# DOACS guideline full search strategy

22 January 2021

## DOACS full search strategy

**Database: Ovid MEDLINE(R) ALL <1946 to January 20, 2021>**

1 Anticoagulants/ and Administration, Oral/ (6991)

2 Factor Xa Inhibitors/ (4967)

3 Dabigatran/ (3238)

4 Rivaroxaban/ (3492)

5 (direct oral anticoagulant\* or DOAC\* or direct acting oral anticoagulant\* or new oral anticoagulant\* or novel oral anticoagulant\*).ti,ab,kf. (6998)

6 (((direct or oral\*) adj2 factor X? inhibitor\*) or ((direct or oral\*) adj2 thrombin inhibitor\*)).ti,ab,kf. (3455)

7 (apixaban or Eliquis or betrixaban or BevyxXa or dabigatran or Pradaxa or edoxaban or Savaysa or rivaroxaban or Xarelto).af. (10824)

8 1 or 2 or 3 or 4 or 5 or 6 or 7 (22077)

9 exp Blood/an [Analysis] (23685)

10 blood coagulation tests/ (19498)

11 ((blood\* or plasma or coagula\* or anticoagula\* or anti coagula\*) adj6 (analys\* or measure\* or test\*)).ti,ab,kf. (369989)

12 ((measure\* adj10 (concentration\* or value\*)) or (laborator\* adj2 (measure\* or test\*))).ti,ab,kf. (323843)

13 (((rotational or automat\*) adj2 thromboelasto\*) or ((pharmacokinetic\* or pharmacodynamic\*) adj2 guid\*)).ti,ab,kf. (1095)

14 (screening adj2 test\*).ti,ab,kf. (37507)

15 9 or 10 or 11 or 12 or 13 or 14 (717778)

16 8 and 15 (2767)

17 Drug Overdose/ (11880)

18 exp Antidotes/tu (11896)

19 (reversal or reversing or residual or neutrali\* or chelat\* or antidote\* or counteract\* or overdose\* or over dose\*).ti,ab,kf. (538057)

20 (andexanet or idarucizumab or PRT064445 or PER977 or Ciraparantag or BI655075 or prothrombin complex concentrat\*).af. (2719)

21 17 or 18 or 19 or 20 (553222)

22 8 and 21 (2173)

23 16 or 22 (4481)

24 exp animals/ not humans.sh. (4779072)

25 23 not 24 (4303)

26 limit 25 to case reports (413)

**27 25 not 26 (3890)**

**Database: Embase <1974 to 2021 January 20>**

1 anticoagulant agent/po [Oral Drug Administration] (13137)

2 anticoagulant agent/ and oral drug administration/ (4424)

3 blood clotting factor 10a inhibitor/ (4371)

4 apixaban/ (13260)

5 dabigatran/ (14567)

6 rivaroxaban/ (19141)

7 betrixaban/ (683)

8 edoxaban/ (4932)

9 (direct oral anticoagulant\* or DOAC\* or direct acting oral anticoagulant\* or new oral anticoagulant\* or novel oral anticoagulant\*).ti,ab,kw. (12718)

10 (((direct or oral\*) adj2 factor X? inhibitor\*) or ((direct or oral\*) adj2 thrombin inhibitor\*)).ti,ab,kw. (5572)

11 (apixaban or Eliquis or betrixaban or BevyxXa or dabigatran or Pradaxa or edoxaban or Savaysa or rivaroxaban or Xarelto).af. (30645)

12 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 (53017)

13 exp blood analysis/ (160308)

14 exp blood clotting test/ (11737)

15 ((blood\* or plasma or coagula\* or anticoagula\* or anti coagula\*) adj6 (analys\* or measure\* or test\*)).ti,ab,kw. (522523)

16 ((measure\* adj10 (concentration\* or value\*)) or (laborator\* adj2 (measure\* or test\*))).ti,ab,kw. (439961)

17 (((rotational or automat\*) adj2 thromboelasto\*) or ((pharmacokinetic\* or pharmacodynamic\*) adj2 guid\*)).ti,ab,kw. (1852)

18 (screening adj2 test\*).ti,ab,kw. (53327)

19 13 or 14 or 15 or 16 or 17 or 18 (1072672)

20 12 and 19 (5414)

21 drug overdose/ (29616)

22 antidote/ (6885)

23 andexanet alfa/ (595)

24 (reversal or reversing or residual or neutrali\* or chelat\* or antidote\* or counteract\* or overdose\* or over dose\*).ti,ab,kw. (685344)

