8.13 (0.01, 722158.56)*
TOF_STD+MTX		0.46 (0.004, 46.99)
TOC_4 (IV)		-
TOC_8 (IV)		0.12 (0.001, 9.96)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		*0.80 (0.01, 126.47)*
INF_STD+MTX		0.26 (0.003, 15.78)
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.02 (0.0000, 8.02)
HD203+MTX		0.15 (0.02, 1.03)
SB4+MTX		-
CT-P13+MTX		0.44 (0.004, 34.06)
SB2+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB5+MTX		-
ABP501+MTX		-
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
ABA_STD (IV)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ABA_STD (IV)+MTX	ETN_STD+MTX	0.10 (0.0001, 14.92)
ADA_STD+MTX		*49.11 (0.10, 4501854.59)*
TOF_STD+MTX		2.79 (0.04, 200.14)
TOC_4 (IV)		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
TOC_8 (IV)		0.71 (0.01, 47.42)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		4.93 (0.05, 635.87)
INF_STD+MTX		1.56 (0.03, 70.46)
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.13 (0.0000, 37.19)
HD203+MTX		0.89 (0.27, 2.94)
SB4+MTX		-
CT-P13+MTX		2.68 (0.04, 154.16)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ADA_STD+MTX	ABA_STD (IV)+MTX	*551.70 (1.49, 137619061.20)*
TOF_STD+MTX		*26.29 (0.62, 19168.05)*
TOC_4 (IV)		-
TOC_8 (IV)		*6.83 (0.13, 4934.47)*
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		*49.50 (0.80, 46166.05)*
INF_STD+MTX		*14.15 (0.45, 10006.60)*

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		*1.35 (0.0003, 3751.83)*
HD203+MTX		*8.97 (0.05, 14143.35)*
SB4+MTX		-
CT-P13+MTX		*25.36 (0.58, 18015.72)*
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOF_STD+MTX	ADA_STD+MTX	0.07 (0.0000, 9.63)
TOC_4 (IV)		-
TOC_8 (IV)		0.02 (0.0000, 2.16)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		0.12 (0.0000, 31.66)
INF_STD+MTX		0.04 (0.0000, 3.57)
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.002 (0.0000, 1.63)
HD203+MTX		0.02 (0.0000, 10.36)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB4+MTX		-
CT-P13+MTX		0.06 (0.0000, 7.52)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_4 (IV)	TOF_STD+MTX	-
TOC_8 (IV)		0.25 (0.01, 4.60)
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		1.73 (0.06, 87.97)
INF_STD+MTX		0.55 (0.04, 6.36)
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.05 (0.0000, 4.92)
HD203+MTX		0.31 (0.004, 29.78)
SB4+MTX		-
CT-P13+MTX		0.93 (0.04, 15.82)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_8 (IV)	TOC_4 (IV)	-
TOC_4 (IV)+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_4 (IV)+MTX	TOC_8 (IV)	-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		*6.65 (0.26, 355.31)*
INF_STD+MTX		2.13 (0.17, 30.39)
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.21 (0.0000, 21.48)
HD203+MTX		*1.23 (0.02, 117.33)*

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB4+MTX		-
CT-P13+MTX		3.65 (0.20, 71.02)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
INF_STD+MTX	GOL_STD (SC)+MTX	0.33 (0.01, 5.56)
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		0.03 (0.0000, 3.36)
HD203+MTX		0.18 (0.001, 21.67)
SB4+MTX		-
CT-P13+MTX		0.56 (0.01, 13.21)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
INF_STD	INF_STD+MTX	-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
BAR_4+MTX		0.10 (0.0000, 6.40)
HD203+MTX		0.56 (0.01, 41.68)
SB4+MTX		-
CT-P13+MTX		1.70 (0.44, 7.03)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
CERTO_STD+MTX	INF_STD	-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
RIT_STD	CERTO_STD+MTX	-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
SB5+MTX		-
ABP501+MTX		-
RIT_STD+MTX	RIT_STD	-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
BAR_4+MTX	RIT_STD+MTX	-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
HD203+MTX	BAR_4+MTX	*7.16 (0.02, 33860.35)*
SB4+MTX		-
CT-P13+MTX		*17.53 (0.22, 66171.16)*
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
SB4+MTX	HD203+MTX	-

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
CT-P13+MTX		*3.07 (0.03, 206.23)*
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
CT-P13+MTX	SB4+MTX	-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
SB2+MTX	CT-P13+MTX	-
SB5+MTX		-
ABP501+MTX		-
SB5+MTX	SB2+MTX	-
ABP501+MTX		-
ABP501+MTX	SB5+MTX	-

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 25. Sensitivity Analysis Results, WDAE (MTX as a Common Comparator) – Excluding Triple csDMARD Therapy Trials Published Before 2000

Treatment	Comparator	OR (95% CrI)
csDMARD+MTX	Placebo+MTX	2.10 (0.67, 6.60)
SSZ+HCQ		-
MTX+SSZ+HCQ		-
ETN_STD		0.79 (0.44, 1.51)
ETN_STD+MTX		0.68 (0.38, 1.23)
ABA_STD (IV)+MTX		0.75 (0.35, 1.52)
ABA_STD (SC)+MTX		0.43 (0.14, 1.31)
ADA_STD+MTX		1.22 (0.58, 2.69)
TOF_STD+MTX		1.82 (0.92, 3.71)
TOC_4 (IV)		1.23 (0.31, 4.63)
TOC_8 (IV)		0.96 (0.31, 2.94)
TOC_4 (IV)+MTX		1.40 (0.36, 5.19)
TOC_8 (IV)+MTX		1.38 (0.43, 4.80)
GOL_STD (SC)+MTX		1.01 (0.34, 3.27)
INF_STD+MTX		1.44 (0.73, 2.83)
INF_STD		*3.35 (0.09, 149.61)*
CERTO_STD+MTX		1.09 (0.41, 2.74)
RIT_STD		2.13 (0.17, 57.05)
RIT_STD+MTX		1.01 (0.02, 22.97)
BAR_4+MTX		0.28 (0.03, 1.76)
HD203+MTX		0.61 (0.19, 1.93)
SB4+MTX		0.53 (0.19, 1.45)
CT-P13+MTX		1.24 (0.53, 3.04)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		3.23 (1.07, 10.43)
SB5+MTX		0.23 (0.02, 1.24)
ABP501+MTX		3.09 (0.61, 19.81)
SSZ+HCQ	csDMARD+MTX	-
MTX+SSZ+HCQ		-
ETN_STD		0.38 (0.13, 1.17)
ETN_STD+MTX		0.33 (0.12, 0.84)
ABA_STD (IV)+MTX		0.35 (0.09, 1.39)
ABA_STD (SC)+MTX		0.20 (0.04, 0.97)
ADA_STD+MTX		0.59 (0.16, 2.29)
TOF_STD+MTX		0.88 (0.23, 3.30)
TOC_4 (IV)		0.59 (0.10, 3.32)
TOC_8 (IV)		0.46 (0.09, 2.33)
TOC_4 (IV)+MTX		0.67 (0.11, 3.70)
TOC_8 (IV)+MTX		0.66 (0.13, 3.53)
GOL_STD (SC)+MTX		0.48 (0.10, 2.49)
INF_STD+MTX		0.69 (0.18, 2.54)
INF_STD		1.56 (0.03, 86.49)
CERTO_STD+MTX		0.51 (0.12, 2.30)
RIT_STD		1.03 (0.06, 31.50)
RIT_STD+MTX		0.45 (0.01, 13.36)
BAR_4+MTX		0.13 (0.01, 1.19)
HD203+MTX		0.29 (0.07, 1.18)
SB4+MTX		0.25 (0.07, 0.90)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		0.59 (0.14, 2.55)
SB2+MTX		1.54 (0.32, 7.98)
SB5+MTX		0.11 (0.01, 0.86)
ABP501+MTX		1.54 (0.22, 12.23)
MTX+SSZ+HCQ	SSZ+HCQ	-
ETN_STD		-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		-
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD	MTX+SSZ+HCQ	-
ETN_STD+MTX		-
ABA_STD (IV)+MTX		-
ABA_STD (SC)+MTX		-
ADA_STD+MTX		-
TOF_STD+MTX		-
TOC_4 (IV)		-
TOC_8 (IV)		-
TOC_4 (IV)+MTX		-
TOC_8 (IV)+MTX		-
GOL_STD (SC)+MTX		-
INF_STD+MTX		-
INF_STD		-
CERTO_STD+MTX		-
RIT_STD		-
RIT_STD+MTX		-
BAR_4+MTX		-
HD203+MTX		-
SB4+MTX		-
CT-P13+MTX		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
SB2+MTX		-
SB5+MTX		-
ABP501+MTX		-
ETN_STD+MTX	ETN_STD	0.86 (0.49, 1.43)
ABA_STD (IV)+MTX		0.94 (0.35, 2.31)
ABA_STD (SC)+MTX		0.54 (0.15, 1.91)
ADA_STD+MTX		1.55 (0.59, 4.06)
TOF_STD+MTX		2.30 (0.89, 5.78)
TOC_4 (IV)		1.57 (0.34, 6.83)
TOC_8 (IV)		1.21 (0.33, 4.48)
TOC_4 (IV)+MTX		1.78 (0.40, 7.34)
TOC_8 (IV)+MTX		1.73 (0.46, 7.15)
GOL_STD (SC)+MTX		1.27 (0.36, 4.83)
INF_STD+MTX		1.82 (0.72, 4.52)
INF_STD		*4.16 (0.10, 215.29)*
CERTO_STD+MTX		1.38 (0.45, 4.10)
RIT_STD		2.72 (0.19, 73.85)
RIT_STD+MTX		1.24 (0.03, 29.31)
BAR_4+MTX		0.36 (0.03, 2.37)
HD203+MTX		0.77 (0.24, 2.32)
SB4+MTX		0.66 (0.24, 1.75)
CT-P13+MTX		1.55 (0.54, 4.64)
SB2+MTX		4.08 (1.14, 15.06)
SB5+MTX		0.29 (0.03, 1.74)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		3.95 (0.70, 26.26)
ABA_STD (IV)+MTX	ETN_STD+MTX	1.09 (0.42, 2.72)
ABA_STD (SC)+MTX		0.63 (0.18, 2.20)
ADA_STD+MTX		1.81 (0.72, 4.70)
TOF_STD+MTX		2.67 (1.06, 6.64)
TOC_4 (IV)		1.82 (0.41, 7.85)
TOC_8 (IV)		1.42 (0.40, 5.09)
TOC_4 (IV)+MTX		2.08 (0.48, 8.65)
TOC_8 (IV)+MTX		2.02 (0.55, 8.31)
GOL_STD (SC)+MTX		1.48 (0.42, 5.73)
INF_STD+MTX		2.11 (0.86, 5.28)
INF_STD		*4.91 (0.12, 241.05)*
CERTO_STD+MTX		1.60 (0.54, 4.78)
RIT_STD		3.15 (0.24, 82.11)
RIT_STD+MTX		1.43 (0.03, 35.41)
BAR_4+MTX		0.42 (0.03, 2.76)
HD203+MTX		0.89 (0.32, 2.42)
SB4+MTX		0.77 (0.33, 1.78)
CT-P13+MTX		1.82 (0.65, 5.42)
SB2+MTX		4.69 (1.37, 17.69)
SB5+MTX		0.34 (0.03, 2.02)
ABP501+MTX		4.61 (0.84, 30.51)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.58 (0.15, 2.19)
ADA_STD+MTX		1.66 (0.59, 4.78)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOF_STD+MTX		2.44 (0.91, 6.86)
TOC_4 (IV)		1.66 (0.36, 7.95)
TOC_8 (IV)		1.29 (0.32, 5.08)
TOC_4 (IV)+MTX		1.90 (0.40, 8.50)
TOC_8 (IV)+MTX		1.84 (0.47, 7.92)
GOL_STD (SC)+MTX		1.36 (0.38, 5.32)
INF_STD+MTX		1.92 (0.80, 4.88)
INF_STD		*4.49 (0.11, 247.15)*
CERTO_STD+MTX		1.47 (0.44, 4.81)
RIT_STD		2.87 (0.21, 73.92)
RIT_STD+MTX		1.32 (0.03, 33.58)
BAR_4+MTX		0.39 (0.03, 2.63)
HD203+MTX		0.81 (0.21, 3.23)
SB4+MTX		0.71 (0.20, 2.50)
CT-P13+MTX		1.66 (0.60, 5.10)
SB2+MTX		4.38 (1.23, 16.38)
SB5+MTX		0.31 (0.03, 1.97)
ABP501+MTX		4.21 (0.71, 30.88)
ADA_STD+MTX	ABA_STD (SC)+MTX	2.87 (1.25, 6.83)
TOF_STD+MTX		4.23 (1.36, 14.10)
TOC_4 (IV)		2.94 (0.49, 16.12)
TOC_8 (IV)		2.28 (0.46, 11.00)
TOC_4 (IV)+MTX		3.29 (0.53, 18.54)
TOC_8 (IV)+MTX		3.20 (0.65, 17.00)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
GOL_STD (SC)+MTX		2.35 (0.48, 12.06)
INF_STD+MTX		3.35 (0.92, 12.74)
INF_STD		*7.68 (0.18, 395.84)*
CERTO_STD+MTX		2.53 (0.74, 8.87)
RIT_STD		*5.09 (0.31, 151.11)*
RIT_STD+MTX		2.27 (0.04, 64.78)
BAR_4+MTX		0.65 (0.05, 5.58)
HD203+MTX		1.42 (0.28, 6.92)
SB4+MTX		1.23 (0.27, 5.48)
CT-P13+MTX		2.90 (0.71, 12.39)
SB2+MTX		7.56 (1.57, 39.53)
SB5+MTX		0.53 (0.05, 2.99)
ABP501+MTX		7.36 (1.35, 46.90)
TOF_STD+MTX	ADA_STD+MTX	1.49 (0.67, 3.31)
TOC_4 (IV)		1.00 (0.21, 4.46)
TOC_8 (IV)		0.79 (0.20, 3.02)
TOC_4 (IV)+MTX		1.15 (0.23, 5.06)
TOC_8 (IV)+MTX		1.11 (0.29, 4.81)
GOL_STD (SC)+MTX		0.82 (0.22, 3.38)
INF_STD+MTX		1.17 (0.42, 3.29)
INF_STD		*2.68 (0.07, 135.10)*
CERTO_STD+MTX		0.88 (0.35, 2.19)
RIT_STD		1.78 (0.12, 48.09)
RIT_STD+MTX		0.80 (0.02, 20.59)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		0.23 (0.02, 1.64)
HD203+MTX		0.50 (0.12, 1.89)
SB4+MTX		0.43 (0.12, 1.47)
CT-P13+MTX		1.01 (0.32, 3.36)
SB2+MTX		2.63 (0.69, 10.72)
SB5+MTX		0.19 (0.02, 0.85)
ABP501+MTX		2.54 (0.61, 13.75)
TOC_4 (IV)	TOF_STD+MTX	0.68 (0.15, 3.04)
TOC_8 (IV)		0.52 (0.14, 1.98)
TOC_4 (IV)+MTX		0.76 (0.17, 3.29)
TOC_8 (IV)+MTX		0.74 (0.20, 3.14)
GOL_STD (SC)+MTX		0.56 (0.14, 2.11)
INF_STD+MTX		0.79 (0.30, 2.03)
INF_STD		1.82 (0.05, 85.63)
CERTO_STD+MTX		0.59 (0.20, 1.73)
RIT_STD		1.19 (0.08, 31.82)
RIT_STD+MTX		0.54 (0.01, 12.83)
BAR_4+MTX		0.15 (0.01, 1.09)
HD203+MTX		0.33 (0.08, 1.30)
SB4+MTX		0.29 (0.08, 1.00)
CT-P13+MTX		0.68 (0.23, 2.07)
SB2+MTX		1.79 (0.48, 6.67)
SB5+MTX		0.13 (0.01, 0.68)
ABP501+MTX		1.72 (0.31, 11.08)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
TOC_8 (IV)	TOC_4 (IV)	0.78 (0.24, 2.70)
TOC_4 (IV)+MTX		1.11 (0.30, 4.45)
TOC_8 (IV)+MTX		1.12 (0.34, 3.91)
GOL_STD (SC)+MTX		0.81 (0.14, 4.96)
INF_STD+MTX		1.14 (0.27, 5.49)
INF_STD		*2.79 (0.06, 124.34)*
CERTO_STD+MTX		0.87 (0.17, 4.63)
RIT_STD		1.76 (0.10, 57.51)
RIT_STD+MTX		0.77 (0.02, 24.90)
BAR_4+MTX		0.22 (0.01, 2.30)
HD203+MTX		0.48 (0.08, 2.97)
SB4+MTX		0.43 (0.08, 2.30)
CT-P13+MTX		0.99 (0.21, 5.21)
SB2+MTX		2.58 (0.48, 15.82)
SB5+MTX		0.18 (0.01, 1.66)
ABP501+MTX		2.64 (0.27, 23.36)
TOC_4 (IV)+MTX	TOC_8 (IV)	1.46 (0.41, 4.85)
TOC_8 (IV)+MTX		1.45 (0.63, 3.25)
GOL_STD (SC)+MTX		1.04 (0.22, 5.44)
INF_STD+MTX		1.49 (0.41, 5.69)
INF_STD		*3.49 (0.09, 147.08)*
CERTO_STD+MTX		1.13 (0.26, 4.91)
RIT_STD		2.28 (0.13, 60.64)
RIT_STD+MTX		1.04 (0.02, 27.63)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+MTX		0.28 (0.02, 2.56)
HD203+MTX		0.62 (0.12, 3.21)
SB4+MTX		0.55 (0.11, 2.52)
CT-P13+MTX		1.28 (0.32, 5.46)
SB2+MTX		3.33 (0.72, 17.34)
SB5+MTX		0.24 (0.02, 1.80)
ABP501+MTX		3.35 (0.41, 27.80)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	0.99 (0.30, 3.61)
GOL_STD (SC)+MTX		0.71 (0.12, 4.33)
INF_STD+MTX		1.02 (0.24, 4.85)
INF_STD		*2.41 (0.05, 107.23)*
CERTO_STD+MTX		0.77 (0.16, 4.08)
RIT_STD		1.59 (0.09, 48.76)
RIT_STD+MTX		0.70 (0.01, 20.82)
BAR_4+MTX		0.20 (0.01, 1.97)
HD203+MTX		0.43 (0.07, 2.60)
SB4+MTX		0.37 (0.07, 2.03)
CT-P13+MTX		0.87 (0.19, 4.64)
SB2+MTX		2.28 (0.42, 14.25)
SB5+MTX		0.16 (0.01, 1.52)
ABP501+MTX		2.32 (0.25, 22.09)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	0.73 (0.13, 3.99)
INF_STD+MTX		1.03 (0.27, 4.12)
INF_STD		*2.41 (0.06, 104.38)*

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CERTO_STD+MTX		0.78 (0.16, 3.43)
RIT_STD		1.57 (0.09, 45.42)
RIT_STD+MTX		0.72 (0.01, 20.49)
BAR_4+MTX		0.19 (0.01, 1.84)
HD203+MTX		0.44 (0.08, 2.36)
SB4+MTX		0.38 (0.07, 1.82)
CT-P13+MTX		0.88 (0.21, 3.95)
SB2+MTX		2.31 (0.46, 12.29)
SB5+MTX		0.16 (0.01, 1.25)
ABP501+MTX		2.34 (0.27, 18.43)
INF_STD+MTX	GOL_STD (SC)+MTX	1.44 (0.37, 5.18)
INF_STD		*3.18 (0.07, 170.89)*
CERTO_STD+MTX		1.07 (0.24, 4.66)
RIT_STD		2.21 (0.13, 62.24)
RIT_STD+MTX		0.95 (0.02, 24.46)
BAR_4+MTX		0.27 (0.02, 2.47)
HD203+MTX		0.60 (0.11, 3.06)
SB4+MTX		0.52 (0.11, 2.36)
CT-P13+MTX		1.23 (0.28, 5.17)
SB2+MTX		3.24 (0.63, 15.80)
SB5+MTX		0.23 (0.02, 1.72)
ABP501+MTX		3.16 (0.41, 24.83)
INF_STD	INF_STD+MTX	2.27 (0.06, 85.03)
CERTO_STD+MTX		0.76 (0.23, 2.33)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
RIT_STD		1.51 (0.11, 40.49)
RIT_STD+MTX		0.70 (0.01, 17.80)
BAR_4+MTX		0.20 (0.02, 1.41)
HD203+MTX		0.42 (0.11, 1.60)
SB4+MTX		0.37 (0.10, 1.22)
CT-P13+MTX		0.86 (0.50, 1.57)
SB2+MTX		2.25 (0.92, 5.84)
SB5+MTX		0.16 (0.02, 0.96)
ABP501+MTX		2.14 (0.37, 16.53)
CERTO_STD+MTX	INF_STD	0.33 (0.01, 13.99)
RIT_STD		0.69 (0.01, 74.59)
RIT_STD+MTX		0.28 (0.002, 29.93)
BAR_4+MTX		0.08 (0.001, 5.36)
HD203+MTX		0.18 (0.003, 8.38)
SB4+MTX		0.16 (0.003, 6.83)
CT-P13+MTX		0.38 (0.01, 14.32)
SB2+MTX		0.99 (0.02, 41.76)
SB5+MTX		0.07 (0.001, 3.98)
ABP501+MTX		1.02 (0.02, 55.26)
RIT_STD	CERTO_STD+MTX	1.98 (0.13, 54.82)
RIT_STD+MTX		0.90 (0.02, 24.34)
BAR_4+MTX		0.26 (0.02, 2.04)
HD203+MTX		0.55 (0.13, 2.43)
SB4+MTX		0.49 (0.12, 1.88)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
CT-P13+MTX		1.13 (0.33, 4.37)
SB2+MTX		2.96 (0.72, 13.92)
SB5+MTX		0.21 (0.02, 1.25)
ABP501+MTX		2.89 (0.50, 19.11)
RIT_STD+MTX	RIT_STD	0.42 (0.01, 6.13)
BAR_4+MTX		0.12 (0.002, 3.36)
HD203+MTX		0.27 (0.01, 4.84)
SB4+MTX		0.24 (0.01, 3.80)
CT-P13+MTX		0.58 (0.02, 8.50)
SB2+MTX		1.50 (0.05, 24.98)
SB5+MTX		0.10 (0.002, 2.48)
ABP501+MTX		1.43 (0.04, 34.19)
BAR_4+MTX	RIT_STD+MTX	0.29 (0.01, 18.77)
HD203+MTX		0.63 (0.02, 33.31)
SB4+MTX		0.55 (0.02, 26.95)
CT-P13+MTX		1.25 (0.05, 67.42)
SB2+MTX		*3.28 (0.11, 196.17)*
SB5+MTX		0.23 (0.01, 19.75)
ABP501+MTX		*3.39 (0.09, 208.10)*
HD203+MTX	BAR_4+MTX	2.13 (0.25, 32.49)
SB4+MTX		1.87 (0.23, 25.84)
CT-P13+MTX		4.45 (0.58, 57.40)
SB2+MTX		*11.82 (1.36, 168.51)*
SB5+MTX		0.82 (0.04, 16.98)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
ABP501+MTX		*11.35 (0.90, 272.33)*
SB4+MTX	HD203+MTX	0.87 (0.23, 3.27)
CT-P13+MTX		2.05 (0.49, 9.23)
SB2+MTX		5.35 (1.10, 28.85)
SB5+MTX		0.38 (0.03, 3.00)
ABP501+MTX		5.22 (0.73, 43.90)
CT-P13+MTX	SB4+MTX	2.34 (0.63, 9.54)
SB2+MTX		6.12 (1.41, 29.20)
SB5+MTX		0.43 (0.04, 3.19)
ABP501+MTX		6.04 (0.90, 46.06)
SB2+MTX	CT-P13+MTX	2.64 (0.89, 7.78)
SB5+MTX		0.18 (0.02, 1.20)
ABP501+MTX		2.48 (0.38, 20.39)
SB5+MTX	SB2+MTX	0.07 (0.01, 0.54)
ABP501+MTX		0.96 (0.13, 8.65)
ABP501+MTX	SB5+MTX	*14.10 (1.64, 222.07)*

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SB5=biosimilar adalimumab; SC = subcutaneous; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 26. Sensitivity Analysis Results, DAS28 (MTX as a Common Comparator) – Imputing Missing Standard Error

