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Online supplementary file 1: search terms

Clinical utility:

General search
- *Medline:*
("Antibodies, Monoclonal/blood"[Mesh] OR "Drug Monitoring"[Mesh]) AND ("Spondylarthritis"[Mesh] OR "Arthritis, Rheumatoid"[Mesh]) AND ((English[lang] OR French[lang]) AND "adult"[MeSH Terms])

- *Embase:*
('rheumatoid arthritis'/exp OR 'psoriatic arthritis'/exp OR 'spondylitis'/exp) AND ('drug monitoring'/exp OR 'drug blood level'/de OR 'drug concentration'/exp) AND ([adult]/lim OR [aged]/lim OR [middle aged]/lim OR [very elderly]/lim OR [young adult]/lim)

- *PubMed:*
(("adult"[MeSH Terms] OR "adult"[All Fields]) AND (((("elisa test"[All Fields] OR "serum level"[All Fields]) OR "drug level"[All Fields]) OR "drug monitoring"[All Fields]) AND (("psoriatic arthritis"[All Fields] OR ("spondylarthritis"[MeSH Terms] OR "spondylarthritis"[All Fields] OR "spondyloarthritis"[All Fields])) OR "rheumatoid arthritis"[All Fields])) AND (English[lang] OR French[lang]))) AND (English[lang] OR French[lang])) OR ((("Antibodies, Monoclonal/blood"[Mesh] OR "Drug Monitoring"[Mesh]) AND ("Spondylarthritis"[Mesh] OR "Arthritis, Rheumatoid"[Mesh])) AND ((English[lang] OR French[lang]) AND "adult"[MeSH Terms])) AND (English[lang] OR French[lang])

Research question (6 and 8, see box 1.) specific search
- *Medline:*
1   Arthritis, Rheumatoid/ (97456)
2   "rheumatoid arthritis".mp. (103345)
3   Arthritis, Psoriatic/ (5816)
4   (psoria* adj2 arthritis).tw. (9150)
5   (psoria* adj2 arthropath*).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] (563)
6   Spondylitis, Ankylosing/ (14400)
7   (ankylosing adj2 spondyl*).mp. (18687)
8   (axial adj2 SpA).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] (487)
9   (peripher* adj2 spa).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] (153)
10   nr-axSpA.mp. (158)
11   (axial adj2 spondyl*).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] (1392)
12   (inflammatory adj2 arthropath*).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] (744)

13   "inflammatory joint disease".mp. (885)

14   ankylopoetica.mp. (212)

15   (non-radiographic adj2 spondyl*).mp. (159)

16   Spondylarthritis/ (2196)

17   exp Spondylarthropathies/ (23528)

18   Spondylarthr*.mp. (5052)

19   exp Biological Therapy/ (656510)

20   (biologic* adj2 therap*).mp. (12066)

21   (biologic* adj2 drug*).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] (4721)

22   (biologic* adj2 agent*).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] (14746)

23   biopharmaceutic*.mp. (9198)

24   Biopharmaceutics/ (2671)

25   "biologic disease modifying".mp. (463)

26   bDMARD*.mp. (525)

27   Tumor Necrosis Factor-alpha/ (122048)

28   Tumor Necrosis Factor.mp. (189862)

29   TNF*.mp. (203007)

30   exp Antibodies, Monoclonal, Humanized/ (51884)

31   (Humanized adj2 Antibod*).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] (37057)

32   factor-alpha.mp. (179941)

33   adalimumab.mp. or Adalimumab/ (8006)

34   etanercept.mp. or Etanercept/ (8335)

35   infliximab.mp. or Infliximab/ (14370)

36   Certolizumab Pegol/ or certolizumab.mp. (1220)

37   golimumab.mp. (1151)

38   tocilizumab.mp. (2840)

39   rituximab.mp. or Rituximab/ (22217)

40   secukinumab.mp. (926)

41   abatacept.mp. or Abatacept/ (3610)

42   anakinra.mp. or Interleukin 1 Receptor Antagonist Protein/ (5758)

43   sarilumab.mp. (94)

