

Subarachnoid Haemorrhage

NICE guideline: search strategies

NICE guideline <number>

Search strategies

September 2020

Draft for Consultation

*This guideline was developed by the
National Guideline Centre*

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Appendix A: Search strategies

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual. {NICE2014}

For more information, please see the Methodology review published as part of the accompanying documents for this guideline.

A.1 Clinical search literature search strategy

A.1.1 Signs and Symptoms

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 1: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 23 June 2020	Exclusions Observational studies
Embase (OVID)	1974 – 23 June 2020	Exclusions Observational studies

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/

23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	exp "signs and symptoms"/
30.	Symptom Assessment/
31.	diagnosis/ or prognosis/
32.	(clinical adj2 (manifestation* or feature* or finding* or aspect* or marker* or present*)).ti,ab.
33.	(present* adj2 (feature* or finding* or factor*)).ti,ab.
34.	(physical adj2 (manifestation* or characteristic* or feature* or finding*)).ti,ab.
35.	(sign or signs or symptom* or recogni* or identif* or complain*).ti,ab.
36.	(diagnos* or prognos* or assess* or criteria* or predict*).ti,ab.
37.	or/29-36
38.	*Headache/ or *headache disorders/ or *migraine disorders/
39.	(headache* or migraine*).ti,ab.
40.	(head adj3 pain*).ti,ab.
41.	((pain* or stiff*) adj2 neck*).ti,ab.
42.	*Vomiting/
43.	(vomit* or emesis or emeses or sick or sickness or nausea).ti,ab.
44.	*Blood Pressure/
45.	(blood adj2 pressure).ti,ab.
46.	*Unconsciousness/
47.	(consciousness or unconsciousness or semiconsciousness or semi consciousness).ti,ab.
48.	*Delirium/ or *Confusion/
49.	(delirium* or deliria or confus*).ti,ab.
50.	((alter* or chang*) adj2 mental state*).ti,ab.
51.	*Seizures/
52.	(spasm* or seizure* or convuls*).ti,ab.
53.	*paresis/ or *paraparesis/
54.	(hemipares* or monopares* or paresis or pareses or parapares* or plegia* or hemiplegia* or paraplegia* or paralys* or palsy).ti,ab.
55.	(focal adj2 (neurolog* or sign* or deficit)).ti,ab.
56.	(impair* adj2 (brain or neurolog* or nerve* or nervous system* or spine or spinal)).ti,ab.
57.	(weak* adj2 (arm* or leg* or limb* or body or muscle*)).ti,ab.
58.	*Photophobia/
59.	Photophobi*.ti,ab.
60.	((sensitiv* or intoleran* or pain* or discomfort) adj2 light).ti,ab.
61.	*Diplopia/
62.	diplopia.ti,ab.
63.	((double or blur* or hazy or altered or change* or loss) adj3 vision).ti,ab.
64.	or/38-63

65.	28 and (37 or 64)
66.	Epidemiologic studies/
67.	Observational study/
68.	exp Cohort studies/
69.	(cohort adj (study or studies or analys* or data)).ti,ab.
70.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
71.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
72.	Controlled Before-After Studies/
73.	Historically Controlled Study/
74.	Interrupted Time Series Analysis/
75.	(before adj2 after adj2 (study or studies or data)).ti,ab.
76.	exp case control study/
77.	case control*.ti,ab.
78.	Cross-sectional studies/
79.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
80.	or/66-79
81.	65 and 80

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22

24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	symptom assessment/
28.	diagnosis/
29.	prognosis/
30.	(clinical adj2 (manifestation* or feature* or finding* or aspect* or marker* or present*)).ti,ab.
31.	(present* adj2 (feature* or finding* or factor*)).ti,ab.
32.	(physical adj2 (manifestation* or characteristic* or feature* or finding*)).ti,ab.
33.	(sign or signs or symptom* or recogni* or identif* or complain*).ti,ab.
34.	(diagnos* or prognos* or assess* or criteria* or predict*).ti,ab.
35.	symptomatology/
36.	or/27-35
37.	*headache/
38.	*migraine/
39.	(headache* or migraine*).ti,ab.
40.	(head adj3 pain*).ti,ab.
41.	*neck pain/
42.	((pain* or stiff*) adj2 neck*).ti,ab.
43.	*vomiting/
44.	(vomit* or emesis or emeses or sick or sickness or nausea).ti,ab.
45.	*Blood Pressure/
46.	(blood adj2 pressure).ti,ab.
47.	*consciousness/
48.	(consciousness or unconsciousness or semiconsciousness or semi consciousness).ti,ab.
49.	*delirium/
50.	*confusion/
51.	(delirium* or deliria or confus*).ti,ab.
52.	((alter* or chang*) adj2 mental state*).ti,ab.
53.	*seizure/
54.	(spasm* or seizure* or convuls*).ti,ab.
55.	*paresis/
56.	*paraplegia/
57.	(hemipares* or monopares* or paresis or pareses or parapares* or plegia* or hemiplegia* or paraplegia* or paralys* or palsy).ti,ab.
58.	(focal adj2 (neurolog* or sign* or deficit)).ti,ab.
59.	(impair* adj2 (brain or neurolog* or nerve* or nervous system* or spine or spinal)).ti,ab.
60.	(weak* adj2 (arm* or leg* or limb* or body or muscle*)).ti,ab.
61.	*paralysis/
62.	*Photophobia/
63.	Photophobi*.ti,ab.
64.	((sensitiv* or intoleran* or pain* or discomfort) adj2 light).ti,ab.
65.	*Diplopia/
66.	diplopia.ti,ab.

67.	((double or blur* or hazy or altered or change* or loss) adj3 vision).ti,ab.
68.	or/37-67
69.	26 and (36 or 68)
70.	Clinical study/
71.	Observational study/
72.	family study/
73.	longitudinal study/
74.	retrospective study/
75.	prospective study/
76.	cohort analysis/
77.	follow-up/
78.	cohort*.ti,ab.
79.	77 and 78
80.	(cohort adj (study or studies or analys* or data)).ti,ab.
81.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
82.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
83.	(before adj2 after adj2 (study or studies or data)).ti,ab.
84.	exp case control study/
85.	case control*.ti,ab.
86.	cross-sectional study/
87.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
88.	or/70-76,79-87
89.	69 and 88

A.1.2 Diagnostic investigations

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 2: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies
Embase (OVID)	1974 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies

Database	Dates searched	Search filter used
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	Magnetic Resonance Imaging/
30.	Tomography, X-Ray Computed/ or Tomography, Emission-Computed/
31.	magnetic resonance.ti,ab.
32.	(MR* or MRI* or NMR*).ti,ab.
33.	(diffusion weighted imag* or DWI).ti,ab.
34.	(compute* adj3 tomography).ti,ab.
35.	(CT* or CAT or MDCT*).ti,ab.
36.	exp Spinal Puncture/

37.	((spinal or lumbar) adj1 (puncture* or tap*)).ti,ab.
38.	or/29-37
39.	Meta-Analysis/
40.	exp Meta-Analysis as Topic/
41.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
42.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
43.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
44.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
45.	(search* adj4 literature).ab.
46.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
47.	cochrane.jw.
48.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
49.	or/39-48
50.	randomized controlled trial.pt.
51.	controlled clinical trial.pt.
52.	randomi#ed.ti,ab.
53.	placebo.ab.
54.	randomly.ti,ab.
55.	Clinical Trials as topic.sh.
56.	trial.ti.
57.	or/50-56
58.	exp "Sensitivity and Specificity"/
59.	(sensitivity or specificity).ti,ab.
60.	((pre test or pretest or post test) adj probability).ti,ab.
61.	(predictive value* or PPV or NPV).ti,ab.
62.	likelihood ratio*.ti,ab.
63.	likelihood function/
64.	((area under adj4 curve) or AUC).ti,ab.
65.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
66.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
67.	gold standard.ab.
68.	or/58-67
69.	Epidemiologic studies/
70.	Observational study/
71.	exp Cohort studies/
72.	(cohort adj (study or studies or analys* or data)).ti,ab.
73.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
74.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
75.	Controlled Before-After Studies/
76.	Historically Controlled Study/
77.	Interrupted Time Series Analysis/

78.	(before adj2 after adj2 (study or studies or data)).ti,ab.
79.	exp case control study/
80.	case control*.ti,ab.
81.	Cross-sectional studies/
82.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
83.	or/69-82
84.	28 and 38 and (49 or 57 or 68 or 83)

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	nuclear magnetic resonance imaging/
28.	computer assisted tomography/ or computer assisted emission tomography/
29.	magnetic resonance.ti,ab.
30.	(MR* or MRI* or NMR*).ti,ab.
31.	(diffusion weighted imag* or DWI).ti,ab.
32.	(compute* adj3 tomography).ti,ab.
33.	(CT* or CAT or MDCT*).ti,ab.
34.	lumbar puncture/

35.	((spinal or lumbar) adj1 (puncture* or tap*)).ti,ab.
36.	or/27-35
37.	exp "sensitivity and specificity"/
38.	(sensitivity or specificity).ti,ab.
39.	((pre test or pretest or post test) adj probability).ti,ab.
40.	(predictive value* or PPV or NPV).ti,ab.
41.	likelihood ratio*.ti,ab.
42.	((area under adj4 curve) or AUC).ti,ab.
43.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
44.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
45.	diagnostic accuracy/
46.	diagnostic test accuracy study/
47.	gold standard.ab.
48.	or/37-47
49.	Clinical study/
50.	Observational study/
51.	family study/
52.	longitudinal study/
53.	retrospective study/
54.	prospective study/
55.	cohort analysis/
56.	follow-up/
57.	cohort*.ti,ab.
58.	56 and 57
59.	(cohort adj (study or studies or analys* or data)).ti,ab.
60.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
61.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
62.	(before adj2 after adj2 (study or studies or data)).ti,ab.
63.	exp case control study/
64.	case control*.ti,ab.
65.	cross-sectional study/
66.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
67.	or/49-55,58-66
68.	random*.ti,ab.
69.	factorial*.ti,ab.
70.	(crossover* or cross over*).ti,ab.
71.	((doubl* or singl*) adj blind*).ti,ab.
72.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
73.	crossover procedure/
74.	single blind procedure/
75.	randomized controlled trial/
76.	double blind procedure/
77.	or/68-76

78.	systematic review/
79.	meta-analysis/
80.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
81.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
82.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
83.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
84.	(search* adj4 literature).ab.
85.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
86.	cochrane.jw.
87.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
88.	or/78-87
89.	26 and 36 and (48 or 67 or 77 or 88)

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(OR #1-#5)
#7.	MeSH descriptor: [Magnetic Resonance Imaging] explode all trees
#8.	MeSH descriptor: [Tomography, Emission-Computed] explode all trees
#9.	MeSH descriptor: [Tomography, X-Ray Computed] explode all trees
#10.	magnetic resonance:ti,ab
#11.	(MR* or MRI* or NMR*):ti,ab
#12.	(diffusion weighted imag* or DWI):ti,ab
#13.	(compute* near/3 tomography):ti,ab
#14.	(CT* or CAT or MDCT*):ti,ab
#15.	MeSH descriptor: [Spinal Puncture] explode all trees
#16.	((spinal or lumbar) near/1 (puncture* or tap*)):ti,ab
#17.	(or #7-#16)
#18.	#6 and #17

A.1.3 Diagnostic strategies

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 3: Database date parameters and filters used

Database	Dates searched	Search filter used
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Embase (OVID)	1974 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)

27.	25 not 26
28.	limit 27 to English language
29.	Magnetic Resonance Imaging/
30.	Tomography, X-Ray Computed/ or Tomography, Emission-Computed/
31.	magnetic resonance.ti,ab.
32.	(MR* or MRI* or NMR*).ti,ab.
33.	(diffusion weighted imag* or DWI).ti,ab.
34.	(compute* adj3 tomography).ti,ab.
35.	(CT* or CAT or MDCT*).ti,ab.
36.	exp Spinal Puncture/
37.	((spinal or lumbar) adj1 (puncture* or tap*)).ti,ab.
38.	or/29-37
39.	Meta-Analysis/
40.	exp Meta-Analysis as Topic/
41.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
42.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
43.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
44.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
45.	(search* adj4 literature).ab.
46.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
47.	cochrane.jw.
48.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
49.	or/39-48
50.	randomized controlled trial.pt.
51.	controlled clinical trial.pt.
52.	randomi#ed.ti,ab.
53.	placebo.ab.
54.	randomly.ti,ab.
55.	Clinical Trials as topic.sh.
56.	trial.ti.
57.	or/50-56
58.	exp "Sensitivity and Specificity"/
59.	(sensitivity or specificity).ti,ab.
60.	((pre test or pretest or post test) adj probability).ti,ab.
61.	(predictive value* or PPV or NPV).ti,ab.
62.	likelihood ratio*.ti,ab.
63.	likelihood function/
64.	((area under adj4 curve) or AUC).ti,ab.
65.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
66.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
67.	gold standard.ab.
68.	or/58-67

69.	Epidemiologic studies/
70.	Observational study/
71.	exp Cohort studies/
72.	(cohort adj (study or studies or analys* or data)).ti,ab.
73.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
74.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
75.	Controlled Before-After Studies/
76.	Historically Controlled Study/
77.	Interrupted Time Series Analysis/
78.	(before adj2 after adj2 (study or studies or data)).ti,ab.
79.	exp case control study/
80.	case control*.ti,ab.
81.	Cross-sectional studies/
82.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
83.	or/69-82
84.	28 and 38 and (49 or 57 or 68 or 83)

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)

25.	23 not 24
26.	limit 25 to English language
27.	nuclear magnetic resonance imaging/
28.	computer assisted tomography/ or computer assisted emission tomography/
29.	magnetic resonance.ti,ab.
30.	(MR* or MRI* or NMR*).ti,ab.
31.	(diffusion weighted imag* or DWI).ti,ab.
32.	(compute* adj3 tomography).ti,ab.
33.	(CT* or CAT or MDCT*).ti,ab.
34.	lumbar puncture/
35.	((spinal or lumbar) adj1 (puncture* or tap*)).ti,ab.
36.	or/27-35
37.	exp "sensitivity and specificity"/
38.	(sensitivity or specificity).ti,ab.
39.	((pre test or pretest or post test) adj probability).ti,ab.
40.	(predictive value* or PPV or NPV).ti,ab.
41.	likelihood ratio*.ti,ab.
42.	((area under adj4 curve) or AUC).ti,ab.
43.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
44.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
45.	diagnostic accuracy/
46.	diagnostic test accuracy study/
47.	gold standard.ab.
48.	or/37-47
49.	Clinical study/
50.	Observational study/
51.	family study/
52.	longitudinal study/
53.	retrospective study/
54.	prospective study/
55.	cohort analysis/
56.	follow-up/
57.	cohort*.ti,ab.
58.	56 and 57
59.	(cohort adj (study or studies or analys* or data)).ti,ab.
60.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
61.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
62.	(before adj2 after adj2 (study or studies or data)).ti,ab.
63.	exp case control study/
64.	case control*.ti,ab.
65.	cross-sectional study/
66.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
67.	or/49-55,58-66