Treatment	Comparator	SMD (95% CrI)
Placebo	Placebo+MTX	0.08 (-3.19, 3.39)
SSZ+HCQ		-0.72 (-3.14, 1.70)
ETN_STD		-0.27 (-1.83, 1.28)
ETN_STD+MTX		-0.92 (-2.29, 0.43)
ABA_STD (IV)+MTX		**-1.42 (-2.45, -0.41)**
ADA_STD		-0.65 (-3.26, 1.96)
ADA_STD+MTX		-1.02 (-2.37, 0.32)
TOF_STD		-0.05 (-3.36, 3.28)
TOF_STD+MTX		**-1.24 (-2.24, -0.26)**
TOC_8 (IV)		**-2.51 (-4.12, -0.87)**
TOC_4 (IV)+MTX		**-1.58 (-3.02, -0.16)**
TOC_8 (IV)+MTX		**-3.06 (-4.47, -1.69)**
GOL_STD (SC)		-0.89 (-4.73, 2.98)
GOL_STD (SC)+MTX		**-1.55 (-3.00, -0.09)**
GOL_STD (IV)+MTX		-1.03 (-3.02, 0.96)
INF_STD+MTX		-0.78 (-2.60, 1.05)
CERTO_STD		-1.52 (-5.38, 2.34)
CERTO_STD+MTX		**-2.24 (-3.66, -0.79)**
RIT_STD		-1.49 (-3.38, 0.45)
RIT_STD+MTX		**-2.65 (-4.09, -1.23)**
SAR_200		-0.10 (-3.40, 3.15)
BAR_4+MTX		-0.80 (-2.67, 1.03)
HD203+MTX		-1.07 (-3.48, 1.39)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
SB4+MTX		-1.09 (-3.52, 1.32)
ANBAI+MTX		-1.37 (-3.41, 0.61)
CT-P13+MTX		-1.01 (-3.32, 1.28)
SB2+MTX		-0.76 (-3.44, 1.95)
ZRC-3197+MTX		-0.93 (-3.38, 1.50)
ABP501+MTX		-1.01 (-3.44, 1.34)
SSZ+HCQ	Placebo	-0.78 (-4.92, 3.31)
ETN_STD		-0.35 (-3.96, 3.32)
ETN_STD+MTX		-1.01 (-4.56, 2.54)
ABA_STD (IV)+MTX		-1.49 (-4.96, 1.90)
ADA_STD		-0.72 (-2.73, 1.29)
ADA_STD+MTX		-1.10 (-4.65, 2.45)
TOF_STD		-0.13 (-2.19, 1.88)
TOF_STD+MTX		-1.32 (-4.79, 2.08)
TOC_8 (IV)		-2.59 (-5.46, 0.30)
TOC_4 (IV)+MTX		-1.67 (-4.96, 1.63)
TOC_8 (IV)+MTX		-3.15 (-6.33, 0.02)
GOL_STD (SC)		-0.96 (-2.97, 1.05)
GOL_STD (SC)+MTX		-1.62 (-5.27, 1.92)
GOL_STD (IV)+MTX		-1.10 (-4.99, 2.77)
INF_STD+MTX		-0.86 (-4.63, 2.93)
CERTO_STD		-1.60 (-3.61, 0.41)
CERTO_STD+MTX		-2.31 (-5.96, 1.29)
RIT_STD		-1.56 (-5.38, 2.24)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
RIT_STD+MTX		-2.74 (-6.32, 0.85)
SAR_200		-0.18 (-3.03, 2.65)
BAR_4+MTX		-0.88 (-4.68, 2.89)
HD203+MTX		-1.15 (-5.22, 2.96)
SB4+MTX		-1.18 (-5.26, 2.95)
ANBAI+MTX		-1.45 (-5.31, 2.41)
CT-P13+MTX		-1.09 (-5.12, 2.92)
SB2+MTX		-0.85 (-5.12, 3.48)
ZRC-3197+MTX		-1.01 (-5.13, 3.04)
ABP501+MTX		-1.10 (-5.18, 2.97)
ETN_STD	SSZ+HCQ	0.45 (-1.86, 2.75)
ETN_STD+MTX		-0.21 (-2.24, 1.80)
ABA_STD (IV)+MTX		-0.71 (-3.31, 1.91)
ADA_STD		0.06 (-3.50, 3.68)
ADA_STD+MTX		-0.31 (-3.08, 2.46)
TOF_STD		0.66 (-3.43, 4.77)
TOF_STD+MTX		-0.52 (-3.16, 2.08)
TOC_8 (IV)		-1.79 (-4.71, 1.16)
TOC_4 (IV)+MTX		-0.87 (-3.68, 1.96)
TOC_8 (IV)+MTX		-2.35 (-5.15, 0.44)
GOL_STD (SC)		-0.19 (-4.73, 4.40)
GOL_STD (SC)+MTX		-0.83 (-3.64, 2.01)
GOL_STD (IV)+MTX		-0.32 (-3.47, 2.80)
INF_STD+MTX		-0.06 (-3.12, 2.92)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
CERTO_STD		-0.80 (-5.44, 3.77)
CERTO_STD+MTX		-1.52 (-4.33, 1.31)
RIT_STD		-0.78 (-3.83, 2.35)
RIT_STD+MTX		-1.95 (-4.78, 0.85)
SAR_200		0.61 (-3.50, 4.69)
BAR_4+MTX		-0.10 (-3.17, 2.96)
HD203+MTX		-0.35 (-3.23, 2.54)
SB4+MTX		-0.39 (-3.22, 2.45)
ANBAI+MTX		-0.66 (-3.79, 2.48)
CT-P13+MTX		-0.27 (-3.63, 2.99)
SB2+MTX		-0.05 (-3.66, 3.54)
ZRC-3197+MTX		-0.23 (-3.68, 3.24)
ABP501+MTX		-0.30 (-3.77, 3.10)
ETN_STD+MTX	ETN_STD	-0.65 (-1.79, 0.48)
ABA_STD (IV)+MTX		-1.15 (-3.00, 0.71)
ADA_STD		-0.37 (-3.46, 2.65)
ADA_STD+MTX		-0.75 (-2.79, 1.30)
TOF_STD		0.22 (-3.49, 3.86)
TOF_STD+MTX		-0.97 (-2.82, 0.86)
TOC_8 (IV)		-2.23 (-4.47, 0.01)
TOC_4 (IV)+MTX		-1.32 (-3.42, 0.78)
TOC_8 (IV)+MTX		**-2.80 (-4.90, -0.71)**
GOL_STD (SC)		-0.63 (-4.78, 3.54)
GOL_STD (SC)+MTX		-1.29 (-3.39, 0.84)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
GOL_STD (IV)+MTX		-0.76 (-3.26, 1.77)
INF_STD+MTX		-0.51 (-2.88, 1.87)
CERTO_STD		-1.25 (-5.47, 2.93)
CERTO_STD+MTX		-1.97 (-4.08, 0.13)
RIT_STD		-1.22 (-3.67, 1.30)
RIT_STD+MTX		**-2.39 (-4.53, -0.25)**
SAR_200		0.16 (-3.49, 3.75)
BAR_4+MTX		-0.54 (-2.96, 1.90)
HD203+MTX		-0.79 (-3.07, 1.52)
SB4+MTX		-0.82 (-3.10, 1.48)
ANBAI+MTX		-1.10 (-3.67, 1.42)
CT-P13+MTX		-0.73 (-3.51, 2.03)
SB2+MTX		-0.49 (-3.60, 2.63)
ZRC-3197+MTX		-0.67 (-3.55, 2.22)
ABP501+MTX		-0.76 (-3.60, 2.10)
ABA_STD (IV)+MTX	ETN_STD+MTX	-0.50 (-2.19, 1.20)
ADA_STD		0.29 (-2.67, 3.20)
ADA_STD+MTX		-0.10 (-2.02, 1.81)
TOF_STD		0.87 (-2.74, 4.45)
TOF_STD+MTX		-0.31 (-2.00, 1.39)
TOC_8 (IV)		-1.58 (-3.70, 0.55)
TOC_4 (IV)+MTX		-0.66 (-2.62, 1.31)
TOC_8 (IV)+MTX		**-2.14 (-4.08, -0.20)**
GOL_STD (SC)		0.03 (-4.01, 4.11)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
GOL_STD (SC)+MTX		-0.63 (-2.61, 1.35)
GOL_STD (IV)+MTX		-0.11 (-2.53, 2.31)
INF_STD+MTX		0.14 (-2.13, 2.42)
CERTO_STD		-0.59 (-4.72, 3.51)
CERTO_STD+MTX		-1.31 (-3.27, 0.66)
RIT_STD		-0.58 (-2.91, 1.84)
RIT_STD+MTX		-1.73 (-3.70, 0.26)
SAR_200		0.83 (-2.75, 4.35)
BAR_4+MTX		0.12 (-2.22, 2.43)
HD203+MTX		-0.14 (-2.16, 1.87)
SB4+MTX		-0.16 (-2.15, 1.82)
ANBAI+MTX		-0.45 (-2.87, 1.97)
CT-P13+MTX		-0.08 (-2.76, 2.59)
SB2+MTX		0.15 (-2.87, 3.21)
ZRC-3197+MTX		-0.02 (-2.81, 2.76)
ABP501+MTX		-0.10 (-2.87, 2.66)
ADA_STD	ABA_STD (IV)+MTX	0.77 (-2.03, 3.59)
ADA_STD+MTX		0.40 (-1.29, 2.11)
TOF_STD		1.37 (-2.05, 4.85)
TOF_STD+MTX		0.18 (-1.24, 1.62)
TOC_8 (IV)		-1.09 (-3.00, 0.83)
TOC_4 (IV)+MTX		-0.17 (-1.93, 1.61)
TOC_8 (IV)+MTX		-1.65 (-3.38, 0.07)
GOL_STD (SC)		0.53 (-3.44, 4.52)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
GOL_STD (SC)+MTX		-0.14 (-1.88, 1.65)
GOL_STD (IV)+MTX		0.38 (-1.84, 2.64)
INF_STD+MTX		0.65 (-1.18, 2.45)
CERTO_STD		-0.10 (-4.08, 3.93)
CERTO_STD+MTX		-0.83 (-2.55, 0.95)
RIT_STD		-0.08 (-2.23, 2.14)
RIT_STD+MTX		-1.24 (-2.99, 0.51)
SAR_200		1.31 (-2.11, 4.77)
BAR_4+MTX		0.61 (-1.49, 2.73)
HD203+MTX		0.35 (-2.29, 3.01)
SB4+MTX		0.32 (-2.30, 2.94)
ANBAI+MTX		0.03 (-2.20, 2.32)
CT-P13+MTX		0.41 (-1.89, 2.73)
SB2+MTX		0.65 (-2.04, 3.35)
ZRC-3197+MTX		0.48 (-2.16, 3.13)
ABP501+MTX		0.41 (-2.21, 3.01)
ADA_STD+MTX	ADA_STD	-0.38 (-3.31, 2.57)
TOF_STD		0.60 (-1.43, 2.60)
TOF_STD+MTX		-0.59 (-3.42, 2.20)
TOC_8 (IV)		-1.86 (-3.88, 0.18)
TOC_4 (IV)+MTX		-0.94 (-3.55, 1.69)
TOC_8 (IV)+MTX		-2.42 (-4.88, 0.08)
GOL_STD (SC)		-0.23 (-3.09, 2.63)
GOL_STD (SC)+MTX		-0.90 (-3.89, 2.07)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
GOL_STD (IV)+MTX		-0.38 (-3.68, 2.94)
INF_STD+MTX		-0.13 (-3.32, 3.05)
CERTO_STD		-0.87 (-3.74, 1.99)
CERTO_STD+MTX		-1.58 (-4.65, 1.39)
RIT_STD		-0.84 (-4.08, 2.41)
RIT_STD+MTX		-2.01 (-4.99, 1.01)
SAR_200		0.54 (-1.45, 2.54)
BAR_4+MTX		-0.16 (-3.37, 3.05)
HD203+MTX		-0.42 (-4.00, 3.17)
SB4+MTX		-0.45 (-4.02, 3.17)
ANBAI+MTX		-0.74 (-4.05, 2.57)
CT-P13+MTX		-0.37 (-3.83, 3.15)
SB2+MTX		-0.12 (-3.89, 3.69)
ZRC-3197+MTX		-0.28 (-3.85, 3.31)
ABP501+MTX		-0.38 (-3.92, 3.20)
TOF_STD	ADA_STD+MTX	0.97 (-2.61, 4.54)
TOF_STD+MTX		-0.22 (-1.71, 1.28)
TOC_8 (IV)		-1.49 (-3.59, 0.64)
TOC_4 (IV)+MTX		-0.56 (-2.50, 1.40)
TOC_8 (IV)+MTX		**-2.04 (-3.97, -0.11)**
GOL_STD (SC)		0.13 (-3.95, 4.25)
GOL_STD (SC)+MTX		-0.54 (-2.47, 1.48)
GOL_STD (IV)+MTX		-0.01 (-2.38, 2.38)
INF_STD+MTX		0.25 (-2.02, 2.49)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
CERTO_STD		-0.50 (-4.57, 3.62)
CERTO_STD+MTX		-1.21 (-3.17, 0.78)
RIT_STD		-0.47 (-2.77, 1.90)
RIT_STD+MTX		-1.64 (-3.59, 0.31)
SAR_200		0.92 (-2.62, 4.47)
BAR_4+MTX		0.21 (-1.63, 2.10)
HD203+MTX		-0.05 (-2.81, 2.73)
SB4+MTX		-0.07 (-2.80, 2.72)
ANBAI+MTX		-0.35 (-2.78, 2.06)
CT-P13+MTX		0.01 (-2.65, 2.68)
SB2+MTX		0.25 (-2.76, 3.28)
ZRC-3197+MTX		0.09 (-1.92, 2.09)
ABP501+MTX		0.01 (-2.00, 1.95)
TOF_STD+MTX	TOF_STD	-1.19 (-4.62, 2.27)
TOC_8 (IV)		-2.46 (-5.32, 0.43)
TOC_4 (IV)+MTX		-1.53 (-4.80, 1.76)
TOC_8 (IV)+MTX		-3.03 (-6.19, 0.17)
GOL_STD (SC)		-0.84 (-3.70, 2.01)
GOL_STD (SC)+MTX		-1.51 (-5.10, 2.07)
GOL_STD (IV)+MTX		-0.97 (-4.87, 2.86)
INF_STD+MTX		-0.73 (-4.51, 3.05)
CERTO_STD		-1.46 (-4.32, 1.40)
CERTO_STD+MTX		-2.18 (-5.83, 1.44)
RIT_STD		-1.44 (-5.24, 2.43)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
RIT_STD+MTX		-2.61 (-6.20, 1.03)
SAR_200		-0.06 (-2.91, 2.80)
BAR_4+MTX		-0.76 (-4.55, 3.03)
HD203+MTX		-1.02 (-5.08, 3.12)
SB4+MTX		-1.04 (-5.14, 3.10)
ANBAI+MTX		-1.34 (-5.20, 2.55)
CT-P13+MTX		-0.96 (-4.98, 3.11)
SB2+MTX		-0.72 (-5.02, 3.60)
ZRC-3197+MTX		-0.88 (-4.99, 3.21)
ABP501+MTX		-0.98 (-5.04, 3.08)
TOC_8 (IV)	TOF_STD+MTX	-1.27 (-3.18, 0.67)
TOC_4 (IV)+MTX		-0.34 (-2.10, 1.38)
TOC_8 (IV)+MTX		**-1.82 (-3.52, -0.10)**
GOL_STD (SC)		0.34 (-3.61, 4.33)
GOL_STD (SC)+MTX		-0.32 (-2.06, 1.45)
GOL_STD (IV)+MTX		0.20 (-2.02, 2.47)
INF_STD+MTX		0.46 (-1.60, 2.54)
CERTO_STD		-0.28 (-4.24, 3.74)
CERTO_STD+MTX		-1.01 (-2.73, 0.77)
RIT_STD		-0.26 (-2.35, 1.93)
RIT_STD+MTX		-1.42 (-3.14, 0.34)
SAR_200		1.14 (-2.33, 4.55)
BAR_4+MTX		0.43 (-1.58, 2.48)
HD203+MTX		0.17 (-2.46, 2.79)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
SB4+MTX		0.14 (-2.44, 2.76)
ANBAI+MTX		-0.13 (-2.38, 2.09)
CT-P13+MTX		0.23 (-2.29, 2.75)
SB2+MTX		0.47 (-2.39, 3.40)
ZRC-3197+MTX		0.30 (-2.24, 2.81)
ABP501+MTX		0.23 (-2.27, 2.69)
TOC_4 (IV)+MTX	TOC_8 (IV)	0.92 (-0.73, 2.57)
TOC_8 (IV)+MTX		-0.56 (-1.91, 0.81)
GOL_STD (SC)		1.62 (-1.90, 5.14)
GOL_STD (SC)+MTX		0.96 (-1.24, 3.14)
GOL_STD (IV)+MTX		1.48 (-1.11, 4.08)
INF_STD+MTX		1.73 (-0.71, 4.15)
CERTO_STD		1.00 (-2.50, 4.46)
CERTO_STD+MTX		0.27 (-1.95, 2.44)
RIT_STD		1.02 (-1.50, 3.54)
RIT_STD+MTX		-0.15 (-2.33, 2.07)
SAR_200		2.40 (-0.46, 5.22)
BAR_4+MTX		1.71 (-0.77, 4.15)
HD203+MTX		1.45 (-1.47, 4.33)
SB4+MTX		1.40 (-1.52, 4.33)
ANBAI+MTX		1.13 (-1.47, 3.71)
CT-P13+MTX		1.49 (-1.32, 4.29)
SB2+MTX		1.74 (-1.43, 4.89)
ZRC-3197+MTX		1.57 (-1.39, 4.47)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
ABP501+MTX		1.50 (-1.43, 4.37)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	**-1.48 (-2.90, -0.06)**
GOL_STD (SC)		0.70 (-3.16, 4.55)
GOL_STD (SC)+MTX		0.03 (-2.01, 2.07)
GOL_STD (IV)+MTX		0.55 (-1.91, 2.98)
INF_STD+MTX		0.81 (-1.51, 3.08)
CERTO_STD		0.08 (-3.81, 3.94)
CERTO_STD+MTX		-0.65 (-2.69, 1.41)
RIT_STD		0.09 (-2.26, 2.48)
RIT_STD+MTX		-1.07 (-3.08, 0.94)
SAR_200		1.49 (-1.82, 4.75)
BAR_4+MTX		0.78 (-1.58, 3.10)
HD203+MTX		0.53 (-2.26, 3.28)
SB4+MTX		0.49 (-2.32, 3.29)
ANBAI+MTX		0.21 (-2.29, 2.69)
CT-P13+MTX		0.59 (-2.15, 3.25)
SB2+MTX		0.83 (-2.22, 3.85)
ZRC-3197+MTX		0.65 (-2.16, 3.46)
ABP501+MTX		0.57 (-2.19, 3.32)
GOL_STD (SC)	TOC_8 (IV)+MTX	2.18 (-1.59, 5.93)
GOL_STD (SC)+MTX		1.52 (-0.50, 3.54)
GOL_STD (IV)+MTX		2.03 (-0.37, 4.50)
INF_STD+MTX		2.29 (0.02, 4.57)
CERTO_STD		1.55 (-2.24, 5.36)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
CERTO_STD+MTX		0.83 (-1.21, 2.81)
RIT_STD		1.57 (-0.79, 3.95)
RIT_STD+MTX		0.41 (-1.60, 2.41)
SAR_200		2.96 (-0.22, 6.06)
BAR_4+MTX		2.26 (-0.06, 4.57)
HD203+MTX		2.01 (-0.74, 4.79)
SB4+MTX		1.98 (-0.82, 4.75)
ANBAI+MTX		1.69 (-0.78, 4.11)
CT-P13+MTX		2.05 (-0.62, 4.74)
SB2+MTX		2.29 (-0.76, 5.33)
ZRC-3197+MTX		2.13 (-0.66, 4.92)
ABP501+MTX		2.05 (-0.74, 4.82)
GOL_STD (SC)+MTX	GOL_STD (SC)	-0.66 (-4.76, 3.42)
GOL_STD (IV)+MTX		-0.13 (-4.47, 4.18)
INF_STD+MTX		0.11 (-4.16, 4.37)
CERTO_STD		-0.63 (-3.46, 2.22)
CERTO_STD+MTX		-1.34 (-5.47, 2.72)
RIT_STD		-0.60 (-4.88, 3.71)
RIT_STD+MTX		-1.77 (-5.88, 2.35)
SAR_200		0.79 (-2.69, 4.28)
BAR_4+MTX		0.09 (-4.20, 4.33)
HD203+MTX		-0.17 (-4.69, 4.34)
SB4+MTX		-0.20 (-4.71, 4.34)
ANBAI+MTX		-0.48 (-4.87, 3.83)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
CT-P13+MTX		-0.12 (-4.61, 4.35)
SB2+MTX		0.12 (-4.60, 4.84)
ZRC-3197+MTX		-0.04 (-4.60, 4.48)
ABP501+MTX		-0.14 (-4.65, 4.43)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.52 (-1.95, 3.01)
INF_STD+MTX		0.77 (-1.55, 3.11)
CERTO_STD		0.02 (-4.10, 4.17)
CERTO_STD+MTX		-0.69 (-2.74, 1.35)
RIT_STD		0.07 (-2.31, 2.45)
RIT_STD+MTX		-1.10 (-3.15, 0.95)
SAR_200		1.44 (-2.13, 5.05)
BAR_4+MTX		0.76 (-1.62, 3.11)
HD203+MTX		0.49 (-2.34, 3.29)
SB4+MTX		0.47 (-2.38, 3.27)
ANBAI+MTX		0.18 (-2.34, 2.68)
CT-P13+MTX		0.54 (-2.21, 3.27)
SB2+MTX		0.78 (-2.31, 3.85)
ZRC-3197+MTX		0.62 (-2.24, 3.43)
ABP501+MTX		0.55 (-2.32, 3.31)
INF_STD+MTX	GOL_STD (IV)+MTX	0.26 (-2.44, 2.92)
CERTO_STD		-0.50 (-4.82, 3.97)
CERTO_STD+MTX		-1.21 (-3.66, 1.25)
RIT_STD		-0.46 (-3.20, 2.32)
RIT_STD+MTX		-1.63 (-4.06, 0.81)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
SAR_200		0.93 (-2.89, 4.77)
BAR_4+MTX		0.22 (-2.50, 2.92)
HD203+MTX		-0.04 (-3.14, 3.11)
SB4+MTX		-0.07 (-3.19, 3.06)
ANBAI+MTX		-0.34 (-3.18, 2.45)
CT-P13+MTX		0.02 (-3.02, 3.05)
SB2+MTX		0.26 (-3.12, 3.60)
ZRC-3197+MTX		0.09 (-3.02, 3.24)
ABP501+MTX		0.02 (-3.11, 3.11)
CERTO_STD	INF_STD+MTX	-0.73 (-5.04, 3.52)
CERTO_STD+MTX		-1.46 (-3.76, 0.87)
RIT_STD		-0.72 (-3.32, 1.96)
RIT_STD+MTX		-1.88 (-4.20, 0.41)
SAR_200		0.67 (-3.10, 4.43)
BAR_4+MTX		-0.04 (-2.63, 2.56)
HD203+MTX		-0.29 (-3.32, 2.76)
SB4+MTX		-0.31 (-3.33, 2.70)
ANBAI+MTX		-0.60 (-3.30, 2.09)
CT-P13+MTX		-0.23 (-1.67, 1.18)
SB2+MTX		0.01 (-1.99, 2.03)
ZRC-3197+MTX		-0.18 (-3.18, 2.86)
ABP501+MTX		-0.24 (-3.23, 2.74)
CERTO_STD+MTX	CERTO_STD	-0.72 (-4.88, 3.40)
RIT_STD		0.03 (-4.27, 4.38)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
RIT_STD+MTX		-1.14 (-5.26, 3.01)
SAR_200		1.41 (-2.03, 4.92)
BAR_4+MTX		0.72 (-3.61, 4.99)
HD203+MTX		0.46 (-4.04, 5.04)
SB4+MTX		0.44 (-4.15, 5.08)
ANBAI+MTX		0.15 (-4.21, 4.53)
CT-P13+MTX		0.49 (-3.98, 5.03)
SB2+MTX		0.75 (-3.97, 5.49)
ZRC-3197+MTX		0.58 (-4.01, 5.10)
ABP501+MTX		0.50 (-4.05, 5.08)
RIT_STD	CERTO_STD+MTX	0.74 (-1.63, 3.16)
RIT_STD+MTX		-0.42 (-2.43, 1.63)
SAR_200		2.13 (-1.50, 5.72)
BAR_4+MTX		1.44 (-0.91, 3.76)
HD203+MTX		1.17 (-1.62, 4.02)
SB4+MTX		1.15 (-1.67, 3.94)
ANBAI+MTX		0.87 (-1.62, 3.35)
CT-P13+MTX		1.23 (-1.49, 3.92)
SB2+MTX		1.48 (-1.60, 4.55)
ZRC-3197+MTX		1.31 (-1.54, 4.13)
ABP501+MTX		1.22 (-1.60, 4.00)
RIT_STD+MTX	RIT_STD	-1.17 (-3.07, 0.74)
SAR_200		1.39 (-2.45, 5.20)
BAR_4+MTX		0.69 (-2.01, 3.31)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
HD203+MTX		0.44 (-2.70, 3.49)
SB4+MTX		0.41 (-2.74, 3.49)
ANBAI+MTX		0.12 (-2.66, 2.86)
CT-P13+MTX		0.49 (-2.57, 3.44)
SB2+MTX		0.73 (-2.61, 4.02)
ZRC-3197+MTX		0.56 (-2.54, 3.59)
ABP501+MTX		0.48 (-2.62, 3.50)
SAR_200	RIT_STD+MTX	2.56 (-1.06, 6.11)
BAR_4+MTX		1.86 (-0.50, 4.15)
HD203+MTX		1.59 (-1.24, 4.39)
SB4+MTX		1.56 (-1.26, 4.34)
ANBAI+MTX		1.28 (-1.16, 3.76)
CT-P13+MTX		1.64 (-1.09, 4.35)
SB2+MTX		1.89 (-1.19, 4.96)
ZRC-3197+MTX		1.72 (-1.10, 4.54)
ABP501+MTX		1.65 (-1.19, 4.40)
BAR_4+MTX	SAR_200	-0.70 (-4.46, 3.12)
HD203+MTX		-0.98 (-4.99, 3.11)
SB4+MTX		-1.00 (-5.04, 3.15)
ANBAI+MTX		-1.29 (-5.14, 2.60)
CT-P13+MTX		-0.90 (-4.91, 3.13)
SB2+MTX		-0.66 (-4.92, 3.64)
ZRC-3197+MTX		-0.83 (-5.01, 3.27)
ABP501+MTX		-0.92 (-4.96, 3.16)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
HD203+MTX	BAR_4+MTX	-0.26 (-3.32, 2.82)
SB4+MTX		-0.29 (-3.34, 2.81)
ANBAI+MTX		-0.57 (-3.29, 2.17)
CT-P13+MTX		-0.19 (-3.15, 2.73)
SB2+MTX		0.04 (-3.21, 3.31)
ZRC-3197+MTX		-0.13 (-2.88, 2.62)
ABP501+MTX		-0.21 (-2.91, 2.51)
SB4+MTX	HD203+MTX	-0.03 (-2.80, 2.79)
ANBAI+MTX		-0.31 (-3.46, 2.82)
CT-P13+MTX		0.06 (-3.30, 3.40)
SB2+MTX		0.29 (-3.29, 3.97)
ZRC-3197+MTX		0.12 (-3.33, 3.55)
ABP501+MTX		0.04 (-3.36, 3.44)
ANBAI+MTX	SB4+MTX	-0.29 (-3.41, 2.83)
CT-P13+MTX		0.09 (-3.24, 3.41)
SB2+MTX		0.33 (-3.22, 3.92)
ZRC-3197+MTX		0.15 (-3.26, 3.55)
ABP501+MTX		0.08 (-3.38, 3.46)
CT-P13+MTX	ANBAI+MTX	0.37 (-2.67, 3.44)
SB2+MTX		0.61 (-2.76, 3.95)
ZRC-3197+MTX		0.44 (-2.69, 3.60)
ABP501+MTX		0.37 (-2.76, 3.45)
SB2+MTX	CT-P13+MTX	0.24 (-2.20, 2.71)
ZRC-3197+MTX		0.05 (-3.28, 3.41)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
ABP501+MTX		-0.01 (-3.34, 3.31)
ZRC-3197+MTX	SB2+MTX	-0.18 (-3.81, 3.44)
ABP501+MTX		-0.25 (-3.84, 3.32)
ABP501+MTX	ZRC-3197+MTX	-0.07 (-2.92, 2.72)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ABP501 = biosimilar adalimumab; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; CT-P13 = biosimilar of infliximab; ETN=etanercept; GOL = golimumab; HCQ = hydroxychloroquine; HD203 = etanercept biosimilar; INF = infliximab; IV = intravenous; MTX = methotrexate; OR = odds ratio; RIT = rituximab; SAR_200 = 200mg sarilumab; SB2= biosimilar infliximab 3mg/kg; SB4 = biosimilar etanercept 50mg; SC = subcutaneous; SMD = standardized mean difference; SSZ = sulfasalazine; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 27. Sensitivity Analysis Results, HAQ-DI (MTX as a Common Comparator) – Imputing Missing Standard Error

Treatment	Comparator	MD (95% CrI)
ABA_STD (IV)+MTX	Placebo+MTX	-0.27 (-0.40, -0.16)
ADA_STD+MTX		-0.24 (-0.33, -0.16)
TOF_STD+MTX		-0.31 (-0.42, -0.20)
TOC_8 (IV)		-0.48 (-0.72, -0.24)
TOC_4 (IV)+MTX		-0.31 (-0.50, -0.12)
TOC_8 (IV)+MTX		-0.44 (-0.63, -0.25)
GOL_STD (SC)+MTX		-0.30 (-0.42, -0.19)
GOL_STD (IV)+MTX		-0.28 (-0.47, -0.09)
INF_STD+MTX		-0.24 (-0.44, -0.05)
CERTO_STD+MTX		-0.36 (-0.49, -0.22)
RIT_STD		-0.40 (-0.62, -0.18)
RIT_STD+MTX		-0.20 (-0.42, 0.02)
SAR_200+MTX		-0.26 (-0.44, -0.08)
BAR_4+MTX		-0.30 (-0.42, -0.17)
ANBAI+MTX		-0.63 (-0.84, -0.42)
CT-P13+MTX		-0.53 (-0.86, -0.21)
SB2+MTX		-0.24 (-0.52, 0.02)
ZRC-3197+MTX		-0.24 (-0.52, 0.04)
ADA_STD+MTX	ABA_STD (IV)+MTX	0.03 (-0.12, 0.19)
TOF_STD+MTX		-0.03 (-0.19, 0.13)
TOC_8 (IV)		-0.20 (-0.47, 0.06)
TOC_4 (IV)+MTX		-0.04 (-0.25, 0.19)
TOC_8 (IV)+MTX		-0.17 (-0.39, 0.06)

(as supplied by the authors)

Treatment	Comparator	MD (95% CrI)
GOL_STD (SC)+MTX		-0.03 (-0.19, 0.14)
GOL_STD (IV)+MTX		-0.01 (-0.23, 0.23)
INF_STD+MTX		0.03 (-0.16, 0.23)
CERTO_STD+MTX		-0.09 (-0.26, 0.11)
RIT_STD		-0.13 (-0.38, 0.13)
RIT_STD+MTX		0.07 (-0.17, 0.34)
SAR_200+MTX		0.01 (-0.20, 0.24)
BAR_4+MTX		-0.02 (-0.19, 0.16)
ANBAI+MTX		-0.36 (-0.59, -0.11)
CT-P13+MTX		-0.26 (-0.58, 0.07)
SB2+MTX		0.03 (-0.24, 0.30)
ZRC-3197+MTX		0.03 (-0.27, 0.34)
TOF_STD+MTX	ADA_STD+MTX	-0.06 (-0.19, 0.06)
TOC_8 (IV)		-0.23 (-0.49, 0.02)
TOC_4 (IV)+MTX		-0.06 (-0.28, 0.14)
TOC_8 (IV)+MTX		-0.20 (-0.41, 0.01)
GOL_STD (SC)+MTX		-0.06 (-0.21, 0.09)
GOL_STD (IV)+MTX		-0.04 (-0.25, 0.17)
INF_STD+MTX		0.003 (-0.22, 0.21)
CERTO_STD+MTX		-0.12 (-0.28, 0.05)
RIT_STD		-0.16 (-0.39, 0.08)
RIT_STD+MTX		0.04 (-0.20, 0.28)
SAR_200+MTX		-0.02 (-0.22, 0.19)
BAR_4+MTX		-0.05 (-0.19, 0.08)

(as supplied by the authors)

Treatment	Comparator	MD (95% CrI)
ANBAI+MTX		-0.39 (-0.61, -0.16)
CT-P13+MTX		-0.29 (-0.63, 0.05)
SB2+MTX		0.004 (-0.29, 0.28)
ZRC-3197+MTX		-0.0002 (-0.26, 0.27)
TOC_8 (IV)	TOF_STD+MTX	-0.17 (-0.43, 0.09)
TOC_4 (IV)+MTX		-0.01 (-0.22, 0.21)
TOC_8 (IV)+MTX		-0.14 (-0.35, 0.08)
GOL_STD (SC)+MTX		0.001 (-0.16, 0.16)
GOL_STD (IV)+MTX		0.02 (-0.19, 0.24)
INF_STD+MTX		0.07 (-0.16, 0.28)
CERTO_STD+MTX		-0.06 (-0.22, 0.12)
RIT_STD		-0.10 (-0.34, 0.16)
RIT_STD+MTX		0.10 (-0.14, 0.36)
SAR_200+MTX		0.04 (-0.16, 0.26)
BAR_4+MTX		0.01 (-0.15, 0.18)
ANBAI+MTX		-0.33 (-0.55, -0.09)
CT-P13+MTX		-0.23 (-0.58, 0.12)
SB2+MTX		0.06 (-0.23, 0.36)
ZRC-3197+MTX		0.06 (-0.23, 0.36)
TOC_4 (IV)+MTX	TOC_8 (IV)	0.17 (-0.07, 0.41)
TOC_8 (IV)+MTX		0.03 (-0.11, 0.18)
GOL_STD (SC)+MTX		0.17 (-0.09, 0.44)
GOL_STD (IV)+MTX		0.19 (-0.11, 0.50)
INF_STD+MTX		0.23 (-0.07, 0.54)

(as supplied by the authors)

Treatment	Comparator	MD (95% CrI)
CERTO_STD+MTX		0.11 (-0.15, 0.40)
RIT_STD		0.07 (-0.24, 0.41)
RIT_STD+MTX		0.28 (-0.05, 0.61)
SAR_200+MTX		0.21 (-0.08, 0.52)
BAR_4+MTX		0.18 (-0.09, 0.45)
ANBAI+MTX		-0.16 (-0.47, 0.16)
CT-P13+MTX		-0.06 (-0.46, 0.34)
SB2+MTX		0.24 (-0.13, 0.59)
ZRC-3197+MTX		0.23 (-0.13, 0.60)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	-0.13 (-0.32, 0.06)
GOL_STD (SC)+MTX		0.01 (-0.22, 0.22)
GOL_STD (IV)+MTX		0.03 (-0.24, 0.30)
INF_STD+MTX		0.07 (-0.20, 0.33)
CERTO_STD+MTX		-0.05 (-0.28, 0.18)
RIT_STD		-0.09 (-0.38, 0.20)
RIT_STD+MTX		0.11 (-0.18, 0.40)
SAR_200+MTX		0.05 (-0.21, 0.31)
BAR_4+MTX		0.01 (-0.21, 0.24)
ANBAI+MTX		-0.32 (-0.60, -0.04)
CT-P13+MTX		-0.22 (-0.60, 0.15)
SB2+MTX		0.07 (-0.26, 0.39)
ZRC-3197+MTX		0.07 (-0.27, 0.40)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	0.14 (-0.09, 0.36)
GOL_STD (IV)+MTX		0.16 (-0.11, 0.43)

(as supplied by the authors)

Treatment	Comparator	MD (95% CrI)
INF_STD+MTX		0.20 (-0.07, 0.46)
CERTO_STD+MTX		0.08 (-0.15, 0.32)
RIT_STD		0.04 (-0.25, 0.33)
RIT_STD+MTX		0.24 (-0.05, 0.53)
SAR_200+MTX		0.18 (-0.08, 0.45)
BAR_4+MTX		0.14 (-0.08, 0.37)
ANBAI+MTX		-0.19 (-0.47, 0.09)
CT-P13+MTX		-0.09 (-0.47, 0.28)
SB2+MTX		0.20 (-0.13, 0.52)
ZRC-3197+MTX		0.20 (-0.14, 0.54)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.02 (-0.20, 0.25)
INF_STD+MTX		0.06 (-0.17, 0.29)
CERTO_STD+MTX		-0.06 (-0.23, 0.13)
RIT_STD		-0.10 (-0.35, 0.16)
RIT_STD+MTX		0.10 (-0.15, 0.36)
SAR_200+MTX		0.04 (-0.17, 0.27)
BAR_4+MTX		0.01 (-0.16, 0.18)
ANBAI+MTX		-0.33 (-0.56, -0.08)
CT-P13+MTX		-0.23 (-0.58, 0.12)
SB2+MTX		0.06 (-0.24, 0.35)
ZRC-3197+MTX		0.06 (-0.24, 0.37)
INF_STD+MTX	GOL_STD (IV)+MTX	0.04 (-0.24, 0.31)
CERTO_STD+MTX		-0.08 (-0.31, 0.16)
RIT_STD		-0.12 (-0.42, 0.18)

(as supplied by the authors)

Treatment	Comparator	MD (95% CrI)
RIT_STD+MTX		0.08 (-0.21, 0.38)
SAR_200+MTX		0.02 (-0.24, 0.28)
BAR_4+MTX		-0.02 (-0.24, 0.21)
ANBAI+MTX		-0.35 (-0.63, -0.07)
CT-P13+MTX		-0.25 (-0.63, 0.12)
SB2+MTX		0.04 (-0.30, 0.36)
ZRC-3197+MTX		0.04 (-0.30, 0.38)
CERTO_STD+MTX	INF_STD+MTX	-0.12 (-0.35, 0.12)
RIT_STD		-0.16 (-0.45, 0.14)
RIT_STD+MTX		0.04 (-0.25, 0.35)
SAR_200+MTX		-0.02 (-0.28, 0.25)
BAR_4+MTX		-0.06 (-0.29, 0.18)
ANBAI+MTX		-0.39 (-0.67, -0.09)
CT-P13+MTX		-0.29 (-0.56, -0.03)
SB2+MTX		-0.0005 (-0.19, 0.19)
ZRC-3197+MTX		-0.003 (-0.34, 0.34)
RIT_STD	CERTO_STD+MTX	-0.04 (-0.30, 0.22)
RIT_STD+MTX		0.16 (-0.10, 0.42)
SAR_200+MTX		0.10 (-0.13, 0.33)
BAR_4+MTX		0.06 (-0.13, 0.25)
ANBAI+MTX		-0.27 (-0.52, -0.02)
CT-P13+MTX		-0.17 (-0.53, 0.17)
SB2+MTX		0.12 (-0.19, 0.41)
ZRC-3197+MTX		0.12 (-0.19, 0.43)

(as supplied by the authors)

Treatment	Comparator	MD (95% CrI)
RIT_STD+MTX	RIT_STD	0.20 (-0.03, 0.44)
SAR_200+MTX		0.14 (-0.15, 0.42)
BAR_4+MTX		0.10 (-0.15, 0.36)
ANBAI+MTX		-0.23 (-0.54, 0.08)
CT-P13+MTX		-0.13 (-0.53, 0.25)
SB2+MTX		0.16 (-0.19, 0.50)
ZRC-3197+MTX		0.16 (-0.20, 0.51)
SAR_200+MTX	RIT_STD+MTX	-0.06 (-0.35, 0.23)
BAR_4+MTX		-0.10 (-0.35, 0.16)
ANBAI+MTX		-0.43 (-0.74, -0.12)
CT-P13+MTX		-0.33 (-0.74, 0.06)
SB2+MTX		-0.04 (-0.40, 0.31)
ZRC-3197+MTX		-0.04 (-0.40, 0.31)
BAR_4+MTX	SAR_200+MTX	-0.04 (-0.26, 0.18)
ANBAI+MTX		-0.37 (-0.64, -0.09)
CT-P13+MTX		-0.27 (-0.65, 0.10)
SB2+MTX		0.02 (-0.31, 0.33)
ZRC-3197+MTX		0.02 (-0.32, 0.35)
ANBAI+MTX	BAR_4+MTX	-0.33 (-0.58, -0.09)
CT-P13+MTX		-0.24 (-0.59, 0.12)
SB2+MTX		0.06 (-0.25, 0.35)
ZRC-3197+MTX		0.05 (-0.24, 0.36)
CT-P13+MTX	ANBAI+MTX	0.10 (-0.30, 0.48)
SB2+MTX		0.39 (0.04, 0.73)

(as supplied by the authors)

Treatment	Comparator	MD (95% CrI)
ZRC-3197+MTX		0.39 (0.04, 0.74)
SB2+MTX	CT-P13+MTX	0.29 (-0.03, 0.61)
ZRC-3197+MTX		0.29 (-0.13, 0.72)
ZRC-3197+MTX	SB2+MTX	-0.002 (-0.38, 0.39)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ADA = adalimumab; ANBAI = AnBaiNuo (biosimilar adalimumab); BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; CT-P13 = biosimilar of infliximab; GOL = golimumab; INF = infliximab; IV = intravenous; MD = mean difference; MTX = methotrexate; OR = odds ratio;RIT = rituximab; SAR_200 = 200mg sarilumab; SB2= biosimilar infliximab 3mg/kg; SC = subcutaneous; STD = standard dose; TOC_4 = tocilizumab 4mg/kg; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib; ZRC-3197 = biosimilar of adalimumab.

(as supplied by the authors)

Table 28. Sensitivity Analysis Results, SF-36 PCS (MTX as a Common Comparator) – Imputing Missing Standard Error

Treatment	Comparator	MD (95% CrI)
ABA_STD (IV)+MTX	Placebo+MTX	4.13 (2.49, 5.85)
TOF_STD+MTX		2.70 (0.72, 4.55)
ADA_STD+MTX		2.43 (0.02, 4.88)
GOL_STD (SC)+MTX		4.83 (3.01, 6.78)
GOL_STD (IV)+MTX		3.64 (1.24, 6.07)
INF_STD+MTX		4.57 (2.67, 6.03)
CERTO_STD+MTX		5.06 (3.63, 6.50)
CT-P13+MTX		5.36 (2.16, 8.23)
TOF_STD+MTX	ABA_STD (IV)+MTX	-1.44 (-4.09, 1.00)
ADA_STD+MTX		-1.71 (-4.65, 1.24)
GOL_STD (SC)+MTX		0.70 (-1.78, 3.25)
GOL_STD (IV)+MTX		-0.50 (-3.49, 2.43)
INF_STD+MTX		0.44 (-1.91, 2.27)
CERTO_STD+MTX		0.92 (-1.32, 3.11)
CT-P13+MTX		1.22 (-2.26, 4.31)
ADA_STD+MTX	TOF_STD+MTX	-0.27 (-2.50, 2.16)
GOL_STD (SC)+MTX		2.14 (-0.45, 4.93)
GOL_STD (IV)+MTX		0.96 (-2.09, 4.08)
INF_STD+MTX		1.85 (-0.81, 4.27)
CERTO_STD+MTX		2.34 (0.04, 4.80)
CT-P13+MTX		2.65 (-1.02, 6.14)
GOL_STD (SC)+MTX	ADA_STD+MTX	2.40 (-0.64, 5.49)
GOL_STD (IV)+MTX		1.21 (-2.22, 4.59)

INF_STD+MTX		2.12 (-1.03, 4.89)
CERTO_STD+MTX		2.61 (-0.19, 5.42)
CT-P13+MTX		2.90 (-1.17, 6.62)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	-1.20 (-4.28, 1.83)
INF_STD+MTX		-0.28 (-3.06, 2.00)
CERTO_STD+MTX		0.21 (-2.17, 2.51)
CT-P13+MTX		0.52 (-3.26, 3.86)
INF_STD+MTX	GOL_STD (IV)+MTX	0.92 (-2.22, 3.67)
CERTO_STD+MTX		1.40 (-1.40, 4.23)
CT-P13+MTX		1.71 (-2.33, 5.40)
CERTO_STD+MTX	INF_STD+MTX	0.47 (-1.50, 2.91)
CT-P13+MTX		0.80 (-1.70, 3.37)
CT-P13+MTX	CERTO_STD+MTX	0.31 (-3.22, 3.48)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ADA = adalimumab; CERTO = certolizumab pegol; CrI = credible interval; CT-P13 = biosimilar of infliximab; GOL = golimumab; INF = infliximab; IV = intravenous; MD = mean difference; MTX = methotrexate; OR = odds ratio; SC = subcutaneous; STD = standard dose; TOF = tofacitinib.

(as supplied by the authors)

Table 29. Sensitivity Analysis Results, SF-36 MCS (MTX as a Common Comparator) – Imputing Missing Standard Error

Treatment	Comparator	MD (95% CrI)
ABA_STD (IV)+MTX	Placebo+MTX	2.71 (0.35, 5.86)
TOF_STD+MTX		2.04 (-0.82, 4.97)
ADA_STD+MTX		1.99 (-1.75, 5.70)
GOL_STD (SC)+MTX		1.84 (-1.22, 4.93)
GOL_STD (IV)+MTX		5.91 (2.09, 9.74)
INF_STD+MTX		2.16 (-1.64, 6.22)
CERTO_STD+MTX		3.60 (1.38, 5.83)
CT-P13+MTX		2.03 (-3.38, 7.76)
TOF_STD+MTX	ABA_STD (IV)+MTX	-0.69 (-5.04, 2.97)
ADA_STD+MTX		-0.72 (-5.75, 3.54)
GOL_STD (SC)+MTX		-0.90 (-5.35, 2.93)
GOL_STD (IV)+MTX		3.19 (-1.92, 7.52)
INF_STD+MTX		-0.58 (-4.66, 3.13)
CERTO_STD+MTX		0.92 (-3.09, 4.03)
CT-P13+MTX		-0.71 (-6.42, 4.62)
ADA_STD+MTX	TOF_STD+MTX	-0.04 (-3.74, 3.55)
GOL_STD (SC)+MTX		-0.22 (-4.46, 4.07)
GOL_STD (IV)+MTX		3.87 (-0.97, 8.61)
INF_STD+MTX		0.11 (-4.65, 5.09)
CERTO_STD+MTX		1.57 (-2.12, 5.15)
CT-P13+MTX		-0.02 (-6.13, 6.34)
GOL_STD (SC)+MTX	ADA_STD+MTX	-0.15 (-4.95, 4.73)
GOL_STD (IV)+MTX		3.91 (-1.36, 9.28)

INF_STD+MTX		0.16 (-5.08, 5.73)
CERTO_STD+MTX		1.62 (-2.73, 6.01)
CT-P13+MTX		0.02 (-6.46, 6.89)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	4.05 (-0.81, 8.99)
INF_STD+MTX		0.30 (-4.59, 5.49)
CERTO_STD+MTX		1.76 (-2.03, 5.57)
CT-P13+MTX		0.19 (-6.06, 6.68)
INF_STD+MTX	GOL_STD (IV)+MTX	-3.75 (-9.07, 1.90)
CERTO_STD+MTX		-2.31 (-6.72, 2.13)
CT-P13+MTX		-3.90 (-10.48, 3.03)
CERTO_STD+MTX	INF_STD+MTX	1.45 (-3.26, 5.82)
CT-P13+MTX		-0.14 (-4.06, 3.79)
CT-P13+MTX	CERTO_STD+MTX	-1.58 (-7.39, 4.62)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ABA = abatacept; ADA = adalimumab; CERTO = certolizumab pegol; CrI = credible interval; CT-P13 = biosimilar of infliximab; GOL = golimumab; INF = infliximab; IV = intravenous; MD= mean difference; MTX = methotrexate; SC = subcutaneous; STD = standard dose; TOF = tofacitinib.

