

Supplementary File 1- Search strategy for final systematic review, divided by database**Full-length articles**

- 1) *Database: Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily <1946 to March 16, 2021>*

Search Strategy:

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- 1 exp Arthritis, Rheumatoid/ (115118)
 - 2 rheumatoid arthritis.mp. (109575)
 - 3 (ra and (musculoskeletal or rheumatic)).mp. (5097)
 - 4 or/1-3 (152263)
 - 5 exp socioeconomic factors/ or economic factors/ or economic status/ or poverty/ or poverty areas/ or social class/ or social mobility/ or social factors/ (462857)
 - 6 Hierarchy, Social/ (2240)
 - 7 social conditions/ or social environment/ (52456)
 - 8 (socioeconomic or socio-economic or SES or sociodemographic or socio-demographic or social factor\$ or sociological factor\$ or social class or working class or social hierarchy or social mobility or social deprivation or socially deprived or deprived area\$ or economic status or poverty or poorer household\$ or household income\$).mp. (396529)
 - 9 (social position or position in society or low\$ income\$ or social standing or social prestige).mp. (46597)
 - 10 (social conditions or social environment\$).mp. (61792)
 - 11 or/5-10 (679633)
 - 12 4 and 11 (1870)
 - 13 (disease activity or clinical disease activity index or CDAI or simple disease activity index or SDAI).mp. (46153)
 - 14 (disease activity scor\$ or DAS 28 or DAS28).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (7645)
 - 15 (eular or eular response or American College of Rheumatology response or ACR response).mp. (3003)
 - 16 exp Inflammation/ (351775)
 - 17 Inflammation.mp. (561437)
 - 18 remission.mp. (157347)
 - 19 refractory.mp. (135039)

- 20 difficult-to-treat.mp. (13469)
- 21 (resistant adj2 (disease or rheumatoid arthritis)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (4618)
- 22 (ra and resistant and (musculoskeletal or rheumatic)).mp. (71)
- 23 D2T RA.mp. (6)
- 24 exp "Severity of Illness Index"/ (261021)
- 25 (severity adj2 (disease or illness)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (298417)
- 26 (burden adj2 disease).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (26600)
- 27 or/13-26 (1348337)
- 28 12 and 27 (596)

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2) Database: Embase <1974 to 2021 March 16>

Search Strategy:

Search Strategy:

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- 1 exp rheumatoid arthritis/ (208465)
 - 2 rheumatoid arthritis.mp. (227316)
 - 3 (ra and (musculoskeletal or rheumatic)).mp. (17293)
 - 4 or/1-3 (232493)
 - 5 socioeconomics/ (144900)
 - 6 economic aspect/ (115189)
 - 7 economic status/ or household economic status/ (1394)
 - 8 poverty/ (48313)
 - 9 social status/ or social background/ or social class/ (123446)
 - 10 social aspect/ (78557)

- 11 lowest income group/ or income group/ or working poor/ (30055)
- 12 social hierarchy/ (495)
- 13 social environment/ (34152)
- 14 (socioeconomic or socio-economic or SES or sociodemographic or socio-demographic or social factor\$ or sociological factor\$ or social class or working class or social hierarchy or social mobility or social deprivation or socially deprived or deprived area\$ or economic status or poverty or poorer household\$ or household income\$).mp. (370319)
- 15 (social position or position in society or low\$ income\$ or social standing or social prestige).mp. (69540)
- 16 (social conditions or social environment\$).mp. (43715)
- 17 or/5-16 (714802)
- 18 4 and 17 (3975)
- 19 disease activity/ or disease activity score/ (84211)
- 20 (disease activity or clinical disease activity index or CDAI or simple disease activity index or SDAI).mp. (130599)
- 21 (disease activity scor\$ or DAS 28 or DAS28).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] (29109)
- 22 (eular or eular response or American College of Rheumatology response or ACR response).mp. (10979)
- 23 inflammation/ (462923)
- 24 Inflammation.mp. (965475)
- 25 remission/ (216300)
- 26 remission.mp. (311526)
- 27 refractory.mp. (224608)
- 28 difficult-to-treat.mp. (20915)
- 29 (resistant adj2 (disease or rheumatoid arthritis)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] (6913)
- 30 (ra and resistant and (musculoskeletal or rheumatic)).mp. (253)
- 31 D2T RA.mp. (6)
- 32 disease severity/ (593031)
- 33 (severity adj2 (disease or illness)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] (660943)

34 (burden adj2 disease).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] (57419)

35 or/20-34 (2193394)

36 18 and 35 (1619)

37 conference.pt. (4840516)

38 36 not 37 (822) *Number of references left when conference abstracts removed.*

39 36 not 38 (797) *Number of conference abstracts (i.e. 1619 minus 822 = 797)*

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3) *Database: Cochrane Databases (Systematic Reviews, Register of Controlled Clinical Trials, Methodology Register) (Date run: 17/03/2021 14:50:57)*

ID	Search	Hits
#1	MeSH descriptor: [Arthritis, Rheumatoid] explode all trees	6170
#2	"rheumatoid arthritis"	16366
#3	ra and (musculoskeletal or rheumatic)	3630
#4	#1 or #2 or #3	17694
#5	MeSH descriptor: [Socioeconomic Factors] explode all trees	9898
#6	MeSH descriptor: [Economic Factors] this term only	0
#7	MeSH descriptor: [Economic Status] this term only	2
#8	MeSH descriptor: [Poverty] this term only	1480
#9	MeSH descriptor: [Poverty Areas] this term only	280
#10	MeSH descriptor: [Social Class] this term only	647
#11	MeSH descriptor: [Social Mobility] this term only	5
#12	MeSH descriptor: [Social Factors] this term only	0
#13	MeSH descriptor: [Hierarchy, Social] this term only	15
#14	MeSH descriptor: [Social Conditions] this term only	21
#15	MeSH descriptor: [Social Environment] this term only	889
#16	socioeconomic or socio-economic or SES or sociodemographic or socio-demographic or social NEXT factor* or sociological NEXT factor* or "social class" or "working class" or "social hierarchy" or "social mobility" or "social deprivation" or "socially deprived" or deprived NEXT area* or "economic status" or poverty or poorer NEXT household* or household NEXT income*	19472