68.	random*.ti,ab.
69.	factorial*.ti,ab.
70.	(crossover* or cross over*).ti,ab.
71.	((doubl* or singl*) adj blind*).ti,ab.
72.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
73.	crossover procedure/
74.	single blind procedure/
75.	randomized controlled trial/
76.	double blind procedure/
77.	or/68-76
78.	systematic review/
79.	meta-analysis/
80.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
81.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
82.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
83.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
84.	(search* adj4 literature).ab.
85.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
86.	cochrane.jw.
87.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
88.	or/78-87
89.	26 and 36 and (48 or 67 or 77 or 88)

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(OR #1-#5)
#7.	MeSH descriptor: [Magnetic Resonance Imaging] explode all trees
#8.	MeSH descriptor: [Tomography, Emission-Computed] explode all trees
#9.	MeSH descriptor: [Tomography, X-Ray Computed] explode all trees
#10.	magnetic resonance:ti,ab
#11.	(MR* or MRI* or NMR*):ti,ab
#12.	(diffusion weighted imag* or DWI):ti,ab
#13.	(compute* near/3 tomography):ti,ab
#14.	(CT* or CAT or MDCT*):ti,ab
#15.	MeSH descriptor: [Spinal Puncture] explode all trees
#16.	((spinal or lumbar) near/1 (puncture* or tap*)):ti,ab
#17.	(or #7-#16)

#18.	#6 and #17
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A.1.4 Severity scoring

Searches were constructed using the following approach:

- Population AND Prognostic/risk factor terms AND Study filters

Table 4: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 24 June 2020	Exclusions Observational studies Prognostic studies
Embase (OVID)	1974 – 24 June 2020	Exclusions Observational studies Prognostic studies

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	limit 25 to English language
27.	World Federation of Neurosurgical Societ*.ti,ab.

28.	(WFNS or m-WFNS or mWFNS or h-WFNS or hWFNS).ti,ab.
29.	(Glasgow adj coma).ti,ab.
30.	GCS.ti,ab.
31.	Glasgow Coma Scale/
32.	(Fisher* adj (grade* or scale* or score*)).ti,ab.
33.	mFS.ti,ab.
34.	(Hunt adj2 Hess).ti,ab.
35.	(PAASH or Prognosis on Admission of Aneurysmal Subarachnoid Hemorrhage).ti,ab.
36.	or/27-35
37.	((risk* or predict* or prognos* or severity or grading or diagnos*) adj4 (tool* or rule* or index* or indices or score* or scoring or scale* or model* or system* or algorithm* or stratif* or criteria or calculat* or classification* or grade*)).ti,ab.
38.	((score* or scoring or stratif*) adj3 (system* or schem* or scale*)).ti,ab.
39.	Severity of Illness Index/
40.	or/37-39
41.	26 and (36 or 40)
42.	predict.ti.
43.	(validat* or rule*).ti,ab.
44.	(predict* and (outcome* or risk* or model*)).ti,ab.
45.	((history or variable* or criteria or scor* or characteristic* or finding* or factor*) and (predict* or model* or decision* or identif* or prognos*)).ti,ab.
46.	decision*.ti,ab. and Logistic models/
47.	(decision* and (model* or clinical*)).ti,ab.
48.	(prognostic and (history or variable* or criteria or scor* or characteristic* or finding* or factor* or model*)).ti,ab.
49.	(stratification or discrimination or discriminate or c statistic or "area under the curve" or AUC or calibration or indices or algorithm or multivariable).ti,ab.
50.	ROC curve/
51.	or/42-50
52.	prognosis/
53.	(predict* or prognos*).ti,ab.
54.	Logistic models/
55.	Disease progression/
56.	or/52-55
57.	Epidemiologic studies/
58.	Observational study/
59.	exp Cohort studies/
60.	(cohort adj (study or studies or analys* or data)).ti,ab.
61.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
62.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
63.	Controlled Before-After Studies/
64.	Historically Controlled Study/
65.	Interrupted Time Series Analysis/
66.	(before adj2 after adj2 (study or studies or data)).ti,ab.
67.	exp case control study/

68.	case control*.ti,ab.
69.	Cross-sectional studies/
70.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
71.	or/57-70
72.	41 and (51 or 56 or 71)

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	limit 23 to English language
25.	World Federation of Neurosurgical Societ*.ti,ab.
26.	(WFNS or m-WFNS or mWFNS or h-WFNS or hWFNS).ti,ab.
27.	(Glasgow adj coma).ti,ab.
28.	GCS.ti,ab.
29.	Glasgow coma scale/
30.	(Fisher* adj (grade* or scale* or score*)).ti,ab.
31.	mFS.ti,ab.
32.	(Hunt adj2 Hess).ti,ab.
33.	(PAASH or Prognosis on Admission of Aneurysmal Subarachnoid Hemorrhage).ti,ab.
34.	or/25-33
35.	((risk* or predict* or prognos* or severity or grading or diagnos*) adj4 (tool* or rule* or index* or indices or score* or scoring or scale* or model* or system* or algorithm* or stratif* or criteria or calculat* or classification* or grade*)).ti,ab.

36.	((score* or scoring or stratif*) adj3 (system* or schem* or scale*)).ti,ab.
37.	"severity of illness index"/
38.	or/35-37
39.	24 and (34 or 38)
40.	predict.ti.
41.	(validat* or rule*).ti,ab.
42.	(predict* and (outcome* or risk* or model*)).ti,ab.
43.	((history or variable* or criteria or scor* or characteristic* or finding* or factor*) and (predict* or model* or decision* or identif* or prognos*)).ti,ab.
44.	decision*.ti,ab. and Statistical model/
45.	(decision* and (model* or clinical*)).ti,ab.
46.	(prognostic and (history or variable* or criteria or scor* or characteristic* or finding* or factor* or model*)).ti,ab.
47.	(stratification or discrimination or discriminate or c statistic or "area under the curve" or AUC or calibration or indices or algorithm or multivariable).ti,ab.
48.	Receiver operating characteristic/
49.	or/40-48
50.	prognosis/
51.	(predict* or prognos*).ti,ab.
52.	Logistic models/
53.	Disease progression/
54.	or/50-53
55.	Clinical study/
56.	Observational study/
57.	family study/
58.	longitudinal study/
59.	retrospective study/
60.	prospective study/
61.	cohort analysis/
62.	follow-up/
63.	cohort*.ti,ab.
64.	62 and 63
65.	(cohort adj (study or studies or analys* or data)).ti,ab.
66.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
67.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
68.	(before adj2 after adj2 (study or studies or data)).ti,ab.
69.	exp case control study/
70.	case control*.ti,ab.
71.	cross-sectional study/
72.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
73.	or/55-61,64-72
74.	39 and (49 or 54 or 73)

A.1.5 Medical management

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 5: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
Embase (OVID)	1974 –24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23

25.	6 not 24
26.	limit 25 to English language
27.	Fluid Therapy/
28.	Rehydration Solutions/
29.	Hemodilution/
30.	exp Colloids/
31.	(volume adj3 (expand* or expans* or replace* or therap*)).ti,ab.
32.	(hydration or rehydration or re-hydration).ti,ab.
33.	(fluid* adj3 (therap* or manage* or managing or control*)).ti,ab.
34.	(hypervolaem* or hypervolem* or hemodilution or haemodilution).ti,ab.
35.	(crystalloid* or colloid* or dextran* or hetastarch or hydroxyethyl starch or pentastarch or HES or HAES).ti,ab.
36.	((hemodynamic or haemodynamic) adj3 (manage* or managing or therap* or control* or treatment*)).ti,ab.
37.	((temperature or fever or hyperpyrexia) adj3 (manage* or control* or reduc* or limit* or lower*)).ti,ab.
38.	(antipyretic* or anti-pyretic*).ti,ab.
39.	Antipyretics/
40.	(Acebutolol or Atenolol or Bisoprolol or carvedilol or Celiprolol or Esmolol or labetalol or Metoprolol or Nebivolol or Oxprenolol or nadolol or propranolol or Timolol).ti,ab.
41.	((beta or b) adj3 (block* or antagonist*)).ti,ab.
42.	exp Adrenergic beta-Antagonists/
43.	Nitrates/
44.	(nitrate* or glyceryl trinitrate or isosorbide or Nitroglycerin* or trinitroglycerin or TNG or GTN or trinitroxypropane or nitroprusside).ti,ab.
45.	Nitroglycerin/
46.	Nitroprusside/
47.	exp Calcium Channel Blockers/
48.	(calcium adj3 (block* or inhibit* or antagonist*)).ti,ab.
49.	(amlodipine or clevidipine or diltiazem or felodipine or lacidipine or lercanidipine or nicardipine or nifedipine or verapamil).ti,ab.
50.	((hypertens* or blood pressure or BP) adj3 (manage* or managing or control* or reduc* or limit* or lower*)).ti,ab.
51.	((anti-hypertens* or antihypertens*) adj3 (drug* or agent*)).ti,ab.
52.	Antihypertensive Agents/
53.	(anticonvulsant* or anti-convulsant* or anti epileptic* or antiepileptic* or phenytoin or Levetiracetam or AED*).ti,ab.
54.	Phenytoin/
55.	Anticonvulsants/
56.	(seizure* adj3 (prevent* or prophyla* or management* or treatment* or control*)).ti,ab.
57.	Levetiracetam/
58.	Nimodipine/
59.	Nimodipine.ti,ab.
60.	Antifibrinolytic Agents/
61.	(anti-fibrinolytic* or antifibrinolytic* or antifibrinolysin* or anti-fibrinolysin* or antiplasmin* or anti-plasmin* or ((plasmin* or fibrinolysis) adj3 inhibitor*)).ti,ab.
62.	Tranexamic Acid/
63.	(tranexamic or txa or cyklokapron).ti,ab.

64.	Aminocaproic Acid/
65.	(Aminocaproic or aminohexanoic or Ahx).ti,ab.
66.	exp analgesia/
67.	exp Analgesics/
68.	analges*.ti,ab.
69.	Acetaminophen/
70.	(acetaminophen or paracetamol).ti,ab.
71.	((pain* or headache*) adj3 (manage* or managing or control* or treat* or relief*)).ti,ab.
72.	exp Anesthesia/
73.	Conscious Sedation/
74.	Deep Sedation/
75.	(sedat* or an?esthe*).ti,ab.
76.	electrolyte*.ti,ab.
77.	(hypona?trema* or hyperna?trema* or Hyperkal?emi* or hypokal?emi* or Hypochlor?emi* or hyperchlor?emi* or hyperosmol* or hypo-osmol*).ti,ab.
78.	exp Water-Electrolyte Imbalance/
79.	Water-Electrolyte Balance/
80.	exp Electrolytes/
81.	(hypotoni* or hypo-toni*).ti,ab.
82.	((saline or sodium) adj3 (fluid* or solution* or manage* or managing or control* or therap*)).ti,ab.
83.	Saline Solution, Hypertonic/
84.	(steroid* or corticosteroid* or Glucocorticoid* or Glucocorticosteroid* or Mineralocorticoid*).ti,ab.
85.	Steroids/
86.	(hydrocortisone or fludrocortisone or methylprednisolone or dexamethasone or prednisolone or cortisol).ti,ab.
87.	exp Hydrocortisone/
88.	Methylprednisolone/
89.	Dexamethasone/
90.	((salt or sodium) adj3 (wasting or imbalance* or replac* or disorder*)).ti,ab.
91.	or/27-90
92.	26 and 91
93.	Meta-Analysis/
94.	exp Meta-Analysis as Topic/
95.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
96.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
97.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
98.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
99.	(search* adj4 literature).ab.
100.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
101.	cochrane.jw.
102.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
103.	or/93-101

104.	randomized controlled trial.pt.
105.	controlled clinical trial.pt.
106.	randomi#ed.ti,ab.
107.	placebo.ab.
108.	randomly.ti,ab.
109.	Clinical Trials as topic.sh.
110.	trial.ti.
111.	or/104-110
112.	Epidemiologic studies/
113.	Observational study/
114.	exp Cohort studies/
115.	(cohort adj (study or studies or analys* or data)).ti,ab.
116.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
117.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
118.	Controlled Before-After Studies/
119.	Historically Controlled Study/
120.	Interrupted Time Series Analysis/
121.	(before adj2 after adj2 (study or studies or data)).ti,ab.
122.	exp case control study/
123.	case control*.ti,ab.
124.	Cross-sectional studies/
125.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
126.	or/112-125
127.	92 and (103 or 111 or 126)