(as supplied by the authors)

Table 30. Sensitivity Analysis Results, Pain (MTX as a Common Comparator) – Imputing Missing Standard Error

Treatment	Comparator	SMD (95% CrI)
Placebo	Placebo+MTX	-1.45 (0.59, 2.64)
LEF_10		-3.31 (-0.68, 1.97)
SSZ+HCQ		-1.72 (-0.04, 1.63)
MTX+SSZ+HCQ		-2.14 (-0.84, 0.41)
ETN_STD+MTX		-2.06 (-1.10, -0.23)
ABA_STD (IV)+MTX		-2.53 (-0.91, 0.74)
ADA_STD		-2.64 (-0.01, 2.65)
ADA_STD+MTX		-1.58 (-0.76, 0.03)
TOF_STD		-2.67 (-0.01, 2.67)
TOF_STD+MTX		-1.80 (-0.85, 0.08)
CERTO_STD		-2.49 (-0.81, 0.86)
CERTO_STD+MTX		-3.21 (-1.58, 0.05)
SAR_200+MTX		-2.97 (-1.32, 0.34)
BAR_4+MTX		-2.20 (-0.74, 0.72)
ZRC-3197+MTX		-2.69 (-0.80, 1.02)
LEF_10	Placebo	-2.95 (-1.27, 0.39)
SSZ+HCQ		-3.30 (-0.63, 2.01)
MTX+SSZ+HCQ		-3.89 (-1.43, 0.96)
ETN_STD+MTX		-3.95 (-1.69, 0.50)
ABA_STD (IV)+MTX		-4.11 (-1.51, 1.13)
ADA_STD		-2.26 (-0.59, 1.08)
ADA_STD+MTX		-3.54 (-1.35, 0.81)
TOF_STD		-2.25 (-0.59, 1.09)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
TOF_STD+MTX		-3.72 (-1.44, 0.77)
CERTO_STD		-2.58 (-1.40, -0.23)
CERTO_STD+MTX		-4.77 (-2.16, 0.45)
SAR_200+MTX		-4.55 (-1.90, 0.72)
BAR_4+MTX		-3.85 (-1.32, 1.20)
ZRC-3197+MTX		-4.18 (-1.39, 1.33)
SSZ+HCQ	LEF_10	-2.53 (0.63, 3.73)
MTX+SSZ+HCQ		-3.12 (-0.16, 2.70)
ETN_STD+MTX		-3.26 (-0.42, 2.32)
ABA_STD (IV)+MTX		-3.33 (-0.24, 2.89)
ADA_STD		-1.70 (0.67, 3.05)
ADA_STD+MTX		-2.83 (-0.09, 2.63)
TOF_STD		-1.66 (0.67, 3.03)
TOF_STD+MTX		-2.99 (-0.18, 2.60)
CERTO_STD		-2.16 (-0.13, 1.91)
CERTO_STD+MTX		-4.01 (-0.89, 2.18)
SAR_200+MTX		-3.71 (-0.64, 2.48)
BAR_4+MTX		-3.10 (-0.06, 2.94)
ZRC-3197+MTX		-3.35 (-0.14, 3.05)
MTX+SSZ+HCQ	SSZ+HCQ	-2.46 (-0.80, 0.81)
ETN_STD+MTX		-2.86 (-1.06, 0.66)
ABA_STD (IV)+MTX		-3.21 (-0.87, 1.47)
ADA_STD		-3.04 (0.03, 3.20)
ADA_STD+MTX		-2.58 (-0.72, 1.14)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
TOF_STD		-3.07 (0.04, 3.20)
TOF_STD+MTX		-2.71 (-0.82, 1.12)
CERTO_STD		-3.12 (-0.76, 1.63)
CERTO_STD+MTX		-3.82 (-1.54, 0.83)
SAR_200+MTX		-3.61 (-1.27, 1.11)
BAR_4+MTX		-2.92 (-0.70, 1.54)
ZRC-3197+MTX		-3.26 (-0.76, 1.70)
ETN_STD+MTX	MTX+SSZ+HCQ	-1.57 (-0.26, 1.00)
ABA_STD (IV)+MTX		-2.11 (-0.07, 2.06)
ADA_STD		-2.07 (0.82, 3.81)
ADA_STD+MTX		-1.44 (0.09, 1.62)
TOF_STD		-2.11 (0.83, 3.82)
TOF_STD+MTX		-1.59 (-0.01, 1.61)
CERTO_STD		-2.05 (0.04, 2.17)
CERTO_STD+MTX		-2.77 (-0.74, 1.38)
SAR_200+MTX		-2.53 (-0.48, 1.65)
BAR_4+MTX		-1.84 (0.10, 2.09)
ZRC-3197+MTX		-2.22 (0.04, 2.32)
ABA_STD (IV)+MTX	ETN_STD+MTX	-1.62 (0.19, 2.12)
ADA_STD		-1.64 (1.10, 3.95)
ADA_STD+MTX		-0.87 (0.35, 1.59)
TOF_STD		-1.65 (1.09, 3.94)
TOF_STD+MTX		-1.03 (0.25, 1.60)
CERTO_STD		-1.58 (0.28, 2.23)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
CERTO_STD+MTX		-2.30 (-0.48, 1.45)
SAR_200+MTX		-2.06 (-0.21, 1.72)
BAR_4+MTX		-1.34 (0.37, 2.16)
ZRC-3197+MTX		-1.76 (0.29, 2.39)
ADA_STD	ABA_STD (IV)+MTX	-2.18 (0.90, 4.02)
ADA_STD+MTX		-1.71 (0.15, 1.95)
TOF_STD		-2.18 (0.90, 4.04)
TOF_STD+MTX		-1.84 (0.06, 1.91)
CERTO_STD		-2.23 (0.11, 2.41)
CERTO_STD+MTX		-3.02 (-0.66, 1.63)
SAR_200+MTX		-2.74 (-0.40, 1.91)
BAR_4+MTX		-2.06 (0.17, 2.38)
ZRC-3197+MTX		-2.42 (0.10, 2.56)
ADA_STD+MTX	ADA_STD	-3.54 (-0.75, 1.95)
TOF_STD		-1.66 (-0.002, 1.68)
TOF_STD+MTX		-3.68 (-0.84, 1.93)
CERTO_STD		-2.87 (-0.80, 1.21)
CERTO_STD+MTX		-4.67 (-1.57, 1.55)
SAR_200+MTX		-4.44 (-1.31, 1.80)
BAR_4+MTX		-3.76 (-0.73, 2.25)
ZRC-3197+MTX		-4.05 (-0.80, 2.40)
TOF_STD	ADA_STD+MTX	-1.94 (0.74, 3.56)
TOF_STD+MTX		-1.23 (-0.10, 1.05)
CERTO_STD		-1.90 (-0.05, 1.84)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
CERTO_STD+MTX		-2.62 (-0.82, 1.02)
SAR_200+MTX		-2.37 (-0.56, 1.31)
BAR_4+MTX		-1.43 (0.02, 1.50)
ZRC-3197+MTX		-1.71 (-0.05, 1.63)
TOF_STD+MTX	TOF_STD	-3.71 (-0.85, 1.89)
CERTO_STD		-2.87 (-0.80, 1.22)
CERTO_STD+MTX		-4.70 (-1.56, 1.52)
SAR_200+MTX		-4.43 (-1.30, 1.81)
BAR_4+MTX		-3.77 (-0.73, 2.29)
ZRC-3197+MTX		-4.06 (-0.80, 2.41)
CERTO_STD	TOF_STD+MTX	-1.86 (0.05, 1.94)
CERTO_STD+MTX		-2.59 (-0.73, 1.19)
SAR_200+MTX		-2.35 (-0.46, 1.45)
BAR_4+MTX		-1.58 (0.11, 1.84)
ZRC-3197+MTX		-1.97 (0.04, 2.05)
CERTO_STD+MTX	CERTO_STD	-3.07 (-0.76, 1.56)
SAR_200+MTX		-2.83 (-0.50, 1.82)
BAR_4+MTX		-2.13 (0.07, 2.33)
ZRC-3197+MTX		-2.49 (-0.01, 2.51)
SAR_200+MTX	CERTO_STD+MTX	-2.07 (0.27, 2.57)
BAR_4+MTX		-1.37 (0.84, 3.00)
ZRC-3197+MTX		-1.74 (0.77, 3.25)
BAR_4+MTX	SAR_200+MTX	-1.62 (0.58, 2.79)
ZRC-3197+MTX		-1.99 (0.50, 2.98)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
ZRC-3197+MTX	BAR_4+MTX	-2.32 (-0.07, 2.12)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Bold results represent large effect sizes. Italicized results indicate a very wide credible interval.
ABA = abatacept; ADA = adalimumab; BAR_4 = 4 mg baricitinib 4mg; CERTO = certolizumab pegol; CrI = credible interval; ETN = etanercept; HCQ = hydroxychloroquine; IV = intravenous; LEF_10 = 10 mg leflunomide; MTX = methotrexate; SAR_200 = 200 mg sarilumab; SMD = standardized mean difference; SSZ = sulfasalazine; STD = standard dose; TOF = tofacitinib; ZRC-3197 = biosimilar adalimumab.

(as supplied by the authors)

Table 31. Sensitivity Analysis Results, Fatigue (MTX as a Common Comparator) – Imputing Missing Standard Error

Treatment	Comparator	SMD (95% CrI)
ETN_STD+MTX	Placebo+MTX	0.47 (-0.46, 1.36)
ABA_STD (IV)+MTX		0.43 (-0.48, 1.31)
TOF_STD+MTX		0.48 (-0.30, 1.35)
ADA_STD+MTX		0.35 (-0.14, 0.90)
TOC_4 (IV)+MTX		0.29 (-0.61, 1.21)
TOC_8 (IV)+MTX		0.37 (-0.52, 1.27)
GOL_STD (SC)+MTX		0.54 (-0.10, 1.19)
GOL_STD (IV)+MTX		0.53 (-0.38, 1.43)
CERTO_STD+MTX		**1.25 (0.34, 2.14)**
SAR_200+MTX		0.54 (-0.33, 1.44)
HD203+MTX		0.55 (-0.76, 1.78)
ABA_STD (IV)+MTX	ETN_STD+MTX	-0.04 (-1.32, 1.27)
TOF_STD+MTX		0.01 (-1.17, 1.29)
ADA_STD+MTX		-0.13 (-1.13, 0.96)
TOC_4 (IV)+MTX		-0.19 (-1.43, 1.13)
TOC_8 (IV)+MTX		-0.10 (-1.33, 1.21)
GOL_STD (SC)+MTX		0.07 (-1.02, 1.21)
GOL_STD (IV)+MTX		0.05 (-1.22, 1.36)
CERTO_STD+MTX		0.78 (-0.49, 2.09)
SAR_200+MTX		0.07 (-1.16, 1.40)
HD203+MTX		0.08 (-0.83, 0.97)
TOF_STD+MTX	ABA_STD (IV)+MTX	0.05 (-1.13, 1.31)
ADA_STD+MTX		-0.08 (-1.10, 1.01)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
TOC_4 (IV)+MTX		-0.15 (-1.40, 1.17)
TOC_8 (IV)+MTX		-0.06 (-1.32, 1.25)
GOL_STD (SC)+MTX		0.11 (-0.98, 1.23)
GOL_STD (IV)+MTX		0.09 (-1.14, 1.38)
CERTO_STD+MTX		0.82 (-0.48, 2.09)
SAR_200+MTX		0.11 (-1.14, 1.38)
HD203+MTX		0.12 (-1.44, 1.66)
ADA_STD+MTX	TOF_STD+MTX	-0.14 (-0.96, 0.70)
TOC_4 (IV)+MTX		-0.20 (-1.46, 1.03)
TOC_8 (IV)+MTX		-0.11 (-1.39, 1.10)
GOL_STD (SC)+MTX		0.05 (-1.02, 1.07)
GOL_STD (IV)+MTX		0.04 (-1.19, 1.24)
CERTO_STD+MTX		0.77 (-0.52, 1.97)
SAR_200+MTX		0.06 (-1.18, 1.27)
HD203+MTX		0.07 (-1.53, 1.53)
TOC_4 (IV)+MTX	ADA_STD+MTX	-0.06 (-1.16, 0.96)
TOC_8 (IV)+MTX		0.02 (-1.05, 1.05)
GOL_STD (SC)+MTX		0.19 (-0.67, 0.99)
GOL_STD (IV)+MTX		0.18 (-0.89, 1.18)
CERTO_STD+MTX		0.91 (-0.19, 1.91)
SAR_200+MTX		0.20 (-0.85, 1.19)
HD203+MTX		0.20 (-1.22, 1.51)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	0.09 (-0.82, 1.01)
GOL_STD (SC)+MTX		0.25 (-0.87, 1.35)

(as supplied by the authors)

Treatment	Comparator	SMD (95% CrI)
GOL_STD (IV)+MTX		0.24 (-1.04, 1.51)
CERTO_STD+MTX		0.97 (-0.33, 2.21)
SAR_200+MTX		0.26 (-1.02, 1.53)
HD203+MTX		0.26 (-1.32, 1.78)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	0.16 (-0.93, 1.26)
GOL_STD (IV)+MTX		0.15 (-1.13, 1.45)
CERTO_STD+MTX		0.88 (-0.43, 2.14)
SAR_200+MTX		0.17 (-1.07, 1.44)
HD203+MTX		0.17 (-1.43, 1.70)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	-0.01 (-1.15, 1.09)
CERTO_STD+MTX		0.72 (-0.42, 1.81)
SAR_200+MTX		0.003 (-1.09, 1.11)
HD203+MTX		0.01 (-1.45, 1.36)
CERTO_STD+MTX	GOL_STD (IV)+MTX	0.73 (-0.57, 2.00)
SAR_200+MTX		0.02 (-1.23, 1.31)
HD203+MTX		0.02 (-1.55, 1.57)
SAR_200+MTX	CERTO_STD+MTX	-0.71 (-1.94, 0.59)
HD203+MTX		-0.71 (-2.28, 0.82)
HD203+MTX	SAR_200+MTX	0.01 (-1.59, 1.52)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Bold results represent large effect sizes. Italicized results indicate a very wide credible interval.

ABA = abatacept; ADA = adalimumab; CERTO = certolizumab pegol; CrI = credible interval; ETN = etanercept; IV = intravenous; MTX = methotrexate; SAR_200 = 200 mg sarilumab; SMD = standardized mean difference; STD = standard dose; TOC_4 = 4mg/kg tocilizumab; TOC_8 = 8mg/kg tocilizumab; TOF = tofacitinib.

(as supplied by the authors)

Table 32. Summary of Sensitivity Analysis Results – csDMARD as a Common Comparator

	No difference	REF<0, SA=0	REF=0, SA>0	REF=0, SA<0	REF>0, SA=0	REF<0, SA>0	REF>0, SA<0
American College of Rheumatology 50 (ACR50)							
All doses (n = 36)	35	0	0	0	1	0	0
> year 2007 studies (n = 36)	32	0	0	0	4	0	0
EOT data (n = 21)	19	0	2	0	0	0	0
Biologic naïve* (n = 10)	9	0	1	0	0	0	0
Restricted time-point (12-16 weeks)* (n = 28)	26	0	1	0	1	0	0
Withdrawals due to Adverse Events (WDAE)							
All doses (n = 21)	21	0	0	0	0	0	0
EOT data (n = 21)	20	0	1	0	0	0	0
Restricted time-point (12-16 weeks)* (n = 10)	10	0	0	0	0	0	0
Impute Standard Error							
DAS28 (n = 36)	36	0	0	0	0	0	0
HAQ-DI (n = 15)	15	0	0	0	0	0	0

Comparisons between the reference case and sensitivity analyses for binary outcomes were all completed using the log odds ratio (95% credible interval).

*Indicates a post hoc sensitivity analysis

EOT = end of treatment; REF<0: the reference case was statistically significant in favour of the comparator for outcomes where a positive result is better or in favour of the treatment where a negative result it better; REF=0: the reference case was not statistically significant; REF>0: the reference case was statistically significant in favour of the treatment for outcomes where a positive result is better or in favour of the comparator where a negative result is better; SA<0: the reference case was statistically significant in favour of the comparator for outcomes where a positive result is better or in favour of the treatment where a negative result it better; SA=0: the reference case was not statistically significant; SA>0: the reference case was statistically significant in favour of the treatment for outcomes where a positive result is better or in favour of the comparator where a negative result is better

(as supplied by the authors)

Table 33. Sensitivity Analysis Results, ACR50 (csDMARD as a Common Comparator) – All Treatment Doses

Treatment	Comparator	OR (95% CrI)
ETN_STD	PLACEBO+csDMARD	3.54 (0.89, 16.07)
ETN_STD+csDMARD		3.44 (1.17, 10.61)
ADA_STD+csDMARD		4.03 (0.97, 16.73)
TOC_8 (IV)+csDMARD		3.60 (1.31, 9.84)
CERTO_STD+csDMARD		3.37 (0.80, 14.06)
BAR_4+csDMARD		3.07 (0.74, 12.52)
SIR_100+csDMARD		*9.01 (1.15, 111.94)*
SIR_50+csDMARD		*10.94 (1.44, 134.69)*
ETN_STD+csDMARD	ETN_STD	0.98 (0.24, 3.64)
ADA_STD+csDMARD		1.14 (0.14, 8.00)
TOC_8 (IV)+csDMARD		1.01 (0.16, 5.50)
CERTO_STD+csDMARD		0.95 (0.12, 6.71)
BAR_4+csDMARD		0.87 (0.11, 6.12)
SIR_100+csDMARD		2.54 (0.20, 43.42)
SIR_50+csDMARD		3.06 (0.25, 52.83)
ADA_STD+csDMARD	ETN_STD+csDMARD	1.17 (0.19, 7.01)
TOC_8 (IV)+csDMARD		1.04 (0.23, 4.45)
CERTO_STD+csDMARD		0.98 (0.16, 5.90)
BAR_4+csDMARD		0.89 (0.14, 5.26)
SIR_100+csDMARD		2.61 (0.25, 39.77)
SIR_50+csDMARD		3.17 (0.31, 47.75)
TOC_8 (IV)+csDMARD	ADA_STD+csDMARD	0.89 (0.15, 5.03)
CERTO_STD+csDMARD		0.83 (0.11, 6.26)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+csDMARD		0.76 (0.10, 5.65)
SIR_100+csDMARD		2.24 (0.19, 39.25)
SIR_50+csDMARD		2.71 (0.24, 47.66)
CERTO_STD+csDMARD	TOC_8 (IV)+csDMARD	0.94 (0.16, 5.45)
BAR_4+csDMARD		0.85 (0.15, 4.71)
SIR_100+csDMARD		2.51 (0.26, 37.19)
SIR_50+csDMARD		3.05 (0.32, 45.33)
BAR_4+csDMARD	CERTO_STD+csDMARD	0.91 (0.12, 6.85)
SIR_100+csDMARD		2.68 (0.22, 48.09)
SIR_50+csDMARD		3.24 (0.28, 58.38)
SIR_100+csDMARD	BAR_4+csDMARD	2.95 (0.25, 51.52)
SIR_50+csDMARD		3.58 (0.31, 63.24)
SIR_50+csDMARD	SIR_100+csDMARD	1.21 (0.21, 7.27)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; IV = intravenous; OR = odds ratio; SIR_100 = 100mg sirukumab; SIR_50 = 50mg sirukumab;STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

Table 34. Sensitivity Analysis Results, ACR50 (csDMARD as a Common Comparator) – Studies Published After 2007

Treatment	Reference	OR (95% CrI)
ETN_STD	PLACEBO+csDMARD	4.23 (0.70, 31.03)
ETN_STD+csDMARD		4.76 (1.19, 20.88)
ADA_STD+csDMARD		4.10 (0.56, 31.34)
TOC_8 (IV)+csDMARD		3.58 (0.92, 13.65)
CERTO_STD+csDMARD		4.35 (0.62, 30.54)
BAR_4+csDMARD		3.09 (0.48, 20.84)
SIR_100+csDMARD		*12.74 (0.82, 539.15)*
SIR_50+csDMARD		*15.56 (1.00, 644.19)*
ETN_STD+csDMARD	ETN_STD	1.13 (0.17, 6.57)
ADA_STD+csDMARD		0.97 (0.06, 14.34)
TOC_8 (IV)+csDMARD		0.85 (0.07, 7.72)
CERTO_STD+csDMARD		1.04 (0.06, 14.10)
BAR_4+csDMARD		0.73 (0.05, 9.66)
SIR_100+csDMARD		*3.04 (0.10, 189.43)*
SIR_50+csDMARD		*3.73 (0.12, 222.96)*
ADA_STD+csDMARD	ETN_STD+csDMARD	0.86 (0.07, 10.00)
TOC_8 (IV)+csDMARD		0.75 (0.10, 5.08)
CERTO_STD+csDMARD		0.91 (0.08, 9.83)
BAR_4+csDMARD		0.65 (0.06, 6.71)
SIR_100+csDMARD		*2.71 (0.12, 143.17)*
SIR_50+csDMARD		*3.31 (0.15, 174.86)*
TOC_8 (IV)+csDMARD	ADA_STD+csDMARD	0.87 (0.08, 9.59)
CERTO_STD+csDMARD		1.06 (0.06, 17.36)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
BAR_4+csDMARD		0.75 (0.05, 11.81)
SIR_100+csDMARD		*3.20 (0.10, 217.89)*
SIR_50+csDMARD		*3.92 (0.12, 263.22)*
CERTO_STD+csDMARD	TOC_8 (IV)+csDMARD	1.22 (0.12, 13.29)
BAR_4+csDMARD		0.86 (0.09, 9.14)
SIR_100+csDMARD		*3.64 (0.17, 189.05)*
SIR_50+csDMARD		*4.41 (0.21, 230.67)*
BAR_4+csDMARD	CERTO_STD+csDMARD	0.71 (0.05, 10.63)
SIR_100+csDMARD		*3.00 (0.10, 198.15)*
SIR_50+csDMARD		*3.64 (0.13, 233.22)*
SIR_100+csDMARD	BAR_4+csDMARD	*4.25 (0.15, 262.43)*
SIR_50+csDMARD		*5.14 (0.18, 316.71)*
SIR_50+csDMARD	SIR_100+csDMARD	1.22 (0.14, 10.84)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; IV = intravenous; OR = odds ratio; SIR_100 = 100mg sirukumab; SIR_50 = 50mg sirukumab;STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

Table 35. Sensitivity Analysis Results, ACR50 (csDMARD as a Common Comparator) – End of Treatment Data for Adaptive Design Trials

Treatment	Comparator	OR (95% CrI)
ETN_STD	PLACEBO+csDMARD	3.87 (1.10, 17.57)
ETN_STD+csDMARD		4.65 (1.68, 13.93)
ADA_STD+csDMARD		3.59 (1.35, 9.92)
TOC_8 (IV)+csDMARD		4.79 (1.81, 12.03)
CERTO_STD+csDMARD		4.34 (1.08, 17.83)
BAR_4+csDMARD		2.90 (0.77, 10.95)
SIR_100+csDMARD		-
SIR_50+csDMARD		-
ETN_STD+csDMARD	ETN_STD	1.20 (0.29, 4.06)
ADA_STD+csDMARD		0.93 (0.15, 4.60)
TOC_8 (IV)+csDMARD		1.24 (0.20, 5.67)
CERTO_STD+csDMARD		1.12 (0.14, 7.09)
BAR_4+csDMARD		0.76 (0.10, 4.55)
SIR_100+csDMARD		-
SIR_50+csDMARD		-
ADA_STD+csDMARD	ETN_STD+csDMARD	0.77 (0.17, 3.24)
TOC_8 (IV)+csDMARD		1.03 (0.24, 4.00)
CERTO_STD+csDMARD		0.93 (0.16, 5.24)
BAR_4+csDMARD		0.63 (0.11, 3.29)
SIR_100+csDMARD		-
SIR_50+csDMARD		-
TOC_8 (IV)+csDMARD	ADA_STD+csDMARD	1.34 (0.32, 5.08)
CERTO_STD+csDMARD		1.21 (0.21, 6.74)

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+csDMARD		0.81 (0.15, 4.24)
SIR_100+csDMARD		-
SIR_50+csDMARD		-
CERTO_STD+csDMARD	TOC_8 (IV)+csDMARD	0.91 (0.17, 5.08)
BAR_4+csDMARD		0.61 (0.12, 3.17)
SIR_100+csDMARD		-
SIR_50+csDMARD		-
BAR_4+csDMARD	CERTO_STD+csDMARD	0.67 (0.10, 4.58)
SIR_100+csDMARD		-
SIR_50+csDMARD		-
SIR_100+csDMARD	BAR_4+csDMARD	-
SIR_50+csDMARD		-
SIR_50+csDMARD	SIR_100+csDMARD	-

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; IV = intravenous; OR = odds ratio; SIR_100 = 100mg sirukumab; SIR_50 = 50mg sirukumab;STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

Table 36. Sensitivity Analysis Results, ACR50 (csDMARD as a Common Comparator) – Restricted Time Point Analysis (12-16 weeks)

Treatment	Reference	OR (95% CrI)
ETN_STD	Placebo+csDMARD	-
ETN_STD+csDMARD		1.87 (0.52, 6.87)
ADA_STD+csDMARD		4.04 (1.71, 9.69)
TOC_8 (IV)+csDMARD		3.62 (1.59, 8.03)
CERTO_STD+csDMARD		4.34 (1.31, 14.86)
BAR_4+csDMARD		3.09 (0.99, 9.64)
SIR_100+csDMARD		*13.44 (1.35, 624.53)*
SIR_50+csDMARD		*16.14 (1.62, 739.52)*
ETN_STD+csDMARD	ETN_STD	-
ADA_STD+csDMARD		-
TOC_8 (IV)+csDMARD		-
CERTO_STD+csDMARD		-
BAR_4+csDMARD		-
SIR_100+csDMARD		-
SIR_50+csDMARD		-
ADA_STD+csDMARD	ETN_STD+csDMARD	2.17 (0.46, 10.26)
TOC_8 (IV)+csDMARD		1.94 (0.41, 8.74)
CERTO_STD+csDMARD		2.34 (0.40, 13.80)
BAR_4+csDMARD		1.65 (0.29, 8.96)
SIR_100+csDMARD		*7.37 (0.51, 405.86)*
SIR_50+csDMARD		*8.85 (0.61, 481.55)*
TOC_8 (IV)+csDMARD	ADA_STD+csDMARD	0.90 (0.27, 2.85)
CERTO_STD+csDMARD		1.08 (0.24, 4.83)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)
BAR_4+csDMARD		0.76 (0.18, 3.18)
SIR_100+csDMARD		*3.35 (0.28, 164.84)*
SIR_50+csDMARD		*4.01 (0.34, 196.96)*
CERTO_STD+csDMARD	TOC_8 (IV)+csDMARD	1.20 (0.29, 5.29)
BAR_4+csDMARD		0.85 (0.22, 3.47)
SIR_100+csDMARD		*3.77 (0.33, 184.01)*
SIR_50+csDMARD		*4.50 (0.40, 222.52)*
BAR_4+csDMARD	CERTO_STD+csDMARD	0.71 (0.13, 3.70)
SIR_100+csDMARD		*3.14 (0.22, 169.36)*
SIR_50+csDMARD		*3.77 (0.27, 203.57)*
SIR_100+csDMARD	BAR_4+csDMARD	*4.42 (0.35, 230.21)*
SIR_50+csDMARD		*5.31 (0.41, 280.06)*
SIR_50+csDMARD	SIR_100+csDMARD	1.20 (0.25, 5.84)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; IV = intravenous; OR = odds ratio; SIR_100 = 100mg sirukumab; SIR_50 = 50mg sirukumab;STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

Table 37. Sensitivity Analysis Results, ACR50 (csDMARD as a Common Comparator) – Only Studies with Patients with Inadequate Response to MTX who were Biologic Naïve

Treatment	Comparator	OR (95% CrI)
ETN_STD	Placebo+csDMARD	-
ETN_STD+csDMARD		-
ADA_STD+csDMARD		4.11 (1.22, 15.09)
TOC_8 (IV)+csDMARD		-
CERTO_STD+csDMARD		-
BAR_4+csDMARD		3.09 (1.10, 8.55)
SIR_100+csDMARD		*12.85 (1.42, 393.07)*
SIR_50+csDMARD		*15.56 (1.81, 464.05)*
ETN_STD+csDMARD	ETN_STD	-
ADA_STD+csDMARD		-
TOC_8 (IV)+csDMARD		-
CERTO_STD+csDMARD		-
BAR_4+csDMARD		-
SIR_100+csDMARD		-
SIR_50+csDMARD		-
ADA_STD+csDMARD	ETN_STD+csDMARD	-
TOC_8 (IV)+csDMARD		-
CERTO_STD+csDMARD		-
BAR_4+csDMARD		-
SIR_100+csDMARD		-
SIR_50+csDMARD		-
TOC_8 (IV)+csDMARD	ADA_STD+csDMARD	-
CERTO_STD+csDMARD		-

(as supplied by the authors)

Treatment	Comparator	OR (95% CrI)
BAR_4+csDMARD		0.75 (0.15, 3.64)
SIR_100+csDMARD		*3.17 (0.24, 119.82)*
SIR_50+csDMARD		*3.87 (0.30, 143.17)*
CERTO_STD+csDMARD	TOC_8 (IV)+csDMARD	-
BAR_4+csDMARD		-
SIR_100+csDMARD		-
SIR_50+csDMARD		-
BAR_4+csDMARD	CERTO_STD+csDMARD	-
SIR_100+csDMARD		-
SIR_50+csDMARD		-
SIR_100+csDMARD	BAR_4+csDMARD	*4.19 (0.38, 146.20)*
SIR_50+csDMARD		*5.08 (0.47, 179.11)*
SIR_50+csDMARD	SIR_100+csDMARD	1.21 (0.28, 5.50)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; IV = intravenous; OR = odds ratio; SIR_100 = 100mg sirukumab; SIR_50 = 50mg sirukumab;STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

Table 38. Sensitivity Analysis Results, WDAE (csDMARD as a Common Comparator) – All Treatment Doses

Treatment	Reference	OR (95% CrI)
ETN_STD	PLACEBO+csDMARD	3.38 (1.04, 13.28)
ETN_STD+csDMARD		1.63 (0.52, 5.80)
ADA_STD+csDMARD		1.13 (0.24, 5.99)
TOC_8 (IV)+csDMARD		1.96 (0.98, 4.15)
CERTO_STD+csDMARD		1.47 (0.53, 4.80)
BAR_4+csDMARD		0.99 (0.29, 3.39)
ETN_STD+csDMARD	ETN_STD	0.48 (0.18, 1.28)
ADA_STD+csDMARD		0.33 (0.08, 1.38)
TOC_8 (IV)+csDMARD		0.58 (0.12, 2.34)
CERTO_STD+csDMARD		0.44 (0.08, 2.26)
BAR_4+csDMARD		0.29 (0.05, 1.59)
ADA_STD+csDMARD	ETN_STD+csDMARD	0.69 (0.24, 1.96)
TOC_8 (IV)+csDMARD		1.22 (0.28, 4.71)
CERTO_STD+csDMARD		0.92 (0.17, 4.68)
BAR_4+csDMARD		0.61 (0.10, 3.32)
TOC_8 (IV)+csDMARD	ADA_STD+csDMARD	1.76 (0.28, 9.51)
CERTO_STD+csDMARD		1.32 (0.18, 9.20)
BAR_4+csDMARD		0.88 (0.11, 6.44)
CERTO_STD+csDMARD	TOC_8 (IV)+csDMARD	0.75 (0.21, 2.94)
BAR_4+csDMARD		0.51 (0.12, 2.09)
BAR_4+csDMARD	CERTO_STD+csDMARD	0.67 (0.12, 3.34)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; IV = intravenous; OR = odds ratio; STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

(as supplied by the authors)

Table 39. Sensitivity Analysis Results, WDAE (csDMARD as a Common Comparator) – End of Treatment Data for Adaptive Design Trials

Treatment	Reference	OR (95% CrI)
ETN_STD	Placebo+csDMARD	3.49 (1.09, 13.59)
ETN_STD+csDMARD		1.66 (0.54, 6.35)
ADA_STD+csDMARD		1.16 (0.25, 6.40)
TOC_8 (IV)+csDMARD		2.08 (1.04, 4.38)
CERTO_STD+csDMARD		1.47 (0.52, 4.89)
BAR_4+csDMARD		1.00 (0.36, 2.83)
ETN_STD+csDMARD	ETN_STD	0.48 (0.18, 1.31)
ADA_STD+csDMARD		0.33 (0.08, 1.44)
TOC_8 (IV)+csDMARD		0.60 (0.13, 2.39)
CERTO_STD+csDMARD		0.42 (0.07, 2.23)
BAR_4+csDMARD		0.28 (0.05, 1.37)
ADA_STD+csDMARD	ETN_STD+csDMARD	0.69 (0.24, 1.98)
TOC_8 (IV)+csDMARD		1.25 (0.28, 4.91)
CERTO_STD+csDMARD		0.88 (0.16, 4.56)
BAR_4+csDMARD		0.59 (0.11, 2.78)
TOC_8 (IV)+csDMARD	ADA_STD+csDMARD	1.80 (0.29, 10.11)
CERTO_STD+csDMARD		1.28 (0.17, 8.99)
BAR_4+csDMARD		0.86 (0.12, 5.64)
CERTO_STD+csDMARD	TOC_8 (IV)+csDMARD	0.71 (0.20, 2.84)
BAR_4+csDMARD		0.48 (0.13, 1.71)
BAR_4+csDMARD	CERTO_STD+csDMARD	0.68 (0.14, 3.03)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

(as supplied by the authors)

ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; IV = intravenous; OR = odds ratio; STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

Table 40. Sensitivity Analysis Results, WDAE (csDMARD as a Common Comparator) – Restricted Time Point Analysis (12-16 weeks)

Treatment	Reference	OR (95% CrI)
ETN_STD	Placebo+csDMARD	-
ETN_STD+csDMARD		*3.92 (0.38, 132.56)*
ADA_STD+csDMARD		-
TOC_8 (IV)+csDMARD		1.95 (0.96, 4.25)
CERTO_STD+csDMARD		1.45 (0.51, 4.87)
BAR_4+csDMARD		1.02 (0.30, 3.43)
ETN_STD+csDMARD	ETN_STD	-
ADA_STD+csDMARD		-
TOC_8 (IV)+csDMARD		-
CERTO_STD+csDMARD		-
BAR_4+csDMARD		-
ADA_STD+csDMARD	ETN_STD+csDMARD	-
TOC_8 (IV)+csDMARD		0.50 (0.01, 5.89)
CERTO_STD+csDMARD		0.37 (0.01, 5.29)
BAR_4+csDMARD		0.25 (0.01, 3.65)
TOC_8 (IV)+csDMARD	ADA_STD+csDMARD	-
CERTO_STD+csDMARD		-
BAR_4+csDMARD		-
CERTO_STD+csDMARD	TOC_8 (IV)+csDMARD	0.74 (0.20, 3.04)
BAR_4+csDMARD		0.52 (0.12, 2.15)
BAR_4+csDMARD	CERTO_STD+csDMARD	0.70 (0.13, 3.49)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

(as supplied by the authors)

ADA = adalimumab; BAR_4 = 4mg baricitinib; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; IV = intravenous; OR = odds ratio; STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

Table 41. Sensitivity Analysis Results, DAS28 (csDMARD as a Common Comparator) – Imputing Missing Standard Error

Treatment	Reference	SMD (95% CrI)
ETN_STD	Placebo+csDMARD	-1.87 (-5.73, 2.01)
ETN_STD+csDMARD		-1.54 (-4.23, 1.11)
ADA_STD+csDMARD		-1.05 (-4.33, 2.21)
TOC_8 (IV)+csDMARD		-1.50 (-4.49, 1.45)
INF_STD+csDMARD		-0.93 (-5.04, 3.24)
BAR_4+csDMARD		-1.49 (-5.76, 2.72)
SIR_100+csDMARD		-0.94 (-4.93, 3.29)
SIR_50+csDMARD		-1.14 (-5.21, 3.16)
ETN_STD+csDMARD	ETN_STD	0.33 (-3.61, 4.18)
ADA_STD+csDMARD		0.82 (-3.93, 5.38)
TOC_8 (IV)+csDMARD		0.37 (-4.61, 5.14)
INF_STD+csDMARD		0.94 (-4.70, 6.67)
BAR_4+csDMARD		0.38 (-5.41, 6.04)
SIR_100+csDMARD		0.93 (-4.69, 6.72)
SIR_50+csDMARD		0.73 (-4.94, 6.65)
ADA_STD+csDMARD	ETN_STD+csDMARD	0.48 (-2.72, 3.77)
TOC_8 (IV)+csDMARD		0.04 (-3.95, 3.98)
INF_STD+csDMARD		0.61 (-4.23, 5.56)
BAR_4+csDMARD		0.04 (-4.93, 5.01)
SIR_100+csDMARD		0.60 (-4.16, 5.62)
SIR_50+csDMARD		0.41 (-4.41, 5.47)
TOC_8 (IV)+csDMARD	ADA_STD+csDMARD	-0.44 (-4.84, 3.91)
INF_STD+csDMARD		0.12 (-5.22, 5.50)

(as supplied by the authors)

Treatment	Reference	SMD (95% CrI)
BAR_4+csDMARD		-0.45 (-5.79, 4.85)
SIR_100+csDMARD		0.10 (-5.09, 5.52)
SIR_50+csDMARD		-0.09 (-5.36, 5.30)
INF_STD+csDMARD	TOC_8 (IV)+csDMARD	0.56 (-4.46, 5.73)
BAR_4+csDMARD		0.01 (-5.07, 5.17)
SIR_100+csDMARD		0.57 (-4.34, 5.73)
SIR_50+csDMARD		0.36 (-4.71, 5.56)
BAR_4+csDMARD	INF_STD+csDMARD	-0.56 (-6.52, 5.31)
SIR_100+csDMARD		0.01 (-5.92, 5.95)
SIR_50+csDMARD		-0.22 (-6.15, 5.73)
SIR_100+csDMARD	BAR_4+csDMARD	0.57 (-5.31, 6.53)
SIR_50+csDMARD		0.36 (-5.63, 6.44)
SIR_50+csDMARD	SIR_100+csDMARD	-0.20 (-4.39, 4.01)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

ADA = adalimumab; BAR_4 = 4mg baricitinib; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; INF = infliximab; IV = intravenous; OR = odds ratio; SIR_100 = 100mg sirukumab; SIR_50 = 50mg sirukumab; SMD = standardized mean difference; STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

Table 42. Sensitivity Analysis Results, HAQ-DI (csDMARD as a Common Comparator) – Imputing Missing Standard Error

Treatment	Reference	MD (95% CrI)
ETN_STD+csDMARD	Placebo+csDMARD	-0.19 (-6.33, 6.05)
TOC_8 (IV)+csDMARD		-0.63 (-6.86, 5.56)
BAR_4+csDMARD		-0.24 (-6.42, 5.96)
SIR_100+csDMARD		-0.13 (-6.44, 6.19)
SIR_50+csDMARD		-0.36 (-6.70, 5.85)
TOC_8 (IV)+csDMARD	ETN_STD+csDMARD	-0.44 (-9.23, 8.36)
BAR_4+csDMARD		-0.05 (-8.83, 8.74)
SIR_100+csDMARD		0.07 (-8.90, 8.76)
SIR_50+csDMARD		-0.17 (-9.18, 8.58)
BAR_4+csDMARD	TOC_8 (IV)+csDMARD	0.38 (-8.44, 9.17)
SIR_100+csDMARD		0.50 (-8.26, 9.34)
SIR_50+csDMARD		0.26 (-8.58, 9.14)
SIR_100+csDMARD	BAR_4+csDMARD	0.11 (-8.70, 8.98)
SIR_50+csDMARD		-0.13 (-8.94, 8.68)
SIR_50+csDMARD	SIR_100+csDMARD	-0.24 (-6.45, 6.00)

Results highlighted in green are statistically significant and favour the treatment. Results highlighted in red are statistically significant and favour the comparator. Italicized results indicate a very wide credible interval.

BAR_4 = 4mg baricitinib; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN=etanercept; IV = intravenous; MD = mean difference; SIR_100 = 100mg sirukumab; SIR_50 = 50mg sirukumab; STD = standard dose; TOC_8 = 8mg/kg tocilizumab.