44   ixekizumab.mp. (452)

45   Ustekinumab.mp. or Ustekinumab/ (1788)

46   "therapeutic drug monitoring".mp. or Drug Monitoring/ (24237)

47   "TDM".mp. (3100)

48   (drug adj2 measur*).mp. (4826)

49   (measur* adj2 antibod*).mp. (7998)

50   (serum adj2 concentration*).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] (106595)

51   "trough".mp. (17362)

52   (plasma adj2 concentration*).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] (139762)

53   "drug level".mp. (1484)

54   (drug* adj2 concentration*).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] (26175)

55   (pharmacokinetic* adj2 measur*).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] (1083)

56   Immunogenicity.mp. (36467)

57   (antibod* adj2 level).tw. (4992)

58   (measure* adj2 antibod*).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] (7035)

59   (tailor* adj2 treatment*).tw. (5288)

60   (monitor* adj2 drug*).tw. (13947)

61   exp Precision Medicine/ or "personalised medicine".mp. (17118)

62   1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 (157526)

63   19 or 20 or 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 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 (1023311)

64   46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 (373900)

65   62 and 63 and 64 (1169)

- Embase:

1   exp rheumatoid arthritis/ (185932)

2   rheumatoid arthritis.mp. (202450)

3   exp psoriatic arthritis/ (21725)

4   psoriatic arthritis.mp. (23421)

5   (psoria* adj2 arthrit*).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] (24595)

6   (psoria* adj2 arthropath*).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] (647)

7   exp ankylosing spondylitis/ (24530)

8   (ankylosing adj2 spondyl*).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] (29500)

9   (axial adj2 SpA).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] (1492)

10   (peripher* adj2 spa).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] (454)

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11   nr-axSpA.mp. (684)

12   (axial adj2 spondyl*).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] (3715)

13   (inflammatory adj2 arthropath*).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] (1154)

14   inflammatory joint disease.mp. (1356)

15   ankylopoetica.mp. (46)

16   (non-radiographic adj2 spondyl*).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] (513)

17   exp spondylarthritis/ (7482)

18   exp spondyloarthropathy/ (26005)

19   Spondylarthr*.mp. (9513)

20   1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 (242739)

21   exp biological therapy/ (1529958)

22   (biologic* adj2 therap*).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] (26733)

23   biopharmaceutic*.mp. (11374)

24   (drug adj2 therap*).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] (4196027)

25   exp pharmaceutics/ (1301983)

26   biologic disease modifying.mp. (1133)

27   bDMARD*.mp. (2150)

28   exp tumor necrosis factor/ (119050)

29   Tumor Necrosis Factor-alpha.mp. (226674)

30   TNF*.mp. (286397)

31   exp monoclonal antibody/ (547631)

32   Antibodies, Monoclonal, Humanized.mp. (31)

33   (Humanized adj2 Antibod*).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] (6518)

34   factor-alpha.mp. (249339)

35   exp adalimumab/ (32018)

36   adalimumab.mp. (32695)

37   exp etanercept/ (30502)

38   etanercept.mp. (31358)

39   exp infliximab/ (48807)

40   infliximab.mp. (49852)

41   exp certolizumab pegol/ (6254)

42   Certolizumab Pegol.mp. (6336)

43   exp golimumab/ (6521)

44   golimumab.mp. (6669)

45   exp tocilizumab/ (10799)

46   tocilizumab.mp. (11248)

47   exp rituximab/ (75308)

48   rituximab.mp. (78754)

49   exp secukinumab/ (3120)