25 (andexanet or idarucizumab or PRT064445 or PER977 or Ciraparantag or BI655075 or prothrombin complex concentrat\*).af. (4838)

26 21 or 22 or 23 or 24 or 25 (704522)

27 12 and 26 (4616)

28 20 or 27 (9097)

29 Clinical study/ (156531)

30 Observational study/ (219699)

31 family study/ (26143)

32 longitudinal study/ (150141)

33 retrospective study/ (1020726)

34 prospective study/ (657033)

35 cohort analysis/ (661490)

36 follow-up/ (1636411)

37 cohort\*.ti,ab. (1079563)

38 ((follow up or observational or uncontrolled or non randomi#ed or epidemiologic\*) adj (study or studies or data)).ti,ab. (433692)

39 ((longitudinal or retrospective\* or prospective\* or cross sectional) and (study or studies or review or analys\* or data)).ti,ab. (2776220)

40 (before adj2 after adj2 (study or studies or data)).ti,ab. (11057)

41 exp case control study/ (185136)

42 case control\*.ti,ab. (176297)

43 cross-sectional study/ (389718)

44 (cross sectional and (study or studies or review or analys\* or data)).ti,ab. (471445)

45 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 (5236602)

46 exp randomized controlled trial/ (642639)

47 crossover procedure/ (65863)

48 single blind procedure/ (41594)

49 double blind procedure/ (180500)

50 random\*.ti,ab. (1625481)

51 factorial\*.ti,ab. (40201)

52 (crossover\* or cross over\*).ti,ab. (110895)

53 ((doubl\* or singl\*) adj blind\*).ti,ab. (241337)

54 (assign\* or allocat\* or volunteer\* or placebo\*).ti,ab. (1083428)

55 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 (2447438)

56 systematic review/ (279940)

57 meta-analysis/ (206382)

58 (meta analy\* or metanaly\* or metaanaly\* or meta regression).ti,ab. (252644)

59 ((systematic\* or evidence\*) adj3 (review\* or overview\*)).ti,ab. (309538)

60 (reference list\* or bibliograph\* or hand search\* or manual search\* or relevant journals).ab. (56024)

61 (search strategy or search criteria or systematic search or study selection or data extraction).ab. (72394)

62 (search\* adj4 literature).ab. (91239)

63 (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or CINAHL or science citation index or scopus or Web of science).ab. (318741)

64 cochrane.jw. (22210)

65 ((multiple treatment\* or indirect or mixed) adj2 comparison\*).ti,ab. (5537)

66 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 (687730)

67 45 or 55 or 66 (7355091)

68 (Animal experiment/ or animal/) not (human experiment/ or human/) (3390450)

69 67 not 68 (7081342)

70 28 and 69 (3928)

71 case report.ti,ab. (437027)

**72 70 not 71 (3830)**

**Central**

#1 MeSH descriptor: [Anticoagulants] explode all trees 4663

#2 MeSH descriptor: [Administration, Oral] explode all trees 24087

#3 #1 and #2 545

#4 MeSH descriptor: [Factor Xa Inhibitors] explode all trees 555

#5 MeSH descriptor: [Dabigatran] explode all trees 312

#6 MeSH descriptor: [Rivaroxaban] explode all trees 531

#7 ((direct NEXT oral NEXT anticoagulant\*) or DOAC\* or (direct NEXT acting NEXT oral NEXT anticoagulant\*) or (new NEXT oral NEXT anticoagulant\*) or (novel NEXT oral NEXT anticoagulant\*)):ti,ab,kw 664

#8 (((direct or oral\*) NEAR/2 (factor NEXT X\* NEXT inhibitor\*)) or ((direct or oral\*) NEAR/2 (thrombin NEXT inhibitor\*))):ti,ab,kw 784

#9 (apixaban or Eliquis or betrixaban or BevyxXa or dabigatran or Pradaxa or edoxaban or Savaysa or rivaroxaban or Xarelto) 3555

#10 #3 or #4 or #5 or #6 or #7 or #8 or #9 4586

#11 MeSH descriptor: [Blood Coagulation Tests] explode all trees 2034

#12 ((blood\* or plasma or coagula\* or anticoagula\* or anti coagula\*) NEAR (analys\* or measure\* or test\*)):ti,ab,kw 86507

#13 ((measure\* NEAR/10 (concentration\* or value\*)) or (laborator\* NEAR/2 (measure\* or test\*))):ti,ab,kw 37945