(as supplied by the authors)

APPENDIX 9: DETAILED NMA RESULTS FOR THE OUTCOMES ACR20 AND ACR70 AMONG PATIENTS WITH INADEQUATE RESPONSE TO METHOTREXATE

Table 43. ACR20, Methotrexate as a Common Comparator: Odds Ratios, Relative Risks and Risk Difference for All Treatment Comparisons – Random Effects Model

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
Placebo	Placebo+MTX	0.16 (0.04, 0.68)	0.22 (0.05, 0.75)	-0.24 (-0.29, -0.08)
csDMARD+MTX		1.11 (0.44, 3.01)	1.08 (0.53, 1.87)	0.02 (-0.14, 0.26)
LEF_10		0.42 (0.07, 2.41)	0.51 (0.10, 1.68)	-0.15 (-0.28, 0.21)
MTX+HCQ		2.02 (0.34, 12.23)	1.54 (0.43, 2.76)	0.16 (-0.18, 0.54)
MTX+SSZ		0.90 (0.14, 5.87)	0.93 (0.20, 2.36)	-0.02 (-0.25, 0.41)
MTX+SSZ+HCQ		4.20 (1.37, 14.24)	2.11 (1.23, 2.83)	0.34 (0.07, 0.56)
ETN_STD		1.96 (0.94, 4.28)	1.51 (0.96, 2.14)	0.16 (-0.01, 0.35)
ETN_STD+MTX		4.15 (2.20, 8.37)	2.11 (1.60, 2.59)	0.34 (0.19, 0.48)
ABA_STD (IV)+MTX		4.01 (2.46, 6.60)	2.08 (1.70, 2.45)	0.33 (0.22, 0.44)
ABA_STD (SC)+MTX		4.06 (1.53, 10.84)	2.09 (1.32, 2.72)	0.34 (0.10, 0.52)
SAR_200		0.43 (0.05, 3.60)	0.52 (0.08, 2.01)	-0.15 (-0.29, 0.31)
TOF_STD+MTX		4.70 (2.84, 8.17)	2.20 (1.80, 2.58)	0.37 (0.25, 0.48)
TOF_STD		0.85 (0.13, 5.82)	0.89 (0.18, 2.35)	-0.03 (-0.25, 0.41)
ADA_STD+MTX		4.12 (2.92, 5.84)	2.10 (1.82, 2.38)	0.34 (0.26, 0.41)
TOC_4 (IV)		2.64 (1.00, 7.20)	1.75 (1.00, 2.49)	0.23 (0.00, 0.45)
TOC_8 (IV)		4.38 (2.40, 8.31)	2.15 (1.67, 2.58)	0.35 (0.21, 0.48)
TOC_4 (IV)+MTX		2.74 (1.58, 4.88)	1.78 (1.34, 2.24)	0.24 (0.11, 0.38)
TOC_8 (IV)+MTX		3.85 (2.30, 6.63)	2.05 (1.64, 2.45)	0.32 (0.20, 0.44)
GOL_STD (SC)		0.71 (0.12, 4.39)	0.78 (0.16, 2.16)	-0.07 (-0.26, 0.35)
GOL_STD (SC)+MTX		3.67 (2.13, 6.30)	2.01 (1.58, 2.42)	0.31 (0.18, 0.43)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
GOL_STD (IV)+MTX		4.29 (1.67, 10.96)	2.13 (1.39, 2.72)	0.35 (0.12, 0.52)
INF_STD+MTX		3.07 (1.93, 4.96)	1.87 (1.50, 2.26)	0.27 (0.15, 0.38)
CERTO_STD		1.68 (0.33, 8.47)	1.39 (0.41, 2.58)	0.12 (-0.18, 0.48)
CERTO_STD+MTX		5.59 (3.58, 8.86)	2.31 (1.99, 2.63)	0.41 (0.31, 0.49)
RIT_STD		3.21 (0.92, 11.60)	1.91 (0.95, 2.75)	0.28 (-0.02, 0.53)
RIT_STD+MTX		4.56 (1.31, 17.10)	2.17 (1.19, 2.90)	0.36 (0.06, 0.58)
ADA_STD		0.32 (0.05, 2.17)	0.41 (0.07, 1.60)	-0.18 (-0.29, 0.18)
BAR_4+MTX		4.46 (2.50, 8.07)	2.16 (1.70, 2.57)	0.36 (0.22, 0.47)
HD203+MTX		5.91 (1.59, 22.80)	2.35 (1.35, 2.99)	0.42 (0.11, 0.60)
SB4+MTX		4.59 (1.50, 15.02)	2.18 (1.30, 2.86)	0.36 (0.09, 0.56)
ANBAI+MTX		6.09 (2.39, 15.76)	2.37 (1.67, 2.87)	0.42 (0.21, 0.57)
CT-P13+MTX		4.38 (1.87, 10.46)	2.15 (1.47, 2.70)	0.35 (0.15, 0.52)
SB2+MTX		2.64 (0.94, 7.53)	1.75 (0.96, 2.52)	0.23 (-0.01, 0.46)
SB5+MTX		4.17 (1.52, 11.42)	2.11 (1.31, 2.74)	0.34 (0.10, 0.53)
ZRC-3197+MTX		3.82 (1.04, 14.35)	2.04 (1.03, 2.83)	0.32 (0.01, 0.56)
ABP501+MTX		4.61 (1.68, 12.52)	2.18 (1.39, 2.79)	0.36 (0.12, 0.54)
csDMARD+MTX	Placebo	6.85 (1.53, 32.33)	4.81 (1.38, 19.26)	0.25 (0.06, 0.49)
LEF_10		2.60 (0.92, 7.30)	2.28 (0.93, 5.22)	0.09 (0.00, 0.34)
MTX+HCQ		*12.31 (1.45, 111.50)*	*6.51 (1.36, 29.88)*	*0.39 (0.04, 0.77)*
MTX+SSZ		5.59 (0.61, 52.08)	4.09 (0.65, 21.47)	0.21 (-0.05, 0.64)
MTX+SSZ+HCQ		*25.76 (5.05, 142.60)*	*9.32 (2.73, 36.89)*	*0.57 (0.29, 0.79)*
ETN_STD		*12.03 (3.70, 41.88)*	*6.80 (2.34, 23.27)*	*0.39 (0.23, 0.55)*
ETN_STD+MTX		*25.42 (6.82, 102.90)*	*9.48 (2.97, 36.04)*	*0.57 (0.40, 0.71)*
ABA_STD (IV)+MTX		*24.72 (5.57, 112.10)*	*9.45 (2.74, 38.20)*	*0.56 (0.38, 0.69)*
ABA_STD (SC)+MTX		*24.89 (4.43, 142.20)*	*9.33 (2.54, 38.98)*	*0.56 (0.29, 0.77)*

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
SAR_200		2.66 (0.57, 12.96)	2.31 (0.59, 7.39)	0.09 (-0.03, 0.45)
TOF_STD+MTX		*28.99 (6.42, 136.20)*	*9.97 (2.87, 40.44)*	*0.60 (0.41, 0.73)*
TOF_STD		5.24 (1.58, 17.70)	3.83 (1.50, 9.43)	0.20 (0.02, 0.54)
ADA_STD+MTX		*25.39 (5.90, 111.00)*	*9.58 (2.79, 38.53)*	*0.57 (0.40, 0.67)*
TOC_4 (IV)		16.31 (2.84, 93.59)	7.85 (2.05, 33.21)	0.46 (0.19, 0.70)
TOC_8 (IV)		*26.98 (5.69, 130.00)*	*9.71 (2.79, 39.26)*	*0.58 (0.38, 0.73)*
TOC_4 (IV)+MTX		16.84 (3.66, 78.98)	8.09 (2.28, 33.03)	0.47 (0.27, 0.63)
TOC_8 (IV)+MTX		*23.76 (5.27, 110.50)*	*9.32 (2.68, 37.54)*	*0.56 (0.36, 0.69)*
GOL_STD (SC)		4.39 (1.54, 12.76)	3.41 (1.46, 7.70)	0.17 (0.02, 0.48)
GOL_STD (SC)+MTX		*22.65 (4.81, 104.10)*	*9.14 (2.58, 36.91)*	*0.54 (0.34, 0.68)*
GOL_STD (IV)+MTX		*26.49 (4.73, 145.70)*	*9.55 (2.63, 39.26)*	*0.58 (0.31, 0.77)*
INF_STD+MTX		18.94 (4.25, 85.60)	8.53 (2.45, 34.18)	0.50 (0.32, 0.63)
CERTO_STD		10.27 (4.73, 22.74)	5.97 (2.99, 11.94)	0.36 (0.10, 0.60)
CERTO_STD+MTX		*34.21 (7.82, 157.60)*	*10.50 (3.05, 42.60)*	*0.64 (0.46, 0.75)*
RIT_STD		*19.92 (3.04, 133.50)*	*8.47 (2.15, 35.63)*	*0.51 (0.19, 0.77)*
RIT_STD+MTX		*28.14 (4.24, 193.40)*	*9.63 (2.54, 39.98)*	*0.59 (0.26, 0.82)*
ADA_STD		1.98 (0.60, 6.85)	1.83 (0.62, 4.88)	0.05 (-0.03, 0.32)
BAR_4+MTX		*27.48 (5.87, 130.60)*	*9.78 (2.79, 39.81)*	*0.59 (0.39, 0.73)*
HD203+MTX		*36.10 (6.41, 215.70)*	*10.31 (3.00, 40.76)*	*0.64 (0.33, 0.84)*
SB4+MTX		*28.47 (5.54, 152.80)*	*9.67 (2.82, 37.81)*	*0.59 (0.31, 0.80)*
ANBAI+MTX		*37.55 (6.66, 208.70)*	*10.66 (2.99, 43.04)*	*0.65 (0.39, 0.82)*
CT-P13+MTX		*27.17 (5.10, 141.90)*	*9.61 (2.69, 39.25)*	*0.58 (0.33, 0.76)*
SB2+MTX		16.25 (2.86, 93.75)	7.81 (2.06, 32.76)	0.46 (0.18, 0.70)
SB5+MTX		*25.48 (4.50, 146.50)*	*9.40 (2.58, 39.11)*	*0.57 (0.29, 0.78)*
ZRC-3197+MTX		*23.46 (3.44, 158.90)*	*8.97 (2.28, 38.31)*	*0.55 (0.21, 0.80)*
ABP501+MTX		*28.36 (4.88, 163.50)*	*9.74 (2.66, 39.99)*	*0.59 (0.31, 0.79)*

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
LEF_10	csDMARD+MTX	0.38 (0.06, 2.31)	0.48 (0.10, 1.69)	-0.16 (-0.43, 0.18)
MTX+HCQ		1.80 (0.29, 11.05)	1.40 (0.41, 3.23)	0.13 (-0.24, 0.51)
MTX+SSZ		0.81 (0.12, 5.10)	0.87 (0.19, 2.43)	-0.04 (-0.34, 0.37)
MTX+SSZ+HCQ		3.81 (1.14, 12.75)	1.93 (1.07, 3.69)	0.31 (0.03, 0.54)
ETN_STD		1.77 (0.70, 4.30)	1.40 (0.82, 2.60)	0.13 (-0.09, 0.32)
ETN_STD+MTX		3.73 (1.86, 7.49)	1.95 (1.27, 3.42)	0.31 (0.14, 0.45)
ABA_STD (IV)+MTX		3.59 (1.20, 10.15)	1.93 (1.08, 3.95)	0.31 (0.04, 0.51)
ABA_STD (SC)+MTX		3.66 (0.88, 13.77)	1.92 (0.94, 4.07)	0.31 (-0.03, 0.56)
SAR_200		0.39 (0.04, 3.40)	0.49 (0.07, 2.02)	-0.16 (-0.44, 0.28)
TOF_STD+MTX		4.23 (1.40, 12.49)	2.04 (1.15, 4.19)	0.34 (0.08, 0.55)
TOF_STD		0.77 (0.11, 5.31)	0.84 (0.17, 2.49)	-0.05 (-0.36, 0.38)
ADA_STD+MTX		3.71 (1.30, 10.00)	1.95 (1.11, 3.99)	0.31 (0.06, 0.50)
TOC_4 (IV)		2.38 (0.58, 9.17)	1.62 (0.74, 3.53)	0.20 (-0.13, 0.49)
TOC_8 (IV)		3.94 (1.22, 11.95)	1.99 (1.09, 4.09)	0.33 (0.05, 0.54)
TOC_4 (IV)+MTX		2.48 (0.79, 7.19)	1.65 (0.89, 3.45)	0.22 (-0.06, 0.43)
TOC_8 (IV)+MTX		3.48 (1.13, 9.87)	1.91 (1.06, 3.89)	0.30 (0.03, 0.50)
GOL_STD (SC)		0.64 (0.10, 4.06)	0.74 (0.16, 2.22)	-0.08 (-0.38, 0.32)
GOL_STD (SC)+MTX		3.29 (1.07, 9.64)	1.86 (1.03, 3.83)	0.28 (0.02, 0.50)
GOL_STD (IV)+MTX		3.84 (0.97, 14.37)	1.95 (0.98, 4.13)	0.32 (-0.01, 0.57)
INF_STD+MTX		2.76 (0.91, 7.82)	1.74 (0.96, 3.58)	0.24 (-0.02, 0.45)
CERTO_STD		1.51 (0.26, 8.09)	1.28 (0.38, 3.02)	0.09 (-0.26, 0.46)
CERTO_STD+MTX		5.04 (1.69, 14.05)	2.15 (1.22, 4.37)	0.38 (0.12, 0.57)
RIT_STD		2.90 (0.59, 14.07)	1.75 (0.73, 3.90)	0.25 (-0.13, 0.56)
RIT_STD+MTX		4.11 (0.80, 20.17)	1.98 (0.89, 4.28)	0.33 (-0.05, 0.62)
ADA_STD		0.29 (0.04, 2.00)	0.39 (0.07, 1.58)	-0.19 (-0.45, 0.15)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
BAR_4+MTX		4.02 (1.26, 12.11)	2.00 (1.10, 4.15)	0.33 (0.05, 0.54)
HD203+MTX		5.30 (1.39, 20.11)	2.12 (1.17, 4.13)	0.38 (0.08, 0.61)
SB4+MTX		4.14 (1.29, 13.33)	1.99 (1.13, 3.75)	0.33 (0.06, 0.55)
ANBAI+MTX		5.49 (1.38, 20.44)	2.18 (1.15, 4.54)	0.39 (0.08, 0.63)
CT-P13+MTX		3.93 (1.05, 13.79)	1.98 (1.02, 4.15)	0.32 (0.01, 0.57)
SB2+MTX		2.37 (0.56, 9.60)	1.61 (0.72, 3.58)	0.20 (-0.13, 0.50)
SB5+MTX		3.75 (0.88, 14.62)	1.93 (0.94, 4.14)	0.31 (-0.03, 0.57)
ZRC-3197+MTX		3.44 (0.66, 16.57)	1.87 (0.79, 4.06)	0.29 (-0.10, 0.59)
ABP501+MTX		4.12 (1.00, 16.06)	2.00 (1.00, 4.23)	0.33 (0.00, 0.59)
MTX+HCQ	LEF_10	4.72 (0.44, 52.88)	2.80 (0.57, 15.98)	0.29 (-0.15, 0.71)
MTX+SSZ		2.15 (0.19, 25.09)	1.77 (0.27, 11.10)	0.11 (-0.28, 0.57)
MTX+SSZ+HCQ		9.95 (1.42, 72.39)	4.00 (1.18, 19.88)	0.47 (0.08, 0.74)
ETN_STD		4.65 (0.97, 23.18)	2.91 (0.98, 12.87)	0.29 (-0.01, 0.49)
ETN_STD+MTX		9.82 (1.86, 55.22)	4.06 (1.30, 19.53)	0.47 (0.15, 0.66)
ABA_STD (IV)+MTX		9.50 (1.57, 58.64)	4.03 (1.21, 20.42)	0.47 (0.11, 0.66)
ABA_STD (SC)+MTX		9.54 (1.30, 70.31)	3.98 (1.13, 20.30)	0.46 (0.06, 0.72)
SAR_200		1.02 (0.16, 6.74)	1.02 (0.21, 4.33)	0.002 (-0.25, 0.35)
TOF_STD+MTX		11.18 (1.79, 70.50)	4.25 (1.27, 21.43)	0.51 (0.14, 0.69)
TOF_STD		2.02 (0.41, 10.00)	1.67 (0.50, 5.74)	0.10 (-0.14, 0.44)
ADA_STD+MTX		9.74 (1.68, 57.20)	4.08 (1.24, 20.39)	0.48 (0.13, 0.64)
TOC_4 (IV)		6.24 (0.82, 48.58)	3.34 (0.90, 17.69)	0.36 (-0.05, 0.65)
TOC_8 (IV)		10.42 (1.66, 66.90)	4.14 (1.25, 20.83)	0.49 (0.12, 0.69)
TOC_4 (IV)+MTX		6.48 (1.04, 40.58)	3.44 (1.02, 17.40)	0.38 (0.01, 0.58)
TOC_8 (IV)+MTX		9.10 (1.50, 56.86)	3.96 (1.19, 20.00)	0.47 (0.10, 0.65)
GOL_STD (SC)		1.70 (0.38, 7.50)	1.49 (0.47, 4.95)	0.07 (-0.16, 0.37)
GOL_STD		8.66 (1.39, 54.22)	3.88 (1.16, 19.84)	0.45 (0.08, 0.64)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
(SC)+MTX				
GOL_STD (IV)+MTX		10.23 (1.35, 72.48)	4.07 (1.15, 20.63)	0.48 (0.07, 0.72)
INF_STD+MTX		7.30 (1.20, 45.01)	3.64 (1.09, 18.36)	0.41 (0.04, 0.60)
CERTO_STD		3.97 (1.09, 14.64)	2.55 (1.05, 7.86)	0.24 (0.02, 0.51)
CERTO_STD+MTX		13.19 (2.19, 81.35)	4.48 (1.37, 22.42)	0.55 (0.19, 0.72)
RIT_STD		7.65 (0.89, 65.83)	3.60 (0.94, 19.30)	0.41 (-0.03, 0.72)
RIT_STD+MTX		10.78 (1.29, 95.49)	4.09 (1.13, 21.45)	0.49 (0.06, 0.77)
ADA_STD		0.76 (0.16, 3.78)	0.80 (0.21, 2.99)	-0.03 (-0.27, 0.21)
BAR_4+MTX		10.55 (1.68, 66.68)	4.16 (1.25, 21.08)	0.50 (0.12, 0.69)
HD203+MTX		*14.01 (1.86, 106.70)*	*4.42 (1.31, 21.90)*	*0.54 (0.14, 0.79)*
SB4+MTX		10.97 (1.54, 76.45)	4.14 (1.22, 20.24)	0.49 (0.10, 0.75)
ANBAI+MTX		*14.54 (1.96, 107.10)*	*4.54 (1.32, 23.12)*	*0.55 (0.16, 0.78)*
CT-P13+MTX		10.43 (1.49, 72.84)	4.12 (1.20, 20.98)	0.49 (0.09, 0.72)
SB2+MTX		6.28 (0.82, 47.78)	3.33 (0.90, 17.78)	0.36 (-0.05, 0.65)
SB5+MTX		9.81 (1.33, 72.99)	4.01 (1.14, 20.53)	0.47 (0.07, 0.73)
ZRC-3197+MTX		9.02 (1.06, 78.53)	3.83 (1.03, 20.01)	0.45 (0.01, 0.75)
ABP501+MTX		10.96 (1.46, 81.85)	4.17 (1.19, 21.20)	0.49 (0.09, 0.74)
MTX+SSZ	MTX+HCQ	0.45 (0.12, 1.71)	0.64 (0.22, 1.37)	-0.16 (-0.45, 0.11)
MTX+SSZ+HCQ		2.10 (0.55, 8.21)	1.36 (0.84, 3.80)	0.17 (-0.11, 0.45)
ETN_STD		0.98 (0.17, 5.76)	0.99 (0.50, 3.39)	-0.01 (-0.38, 0.35)
ETN_STD+MTX		2.07 (0.40, 11.16)	1.36 (0.79, 4.65)	0.17 (-0.17, 0.50)
ABA_STD (IV)+MTX		1.98 (0.31, 12.60)	1.35 (0.73, 4.89)	0.16 (-0.22, 0.53)
ABA_STD (SC)+MTX		2.02 (0.27, 15.14)	1.35 (0.64, 4.99)	0.16 (-0.27, 0.57)
SAR_200		0.22 (0.02, 2.89)	0.36 (0.05, 1.94)	-0.28 (-0.71, 0.22)
TOF_STD+MTX		2.34 (0.36, 15.23)	1.43 (0.77, 5.21)	0.20 (-0.19, 0.57)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
TOF_STD		0.42 (0.03, 5.04)	0.61 (0.11, 2.65)	-0.18 (-0.64, 0.34)
ADA_STD+MTX		2.05 (0.33, 12.53)	1.37 (0.75, 4.93)	0.17 (-0.20, 0.53)
TOC_4 (IV)		1.32 (0.16, 10.05)	1.14 (0.49, 4.27)	0.07 (-0.38, 0.48)
TOC_8 (IV)		2.18 (0.33, 14.69)	1.39 (0.74, 5.03)	0.19 (-0.21, 0.56)
TOC_4 (IV)+MTX		1.37 (0.20, 8.73)	1.16 (0.60, 4.24)	0.08 (-0.32, 0.44)
TOC_8 (IV)+MTX		1.92 (0.30, 12.32)	1.33 (0.71, 4.83)	0.16 (-0.24, 0.52)
GOL_STD (SC)		0.36 (0.03, 3.90)	0.54 (0.10, 2.44)	-0.21 (-0.65, 0.28)
GOL_STD (SC)+MTX		1.83 (0.27, 11.80)	1.31 (0.69, 4.75)	0.15 (-0.25, 0.51)
GOL_STD (IV)+MTX		2.13 (0.27, 15.86)	1.37 (0.66, 5.07)	0.18 (-0.26, 0.58)
INF_STD+MTX		1.54 (0.24, 9.41)	1.22 (0.65, 4.40)	0.11 (-0.28, 0.46)
CERTO_STD		0.84 (0.08, 8.31)	0.91 (0.24, 3.56)	-0.04 (-0.53, 0.45)
CERTO_STD+MTX		2.79 (0.44, 17.42)	1.51 (0.83, 5.47)	0.24 (-0.14, 0.59)
RIT_STD		1.60 (0.18, 14.97)	1.23 (0.49, 4.68)	0.11 (-0.37, 0.56)
RIT_STD+MTX		2.28 (0.25, 20.84)	1.40 (0.60, 5.14)	0.19 (-0.29, 0.62)
ADA_STD		0.16 (0.01, 1.82)	0.29 (0.05, 1.51)	-0.32 (-0.73, 0.11)
BAR_4+MTX		2.21 (0.33, 14.30)	1.40 (0.74, 5.10)	0.19 (-0.21, 0.55)
HD203+MTX		2.94 (0.39, 22.27)	1.49 (0.73, 5.24)	0.23 (-0.19, 0.63)
SB4+MTX		2.29 (0.35, 15.64)	1.40 (0.71, 4.85)	0.19 (-0.21, 0.57)
ANBAI+MTX		3.03 (0.40, 22.51)	1.53 (0.77, 5.54)	0.25 (-0.17, 0.64)
CT-P13+MTX		2.18 (0.29, 15.76)	1.39 (0.69, 5.09)	0.18 (-0.24, 0.57)
SB2+MTX		1.32 (0.17, 10.30)	1.14 (0.49, 4.23)	0.07 (-0.38, 0.49)
SB5+MTX		2.08 (0.26, 16.31)	1.36 (0.64, 5.08)	0.17 (-0.28, 0.58)
ZRC-3197+MTX		1.90 (0.21, 17.28)	1.31 (0.53, 4.91)	0.15 (-0.34, 0.59)
ABP501+MTX		2.31 (0.29, 17.63)	1.41 (0.67, 5.18)	0.19 (-0.25, 0.60)
MTX+SSZ+HCQ	MTX+SSZ	4.68 (1.18, 19.72)	2.22 (1.05, 8.26)	0.34 (0.03, 0.57)
ETN_STD		2.17 (0.35, 13.54)	1.61 (0.63, 7.32)	0.17 (-0.24, 0.45)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ETN_STD+MTX		4.57 (0.84, 26.44)	2.24 (0.95, 10.08)	0.35 (-0.04, 0.60)
ABA_STD (IV)+MTX		4.43 (0.66, 29.74)	2.22 (0.87, 10.64)	0.35 (-0.09, 0.61)
ABA_STD (SC)+MTX		4.48 (0.55, 35.61)	2.20 (0.79, 10.79)	0.34 (-0.14, 0.66)
SAR_200		0.48 (0.03, 6.96)	0.58 (0.07, 4.09)	-0.11 (-0.57, 0.35)
TOF_STD+MTX		5.20 (0.76, 36.30)	2.34 (0.92, 11.32)	0.38 (-0.06, 0.65)
TOF_STD		0.94 (0.07, 11.60)	0.96 (0.16, 5.58)	-0.01 (-0.49, 0.47)
ADA_STD+MTX		4.55 (0.69, 29.85)	2.25 (0.89, 10.85)	0.36 (-0.08, 0.60)
TOC_4 (IV)		2.92 (0.36, 23.41)	1.85 (0.64, 9.23)	0.24 (-0.23, 0.59)
TOC_8 (IV)		4.87 (0.70, 34.31)	2.29 (0.89, 10.98)	0.37 (-0.08, 0.64)
TOC_4 (IV)+MTX		3.04 (0.44, 20.56)	1.91 (0.73, 9.24)	0.26 (-0.19, 0.53)
TOC_8 (IV)+MTX		4.28 (0.63, 29.19)	2.19 (0.85, 10.55)	0.34 (-0.10, 0.61)
GOL_STD (SC)		0.80 (0.07, 9.28)	0.85 (0.15, 5.11)	-0.04 (-0.51, 0.41)
GOL_STD (SC)+MTX		4.06 (0.57, 27.32)	2.14 (0.83, 10.32)	0.33 (-0.12, 0.59)
GOL_STD (IV)+MTX		4.73 (0.57, 36.71)	2.24 (0.81, 10.81)	0.35 (-0.12, 0.67)
INF_STD+MTX		3.40 (0.51, 22.46)	2.00 (0.78, 9.60)	0.29 (-0.15, 0.55)
CERTO_STD		1.85 (0.17, 19.53)	1.45 (0.34, 7.70)	0.13 (-0.38, 0.57)
CERTO_STD+MTX		6.18 (0.91, 40.48)	2.48 (0.97, 11.88)	0.42 (-0.02, 0.67)
RIT_STD		3.55 (0.37, 34.31)	1.99 (0.62, 10.22)	0.28 (-0.23, 0.66)
RIT_STD+MTX		5.10 (0.53, 49.26)	2.28 (0.76, 11.23)	0.36 (-0.15, 0.72)
ADA_STD		0.36 (0.03, 4.28)	0.45 (0.06, 3.12)	-0.14 (-0.59, 0.24)
BAR_4+MTX		4.91 (0.71, 33.48)	2.30 (0.90, 11.04)	0.37 (-0.07, 0.64)
HD203+MTX		6.53 (0.81, 51.72)	2.43 (0.93, 11.24)	0.41 (-0.04, 0.73)
SB4+MTX		5.09 (0.74, 37.11)	2.28 (0.89, 10.59)	0.36 (-0.07, 0.68)
ANBAI+MTX		6.76 (0.83, 53.35)	2.51 (0.94, 12.07)	0.43 (-0.04, 0.73)
CT-P13+MTX		4.88 (0.63, 36.44)	2.27 (0.84, 11.06)	0.36 (-0.11, 0.67)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
SB2+MTX		2.93 (0.36, 23.74)	1.85 (0.62, 9.14)	0.24 (-0.24, 0.59)
SB5+MTX		4.61 (0.57, 37.69)	2.22 (0.80, 11.00)	0.35 (-0.13, 0.67)
ZRC-3197+MTX		4.26 (0.45, 40.75)	2.13 (0.70, 10.79)	0.32 (-0.18, 0.69)
ABP501+MTX		5.13 (0.61, 41.83)	2.30 (0.84, 11.22)	0.37 (-0.11, 0.69)
ETN_STD	MTX+SSZ+HCQ	0.46 (0.15, 1.42)	0.72 (0.46, 1.20)	-0.18 (-0.41, 0.08)
ETN_STD+MTX		0.98 (0.37, 2.61)	0.99 (0.76, 1.56)	-0.004 (-0.18, 0.23)
ABA_STD (IV)+MTX		0.95 (0.26, 3.28)	0.98 (0.69, 1.72)	-0.01 (-0.25, 0.28)
ABA_STD (SC)+MTX		0.96 (0.20, 4.21)	0.99 (0.57, 1.78)	-0.01 (-0.33, 0.32)
SAR_200		0.10 (0.01, 0.97)	0.25 (0.04, 0.99)	-0.46 (-0.75, -0.01)
TOF_STD+MTX		1.12 (0.30, 3.96)	1.04 (0.73, 1.82)	0.02 (-0.22, 0.32)
TOF_STD		0.20 (0.03, 1.60)	0.43 (0.09, 1.20)	-0.36 (-0.69, 0.10)
ADA_STD+MTX		0.98 (0.28, 3.16)	0.99 (0.72, 1.73)	-0.005 (-0.23, 0.28)
TOC_4 (IV)		0.63 (0.13, 2.84)	0.84 (0.44, 1.58)	-0.11 (-0.44, 0.24)
TOC_8 (IV)		1.04 (0.27, 3.79)	1.01 (0.69, 1.78)	0.01 (-0.25, 0.31)
TOC_4 (IV)+MTX		0.65 (0.17, 2.26)	0.85 (0.56, 1.50)	-0.10 (-0.36, 0.20)
TOC_8 (IV)+MTX		0.92 (0.25, 3.17)	0.97 (0.67, 1.69)	-0.02 (-0.27, 0.28)
GOL_STD (SC)		0.17 (0.02, 1.18)	0.38 (0.08, 1.07)	-0.39 (-0.70, 0.04)
GOL_STD (SC)+MTX		0.87 (0.23, 3.02)	0.95 (0.65, 1.67)	-0.03 (-0.29, 0.26)
GOL_STD (IV)+MTX		1.02 (0.22, 4.41)	1.01 (0.60, 1.81)	0.003 (-0.32, 0.33)
INF_STD+MTX		0.73 (0.20, 2.48)	0.89 (0.62, 1.57)	-0.07 (-0.32, 0.22)
CERTO_STD		0.40 (0.06, 2.47)	0.67 (0.20, 1.40)	-0.21 (-0.58, 0.20)
CERTO_STD+MTX		1.33 (0.36, 4.46)	1.09 (0.79, 1.90)	0.06 (-0.17, 0.35)
RIT_STD		0.76 (0.13, 4.20)	0.91 (0.42, 1.75)	-0.06 (-0.44, 0.31)
RIT_STD+MTX		1.09 (0.18, 6.08)	1.03 (0.53, 1.89)	0.02 (-0.36, 0.37)
ADA_STD		0.08 (0.01, 0.58)	0.20 (0.03, 0.78)	-0.50 (-0.76, -0.12)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
BAR_4+MTX		1.06 (0.28, 3.85)	1.02 (0.70, 1.80)	0.01 (-0.24, 0.31)
HD203+MTX		1.40 (0.31, 6.22)	1.10 (0.65, 1.85)	0.07 (-0.25, 0.36)
SB4+MTX		1.09 (0.28, 4.22)	1.03 (0.63, 1.73)	0.02 (-0.27, 0.31)
ANBAI+MTX		1.45 (0.31, 6.41)	1.12 (0.71, 1.99)	0.08 (-0.23, 0.39)
CT-P13+MTX		1.04 (0.24, 4.25)	1.01 (0.63, 1.81)	0.01 (-0.29, 0.33)
SB2+MTX		0.63 (0.13, 2.97)	0.84 (0.42, 1.59)	-0.11 (-0.44, 0.25)
SB5+MTX		0.99 (0.20, 4.50)	1.00 (0.57, 1.81)	-0.002 (-0.33, 0.33)
ZRC-3197+MTX		0.91 (0.15, 5.00)	0.97 (0.46, 1.81)	-0.02 (-0.41, 0.34)
ABP501+MTX		1.10 (0.22, 4.93)	1.03 (0.60, 1.86)	0.02 (-0.31, 0.35)
ETN_STD+MTX	ETN_STD	2.11 (1.20, 3.87)	1.38 (1.07, 1.97)	0.18 (0.04, 0.32)
ABA_STD (IV)+MTX		2.04 (0.84, 4.91)	1.37 (0.93, 2.21)	0.17 (-0.04, 0.37)
ABA_STD (SC)+MTX		2.07 (0.60, 7.00)	1.37 (0.78, 2.32)	0.17 (-0.12, 0.43)
SAR_200		0.22 (0.03, 1.55)	0.35 (0.06, 1.22)	-0.29 (-0.50, 0.10)
TOF_STD+MTX		2.40 (0.97, 6.00)	1.44 (0.99, 2.35)	0.21 (-0.01, 0.42)
TOF_STD		0.44 (0.08, 2.43)	0.60 (0.14, 1.44)	-0.18 (-0.43, 0.20)
ADA_STD+MTX		2.09 (0.90, 4.72)	1.38 (0.96, 2.22)	0.18 (-0.02, 0.37)
TOC_4 (IV)		1.35 (0.38, 4.65)	1.16 (0.60, 2.06)	0.07 (-0.23, 0.36)
TOC_8 (IV)		2.23 (0.84, 5.89)	1.41 (0.93, 2.32)	0.19 (-0.04, 0.41)
TOC_4 (IV)+MTX		1.39 (0.54, 3.56)	1.18 (0.76, 1.96)	0.08 (-0.15, 0.30)
TOC_8 (IV)+MTX		1.97 (0.77, 4.87)	1.35 (0.90, 2.20)	0.16 (-0.06, 0.37)
GOL_STD (SC)		0.37 (0.07, 1.79)	0.52 (0.13, 1.30)	-0.21 (-0.44, 0.14)
GOL_STD (SC)+MTX		1.86 (0.73, 4.65)	1.32 (0.88, 2.17)	0.15 (-0.08, 0.36)
GOL_STD (IV)+MTX		2.18 (0.64, 7.06)	1.39 (0.81, 2.35)	0.19 (-0.11, 0.43)
INF_STD+MTX		1.57 (0.64, 3.77)	1.24 (0.82, 2.03)	0.11 (-0.11, 0.32)
CERTO_STD		0.86 (0.19, 3.55)	0.92 (0.31, 1.65)	-0.04 (-0.32, 0.28)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
CERTO_STD+MTX		2.86 (1.17, 6.72)	1.53 (1.06, 2.45)	0.25 (0.04, 0.44)
RIT_STD		1.64 (0.38, 7.14)	1.26 (0.58, 2.27)	0.12 (-0.23, 0.43)
RIT_STD+MTX		2.33 (0.53, 10.46)	1.42 (0.72, 2.46)	0.20 (-0.15, 0.48)
ADA_STD		0.17 (0.03, 0.91)	0.27 (0.05, 0.95)	-0.32 (-0.52, -0.02)
BAR_4+MTX		2.28 (0.86, 5.86)	1.42 (0.94, 2.32)	0.20 (-0.04, 0.41)
HD203+MTX		3.02 (0.83, 10.87)	1.52 (0.91, 2.38)	0.25 (-0.04, 0.47)
SB4+MTX		2.34 (0.78, 7.13)	1.42 (0.88, 2.19)	0.20 (-0.06, 0.42)
ANBAI+MTX		3.11 (0.90, 10.16)	1.56 (0.96, 2.55)	0.26 (-0.02, 0.49)
CT-P13+MTX		2.24 (0.71, 6.93)	1.41 (0.86, 2.35)	0.19 (-0.08, 0.43)
SB2+MTX		1.35 (0.37, 4.81)	1.16 (0.58, 2.07)	0.07 (-0.24, 0.36)
SB5+MTX		2.12 (0.60, 7.31)	1.38 (0.78, 2.35)	0.18 (-0.12, 0.44)
ZRC-3197+MTX		1.96 (0.43, 8.57)	1.34 (0.63, 2.36)	0.16 (-0.20, 0.45)
ABP501+MTX		2.35 (0.66, 8.17)	1.43 (0.83, 2.42)	0.20 (-0.10, 0.46)
ABA_STD (IV)+MTX	ETN_STD+MTX	0.96 (0.42, 2.14)	0.99 (0.75, 1.34)	-0.01 (-0.19, 0.18)
ABA_STD (SC)+MTX		0.98 (0.29, 3.09)	0.99 (0.59, 1.43)	-0.004 (-0.29, 0.23)
SAR_200		0.10 (0.01, 0.80)	0.25 (0.04, 0.92)	-0.47 (-0.68, -0.05)
TOF_STD+MTX		1.14 (0.48, 2.60)	1.04 (0.79, 1.42)	0.03 (-0.15, 0.21)
TOF_STD		0.20 (0.03, 1.27)	0.43 (0.09, 1.08)	-0.36 (-0.62, 0.05)
ADA_STD+MTX		0.99 (0.45, 2.03)	1.00 (0.78, 1.33)	-0.001 (-0.17, 0.17)
TOC_4 (IV)		0.64 (0.19, 2.04)	0.84 (0.45, 1.29)	-0.11 (-0.39, 0.16)
TOC_8 (IV)		1.06 (0.42, 2.57)	1.02 (0.74, 1.40)	0.01 (-0.19, 0.21)
TOC_4 (IV)+MTX		0.66 (0.27, 1.52)	0.85 (0.60, 1.19)	-0.10 (-0.30, 0.10)
TOC_8 (IV)+MTX		0.93 (0.39, 2.08)	0.98 (0.72, 1.32)	-0.02 (-0.21, 0.17)
GOL_STD (SC)		0.17 (0.03, 0.94)	0.38 (0.08, 0.98)	-0.39 (-0.63, -0.01)
GOL_STD (SC)+MTX		0.88 (0.36, 2.03)	0.96 (0.70, 1.32)	-0.03 (-0.22, 0.16)