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/

17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	limit 23 to English language
25.	fluid therapy/
26.	oral rehydration solution/
27.	hemodilution/
28.	colloid/
29.	(volume adj3 (expand* or expans* or replace* or therap*)).ti,ab.
30.	(hydration or rehydration or re-hydration).ti,ab.
31.	(fluid* adj3 (therap* or manage* or managing or control*)).ti,ab.
32.	(hypervolaem* or hypervolem* or hemodilution or haemodilution).ti,ab.
33.	(crystalloid* or colloid* or dextran* or hetastarch or hydroxyethyl starch or pentastarch or HES or HAES).ti,ab.
34.	((hemodynamic or haemodynamic) adj3 (manage* or managing or therap* or control* or treatment*)).ti,ab.
35.	((temperature or fever or hyperpyrexia) adj3 (manage* or control* or reduc* or limit* or lower*)).ti,ab.
36.	(antipyretic* or anti-pyretic*).ti,ab.
37.	antipyretic agent/
38.	(Acebutolol or Atenolol or Bisoprolol or carvedilol or Celiprolol or Esmolol or labetalol or Metoprolol or Nebivolol or Oxprenolol or nadolol or propranolol or Timolol).ti,ab.
39.	((beta or b) adj3 (block* or antagonist*)).ti,ab.
40.	exp beta adrenergic receptor blocking agent/
41.	nitrate/
42.	(nitrate* or glyceryl trinitrate or isosorbide or Nitroglycerin* or trinitroglycerin or TNG or GTN or trinitroxypropane or nitroprusside).ti,ab.
43.	glyceryl trinitrate/
44.	nitroprusside sodium/
45.	exp calcium channel blocking agent/
46.	(calcium adj3 (block* or inhibit* or antagonist*)).ti,ab.
47.	(amlodipine or clevidipine or diltiazem or felodipine or lacidipine or lercanidipine or nicardipine or nifedipine or verapamil).ti,ab.
48.	((hypertens* or blood pressure or BP) adj3 (manage* or managing or control* or reduc* or limit* or lower*)).ti,ab.
49.	((anti-hypertens* or antihypertens*) adj3 (drug* or agent*)).ti,ab.
50.	exp antihypertensive agent/
51.	(anticonvulsant* or anti-convulsant* or anti epileptic* or antiepileptic* or phenytoin or Levetiracetam or AED*).ti,ab.
52.	Phenytoin/
53.	exp anticonvulsive agent/
54.	(seizure* adj3 (prevent* or prophyla* or management* or treatment* or control*)).ti,ab.
55.	levetiracetam/

56.	nimodipine/
57.	Nimodipine.ti,ab.
58.	exp antifibrinolytic agent/
59.	(anti-fibrinolytic* or antifibrinolytic* or antifibrinolysin* or anti-fibrinolysin* or antiplasmin* or anti-plasmin* or ((plasmin* or fibrinolysis) adj3 inhibitor*)).ti,ab.
60.	tranexamic acid/
61.	(tranexamic or txa or cyklokapron).ti,ab.
62.	aminocaproic acid/
63.	(Aminocaproic or aminohexanoic or Ahx).ti,ab.
64.	exp analgesia/
65.	exp analgesic agent/
66.	analges*.ti,ab.
67.	paracetamol/
68.	(acetaminophen or paracetamol).ti,ab.
69.	((pain* or headache*) adj3 (manage* or managing or control* or treat* or relief*)).ti,ab.
70.	exp anesthesia/
71.	exp sedation/
72.	(sedat* or an?esthe*).ti,ab.
73.	electrolyte*.ti,ab.
74.	(hypona?tremi* or hyperna?tremi* or Hyperkal?emi* or hypokal?emi* or Hypochlor?emi* or hyperchlor?emi* or hyperosmol* or hypo-osmol*).ti,ab.
75.	exp electrolyte balance/
76.	exp electrolyte disturbance/
77.	exp Electrolytes/
78.	(hypotoni* or hypo-toni*).ti,ab.
79.	((saline or sodium) adj3 (fluid* or solution* or manage* or managing or control* or therap*)).ti,ab.
80.	hypertonic solution/
81.	(steroid* or corticosteroid* or Glucocorticoid* or Glucocorticosteroid* or Mineralocorticoid*).ti,ab.
82.	steroid/
83.	(hydrocortisone or fludrocortisone or methylprednisolone or dexamethasone or prednisolone or cortisol).ti,ab.
84.	hydrocortisone/
85.	fludrocortisone/
86.	methylprednisolone/
87.	dexamethasone/
88.	prednisolone/
89.	((salt or sodium) adj3 (wasting or imbalance* or replac* or disorder*)).ti,ab.
90.	or/25-89
91.	24 and 90
92.	random*.ti,ab.
93.	factorial*.ti,ab.
94.	(crossover* or cross over*).ti,ab.
95.	((doubl* or singl*) adj blind*).ti,ab.
96.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
97.	crossover procedure/

98.	single blind procedure/
99.	randomized controlled trial/
100.	double blind procedure/
101.	or/92-100
102.	systematic review/
103.	meta-analysis/
104.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
105.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
106.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
107.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
108.	(search* adj4 literature).ab.
109.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
110.	cochrane.jw.
111.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
112.	or/102-111
113.	Clinical study/
114.	Observational study/
115.	family study/
116.	longitudinal study/
117.	retrospective study/
118.	prospective study/
119.	cohort analysis/
120.	follow-up/
121.	cohort*.ti,ab.
122.	120 and 121
123.	(cohort adj (study or studies or analys* or data)).ti,ab.
124.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
125.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
126.	(before adj2 after adj2 (study or studies or data)).ti,ab.
127.	exp case control study/
128.	case control*.ti,ab.
129.	cross-sectional study/
130.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
131.	or/113-119,122-130
132.	91 and (101 or 112 or 131)

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees

#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(or #1-#5)
#7.	MeSH descriptor: [Fluid Therapy] this term only
#8.	MeSH descriptor: [Rehydration Solutions] this term only
#9.	MeSH descriptor: [Hemodilution] explode all trees
#10.	MeSH descriptor: [Colloids] explode all trees
#11.	(volume near/3 (expand* or expans* or replace* or therap*)):ti,ab
#12.	(hydration or rehydration or re-hydration):ti,ab
#13.	(fluid* near/3 (therap* or manage* or managing or control*)):ti,ab
#14.	(hypervolaem* or hypervolem* or hemodilution or haemodilution):ti,ab
#15.	(crystalloid* or colloid* or dextran* or hetastarch or hydroxyethyl starch or pentastarch or HES or HAES):ti,ab
#16.	((hemodynamic or haemodynamic) near/3 (manage* or managing or therap* or control* or treatment*)):ti,ab
#17.	((temperature or fever or hyperpyrexia) near/3 (manage* or control* or reduc* or limit* or lower*)):ti,ab
#18.	(antipyretic* or anti-pyretic*):ti,ab
#19.	MeSH descriptor: [Antipyretics] explode all trees
#20.	(Acebutolol or Atenolol or Bisoprolol or carvedilol or Celiprolol or Esmolol or labetalol or Metoprolol or Nebivolol or Oxprenolol or nadolol or propranolol or Timolol):ti,ab
#21.	((beta or b) near/3 (block* or antagonist*)):ti,ab
#22.	MeSH descriptor: [Adrenergic beta-Antagonists] explode all trees
#23.	MeSH descriptor: [Nitrates] this term only
#24.	(nitrate* or glyceryl trinitrate or isosorbide or Nitroglycerin* or trinitroglycerin or TNG or GTN or trinitroxypropane or nitroprusside):ti,ab
#25.	MeSH descriptor: [Calcium Channel Blockers] explode all trees
#26.	(calcium near/3 (block* or inhibit* or antagonist*)):ti,ab
#27.	(amlodipine or clevidipine or diltiazem or felodipine or lacidipine or lercanidipine or nicardipine or nifedipine or verapamil):ti,ab
#28.	((hypertens* or blood pressure or BP) near/3 (management or control* or reduc* or limit* or lower*)):ti,ab
#29.	((anti-hypertens* or antihypertens*) near/3 (drug* or agent*)):ti,ab
#30.	MeSH descriptor: [Antihypertensive Agents] this term only
#31.	(anticonvulsant* or anti-convulsant* or anti epileptic* or antiepileptic* or phenytoin or Levetiracetam or AED*):ti,ab
#32.	MeSH descriptor: [Phenytoin] this term only
#33.	MeSH descriptor: [Anticonvulsants] this term only
#34.	(seizure* near/3 (prevent* or prophyla* or management* or treatment* or control*)):ti,ab
#35.	MeSH descriptor: [Nimodipine] this term only
#36.	Nimodipine:ti,ab
#37.	MeSH descriptor: [Antifibrinolytic Agents] this term only
#38.	(anti-fibrinolytic* or antifibrinolytic* or antifibrinolysin* or anti-fibrinolysin* or antiplasmin* or anti-plasmin* or ((plasmin* or fibrinolysis) near/3 inhibitor*)):ti,ab
#39.	MeSH descriptor: [Tranexamic Acid] explode all trees
#40.	(tranexamic or txa or cyklokapron):ti,ab
#41.	MeSH descriptor: [Aminocaproic Acid] this term only

#42.	(Aminocaproic or aminohexanoic or Ahx):ti,ab
#43.	MeSH descriptor: [Analgesia] explode all trees
#44.	MeSH descriptor: [Analgesics] explode all trees
#45.	analges*:ti,ab
#46.	MeSH descriptor: [Acetaminophen] this term only
#47.	(acetaminophen or paracetamol):ti,ab
#48.	((pain* or headache*) near/3 (manage* or managing or control* or treat* or relief*)):ti,ab
#49.	MeSH descriptor: [Anesthesia] explode all trees
#50.	MeSH descriptor: [Conscious Sedation] this term only
#51.	(sedat* or aneste* or anaeste*):ti,ab
#52.	electrolyte*:ti,ab
#53.	(hypona?tremi* or hyponatremi* or hyperna?tremi* or hypernatremi* or Hyperkalemi* or Hyperkalaemi* or hypokalemi* or hypokalaemi* or Hypochlor?emi* or Hypochloremi* or hyperchloremi* or hyperchlor?emi* or hyperosmol* or hypo-osmol*):ti,ab
#54.	MeSH descriptor: [Deep Sedation] this term only
#55.	MeSH descriptor: [Water-Electrolyte Imbalance] explode all trees
#56.	MeSH descriptor: [Water-Electrolyte Balance] this term only
#57.	MeSH descriptor: [Electrolytes] explode all trees
#58.	(hypotoni* or hypo-toni*):ti,ab
#59.	((saline or sodium) near/3 (fluid* or solution* or manage* or managing or control* or therap*)):ti,ab
#60.	MeSH descriptor: [Saline Solution, Hypertonic] this term only
#61.	(steroid* or corticosteroid* or Glucocorticoid* or Glucocorticosteroid* or Mineralocorticoid*):ti,ab
#62.	MeSH descriptor: [Steroids] this term only
#63.	(hydrocortisone or fludrocortisone or methylprednisolone or dexamethasone or prednisolone or cortisol):ti,ab
#64.	MeSH descriptor: [Hydrocortisone] explode all trees
#65.	MeSH descriptor: [Methylprednisolone Acetate] this term only
#66.	MeSH descriptor: [Dexamethasone] this term only
#67.	((salt or sodium) near/3 (wasting or imbalance* or replac* or disorder*)):ti,ab
#68.	(OR #7-#67)
#69.	#6 and #68

A.1.6 Screening

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 6: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 26 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
Embase (OVID)	1974 – 26 June 2020	Exclusions

Database	Dates searched	Search filter used
		Randomised controlled trials Systematic review studies Observational studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	Epidemiologic studies/
30.	Observational study/
31.	exp Cohort studies/
32.	(cohort adj (study or studies or analys* or data)).ti,ab.
33.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.

34.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
35.	Controlled Before-After Studies/
36.	Historically Controlled Study/
37.	Interrupted Time Series Analysis/
38.	(before adj2 after adj2 (study or studies or data)).ti,ab.
39.	or/29-38
40.	exp case control study/
41.	case control*.ti,ab.
42.	or/40-41
43.	39 or 42
44.	Cross-sectional studies/
45.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
46.	or/44-45
47.	39 or 46
48.	39 or 42 or 46
49.	Meta-Analysis/
50.	exp Meta-Analysis as Topic/
51.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
52.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
53.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
54.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
55.	(search* adj4 literature).ab.
56.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
57.	cochrane.jw.
58.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
59.	or/49-57
60.	randomized controlled trial.pt.
61.	controlled clinical trial.pt.
62.	randomi#ed.ti,ab.
63.	placebo.ab.
64.	randomly.ti,ab.
65.	Clinical Trials as topic.sh.
66.	trial.ti.
67.	or/60-66
68.	28 and (48 or 59 or 67)
69.	exp Ultrasonography, Doppler/
70.	Spinal Puncture/
71.	intracranial pressure/
72.	(intracranial adj2 monitor*).ti,ab,kw.
73.	((ICP or non invasive or noninvasive or invasive) adj2 monitor*).ti,ab,hw.
74.	((intraventricular or intraparenchymal or extraventricular) adj3 (catheter* or bolt* or drain* or device* or microsensor*)).ti,ab,kw.
75.	((spinal or lumbar) adj1 (puncture* or tap*)).ti,ab.

76.	(transcranial adj (doppler or ultrasound* or ultrason*)).ti,ab,kw.
77.	(doppler ultrasound* or doppler ultrason*).ti,ab.
78.	or/69-76
79.	68 and 78

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	Clinical study/
28.	Observational study/
29.	family study/
30.	longitudinal study/
31.	retrospective study/
32.	prospective study/
33.	cohort analysis/
34.	follow-up/
35.	cohort*.ti,ab.
36.	34 and 35
37.	(cohort adj (study or studies or analys* or data)).ti,ab.

38.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
39.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
40.	(before adj2 after adj2 (study or studies or data)).ti,ab.
41.	or/27-33,36-40
42.	exp case control study/
43.	case control*.ti,ab.
44.	or/42-43
45.	41 or 44
46.	cross-sectional study/
47.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
48.	or/46-47
49.	41 or 48
50.	41 or 44 or 48
51.	random*.ti,ab.
52.	factorial*.ti,ab.
53.	(crossover* or cross over*).ti,ab.
54.	((doubl* or singl*) adj blind*).ti,ab.
55.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
56.	crossover procedure/
57.	single blind procedure/
58.	randomized controlled trial/
59.	double blind procedure/
60.	or/51-59
61.	systematic review/
62.	meta-analysis/
63.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
64.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
65.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
66.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
67.	(search* adj4 literature).ab.
68.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
69.	((pool* or combined) adj2 (data or trials or studies or results)).ab.
70.	cochrane.jw.
71.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
72.	or/61-70
73.	26 and (50 or 60 or 72)
74.	exp Doppler flowmetry/
75.	lumbar puncture/
76.	intracranial pressure/
77.	(intracranial adj2 monitor*).ti,ab,kw.
78.	((ICP or non invasive or noninvasive or invasive) adj2 monitor*).ti,ab,hw.