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50   secukinumab.mp. (3214)
51   exp abatacept/ (8889)
52   abatacept.mp. (9094)
53   exp anakinra/ (1994)
54   anakinra.mp. (4809)
55   exp interleukin 1 receptor blocking agent/ (13125)
56   Interleukin 1 Receptor Antagonist Protein.mp. (154)
57   exp sarilumab/ (447)
58   sarilumab.mp. (464)
59   exp ixekizumab/ (1469)
60   ixekizumab.mp. (1514)
61   exp ustekinumab/ (6282)
62   Ustekinumab.mp. (6451)
63   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 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 (6597742)
64   exp drug monitoring/ (51014)
65   therapeutic drug monitoring.mp. (12328)
66   TDM.mp. (5759)
67   (drug adj2 measur*).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] (6530)
68   (measur* adj2 antibod*).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] (9825)
69   (serum adj2 concentration*).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] (126533)
70   (plasma adj2 concentration*).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] (196371)
71   drug level.mp. (2286)
72   exp drug concentration/ (260168)
73   (drug* adj2 concentration*).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] (236319)
74   (pharmacokinetic* adj2 measur*).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] (1356)
75   exp immunogenicity/ (59572)
76   Immunogenicity.mp. (71514)
77   exp personalized medicine/ (39292)
78   personalised medicine.mp. (1990)
79   exp algorithm/ (278576)
80   Algorithm*.mp. (403211)
81   drug antibody/ (4343)
82   anti-drug-antibod*.mp. (2147)
83   exp antibody/ (1140687)
84   Antibodies.mp. (598135)
85   ADAb.mp. (171)
86   64 or 65 or 66 or 67 (61938)
87   77 or 78 (39983)

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88   68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 79 or 80 or 81 or 82 or 83 or 84 (2314756)
89   20 and 63 and 86 and 88 (574)
90   87 and 89 (17)
91   20 and 63 and 86 (928)
92   exp immunoglobulin class switching/ (308)
93   switching.mp. (71297)
94   (switching adj2 class).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] (2224)
95   (treatment adj2 change*).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] (30843)
96   tapering.mp. (10332)
97   discontinu*.mp. (190857)
98   92 or 93 or 94 or 95 or 96 or 97 (295875)
99   91 and 98 (86)
100   exp treatment response/ (249408)
101   (treatment adj respon*).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] (270692)
102   exp remission/ (180136)
103   remission.mp. (263677)
104   induction phase.mp. (3746)
105   maintenance phase.mp. (4619)
106   adverse event/ (36450)
107   adverse event.mp. (79047)
108   adverse effect.mp. (40959)
109   flare.mp. (19431)
110   100 or 101 or 102 or 103 or 104 or 105 or 106 or 107 or 108 or 109 (644027)
111   99 and 110 (37)
112   91 and 110 (204)
113   exp treatment outcome/ (1581233)
114   treatment outcome.mp. (850706)
115   exp treatment response/ (249408)
116   treatment response.mp. (266360)
117   exp disease activity/ (515081)
118   disease activity.mp. (116586)
119   eular.mp. (9256)
120   ACR-response.mp. (529)
121   exp DAS28/ (9900)
122   DAS28.mp. (16838)
123   SDAI.mp. (2028)
124   CDAI.mp. (5281)
125   DAPSA.mp. (416)
126   PASDAS.mp. (110)
127   exp Ankylosing Spondylitis Disease Activity Score/ (1728)
128   ASDAS.mp. (1614)
129   exp Bath ankylosing spondylitis disease activity index/ (4115)
130   BASDAI.mp. (4455)
131   ASAS.mp. (3202)
132   113 or 114 or 115 or 116 or 117 or 118 or 119 or 120 or 121 or 122 or 123 or 124 or 125 or 126 or 127 or 128 or 129 or 130 or 131 (2239852)

133   89 and 98 and 110 and 132 (29)
134   91 and 132 (382)
135   20 and 63 and 132 (45209)

Technical aspects:

Different searches by clusters were performed for each method comparison:

Cluster 1: ELISA vs. HMSA

Search 1: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Antibodies, Monoclonal"[Mesh]

Search 2: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Biological Products"[Mesh]

Search 3: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Drug Monitoring"[Mesh]

Search 4: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Infliximab"[Mesh]

Search 5: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Adalimumab"[Mesh]

Search 6: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Etanercept"[Mesh]

Search 7: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Certolizumab Pegol"[Mesh]

Search 8: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "golimumab" [Supplementary Concept]

Search 9: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "tocilizumab" [Supplementary Concept]