- #17 "social position" or "position in society" or low* NEXT income* or "social standing" or "social prestige" 6153
- #18 "social conditions" or social NEXT environment* 1674
- #19 #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 28782
- #20 #4 and #19 286
- #21 "disease activity" or "clinical disease activity index" or CDAI or "simple disease activity index" or SDAI 13068
- #22 disease activity NEXT scor* or "DAS 28" or DAS28 8330
- #23 eular or "eular response" or "American College of Rheumatology response" or "ACR response" 4767
- #24 MeSH descriptor: [Inflammation] explode all trees 11246
- #25 Inflammation 43945
- #26 remission 34511
- #27 refractory 19080
- #28 difficult-to-treat 1852
- #29 resistant NEAR/2 (disease or rheumatoid arthritis) 533
- #30 ra and resistant and (musculoskeletal or rheumatic) 38
- #31 "D2T RA" 0
- #32 MeSH descriptor: [Severity of Illness Index] explode all trees 20203
- #33 severity NEAR/2 (disease or illness) 43636
- #34 burden NEAR/2 disease 2851
- #35 #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 150958
- #36 #20 and #35 184
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4) Database: International HTA database (Date run: 17/03/2021)

(burden AND disease)

OR

(severity AND (disease or illness))

OR

("Severity of Illness Index"[mh])

OR

(D2T RA)

OR

(ra AND resistant AND (musculoskeletal or rheumatic))

OR

(resistant AND (disease or rheumatoid arthritis))

OR

(difficult-to-treat)

OR

(refractory)

OR

(remission)

OR

(Inflammation)

OR

("Inflammation"[mhe])

OR

(eular or eular response or American College of Rheumatology response or ACR response)

OR

(disease activity scor* or DAS 28 or DAS28)

OR

(disease activity or clinical disease activity index or CDAI or simple disease activity index or SDAI)

AND

(social conditions or social environment*)

OR

(social position or position in society or low* income* or social standing or social prestige)

OR

(socioeconomic or socio-economic or SES or sociodemographic or socio-demographic or social factor* or sociological factor* or social class or working class or social hierarchy or social mobility or social deprivation or socially deprived or deprived area* or economic status or poverty or poorer household* or household income*)

OR

("Social Environment"[mh])

OR

("Social Conditions"[mh])

OR

("Hierarchy, Social"[mh])

OR

("Social Mobility"[mh])

OR

("Social Class"[mh])

OR

("Poverty Areas"[mh])

OR

("Poverty"[mh])

OR

("Economic Status"[mh])

OR

("Socioeconomic Factors"[mhe]))

AND

(ra and (musculoskeletal or rheumatic))

OR

(rheumatoid arthritis)

OR

("Arthritis, Rheumatoid"[mhe])

Total number retrieved 102 refs

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5) *Database: APA PsycInfo <1967 to March Week 2 2021>*

Search Strategy:

- 1 rheumatoid arthritis/ (1928)
- 2 rheumatoid arthritis.mp. (2868)
- 3 (ra and (musculoskeletal or rheumatic)).mp. (69)
- 4 or/1-3 (2871)
- 5 exp socioeconomic factors/ (84275)

- 6 socioeconomic status/ or family socioeconomic level/ or lower class/ or social class/ (36429)
- 7 social class/ or disadvantaged/ or lower class/ (15818)
- 8 income level/ or lower income level/ or financial strain/ (18258)
- 9 exp poverty/ or economic disadvantage/ or social disadvantage/ (11193)
- 10 poverty areas/ (614)
- 11 social environments/ (7385)
- 12 (socioeconomic or socio-economic or SES or sociodemographic or socio-demographic or social factor\$ or sociological factor\$ or social class or working class or social hierarchy or social mobility or social deprivation or socially deprived or deprived area\$ or economic status or poverty or poorer household\$ or household income\$).mp. (168694)
- 13 (social position or position in society or low\$ income\$ or social standing or social prestige).mp. (29325)
- 14 (social conditions or social environment\$).mp. (43453)
- 15 or/5-14 (259638)
- 16 4 and 15 (173)
- 17 (disease activity or clinical disease activity index or CDAI or simple disease activity index or SDAI).mp. (1519)
- 18 (disease activity scor\$ or DAS 28 or DAS28).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (97)
- 19 (eular or eular response or American College of Rheumatology response or ACR response).mp. (16)
- 20 inflammation/ (10383)
- 21 Inflammation.mp. (21257)
- 22 symptom remission/ (544)
- 23 remission.mp. (15436)
- 24 refractory.mp. (9460)
- 25 difficult-to-treat.mp. (1838)
- 26 (resistant adj2 (disease or rheumatoid arthritis)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (74)
- 27 (ra and resistant and (musculoskeletal or rheumatic)).mp. (0)
- 28 D2T RA.mp. (0)
- 29 "severity (disorders)"/ (18849)
- 30 (severity adj2 (disease or illness)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (9280)

31 (burden adj2 disease).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh] (3468)

32 or/17-31 (75961)

33 16 and 32 (46)

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