79.	((intraventricular or intraparenchymal or extraventricular) adj3 (catheter* or bolt* or drain* or device* or microsensor*)).ti,ab,kw.
80.	((spinal or lumbar) adj1 (puncture* or tap*)).ti,ab.
81.	(transcranial adj (doppler or ultrasound* or ultrason*)).ti,ab,kw.
82.	(doppler ultrasound* or doppler ultrason*).ti,ab.
83.	or/74-82
84.	73 and 83

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(or #1-#5)
#7.	MeSH descriptor: [Ultrasonography, Doppler] explode all trees
#8.	MeSH descriptor: [Spinal Puncture] explode all trees
#9.	MeSH descriptor: [Intracranial Pressure] explode all trees
#10.	(intracranial near/2 monitor*):ti,ab
#11.	((ICP or non invasive or noninvasive or invasive) near/2 monitor*):ti,ab
#12.	((intraventricular or intraparenchymal or extraventricular) near/3 (catheter* or bolt* or drain* or device* or microsensor*)):ti,ab
#13.	((spinal or lumbar) near/1 (puncture* or tap*)):ti,ab
#14.	((transcranial next Doppler*) or (transcranial next ultrasound*) or (transcranial next ultrason*)):ti,ab
#15.	(transcranial next (doppler or ultrasound* or ultrason*)):ti,ab
#16.	(or #7-#15)
#17.	#6 and #16

A.1.7 Managing DCI

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 7: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies
Embase (OVID)	1974 – 24 June 2020	Exclusions Randomised controlled trials

Database	Dates searched	Search filter used
		Systematic review studies Observational studies Diagnostic tests studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	randomized controlled trial.pt.
30.	controlled clinical trial.pt.
31.	randomi#ed.ti,ab.
32.	placebo.ab.
33.	randomly.ti,ab.
34.	Clinical Trials as topic.sh.
35.	trial.ti.

36.	or/29-35
37.	Meta-Analysis/
38.	exp Meta-Analysis as Topic/
39.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
40.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
41.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
42.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
43.	(search* adj4 literature).ab.
44.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
45.	cochrane.jw.
46.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
47.	or/37-46
48.	Epidemiologic studies/
49.	Observational study/
50.	exp Cohort studies/
51.	(cohort adj (study or studies or analys* or data)).ti,ab.
52.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
53.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
54.	Controlled Before-After Studies/
55.	Historically Controlled Study/
56.	Interrupted Time Series Analysis/
57.	(before adj2 after adj2 (study or studies or data)).ti,ab.
58.	exp case control study/
59.	case control*.ti,ab.
60.	Cross-sectional studies/
61.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
62.	or/48-61
63.	exp "Sensitivity and Specificity"/
64.	(sensitivity or specificity).ti,ab.
65.	((pre test or pretest or post test) adj probability).ti,ab.
66.	(predictive value* or PPV or NPV).ti,ab.
67.	likelihood ratio*.ti,ab.
68.	likelihood function/
69.	((area under adj4 curve) or AUC).ti,ab.
70.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
71.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
72.	gold standard.ab.
73.	or/63-72
74.	28 and (36 or 47 or 62 or 73)
75.	Vasospasm, Intracranial/
76.	delayed cerebral isch?emia.ti,ab.

77.	((cerebral or cerebrovascular or intracranial or intra-cranial) adj (spasm* or angiospasm* or vasospasm*)).ti,ab.
78.	(Cerebral adj (artery or arterial) adj (spasm* or angiospasm* or vasospasm*)).ti,ab.
79.	((intracranial or intra-cranial) adj vascular adj (spasm* or angiospasm* or vasospasm*)).ti,ab.
80.	DCI.ti,ab.
81.	or/75-80
82.	74 and 81

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	exp "sensitivity and specificity"/
28.	(sensitivity or specificity).ti,ab.
29.	((pre test or pretest or post test) adj probability).ti,ab.
30.	(predictive value* or PPV or NPV).ti,ab.
31.	likelihood ratio*.ti,ab.
32.	((area under adj4 curve) or AUC).ti,ab.
33.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.

34.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
35.	diagnostic accuracy/
36.	diagnostic test accuracy study/
37.	gold standard.ab.
38.	or/27-37
39.	Clinical study/
40.	Observational study/
41.	family study/
42.	longitudinal study/
43.	retrospective study/
44.	prospective study/
45.	cohort analysis/
46.	follow-up/
47.	cohort*.ti,ab.
48.	46 and 47
49.	(cohort adj (study or studies or analys* or data)).ti,ab.
50.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
51.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
52.	(before adj2 after adj2 (study or studies or data)).ti,ab.
53.	exp case control study/
54.	case control*.ti,ab.
55.	cross-sectional study/
56.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
57.	or/39-45,48-56
58.	random*.ti,ab.
59.	factorial*.ti,ab.
60.	(crossover* or cross over*).ti,ab.
61.	((doubl* or singl*) adj blind*).ti,ab.
62.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
63.	crossover procedure/
64.	single blind procedure/
65.	randomized controlled trial/
66.	double blind procedure/
67.	or/58-66
68.	systematic review/
69.	meta-analysis/
70.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
71.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
72.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
73.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
74.	(search* adj4 literature).ab.

75.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
76.	cochrane.jw.
77.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
78.	or/68-77
79.	26 and (38 or 57 or 67 or 78)
80.	brain vasospasm/
81.	delayed cerebral isch?emia.ti,ab.
82.	((cerebral or cerebrovascular or intracranial or intra-cranial) adj (spasm* or angiospasm* or vasospasm*).ti,ab.
83.	(Cerebral adj (artery or arterial) adj (spasm* or angiospasm* or vasospasm*).ti,ab.
84.	((intracranial or intra-cranial) adj vascular adj (spasm* or angiospasm* or vasospasm*).ti,ab.
85.	DCI.ti,ab.
86.	or/80-85
87.	79 and 86

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(or #1-#5)
#7.	MeSH descriptor: [Vasospasm, Intracranial] this term only
#8.	delayed cerebral isch*emia.ti,ab
#9.	((cerebral or cerebrovascular or intracranial or intra-cranial) NEXT (spasm* or angiospasm* or vasospasm*)):ti,ab
#10.	(Cerebral adj (artery or arterial) NEXT (spasm* or angiospasm* or vasospasm*)):ti,ab
#11.	((intracranial or intra-cranial) NEXT vascular NEXT (spasm* or angiospasm* or vasospasm*)):ti,ab
#12.	dci:ti,ab
#13.	(or #7-#12)

A.1.8 Detecting and managing hydrocephalus

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 8: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies

Database	Dates searched	Search filter used
		Observational studies Diagnostic tests studies
Embase (OVID)	1974 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	exp "Sensitivity and Specificity"/
30.	(sensitivity or specificity).ti,ab.
31.	((pre test or pretest or post test) adj probability).ti,ab.

32.	(predictive value* or PPV or NPV).ti,ab.
33.	likelihood ratio*.ti,ab.
34.	likelihood function/
35.	((area under adj4 curve) or AUC).ti,ab.
36.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
37.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
38.	gold standard.ab.
39.	or/29-38
40.	Epidemiologic studies/
41.	Observational study/
42.	exp Cohort studies/
43.	(cohort adj (study or studies or analys* or data)).ti,ab.
44.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
45.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
46.	Controlled Before-After Studies/
47.	Historically Controlled Study/
48.	Interrupted Time Series Analysis/
49.	(before adj2 after adj2 (study or studies or data)).ti,ab.
50.	exp case control study/
51.	case control*.ti,ab.
52.	Cross-sectional studies/
53.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
54.	or/40-53
55.	Meta-Analysis/
56.	exp Meta-Analysis as Topic/
57.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
58.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
59.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
60.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
61.	(search* adj4 literature).ab.
62.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
63.	cochrane.jw.
64.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
65.	or/55-64
66.	randomized controlled trial.pt.
67.	controlled clinical trial.pt.
68.	randomi#ed.ti,ab.
69.	placebo.ab.
70.	randomly.ti,ab.
71.	Clinical Trials as topic.sh.
72.	trial.ti.

73.	or/66-72
74.	28 and (39 or 54 or 65 or 73)
75.	hydrocephalus/ or hydrocephalus, normal pressure/
76.	(hydrocephalus or hydrocephaly).ti,ab.
77.	water on the brain.ti,ab.
78.	or/75-77
79.	74 and 78

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	exp "sensitivity and specificity"/
28.	(sensitivity or specificity).ti,ab.
29.	((pre test or pretest or post test) adj probability).ti,ab.
30.	(predictive value* or PPV or NPV).ti,ab.
31.	likelihood ratio*.ti,ab.
32.	((area under adj4 curve) or AUC).ti,ab.
33.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
34.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.

35.	diagnostic accuracy/
36.	diagnostic test accuracy study/
37.	gold standard.ab.
38.	or/27-37
39.	Clinical study/
40.	Observational study/
41.	family study/
42.	longitudinal study/
43.	retrospective study/
44.	prospective study/
45.	cohort analysis/
46.	follow-up/
47.	cohort*.ti,ab.
48.	46 and 47
49.	(cohort adj (study or studies or analys* or data)).ti,ab.
50.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
51.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
52.	(before adj2 after adj2 (study or studies or data)).ti,ab.
53.	exp case control study/
54.	case control*.ti,ab.
55.	cross-sectional study/
56.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
57.	or/39-45,48-56
58.	random*.ti,ab.
59.	factorial*.ti,ab.
60.	(crossover* or cross over*).ti,ab.
61.	((doubl* or singl*) adj blind*).ti,ab.
62.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
63.	crossover procedure/
64.	single blind procedure/
65.	randomized controlled trial/
66.	double blind procedure/
67.	or/58-66
68.	systematic review/
69.	meta-analysis/
70.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
71.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
72.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
73.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
74.	(search* adj4 literature).ab.
75.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
76.	cochrane.jw.

77.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
78.	or/68-77
79.	26 and (38 or 57 or 67 or 78)
80.	normotensive hydrocephalus/ or hydrocephalus/
81.	(hydrocephalus or hydrocephaly).ti,ab.
82.	water on the brain.ti,ab.
83.	or/80-82
84.	79 and 83

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(OR #1-#5)
#7.	MeSH descriptor: [Hydrocephalus] explode all trees
#8.	(hydrocephalus or hydrocephaly):ti,ab
#9.	water on the brain.ti,ab
#10.	(or #7-#9)
#11.	#6 and #10

A.1.9 Detecting ICH

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 9: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies
Embase (OVID)	1974 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	exp "Sensitivity and Specificity"/
30.	(sensitivity or specificity).ti,ab.
31.	((pre test or pretest or post test) adj probability).ti,ab.
32.	(predictive value* or PPV or NPV).ti,ab.
33.	likelihood ratio*.ti,ab.
34.	likelihood function/
35.	((area under adj4 curve) or AUC).ti,ab.
36.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
37.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
38.	gold standard.ab.
39.	or/29-38
40.	Epidemiologic studies/
41.	Observational study/
42.	exp Cohort studies/

43.	(cohort adj (study or studies or analys* or data)).ti,ab.
44.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
45.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
46.	Controlled Before-After Studies/
47.	Historically Controlled Study/
48.	Interrupted Time Series Analysis/
49.	(before adj2 after adj2 (study or studies or data)).ti,ab.
50.	exp case control study/
51.	case control*.ti,ab.
52.	Cross-sectional studies/
53.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
54.	or/40-53
55.	Meta-Analysis/
56.	exp Meta-Analysis as Topic/
57.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
58.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
59.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
60.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
61.	(search* adj4 literature).ab.
62.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
63.	cochrane.jw.
64.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
65.	or/55-64
66.	randomized controlled trial.pt.
67.	controlled clinical trial.pt.
68.	randomi#ed.ti,ab.
69.	placebo.ab.
70.	randomly.ti,ab.
71.	Clinical Trials as topic.sh.
72.	trial.ti.
73.	or/66-72
74.	28 and (39 or 54 or 65 or 73)
75.	exp intracranial hypertension/ or hypertensive encephalopathy/ or pseudotumor cerebri/
76.	(intracranial hypertension or intra-cranial hypertension).ti,ab.
77.	(pseudotumor celebri or hypertensive encephalopathy).ti,ab.
78.	((elevat* or increas*) adj (intracranial or intra-cranial) adj pressure).ti,ab.
79.	intracerebral hypertension.ti,ab.
80.	or/75-79
81.	74 and 80

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	exp "sensitivity and specificity"/
28.	(sensitivity or specificity).ti,ab.
29.	((pre test or pretest or post test) adj probability).ti,ab.
30.	(predictive value* or PPV or NPV).ti,ab.
31.	likelihood ratio*.ti,ab.
32.	((area under adj4 curve) or AUC).ti,ab.
33.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
34.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
35.	diagnostic accuracy/
36.	diagnostic test accuracy study/
37.	gold standard.ab.
38.	or/27-37
39.	Clinical study/
40.	Observational study/
41.	family study/
42.	longitudinal study/

43.	retrospective study/
44.	prospective study/
45.	cohort analysis/
46.	follow-up/
47.	cohort*.ti,ab.
48.	46 and 47
49.	(cohort adj (study or studies or analys* or data)).ti,ab.
50.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
51.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
52.	(before adj2 after adj2 (study or studies or data)).ti,ab.
53.	exp case control study/
54.	case control*.ti,ab.
55.	cross-sectional study/
56.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
57.	or/39-45,48-56
58.	random*.ti,ab.
59.	factorial*.ti,ab.
60.	(crossover* or cross over*).ti,ab.
61.	((doubl* or singl*) adj blind*).ti,ab.
62.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
63.	crossover procedure/
64.	single blind procedure/
65.	randomized controlled trial/
66.	double blind procedure/
67.	or/58-66
68.	systematic review/
69.	meta-analysis/
70.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
71.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
72.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
73.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
74.	(search* adj4 literature).ab.
75.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
76.	cochrane.jw.
77.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
78.	or/68-77
79.	26 and (38 or 57 or 67 or 78)
80.	exp intracranial hypertension/
81.	hypertension encephalopathy/
82.	brain pseudotumor/
83.	(intracranial hypertension or intra-cranial hypertension).ti,ab.
84.	(pseudotumor celebri or hypertensive encephalopathy).ti,ab.