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Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
GOL_STD (IV)+MTX		1.03 (0.32, 3.16)	1.01 (0.63, 1.45)	0.01 (-0.26, 0.24)
INF_STD+MTX		0.74 (0.32, 1.63)	0.89 (0.66, 1.23)	-0.07 (-0.26, 0.12)
CERTO_STD		0.40 (0.08, 1.86)	0.66 (0.21, 1.20)	-0.22 (-0.53, 0.12)
CERTO_STD+MTX		1.35 (0.59, 2.92)	1.10 (0.86, 1.47)	0.06 (-0.11, 0.24)
RIT_STD		0.78 (0.18, 3.23)	0.91 (0.44, 1.43)	-0.06 (-0.39, 0.24)
RIT_STD+MTX		1.10 (0.26, 4.73)	1.03 (0.55, 1.54)	0.02 (-0.32, 0.29)
ADA_STD		0.08 (0.01, 0.47)	0.20 (0.04, 0.72)	-0.50 (-0.69, -0.18)
BAR_4+MTX		1.08 (0.42, 2.54)	1.03 (0.75, 1.40)	0.02 (-0.19, 0.21)
HD203+MTX		1.42 (0.45, 4.45)	1.11 (0.70, 1.44)	0.07 (-0.19, 0.25)
SB4+MTX		1.11 (0.43, 2.82)	1.03 (0.69, 1.32)	0.02 (-0.20, 0.19)
ANBAI+MTX		1.47 (0.45, 4.56)	1.12 (0.75, 1.56)	0.08 (-0.18, 0.29)
CT-P13+MTX		1.06 (0.34, 3.04)	1.02 (0.66, 1.44)	0.01 (-0.24, 0.24)
SB2+MTX		0.64 (0.18, 2.17)	0.84 (0.44, 1.30)	-0.11 (-0.40, 0.17)
SB5+MTX		1.01 (0.29, 3.24)	1.00 (0.60, 1.45)	0.002 (-0.28, 0.24)
ZRC-3197+MTX		0.92 (0.21, 3.83)	0.97 (0.48, 1.47)	-0.02 (-0.36, 0.26)
ABP501+MTX		1.11 (0.32, 3.58)	1.04 (0.63, 1.48)	0.02 (-0.26, 0.26)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	1.01 (0.34, 2.97)	1.00 (0.62, 1.39)	0.003 (-0.26, 0.22)
SAR_200		0.11 (0.01, 0.95)	0.25 (0.04, 0.98)	-0.47 (-0.66, -0.01)
TOF_STD+MTX		1.18 (0.58, 2.43)	1.06 (0.83, 1.35)	0.04 (-0.12, 0.19)
TOF_STD		0.21 (0.03, 1.54)	0.43 (0.09, 1.15)	-0.36 (-0.62, 0.09)
ADA_STD+MTX		1.03 (0.56, 1.85)	1.01 (0.82, 1.27)	0.01 (-0.13, 0.14)
TOC_4 (IV)		0.66 (0.22, 1.98)	0.85 (0.47, 1.26)	-0.10 (-0.35, 0.15)
TOC_8 (IV)		1.10 (0.50, 2.42)	1.03 (0.77, 1.35)	0.02 (-0.16, 0.19)
TOC_4 (IV)+MTX		0.68 (0.33, 1.44)	0.86 (0.62, 1.15)	-0.09 (-0.26, 0.09)
TOC_8 (IV)+MTX		0.96 (0.47, 2.00)	0.99 (0.75, 1.28)	-0.01 (-0.17, 0.16)
GOL_STD (SC)		0.18 (0.03, 1.14)	0.38 (0.08, 1.05)	-0.39 (-0.63, 0.03)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
GOL_STD (SC)+MTX		0.92 (0.44, 1.88)	0.97 (0.73, 1.26)	-0.02 (-0.19, 0.14)
GOL_STD (IV)+MTX		1.08 (0.36, 3.04)	1.03 (0.64, 1.40)	0.02 (-0.24, 0.22)
INF_STD+MTX		0.77 (0.41, 1.43)	0.90 (0.70, 1.15)	-0.06 (-0.21, 0.08)
CERTO_STD		0.42 (0.08, 2.26)	0.67 (0.20, 1.28)	-0.21 (-0.53, 0.17)
CERTO_STD+MTX		1.40 (0.72, 2.73)	1.11 (0.90, 1.40)	0.07 (-0.07, 0.22)
RIT_STD		0.81 (0.21, 3.13)	0.92 (0.45, 1.39)	-0.05 (-0.37, 0.23)
RIT_STD+MTX		1.14 (0.29, 4.71)	1.05 (0.56, 1.48)	0.03 (-0.29, 0.28)
ADA_STD		0.08 (0.01, 0.56)	0.20 (0.03, 0.78)	-0.50 (-0.67, -0.14)
BAR_4+MTX		1.12 (0.52, 2.41)	1.04 (0.79, 1.35)	0.02 (-0.15, 0.19)
HD203+MTX		1.48 (0.36, 6.13)	1.13 (0.64, 1.54)	0.08 (-0.24, 0.31)
SB4+MTX		1.15 (0.34, 4.09)	1.05 (0.61, 1.46)	0.03 (-0.26, 0.26)
ANBAI+MTX		1.52 (0.53, 4.41)	1.14 (0.78, 1.50)	0.09 (-0.15, 0.28)
CT-P13+MTX		1.10 (0.42, 2.83)	1.03 (0.70, 1.37)	0.02 (-0.20, 0.21)
SB2+MTX		0.66 (0.22, 2.00)	0.85 (0.46, 1.25)	-0.10 (-0.36, 0.15)
SB5+MTX		1.04 (0.34, 3.19)	1.01 (0.62, 1.41)	0.01 (-0.26, 0.23)
ZRC-3197+MTX		0.96 (0.24, 3.82)	0.98 (0.49, 1.44)	-0.01 (-0.34, 0.25)
ABP501+MTX		1.16 (0.37, 3.49)	1.05 (0.65, 1.43)	0.03 (-0.24, 0.24)
SAR_200	ABA_STD (SC)+MTX	0.11 (0.01, 1.10)	0.26 (0.04, 1.04)	-0.46 (-0.73, 0.02)
TOF_STD+MTX		1.15 (0.40, 3.51)	1.05 (0.77, 1.70)	0.03 (-0.18, 0.29)
TOF_STD		0.21 (0.03, 1.81)	0.44 (0.09, 1.25)	-0.35 (-0.67, 0.13)
ADA_STD+MTX		1.02 (0.41, 2.53)	1.01 (0.78, 1.55)	0.003 (-0.17, 0.23)
TOC_4 (IV)		0.65 (0.16, 2.62)	0.84 (0.45, 1.49)	-0.10 (-0.40, 0.22)
TOC_8 (IV)		1.08 (0.34, 3.48)	1.03 (0.72, 1.69)	0.02 (-0.22, 0.29)
TOC_4 (IV)+MTX		0.68 (0.22, 2.11)	0.86 (0.58, 1.42)	-0.09 (-0.33, 0.18)
TOC_8 (IV)+MTX		0.95 (0.31, 2.91)	0.98 (0.70, 1.60)	-0.01 (-0.24, 0.25)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
GOL_STD (SC)		0.18 (0.02, 1.35)	0.39 (0.08, 1.13)	-0.38 (-0.68, 0.07)
GOL_STD (SC)+MTX		0.91 (0.29, 2.71)	0.97 (0.68, 1.56)	-0.02 (-0.25, 0.24)
GOL_STD (IV)+MTX		1.06 (0.27, 4.03)	1.02 (0.62, 1.70)	0.01 (-0.28, 0.31)
INF_STD+MTX		0.76 (0.26, 2.25)	0.90 (0.64, 1.47)	-0.06 (-0.28, 0.20)
CERTO_STD		0.42 (0.06, 2.76)	0.67 (0.20, 1.45)	-0.21 (-0.58, 0.22)
CERTO_STD+MTX		1.38 (0.49, 3.94)	1.11 (0.83, 1.77)	0.07 (-0.13, 0.32)
RIT_STD		0.79 (0.16, 4.03)	0.92 (0.44, 1.65)	-0.05 (-0.41, 0.30)
RIT_STD+MTX		1.13 (0.22, 5.85)	1.04 (0.55, 1.79)	0.03 (-0.33, 0.36)
ADA_STD		0.08 (0.01, 0.66)	0.20 (0.03, 0.82)	-0.50 (-0.74, -0.10)
BAR_4+MTX		1.10 (0.36, 3.36)	1.03 (0.74, 1.67)	0.02 (-0.21, 0.28)
HD203+MTX		1.46 (0.28, 7.71)	1.12 (0.62, 1.89)	0.08 (-0.28, 0.39)
SB4+MTX		1.13 (0.26, 5.35)	1.04 (0.59, 1.79)	0.03 (-0.30, 0.34)
ANBAI+MTX		1.50 (0.39, 5.82)	1.13 (0.74, 1.85)	0.08 (-0.20, 0.37)
CT-P13+MTX		1.08 (0.30, 4.03)	1.03 (0.66, 1.71)	0.02 (-0.26, 0.31)
SB2+MTX		0.65 (0.16, 2.74)	0.85 (0.44, 1.51)	-0.10 (-0.42, 0.23)
SB5+MTX		1.02 (0.28, 3.80)	1.01 (0.61, 1.65)	0.01 (-0.28, 0.29)
ZRC-3197+MTX		0.94 (0.20, 4.41)	0.98 (0.48, 1.67)	-0.01 (-0.37, 0.31)
ABP501+MTX		1.14 (0.30, 4.22)	1.04 (0.64, 1.70)	0.03 (-0.26, 0.31)
TOF_STD+MTX	SAR_200	10.93 (1.25, 96.41)	4.17 (1.09, 29.32)	0.51 (0.05, 0.70)
TOF_STD		1.96 (0.43, 9.08)	1.63 (0.56, 6.12)	0.09 (-0.15, 0.39)
ADA_STD+MTX		9.55 (1.13, 79.88)	3.99 (1.05, 27.80)	0.48 (0.03, 0.65)
TOC_4 (IV)		6.16 (0.59, 60.28)	3.28 (0.77, 23.19)	0.36 (-0.13, 0.65)
TOC_8 (IV)		10.14 (1.12, 90.22)	4.07 (1.04, 28.31)	0.49 (0.03, 0.70)
TOC_4 (IV)+MTX		6.40 (0.70, 55.49)	3.40 (0.86, 23.67)	0.38 (-0.08, 0.59)
TOC_8 (IV)+MTX		8.92 (1.01, 78.04)	3.89 (1.00, 27.37)	0.46 (0.00, 0.66)
GOL_STD (SC)		1.66 (0.24, 10.76)	1.47 (0.36, 7.16)	0.06 (-0.27, 0.39)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
GOL_STD (SC)+MTX		8.46 (0.94, 72.91)	3.82 (0.97, 26.72)	0.45 (-0.01, 0.65)
GOL_STD (IV)+MTX		9.93 (0.97, 96.34)	3.99 (0.98, 28.05)	0.47 (-0.01, 0.73)
INF_STD+MTX		7.12 (0.85, 60.60)	3.56 (0.94, 25.01)	0.41 (-0.04, 0.60)
CERTO_STD		3.87 (0.68, 21.31)	2.51 (0.81, 11.69)	0.23 (-0.08, 0.54)
CERTO_STD+MTX		*13.00 (1.48, 110.30)*	*4.40 (1.14, 30.46)*	*0.55 (0.09, 0.72)*
RIT_STD		7.45 (0.66, 86.06)	3.51 (0.82, 25.71)	0.40 (-0.09, 0.73)
RIT_STD+MTX		*10.53 (0.92, 125.40)*	*4.01 (0.97, 28.37)*	*0.48 (-0.02, 0.78)*
ADA_STD		0.75 (0.29, 1.97)	0.79 (0.37, 1.81)	-0.03 (-0.24, 0.08)
BAR_4+MTX		10.29 (1.15, 91.34)	4.07 (1.05, 28.59)	0.49 (0.03, 0.70)
HD203+MTX		*13.59 (1.33, 146.80)*	*4.31 (1.11, 29.80)*	*0.53 (0.06, 0.81)*
SB4+MTX		*10.65 (1.13, 105.00)*	*4.03 (1.05, 27.60)*	*0.48 (0.03, 0.76)*
ANBAI+MTX		*14.11 (1.40, 137.90)*	*4.44 (1.13, 31.13)*	*0.55 (0.08, 0.79)*
CT-P13+MTX		10.14 (1.04, 96.48)	4.02 (1.01, 28.16)	0.48 (0.01, 0.73)
SB2+MTX		6.12 (0.60, 63.23)	3.28 (0.79, 23.49)	0.36 (-0.12, 0.66)
SB5+MTX		9.67 (0.95, 99.22)	3.93 (0.98, 27.76)	0.46 (-0.01, 0.74)
ZRC-3197+MTX		*8.85 (0.73, 104.10)*	*3.75 (0.87, 27.34)*	*0.44 (-0.07, 0.76)*
ABP501+MTX		*10.65 (1.03, 108.30)*	*4.07 (1.01, 28.88)*	*0.49 (0.01, 0.75)*
TOF_STD	TOF_STD+MTX	0.18 (0.03, 1.33)	0.41 (0.08, 1.09)	-0.40 (-0.66, 0.06)
ADA_STD+MTX		0.87 (0.48, 1.54)	0.96 (0.79, 1.17)	-0.03 (-0.16, 0.10)
TOC_4 (IV)		0.56 (0.18, 1.71)	0.80 (0.44, 1.18)	-0.14 (-0.40, 0.11)
TOC_8 (IV)		0.93 (0.41, 2.10)	0.98 (0.73, 1.27)	-0.02 (-0.20, 0.16)
TOC_4 (IV)+MTX		0.58 (0.27, 1.24)	0.81 (0.59, 1.08)	-0.13 (-0.30, 0.05)
TOC_8 (IV)+MTX		0.82 (0.39, 1.72)	0.93 (0.72, 1.20)	-0.04 (-0.21, 0.12)
GOL_STD (SC)		0.15 (0.02, 0.98)	0.36 (0.07, 0.99)	-0.43 (-0.66, -0.004)
GOL_STD (SC)+MTX		0.78 (0.36, 1.63)	0.92 (0.69, 1.18)	-0.06 (-0.23, 0.11)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
GOL_STD (IV)+MTX		0.91 (0.30, 2.59)	0.97 (0.61, 1.31)	-0.02 (-0.28, 0.19)
INF_STD+MTX		0.66 (0.32, 1.30)	0.86 (0.65, 1.11)	-0.10 (-0.26, 0.06)
CERTO_STD		0.36 (0.06, 1.96)	0.64 (0.19, 1.21)	-0.25 (-0.57, 0.14)
CERTO_STD+MTX		1.19 (0.60, 2.33)	1.05 (0.86, 1.32)	0.04 (-0.11, 0.18)
RIT_STD		0.68 (0.17, 2.68)	0.87 (0.43, 1.30)	-0.09 (-0.41, 0.19)
RIT_STD+MTX		0.97 (0.24, 3.98)	0.99 (0.53, 1.40)	-0.01 (-0.33, 0.24)
ADA_STD		0.07 (0.01, 0.48)	0.19 (0.03, 0.73)	-0.54 (-0.71, -0.17)
BAR_4+MTX		0.95 (0.43, 2.02)	0.98 (0.75, 1.26)	-0.01 (-0.19, 0.15)
HD203+MTX		1.26 (0.30, 5.19)	1.07 (0.60, 1.45)	0.05 (-0.28, 0.27)
SB4+MTX		0.98 (0.28, 3.51)	0.99 (0.58, 1.38)	-0.004 (-0.30, 0.23)
ANBAI+MTX		1.30 (0.43, 3.75)	1.08 (0.74, 1.40)	0.05 (-0.19, 0.24)
CT-P13+MTX		0.93 (0.34, 2.53)	0.98 (0.65, 1.31)	-0.02 (-0.25, 0.19)
SB2+MTX		0.56 (0.17, 1.78)	0.80 (0.43, 1.20)	-0.13 (-0.41, 0.12)
SB5+MTX		0.89 (0.29, 2.66)	0.96 (0.59, 1.31)	-0.03 (-0.29, 0.19)
ZRC-3197+MTX		0.81 (0.20, 3.21)	0.93 (0.46, 1.34)	-0.05 (-0.38, 0.21)
ABP501+MTX		0.98 (0.32, 2.88)	0.99 (0.62, 1.33)	-0.004 (-0.27, 0.20)
ADA_STD+MTX	TOF_STD	4.85 (0.69, 31.78)	2.36 (0.89, 11.65)	0.37 (-0.08, 0.61)
TOC_4 (IV)		3.11 (0.36, 25.43)	1.93 (0.64, 9.98)	0.25 (-0.24, 0.60)
TOC_8 (IV)		5.15 (0.69, 36.76)	2.39 (0.88, 11.91)	0.38 (-0.08, 0.65)
TOC_4 (IV)+MTX		3.23 (0.45, 22.73)	1.99 (0.73, 9.99)	0.27 (-0.19, 0.54)
TOC_8 (IV)+MTX		4.53 (0.63, 31.49)	2.29 (0.85, 11.41)	0.35 (-0.11, 0.61)
GOL_STD (SC)		0.84 (0.17, 4.10)	0.89 (0.27, 2.90)	-0.03 (-0.36, 0.27)
GOL_STD (SC)+MTX		4.30 (0.58, 29.65)	2.25 (0.82, 11.18)	0.34 (-0.12, 0.60)
GOL_STD (IV)+MTX		5.06 (0.58, 40.05)	2.36 (0.82, 11.80)	0.37 (-0.12, 0.68)
INF_STD+MTX		3.63 (0.51, 24.16)	2.10 (0.78, 10.43)	0.30 (-0.15, 0.55)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
CERTO_STD		1.97 (0.47, 8.22)	1.49 (0.65, 4.65)	0.13 (-0.16, 0.42)
CERTO_STD+MTX		6.57 (0.92, 45.40)	2.59 (0.98, 12.96)	0.43 (-0.02, 0.68)
RIT_STD		3.81 (0.40, 35.56)	2.09 (0.66, 10.85)	0.30 (-0.21, 0.67)
RIT_STD+MTX		5.38 (0.55, 51.51)	2.37 (0.79, 12.14)	0.37 (-0.13, 0.72)
ADA_STD		0.38 (0.12, 1.20)	0.48 (0.17, 1.15)	-0.13 (-0.40, 0.02)
BAR_4+MTX		5.24 (0.70, 37.07)	2.41 (0.89, 12.00)	0.38 (-0.08, 0.65)
HD203+MTX		6.88 (0.83, 61.18)	2.55 (0.94, 12.43)	0.42 (-0.04, 0.75)
SB4+MTX		5.39 (0.69, 42.75)	2.38 (0.87, 11.40)	0.37 (-0.08, 0.70)
ANBAI+MTX		7.18 (0.84, 58.04)	2.62 (0.95, 13.15)	0.44 (-0.04, 0.73)
CT-P13+MTX		5.17 (0.64, 40.24)	2.38 (0.85, 12.10)	0.37 (-0.10, 0.68)
SB2+MTX		3.11 (0.36, 26.17)	1.93 (0.63, 10.04)	0.25 (-0.24, 0.60)
SB5+MTX		4.89 (0.57, 41.24)	2.32 (0.81, 11.78)	0.36 (-0.13, 0.68)
ZRC-3197+MTX		4.47 (0.45, 42.60)	2.22 (0.71, 11.25)	0.33 (-0.18, 0.69)
ABP501+MTX		5.42 (0.63, 44.60)	2.40 (0.84, 12.00)	0.38 (-0.10, 0.70)
TOC_4 (IV)	ADA_STD+MTX	0.64 (0.23, 1.84)	0.84 (0.47, 1.21)	-0.11 (-0.35, 0.13)
TOC_8 (IV)		1.07 (0.53, 2.18)	1.02 (0.78, 1.27)	0.01 (-0.15, 0.16)
TOC_4 (IV)+MTX		0.67 (0.35, 1.30)	0.85 (0.63, 1.10)	-0.10 (-0.25, 0.06)
TOC_8 (IV)+MTX		0.94 (0.50, 1.78)	0.98 (0.76, 1.21)	-0.02 (-0.16, 0.13)
GOL_STD (SC)		0.17 (0.03, 1.09)	0.37 (0.08, 1.03)	-0.40 (-0.61, 0.02)
GOL_STD (SC)+MTX		0.89 (0.46, 1.69)	0.96 (0.73, 1.20)	-0.03 (-0.18, 0.12)
GOL_STD (IV)+MTX		1.04 (0.38, 2.81)	1.01 (0.65, 1.33)	0.01 (-0.23, 0.20)
INF_STD+MTX		0.75 (0.42, 1.33)	0.89 (0.70, 1.11)	-0.07 (-0.21, 0.07)
CERTO_STD		0.41 (0.08, 2.15)	0.66 (0.20, 1.25)	-0.22 (-0.53, 0.16)
CERTO_STD+MTX		1.36 (0.82, 2.27)	1.10 (0.93, 1.29)	0.07 (-0.04, 0.17)
RIT_STD		0.78 (0.21, 2.95)	0.91 (0.45, 1.33)	-0.06 (-0.37, 0.21)
RIT_STD+MTX		1.10 (0.30, 4.37)	1.03 (0.56, 1.42)	0.02 (-0.29, 0.26)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ADA_STD		0.08 (0.01, 0.53)	0.20 (0.03, 0.76)	-0.52 (-0.65, -0.15)
BAR_4+MTX		1.08 (0.58, 2.06)	1.03 (0.81, 1.25)	0.02 (-0.13, 0.15)
HD203+MTX		1.44 (0.37, 5.75)	1.12 (0.64, 1.47)	0.08 (-0.24, 0.28)
SB4+MTX		1.12 (0.35, 3.87)	1.04 (0.61, 1.40)	0.02 (-0.26, 0.24)
ANBAI+MTX		1.48 (0.54, 4.06)	1.13 (0.78, 1.42)	0.08 (-0.15, 0.25)
CT-P13+MTX		1.06 (0.42, 2.67)	1.02 (0.69, 1.32)	0.01 (-0.21, 0.19)
SB2+MTX		0.65 (0.22, 1.92)	0.84 (0.45, 1.22)	-0.10 (-0.36, 0.14)
SB5+MTX		1.01 (0.39, 2.61)	1.01 (0.65, 1.28)	0.003 (-0.23, 0.18)
ZRC-3197+MTX		0.93 (0.26, 3.26)	0.97 (0.50, 1.33)	-0.02 (-0.32, 0.21)
ABP501+MTX		1.12 (0.43, 2.85)	1.04 (0.68, 1.31)	0.03 (-0.20, 0.19)
TOC_8 (IV)	TOC_4 (IV)	1.66 (0.61, 4.52)	1.22 (0.85, 2.09)	0.12 (-0.11, 0.35)
TOC_4 (IV)+MTX		1.04 (0.38, 2.80)	1.02 (0.69, 1.76)	0.01 (-0.22, 0.25)
TOC_8 (IV)+MTX		1.46 (0.55, 3.84)	1.17 (0.82, 1.99)	0.09 (-0.13, 0.32)
GOL_STD (SC)		0.27 (0.03, 2.12)	0.46 (0.09, 1.43)	-0.28 (-0.61, 0.18)
GOL_STD (SC)+MTX		1.38 (0.45, 4.23)	1.14 (0.75, 2.07)	0.08 (-0.18, 0.34)
GOL_STD (IV)+MTX		1.62 (0.42, 6.22)	1.21 (0.70, 2.23)	0.11 (-0.20, 0.41)
INF_STD+MTX		1.16 (0.39, 3.51)	1.07 (0.71, 1.95)	0.04 (-0.21, 0.30)
CERTO_STD		0.63 (0.09, 4.26)	0.80 (0.23, 1.85)	-0.11 (-0.50, 0.32)
CERTO_STD+MTX		2.11 (0.71, 6.21)	1.32 (0.91, 2.35)	0.17 (-0.07, 0.42)
RIT_STD		1.22 (0.25, 6.06)	1.09 (0.50, 2.13)	0.05 (-0.32, 0.40)
RIT_STD+MTX		1.72 (0.35, 8.76)	1.23 (0.63, 2.32)	0.12 (-0.24, 0.45)
ADA_STD		0.12 (0.01, 1.04)	0.24 (0.04, 1.02)	-0.40 (-0.67, 0.01)
BAR_4+MTX		1.69 (0.54, 5.30)	1.23 (0.81, 2.22)	0.12 (-0.13, 0.39)
HD203+MTX		2.23 (0.43, 11.98)	1.32 (0.70, 2.48)	0.18 (-0.19, 0.50)
SB4+MTX		1.73 (0.40, 8.09)	1.23 (0.68, 2.34)	0.13 (-0.21, 0.45)
ANBAI+MTX		2.30 (0.59, 9.04)	1.34 (0.83, 2.44)	0.18 (-0.12, 0.47)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
CT-P13+MTX		1.65 (0.45, 6.17)	1.22 (0.74, 2.26)	0.12 (-0.18, 0.41)
SB2+MTX		1.00 (0.24, 4.17)	1.00 (0.50, 1.95)	-0.001 (-0.33, 0.33)
SB5+MTX		1.57 (0.38, 6.45)	1.19 (0.67, 2.24)	0.11 (-0.22, 0.42)
ZRC-3197+MTX		1.44 (0.29, 7.42)	1.16 (0.55, 2.22)	0.09 (-0.29, 0.42)
ABP501+MTX		1.74 (0.43, 7.12)	1.24 (0.71, 2.29)	0.13 (-0.20, 0.43)
TOC_4 (IV)+MTX	TOC_8 (IV)	0.62 (0.31, 1.23)	0.83 (0.63, 1.09)	-0.11 (-0.26, 0.05)
TOC_8 (IV)+MTX		0.88 (0.51, 1.51)	0.96 (0.79, 1.17)	-0.03 (-0.15, 0.10)
GOL_STD (SC)		0.16 (0.02, 1.09)	0.37 (0.08, 1.03)	-0.41 (-0.66, 0.02)
GOL_STD (SC)+MTX		0.84 (0.36, 1.88)	0.94 (0.69, 1.27)	-0.04 (-0.23, 0.15)
GOL_STD (IV)+MTX		0.98 (0.32, 2.96)	0.99 (0.63, 1.40)	-0.01 (-0.27, 0.22)
INF_STD+MTX		0.70 (0.32, 1.52)	0.87 (0.66, 1.18)	-0.08 (-0.25, 0.10)
CERTO_STD		0.38 (0.07, 2.16)	0.65 (0.19, 1.26)	-0.23 (-0.56, 0.16)
CERTO_STD+MTX		1.27 (0.59, 2.73)	1.08 (0.86, 1.42)	0.05 (-0.11, 0.22)
RIT_STD		0.73 (0.18, 3.01)	0.89 (0.43, 1.38)	-0.07 (-0.39, 0.22)
RIT_STD+MTX		1.03 (0.26, 4.43)	1.01 (0.54, 1.48)	0.01 (-0.32, 0.27)
ADA_STD		0.07 (0.01, 0.53)	0.19 (0.03, 0.76)	-0.52 (-0.71, -0.15)
BAR_4+MTX		1.01 (0.43, 2.37)	1.01 (0.75, 1.35)	0.003 (-0.19, 0.19)
HD203+MTX		1.34 (0.31, 5.81)	1.09 (0.62, 1.54)	0.06 (-0.27, 0.30)
SB4+MTX		1.05 (0.29, 3.95)	1.01 (0.59, 1.46)	0.01 (-0.28, 0.26)
ANBAI+MTX		1.39 (0.45, 4.33)	1.10 (0.75, 1.51)	0.07 (-0.18, 0.28)
CT-P13+MTX		1.00 (0.35, 2.92)	1.00 (0.66, 1.40)	-0.001 (-0.24, 0.22)
SB2+MTX		0.60 (0.18, 1.99)	0.82 (0.44, 1.26)	-0.12 (-0.40, 0.15)
SB5+MTX		0.95 (0.29, 3.08)	0.98 (0.59, 1.41)	-0.01 (-0.29, 0.23)
ZRC-3197+MTX		0.87 (0.21, 3.73)	0.95 (0.47, 1.44)	-0.03 (-0.37, 0.25)
ABP501+MTX		1.05 (0.31, 3.37)	1.02 (0.62, 1.43)	0.01 (-0.27, 0.24)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.41 (0.81, 2.45)	1.15 (0.92, 1.47)	0.08 (-0.05, 0.21)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
GOL_STD (SC)		0.26 (0.04, 1.71)	0.44 (0.09, 1.25)	-0.30 (-0.55, 0.13)
GOL_STD (SC)+MTX		1.34 (0.60, 2.89)	1.13 (0.81, 1.58)	0.07 (-0.12, 0.25)
GOL_STD (IV)+MTX		1.57 (0.52, 4.62)	1.19 (0.74, 1.73)	0.11 (-0.16, 0.33)
INF_STD+MTX		1.13 (0.54, 2.34)	1.05 (0.77, 1.48)	0.03 (-0.15, 0.21)
CERTO_STD		0.61 (0.11, 3.35)	0.78 (0.23, 1.55)	-0.12 (-0.46, 0.27)
CERTO_STD+MTX		2.04 (0.99, 4.20)	1.30 (1.00, 1.76)	0.16 (0.00, 0.33)
RIT_STD		1.17 (0.30, 4.71)	1.07 (0.52, 1.70)	0.04 (-0.29, 0.33)
RIT_STD+MTX		1.66 (0.42, 6.92)	1.22 (0.65, 1.83)	0.12 (-0.21, 0.38)
ADA_STD		0.12 (0.02, 0.84)	0.23 (0.04, 0.92)	-0.41 (-0.60, -0.04)
BAR_4+MTX		1.62 (0.72, 3.66)	1.21 (0.88, 1.69)	0.11 (-0.08, 0.30)
HD203+MTX		2.15 (0.52, 9.26)	1.31 (0.73, 1.92)	0.17 (-0.16, 0.41)
SB4+MTX		1.68 (0.48, 6.18)	1.22 (0.71, 1.82)	0.12 (-0.18, 0.37)
ANBAI+MTX		2.22 (0.74, 6.70)	1.32 (0.88, 1.87)	0.18 (-0.07, 0.38)
CT-P13+MTX		1.60 (0.57, 4.51)	1.20 (0.78, 1.73)	0.11 (-0.14, 0.33)
SB2+MTX		0.97 (0.29, 3.13)	0.99 (0.52, 1.57)	-0.01 (-0.29, 0.26)
SB5+MTX		1.52 (0.48, 4.76)	1.18 (0.71, 1.74)	0.10 (-0.18, 0.33)
ZRC-3197+MTX		1.40 (0.34, 5.83)	1.14 (0.56, 1.78)	0.08 (-0.26, 0.36)
ABP501+MTX		1.68 (0.53, 5.32)	1.22 (0.74, 1.79)	0.12 (-0.16, 0.35)
GOL_STD (SC)	TOC_8 (IV)+MTX	0.19 (0.03, 1.19)	0.39 (0.08, 1.07)	-0.38 (-0.62, 0.04)
GOL_STD (SC)+MTX		0.95 (0.44, 2.01)	0.98 (0.73, 1.30)	-0.01 (-0.19, 0.16)
GOL_STD (IV)+MTX		1.11 (0.37, 3.24)	1.04 (0.65, 1.44)	0.02 (-0.23, 0.24)
INF_STD+MTX		0.80 (0.39, 1.61)	0.91 (0.69, 1.21)	-0.05 (-0.22, 0.11)
CERTO_STD		0.43 (0.08, 2.38)	0.68 (0.20, 1.31)	-0.20 (-0.53, 0.18)
CERTO_STD+MTX		1.45 (0.72, 2.89)	1.13 (0.90, 1.45)	0.08 (-0.07, 0.23)
RIT_STD		0.84 (0.21, 3.32)	0.93 (0.46, 1.42)	-0.04 (-0.36, 0.24)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
RIT_STD+MTX		1.18 (0.30, 4.85)	1.06 (0.57, 1.53)	0.04 (-0.29, 0.29)
ADA_STD		0.08 (0.01, 0.59)	0.20 (0.04, 0.79)	-0.49 (-0.67, -0.13)
BAR_4+MTX		1.15 (0.52, 2.54)	1.05 (0.79, 1.39)	0.03 (-0.15, 0.21)
HD203+MTX		1.53 (0.37, 6.41)	1.14 (0.65, 1.59)	0.09 (-0.23, 0.32)
SB4+MTX		1.19 (0.35, 4.32)	1.06 (0.62, 1.51)	0.04 (-0.25, 0.28)
ANBAI+MTX		1.58 (0.53, 4.67)	1.15 (0.78, 1.55)	0.10 (-0.15, 0.29)
CT-P13+MTX		1.13 (0.41, 3.10)	1.04 (0.69, 1.44)	0.03 (-0.21, 0.24)
SB2+MTX		0.69 (0.21, 2.19)	0.86 (0.46, 1.30)	-0.09 (-0.36, 0.17)
SB5+MTX		1.08 (0.35, 3.33)	1.03 (0.62, 1.45)	0.02 (-0.25, 0.24)
ZRC-3197+MTX		0.99 (0.24, 4.04)	1.00 (0.49, 1.48)	-0.002 (-0.34, 0.27)
ABP501+MTX		1.20 (0.38, 3.70)	1.06 (0.66, 1.48)	0.04 (-0.23, 0.26)
GOL_STD (SC)+MTX	GOL_STD (SC)	5.13 (0.78, 32.79)	2.54 (0.91, 12.43)	0.37 (-0.06, 0.61)
GOL_STD (IV)+MTX		6.02 (0.79, 44.52)	2.67 (0.91, 12.99)	0.40 (-0.05, 0.69)
INF_STD+MTX		4.29 (0.68, 27.32)	2.37 (0.86, 11.47)	0.33 (-0.09, 0.56)
CERTO_STD		2.34 (0.63, 8.89)	1.70 (0.76, 4.93)	0.16 (-0.10, 0.44)
CERTO_STD+MTX		7.78 (1.23, 50.47)	2.93 (1.07, 14.41)	0.47 (0.04, 0.69)
RIT_STD		4.53 (0.52, 39.93)	2.36 (0.73, 12.01)	0.33 (-0.15, 0.68)
RIT_STD+MTX		6.37 (0.71, 58.90)	2.68 (0.86, 13.40)	0.40 (-0.08, 0.73)
ADA_STD		0.45 (0.09, 2.38)	0.54 (0.14, 1.93)	-0.10 (-0.41, 0.14)
BAR_4+MTX		6.23 (0.94, 40.71)	2.73 (0.98, 13.29)	0.41 (-0.01, 0.66)
HD203+MTX		8.20 (1.07, 67.10)	2.89 (1.03, 13.79)	0.45 (0.01, 0.76)
SB4+MTX		6.42 (0.91, 47.63)	2.69 (0.96, 12.84)	0.41 (-0.02, 0.70)
ANBAI+MTX		8.48 (1.12, 64.07)	2.96 (1.04, 14.46)	0.47 (0.02, 0.74)
CT-P13+MTX		6.16 (0.83, 44.41)	2.70 (0.93, 13.09)	0.41 (-0.04, 0.69)
SB2+MTX		3.71 (0.46, 29.08)	2.20 (0.69, 10.90)	0.28 (-0.18, 0.61)
SB5+MTX		5.79 (0.75, 45.28)	2.63 (0.89, 12.99)	0.39 (-0.07, 0.69)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ZRC-3197+MTX		5.28 (0.59, 47.77)	2.51 (0.78, 12.60)	0.36 (-0.12, 0.71)
ABP501+MTX		6.46 (0.81, 49.77)	2.73 (0.92, 13.42)	0.41 (-0.05, 0.71)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	1.17 (0.40, 3.45)	1.06 (0.67, 1.49)	0.04 (-0.22, 0.26)
INF_STD+MTX		0.84 (0.41, 1.74)	0.93 (0.70, 1.26)	-0.04 (-0.21, 0.13)
CERTO_STD		0.46 (0.08, 2.57)	0.69 (0.20, 1.34)	-0.19 (-0.52, 0.20)
CERTO_STD+MTX		1.52 (0.76, 3.12)	1.15 (0.92, 1.50)	0.09 (-0.06, 0.25)
RIT_STD		0.88 (0.23, 3.53)	0.95 (0.47, 1.47)	-0.03 (-0.35, 0.25)
RIT_STD+MTX		1.24 (0.32, 5.20)	1.08 (0.58, 1.58)	0.05 (-0.28, 0.31)
ADA_STD		0.09 (0.01, 0.65)	0.20 (0.04, 0.82)	-0.48 (-0.66, -0.11)
BAR_4+MTX		1.22 (0.55, 2.73)	1.07 (0.80, 1.44)	0.04 (-0.14, 0.22)
HD203+MTX		1.62 (0.39, 6.87)	1.17 (0.65, 1.65)	0.10 (-0.23, 0.34)
SB4+MTX		1.26 (0.37, 4.58)	1.08 (0.63, 1.55)	0.05 (-0.24, 0.29)
ANBAI+MTX		1.66 (0.56, 5.00)	1.18 (0.80, 1.60)	0.11 (-0.13, 0.31)
CT-P13+MTX		1.19 (0.43, 3.40)	1.06 (0.71, 1.49)	0.04 (-0.20, 0.26)
SB2+MTX		0.72 (0.23, 2.33)	0.87 (0.47, 1.34)	-0.08 (-0.35, 0.19)
SB5+MTX		1.13 (0.36, 3.58)	1.05 (0.64, 1.49)	0.03 (-0.24, 0.26)
ZRC-3197+MTX		1.04 (0.26, 4.31)	1.02 (0.50, 1.53)	0.01 (-0.32, 0.29)
ABP501+MTX		1.26 (0.40, 3.98)	1.08 (0.67, 1.53)	0.05 (-0.22, 0.28)
INF_STD+MTX	GOL_STD (IV)+MTX	0.72 (0.26, 2.08)	0.88 (0.64, 1.40)	-0.08 (-0.29, 0.18)
CERTO_STD		0.39 (0.06, 2.56)	0.66 (0.19, 1.40)	-0.22 (-0.58, 0.20)
CERTO_STD+MTX		1.30 (0.47, 3.77)	1.09 (0.82, 1.70)	0.06 (-0.14, 0.30)
RIT_STD		0.75 (0.16, 3.77)	0.90 (0.43, 1.58)	-0.07 (-0.41, 0.28)
RIT_STD+MTX		1.07 (0.22, 5.40)	1.02 (0.54, 1.72)	0.01 (-0.34, 0.33)
ADA_STD		0.08 (0.01, 0.63)	0.20 (0.03, 0.81)	-0.51 (-0.74, -0.11)
BAR_4+MTX		1.04 (0.36, 3.16)	1.01 (0.73, 1.60)	0.01 (-0.21, 0.27)
HD203+MTX		1.38 (0.28, 7.07)	1.10 (0.61, 1.80)	0.07 (-0.29, 0.37)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
SB4+MTX		1.08 (0.25, 4.86)	1.03 (0.59, 1.70)	0.02 (-0.30, 0.32)
ANBAI+MTX		1.43 (0.37, 5.49)	1.11 (0.73, 1.77)	0.07 (-0.20, 0.35)
CT-P13+MTX		1.02 (0.30, 3.70)	1.01 (0.65, 1.63)	0.01 (-0.26, 0.29)
SB2+MTX		0.62 (0.15, 2.55)	0.83 (0.43, 1.45)	-0.11 (-0.42, 0.21)
SB5+MTX		0.97 (0.25, 3.92)	0.99 (0.59, 1.64)	-0.01 (-0.31, 0.30)
ZRC-3197+MTX		0.89 (0.18, 4.51)	0.96 (0.47, 1.65)	-0.03 (-0.38, 0.31)
ABP501+MTX		1.08 (0.28, 4.25)	1.02 (0.62, 1.67)	0.02 (-0.28, 0.31)
CERTO_STD	INF_STD+MTX	0.55 (0.10, 2.94)	0.74 (0.22, 1.43)	-0.15 (-0.47, 0.23)
CERTO_STD+MTX		1.82 (0.95, 3.50)	1.23 (0.98, 1.59)	0.13 (-0.01, 0.28)
RIT_STD		1.05 (0.28, 4.09)	1.02 (0.50, 1.56)	0.01 (-0.30, 0.29)
RIT_STD+MTX		1.48 (0.38, 5.89)	1.16 (0.62, 1.67)	0.09 (-0.23, 0.34)
ADA_STD		0.11 (0.02, 0.74)	0.22 (0.04, 0.86)	-0.44 (-0.61, -0.08)
BAR_4+MTX		1.45 (0.69, 3.08)	1.15 (0.86, 1.52)	0.09 (-0.09, 0.25)
HD203+MTX		1.93 (0.48, 7.93)	1.25 (0.70, 1.74)	0.14 (-0.18, 0.37)
SB4+MTX		1.49 (0.45, 5.33)	1.16 (0.68, 1.65)	0.09 (-0.20, 0.33)
ANBAI+MTX		1.98 (0.68, 5.68)	1.26 (0.86, 1.69)	0.15 (-0.09, 0.34)
CT-P13+MTX		1.43 (0.70, 2.96)	1.14 (0.85, 1.42)	0.08 (-0.09, 0.23)
SB2+MTX		0.86 (0.34, 2.15)	0.94 (0.55, 1.30)	-0.04 (-0.26, 0.17)
SB5+MTX		1.36 (0.45, 4.10)	1.12 (0.68, 1.59)	0.07 (-0.20, 0.29)
ZRC-3197+MTX		1.25 (0.31, 4.98)	1.09 (0.54, 1.62)	0.05 (-0.28, 0.32)
ABP501+MTX		1.50 (0.49, 4.56)	1.16 (0.72, 1.61)	0.09 (-0.17, 0.31)
CERTO_STD+MTX	CERTO_STD	3.31 (0.63, 18.74)	1.66 (0.88, 5.69)	0.28 (-0.09, 0.60)
RIT_STD		1.93 (0.25, 15.17)	1.35 (0.54, 4.77)	0.15 (-0.31, 0.57)
RIT_STD+MTX		2.74 (0.35, 22.01)	1.54 (0.66, 5.35)	0.23 (-0.23, 0.63)
ADA_STD		0.19 (0.05, 0.82)	0.31 (0.09, 0.89)	-0.27 (-0.55, -0.03)
BAR_4+MTX		2.66 (0.47, 15.30)	1.55 (0.80, 5.27)	0.23 (-0.15, 0.57)
HD203+MTX		3.50 (0.53, 24.74)	1.64 (0.80, 5.44)	0.28 (-0.14, 0.64)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
SB4+MTX		2.76 (0.45, 17.52)	1.54 (0.75, 5.08)	0.23 (-0.17, 0.59)
ANBAI+MTX		3.62 (0.55, 24.04)	1.68 (0.83, 5.73)	0.29 (-0.12, 0.65)
CT-P13+MTX		2.62 (0.41, 16.36)	1.53 (0.75, 5.27)	0.23 (-0.19, 0.58)
SB2+MTX		1.58 (0.23, 10.75)	1.26 (0.53, 4.41)	0.11 (-0.32, 0.50)
SB5+MTX		2.48 (0.36, 16.77)	1.50 (0.69, 5.16)	0.21 (-0.22, 0.59)
ZRC-3197+MTX		2.27 (0.28, 17.99)	1.44 (0.59, 4.98)	0.19 (-0.28, 0.60)
ABP501+MTX		2.74 (0.40, 18.57)	1.55 (0.73, 5.29)	0.24 (-0.20, 0.60)
RIT_STD	CERTO_STD+MTX	0.57 (0.15, 2.23)	0.83 (0.41, 1.22)	-0.12 (-0.43, 0.14)
RIT_STD+MTX		0.81 (0.21, 3.32)	0.94 (0.51, 1.30)	-0.04 (-0.36, 0.20)
ADA_STD		0.06 (0.01, 0.41)	0.18 (0.03, 0.69)	-0.58 (-0.73, -0.21)
BAR_4+MTX		0.80 (0.39, 1.64)	0.93 (0.72, 1.16)	-0.05 (-0.21, 0.10)
HD203+MTX		1.06 (0.27, 4.38)	1.02 (0.58, 1.35)	0.01 (-0.31, 0.23)
SB4+MTX		0.82 (0.25, 2.89)	0.94 (0.56, 1.28)	-0.04 (-0.33, 0.18)
ANBAI+MTX		1.09 (0.38, 3.12)	1.02 (0.71, 1.30)	0.02 (-0.21, 0.19)
CT-P13+MTX		0.78 (0.30, 2.07)	0.93 (0.63, 1.21)	-0.05 (-0.28, 0.14)
SB2+MTX		0.47 (0.15, 1.46)	0.76 (0.41, 1.11)	-0.17 (-0.43, 0.08)
SB5+MTX		0.75 (0.26, 2.16)	0.91 (0.57, 1.21)	-0.06 (-0.31, 0.14)
ZRC-3197+MTX		0.68 (0.17, 2.65)	0.88 (0.44, 1.25)	-0.08 (-0.40, 0.17)
ABP501+MTX		0.83 (0.28, 2.38)	0.94 (0.60, 1.24)	-0.04 (-0.29, 0.16)
RIT_STD+MTX	RIT_STD	1.42 (0.39, 5.15)	1.13 (0.69, 2.00)	0.07 (-0.21, 0.35)
ADA_STD		0.10 (0.01, 0.94)	0.22 (0.04, 0.97)	-0.44 (-0.74, -0.01)
BAR_4+MTX		1.39 (0.34, 5.46)	1.13 (0.73, 2.31)	0.08 (-0.21, 0.40)
HD203+MTX		1.82 (0.30, 11.76)	1.21 (0.64, 2.58)	0.13 (-0.26, 0.50)
SB4+MTX		1.42 (0.26, 8.05)	1.13 (0.61, 2.41)	0.08 (-0.28, 0.45)
ANBAI+MTX		1.89 (0.38, 9.02)	1.23 (0.75, 2.54)	0.14 (-0.19, 0.47)
CT-P13+MTX		1.36 (0.30, 6.25)	1.12 (0.67, 2.33)	0.07 (-0.25, 0.41)
SB2+MTX		0.82 (0.16, 4.15)	0.92 (0.46, 2.02)	-0.05 (-0.40, 0.33)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
SB5+MTX		1.30 (0.25, 6.52)	1.10 (0.61, 2.31)	0.06 (-0.29, 0.42)
ZRC-3197+MTX		1.18 (0.19, 7.16)	1.06 (0.49, 2.31)	0.04 (-0.37, 0.43)
ABP501+MTX		1.44 (0.28, 7.09)	1.14 (0.64, 2.38)	0.08 (-0.27, 0.43)
ADA_STD	RIT_STD+MTX	0.07 (0.01, 0.68)	0.19 (0.03, 0.83)	-0.52 (-0.79, -0.09)
BAR_4+MTX		0.98 (0.23, 3.95)	0.99 (0.68, 1.85)	-0.004 (-0.27, 0.32)
HD203+MTX		1.29 (0.20, 8.44)	1.07 (0.59, 2.06)	0.05 (-0.32, 0.42)
SB4+MTX		1.01 (0.18, 5.75)	1.00 (0.56, 1.93)	0.001 (-0.35, 0.37)
ANBAI+MTX		1.34 (0.27, 6.49)	1.09 (0.70, 2.03)	0.06 (-0.24, 0.40)
CT-P13+MTX		0.96 (0.20, 4.43)	0.99 (0.62, 1.87)	-0.01 (-0.31, 0.34)
SB2+MTX		0.58 (0.11, 2.99)	0.81 (0.42, 1.62)	-0.12 (-0.46, 0.25)
SB5+MTX		0.91 (0.18, 4.63)	0.97 (0.56, 1.85)	-0.02 (-0.35, 0.34)
ZRC-3197+MTX		0.83 (0.13, 5.22)	0.94 (0.45, 1.86)	-0.04 (-0.43, 0.35)
ABP501+MTX		1.01 (0.19, 5.03)	1.00 (0.59, 1.89)	0.002 (-0.33, 0.35)
BAR_4+MTX	ADA_STD	13.76 (1.89, 96.69)	5.24 (1.33, 29.82)	0.53 (0.16, 0.71)
HD203+MTX		*18.03 (2.20, 162.30)*	*5.52 (1.41, 31.58)*	*0.57 (0.17, 0.82)*
SB4+MTX		*14.25 (1.84, 114.90)*	*5.19 (1.33, 29.42)*	*0.52 (0.14, 0.77)*
ANBAI+MTX		*18.88 (2.30, 152.10)*	*5.70 (1.42, 32.82)*	*0.58 (0.19, 0.80)*
CT-P13+MTX		*13.63 (1.70, 105.50)*	*5.16 (1.28, 29.67)*	*0.52 (0.13, 0.74)*
SB2+MTX		8.18 (0.99, 68.49)	4.19 (0.99, 25.05)	0.39 (0.00, 0.67)
SB5+MTX		*12.86 (1.52, 107.00)*	*5.04 (1.23, 29.39)*	*0.50 (0.10, 0.75)*
ZRC-3197+MTX		*11.83 (1.19, 114.00)*	*4.82 (1.10, 28.92)*	*0.48 (0.04, 0.77)*
ABP501+MTX		*14.26 (1.66, 118.60)*	*5.22 (1.27, 30.53)*	*0.53 (0.12, 0.76)*
HD203+MTX	BAR_4+MTX	1.32 (0.31, 5.78)	1.09 (0.61, 1.53)	0.06 (-0.27, 0.30)
SB4+MTX		1.03 (0.29, 3.88)	1.01 (0.59, 1.45)	0.01 (-0.29, 0.25)
ANBAI+MTX		1.37 (0.45, 4.14)	1.10 (0.75, 1.48)	0.06 (-0.18, 0.27)
CT-P13+MTX		0.98 (0.35, 2.78)	0.99 (0.66, 1.37)	-0.004 (-0.24, 0.21)
SB2+MTX		0.59 (0.18, 1.95)	0.82 (0.44, 1.25)	-0.12 (-0.40, 0.14)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
SB5+MTX		0.94 (0.30, 2.94)	0.98 (0.59, 1.37)	-0.01 (-0.28, 0.21)
ZRC-3197+MTX		0.86 (0.21, 3.53)	0.95 (0.47, 1.41)	-0.03 (-0.36, 0.24)
ABP501+MTX		1.04 (0.33, 3.20)	1.01 (0.63, 1.40)	0.01 (-0.26, 0.23)
SB4+MTX	HD203+MTX	0.78 (0.18, 3.41)	0.93 (0.57, 1.56)	-0.05 (-0.33, 0.26)
ANBAI+MTX		1.04 (0.20, 5.14)	1.01 (0.66, 1.79)	0.01 (-0.29, 0.35)
CT-P13+MTX		0.74 (0.15, 3.53)	0.92 (0.58, 1.65)	-0.06 (-0.35, 0.28)
SB2+MTX		0.45 (0.08, 2.38)	0.76 (0.39, 1.44)	-0.18 (-0.50, 0.20)
SB5+MTX		0.71 (0.13, 3.67)	0.90 (0.53, 1.65)	-0.07 (-0.39, 0.29)
ZRC-3197+MTX		0.65 (0.10, 4.13)	0.88 (0.43, 1.63)	-0.09 (-0.46, 0.30)
ABP501+MTX		0.78 (0.15, 4.05)	0.93 (0.56, 1.68)	-0.05 (-0.36, 0.30)
ANBAI+MTX	SB4+MTX	1.33 (0.29, 5.69)	1.09 (0.70, 1.86)	0.06 (-0.24, 0.36)
CT-P13+MTX		0.96 (0.22, 3.88)	0.99 (0.62, 1.71)	-0.01 (-0.30, 0.30)
SB2+MTX		0.58 (0.12, 2.63)	0.81 (0.42, 1.49)	-0.13 (-0.45, 0.22)
SB5+MTX		0.91 (0.19, 4.07)	0.97 (0.56, 1.71)	-0.02 (-0.34, 0.31)
ZRC-3197+MTX		0.84 (0.14, 4.57)	0.94 (0.45, 1.71)	-0.04 (-0.42, 0.31)
ABP501+MTX		1.00 (0.21, 4.45)	1.00 (0.59, 1.75)	0.001 (-0.32, 0.33)
CT-P13+MTX	ANBAI+MTX	0.72 (0.20, 2.61)	0.91 (0.60, 1.37)	-0.07 (-0.32, 0.20)
SB2+MTX		0.43 (0.11, 1.82)	0.75 (0.40, 1.23)	-0.18 (-0.48, 0.13)
SB5+MTX		0.68 (0.17, 2.76)	0.89 (0.54, 1.38)	-0.08 (-0.37, 0.21)
ZRC-3197+MTX		0.63 (0.13, 3.16)	0.87 (0.43, 1.39)	-0.10 (-0.44, 0.22)
ABP501+MTX		0.76 (0.19, 3.07)	0.92 (0.57, 1.41)	-0.06 (-0.34, 0.22)
SB2+MTX	CT-P13+MTX	0.60 (0.19, 1.93)	0.82 (0.46, 1.27)	-0.12 (-0.38, 0.15)
SB5+MTX		0.95 (0.25, 3.50)	0.98 (0.59, 1.54)	-0.01 (-0.31, 0.27)
ZRC-3197+MTX		0.87 (0.18, 4.13)	0.95 (0.46, 1.57)	-0.03 (-0.39, 0.28)
ABP501+MTX		1.06 (0.28, 3.89)	1.02 (0.62, 1.58)	0.01 (-0.28, 0.28)
SB5+MTX	SB2+MTX	1.57 (0.37, 6.62)	1.20 (0.67, 2.30)	0.11 (-0.23, 0.42)
ZRC-3197+MTX		1.45 (0.27, 7.68)	1.16 (0.54, 2.30)	0.09 (-0.30, 0.44)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ABP501+MTX		1.74 (0.40, 7.32)	1.23 (0.70, 2.37)	0.13 (-0.21, 0.44)
ZRC-3197+MTX	SB5+MTX	0.92 (0.19, 4.45)	0.97 (0.48, 1.68)	-0.02 (-0.37, 0.31)
ABP501+MTX		1.11 (0.29, 4.17)	1.03 (0.64, 1.69)	0.02 (-0.27, 0.31)
ABP501+MTX	ZRC-3197+MTX	1.21 (0.26, 5.80)	1.07 (0.63, 2.14)	0.04 (-0.28, 0.39)
Random-Effect Model	Residual Deviance	150.8 vs 140 datapoints		
	Deviance Information Criteria	971.297		
Fixed-Effect Model	Residual Deviance	220.8 vs 140 datapoints		
	Deviance Information Criteria	1015.2		
Total Patients		21,015		
Total Studies		64		
	2-arm	54		
	3-arm	9		
	4-arm	0		
	5-arm	1		