Search 10: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "sarilumab" [Supplementary Concept]

Search 11: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Ustekinumab"[Mesh]

Search 12: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "secukinumab" [Supplementary Concept]

Search 13: (((Homogeneous mobility shift assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Rituximab"[Mesh]

Cluster 2: ELISA vs. Point of care methods

Search 1: ((((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Antibodies, Monoclonal"[Mesh]

Search 2: ((((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Biological Products"[Mesh]

Search 3: ((((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Drug Monitoring"[Mesh]

Search 4: ((((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Infliximab"[Mesh]

Search 5: ((((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Adalimumab"[Mesh]

Search 6: ((((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Etanercept"[Mesh]

Search 7: ((((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Certolizumab Pegol"[Mesh]

Search 8: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "golimumab" [Supplementary Concept]

Search 9: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "tocilizumab" [Supplementary Concept]

Search 10: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "sarilumab" [Supplementary Concept]

Search 11: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Ustekinumab"[Mesh]

Search 12: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "secukinumab" [Supplementary Concept]

Search 13: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method)) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Rituximab"[Mesh]

Cluster 3: ELISA vs. RGA

Search 1: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Antibodies, Monoclonal"[Mesh]

Search 2: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Biological Products"[Mesh]

Search 3: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Drug Monitoring"[Mesh]

Search 4: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Infliximab"[Mesh]

Search 5: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Adalimumab"[Mesh]

Search 6: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Etanercept"[Mesh]

Search 7: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Certolizumab Pegol"[Mesh]

Search 8: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "golimumab" [Supplementary Concept]

Search 9: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "tocilizumab" [Supplementary Concept]

Search 10: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "sarilumab" [Supplementary Concept]

Search 11: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Ustekinumab"[Mesh]

Search 12: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "secukinumab" [Supplementary Concept]

Search 13: (((reporter gene assay) AND "Enzyme-Linked Immunosorbent Assay"[Mesh])) AND "Rituximab"[Mesh]

Cluster 4: ELISA vs. RIA

Search 1: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND"Antibodies, Monoclonal"[Mesh]

Search 2: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Biological Products"[Mesh]

Search 3: ((((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Drug Monitoring"[Mesh])

Search 4: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Infliximab"[Mesh]

Search 5: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Adalimumab"[Mesh]

Search 6: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Etanercept"[Mesh]

Search 7: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Certolizumab Pegol"[Mesh]

Search 8: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "golimumab" [Supplementary Concept]

Search 9: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "tocilizumab" [Supplementary Concept]

Search 10: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "sarilumab" [Supplementary Concept]

Search 11: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Ustekinumab"[Mesh]

Search 12: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "secukinumab" [Supplementary Concept]

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Search 13: (((("Radioimmunoassay"[Mesh]) AND "Enzyme-Linked Immunosorbent Assay"[Mesh]))) AND "Rituximab"[Mesh]

Cluster 5: Point of care methods vs. HMSA

Search 1: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Antibodies, Monoclonal"[Mesh]

Search 2: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Biological Products"[Mesh]

Search 3: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Drug Monitoring"[Mesh])

Search 4: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Infliximab"[Mesh]

Search 5: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Adalimumab"[Mesh]

Search 6: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Etanercept"[Mesh]

Search 7: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Certolizumab Pegol"[Mesh]

Search 8: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "golimumab" [Supplementary Concept]

Search 9: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "tocilizumab" [Supplementary Concept]

Search 10: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "sarilumab" [Supplementary Concept]

Search 11: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Ustekinumab"[Mesh]

Search 12: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "secukinumab" [Supplementary Concept]

Search 13: (((("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Rituximab"[Mesh]

Cluster 6: RGA vs. HMSA

Search 1: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "Antibodies, Monoclonal"[Mesh]

Search 2: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "Biological Products"[Mesh]

Search 3: (((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "Drug Monitoring"[Mesh])

Search 4: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "Infliximab"[Mesh]

Search 5: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "Adalimumab"[Mesh]

Search 6: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "Etanercept"[Mesh]

Search 7: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "Certolizumab Pegol"[Mesh]