85.	((elevat* or increas*) adj (intracranial or intra-cranial) adj pressure).ti,ab.
86.	intracerebral hypertension.ti,ab.
87.	or/80-86
88.	79 and 87

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(OR #1-#5)
#7.	MeSH descriptor: [Intracranial Hypertension] explode all trees
#8.	MeSH descriptor: [Hypertensive Encephalopathy] explode all trees
#9.	MeSH descriptor: [Pseudotumor Cerebri] explode all trees
#10.	((intracranial NEXT hypertension) or (intra-cranial NEXT hypertension)):ti,ab
#11.	((pseudotumor NEXT celebri) or (hypertensive NEXT encephalopathy)):ti,ab
#12.	((elevat* or increas*) NEXT (intracranial or intra-cranial) NEXT pressure):ti,ab
#13.	(intracerebral NEXT hypertension):ti,ab
#14.	(or #7-#13)
#15.	#6 and #14

A.1.10 Diagnostic imaging strategies

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 10: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies
Embase (OVID)	1974 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	Epidemiologic studies/
30.	Observational study/
31.	exp Cohort studies/
32.	(cohort adj (study or studies or analys* or data)).ti,ab.
33.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
34.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
35.	Controlled Before-After Studies/
36.	Historically Controlled Study/
37.	Interrupted Time Series Analysis/
38.	(before adj2 after adj2 (study or studies or data)).ti,ab.
39.	or/29-38
40.	exp case control study/
41.	case control*.ti,ab.
42.	or/40-41

43.	39 or 42
44.	Cross-sectional studies/
45.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
46.	or/44-45
47.	39 or 46
48.	39 or 42 or 46
49.	Meta-Analysis/
50.	exp Meta-Analysis as Topic/
51.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
52.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
53.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
54.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
55.	(search* adj4 literature).ab.
56.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
57.	cochrane.jw.
58.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
59.	or/49-57
60.	randomized controlled trial.pt.
61.	controlled clinical trial.pt.
62.	randomi#ed.ti,ab.
63.	placebo.ab.
64.	randomly.ti,ab.
65.	Clinical Trials as topic.sh.
66.	trial.ti.
67.	or/60-66
68.	exp "Sensitivity and Specificity"/
69.	(sensitivity or specificity).ti,ab.
70.	((pre test or pretest or post test) adj probability).ti,ab.
71.	(predictive value* or PPV or NPV).ti,ab.
72.	likelihood ratio*.ti,ab.
73.	likelihood function/
74.	((area under adj4 curve) or AUC).ti,ab.
75.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
76.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
77.	gold standard.ab.
78.	or/68-77
79.	Magnetic Resonance Angiography/ or Angiography, Digital Subtraction/ or Computed Tomography Angiography/
80.	((magnetic resonance or digital subtraction or computed tomograph*) adj3 angiograph*).ti,ab.
81.	((MR or DS or CT) adj3 (angiograph* or angiogram*)).ti,ab.
82.	(MRA or DSA or CTA).ti,ab.
83.	or/79-82

84.	28 and 83 and (48 or 59 or 67 or 78)
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Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	Clinical study/
28.	Observational study/
29.	family study/
30.	longitudinal study/
31.	retrospective study/
32.	prospective study/
33.	cohort analysis/
34.	follow-up/
35.	cohort*.ti,ab.
36.	34 and 35
37.	(cohort adj (study or studies or analys* or data)).ti,ab.
38.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
39.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.

40.	(before adj2 after adj2 (study or studies or data)).ti,ab.
41.	or/27-33,36-40
42.	exp case control study/
43.	case control*.ti,ab.
44.	or/42-43
45.	41 or 44
46.	cross-sectional study/
47.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
48.	or/46-47
49.	41 or 48
50.	41 or 44 or 48
51.	random*.ti,ab.
52.	factorial*.ti,ab.
53.	(crossover* or cross over*).ti,ab.
54.	((doubl* or singl*) adj blind*).ti,ab.
55.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
56.	crossover procedure/
57.	single blind procedure/
58.	randomized controlled trial/
59.	double blind procedure/
60.	or/51-59
61.	systematic review/
62.	meta-analysis/
63.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
64.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
65.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
66.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
67.	(search* adj4 literature).ab.
68.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
69.	((pool* or combined) adj2 (data or trials or studies or results)).ab.
70.	cochrane.jw.
71.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
72.	or/61-70
73.	exp "sensitivity and specificity"/
74.	(sensitivity or specificity).ti,ab.
75.	((pre test or pretest or post test) adj probability).ti,ab.
76.	(predictive value* or PPV or NPV).ti,ab.
77.	likelihood ratio*.ti,ab.
78.	((area under adj4 curve) or AUC).ti,ab.
79.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
80.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
81.	diagnostic accuracy/

82.	diagnostic test accuracy study/
83.	gold standard.ab.
84.	or/73-83
85.	magnetic resonance angiography/ or computed tomographic angiography/ or digital subtraction angiography/
86.	((magnetic resonance or digital subtraction (or computed tomograph*) adj3 angiograph*).ti,ab.
87.	((MR or DS or CT) adj3 (angiograph* or angiogram*).ti,ab.
88.	(MRA or DSA or CTA).ti,ab.
89.	or/85-88
90.	26 and 89 and (50 or 60 or 72 or 84)

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(or #1-#5)
#7.	MeSH descriptor: [Magnetic Resonance Angiography] this term only
#8.	MeSH descriptor: [Angiography, Digital Subtraction] this term only
#9.	MeSH descriptor: [Computed Tomography Angiography] this term only
#10.	((magnetic resonance or digital subtraction or computed tomograph*) near/3 angiograph*):ti,ab
#11.	((MR or DS or CT) near/3 (angiograph* or angiogram*)):ti,ab
#12.	(MRA or DSA or CTA):ti,ab
#13.	(or #7-#12)
#14.	#6 and #13

A.1.11 Intervention and timing for rebleed

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 11: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 26 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
Embase (OVID)	1974 – 26 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies

Database	Dates searched	Search filter used
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	Embolization, Therapeutic/
30.	(coil* or hydrocoil* or Guglielmi* or GDC*).ti,ab.
31.	endovascular procedures/
32.	((neuroendovascular or endovascular or intrasaccular or intra-saccular) adj3 (treatment* or intervention* or procedure* or therap* or device* or surgery)) or EVT).ti,ab.
33.	blood vessel prosthesis implantation/
34.	vascular surgical procedures/
35.	blood vessel prosthesis/
36.	emboli?at*.ti,ab.

37.	(clip* or microsurg*).ti,ab.
38.	Neurosurgery/
39.	neurosurgical procedures/
40.	(web or woven endobridge* or bridg*).ti,ab.
41.	((flow adj (diver* or disrupt*)) or FRED or pipeline).ti,ab.
42.	or/29-41
43.	28 and 42
44.	Epidemiologic studies/
45.	Observational study/
46.	exp Cohort studies/
47.	(cohort adj (study or studies or analys* or data)).ti,ab.
48.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
49.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
50.	Controlled Before-After Studies/
51.	Historically Controlled Study/
52.	Interrupted Time Series Analysis/
53.	(before adj2 after adj2 (study or studies or data)).ti,ab.
54.	exp case control study/
55.	case control*.ti,ab.
56.	Cross-sectional studies/
57.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
58.	or/44-57
59.	Meta-Analysis/
60.	exp Meta-Analysis as Topic/
61.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
62.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
63.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
64.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
65.	(search* adj4 literature).ab.
66.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
67.	cochrane.jw.
68.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
69.	or/59-68
70.	randomized controlled trial.pt.
71.	controlled clinical trial.pt.
72.	randomi#ed.ti,ab.
73.	placebo.ab.
74.	randomly.ti,ab.
75.	Clinical Trials as topic.sh.
76.	trial.ti.
77.	or/70-76
78.	43 and (58 or 69 or 77)

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	exp artificial embolization/
28.	(coil* or hydrocoil* or Guglielmi* or GDC*).ti,ab.
29.	exp endovascular surgery/
30.	((neuroendovascular or endovascular or intrasaccular or intra-saccular) adj3 (treatment* or intervention* or procedure* or therap* or device* or surgery)) or EVT).ti,ab.
31.	blood vessel transplantation/
32.	vascular surgery/
33.	exp aneurysm surgery/
34.	blood vessel prosthesis/
35.	emboli?at*.ti,ab.
36.	(clip* or microsurg*).ti,ab.
37.	neurosurgery/
38.	(web or woven endobridge* or bridg*).ti,ab.
39.	((flow adj (diver* or disrupt*)) or FRED or pipeline).ti,ab.
40.	or/27-39
41.	26 and 40

42.	Clinical study/
43.	Observational study/
44.	family study/
45.	longitudinal study/
46.	retrospective study/
47.	prospective study/
48.	cohort analysis/
49.	follow-up/
50.	cohort*.ti,ab.
51.	49 and 50
52.	(cohort adj (study or studies or analys* or data)).ti,ab.
53.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
54.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
55.	(before adj2 after adj2 (study or studies or data)).ti,ab.
56.	exp case control study/
57.	case control*.ti,ab.
58.	cross-sectional study/
59.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
60.	or/42-48,51-59
61.	random*.ti,ab.
62.	factorial*.ti,ab.
63.	(crossover* or cross over*).ti,ab.
64.	((doubl* or singl*) adj blind*).ti,ab.
65.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
66.	crossover procedure/
67.	single blind procedure/
68.	randomized controlled trial/
69.	double blind procedure/
70.	or/61-69
71.	systematic review/
72.	meta-analysis/
73.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
74.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
75.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
76.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
77.	(search* adj4 literature).ab.
78.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
79.	cochrane.jw.
80.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
81.	or/71-80
82.	41 and (60 or 70 or 81)

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(or #1-#5)
#7.	MeSH descriptor: [Embolization, Therapeutic] explode all trees
#8.	(coil* or hydrocoil* or Guglielmi* or GDC*):ti,ab
#9.	MeSH descriptor: [Endovascular Procedures] explode all trees
#10.	((neuroendovascular or endovascular or intrasaccular or intra-saccular) near/3 (treatment* or intervention* or procedure* or therap* or device* or surgery)) or EVT):ti,ab
#11.	MeSH descriptor: [Blood Vessel Prosthesis Implantation] explode all trees
#12.	MeSH descriptor: [Vascular Surgical Procedures] explode all trees
#13.	MeSH descriptor: [Blood Vessel Prosthesis] explode all trees
#14.	emboli?at*:ti,ab
#15.	(clip* or microsurg*):ti,ab
#16.	MeSH descriptor: [Neurosurgery] explode all trees
#17.	MeSH descriptor: [Neurosurgical Procedures] explode all trees
#18.	(web or woven endobridge* or bridg*):ti,ab
#19.	((flow next (diver* or disrupt*)) or FRED or pipeline):ti,ab
#20.	(or #7-#19)
#21.	#6 and #20

A.1.12 Risk of subsequent SAH

Searches were constructed using the following approach:

- Population AND Prognostic/risk factor terms AND Study filters

Table 12: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 26 June 2020	Exclusions Observational studies Prognostic studies
Embase (OVID)	1974 – 26 June 2020	Exclusions Observational studies Prognostic studies

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/

5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	(rebleed* or re-bleed* or retreatment* or re-treatment*).ti,ab.
30.	((repeat* or subsequent or recur* or further or second) adj3 (event* or treat*)).ti,ab.
31.	((subsequent* or repeat* or recur*) adj3 (hemorrhag* or haemorrhag* or bleed* or blood* or aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
32.	or/29-31
33.	28 and 32
34.	((subsequent* or repeat* or recur*) adj3 (subarachnoid* or arachnoid* or aSAH or SAH)).ti,ab.
35.	((subsequent* or repeat* or recur*) adj3 (cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
36.	34 or 35
37.	36 not 24
38.	28 and 37
39.	38 not 26
40.	33 or 39
41.	risk/
42.	Risk Assessment/
43.	Risk Factors/
44.	risk*.ti.
45.	or/41-44
46.	predict.ti.

47.	(validat* or rule*).ti,ab.
48.	(predict* and (outcome* or risk* or model*)).ti,ab.
49.	((history or variable* or criteria or scor* or characteristic* or finding* or factor*) and (predict* or model* or decision* or identif* or prognos*)).ti,ab.
50.	decision*.ti,ab. and Logistic models/
51.	(decision* and (model* or clinical*)).ti,ab.
52.	(prognostic and (history or variable* or criteria or scor* or characteristic* or finding* or factor* or model*)).ti,ab.
53.	(stratification or discrimination or discriminate or c statistic or "area under the curve" or AUC or calibration or indices or algorithm or multivariable).ti,ab.
54.	ROC curve/
55.	or/46-54
56.	Epidemiologic studies/
57.	Observational study/
58.	exp Cohort studies/
59.	(cohort adj (study or studies or analys* or data)).ti,ab.
60.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
61.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
62.	Controlled Before-After Studies/
63.	Historically Controlled Study/
64.	Interrupted Time Series Analysis/
65.	(before adj2 after adj2 (study or studies or data)).ti,ab.
66.	exp case control study/
67.	case control*.ti,ab.
68.	Cross-sectional studies/
69.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
70.	or/56-69
71.	40 and (45 or 55 or 70)

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.

14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	(rebleed* or re-bleed* or retreatment* or re-treatment*).ti,ab.
28.	((repeat* or subsequent or recur* or further or second) adj3 (event* or treat*)).ti,ab.
29.	((subsequent* or repeat* or recur*) adj3 (hemorrhag* or haemorrhag* or bleed* or blood* or aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
30.	or/27-29
31.	26 and 30
32.	((subsequent* or repeat* or recur*) adj3 (subarachnoid* or arachnoid* or aSAH or SAH)).ti,ab.
33.	((subsequent* or repeat* or recur*) adj3 (cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
34.	32 or 33
35.	34 not 22
36.	26 and 35
37.	36 not 24
38.	31 or 37
39.	risk/
40.	risk assessment/
41.	risk factor/
42.	risk*.ti.
43.	or/39-42
44.	predict.ti.
45.	(validat* or rule*).ti,ab.
46.	(predict* and (outcome* or risk* or model*)).ti,ab.
47.	((history or variable* or criteria or scor* or characteristic* or finding* or factor*) and (predict* or model* or decision* or identif* or prognos*)).ti,ab.
48.	decision*.ti,ab. and Statistical model/
49.	(decision* and (model* or clinical*)).ti,ab.
50.	(prognostic and (history or variable* or criteria or scor* or characteristic* or finding* or factor* or model*)).ti,ab.
51.	(stratification or discrimination or discriminate or c statistic or "area under the curve" or AUC or calibration or indices or algorithm or multivariable).ti,ab.
52.	Receiver operating characteristic/
53.	or/44-52
54.	Clinical study/

55.	Observational study/
56.	family study/
57.	longitudinal study/
58.	retrospective study/
59.	prospective study/
60.	cohort analysis/
61.	follow-up/
62.	cohort*.ti,ab.
63.	61 and 62
64.	(cohort adj (study or studies or analys* or data)).ti,ab.
65.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
66.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
67.	(before adj2 after adj2 (study or studies or data)).ti,ab.
68.	or/54-60,63-67
69.	exp case control study/
70.	case control*.ti,ab.
71.	cross-sectional study/
72.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
73.	or/68-72
74.	38 and (43 or 53 or 73)

A.1.13 Imaging follow-up

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 13: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 26 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
Embase (OVID)	1974 – 26 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.