ABA=abatacept, ABP501=biosimilar adalimumab, ADA=adalimumab, ANBAI=AnBaiNuo (biosimilar etanercept), BAR_4 =4mg baricitinib, CERTO=certolizumab pegol, CT-P13=biosimilar infliximab, csDMARD=conventional synthetic disease modifying antirheumatic drug, ETN=etanercept, GOL=golimumab, HCQ=hydroxychloroquine, HD203=biosimilar etanercept, INF=infliximab, IV=intravenous, LEF_10= 10mg leflunomide, MTX=methotrexate, OR=odds ratio, RD=risk difference, RR=relative risk, RIT=rituximab, SAR_200=200mg sarilumab, SB2= biosimilar infliximab, SB4=biosimilar etanercept, SB5=biosimilar adalimumab, SC=subcutaneous, SSZ=sulfasalazine, STD = standard dose, TOC_4=tocilizumab 4mg/kg, TOC_8= tocilizumab 8mg/kg, TOF=tofacitinib, ZRC-3197=biosimilar adalimumab

(as supplied by the authors)

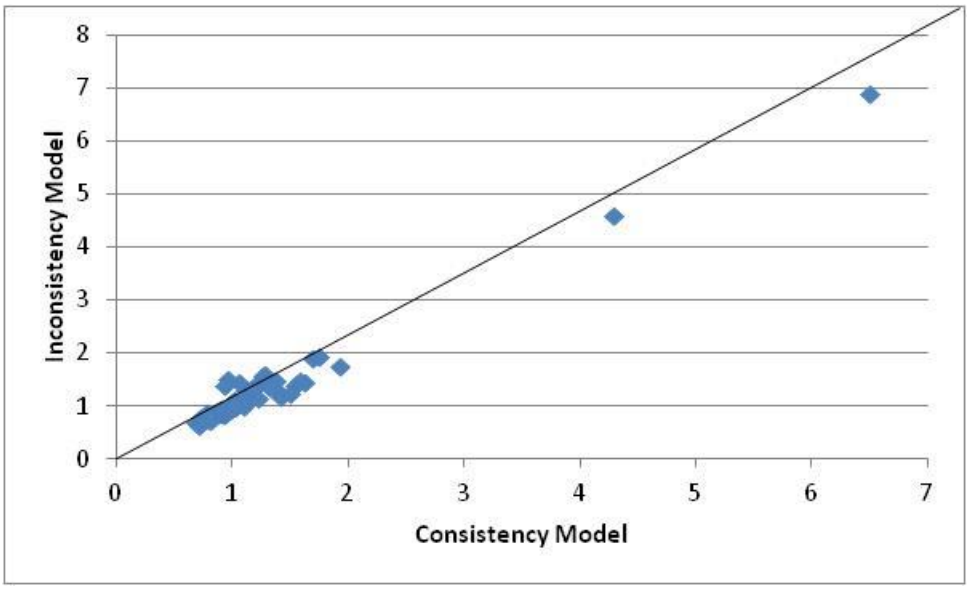

Figure 1. Consistency Plot for ACR20 Inadequate Response to Methotrexate

Table 44. ACR70, Methotrexate as a Common Comparator: Odds Ratios, Relative Risks and Risk Difference for All Treatment Comparisons – Random Effects Model

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
csDMARD+MTX	Placebo+MTX	1.44 (0.28, 8.39)	1.42 (0.28, 6.73)	0.01 (-0.03, 0.19)
MTX+HCQ		1.45 (0.07, 33.05)	1.43 (0.07, 15.90)	0.01 (-0.03, 0.50)
MTX+SSZ		0.71 (0.02, 17.57)	0.72 (0.03, 11.22)	-0.01 (-0.04, 0.34)
MTX+SSZ+HCQ		1.50 (0.18, 13.22)	1.47 (0.19, 9.39)	0.02 (-0.03, 0.28)
ETN_STD		2.51 (0.71, 9.98)	2.38 (0.72, 7.70)	0.05 (-0.01, 0.22)
ETN_STD+MTX		5.50 (1.81, 19.22)	4.75 (1.75, 12.10)	0.13 (0.03, 0.37)
ABA_STD (IV)+MTX		5.74 (2.37, 14.93)	4.93 (2.26, 10.23)	0.14 (0.04, 0.31)
ABA_STD (SC)+MTX		4.38 (0.78, 24.68)	3.91 (0.79, 13.83)	0.10 (-0.01, 0.43)
TOF_STD+MTX		4.42 (1.82, 11.33)	3.94 (1.76, 8.49)	0.10 (0.03, 0.25)
ADA_STD+MTX		4.00 (2.13, 7.73)	3.62 (2.05, 6.36)	0.09 (0.04, 0.18)
TOC_4 (IV)		0.42 (0.06, 2.56)	0.43 (0.06, 2.43)	-0.02 (-0.04, 0.05)
TOC_8 (IV)		1.58 (0.58, 4.37)	1.55 (0.59, 3.92)	0.02 (-0.01, 0.10)
TOC_4 (IV)+MTX		2.26 (0.69, 7.45)	2.16 (0.70, 6.10)	0.04 (-0.01, 0.17)
TOC_8 (IV)+MTX		3.61 (1.45, 9.30)	3.30 (1.42, 7.30)	0.08 (0.01, 0.21)
GOL_STD (SC)+MTX		6.55 (2.07, 22.62)	5.49 (2.00, 13.43)	0.16 (0.04, 0.40)
GOL_STD (IV)+MTX		3.21 (0.58, 18.44)	2.98 (0.59, 11.62)	0.07 (-0.01, 0.36)
INF_STD+MTX		4.21 (1.68, 11.18)	3.79 (1.64, 8.36)	0.10 (0.02, 0.25)
CERTO_STD+MTX		6.28 (2.48, 16.50)	5.30 (2.36, 11.00)	0.15 (0.05, 0.33)
RIT_STD		3.84 (0.41, 46.81)	3.50 (0.42, 18.55)	0.09 (-0.02, 0.59)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
RIT_STD+MTX		6.43 (0.75, 73.33)	5.41 (0.75, 21.70)	0.15 (-0.01, 0.68)
BAR_4+MTX		9.38 (3.34, 28.55)	7.25 (3.08, 15.07)	0.22 (0.07, 0.46)
HD203+MTX		6.62 (0.92, 53.43)	5.52 (0.92, 19.49)	0.16 (-0.003, 0.62)
SB4+MTX		6.63 (0.96, 52.30)	5.54 (0.97, 19.30)	0.16 (-0.001, 0.61)
ANBAI+MTX		*9.10 (1.07, 107.10)*	*7.09 (1.07, 23.98)*	*0.21 (0.002, 0.75)*
CT-P13+MTX		7.81 (1.76, 38.13)	6.32 (1.71, 17.12)	0.18 (0.02, 0.54)
SB2+MTX		3.74 (0.58, 24.73)	3.42 (0.59, 13.73)	0.08 (-0.01, 0.43)
ZRC-3197+MTX		3.40 (0.46, 25.15)	3.13 (0.47, 13.89)	0.07 (-0.02, 0.44)
ABP501+MTX		4.72 (0.83, 27.12)	4.17 (0.84, 14.44)	0.11 (-0.01, 0.45)
MTX+HCQ	csDMARD+MTX	1.00 (0.04, 21.16)	1.00 (0.05, 12.39)	-0.0001 (-0.15, 0.44)
MTX+SSZ		0.48 (0.02, 12.26)	0.50 (0.02, 8.60)	-0.02 (-0.17, 0.29)
MTX+SSZ+HCQ		1.04 (0.12, 8.88)	1.04 (0.13, 7.11)	0.001 (-0.14, 0.22)
ETN_STD		1.74 (0.37, 8.09)	1.67 (0.41, 7.18)	0.03 (-0.10, 0.16)
ETN_STD+MTX		3.83 (1.13, 12.91)	3.30 (1.10, 10.85)	0.11 (0.01, 0.27)
ABA_STD (IV)+MTX		3.98 (0.56, 26.96)	3.44 (0.61, 20.44)	0.11 (-0.08, 0.30)
ABA_STD (SC)+MTX		3.04 (0.26, 32.50)	2.71 (0.29, 21.26)	0.08 (-0.12, 0.41)
TOF_STD+MTX		3.05 (0.42, 20.76)	2.75 (0.48, 16.62)	0.08 (-0.10, 0.24)
ADA_STD+MTX		2.78 (0.43, 16.61)	2.55 (0.49, 14.12)	0.07 (-0.11, 0.17)
TOC_4 (IV)		0.29 (0.02, 3.30)	0.30 (0.02, 3.15)	-0.03 (-0.20, 0.04)
TOC_8 (IV)		1.10 (0.14, 7.44)	1.09 (0.17, 6.80)	0.004 (-0.17, 0.09)
TOC_4 (IV)+MTX		1.57 (0.18, 11.87)	1.52 (0.21, 10.21)	0.02 (-0.15, 0.16)
TOC_8 (IV)+MTX		2.48 (0.34, 16.74)	2.30 (0.39, 13.91)	0.06 (-0.12, 0.20)
GOL_STD (SC)+MTX		4.54 (0.53, 36.24)	3.82 (0.59, 24.54)	0.13 (-0.07, 0.39)
GOL_STD (IV)+MTX		2.24 (0.19, 24.05)	2.09 (0.22, 17.28)	0.05 (-0.14, 0.34)
INF_STD+MTX		2.91 (0.39, 19.88)	2.65 (0.45, 16.07)	0.08 (-0.11, 0.24)
CERTO_STD+MTX		4.35 (0.60, 29.21)	3.70 (0.65, 21.64)	0.13 (-0.07, 0.31)
RIT_STD		2.66 (0.15, 52.56)	2.42 (0.17, 25.16)	0.06 (-0.14, 0.56)
RIT_STD+MTX		4.50 (0.26, 83.24)	3.72 (0.31, 32.53)	0.13 (-0.11, 0.66)
BAR_4+MTX		6.51 (0.84, 46.52)	5.03 (0.87, 29.53)	0.19 (-0.02, 0.44)
HD203+MTX		4.60 (0.58, 35.69)	3.74 (0.61, 19.49)	0.13 (-0.04, 0.55)
SB4+MTX		4.61 (0.61, 35.21)	3.74 (0.64, 19.23)	0.13 (-0.03, 0.54)
ANBAI+MTX		*6.34 (0.39, 120.80)*	*4.80 (0.43, 38.92)*	*0.19 (-0.08, 0.73)*
CT-P13+MTX		5.41 (0.53, 55.37)	4.33 (0.59, 30.72)	0.16 (-0.07, 0.52)
SB2+MTX		2.61 (0.20, 31.68)	2.38 (0.23, 20.52)	0.06 (-0.13, 0.41)
ZRC-3197+MTX		2.33 (0.17, 31.84)	2.16 (0.19, 20.21)	0.05 (-0.14, 0.41)
ABP501+MTX		3.29 (0.27, 34.31)	2.90 (0.31, 21.81)	0.09 (-0.12, 0.43)
MTX+SSZ	MTX+HCQ	0.49 (0.04, 5.53)	0.53 (0.04, 4.85)	-0.01 (-0.34, 0.15)
MTX+SSZ+HCQ		1.04 (0.12, 9.49)	1.04 (0.17, 8.77)	0.001 (-0.34, 0.13)
ETN_STD		1.76 (0.09, 35.36)	1.68 (0.15, 31.33)	0.03 (-0.41, 0.18)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ETN_STD+MTX		3.86 (0.23, 69.36)	3.33 (0.37, 56.96)	0.10 (-0.29, 0.30)
ABA_STD (IV)+MTX		3.99 (0.16, 99.54)	3.43 (0.28, 77.44)	0.11 (-0.36, 0.30)
ABA_STD (SC)+MTX		*3.02 (0.09, 100.30)*	*2.67 (0.15, 70.39)*	*0.07 (-0.39, 0.40)*
TOF_STD+MTX		3.09 (0.12, 76.55)	2.77 (0.23, 62.14)	0.08 (-0.39, 0.24)
ADA_STD+MTX		2.78 (0.12, 63.48)	2.55 (0.22, 54.61)	0.07 (-0.41, 0.18)
TOC_4 (IV)		0.29 (0.01, 10.20)	0.30 (0.01, 9.86)	-0.03 (-0.51, 0.05)
TOC_8 (IV)		1.10 (0.04, 26.87)	1.09 (0.08, 24.90)	0.004 (-0.48, 0.10)
TOC_4 (IV)+MTX		1.57 (0.06, 41.18)	1.53 (0.11, 36.24)	0.02 (-0.45, 0.17)
TOC_8 (IV)+MTX		2.49 (0.10, 60.58)	2.30 (0.19, 51.42)	0.06 (-0.41, 0.21)
GOL_STD (SC)+MTX		*4.57 (0.17, 127.50)*	*3.83 (0.29, 90.64)*	*0.12 (-0.34, 0.38)*
GOL_STD (IV)+MTX		2.27 (0.06, 74.13)	2.10 (0.11, 55.52)	0.04 (-0.42, 0.34)
INF_STD+MTX		2.91 (0.12, 72.25)	2.64 (0.21, 59.51)	0.07 (-0.40, 0.24)
CERTO_STD+MTX		*4.42 (0.17, 109.30)*	*3.74 (0.29, 83.03)*	*0.12 (-0.36, 0.32)*
RIT_STD		*2.70 (0.06, 135.50)*	*2.41 (0.10, 78.73)*	*0.05 (-0.41, 0.55)*
RIT_STD+MTX		*4.59 (0.10, 220.10)*	*3.68 (0.17, 107.60)*	*0.11 (-0.35, 0.65)*
BAR_4+MTX		*6.57 (0.25, 170.50)*	*5.04 (0.40, 114.50)*	*0.18 (-0.29, 0.45)*
HD203+MTX		*4.73 (0.18, 126.50)*	*3.76 (0.28, 76.72)*	*0.11 (-0.29, 0.55)*
SB4+MTX		*4.66 (0.18, 124.60)*	*3.75 (0.28, 77.84)*	*0.11 (-0.28, 0.54)*
ANBAI+MTX		*6.54 (0.14, 313.60)*	*4.74 (0.23, 135.30)*	*0.17 (-0.32, 0.72)*
CT-P13+MTX		*5.45 (0.18, 168.00)*	*4.30 (0.29, 106.80)*	*0.14 (-0.32, 0.51)*
SB2+MTX		2.60 (0.07, 93.01)	2.36 (0.12, 66.49)	0.05 (-0.41, 0.40)
ZRC-3197+MTX		2.33 (0.06, 93.96)	2.12 (0.10, 64.84)	0.04 (-0.41, 0.41)
ABP501+MTX		*3.33 (0.09, 112.00)*	*2.92 (0.16, 76.96)*	*0.08 (-0.39, 0.42)*
MTX+SSZ+HCQ	MTX+SSZ	2.13 (0.19, 29.59)	2.03 (0.24, 27.38)	0.02 (-0.21, 0.18)
ETN_STD		3.63 (0.16, 97.20)	3.37 (0.22, 84.92)	0.05 (-0.26, 0.21)
ETN_STD+MTX		*7.94 (0.41, 183.80)*	*6.62 (0.53, 150.00)*	*0.12 (-0.16, 0.33)*
ABA_STD (IV)+MTX		*8.22 (0.30, 263.30)*	*6.90 (0.40, 208.10)*	*0.13 (-0.21, 0.31)*
ABA_STD (SC)+MTX		*6.15 (0.16, 268.50)*	*5.30 (0.23, 191.40)*	*0.09 (-0.24, 0.42)*
TOF_STD+MTX		*6.32 (0.22, 204.50)*	*5.52 (0.31, 169.10)*	*0.10 (-0.24, 0.26)*
ADA_STD+MTX		*5.67 (0.22, 168.20)*	*5.07 (0.31, 144.40)*	*0.09 (-0.25, 0.19)*
TOC_4 (IV)		0.60 (0.01, 25.95)	0.60 (0.02, 24.53)	-0.01 (-0.36, 0.06)
TOC_8 (IV)		2.25 (0.08, 73.05)	2.18 (0.11, 67.51)	0.02 (-0.32, 0.11)
TOC_4 (IV)+MTX		*3.19 (0.11, 107.20)*	*3.01 (0.16, 95.30)*	*0.04 (-0.30, 0.18)*
TOC_8 (IV)+MTX		*5.13 (0.19, 163.60)*	*4.62 (0.26, 138.50)*	*0.08 (-0.26, 0.22)*
GOL_STD (SC)+MTX		*9.41 (0.31, 334.80)*	*7.61 (0.42, 243.70)*	*0.15 (-0.20, 0.40)*
GOL_STD (IV)+MTX		*4.61 (0.12, 196.00)*	*4.12 (0.16, 151.40)*	*0.06 (-0.28, 0.36)*
INF_STD+MTX		*5.94 (0.21, 197.40)*	*5.24 (0.30, 163.40)*	*0.09 (-0.25, 0.25)*
CERTO_STD+MTX		*9.02 (0.32, 289.20)*	*7.48 (0.43, 221.30)*	*0.14 (-0.20, 0.33)*
RIT_STD		*5.52 (0.11, 341.80)*	*4.74 (0.15, 200.00)*	*0.08 (-0.26, 0.57)*