#14 (((rotational or automat\*) NEAR/2 thromboelasto\*) or ((pharmacokinetic\* or pharmacodynamic\*) NEAR/2 guid\*)):ti,ab,kw 344

#15 (screening NEAR/2 test\*):ti,ab,kw 4779

#16 #11 or #12 or #13 or #14 or #15 118026

#17 #10 and #16 796

**#18 #17 in Trials 769**

**Web of Science + BIOSIS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # 24 | [**2,828**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=26&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #19 and #23  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 23 | [**7,845,070**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=25&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #22 OR #21 OR #20  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 22 | [**3,957,367**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=24&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(random\* or factorial\* or crossover\* or “cross over\*” or ((doubl\* or singl\*) NEAR/1 blind\*) or assign\* or allocat\* or volunteer\* or placebo\*)  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 21 | [**3,945,665**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=23&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(cohort\*) or TS=(("follow up" or observational or uncontrolled or "non randomized" or "non randomised" or epidemiologic\*) NEAR/1 (study or studies or data) ) or TS=((longitudinal or retrospective\* or prospective\* or "cross sectional") and (study or studies or review or analys\* or data) ) or TS=(before NEAR/2 after NEAR/2 (study or studies or data) ) or TS=(“case control\*” or ("cross sectional" and (study or studies or review or analys\* or data) ))  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 20 | [**842,356**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=21&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(("meta analy\*" or metaanaly\* or "meta regression") or ((systematic\* or evidence\*) NEAR/3 (review\* or overview\*) ) or ("reference list\*" or bibliograph\* or "hand search\*" or "manual search\*" or "relevant journals" or "search strategy" or "search criteria" or "systematic search" or "study selection" or "data extraction") ) or TS=((search\* NEAR/4 literature) or medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or CINAHL or cochrane)  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 19 | [**5,512**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=20&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #17 not #18  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 18 | [**316,535**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=19&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=("case report")  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 17 | [**5,655**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=18&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #15 not #16  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 16 | [**9,025,296**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=17&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(animal\* not human\*)  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 15 | [**5,836**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=16&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #14 OR #10  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 14 | [**2,742**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=15&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #13 AND #4  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 13 | [**2,706,169**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=14&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #12 OR #11  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 12 | [**4,255**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=12&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(andexanet or idarucizumab or PRT064445 or PER977 or Ciraparantag or BI655075 or "prothrombin complex concentrat\*")  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 11 | [**2,704,048**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=11&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(reversal or reversing or residual or neutrali\* or chelat\* or antidote\* or counteract\* or overdose\* or "over dose\*")  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 10 | [**3,821**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=10&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #9 AND #4  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 9 | [**1,714,185**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=9&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #8 OR #7 OR #6 OR #5  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 8 | [**122,243**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=8&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(screening NEAR/2 test\*)  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 7 | [**1,650**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=7&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(((rotational or automat\*) NEAR/2 thromboelasto\*) or ((pharmacokinetic\* or pharmacodynamic\*) NEAR/2 guid\*))  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 6 | [**806,670**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=6&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=((measure\* NEAR/10 (concentration\* or value\*) ) or (laborator\* NEAR/2 (measure\* or test\*) ))  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 5 | [**888,754**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=5&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=((blood\* or plasma or coagula\* or anticoagula\* or "anti coagula\*") NEAR (analys\* or measure\* or test\*) )  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 4 | [**23,039**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=4&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #3 OR #2 OR #1  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 3 | [**16,876**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=3&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(apixaban or Eliquis or betrixaban or BevyxXa or dabigatran or Pradaxa or edoxaban or Savaysa or rivaroxaban or Xarelto)  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 2 | [**5,038**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=2&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=(((direct or oral\*) NEAR/2 "factor X\* inhibitor\*") or ((direct or oral\*) NEAR/2 "thrombin inhibitor\*"))  *Databases= WOS, BIOSIS Timespan=All years* |  |  |
| # 1 | [**8,504**](http://apps.webofknowledge.com/summary.do?product=UA&doc=1&qid=1&SID=D1uHMhKaRMFeuT2ZXCK&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=("direct oral anticoagulant\*" or DOAC\* or "direct acting oral anticoagulant\*" or "new oral anticoagulant\*" or "novel oral anticoagulant\*")  *Databases= WOS, BIOSIS Timespan=All years* |  |  |

**Epsitemonikos**

Search for systematic reviews:

doac\* OR Factor Xa Inhibitor\* OR direct oral anticoagulant\*

77 hits