3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	Epidemiologic studies/
30.	Observational study/
31.	exp Cohort studies/
32.	(cohort adj (study or studies or analys* or data)).ti,ab.
33.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
34.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
35.	Controlled Before-After Studies/
36.	Historically Controlled Study/
37.	Interrupted Time Series Analysis/
38.	(before adj2 after adj2 (study or studies or data)).ti,ab.
39.	or/29-38
40.	exp case control study/
41.	case control*.ti,ab.
42.	or/40-41
43.	39 or 42
44.	Cross-sectional studies/

45.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
46.	or/44-45
47.	39 or 46
48.	39 or 42 or 46
49.	Meta-Analysis/
50.	exp Meta-Analysis as Topic/
51.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
52.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
53.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
54.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
55.	(search* adj4 literature).ab.
56.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
57.	cochrane.jw.
58.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
59.	or/49-57
60.	randomized controlled trial.pt.
61.	controlled clinical trial.pt.
62.	randomi#ed.ti,ab.
63.	placebo.ab.
64.	randomly.ti,ab.
65.	Clinical Trials as topic.sh.
66.	trial.ti.
67.	or/60-66
68.	Magnetic Resonance Angiography/ or Angiography, Digital Subtraction/ or Computed Tomography Angiography/
69.	((magnetic resonance or digital subtraction or computed tomograph*) adj3 angiograph*).ti,ab.
70.	((MR or DS or CT) adj3 (angiograph* or angiogram*)).ti,ab.
71.	(MRA or DSA or CTA).ti,ab.
72.	or/68-71
73.	28 and 72 and (48 or 59 or 67)

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.

10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	Clinical study/
28.	Observational study/
29.	family study/
30.	longitudinal study/
31.	retrospective study/
32.	prospective study/
33.	cohort analysis/
34.	follow-up/
35.	cohort*.ti,ab.
36.	34 and 35
37.	(cohort adj (study or studies or analys* or data)).ti,ab.
38.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
39.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
40.	(before adj2 after adj2 (study or studies or data)).ti,ab.
41.	or/27-33,36-40
42.	exp case control study/
43.	case control*.ti,ab.
44.	or/42-43
45.	41 or 44
46.	cross-sectional study/
47.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
48.	or/46-47
49.	41 or 48
50.	41 or 44 or 48
51.	random*.ti,ab.
52.	factorial*.ti,ab.
53.	(crossover* or cross over*).ti,ab.

54.	((doubl* or singl*) adj blind*).ti,ab.
55.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
56.	crossover procedure/
57.	single blind procedure/
58.	randomized controlled trial/
59.	double blind procedure/
60.	or/51-59
61.	systematic review/
62.	meta-analysis/
63.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
64.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
65.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
66.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
67.	(search* adj4 literature).ab.
68.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
69.	((pool* or combined) adj2 (data or trials or studies or results)).ab.
70.	cochrane.jw.
71.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
72.	or/61-70
73.	magnetic resonance angiography/ or computed tomographic angiography/ or digital subtraction angiography/
74.	((magnetic resonance or digital subtraction or computed tomograph*) adj3 angiograph*).ti,ab.
75.	((MR or DS or CT) adj3 (angiograph* or angiogram*)).ti,ab.
76.	(MRA or DSA or CTA).ti,ab.
77.	or/73-76
78.	26 and 77 and (50 or 60 or 72)

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(or #1-#5)
#7.	MeSH descriptor: [Magnetic Resonance Angiography] this term only
#8.	MeSH descriptor: [Angiography, Digital Subtraction] this term only
#9.	MeSH descriptor: [Computed Tomography Angiography] this term only
#10.	((magnetic resonance or digital subtraction or computed tomograph*) near/3 angiograph*):ti,ab
#11.	((MR or DS or CT) near/3 (angiograph* or angiogram*)):ti,ab
#12.	(MRA or DSA or CTA):ti,ab

#13.	(or #7-#12)
#14.	#6 and #13

A.1.14 Antihypertensives

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 14: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 –24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
Embase (OVID)	1974 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/

20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	(Acebutolol or Atenolol or Bisoprolol or carvedilol or Celiprolol or Esmolol or labetalol or Metoprolol or Nebivolol or Oxprenolol or nadolol or propranolol or Timolol).ti,ab.
30.	((beta or b) adj3 (block* or antagonist*).ti,ab.
31.	exp Adrenergic beta-Antagonists/
32.	Nitrates/
33.	(nitrate* or glyceryl trinitrate or isosorbide or Nitroglycerin* or trinitroglycerin or TNG or GTN or trinitroxypropane or nitroprusside).ti,ab.
34.	Nitroglycerin/
35.	Nitroprusside/
36.	exp Calcium Channel Blockers/
37.	(calcium adj3 (block* or inhibit* or antagonist*).ti,ab.
38.	(amlodipine or clevidipine or diltiazem or felodipine or lacidipine or lercanidipine or nicardipine or nifedipine or verapamil).ti,ab.
39.	((hypertens* or blood pressure or BP) adj3 (manage* or managing or control* or reduc* or limit* or lower*).ti,ab.
40.	((anti-hypertens* or antihypertens*) adj3 (drug* or agent*).ti,ab.
41.	Antihypertensive Agents/
42.	exp Anticoagulants/
43.	exp Coumarins/
44.	(anticoagulant* or anti coagulant* or antithrombotic*).ti,ab.
45.	(apixaban or Abciximab or Acenocoumarol or Ancrod or antivitamin K or Becaplermin or beta 2-Glycoprotein or beta2glycoprotein or bivalirudin or citric acid or dabigatran or Dalteparin or Dermatan or Dextrans or Dicumarol or edoxaban or Edetic Acid or Ethylenediaminetetraacetic acid or Enoxaparin or Ethyl Biscoumacetate or fondaparinux or Gabexate or heparin* or Nadroparin or Pentosan Sulfuric Polyester or pentosan polysulfate or polysulphate or Phenindione or Phenprocoumon or Protein C or Protein S or Sodium Citrate or rivaroxaban or Tinzaparin or warfarin or enoxaparin or ximelagatran or coumarin* or 4 hydrox?coumarin* or vitamin K antagonist* or VKA*).ti,ab.
46.	(blood adj2 thin*).ti,ab.
47.	(clot* adj2 inhibit*).ti,ab.
48.	(fibrin* adj2 (degradation or split*).ti,ab.
49.	or/29-48
50.	28 and 49
51.	Meta-Analysis/
52.	exp Meta-Analysis as Topic/
53.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
54.	((systematic* or evidence*) adj3 (review* or overview*).ti,ab.

55.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
56.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
57.	(search* adj4 literature).ab.
58.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
59.	cochrane.jw.
60.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
61.	or/51-60
62.	randomized controlled trial.pt.
63.	controlled clinical trial.pt.
64.	randomi#ed.ti,ab.
65.	placebo.ab.
66.	randomly.ti,ab.
67.	Clinical Trials as topic.sh.
68.	trial.ti.
69.	or/62-68
70.	Epidemiologic studies/
71.	Observational study/
72.	exp Cohort studies/
73.	(cohort adj (study or studies or analys* or data)).ti,ab.
74.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
75.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
76.	Controlled Before-After Studies/
77.	Historically Controlled Study/
78.	Interrupted Time Series Analysis/
79.	(before adj2 after adj2 (study or studies or data)).ti,ab.
80.	exp case control study/
81.	case control*.ti,ab.
82.	Cross-sectional studies/
83.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
84.	or/70-83
85.	50 and (61 or 69 or 84)

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/

8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	limit 23 to English language
25.	(Acebutolol or Atenolol or Bisoprolol or carvedilol or Celiprolol or Esmolol or labetalol or Metoprolol or Nebivolol or Oxprenolol or nadolol or propranolol or Timolol).ti,ab.
26.	((beta or b) adj3 (block* or antagonist*).ti,ab.
27.	exp beta adrenergic receptor blocking agent/
28.	nitrate/
29.	(nitrate* or glyceryl trinitrate or isosorbide or Nitroglycerin* or trinitroglycerin or TNG or GTN or trinitroxypropane or nitroprusside).ti,ab.
30.	glyceryl trinitrate/
31.	nitroprusside sodium/
32.	exp calcium channel blocking agent/
33.	(calcium adj3 (block* or inhibit* or antagonist*).ti,ab.
34.	(amlodipine or clevidipine or diltiazem or felodipine or lacidipine or lercanidipine or nicardipine or nifedipine or verapamil).ti,ab.
35.	((hypertens* or blood pressure or BP) adj3 (manage* or managing or control* or reduc* or limit* or lower*).ti,ab.
36.	((anti-hypertens* or antihypertens*) adj3 (drug* or agent*).ti,ab.
37.	exp antihypertensive agent/
38.	exp anticoagulant agent/
39.	(anticoagulant* or anti coagulant* or antithrombotic*).ti,ab.
40.	(apixaban or Abciximab or Acenocoumarol or Ancrod or antivitamin K or Becaplermin or beta 2-Glycoprotein or beta2glycoprotein or bivalirudin or citric acid or dabigatran or Dalteparin or Dermatan or Dextrans or Dicumarol or edoxaban or Edetic Acid or Ethylenediaminetetraacetic acid or Enoxaparin or Ethyl Biscoumacetate or fondaparinux or Gabexate or heparin* or Nadroparin or Pentosan Sulfuric Polyester or pentosan polysulfate or polysulphate or Phenindione or Phenprocoumon or Protein C or Protein S or Sodium Citrate or rivaroxaban or Tinzaparin or warfarin or enoxaparin or ximelagatran or coumarin* or 4 hydrox?coumarin* or vitamin K antagonist* or VKA*).ti,ab.
41.	(blood adj2 thin*).ti,ab.
42.	(clot* adj2 inhibit*).ti,ab.
43.	(fibrin* adj2 (degradation or split*).ti,ab.

44.	or/38-43
45.	24 and 44
46.	random*.ti,ab.
47.	factorial*.ti,ab.
48.	(crossover* or cross over*).ti,ab.
49.	((doubl* or singl*) adj blind*).ti,ab.
50.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
51.	crossover procedure/
52.	single blind procedure/
53.	randomized controlled trial/
54.	double blind procedure/
55.	or/46-54
56.	systematic review/
57.	meta-analysis/
58.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
59.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
60.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
61.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
62.	(search* adj4 literature).ab.
63.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
64.	cochrane.jw.
65.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
66.	or/56-65
67.	Clinical study/
68.	Observational study/
69.	family study/
70.	longitudinal study/
71.	retrospective study/
72.	prospective study/
73.	cohort analysis/
74.	follow-up/
75.	cohort*.ti,ab.
76.	74 and 75
77.	(cohort adj (study or studies or analys* or data)).ti,ab.
78.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
79.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
80.	(before adj2 after adj2 (study or studies or data)).ti,ab.
81.	exp case control study/
82.	case control*.ti,ab.
83.	cross-sectional study/
84.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
85.	or/67-73,76-84

86.	45 and (55 or 66 or 85)
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Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(or #1-#5)
#7.	(Acebutolol or Atenolol or Bisoprolol or carvedilol or Celiprolol or Esmolol or labetalol or Metoprolol or Nebivolol or Oxprenolol or nadolol or propranolol or Timolol):ti,ab
#8.	((beta or b) near/3 (block* or antagonist*)):ti,ab
#9.	MeSH descriptor: [Adrenergic beta-Antagonists] explode all trees
#10.	MeSH descriptor: [Nitrates] this term only
#11.	(nitrate* or glyceryl trinitrate or isosorbide or Nitroglycerin* or trinitroglycerin or TNG or GTN or trinitroxypropane or nitroprusside):ti,ab
#12.	MeSH descriptor: [Calcium Channel Blockers] explode all trees
#13.	(calcium near/3 (block* or inhibit* or antagonist*)):ti,ab
#14.	(amlodipine or clevidipine or diltiazem or felodipine or lacidipine or lercanidipine or nicardipine or nifedipine or verapamil):ti,ab
#15.	((hypertens* or blood pressure or BP) near/3 (management or control* or reduc* or limit* or lower*)):ti,ab
#16.	((anti-hypertens* or antihypertens*) near/3 (drug* or agent*)):ti,ab
#17.	MeSH descriptor: [Antihypertensive Agents] this term only
#18.	MeSH descriptor: [Anticoagulants] explode all trees
#19.	MeSH descriptor: [Coumarins] explode all trees
#20.	(anticoagulant* or anti coagulant* or antithrombotic*).ti,ab.
#21.	(apixaban or Abciximab or Acenocoumarol or Ancrod or antivitamin K or Becaplermin or beta 2 Glycoprotein or beta2glycoprotein or bivalirudin or citric acid or dabigatran or Dalteparin or Dermatan or Dextrans or Dicumarol or edoxaban or Edetic Acid or Ethylenediaminetetraacetic acid or Enoxaparin or Ethyl Biscoumacetate or fondaparinux or Gabexate or heparin* or Nadroparin or Pentosan Sulfuric Polyester or pentosan polysulfate or polysulphate or Phenindione or Phenprocoumon or Protein C or Protein S or Sodium Citrate or rivaroxaban or Tinzaparin or warfarin or enoxaparin or ximelagatran or coumarin* or 4 hydrox?coumarin* or vitamin K antagonist* or VKA*):ti,ab
#22.	(blood next/2 thin*):ti,ab
#23.	(clot* next/2 inhibit*):ti,ab
#24.	(fibrin* next/2 (degradation or split*)):ti,ab
#25.	(or #7-#24)
#26.	#6 and #25

A.1.15 Long term medication consequences

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well

described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 15: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
Embase (OVID)	1974 – 24 June 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26