Search 8: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "golimumab" [Supplementary Concept]

Search 9: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "tocilizumab" [Supplementary Concept]

Search 10: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "sarilumab" [Supplementary Concept]

Search 11: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "Ustekinumab"[Mesh]

Search 12: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "secukinumab" [Supplementary Concept]

Search 13: ((((reporter gene assay) AND (Homogeneous mobility shift assay)))) AND "Rituximab"[Mesh]

Cluster 7: RGA vs. Point of care methods

Search 1: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Antibodies, Monoclonal"[Mesh]

Search 2: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Biological Products"[Mesh]

Search 3: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Drug Monitoring"[Mesh])

Search 4: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Infliximab"[Mesh]

Supplemental material

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Search 5: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Adalimumab"[Mesh]

Search 6: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Etanercept"[Mesh]

Search 7: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Certolizumab Pegol"[Mesh]

Search 8: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "golimumab" [Supplementary Concept]

Search 9: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "tocilizumab" [Supplementary Concept]

Search 10: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "sarilumab" [Supplementary Concept]

Search 11: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Ustekinumab"[Mesh]

Search 12: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "secukinumab" [Supplementary Concept]

Search 13: ((((bioassay) OR (reporter gene assay) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Rituximab"[Mesh]

Cluster 8: RGA vs. RIA

Search 1: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "Antibodies, Monoclonal"[Mesh]

Search 2: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "Biological Products"[Mesh]

Search 3: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh]))) AND "Drug Monitoring"[Mesh])

Search 4: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "Infliximab"[Mesh]

Search 5: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "Adalimumab"[Mesh]

Search 6: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "Etanercept"[Mesh]

Search 7: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "Certolizumab Pegol"[Mesh]

Search 8: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "golimumab" [Supplementary Concept]

Search 9: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "tocilizumab" [Supplementary Concept]

Search 10: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh]))) AND "sarilumab" [Supplementary Concept]

Search 11: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "Ustekinumab"[Mesh]

Search 12: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "secukinumab" [Supplementary Concept]

Search 13: ((((bioassay) OR (reporter gene assay) AND ("Radioimmunoassay"[Mesh])))) AND "Rituximab"[Mesh]

Cluster 9: RIA vs. HMSA

Search 1: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Antibodies, Monoclonal"[Mesh]

Search 2: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Biological Products"[Mesh]

Search 3: ((((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Drug Monitoring"[Mesh])

Search 4: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Infliximab"[Mesh]

Search 5: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Adalimumab"[Mesh]

Search 6: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Etanercept"[Mesh]

Search 7: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Certolizumab Pegol"[Mesh]

Search 8: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "golimumab" [Supplementary Concept]

Search 9: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "tocilizumab" [Supplementary Concept]

Search 10: ((((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "sarilumab" [Supplementary Concept]

Search 11: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Ustekinumab"[Mesh]

Search 12: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "secukinumab" [Supplementary Concept]

Search 13: (((("Radioimmunoassay"[Mesh]) AND (Homogeneous mobility shift assay)))) AND "Rituximab"[Mesh]

Cluster 10: RIA vs. Point of care methods

Search 1: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Antibodies, Monoclonal"[Mesh]

Search 2: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Biological Products"[Mesh]

Search 3: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Drug Monitoring"[Mesh])

Search 4: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Infliximab"[Mesh]

Search 5: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Adalimumab"[Mesh]

Search 6: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Etanercept"[Mesh]

Search 7: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Certolizumab Pegol"[Mesh]

Search 8: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "golimumab" [Supplementary Concept]

Search 9: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "tocilizumab" [Supplementary Concept]

Search 10: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "sarilumab" [Supplementary Concept]

Search 11: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Ustekinumab"[Mesh]

Search 12: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "secukinumab" [Supplementary Concept]

Search 13: (((("Radioimmunoassay"[Mesh]) AND (("Point-of-Care Systems"[Mesh]) OR ("Point-of-Care Testing"[Mesh]) OR (rapid test) OR (rapid method))))) AND "Rituximab"[Mesh]