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
RIT_STD+MTX		*9.42 (0.18, 564.00)*	*7.27 (0.24, 280.20)*	*0.14 (-0.22, 0.67)*
BAR_4+MTX		*13.35 (0.47, 461.20)*	*10.02 (0.59, 304.90)*	*0.21 (-0.14, 0.46)*
HD203+MTX		*9.61 (0.32, 331.20)*	*7.36 (0.42, 205.40)*	*0.14 (-0.16, 0.59)*
SB4+MTX		*9.71 (0.33, 323.50)*	*7.50 (0.41, 205.70)*	*0.14 (-0.16, 0.58)*
ANBAI+MTX		*13.76 (0.24, 797.20)*	*9.60 (0.32, 345.90)*	*0.20 (-0.19, 0.74)*
CT-P13+MTX		*11.25 (0.32, 460.00)*	*8.52 (0.42, 289.10)*	*0.17 (-0.18, 0.53)*
SB2+MTX		*5.36 (0.13, 242.80)*	*4.69 (0.18, 175.50)*	*0.08 (-0.26, 0.42)*
ZRC-3197+MTX		*4.78 (0.11, 237.30)*	*4.22 (0.15, 166.50)*	*0.07 (-0.27, 0.43)*
ABP501+MTX		*6.75 (0.17, 286.90)*	*5.70 (0.24, 204.60)*	*0.10 (-0.24, 0.44)*
ETN_STD	MTX+SSZ+HCQ	1.69 (0.22, 12.93)	1.62 (0.28, 11.42)	0.03 (-0.18, 0.17)
ETN_STD+MTX		3.68 (0.64, 22.58)	3.18 (0.71, 18.94)	0.10 (-0.07, 0.28)
ABA_STD (IV)+MTX		3.83 (0.37, 39.30)	3.31 (0.46, 30.20)	0.11 (-0.15, 0.29)
ABA_STD (SC)+MTX		2.91 (0.18, 43.50)	2.59 (0.23, 29.65)	0.07 (-0.19, 0.40)
TOF_STD+MTX		2.97 (0.29, 30.04)	2.68 (0.36, 24.23)	0.08 (-0.18, 0.24)
ADA_STD+MTX		2.68 (0.28, 24.46)	2.46 (0.36, 20.86)	0.07 (-0.19, 0.17)
TOC_4 (IV)		0.28 (0.01, 4.46)	0.29 (0.02, 4.30)	-0.03 (-0.29, 0.04)
TOC_8 (IV)		1.06 (0.10, 10.72)	1.05 (0.13, 9.93)	0.002 (-0.26, 0.10)
TOC_4 (IV)+MTX		1.51 (0.13, 16.66)	1.47 (0.16, 14.35)	0.02 (-0.24, 0.16)
TOC_8 (IV)+MTX		2.39 (0.23, 24.05)	2.22 (0.30, 20.28)	0.06 (-0.20, 0.20)
GOL_STD (SC)+MTX		4.41 (0.36, 50.07)	3.69 (0.44, 35.31)	0.13 (-0.15, 0.38)
GOL_STD (IV)+MTX		2.15 (0.13, 32.34)	2.00 (0.17, 23.47)	0.04 (-0.22, 0.34)
INF_STD+MTX		2.80 (0.27, 28.96)	2.55 (0.34, 23.69)	0.07 (-0.19, 0.23)
CERTO_STD+MTX		4.18 (0.40, 43.58)	3.56 (0.48, 32.53)	0.12 (-0.14, 0.31)
RIT_STD		2.58 (0.11, 63.22)	2.33 (0.14, 33.13)	0.06 (-0.21, 0.55)
RIT_STD+MTX		4.40 (0.20, 104.30)	3.57 (0.24, 44.60)	0.12 (-0.17, 0.65)
BAR_4+MTX		6.31 (0.58, 68.40)	4.87 (0.66, 44.34)	0.19 (-0.09, 0.44)
HD203+MTX		4.42 (0.39, 50.72)	3.56 (0.46, 29.99)	0.12 (-0.09, 0.55)
SB4+MTX		4.48 (0.42, 49.14)	3.61 (0.47, 29.08)	0.12 (-0.09, 0.54)
ANBAI+MTX		*6.25 (0.28, 150.20)*	*4.64 (0.34, 55.69)*	*0.18 (-0.14, 0.72)*
CT-P13+MTX		5.21 (0.37, 73.77)	4.16 (0.45, 42.62)	0.15 (-0.13, 0.51)
SB2+MTX		2.52 (0.15, 41.06)	2.30 (0.18, 27.49)	0.06 (-0.20, 0.40)
ZRC-3197+MTX		2.25 (0.12, 41.23)	2.08 (0.15, 27.66)	0.05 (-0.21, 0.41)
ABP501+MTX		3.16 (0.19, 46.51)	2.80 (0.24, 31.17)	0.08 (-0.18, 0.42)
ETN_STD+MTX	ETN_STD	2.19 (0.86, 5.70)	1.97 (0.89, 4.64)	0.08 (-0.02, 0.23)
ABA_STD (IV)+MTX		2.28 (0.46, 10.89)	2.05 (0.52, 8.25)	0.08 (-0.11, 0.27)
ABA_STD (SC)+MTX		1.74 (0.19, 14.35)	1.63 (0.22, 9.16)	0.05 (-0.16, 0.38)
TOF_STD+MTX		1.75 (0.35, 8.56)	1.64 (0.41, 6.87)	0.05 (-0.13, 0.21)
ADA_STD+MTX		1.60 (0.36, 6.54)	1.52 (0.42, 5.62)	0.04 (-0.14, 0.15)
TOC_4 (IV)		0.17 (0.01, 1.47)	0.18 (0.02, 1.44)	-0.06 (-0.24, 0.02)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
TOC_8 (IV)		0.63 (0.11, 3.14)	0.65 (0.14, 2.93)	-0.03 (-0.20, 0.07)
TOC_4 (IV)+MTX		0.90 (0.15, 5.03)	0.91 (0.18, 4.35)	-0.01 (-0.19, 0.13)
TOC_8 (IV)+MTX		1.43 (0.28, 6.87)	1.38 (0.33, 5.72)	0.03 (-0.15, 0.18)
GOL_STD (SC)+MTX		2.61 (0.43, 15.27)	2.28 (0.50, 10.26)	0.10 (-0.10, 0.36)
GOL_STD (IV)+MTX		1.27 (0.14, 10.84)	1.24 (0.17, 7.54)	0.02 (-0.17, 0.31)
INF_STD+MTX		1.67 (0.32, 8.26)	1.58 (0.38, 6.69)	0.05 (-0.14, 0.21)
CERTO_STD+MTX		2.48 (0.47, 12.24)	2.20 (0.54, 8.98)	0.10 (-0.10, 0.29)
RIT_STD		1.51 (0.11, 25.46)	1.44 (0.13, 11.67)	0.03 (-0.17, 0.54)
RIT_STD+MTX		2.59 (0.19, 40.06)	2.25 (0.23, 14.54)	0.10 (-0.14, 0.63)
BAR_4+MTX		3.73 (0.69, 19.46)	3.00 (0.74, 12.11)	0.16 (-0.05, 0.41)
HD203+MTX		2.62 (0.40, 17.95)	2.25 (0.43, 8.96)	0.10 (-0.07, 0.51)
SB4+MTX		2.65 (0.41, 17.41)	2.27 (0.45, 8.87)	0.10 (-0.07, 0.51)
ANBAI+MTX		3.68 (0.28, 55.68)	2.93 (0.32, 17.05)	0.16 (-0.12, 0.70)
CT-P13+MTX		3.13 (0.40, 23.53)	2.61 (0.46, 12.71)	0.13 (-0.10, 0.49)
SB2+MTX		1.49 (0.15, 14.30)	1.42 (0.17, 9.10)	0.03 (-0.16, 0.37)
ZRC-3197+MTX		1.34 (0.12, 14.27)	1.30 (0.15, 8.92)	0.02 (-0.17, 0.38)
ABP501+MTX		1.86 (0.20, 15.94)	1.73 (0.24, 9.88)	0.06 (-0.15, 0.40)
ABA_STD (IV)+MTX	ETN_STD+MTX	1.04 (0.22, 4.47)	1.04 (0.31, 3.49)	0.01 (-0.25, 0.21)
ABA_STD (SC)+MTX		0.80 (0.09, 5.99)	0.83 (0.13, 3.99)	-0.03 (-0.29, 0.31)
TOF_STD+MTX		0.80 (0.17, 3.45)	0.83 (0.24, 2.88)	-0.03 (-0.27, 0.16)
ADA_STD+MTX		0.73 (0.18, 2.67)	0.76 (0.26, 2.40)	-0.04 (-0.28, 0.10)
TOC_4 (IV)		0.08 (0.01, 0.62)	0.09 (0.01, 0.65)	-0.14 (-0.38, -0.03)
TOC_8 (IV)		0.29 (0.06, 1.28)	0.33 (0.08, 1.25)	-0.11 (-0.35, 0.02)
TOC_4 (IV)+MTX		0.41 (0.07, 2.04)	0.46 (0.10, 1.86)	-0.09 (-0.33, 0.08)
TOC_8 (IV)+MTX		0.65 (0.14, 2.78)	0.69 (0.19, 2.43)	-0.05 (-0.29, 0.12)
GOL_STD (SC)+MTX		1.19 (0.21, 6.31)	1.15 (0.29, 4.34)	0.02 (-0.25, 0.30)
GOL_STD (IV)+MTX		0.58 (0.07, 4.59)	0.63 (0.09, 3.33)	-0.06 (-0.31, 0.24)
INF_STD+MTX		0.76 (0.16, 3.34)	0.80 (0.23, 2.80)	-0.03 (-0.28, 0.15)
CERTO_STD+MTX		1.14 (0.24, 4.98)	1.11 (0.33, 3.80)	0.02 (-0.24, 0.23)
RIT_STD		0.69 (0.05, 10.63)	0.73 (0.07, 5.11)	-0.04 (-0.31, 0.46)
RIT_STD+MTX		1.18 (0.09, 16.70)	1.14 (0.13, 6.23)	0.02 (-0.28, 0.56)
BAR_4+MTX		1.71 (0.34, 7.97)	1.52 (0.44, 5.10)	0.08 (-0.19, 0.35)
HD203+MTX		1.19 (0.23, 6.29)	1.15 (0.27, 3.38)	0.02 (-0.15, 0.39)
SB4+MTX		1.20 (0.24, 6.06)	1.16 (0.29, 3.31)	0.02 (-0.15, 0.37)
ANBAI+MTX		1.66 (0.14, 23.89)	1.48 (0.18, 7.42)	0.08 (-0.25, 0.63)
CT-P13+MTX		1.41 (0.20, 9.84)	1.31 (0.26, 5.49)	0.05 (-0.23, 0.42)
SB2+MTX		0.68 (0.07, 5.88)	0.72 (0.10, 3.94)	-0.04 (-0.30, 0.30)
ZRC-3197+MTX		0.61 (0.06, 6.12)	0.66 (0.08, 3.98)	-0.05 (-0.31, 0.31)
ABP501+MTX		0.86 (0.10, 6.52)	0.88 (0.13, 4.24)	-0.02 (-0.28, 0.33)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ABA_STD (SC)+MTX	ABA_STD (IV)+MTX	0.76 (0.11, 5.32)	0.79 (0.14, 3.51)	-0.03 (-0.24, 0.31)
TOF_STD+MTX		0.77 (0.21, 2.76)	0.80 (0.27, 2.35)	-0.03 (-0.22, 0.14)
ADA_STD+MTX		0.70 (0.22, 2.10)	0.74 (0.29, 1.91)	-0.04 (-0.23, 0.08)
TOC_4 (IV)		0.07 (0.01, 0.54)	0.09 (0.01, 0.57)	-0.15 (-0.32, -0.04)
TOC_8 (IV)		0.28 (0.07, 1.04)	0.32 (0.09, 1.03)	-0.11 (-0.29, 0.003)
TOC_4 (IV)+MTX		0.39 (0.08, 1.70)	0.44 (0.11, 1.57)	-0.09 (-0.27, 0.06)
TOC_8 (IV)+MTX		0.62 (0.17, 2.26)	0.67 (0.22, 2.00)	-0.05 (-0.24, 0.10)
GOL_STD (SC)+MTX		1.14 (0.25, 5.23)	1.11 (0.32, 3.62)	0.02 (-0.20, 0.28)
GOL_STD (IV)+MTX		0.56 (0.08, 3.91)	0.61 (0.10, 2.85)	-0.06 (-0.26, 0.23)
INF_STD+MTX		0.74 (0.23, 2.36)	0.77 (0.29, 2.05)	-0.04 (-0.21, 0.12)
CERTO_STD+MTX		1.10 (0.29, 4.01)	1.08 (0.36, 3.09)	0.01 (-0.19, 0.22)
RIT_STD		0.67 (0.06, 9.38)	0.71 (0.08, 4.49)	-0.05 (-0.26, 0.45)
RIT_STD+MTX		1.13 (0.11, 14.81)	1.10 (0.14, 5.34)	0.02 (-0.23, 0.56)
BAR_4+MTX		1.63 (0.40, 6.71)	1.47 (0.49, 4.27)	0.08 (-0.14, 0.34)
HD203+MTX		1.15 (0.13, 10.81)	1.12 (0.16, 4.93)	0.02 (-0.22, 0.48)
SB4+MTX		1.15 (0.13, 10.80)	1.12 (0.17, 4.95)	0.02 (-0.22, 0.48)
ANBAI+MTX		1.59 (0.15, 21.12)	1.44 (0.19, 6.14)	0.07 (-0.21, 0.62)
CT-P13+MTX		1.36 (0.26, 7.38)	1.28 (0.32, 4.14)	0.05 (-0.17, 0.40)
SB2+MTX		0.66 (0.09, 4.69)	0.70 (0.11, 3.12)	-0.05 (-0.25, 0.28)
ZRC-3197+MTX		0.59 (0.06, 5.23)	0.64 (0.08, 3.41)	-0.06 (-0.26, 0.30)
ABP501+MTX	ABA_STD (SC)+MTX	0.82 (0.11, 5.86)	0.85 (0.14, 3.69)	-0.02 (-0.24, 0.32)
TOF_STD+MTX		1.01 (0.15, 7.10)	1.01 (0.24, 5.92)	0.001 (-0.32, 0.18)
ADA_STD+MTX		0.92 (0.18, 4.57)	0.93 (0.29, 4.12)	-0.01 (-0.31, 0.10)
TOC_4 (IV)		0.10 (0.01, 1.13)	0.11 (0.01, 1.12)	-0.12 (-0.44, 0.01)
TOC_8 (IV)		0.36 (0.05, 2.68)	0.40 (0.08, 2.52)	-0.08 (-0.41, 0.06)
TOC_4 (IV)+MTX		0.52 (0.06, 4.17)	0.56 (0.10, 3.67)	-0.06 (-0.39, 0.11)
TOC_8 (IV)+MTX		0.82 (0.12, 5.93)	0.84 (0.19, 5.06)	-0.02 (-0.35, 0.15)
GOL_STD (SC)+MTX		1.51 (0.19, 12.50)	1.40 (0.28, 8.70)	0.05 (-0.30, 0.33)
GOL_STD (IV)+MTX		0.73 (0.06, 8.68)	0.77 (0.10, 6.36)	-0.03 (-0.37, 0.28)
INF_STD+MTX		0.96 (0.14, 7.06)	0.97 (0.22, 5.86)	-0.004 (-0.34, 0.19)
CERTO_STD+MTX		1.44 (0.22, 9.73)	1.35 (0.32, 7.47)	0.05 (-0.28, 0.25)
RIT_STD		0.89 (0.05, 18.24)	0.90 (0.08, 9.11)	-0.01 (-0.35, 0.48)
RIT_STD+MTX		1.49 (0.10, 28.67)	1.38 (0.14, 11.85)	0.05 (-0.32, 0.59)
BAR_4+MTX		2.14 (0.30, 15.98)	1.84 (0.43, 10.43)	0.11 (-0.23, 0.38)
HD203+MTX		1.53 (0.11, 23.56)	1.41 (0.16, 11.47)	0.05 (-0.31, 0.53)
SB4+MTX		1.51 (0.12, 22.31)	1.40 (0.17, 11.21)	0.05 (-0.30, 0.51)
ANBAI+MTX		2.14 (0.13, 39.79)	1.80 (0.19, 13.82)	0.10 (-0.29, 0.65)
CT-P13+MTX		1.80 (0.18, 18.66)	1.60 (0.27, 10.87)	0.08 (-0.28, 0.45)
SB2+MTX		0.85 (0.07, 11.30)	0.88 (0.10, 7.50)	-0.01 (-0.35, 0.34)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ZRC-3197+MTX		0.78 (0.06, 9.02)	0.81 (0.09, 6.16)	-0.02 (-0.34, 0.32)
ABP501+MTX		1.09 (0.11, 10.47)	1.07 (0.16, 6.98)	0.01 (-0.31, 0.34)
ADA_STD+MTX	TOF_STD+MTX	0.90 (0.32, 2.50)	0.91 (0.38, 2.26)	-0.01 (-0.16, 0.10)
TOC_4 (IV)		0.09 (0.01, 0.72)	0.11 (0.01, 0.74)	-0.12 (-0.27, -0.02)
TOC_8 (IV)		0.36 (0.09, 1.38)	0.39 (0.11, 1.34)	-0.08 (-0.23, 0.03)
TOC_4 (IV)+MTX		0.51 (0.11, 2.25)	0.55 (0.14, 2.03)	-0.06 (-0.22, 0.09)
TOC_8 (IV)+MTX		0.81 (0.22, 2.99)	0.83 (0.27, 2.57)	-0.02 (-0.18, 0.13)
GOL_STD (SC)+MTX		1.48 (0.33, 6.75)	1.39 (0.39, 4.57)	0.05 (-0.14, 0.31)
GOL_STD (IV)+MTX		0.73 (0.11, 5.02)	0.76 (0.13, 3.57)	-0.03 (-0.20, 0.26)
INF_STD+MTX		0.95 (0.25, 3.57)	0.96 (0.31, 2.94)	-0.01 (-0.17, 0.16)
CERTO_STD+MTX		1.43 (0.39, 5.13)	1.34 (0.45, 3.88)	0.05 (-0.13, 0.24)
RIT_STD		0.86 (0.08, 12.23)	0.88 (0.09, 5.63)	-0.02 (-0.21, 0.49)
RIT_STD+MTX		1.47 (0.14, 19.42)	1.37 (0.17, 6.91)	0.05 (-0.18, 0.59)
BAR_4+MTX		2.12 (0.55, 8.56)	1.83 (0.61, 5.36)	0.11 (-0.09, 0.37)
HD203+MTX		1.51 (0.17, 13.91)	1.40 (0.20, 6.20)	0.05 (-0.17, 0.51)
SB4+MTX		1.51 (0.17, 13.91)	1.40 (0.21, 6.17)	0.05 (-0.17, 0.51)
ANBAI+MTX		2.08 (0.20, 27.60)	1.79 (0.24, 7.84)	0.11 (-0.16, 0.65)
CT-P13+MTX		1.77 (0.30, 10.95)	1.59 (0.35, 5.84)	0.08 (-0.14, 0.44)
SB2+MTX		0.85 (0.10, 6.78)	0.87 (0.13, 4.27)	-0.02 (-0.20, 0.33)
ZRC-3197+MTX		0.77 (0.09, 6.56)	0.80 (0.11, 4.16)	-0.03 (-0.20, 0.33)
ABP501+MTX		1.07 (0.16, 7.21)	1.06 (0.19, 4.51)	0.01 (-0.18, 0.34)
TOC_4 (IV)	ADA_STD+MTX	0.11 (0.01, 0.72)	0.12 (0.01, 0.74)	-0.11 (-0.20, -0.03)
TOC_8 (IV)		0.39 (0.12, 1.32)	0.43 (0.14, 1.28)	-0.07 (-0.16, 0.03)
TOC_4 (IV)+MTX		0.57 (0.14, 2.13)	0.60 (0.17, 1.92)	-0.05 (-0.15, 0.09)
TOC_8 (IV)+MTX		0.90 (0.29, 2.79)	0.91 (0.33, 2.40)	-0.01 (-0.12, 0.13)
GOL_STD (SC)+MTX		1.64 (0.43, 6.63)	1.51 (0.48, 4.35)	0.06 (-0.09, 0.32)
GOL_STD (IV)+MTX		0.80 (0.13, 5.21)	0.82 (0.15, 3.63)	-0.02 (-0.14, 0.28)
INF_STD+MTX		1.05 (0.34, 3.37)	1.05 (0.38, 2.77)	0.01 (-0.11, 0.17)
CERTO_STD+MTX		1.58 (0.57, 4.41)	1.47 (0.61, 3.33)	0.06 (-0.06, 0.23)
RIT_STD		0.96 (0.09, 12.76)	0.96 (0.11, 5.57)	-0.004 (-0.15, 0.50)
RIT_STD+MTX		1.61 (0.17, 19.79)	1.49 (0.20, 6.61)	0.06 (-0.13, 0.60)
BAR_4+MTX		2.34 (0.76, 7.76)	1.99 (0.79, 4.68)	0.12 (-0.03, 0.37)
HD203+MTX		1.66 (0.21, 14.49)	1.53 (0.24, 6.12)	0.07 (-0.12, 0.53)
SB4+MTX		1.66 (0.22, 14.04)	1.53 (0.25, 6.02)	0.06 (-0.12, 0.52)
ANBAI+MTX		2.29 (0.24, 28.51)	1.96 (0.27, 7.53)	0.12 (-0.11, 0.66)
CT-P13+MTX		1.97 (0.38, 10.82)	1.75 (0.42, 5.47)	0.09 (-0.09, 0.45)
SB2+MTX		0.93 (0.13, 6.70)	0.94 (0.15, 4.21)	-0.01 (-0.14, 0.34)
ZRC-3197+MTX		0.85 (0.13, 5.49)	0.86 (0.15, 3.48)	-0.02 (-0.13, 0.32)
ABP501+MTX		1.18 (0.23, 5.87)	1.16 (0.26, 3.66)	0.02 (-0.10, 0.33)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
TOC_8 (IV)	TOC_4 (IV)	3.75 (0.61, 28.83)	3.58 (0.63, 26.79)	0.04 (-0.02, 0.11)
TOC_4 (IV)+MTX		5.34 (0.82, 42.92)	4.97 (0.83, 38.08)	0.06 (-0.01, 0.18)
TOC_8 (IV)+MTX		8.53 (1.48, 62.18)	7.59 (1.43, 53.79)	0.09 (0.02, 0.22)
GOL_STD (SC)+MTX		*15.65 (1.82, 169.10)*	*12.61 (1.73, 117.00)*	*0.17 (0.04, 0.42)*
GOL_STD (IV)+MTX		*7.75 (0.62, 108.20)*	*6.93 (0.64, 77.06)*	*0.08 (-0.02, 0.38)*
INF_STD+MTX		10.01 (1.30, 97.76)	8.76 (1.28, 78.95)	0.11 (0.02, 0.26)
CERTO_STD+MTX		*15.03 (1.96, 143.60)*	*12.29 (1.84, 106.20)*	*0.16 (0.05, 0.34)*
RIT_STD		*9.26 (0.51, 226.20)*	*7.95 (0.52, 115.20)*	*0.10 (-0.02, 0.60)*
RIT_STD+MTX		*15.60 (0.95, 382.20)*	*12.24 (0.95, 156.40)*	*0.17 (-0.002, 0.70)*
BAR_4+MTX		*22.50 (2.82, 225.70)*	*16.66 (2.49, 143.10)*	*0.23 (0.08, 0.48)*
HD203+MTX		*16.01 (1.13, 284.20)*	*12.50 (1.12, 142.30)*	*0.17 (0.004, 0.63)*
SB4+MTX		*15.94 (1.14, 280.80)*	*12.44 (1.14, 140.20)*	*0.17 (0.01, 0.62)*
ANBAI+MTX		*22.31 (1.35, 478.30)*	*15.90 (1.32, 176.00)*	*0.23 (0.01, 0.76)*
CT-P13+MTX		*18.76 (1.80, 251.80)*	*14.23 (1.71, 144.10)*	*0.20 (0.03, 0.55)*
SB2+MTX		*8.91 (0.66, 147.80)*	*7.79 (0.68, 95.20)*	*0.10 (-0.02, 0.44)*
ZRC-3197+MTX		*8.26 (0.56, 136.60)*	*7.28 (0.58, 89.08)*	*0.09 (-0.02, 0.45)*
ABP501+MTX		*11.28 (0.93, 160.20)*	*9.48 (0.94, 103.20)*	*0.12 (-0.003, 0.46)*
TOC_4 (IV)+MTX	TOC_8 (IV)	1.43 (0.40, 5.01)	1.39 (0.42, 4.41)	0.02 (-0.06, 0.14)
TOC_8 (IV)+MTX		2.26 (0.96, 5.58)	2.11 (0.97, 4.87)	0.06 (-0.002, 0.16)
GOL_STD (SC)+MTX		4.16 (0.90, 19.87)	3.53 (0.91, 12.97)	0.13 (-0.01, 0.38)
GOL_STD (IV)+MTX		2.03 (0.28, 15.41)	1.91 (0.30, 10.22)	0.05 (-0.07, 0.34)
INF_STD+MTX		2.66 (0.68, 10.91)	2.43 (0.71, 8.69)	0.07 (-0.03, 0.23)
CERTO_STD+MTX		3.98 (1.01, 16.42)	3.41 (1.01, 11.78)	0.13 (0.001, 0.31)
RIT_STD		2.42 (0.21, 36.40)	2.23 (0.22, 15.92)	0.06 (-0.07, 0.57)
RIT_STD+MTX		4.10 (0.37, 56.71)	3.47 (0.39, 19.72)	0.13 (-0.05, 0.66)
BAR_4+MTX		5.92 (1.39, 27.24)	4.63 (1.34, 16.15)	0.19 (0.03, 0.44)
HD203+MTX		4.18 (0.47, 43.03)	3.51 (0.49, 18.05)	0.13 (-0.04, 0.59)
SB4+MTX		4.19 (0.49, 41.97)	3.53 (0.51, 18.01)	0.13 (-0.04, 0.59)
ANBAI+MTX		5.80 (0.56, 80.32)	4.52 (0.58, 21.92)	0.19 (-0.03, 0.73)
CT-P13+MTX		4.97 (0.81, 32.33)	4.02 (0.82, 16.62)	0.16 (-0.01, 0.52)
SB2+MTX		2.36 (0.29, 20.01)	2.18 (0.31, 12.02)	0.06 (-0.07, 0.41)
ZRC-3197+MTX		2.15 (0.23, 20.38)	2.01 (0.25, 12.01)	0.05 (-0.07, 0.41)
ABP501+MTX		3.00 (0.40, 22.79)	2.68 (0.42, 13.33)	0.09 (-0.05, 0.43)
TOC_8 (IV)+MTX	TOC_4 (IV)+MTX	1.59 (0.52, 5.08)	1.52 (0.56, 4.43)	0.04 (-0.07, 0.15)
GOL_STD (SC)+MTX		2.92 (0.56, 16.04)	2.53 (0.61, 10.76)	0.11 (-0.07, 0.36)
GOL_STD (IV)+MTX		1.44 (0.18, 11.98)	1.39 (0.20, 8.15)	0.03 (-0.13, 0.32)
INF_STD+MTX		1.87 (0.41, 8.76)	1.75 (0.46, 7.03)	0.05 (-0.10, 0.22)
CERTO_STD+MTX		2.78 (0.62, 13.07)	2.43 (0.67, 9.52)	0.10 (-0.06, 0.29)
RIT_STD		1.70 (0.13, 26.84)	1.60 (0.15, 12.27)	0.04 (-0.13, 0.54)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
RIT_STD+MTX		2.89 (0.25, 44.00)	2.48 (0.28, 15.75)	0.11 (-0.11, 0.64)
BAR_4+MTX		4.14 (0.87, 21.45)	3.31 (0.89, 13.23)	0.17 (-0.02, 0.43)
HD203+MTX		2.94 (0.29, 33.31)	2.52 (0.32, 14.76)	0.11 (-0.10, 0.57)
SB4+MTX		2.92 (0.31, 32.65)	2.52 (0.35, 14.83)	0.11 (-0.09, 0.56)
ANBAI+MTX		4.08 (0.36, 60.35)	3.24 (0.39, 17.53)	0.16 (-0.08, 0.71)
CT-P13+MTX		3.50 (0.51, 25.45)	2.89 (0.55, 13.52)	0.14 (-0.07, 0.50)
SB2+MTX		1.65 (0.19, 15.57)	1.56 (0.21, 9.70)	0.04 (-0.12, 0.39)
ZRC-3197+MTX		1.50 (0.15, 15.55)	1.44 (0.17, 9.59)	0.03 (-0.13, 0.40)
ABP501+MTX		2.08 (0.26, 17.07)	1.92 (0.29, 10.42)	0.07 (-0.11, 0.41)
GOL_STD (SC)+MTX	TOC_8 (IV)+MTX	1.83 (0.41, 8.40)	1.66 (0.47, 5.65)	0.07 (-0.11, 0.33)
GOL_STD (IV)+MTX		0.90 (0.12, 6.29)	0.91 (0.15, 4.41)	-0.01 (-0.17, 0.28)
INF_STD+MTX		1.17 (0.31, 4.44)	1.14 (0.37, 3.61)	0.02 (-0.14, 0.18)
CERTO_STD+MTX		1.75 (0.46, 6.64)	1.61 (0.52, 4.93)	0.07 (-0.10, 0.26)
RIT_STD		1.07 (0.09, 15.52)	1.06 (0.11, 6.95)	0.01 (-0.17, 0.51)
RIT_STD+MTX		1.80 (0.17, 24.34)	1.64 (0.19, 8.65)	0.07 (-0.15, 0.60)
BAR_4+MTX		2.62 (0.64, 10.90)	2.19 (0.69, 6.72)	0.13 (-0.06, 0.39)
HD203+MTX		1.84 (0.21, 17.59)	1.67 (0.24, 7.61)	0.07 (-0.13, 0.53)
SB4+MTX		1.85 (0.22, 17.32)	1.67 (0.25, 7.61)	0.07 (-0.13, 0.53)
ANBAI+MTX		2.57 (0.25, 34.49)	2.15 (0.29, 9.69)	0.13 (-0.12, 0.67)
CT-P13+MTX		2.18 (0.37, 13.28)	1.91 (0.42, 7.02)	0.10 (-0.11, 0.46)
SB2+MTX		1.04 (0.13, 8.30)	1.04 (0.15, 5.23)	0.004 (-0.16, 0.35)
ZRC-3197+MTX		0.95 (0.11, 8.62)	0.95 (0.13, 5.33)	-0.005 (-0.17, 0.36)
ABP501+MTX		1.32 (0.18, 9.41)	1.27 (0.21, 5.74)	0.03 (-0.15, 0.37)
GOL_STD (IV)+MTX	GOL_STD (SC)+MTX	0.49 (0.06, 4.03)	0.54 (0.08, 2.98)	-0.08 (-0.35, 0.23)
INF_STD+MTX		0.64 (0.14, 2.93)	0.69 (0.20, 2.49)	-0.06 (-0.32, 0.14)
CERTO_STD+MTX		0.95 (0.20, 4.42)	0.96 (0.29, 3.40)	-0.01 (-0.27, 0.22)
RIT_STD		0.58 (0.05, 8.98)	0.64 (0.07, 4.41)	-0.06 (-0.34, 0.44)
RIT_STD+MTX		0.98 (0.08, 14.58)	0.99 (0.12, 5.53)	-0.002 (-0.31, 0.54)
BAR_4+MTX		1.43 (0.29, 7.14)	1.32 (0.39, 4.56)	0.06 (-0.23, 0.34)
HD203+MTX		1.01 (0.10, 11.23)	1.01 (0.14, 5.21)	0.002 (-0.30, 0.48)
SB4+MTX		1.02 (0.10, 10.84)	1.01 (0.14, 5.15)	0.003 (-0.30, 0.47)
ANBAI+MTX		1.42 (0.12, 20.56)	1.30 (0.17, 6.32)	0.06 (-0.28, 0.61)
CT-P13+MTX		1.19 (0.18, 8.49)	1.15 (0.24, 4.73)	0.03 (-0.27, 0.40)
SB2+MTX		0.57 (0.06, 5.14)	0.63 (0.09, 3.48)	-0.07 (-0.34, 0.29)
ZRC-3197+MTX		0.51 (0.05, 5.40)	0.57 (0.07, 3.50)	-0.07 (-0.35, 0.30)
ABP501+MTX		0.72 (0.09, 5.89)	0.76 (0.12, 3.79)	-0.04 (-0.32, 0.32)
INF_STD+MTX	GOL_STD (IV)+MTX	1.30 (0.18, 9.71)	1.26 (0.26, 7.84)	0.03 (-0.27, 0.20)
CERTO_STD+MTX		1.97 (0.27, 13.90)	1.78 (0.37, 10.38)	0.08 (-0.23, 0.28)
RIT_STD		1.20 (0.07, 25.10)	1.17 (0.09, 12.47)	0.02 (-0.30, 0.52)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
RIT_STD+MTX		2.01 (0.12, 38.64)	1.79 (0.16, 15.81)	0.08 (-0.26, 0.61)
BAR_4+MTX		2.91 (0.39, 22.47)	2.40 (0.50, 14.55)	0.14 (-0.18, 0.41)
HD203+MTX		2.07 (0.15, 30.44)	1.82 (0.20, 15.02)	0.08 (-0.24, 0.55)
SB4+MTX		2.07 (0.15, 30.75)	1.82 (0.20, 15.15)	0.08 (-0.24, 0.54)
ANBAI+MTX		2.86 (0.18, 54.42)	2.33 (0.24, 18.66)	0.13 (-0.22, 0.68)
CT-P13+MTX		2.43 (0.24, 25.85)	2.08 (0.32, 14.72)	0.10 (-0.22, 0.48)
SB2+MTX		1.16 (0.09, 15.05)	1.14 (0.13, 9.94)	0.01 (-0.29, 0.36)
ZRC-3197+MTX		1.07 (0.08, 14.96)	1.06 (0.10, 9.78)	0.01 (-0.30, 0.37)
ABP501+MTX		1.48 (0.13, 16.93)	1.40 (0.17, 10.89)	0.04 (-0.27, 0.38)
CERTO_STD+MTX	INF_STD+MTX	1.49 (0.39, 5.65)	1.40 (0.46, 4.23)	0.05 (-0.13, 0.25)
RIT_STD		0.91 (0.08, 13.31)	0.92 (0.09, 6.08)	-0.01 (-0.20, 0.49)
RIT_STD+MTX		1.53 (0.14, 20.77)	1.42 (0.17, 7.46)	0.05 (-0.18, 0.59)
BAR_4+MTX		2.24 (0.55, 9.27)	1.91 (0.61, 5.73)	0.12 (-0.09, 0.38)
HD203+MTX		1.59 (0.17, 15.73)	1.46 (0.20, 6.77)	0.06 (-0.17, 0.53)
SB4+MTX		1.57 (0.18, 15.01)	1.45 (0.22, 6.66)	0.06 (-0.16, 0.51)
ANBAI+MTX		2.19 (0.21, 28.78)	1.87 (0.24, 8.24)	0.11 (-0.15, 0.65)
CT-P13+MTX		1.86 (0.57, 6.41)	1.66 (0.60, 3.83)	0.08 (-0.05, 0.37)
SB2+MTX		0.89 (0.17, 4.47)	0.90 (0.20, 3.02)	-0.01 (-0.14, 0.27)
ZRC-3197+MTX		0.81 (0.09, 7.46)	0.83 (0.11, 4.60)	-0.02 (-0.21, 0.34)
ABP501+MTX		1.12 (0.15, 8.17)	1.10 (0.18, 4.95)	0.01 (-0.18, 0.36)
RIT_STD	CERTO_STD+MTX	0.61 (0.05, 8.85)	0.66 (0.07, 4.18)	-0.06 (-0.28, 0.44)
RIT_STD+MTX		1.03 (0.10, 13.86)	1.03 (0.13, 5.08)	0.005 (-0.25, 0.54)
BAR_4+MTX		1.49 (0.37, 6.11)	1.36 (0.46, 3.94)	0.07 (-0.16, 0.33)
HD203+MTX		1.06 (0.12, 10.24)	1.05 (0.15, 4.71)	0.01 (-0.24, 0.48)
SB4+MTX		1.05 (0.13, 10.33)	1.04 (0.16, 4.66)	0.01 (-0.24, 0.47)
ANBAI+MTX		1.45 (0.14, 19.91)	1.33 (0.18, 5.75)	0.06 (-0.22, 0.61)
CT-P13+MTX		1.24 (0.21, 7.76)	1.18 (0.27, 4.26)	0.03 (-0.21, 0.40)
SB2+MTX		0.60 (0.07, 4.68)	0.65 (0.10, 3.16)	-0.06 (-0.27, 0.28)
ZRC-3197+MTX		0.54 (0.06, 4.69)	0.59 (0.08, 3.06)	-0.07 (-0.27, 0.29)
ABP501+MTX		0.75 (0.11, 5.05)	0.79 (0.14, 3.24)	-0.04 (-0.25, 0.30)
RIT_STD+MTX	RIT_STD	1.69 (0.24, 12.12)	1.49 (0.31, 8.04)	0.05 (-0.22, 0.41)
BAR_4+MTX		2.46 (0.17, 29.83)	2.06 (0.33, 19.23)	0.12 (-0.38, 0.40)
HD203+MTX		1.72 (0.07, 37.79)	1.55 (0.14, 19.26)	0.06 (-0.44, 0.54)
SB4+MTX		1.73 (0.08, 36.75)	1.56 (0.14, 19.35)	0.06 (-0.44, 0.53)
ANBAI+MTX		2.40 (0.09, 67.05)	1.98 (0.17, 24.28)	0.11 (-0.42, 0.67)
CT-P13+MTX		2.06 (0.11, 32.36)	1.79 (0.21, 19.22)	0.08 (-0.42, 0.46)
SB2+MTX		0.97 (0.04, 18.52)	0.97 (0.08, 12.52)	-0.003 (-0.50, 0.35)
ZRC-3197+MTX		0.88 (0.04, 17.42)	0.89 (0.07, 11.92)	-0.01 (-0.51, 0.36)
ABP501+MTX		1.22 (0.06, 20.39)	1.18 (0.12, 13.83)	0.02 (-0.48, 0.38)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
BAR_4+MTX	RIT_STD+MTX	1.45 (0.10, 16.96)	1.33 (0.26, 11.19)	0.06 (-0.49, 0.37)
HD203+MTX		1.02 (0.05, 22.13)	1.01 (0.10, 11.23)	0.002 (-0.54, 0.50)
SB4+MTX		1.02 (0.05, 20.88)	1.02 (0.11, 11.01)	0.002 (-0.55, 0.49)
ANBAI+MTX		1.41 (0.06, 36.90)	1.29 (0.13, 13.68)	0.05 (-0.52, 0.63)
CT-P13+MTX		1.22 (0.07, 17.98)	1.16 (0.17, 10.82)	0.03 (-0.52, 0.43)
SB2+MTX		0.58 (0.03, 10.09)	0.64 (0.07, 7.10)	-0.06 (-0.60, 0.31)
ZRC-3197+MTX		0.52 (0.02, 9.99)	0.59 (0.05, 6.85)	-0.07 (-0.61, 0.31)
ABP501+MTX		0.72 (0.04, 11.71)	0.77 (0.09, 7.93)	-0.04 (-0.58, 0.34)
HD203+MTX	BAR_4+MTX	0.71 (0.07, 7.10)	0.77 (0.11, 3.44)	-0.05 (-0.36, 0.42)
SB4+MTX		0.71 (0.08, 6.92)	0.77 (0.12, 3.48)	-0.06 (-0.36, 0.41)
ANBAI+MTX		0.97 (0.09, 13.74)	0.98 (0.13, 4.40)	-0.005 (-0.34, 0.55)
CT-P13+MTX		0.83 (0.13, 5.56)	0.87 (0.20, 3.26)	-0.03 (-0.33, 0.35)
SB2+MTX		0.40 (0.05, 3.33)	0.47 (0.07, 2.35)	-0.12 (-0.40, 0.24)
ZRC-3197+MTX		0.36 (0.04, 3.31)	0.44 (0.06, 2.29)	-0.13 (-0.40, 0.24)
ABP501+MTX		0.50 (0.07, 3.60)	0.58 (0.10, 2.48)	-0.10 (-0.38, 0.25)
SB4+MTX	HD203+MTX	1.00 (0.10, 10.07)	1.00 (0.17, 5.95)	0.001 (-0.40, 0.40)
ANBAI+MTX		1.41 (0.07, 29.77)	1.29 (0.13, 11.29)	0.05 (-0.46, 0.61)
CT-P13+MTX		1.18 (0.09, 14.99)	1.13 (0.18, 9.02)	0.02 (-0.46, 0.42)
SB2+MTX		0.56 (0.03, 8.58)	0.63 (0.07, 5.87)	-0.06 (-0.54, 0.31)
ZRC-3197+MTX		0.51 (0.03, 8.38)	0.58 (0.06, 5.73)	-0.07 (-0.55, 0.31)
ABP501+MTX		0.71 (0.05, 9.80)	0.76 (0.09, 6.48)	-0.04 (-0.51, 0.33)
ANBAI+MTX	SB4+MTX	1.40 (0.07, 30.42)	1.28 (0.13, 11.16)	0.05 (-0.46, 0.62)
CT-P13+MTX		1.18 (0.10, 14.13)	1.13 (0.18, 8.56)	0.02 (-0.44, 0.42)
SB2+MTX		0.56 (0.03, 8.04)	0.63 (0.07, 5.61)	-0.06 (-0.52, 0.30)
ZRC-3197+MTX		0.50 (0.03, 8.42)	0.57 (0.06, 5.65)	-0.07 (-0.53, 0.31)
ABP501+MTX		0.71 (0.05, 9.27)	0.76 (0.09, 6.30)	-0.04 (-0.51, 0.32)
CT-P13+MTX	ANBAI+MTX	0.85 (0.05, 12.36)	0.89 (0.15, 7.47)	-0.03 (-0.59, 0.40)
SB2+MTX		0.41 (0.02, 6.88)	0.49 (0.06, 4.94)	-0.11 (-0.67, 0.27)
ZRC-3197+MTX		0.37 (0.02, 7.07)	0.45 (0.05, 4.91)	-0.12 (-0.67, 0.28)
ABP501+MTX		0.51 (0.03, 8.33)	0.59 (0.08, 5.79)	-0.09 (-0.65, 0.30)
SB2+MTX	CT-P13+MTX	0.48 (0.06, 3.56)	0.55 (0.09, 2.66)	-0.09 (-0.41, 0.21)
ZRC-3197+MTX		0.43 (0.03, 5.35)	0.51 (0.06, 3.67)	-0.10 (-0.47, 0.28)
ABP501+MTX		0.60 (0.06, 6.00)	0.66 (0.10, 4.00)	-0.07 (-0.45, 0.30)
ZRC-3197+MTX	SB2+MTX	0.91 (0.06, 14.23)	0.92 (0.09, 9.34)	-0.01 (-0.36, 0.36)
ABP501+MTX		1.26 (0.10, 16.30)	1.22 (0.14, 10.73)	0.02 (-0.33, 0.38)
ABP501+MTX	ZRC-3197+MTX	1.40 (0.12, 16.06)	1.33 (0.17, 10.80)	0.03 (-0.31, 0.36)
Random-Effect Model	Residual Deviance	1.22E+02 vs 120 datapoints		
	Deviance Information Criteria	720.096		

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
Fixed-Effect Model	Residual Deviance	219.2 vs 120 datapoints		
	Deviance Information Criteria	794.479		
Total Patients		18,453		
Total Studies		55		
	2-arm	47		
	3-arm	7		
	4-arm	0		
	5-arm	1		

ABA=abatacept, ABP501=biosimilar adalimumab, ADA=adalimumab, ANBAI=AnBaiNuo (biosimilar etanercept), BAR_4= 4mg baricitinib, CERTO=certolizumab pegol, CT-P13=biosimilar infliximab, csDMARD=conventional synthetic disease modifying antirheumatic drug, ETN=etanercept, GOL=golimumab, HCQ=hydroxychloroquine, HD203=etanercept biosimilar, INF=infliximab, IV=intravenous, MTX=methotrexate, OR=odds ratio, RD=risk difference, RIT=rituximab, RR=relative risk, SAR_200= 200mg sarilumab, SB2= biosimilar infliximab, SB4=biosimilar etanercept, SC=subcutaneous, SSZ=sulfasalazine, STD = standard dose, TOC_4= 4mg/kg tocilizumab, TOC_8= 8mg/kg tocilizumab, TOF=tofacitinib, ZRC-3197=biosimilar adalimumab

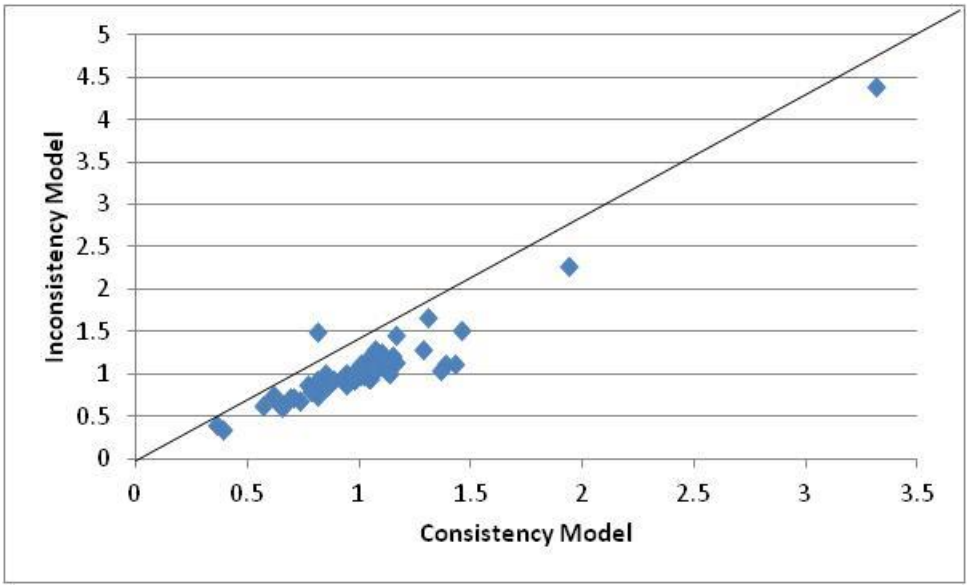

Figure 2. Consistency Plot for ACR70 Inadequate Response to Methotrexate

Table 45. ACR20, Conventional Synthetic DMARD as a Common Comparator: Odds Ratios, Relative Risks and Risk Difference for All Treatment Comparisons – Random Effects Model