28.	limit 27 to English language
29.	Epidemiologic studies/
30.	Observational study/
31.	exp Cohort studies/
32.	(cohort adj (study or studies or analys* or data)).ti,ab.
33.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
34.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
35.	Controlled Before-After Studies/
36.	Historically Controlled Study/
37.	Interrupted Time Series Analysis/
38.	(before adj2 after adj2 (study or studies or data)).ti,ab.
39.	exp case control study/
40.	case control*.ti,ab.
41.	Cross-sectional studies/
42.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
43.	or/29-42
44.	Meta-Analysis/
45.	exp Meta-Analysis as Topic/
46.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
47.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
48.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
49.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
50.	(search* adj4 literature).ab.
51.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
52.	cochrane.jw.
53.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
54.	or/44-52
55.	randomized controlled trial.pt.
56.	controlled clinical trial.pt.
57.	randomi#ed.ti,ab.
58.	placebo.ab.
59.	randomly.ti,ab.
60.	Clinical Trials as topic.sh.
61.	trial.ti.
62.	or/55-61
63.	(anticonvuls* or anti-convuls* or anti epileptic* or antiepileptic* or AED*).ti,ab.
64.	(phenobarbit* or carbamazepine or clobazam or clonazepam or ethosuximide or gabapentin or lacosamide or lamotrigine or levetiracetam or oxcarbazepine or phenytoin or pregabalin or rufinamide or topiramate or valproate or vigabatrin or zonisamide).ti,ab.
65.	(seizure* adj3 (prevent* or prophyla* or manag* or treatment* or control*)).ti,ab.
66.	exp Anticonvulsants/

67.	(nsaid* or ((non-steroid* or nonsteroid*) adj (antiinflammatory or anti-inflammatory))).ti,ab.
68.	(cox adj2 inhibitor*).ti,ab.
69.	coxibs.ti,ab.
70.	((cyclooxygenase or cyclo oxygenase) adj2 inhibitor*).ti,ab.
71.	(prostaglandin* adj2 (synthase* or synthesis or cyclooxygenase or cyclo oxygenase)).ti,ab.
72.	(ibuprofen or naproxen or fenoprofen or flurbiprofen or ketoprofen or dexketoprofen or dexibuprofen or tiaprofenic acid or diclofenac or dichlofenal or aceclofenac or indometacin or indomethacin or mefenamic acid or meloxicam or nabumetone or phenylbutazone or piroxicam or sulindac or tenoxicam or tolfenamic acid or ketorolac or celecoxib or etoricoxib or aceclofenac or acemetacin or etodolac or rofecoxib).ti,ab.
73.	exp Anti-Inflammatory Agents, Non-Steroidal/
74.	exp Prostaglandin-Endoperoxide Synthases/
75.	(Acebutolol or Atenolol or Bisoprolol or carvedilol or Celiprolol or Esmolol or labetalol or Metoprolol or Nebivolol or Oxprenolol or nadolol or propranolol or Timolol).ti,ab.
76.	((beta or b) adj3 (block* or antagonist*).ti,ab.
77.	exp Adrenergic beta-Antagonists/
78.	((pain* or headache*) adj3 (manage* or managing or control* or treat* or relief*).ti,ab.
79.	(acetaminophen or paracetamol).ti,ab.
80.	analges*.ti,ab.
81.	exp Analgesics/
82.	exp analgesia/
83.	exp Antidepressive Agents/
84.	(antidepress* or anti-depress*).ti,ab.
85.	serotonin norepinephrine reuptake inhibitor*.ti,ab.
86.	selective serotonin reuptake inhibitor*.ti,ab.
87.	(SSRI* or SNRI*).ti,ab.
88.	(amitriptyline or doxepin or nortriptyline or imipramine or clomipramine or desipramine).ti,ab.
89.	(Duloxetine or milnacipran or venlafaxine or levomilnacipran or sertraline).ti,ab.
90.	or/63-89
91.	28 and 90 and (43 or 54 or 62)

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.

12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	Clinical study/
28.	Observational study/
29.	family study/
30.	longitudinal study/
31.	retrospective study/
32.	prospective study/
33.	cohort analysis/
34.	follow-up/
35.	cohort*.ti,ab.
36.	34 and 35
37.	(cohort adj (study or studies or analys* or data)).ti,ab.
38.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
39.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
40.	(before adj2 after adj2 (study or studies or data)).ti,ab.
41.	exp case control study/
42.	case control*.ti,ab.
43.	cross-sectional study/
44.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
45.	or/27-33,36-44
46.	random*.ti,ab.
47.	factorial*.ti,ab.
48.	(crossover* or cross over*).ti,ab.
49.	((doubl* or singl*) adj blind*).ti,ab.
50.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
51.	crossover procedure/
52.	single blind procedure/
53.	randomized controlled trial/
54.	double blind procedure/
55.	or/46-54

56.	systematic review/
57.	meta-analysis/
58.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
59.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
60.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
61.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
62.	(search* adj4 literature).ab.
63.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
64.	((pool* or combined) adj2 (data or trials or studies or results)).ab.
65.	cochrane.jw.
66.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
67.	or/56-65
68.	(anticonvuls* or anti-convuls* or anti epileptic* or antiepileptic* or AED*).ti,ab.
69.	(phenobarbit* or carbamazepine or clobazam or clonazepam or ethosuximide or gabapentin or lacosamide or lamotrigine or levetiracetam or oxcarbazepine or phenytoin or pregabalin or rufinamide or topiramate or valproate or vigabatrin or zonisamide).ti,ab.
70.	(seizure* adj3 (prevent* or prophyla* or manag* or treatment* or control*)).ti,ab.
71.	exp anticonvulsive agent/
72.	(nsaid* or ((non-steroid* or nonsteroid*) adj (antiinflammatory or anti-inflammatory))).ti,ab.
73.	(cox adj2 inhibitor*).ti,ab.
74.	coxibs.ti,ab.
75.	((cyclooxygenase or cyclo oxygenase) adj2 inhibitor*).ti,ab.
76.	(prostaglandin* adj2 (synthase* or synthesis or cyclooxygenase or cyclo oxygenase)).ti,ab.
77.	(ibuprofen or naproxen or fenoprofen or flurbiprofen or ketoprofen or dexketoprofen or dexibuprofen or tiaprofenic acid or diclofenac or dichlofenal or aceclofenac or indometacin or indomethacin or mefenamic acid or meloxicam or nabumetone or phenylbutazone or piroxicam or sulindac or tenoxicam or tolfenamic acid or ketorolac or celecoxib or etoricoxib or aceclofenac or acemetacin or etodolac or rofecoxib).ti,ab.
78.	exp topiramate/
79.	nonsteroid antiinflammatory agent/
80.	prostaglandin synthase/
81.	(Acebutolol or Atenolol or Bisoprolol or carvedilol or Celiprolol or Esmolol or labetalol or Metoprolol or Nebivolol or Oxprenolol or nadolol or propranolol or Timolol).ti,ab.
82.	((beta or b) adj3 (block* or antagonist*)).ti,ab.
83.	beta adrenergic receptor blocking agent/
84.	((pain* or headache*) adj3 (manage* or managing or control* or treat* or relief*)).ti,ab.
85.	(acetaminophen or paracetamol).ti,ab.
86.	analges*.ti,ab.
87.	analgesic agent/
88.	analgesia/
89.	antidepressant agent/
90.	(antidepress* or anti-depress*).ti,ab.
91.	serotonin norepinephrine reuptake inhibitor*.ti,ab.

92.	selective serotonin reuptake inhibitor*.ti,ab.
93.	(SSRI* or SNRI*).ti,ab.
94.	(amitriptyline or doxepin or nortriptyline or imipramine or clomipramine or desipramine).ti,ab.
95.	(Duloxetine or milnacipran or venlafaxine or levomilnacipran or sertraline).ti,ab.
96.	or/68-95
97.	26 and 96 and (55 or 67 or 45)

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] explode all trees
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(or #1-#5)
#7.	(anticonvuls* or anti-convuls* or anti epileptic* or antiepileptic* or AED*):ti,ab
#8.	((phenobarbit* OR carbamazepine OR clobazam OR clonazepam OR ethosuximide OR gabapentin OR lacosamide OR lamotrigine OR levetiracetam OR oxcarbazepine OR phenytoin OR pregabalin OR rufinamide OR topiramate OR valproate OR vigabatrin OR zonisamide):ti,ab)
#9.	(seizure* near/3 (prevent* or prophyla* or manag* or treatment* or control*)):ti,ab
#10.	MeSH descriptor: [Anticonvulsants] explode all trees
#11.	(nsaid* or ((non-steroid* or nonsteroid*) near/1 (antiinflammatory or anti-inflammatory))):ti,ab
#12.	(cox near/2 inhibitor*):ti,ab
#13.	coxibs:ti,ab
#14.	((cyclooxygenase or cyclo oxygenase) near/2 inhibitor*):ti,ab
#15.	(prostaglandin* near/2 (synthase* or synthesis or cyclooxygenase or cyclo oxygenase)):ti,ab
#16.	(ibuprofen or naproxen or fenoprofen or flurbiprofen or ketoprofen or dexketoprofen or dexibuprofen or tiaprofenic acid or diclofenac or dichlofenal or aceclofenac or indometacin or indomethacin or mefenamic acid or meloxicam or nabumetone or phenylbutazone or piroxicam or sulindac or tenoxicam or tolfenamic acid or ketorolac or celecoxib or etoricoxib or aceclofenac or acemetacin or etodolac or rofecoxib):ti,ab
#17.	MeSH descriptor: [Anti-Inflammatory Agents, Non-Steroidal] explode all trees
#18.	MeSH descriptor: [Prostaglandin-Endoperoxide Synthases] explode all trees
#19.	(Acebutolol or Atenolol or Bisoprolol or carvedilol or Celiprolol or Esmolol or labetalol or Metoprolol or Nebivolol or Oxprenolol or nadolol or propranolol or Timolol):ti,ab
#20.	((beta or b) near/3 (block* or antagonist*)):ti,ab
#21.	MeSH descriptor: [Adrenergic beta-Antagonists] explode all trees
#22.	((pain* or headache*) near/3 (manage* or managing or control* or treat* or relief*)):ti,ab
#23.	(acetaminophen or paracetamol):ti,ab
#24.	analges*:ti,ab
#25.	MeSH descriptor: [Analgesics] explode all trees
#26.	MeSH descriptor: [Analgesia] explode all trees
#27.	MeSH descriptor: [Antidepressive Agents] explode all trees
#28.	(antidepress* or anti-depress*):ti,ab

#29.	serotonin norepinephrine reuptake inhibitor*:ti,ab
#30.	selective serotonin reuptake inhibitor*:ti,ab
#31.	(SSRI* or SNRI*):ti,ab
#32.	(amitriptyline or doxepin or nortriptyline or imipramine or clomipramine or desipramine):ti,ab
#33.	(Duloxetine or milnacipran or venlafaxine or levomilnacipran or sertraline):ti,ab
#34.	(or #7-#33)
#35.	#6 and #34

A.1.16 Patient information

Searches for patient views were run in Medline (OVID), Embase (OVID), CINAHL and PsycINFO (ProQuest). Search filters were applied to the search where appropriate.

Table 16: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 26 June 2020	Exclusions Qualitative studies
Embase (OVID)	1974 – 26 June 2020	Exclusions Qualitative studies
CINAHL, Current Nursing and Allied Health Literature (EBSCO)	Inception – 26 June 2020	Qualitative studies
PsycINFO (ProQuest)	Inception – 26 June 2020	Qualitative studies

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/

20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	Information centers/
30.	information services/ or library services/
31.	Information Dissemination/
32.	Libraries/
33.	health education/
34.	publications/ or books/ or pamphlets/
35.	Patient Education Handout/
36.	patient education as topic/
37.	consumer health information/
38.	counseling/ or directive counseling/ or distance counseling/
39.	psychosocial support systems/
40.	Needs Assessment/
41.	life style/
42.	Social Support/
43.	Adaptation, Psychological/
44.	Financial Support/
45.	or/29-44
46.	((patient* or user* or consumer*) adj4 (educat* or literature or leaflet* or book* or pamphlet* or fact sheet* or factsheet* or publication* or librar* or inform* or advice or need* or requirement* or support* or service* or communication* or involv)).ti,ab.
47.	((patient* or user* or consumer*) adj4 (attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact*)).ti,ab.
48.	((patient* or user* or consumer) adj4 (financial* or income or earning* or psych* or work* or job or employ* or social)).ti,ab.
49.	(lifestyle* or life style*).ti,ab.
50.	((inform* or advice or educat* or learn* or support* or financial* or counsel* or psych* or mental health or work* or job* or employ* or social) adj4 (service* or literature or leaflet* or booklet* or pamphlet* or manual* or brochure* or publication* or handout* or fact sheet* or factsheet* or material* or program* or service* or centre* or center* or hub* or need* or requirement* or support* or seek* or access* or disseminat* or barrier*)).ti,ab.
51.	((financial* or income or earning* or psych* or counsel* or mental health or work* or job* or employ* or social or coping) adj4 (inform* or educat* or learn* or help or service* or need* or requirement* or support* or communication* or involv* or attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact*)).ti,ab.
52.	((return* or back) adj2 (work* or job or employ*)).ti,ab.
53.	or/46-52
54.	28 and (45 or 53)

55.	Qualitative research/ or Narration/ or exp Interviews as Topic/ or exp "Surveys and Questionnaires"/ or Health care surveys/
56.	(qualitative or interview* or focus group* or theme* or questionnaire* or survey*).ti,ab.
57.	(metasynthes* or meta-synthes* or metasummar* or meta-summar* or metastud* or meta-stud* or metathem* or meta-them* or ethno* or emic or etic or phenomenolog* or grounded theory or constant compar* or (thematic* adj3 analys*) or theoretical sampl* or purposive sampl* or hermeneutic* or heidegger* or husserl* or colaizzi* or van kaam* or van manen* or giorgi* or glaser* or strauss* or ricoeur* or spiegelberg* or merleau*).ti,ab.
58.	or/55-57
59.	54 and 58

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	limit 25 to English language
27.	information service/
28.	documentation/
29.	publication/
30.	book/
31.	library/
32.	information dissemination/

33.	health education/
34.	publication/
35.	book/
36.	patient education/
37.	counseling/ or anticipatory guidance/ or directive counseling/ or e-counseling/ or patient counseling/ or patient guidance/ or peer counseling/
38.	social support/
39.	psychosocial care/
40.	needs assessment/
41.	lifestyle/ or healthy lifestyle/ or lifestyle modification/
42.	coping behavior/
43.	consumer health information/
44.	or/27-43
45.	((patient* or user* or consumer*) adj4 (educat* or literature or leaflet* or book* or pamphlet* or fact sheet* or factsheet* or publication* or librar* or inform* or advice or need* or requirement* or support* or service* or communication* or involv)).ti,ab.
46.	((patient* or user* or consumer*) adj4 (attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact*)).ti,ab.
47.	((patient* or user* or consumer) adj4 (financial* or income or earning* or psych* or work* or job or employ* or social)).ti,ab.
48.	(lifestyle* or life style*).ti,ab.
49.	((inform* or advice or educat* or learn* or support* or financial* or counsel* or psych* or mental health or work* or job* or employ* or social) adj4 (service* or literature or leaflet* or booklet* or pamphlet* or manual* or brochure* or publication* or handout* or fact sheet* or factsheet* or material* or program* or service* or centre* or center* or hub* or need* or requirement* or support* or seek* or access* or disseminat* or barrier*)).ti,ab.
50.	((financial* or income or earning* or psych* or counsel* or mental health or work* or job* or employ* or social or coping) adj4 (inform* or educat* or learn* or help or service* or need* or requirement* or support* or communication* or involv* or attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact*)).ti,ab.
51.	((return* or back) adj2 (work* or job or employ*)).ti,ab.
52.	or/45-51
53.	26 and (44 or 52)
54.	health survey/ or exp questionnaire/ or exp interview/ or qualitative research/ or narrative/
55.	(qualitative or interview* or focus group* or theme* or questionnaire* or survey*).ti,ab.
56.	(metasynthes* or meta-synthes* or metasummar* or meta-summar* or metastud* or meta-stud* or metathem* or meta-them* or ethno* or emic or etic or phenomenolog* or grounded theory or constant compar* or (thematic* adj3 analys*) or theoretical sampl* or purposive sampl* or hermeneutic* or heidegger* or husserl* or colaizzi* or van kaam* or van manen* or giorgi* or glaser* or strauss* or ricoeur* or spiegelberg* or merleau*).ti,ab.
57.	or/54-56
58.	53 and 57

CINAHL (EBSCO) search terms

S1.	SU Subarachnoid Hemorrhage
S2.	TI (((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial) n3 (hemorrhag* or haemorrhag* or bleed* or blood*))) OR

	AB (((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial) n3 (hemorrhag* or haemorrhag* or bleed* or blood*)))
S3.	TI ((SAH or aSAH)) OR AB ((SAH or aSAH))
S4.	TI (((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial or brain) n3 (aneurysm* or aneurism* or hematoma* or haematoma*))) OR AB (((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.)
S5.	S1 OR S2 OR S3 OR S4
S6.	(MH "Qualitative Studies+")
S7.	(MH "Qualitative Validity+")
S8.	(MH "Interviews+") OR (MH "Focus Groups") OR (MH "Surveys") OR (MH "Questionnaires+")
S9.	(qualitative or interview* or focus group* or theme* or questionnaire* or survey*)
S10.	(metasynthes* or meta-synthes* or metasummar* or meta-summar* or metastud* or meta-stud* or metathem* or meta-them* or ethno* or emic or etic or phenomenolog* or grounded theory or constant compar* or (thematic* adj3 analys*) or theoretical sampl* or purposive sampl* or hermeneutic* or heidegger* or husserl* or colaizzi* or van kaam* or van manen* or giorgi* or glaser* or strauss* or ricoeur* or spiegelberg* or merleau*)
S11.	S6 OR S7 OR S8 OR S9 OR S10
S12.	S5 AND S11

PsycINFO (ProQuest) search terms

1.	(ti(((subarachnoid* OR arachnoid* OR cerebral OR intracerebral OR intra-cerebral OR intracranial OR intra-cranial) NEAR/3 (hemorrhag* OR haemorrhag* OR bleed* OR blood*)) OR ab(((subarachnoid* OR arachnoid* OR cerebral OR intracerebral OR intra-cerebral OR intracranial OR intra-cranial) NEAR/3 (hemorrhag* OR haemorrhag* OR bleed* OR blood*)) OR ti(((subarachnoid* OR arachnoid* OR cerebral OR intracerebral OR intra-cerebral OR intracranial OR intra-cranial OR brain) NEAR/3 (aneurysm* OR aneurism* OR hematoma* OR haematoma*)) OR ab(((subarachnoid* OR arachnoid* OR cerebral OR intracerebral OR intra-cerebral OR intracranial OR intra-cranial OR brain) NEAR/3 (aneurysm* OR aneurism* OR hematoma* OR haematoma*)) OR MAINSUBJECT.EXACT.EXPLODE("Subarachnoid Hemorrhage") OR ti(SAH OR aSAH) OR ab(SAH OR aSAH)) AND ((su.exact.explode("qualitative methods") or su.exact("narratives") or su.exact.explode("questionnaires") or su.exact.explode("interviews") or su.exact.explode("health care services") or ti,ab(qualitative or interview* or focus group* or theme* or questionnaire* or survey*) or ti,ab(metasynthes* or meta-synthes* or metasummar* or meta-summar* or metastud* or meta-stud* or metathem* or meta-them* or ethno* or emic or etic or phenomenolog* or grounded theory or constant compar* or (thematic* near/3 analys*) or theoretical-sampl* or purposive-sampl* or hermeneutic* or heidegger* or husserl* or colaizzi* or van kaam* or van manen* or giorgi* or glaser* or strauss* or ricoeur* or spiegelberg* or merleau*))
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A.1.17 Investigations for relatives

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 17: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 26 June 2020	Exclusions

Database	Dates searched	Search filter used
Embase (OVID)	1974 – 26 June 2020	Exclusions
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 6 of 12 CENTRAL to 2020 Issue 6 of 12	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracerebral or intra-cerebral or intracranial or intra-cranial or brain) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	limit 27 to English language
29.	Magnetic Resonance.ti,ab.
30.	(MRA or MRAs or MRI or MRIs or NMR or NMRs).ti,ab.
31.	Magnetic Resonance Angiography/ or Magnetic Resonance Imaging/
32.	(tomograph* or CTA or CTAs or CAT).ti,ab.
33.	tomography, x-ray computed/ or computed tomography angiography/
34.	diagnostic imaging/ or tomography/
35.	(angiogra* or arteriogra*).ti,ab.

36.	cerebral angiography/
37.	Mass screening/
38.	screen*.ti,ab.
39.	(scan* or image* or imaging).ti,ab.
40.	risk assess*.ti,ab.
41.	Risk assessment/
42.	or/29-41
43.	(family or families or familial or parent* or sibling*).ti,ab.
44.	(first degree adj2 (relative* or relation*)).ti,ab.
45.	(hereditary or heredity or heritability or inherit*).ti,ab.
46.	((genetic or gene or genes) adj2 (predispos* or factor* or influenc* or risk* or determin* or prognos* or test or tests or defect* or fault* or mutation or mutate* or mutant)).ti,ab.
47.	genetic predisposition to disease/
48.	family health/
49.	Heredity/
50.	Family/
51.	or/43-50
52.	28 and 42 and 51

Embase (Ovid) search terms

1.	*subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	Case report/ or Case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	Nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental animal/
19.	Animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)

25.	23 not 24
26.	limit 25 to English language
27.	Magnetic Resonance.ti,ab.
28.	(MRA or MRAs or MRI or MRIs or NMR or NMRs).ti,ab.
29.	nuclear magnetic resonance imaging/ or magnetic resonance angiography/
30.	(tomograph* or CTA or CTAs or CAT).ti,ab.
31.	computer assisted tomography/ or computed tomographic angiography/
32.	brain angiography/
33.	mass screening/
34.	screening test/
35.	screen*.ti,ab.
36.	(angiogra* or arteriogra*).ti,ab.
37.	(scan* or image* or imaging).ti,ab.
38.	diagnostic imaging/
39.	risk assess*.ti,ab.
40.	risk assessment/
41.	or/27-40
42.	(family or families or familial or parent* or sibling*).ti,ab.
43.	(first degree adj2 (relative* or relation*)).ti,ab.
44.	(hereditary or heritability or heredity or inherit*).ti,ab.
45.	((genetic or gene or genes) adj2 (predispos* or factor* or influenc* or risk* or determin* or prognos* or test or tests or defect* or fault* or mutation or mutate* or mutant)).ti,ab.
46.	genetic predisposition/
47.	family health/
48.	heredity/
49.	familial disease/ or "genetic and familial disorders"/
50.	family/
51.	family assessment/
52.	or/42-51
53.	26 and 41 and 52

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Subarachnoid Hemorrhage] explode all trees
#2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) near/3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab
#3.	(SAH or aSAH):ti,ab
#4.	MeSH descriptor: [Intracranial Aneurysm] this term only
#5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) near/3 (aneurysm* or aneurism* or hematoma* or haematoma*)):ti,ab
#6.	(or #1-#5)
#7.	Magnetic Resonance:ti,ab
#8.	(MRA or MRAs or MRI or MRIs or NMR or NMRs):ti,ab
#9.	MeSH descriptor: [Magnetic Resonance Angiography] this term only
#10.	MeSH descriptor: [Magnetic Resonance Imaging] this term only
#11.	(tomograph* or CTA or CTAs or CAT):ti,ab
#12.	MeSH descriptor: [Tomography, X-Ray Computed] this term only

#13.	MeSH descriptor: [Computed Tomography Angiography] this term only
#14.	MeSH descriptor: [Diagnostic Imaging] this term only
#15.	MeSH descriptor: [Tomography] this term only
#16.	(angiogra* or arteriogra*):ti,ab
#17.	MeSH descriptor: [Cerebral Angiography] this term only
#18.	MeSH descriptor: [Mass Screening] this term only
#19.	screen*:ti,ab
#20.	(scan* or image* or imaging):ti,ab
#21.	risk assess*:ti,ab
#22.	MeSH descriptor: [Risk Assessment] this term only
#23.	(or #7-#22)
#24.	(family or families or familial or parent* or sibling*):ti,ab
#25.	(first degree next/2 (relative* or relation*)):ti,ab
#26.	(hereditary or heredity or heritability or inherit*):ti,ab
#27.	((genetic or gene or genes) next/2 (predispos* or factor* or influenc* or risk* or determin* or prognos* or test or tests or defect* or fault* or mutation or mutate* or mutant)):ti,ab
#28.	MeSH descriptor: [Genetic Predisposition to Disease] this term only
#29.	MeSH descriptor: [Family Health] this term only
#30.	MeSH descriptor: [Heredity] this term only
#31.	MeSH descriptor: [Family] this term only
#32.	(or #24-#31)
#33.	#6 and #23 and #32

A.2 Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to subarachnoid haemorrhage population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase.

Table 18: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline	2003 – 23 June 2020	Exclusions Health economics studies
Embase	2003 – 23 June 2020	Exclusions Health economics studies
Centre for Research and Dissemination (CRD)	HTA - Inception – 23 June 2020 NHSEED - Inception to March 2015	None

Medline (Ovid) search terms

1.	exp Subarachnoid Hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)):ti,ab.
3.	(SAH or aSAH).ti,ab.

4.	exp Intracranial Aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter/
8.	editorial/
9.	news/
10.	exp historical article/
11.	Anecdotes as Topic/
12.	comment/
13.	case report/
14.	(letter or comment*).ti.
15.	or/7-14
16.	randomized controlled trial/ or random*.ti,ab.
17.	15 not 16
18.	animals/ not humans/
19.	exp Animals, Laboratory/
20.	exp Animal Experimentation/
21.	exp Models, Animal/
22.	exp Rodentia/
23.	(rat or rats or mouse or mice).ti.
24.	or/17-23
25.	6 not 24
26.	limit 25 to English language
27.	Economics/
28.	Value of life/
29.	exp "Costs and Cost Analysis"/
30.	exp Economics, Hospital/
31.	exp Economics, Medical/
32.	Economics, Nursing/
33.	Economics, Pharmaceutical/
34.	exp "Fees and Charges"/
35.	exp Budgets/
36.	budget*.ti,ab.
37.	cost*.ti.
38.	(economic* or pharmaco?economic*).ti.
39.	(price* or pricing*).ti,ab.
40.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
41.	(financ* or fee or fees).ti,ab.
42.	(value adj2 (money or monetary)).ti,ab.
43.	or/27-42
44.	26 and 43

Embase (Ovid) search terms

1.	subarachnoid hemorrhage/
2.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*)).ti,ab.
3.	(SAH or aSAH).ti,ab.
4.	exp intracranial aneurysm/
5.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial or brain or saccular or berry or wide-neck*) adj3 (aneurysm* or aneurism* or hematoma* or haematoma*)).ti,ab.
6.	or/1-5
7.	letter.pt. or letter/
8.	note.pt.
9.	editorial.pt.
10.	case report/ or case study/
11.	(letter or comment*).ti.
12.	or/7-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice).ti.
22.	or/14-21
23.	6 not 22
24.	limit 23 to English language
25.	health economics/
26.	exp economic evaluation/
27.	exp health care cost/
28.	exp fee/
29.	budget/
30.	funding/
31.	budget*.ti,ab.
32.	cost*.ti.
33.	(economic* or pharmaco?economic*).ti.
34.	(price* or pricing*).ti,ab.
35.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
36.	(financ* or fee or fees).ti,ab.
37.	(value adj2 (money or monetary)).ti,ab.
38.	or/25-37
39.	24 and 38

NHS EED and HTA (CRD) search terms

#1.	MeSH DESCRIPTOR Subarachnoid Hemorrhage EXPLODE ALL TREES
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#2.	MeSH DESCRIPTOR Intracranial Hemorrhages EXPLODE ALL TREES
#3.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (hemorrhag* or haemorrhag* or bleed* or blood*))
#4.	((SAH or aSAH))
#5.	#1 OR #2 OR #3 OR #4
#6.	MeSH DESCRIPTOR Aneurysm EXPLODE ALL TREES
#7.	((aneurysm* or hematoma* or haematoma*))
#8.	#6 OR #7
#9.	MeSH DESCRIPTOR Intracranial Aneurysm EXPLODE ALL TREES
#10.	((subarachnoid* or arachnoid* or cerebral or intracranial or intra-cranial) adj3 (aneurysm* or hematoma* or haematoma*))
#11.	#9 OR #10
#12.	MeSH DESCRIPTOR Aneurysm, ruptured
#13.	((ruptur* or weak* or brain or trauma*) adj3 (aneurysm* or hematoma* or haematoma*))
#14.	#12 OR #13
#15.	(#5 or #8 or #11 or #14)