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ETN_STD	Placebo+csDMARD	2.59 (0.86, 8.43)	1.73 (0.90, 2.59)	0.23 (-0.03, 0.48)
ETN_STD+csDMARD		3.12 (1.38, 7.69)	1.88 (1.23, 2.55)	0.27 (0.07, 0.47)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ADA_STD+csDMARD		2.86 (1.29, 6.73)	1.81 (1.18, 2.46)	0.25 (0.06, 0.44)
TOC_8 (IV) +csDMARD		3.12 (1.42, 6.62)	1.87 (1.25, 2.44)	0.27 (0.08, 0.44)
INF_STD +csDMARD		2.80 (0.66, 12.37)	1.79 (0.74, 2.81)	0.25 (-0.08, 0.54)
CERTO_STD +csDMARD		3.48 (1.14, 10.68)	1.96 (1.09, 2.71)	0.30 (0.03, 0.52)
BAR_4+csDMARD		2.45 (0.81, 7.44)	1.69 (0.86, 2.50)	0.21 (-0.04, 0.46)
SIR_100+csDMARD		3.62 (0.84, 16.73)	1.99 (0.89, 2.94)	0.31 (-0.04, 0.58)
SIR_50+csDMARD		3.17 (0.74, 14.26)	1.89 (0.81, 2.88)	0.28 (-0.06, 0.56)
ETN_STD+csDMARD	ETN_STD	1.21 (0.40, 3.66)	1.08 (0.70, 1.93)	0.04 (-0.20, 0.30)
ADA_STD+csDMARD		1.11 (0.26, 4.38)	1.05 (0.59, 2.11)	0.02 (-0.30, 0.34)
TOC_8 (IV) +csDMARD		1.20 (0.29, 4.51)	1.08 (0.62, 2.14)	0.04 (-0.27, 0.35)
INF_STD+csDMARD		1.09 (0.17, 6.78)	1.04 (0.40, 2.26)	0.02 (-0.40, 0.41)
CERTO_STD +csDMARD		1.35 (0.26, 6.41)	1.13 (0.56, 2.29)	0.07 (-0.30, 0.41)
BAR_4+csDMARD		0.95 (0.19, 4.43)	0.97 (0.45, 2.03)	-0.01 (-0.38, 0.34)
SIR_100+csDMARD		1.40 (0.21, 9.07)	1.14 (0.47, 2.41)	0.08 (-0.35, 0.46)
SIR_50+csDMARD		1.23 (0.19, 7.84)	1.09 (0.43, 2.33)	0.05 (-0.38, 0.44)
ADA_STD+csDMARD	ETN_STD+csDMARD	0.92 (0.27, 2.96)	0.96 (0.58, 1.60)	-0.02 (-0.30, 0.25)
TOC_8 (IV) +csDMARD		1.00 (0.30, 2.98)	1.00 (0.61, 1.61)	-0.001 (-0.28, 0.25)
INF_STD+csDMARD		0.90 (0.16, 4.77)	0.96 (0.38, 1.73)	-0.03 (-0.41, 0.33)
CERTO_STD +csDMARD		1.12 (0.26, 4.36)	1.05 (0.54, 1.74)	0.03 (-0.31, 0.32)
BAR_4+csDMARD		0.79 (0.19, 3.02)	0.90 (0.43, 1.57)	-0.06 (-0.38, 0.25)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
SIR_100+csDMARD		1.16 (0.21, 6.49)	1.06 (0.45, 1.85)	0.03 (-0.36, 0.37)
SIR_50+csDMARD		1.02 (0.18, 5.56)	1.01 (0.41, 1.79)	0.004 (-0.39, 0.35)
TOC_8 (IV) +csDMARD	ADA_STD+csDMARD	1.09 (0.34, 3.22)	1.04 (0.63, 1.68)	0.02 (-0.25, 0.27)
INF_STD+csDMARD		0.98 (0.18, 5.27)	0.99 (0.40, 1.82)	-0.01 (-0.38, 0.35)
CERTO_STD +csDMARD		1.22 (0.30, 4.77)	1.08 (0.57, 1.82)	0.05 (-0.28, 0.34)
BAR_4+csDMARD		0.86 (0.21, 3.33)	0.93 (0.45, 1.64)	-0.04 (-0.36, 0.27)
SIR_100+csDMARD		1.27 (0.24, 7.03)	1.10 (0.47, 1.93)	0.06 (-0.34, 0.39)
SIR_50+csDMARD		1.11 (0.20, 6.00)	1.04 (0.43, 1.87)	0.02 (-0.36, 0.37)
INF_STD+csDMARD	TOC_8 (IV) +csDMARD	0.90 (0.18, 4.84)	0.96 (0.39, 1.72)	-0.02 (-0.39, 0.33)
CERTO_STD+csDMARD		1.12 (0.29, 4.39)	1.05 (0.56, 1.73)	0.03 (-0.29, 0.32)
BAR_4+csDMARD		0.79 (0.21, 3.04)	0.90 (0.45, 1.56)	-0.06 (-0.36, 0.25)
SIR_100+csDMARD		1.16 (0.23, 6.46)	1.06 (0.47, 1.84)	0.04 (-0.34, 0.37)
SIR_50+csDMARD		1.02 (0.20, 5.60)	1.01 (0.43, 1.79)	0.01 (-0.37, 0.35)
CERTO_STD +csDMARD	INF_STD+csDMARD	1.24 (0.20, 7.61)	1.09 (0.53, 2.71)	0.05 (-0.35, 0.45)
BAR_4+csDMARD		0.88 (0.14, 5.28)	0.94 (0.43, 2.39)	-0.03 (-0.42, 0.37)
SIR_100+csDMARD		1.30 (0.16, 10.49)	1.11 (0.45, 2.82)	0.06 (-0.40, 0.49)
SIR_50+csDMARD		1.13 (0.14, 9.05)	1.05 (0.41, 2.72)	0.03 (-0.42, 0.47)
BAR_4+csDMARD	CERTO_STD +csDMARD	0.70 (0.14, 3.38)	0.86 (0.42, 1.71)	-0.08 (-0.42, 0.28)
SIR_100+csDMARD		1.04 (0.17, 6.88)	1.02 (0.44, 2.03)	0.01 (-0.40, 0.39)
SIR_50+csDMARD		0.91 (0.15, 5.83)	0.97 (0.40, 1.95)	-0.02 (-0.42, 0.37)
SIR_100+csDMARD	BAR_4+csDMARD	1.48 (0.24, 9.68)	1.17 (0.50, 2.51)	0.09 (-0.32, 0.47)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
SIR_50+csDMARD		1.30 (0.21, 8.16)	1.12 (0.45, 2.41)	0.06 (-0.35, 0.44)
SIR_50+csDMARD	SIR_100+csDMARD	0.87 (0.21, 3.70)	0.95 (0.49, 1.77)	-0.03 (-0.34, 0.28)
Random-Effect Model	Residual Deviance	23.66 vs 22 datapoints		
	Deviance Information Criteria	158.208		
Fixed-Effect Model	Residual Deviance	35.45 vs 22 datapoints		
	Deviance Information Criteria	166.38		
Total Patients		4326		
Total Studies		10		
	2-arm	8		
	3-arm	2		

ADA=adalimumab, BAR_4 = 4mg baricitinib, CERTO=certolizumab pegol, csDMARD=conventional synthetic disease-modifying anti-rheumatic drug, ETN=etanercept, GOL=golimumab, INF=infliximab, IV=intravenous, OR=odds ratio, RD=risk difference, RIT=rituximab, RR=relative risk, SIR_100= 100mg sirukumab, SIR_50= 50mg sirukumab, STD = standard dose, TOC_8= 8mg/kg tocilizumab

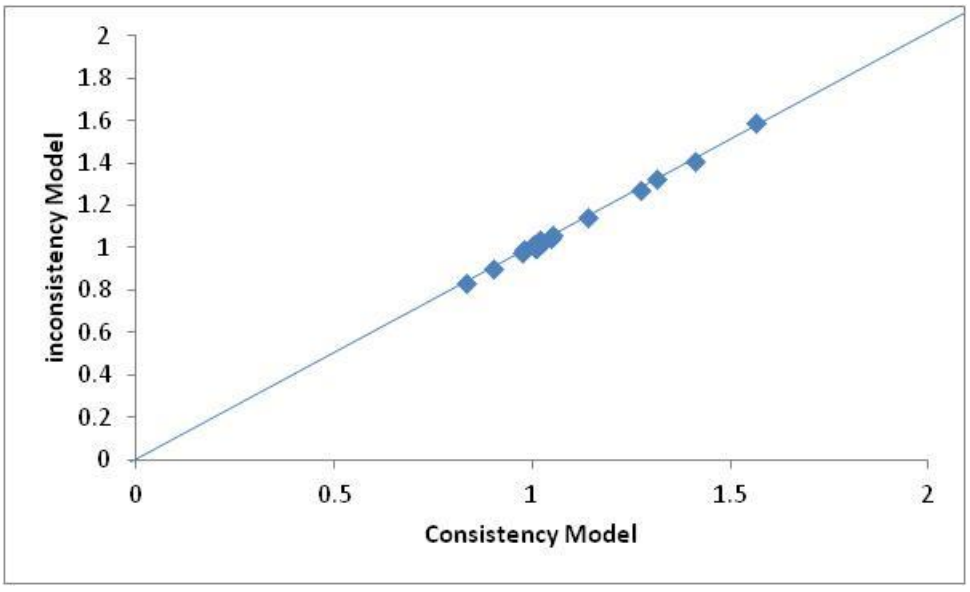

Figure 3. Consistency Plot for ACR20 Concomitant Conventional synthetic DMARD

(as supplied by the authors)

Table 46. ACR70, Conventional Synthetic DMARD as a Common Comparator: Odds Ratios, Relative Risks and Risk Difference for All Treatment Comparisons – Random Effects Model

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
ETN_STD	Placebo+csDMARD	*12.67 (2.91, 100.70)*	*9.65 (2.74, 37.33)*	*0.23 (0.06, 0.62)*
ETN_STD +csDMARD		*14.45 (3.65, 107.40)*	*10.62 (3.34, 38.90)*	*0.26 (0.08, 0.64)*
ADA_STD +csDMARD		5.26 (2.46, 12.43)	4.73 (2.36, 9.85)	0.10 (0.03, 0.22)
TOC_8 (IV) +csDMARD		5.73 (2.86, 12.10)	5.09 (2.72, 9.63)	0.11 (0.04, 0.22)
CERTO_STD +csDMARD		8.37 (2.51, 41.97)	7.00 (2.40, 22.31)	0.16 (0.04, 0.48)
BAR_4+csDMARD		2.81 (1.22, 6.66)	2.68 (1.21, 5.84)	0.04 (0.01, 0.13)
ETN_STD +csDMARD	ETN_STD	1.15 (0.46, 2.77)	1.10 (0.59, 2.16)	0.03 (-0.16, 0.20)
ADA_STD +csDMARD		0.41 (0.05, 2.29)	0.49 (0.11, 2.02)	-0.13 (-0.56, 0.10)
TOC_8 (IV) +csDMARD		0.45 (0.05, 2.37)	0.53 (0.12, 2.09)	-0.12 (-0.55, 0.11)
CERTO_STD +csDMARD		0.65 (0.06, 5.91)	0.72 (0.14, 3.73)	-0.07 (-0.51, 0.32)
BAR_4+csDMARD		0.22 (0.02, 1.24)	0.28 (0.06, 1.21)	-0.18 (-0.59, 0.02)
ADA_STD +csDMARD	ETN_STD+csDMARD	0.36 (0.04, 1.86)	0.44 (0.11, 1.67)	-0.15 (-0.57, 0.08)
TOC_8 (IV) +csDMARD		0.39 (0.05, 1.94)	0.48 (0.12, 1.74)	-0.15 (-0.56, 0.09)
CERTO_STD		0.57 (0.06, 4.79)	0.65 (0.14, 3.06)	-0.10 (-0.52, 0.30)

(as supplied by the authors)

Treatment	Reference	OR (95% CrI)	RR (95% CrI)	RD (95% CrI)
+csDMARD				
BAR_4+csDMARD		0.19 (0.02, 1.00)	0.25 (0.06, 1.00)	-0.21 (-0.60, 0.0003)
TOC_8 (IV) +csDMARD	ADA_STD+csDMARD	1.09 (0.36, 3.16)	1.08 (0.42, 2.71)	0.01 (-0.13, 0.14)
CERTO_STD +csDMARD		1.60 (0.36, 9.17)	1.48 (0.41, 5.45)	0.06 (-0.12, 0.38)
BAR_4+csDMARD		0.54 (0.16, 1.69)	0.57 (0.19, 1.60)	-0.05 (-0.18, 0.05)
CERTO_STD +csDMARD	TOC_8 (IV) +csDMARD	1.46 (0.35, 8.42)	1.37 (0.40, 4.96)	0.05 (-0.12, 0.38)
BAR_4+csDMARD		0.49 (0.16, 1.49)	0.53 (0.19, 1.42)	-0.06 (-0.18, 0.04)
BAR_4+csDMARD	CERTO_STD +csDMARD	0.34 (0.06, 1.47)	0.38 (0.10, 1.41)	-0.11 (-0.43, 0.03)
Random-Effect Model	Residual Deviance	16.35 vs 17 datapoints		
	Deviance Information Criteria	104.238		
Fixed-Effect Model	Residual Deviance	16.66 vs 17 datapoints		
	Deviance Information Criteria	103.874		
Total Patients		4175		
Total Studies		8		
	2-arm	7		
	3-arm	1		

ADA=adalimumab, BAR_4 = 4mg baricitinib, CERTO=certolizumab pegol, csDMARD=conventional synthetic disease-modifying anti-rheumatic drug, ETN=etanercept, GOL=golimumab, IV=intravenous, OR=odds ratio, RD=risk difference, RR=relative risk, STD = standard dose, TOC_8= 8mg/kg tocilizumab

(as supplied by the authors)

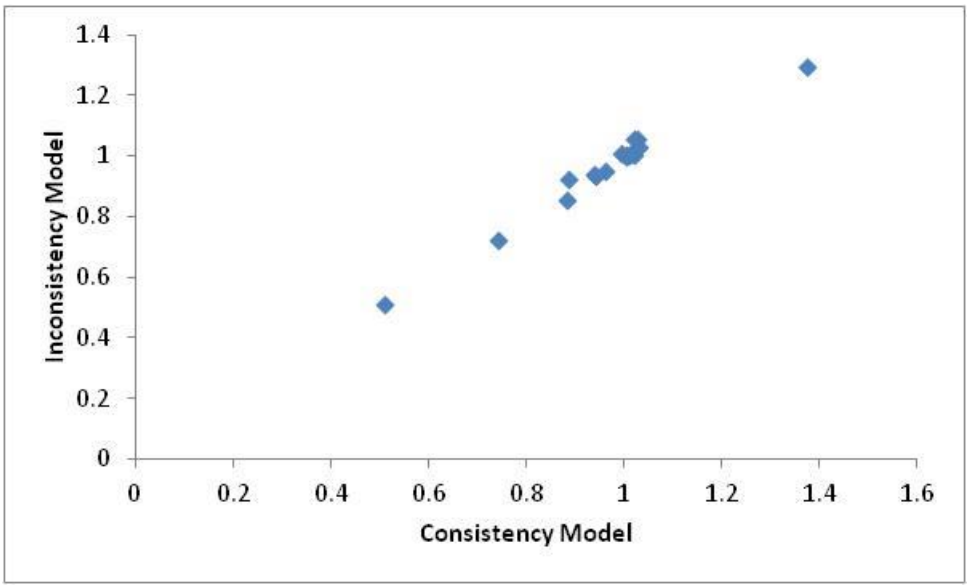

Figure 4. Consistency Plot for ACR70 Concomitant Conventional synthetic DMARD

(as supplied by the authors)

APPENDIX 10: RESULTS PRESENTED IN THE FORM OF STAIRCASE TABLES

Table 47. Staircase Table, ACR20 (Placebo+csDMARD) – Random Effects Model

	Placebo	ETN_STD	ETN_STD	ADA_STD	TOC_8 (IV)	INF_STD	CERTO_STD	BAR_4	SIR_100	SIR_50
Placebo										
ETN_STD	2.59									
ETN_STD	3.12	1.21								
ADA_STD	2.86	1.11	0.92							
TOC_8 (IV)	3.12	1.20	1.00	1.09						
INF_STD	2.80	1.09	0.90	0.98	0.90					
CERTO_STD +csDMARD	3.48	1.35	1.12	1.22	1.12	1.24				
BAR_4	2.45	0.95	0.79	0.86	0.79	0.88	0.70			
SIR_100	3.62	1.40	1.16	1.27	1.16	1.30	1.04	1.48		
SIR_50	3.17	1.23	1.02	1.11	1.02	1.13	0.91	1.30	0.87	

Results are reported as the odds ratio (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red.
ADA=adalimumab, BAR_4 = 4mg baricitinib, CERTO=certolizumab pegol, csDMARD=disease-modifying anti-rheumatic drug, ETN=etanercept, INF=infliximab, IV=intravenous, OR=odds ratio, RD=risk difference, RIT=rituximab, RR=relative risk, SIR_100= 100mg sirukumab, SIR_50= 50mg sirukumab, STD = standard dose, TOC_8= 8mg/kg tocilizumab

(as supplied by the authors)

Table 48. Staircase Table, ACR50 (Placebo+csDMARD) – Random Effects Model

	PLACEBO +csDMARD	ETN_STD	ETN_STD +csDMARD	ADA_STD +csDMARD	TOC_8 (IV) +csDMARD	CERTO_STD +csDMARD	BAR_4 +csDMARD	SIR_100 +csDMARD	SIR_50 +csDMARD
PLACEBO +csDMARD									
ETN_STD	4.10 (0.89, 23.63)								
ETN_STD +csDMARD	4.72 (1.40, 16.87)	1.15 (0.23, 5.12)							
ADA_STD +csDMARD	4.05 (1.24, 13.53)	0.99 (0.12, 6.76)	0.86 (0.15, 4.64)						
TOC_8 (IV) +csDMARD	3.59 (1.13, 10.97)	0.88 (0.11, 5.67)	0.76 (0.13, 3.93)	0.88 (0.16, 4.54)					
CERTO_STD +csDMARD	4.32 (0.82, 23.02)	1.06 (0.09, 9.83)	0.92 (0.11, 7.14)	1.07 (0.14, 8.28)	1.21 (0.16250, 9.39)				
BAR_4+csDMARD	3.09 (0.61, 15.65)	0.76 (0.07, 6.71)	0.66 (0.08, 4.86)	0.76 (0.10, 5.70)	0.86 (0.122, 6.35)	0.71 (0.07, 7.36)			
SIR_100 +csDMARD	*13.12 (1.10, 465.50)*	*3.26 (0.15, 145.90)*	*2.82 (0.17, 114.70)*	*3.28 (0.21, 137.00)*	*3.72 (0.23, 159.40)*	*3.10 (0.16, 151.60)*	*4.32 (0.21, 211.90)*		
SIR_50+csDMARD	*15.90 (1.28, 571.60)*	*3.95 (0.17, 179.00)*	*3.42 (0.20, 143.00)*	*4.00 (0.24, 168.10)*	*4.47 (0.28, 190.60)*	*3.75 (0.18, 186.00)*	*5.26 (0.26, 260.60)*	1.20 (0.17, 8.47)	

Results are reported as the odds ratio (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red. Italicized results indicate very wide credible intervals.
ADA = adalimumab; BAR_4 =baricitinib 4mg; CERTO = certolizumab pegol; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN = etanercept; IV = intravenous; OR=odds ratio; RD = risk difference; RR = relative risk; SIR_100 = 100mg sirukumab; SIR_50 = 50mg sirukumab; STD = standard dose; TOC_8 = tocilizumab 8mg/kg

(as supplied by the authors)

Table 49. Staircase Table, ACR70 (Placebo+csDMARD) – Random Effects Model

	Placebo+csDMARD	ETN_STD	ETN_STD	ADA_STD	TOC_8 (IV)	CERTO_STD	BAR_4+csDMARD
Placebo+csDMARD							
ETN_STD	*12.67*						
ETN_STD+csDMARD	*14.45*	1.15					
ADA_STD+csDMARD	5.26	0.41	0.36				
TOC_8 (IV)	5.73	0.45	0.39	1.09			
CERTO_STD	8.37	0.65	0.57	1.60	1.46		
BAR_4+csDMARD	2.81	0.22	0.19	0.54	0.49	0.34	

Results are reported as the odds ratio (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red. Italicized results indicate very wide credible intervals.
ADA=adalimumab, BAR_4 = 4mg baricitinib, CERTO=certolizumab pegol, csDMARD=conventional synthetic disease-modifying anti-rheumatic drug, ETN=etanercept, IV=intravenous, OR=odds ratio, RD=risk difference, RR=relative risk, STD = standard dose, TOC_8= 8mg/kg tocilizumab

(as supplied by the authors)

Table 50. Staircase Table, DAS28 (Placebo+csDMARD) – Random Effects Model

	Placebo +csDMARD	ETN_STD	ETN_STD +csDMARD	ADA_STD +csDMARD	TOC_8 (IV)+csDMARD	INF_STD +csDMARD	BAR_4 +csDMARD	SIR_100 +csDMARD	SIR_50 +csDMARD
Placebo +csDMARD									
ETN_STD	-1.88 (-5.79, 1.98)								
ETN_STD +csDMARD	-1.53 (-4.20, 1.14)	0.34 (-3.54, 4.21)							
ADA_STD +csDMARD	-1.05 (-4.34, 2.20)	0.82 (-3.88, 5.52)	0.47 (-2.78, 3.70)						
TOC_8 (IV) +csDMARD	-1.50 (-4.47, 1.46)	0.38 (-4.49, 5.25)	0.03 (-3.94, 4.02)	-0.45 (-4.86, 4.01)					
INF_STD +csDMARD	-0.95 (-5.16, 3.27)	0.93 (-4.82, 6.71)	0.58 (-4.41, 5.57)	0.10 (-5.25, 5.45)	0.55 (-4.64, 5.73)				
BAR_4 +csDMARD	-1.49 (-5.68, 2.73)	0.39 (-5.34, 6.09)	0.04 (-4.94, 5.00)	-0.44 (-5.75, 4.89)	-0.0011 (-5.11, 5.16)	-0.54 (-6.48, 5.42)			
SIR_100 +csDMARD	-0.93 (-5.15, 3.25)	0.94 (-4.83, 6.63)	0.60 (-4.37, 5.59)	0.12 (-5.12, 5.43)	0.57 (-4.61, 5.74)	0.011 (-5.93, 5.91)	0.57 (-5.40, 6.48)		
SIR_50 +csDMARD	-1.14 (-5.40, 3.04)	0.73 (-5.01, 6.46)	0.40 (-4.59, 5.36)	-0.09 (-5.42, 5.23)	0.36 (-4.84, 5.47)	-0.19 (-6.14, 5.76)	0.35 (-5.58, 6.29)	-0.20 (-4.47, 3.95)	

Results are reported as the standardized mean difference (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red.
ADA = adalimumab; BAR_4 = 4 mg baricitinib; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN = etanercept; INF = infliximab; SIR_100 = 100 mg sirukumab; SMD = standardized mean difference; STD = standard dose; TOC_4 = 4 mg/kg tocilizumab; TOC_8 = 8 mg/kg tocilizumab; TOF = tofacitinib

(as supplied by the authors)

Table 51. Staircase Table, HAQ-DI (Placebo+csDMARD) – Random Effects Model

	Placebo+csDMARD	ETN_STD+csDMARD	TOC_8 (IV)+csDMARD	BAR_4+csDMARD	SIR_100+csDMARD	SIR_50+csDMARD
Placebo+csDMARD						
ETN_STD+csDMARD	-0.19 (-6.44, 6.13)					
TOC_8 (IV)+csDMARD	-0.63 (-6.91, 5.62)	-0.44 (-9.34, 8.44)				
BAR_4+csDMARD	-0.24 (-6.53, 6.05)	-0.05 (-8.91, 8.72)	0.40 (-8.55, 9.30)			
SIR_100+csDMARD	-0.14 (-6.35, 6.12)	0.05 (-8.84, 8.85)	0.49 (-8.29, 9.47)	0.10 (-8.76, 9.02)		
SIR_50+csDMARD	-0.37 (-6.67, 5.85)	-0.19 (-9.02, 8.69)	0.26 (-8.61, 9.07)	-0.13 (-9.10, 8.79)	-0.24 (-6.51, 6.07)	

Results are reported as the mean difference (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red.
BAR_4 = 4 mg baricitinib; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; MD = mean difference; SIR_100 = 100 mg sirukumab; SIR_50 = 50 mg sirukumab; STD = standard dose; TOC_4 = 4 mg/kg tocilizumab; TOC_8 = 8 mg/kg tocilizumab

(as supplied by the authors)

Table 52. Staircase Table, SF-36, Physical Component Score (Placebo+MTX) – Random Effects Model

	Placebo+MTX	ABA_STD (IV)+MTX	TOF_STD+ MTX	ADA_STD+ MTX	GOL_STD (SC)+MTX	GOL_STD (IV)+MTX	INF_STD+ MTX	CERTO_STD +MTX
Placebo+MTX								
ABA_STD (IV)+MTX	4.14 (2.51, 5.81)							
TOF_STD+ MTX	3.78 (2.03, 5.54)	-0.37 (-2.76, 2.03)						
ADA_STD+ MTX	3.07 (0.73, 5.45)	-1.07 (-3.93, 1.80)	-0.70 (-2.96, 1.58)					
GOL_STD (SC)+MTX	4.83 (3.03, 6.76)	0.69 (-1.73, 3.22)	1.05 (-1.47, 3.66)	1.75 (-1.21, 4.82)				
GOL_STD (IV)+MTX	3.65 (1.28, 6.00)	-0.50 (-3.42, 2.35)	-0.13 (-3.10, 2.80)	0.59 (-2.78, 3.88)	-1.18 (-4.29, 1.76)			
INF_STD+ MTX	4.58 (2.73, 6.01)	0.44 (-1.85, 2.27)	0.79 (-1.77, 2.99)	1.50 (-1.59, 4.15)	-0.27 (-2.99, 1.95)	0.92 (-2.14, 3.57)		
CERTO_STD +MTX	5.07 (3.67, 6.49)	0.91 (-1.27, 3.10)	1.27 (-0.95, 3.52)	1.99 (-0.75, 4.73)	0.22 (-2.16, 2.49)	1.40 (-1.31, 4.19)	0.46 (-1.45, 2.86)	
CT-P13+MTX	5.37 (2.22, 8.18)	1.24 (-2.18, 4.25)	1.59 (-1.99, 4.86)	2.30 (-1.67, 5.87)	0.54 (-3.23, 3.79)	1.72 (-2.21, 5.34)	0.80 (-1.66, 3.29)	0.32 (-3.16, 3.41)

Results are reported as the mean difference (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red.
ABA = abatacept; ADA = adalimumab; CERTO = certolizumab pegol; CrI = credible interval; CT-P13 = biosimilar infliximab; GOL = golimumab; INF = infliximab; MD = mean difference; STD = standard dose; TOF = tofacitinib

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Table 53. Staircase Table, SF-36, Mental Component Score (Placebo+MTX) – Random Effects Model

	Placebo+MTX	ABA_STD (IV)+MTX	TOF_STD + MTX	ADA_STD+ MTX	GOL_STD (SC)+MTX	GOL_STD (IV)+MTX	INF_STD + MTX	CERTO_STD +MTX
Placebo+MTX								
ABA_STD (IV)+MTX	2.72 (0.41, 5.89)							
TOF_STD + MTX	2.79 (0.35, 5.54)	0.04 (-3.86, 3.58)						
ADA_STD + MTX	2.43 (-1.16, 6.11)	-0.32 (-5.15, 3.89)	-0.35 (-4.06, 3.04)					
GOL_STD (SC)+MTX	1.85 (-1.23, 4.93)	-0.92 (-5.35, 2.89)	-0.95 (-5.13, 2.93)	-0.60 (-5.35, 4.14)				
GOL_STD (IV)+MTX	5.88 (2.18, 9.71)	3.15 (-1.84, 7.42)	3.10 (-1.63, 7.54)	3.45 (-1.74, 8.72)	4.05 (-0.78, 8.89)			
INF_STD + MTX	2.16 (-1.56, 6.26)	-0.61 (-4.62, 3.15)	-0.64 (-5.29, 4.07)	-0.29 (-5.44, 5.23)	0.32 (-4.53, 5.44)	-3.72 (-9.00, 1.88)		
CERTO_STD +MTX	3.60 (1.35, 5.83)	0.89 (-3.06, 4.01)	0.82 (-2.79, 4.00)	1.17 (-3.09, 5.37)	1.76 (-2.02, 5.50)	-2.29 (-6.72, 2.03)	1.45 (-3.29, 5.74)	
CT-P13+MTX	2.08 (-3.23, 7.79)	-0.69 (-6.34, 4.68)	-0.70 (-6.81, 5.37)	-0.35 (-6.76, 6.38)	0.22 (-5.91, 6.70)	-3.81 (-10.34, 3.00)	-0.08 (-3.97, 3.85)	-1.52 (-7.24, 4.63)

Results are reported as the mean difference (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red.
ABA = abatacept; ADA = adalimumab; CERTO = certolizumab pegol; CrI = credible interval; CT-P13 = biosimilar infliximab; GOL = golimumab; INF = infliximab; MD = mean difference; STD = standard dose; TOF = tofacitinib

(as supplied by the authors)

Table 54. Staircase Table, Fatigue (Placebo+MTX) – Random Effects Model

	Placebo+ MTX	ETN_STD+ MTX	ABA_STD (IV)+ MTX	TOF_STD+ MTX	ADA_STD+ MTX	TOC_4 (IV)+ MTX	TOC_8 (IV)+ MTX	GOL_STD (SC)+ MTX	GOL_STD (IV)+ MTX	CERTO_ STD+ MTX	SAR_150+ MTX	SAR_200+ MTX
Placebo+MTX												
ETN_STD+MTX	0.47 (-0.64,1.58)											
ABA_STD (IV)+MTX	0.43 (-0.67,1.53)	-0.04 (-1.61,1.52)										
TOF_STD+MTX	0.58 (0.01,1.30)	0.11 (-1.09,1.46)	0.14 (-1.05,1.51)									
ADA_STD+MTX	0.39 (-0.21,1.05)	-0.09 (-1.33,1.22)	-0.05 (-1.29,1.26)	-0.19 (-1.03,0.56)								
TOC_4 (IV)+MTX	0.28 (-0.83,1.38)	-0.19 (-1.76,1.36)	-0.15 (-1.72,1.39)	-0.30 (-1.66,0.89)	-0.10 (-1.41,1.12)							
TOC_8 (IV)+MTX	0.37 (-0.75,1.47)	-0.11 (-1.69,1.45)	-0.07 (-1.63,1.49)	-0.21 (-1.58,0.98)	-0.02 (-1.33,1.21)	0.09 (-1.02,1.20)						
GOL_STD (SC)+MTX	0.54 (-0.25,1.33)	0.07 (-1.29,1.41)	0.11 (-1.25,1.46)	-0.04 (-1.14,0.92)	0.15 (-0.89,1.14)	0.26 (-1.09,1.63)	0.17 (-1.17,1.54)					
GOL_STD (IV)+MTX	0.52 (-0.59,1.63)	0.05 (-1.52,1.63)	0.08 (-1.48,1.64)	-0.06 (-1.42,1.15)	0.13 (-1.17,1.38)	0.24 (-1.32,1.82)	0.15 (-1.40,1.71)	-0.02 (-1.37,1.33)				
CERTO_STD+ MTX	1.25 (0.17,2.36)	0.78 (-0.78,2.34)	0.82 (-0.73,2.38)	0.67 (-0.67,1.88)	0.87 (-0.43,2.11)	0.97 (-0.57,2.52)	0.88 (-0.64,2.46)	0.71 (-0.64,2.08)	0.73 (-0.81,2.31)			
SAR_150+MTX	0.45 (-0.65,1.55)	-0.03 (-1.59,1.54)	0.01 (-1.54,1.58)	-0.13 (-1.48,1.08)	0.06 (-1.23,1.30)	0.17 (-1.39,1.74)	0.08 (-1.47,1.66)	-0.09 (-1.44,1.27)	-0.07 (-1.63,1.48)	-0.80 (-2.37,0.74)		
SAR_200+MTX	0.54 (-0.56,1.65)	0.07 (-1.49,1.62)	0.11 (-1.45,1.66)	-0.03 (-1.39,1.17)	0.16 (-1.15,1.40)	0.26 (-1.28,1.83)	0.17 (-1.37,1.75)	0.004 (-1.36,1.35)	0.03 (-1.55,1.59)	-0.71 (-2.27,0.83)	0.10 (-1.00,1.20)	

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HD203+MTX	0.56 (-1.02,2.14)	0.08 (-1.04,1.22)	0.12 (-1.81,2.06)	-0.02 (-1.80,1.62)	0.17 (-1.56,1.85)	0.28 (-1.64,2.22)	0.19 (-1.73,2.13)	0.02 (-1.75,1.78)	0.04 (-1.89,1.96)	-0.69 (-2.61,1.20)	0.11 (-1.80,2.03)	0.01 (-1.91,1.95)

Results are reported as the standardized mean difference (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red.
ADA = adalimumab; CERTO = certolizumab pegol; CrI = credible interval; ETN = etanercept; GOL = golimumab; HD203 = biosimilar etanercept; IV = intravenous; MTX = methotrexate; SAR_200 = 200 mg sarilumab; SC = subcutaneous; SMD = standardized mean difference; STD = standard dose; TOF = tofacitinib; TOC_4 = 4 mg/kg tocilizumab; TOC_8 = 8 mg/kg tocilizumab

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Table 55. Staircase Table, Radiographic Progression (Placebo+MTX) – Random Effects Model

	Placebo+MTX	csDMARD+MTX	MTX+SSZ+HCQ	ETN_STD	ETN_STD+MTX	INF_STD+MTX	CT-P13+MTX
Placebo+MTX							
csDMARD+MTX	-0.25 (-6.03, 5.52)						
MTX+SSZ+HCQ	-0.27 (-6.02, 5.48)	-0.01 (-5.85, 5.90)					
ETN_STD	-0.23 (-4.15, 3.67)	0.03 (-5.15, 5.18)	0.04 (-5.11, 5.22)				
ETN_STD+MTX	-0.41 (-4.33, 3.53)	-0.16 (-4.36, 4.09)	-0.14 (-4.32, 4.00)	-0.18 (-3.15, 2.81)			
INF_STD+MTX	-0.68 (-4.85, 3.46)	-0.43 (-7.56, 6.71)	-0.41 (-7.48, 6.62)	-0.45 (-6.13, 5.23)	-0.27 (-5.99, 5.46)		
CT-P13+MTX	-0.61 (-6.56, 5.26)	-0.36 (-8.54, 7.88)	-0.35 (-8.57, 7.88)	-0.39 (-7.42, 6.64)	-0.20 (-7.25, 6.85)	0.07 (-4.14, 4.26)	

Results are reported as the mean difference (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red.
CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; CT-P13 = biosimilar infliximab; ETN = etanercept; HCQ = hydroxychloroquine; INF = infliximab; MTX = methotrexate; SMD = standardized mean difference; SSZ = sulfasalazine; STD = standard dose

(as supplied by the authors)

Table 56. Staircase Table, Serious Adverse Events (Placebo+csDMARD) – Random Effects Model

	Placebo+csDMARD	ADA_STD+csDMARD	ETN_STD	ETN_STD+csDMARD	TOC_8 (IV)+csDMARD	BAR_4+csDMARD
Placebo+csDMARD						
ADA_STD +csDMARD	2.17 (0.55, 11.04)					
ETN_STD	1.26 (0.19, 8.74)	0.58 (0.07, 3.89)				
ETN_STD +csDMARD	2.35 (0.67, 9.82)	1.07 (0.32, 3.61)	1.84 (0.39, 10.80)			
TOC_8 (IV) +csDMARD	1.44 (0.53, 4.06)	0.67 (0.10, 3.79)	1.15 (0.13, 10.24)	0.62 (0.11, 3.09)		
BAR_4+csDMARD	0.22 (0.02, 1.13)	0.10 (0.01, 0.87)	0.16 (0.01, 2.26)	0.09 (0.01, 0.75)	0.15 (0.01, 1.02)	

Results are reported as the odds ratio (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red.
ADA = adalimumab; BAR_4 = 4 mg baricitinib; CrI = credible interval; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN = etanercept; IV = intravenous; OR = odds ratio; RD = risk difference; RR = relative risk; STD = standard dose; TOC_8 = 8mg/kg tocilizumab

(as supplied by the authors)

Table 57. Staircase Table, Withdrawals due to Adverse Events (Placebo+csDMARD) – Random Effects Model

	PLACEBO +csDMARD	ETN_STD	ETN_STD +csDMARD	ADA_STD +csDMARD	TOC_8 (IV) +csDMARD	CERTO_STD +csDMARD	BAR_4 +csDMARD
PLACEBO +csDMARD							
ETN_STD	3.46 (1.07, 13.18)						
ETN_STD +csDMARD	1.65 (0.53, 6.03)	0.48 (0.18, 1.29)					
ADA_STD +csDMARD	1.16 (0.24, 6.08)	0.33 (0.08, 1.39)	0.70 (0.24, 1.95)				
TOC_8 (IV) +csDMARD	1.95 (0.98, 4.05)	0.56 (0.12, 2.25)	1.18 (0.27, 4.64)	1.68 (0.28, 9.60)			
CERTO_STD +csDMARD	1.47 (0.52, 4.78)	0.43 (0.08, 2.21)	0.90 (0.17, 4.37)	1.29 (0.18, 8.45)	0.75 (0.21, 2.96)		
BAR_4+csDMARD	1.00 (0.30, 3.28)	0.28 (0.05, 1.53)	0.59 (0.10, 3.04)	0.86 (0.11, 5.98)	0.51 (0.12, 2.00)	0.67 (0.13, 3.34)	

Results are reported as the odds ratio (95% credible interval). Results are interpreted by reading across the rows with the comparator in the column. Statistically significant results in favour of the treatment are highlighted in green. Statistically significant results in favour of the comparator are highlighted in red.
ADA = adalimumab; BAR_4 = 4mg baricitinib; CrI = credible interval; CERTO = certolizumab pegol; csDMARD = conventional synthetic disease-modifying anti-rheumatic drug; ETN = etanercept; IV = intravenous; OR = odds ratio; RD = risk difference; RR = relative risk; STD = standard dose; TOC_8 = 8mg/kg tocilizumab