

<p>"honduras"[TIAB]) OR ("india"[MeSH Terms] OR "india"[TIAB]) OR ("indonesia"[MeSH Terms] OR "indonesia"[TIAB]) OR ("iran"[MeSH Terms] OR "iran"[TIAB]) OR ("iraq"[MeSH Terms] OR "iraq"[TIAB]) OR ("jamaica"[MeSH Terms] OR "jamaica"[TIAB]) OR ("jordan"[MeSH Terms] OR "jordan"[TIAB]) OR ("kazakhstan"[MeSH Terms] OR "kazakhstan"[TIAB]) OR ("kenya"[MeSH Terms] OR "kenya"[TIAB]) OR ("micronesia"[MeSH Terms] OR "micronesia"[TIAB]) OR "kiribati"[TIAB]) OR (Democratic[TIAB] AND ("republic of korea"[TIAB] OR ("republic"[TIAB] AND "korea"[TIAB]) OR "republic of korea"[TIAB])) OR ("kosovo"[MeSH Terms] OR "kosovo"[TIAB]) OR ("kyrgyzstan"[MeSH Terms] OR "kyrgyzstan"[TIAB]) OR ("laos"[MeSH Terms] OR "laos"[TIAB]) OR ("lebanon"[MeSH Terms] OR "lebanon"[TIAB]) OR ("lesotho"[MeSH Terms] OR "lesotho"[TIAB]) OR ("liberia"[MeSH Terms] OR "liberia"[TIAB]) OR ("libya"[MeSH Terms] OR "libya"[TIAB]) OR ("macedonia (republic)"[MeSH Terms] OR ("macedonia"[TIAB] AND ("republic"[TIAB]) OR "macedonia (republic)"[TIAB]) OR "macedonia"[TIAB]) OR ("madagascar"[MeSH Terms] OR "madagascar"[TIAB]) OR ("malawi"[MeSH Terms] OR "malawi"[TIAB]) OR ("malaysia"[MeSH Terms] OR "malaysia"[TIAB]) OR ("indian ocean islands"[MeSH Terms] OR ("indian"[TIAB] AND "ocean"[TIAB] AND "islands"[TIAB]) OR "indian ocean islands"[TIAB]) OR "maldives"[TIAB]) OR ("mali"[MeSH Terms] OR "mali"[TIAB]) OR ("micronesia"[MeSH Terms] OR "micronesia"[TIAB]) OR ("marshall"[TIAB] AND "islands"[TIAB]) OR "marshall islands"[TIAB]) OR ("mauritania"[MeSH Terms] OR "mauritania"[TIAB]) OR ("mauritius"[MeSH Terms] OR "mauritius"[TIAB]) OR ("mexico"[MeSH Terms] OR "mexico"[TIAB]) OR ("micronesia"[MeSH Terms] OR "micronesia"[TIAB]) OR ("moldova"[MeSH Terms] OR "moldova"[TIAB]) OR ("mongolia"[MeSH Terms] OR "mongolia"[TIAB]) OR ("montenegro"[MeSH Terms] OR "montenegro"[TIAB]) OR ("morocco"[MeSH Terms] OR "morocco"[TIAB]) OR ("mozambique"[MeSH Terms] OR "mozambique"[TIAB]) OR ("myanmar"[MeSH Terms] OR "myanmar"[TIAB]) OR ("namibia"[MeSH Terms] OR "namibia"[TIAB]) OR ("nepal"[MeSH Terms] OR "nepal"[TIAB]) OR ("nicaragua"[MeSH Terms] OR "nicaragua"[TIAB]) OR ("niger"[MeSH Terms] OR "niger"[TIAB]) OR ("nigeria"[MeSH Terms] OR "nigeria"[TIAB]) OR ("pakistan"[MeSH Terms] OR "pakistan"[TIAB]) OR ("palau"[MeSH Terms] OR "palau"[TIAB]) OR ("panama"[MeSH Terms] OR "panama"[TIAB]) OR ("papua new guinea"[MeSH Terms] OR ("papua"[TIAB] AND "new"[TIAB] AND "guinea"[TIAB]) OR "papua new guinea"[TIAB]) OR ("paraguay"[MeSH Terms] OR "paraguay"[TIAB]) OR ("peru"[MeSH Terms] OR "peru"[TIAB]) OR ("philippines"[MeSH Terms] OR "philippines"[TIAB]) OR ("romania"[MeSH Terms] OR "romania"[TIAB]) OR ("russia"[MeSH Terms] OR "russia"[TIAB]) OR ("rwanda"[MeSH Terms] OR "rwanda"[TIAB]) OR ("samoa"[MeSH Terms] OR "samoa"[TIAB]) OR ("atlantic islands"[MeSH Terms] OR ("atlantic"[TIAB] AND "islands"[TIAB]) OR "atlantic islands"[TIAB]) OR ("sao"[TIAB] AND "tome"[TIAB] AND "principe"[TIAB]) OR "sao tome and principe"[TIAB]) OR ("senegal"[MeSH Terms] OR "senegal"[TIAB]) OR ("serbia"[MeSH Terms] OR "serbia"[TIAB]) OR ("sierra leone"[MeSH Terms] OR ("sierra"[TIAB] AND "leone"[TIAB]) OR "sierra leone"[TIAB]) OR ("melanesia"[MeSH Terms] OR "melanesia"[TIAB]) OR ("solomon"[TIAB] AND "islands"[TIAB]) OR "solomon islands"[TIAB]) OR ("somalia"[MeSH Terms] OR "somalia"[TIAB]) OR ("south africa"[MeSH Terms] OR ("south"[TIAB] AND "africa"[TIAB]) OR "south africa"[TIAB]) OR ("south sudan"[MeSH Terms] OR ("south"[TIAB] AND "sudan"[TIAB]) OR "south sudan"[TIAB]) OR ("sri lanka"[MeSH Terms] OR ("sri"[TIAB] AND "lanka"[TIAB]) OR "sri lanka"[TIAB]) OR ("saint lucia"[MeSH Terms] OR ("saint"[TIAB] AND "lucia"[TIAB]) OR "saint lucia"[TIAB]) OR ("st"[TIAB] AND "lucia"[TIAB]) OR "st lucia"[TIAB]) OR ("saint vincent and the grenadines"[MeSH Terms] OR ("saint"[TIAB] AND "vincent"[TIAB] AND "grenadines"[TIAB]) OR "saint vincent and the grenadines"[TIAB]) OR ("st"[TIAB] AND "vincent"[TIAB] AND "grenadines"[TIAB]) OR "st vincent and the grenadines"[TIAB]) OR ("sudan"[MeSH Terms] OR "sudan"[TIAB]) OR ("suriname"[MeSH Terms] OR "suriname"[TIAB]) OR ("swaziland"[MeSH Terms] OR "swaziland"[TIAB]) OR ("syria"[MeSH Terms] OR "syria"[TIAB]) OR ("tajikistan"[MeSH Terms] OR "tajikistan"[TIAB]) OR ("tanzania"[MeSH Terms] OR "tanzania"[TIAB]) OR ("thailand"[MeSH Terms] OR "thailand"[TIAB]) OR ("timor-leste"[MeSH Terms] OR "timor-leste"[TIAB]) OR ("east"[TIAB] AND "timor"[TIAB]) OR "east timor"[TIAB]) OR ("timor-leste"[MeSH Terms] OR "timor-leste"[TIAB]) OR ("timor"[TIAB] AND "leste"[TIAB]) OR "timor leste"[TIAB]) OR ("togo"[MeSH Terms] OR "togo"[TIAB]) OR ("tonga"[MeSH Terms] OR "tonga"[TIAB]) OR ("tunisia"[MeSH Terms] OR "tunisia"[TIAB]) OR ("turkey"[MeSH Terms] OR "turkey"[TIAB]) OR ("turkmenistan"[MeSH Terms] OR "turkmenistan"[TIAB]) OR</p>

	("micronesia"[MeSH Terms] OR "micronesia"[TIAB] OR "tuvalu"[TIAB]) OR ("uganda"[MeSH Terms] OR "uganda"[TIAB]) OR ("ukraine"[MeSH Terms] OR "ukraine"[TIAB]) OR ("uzbekistan"[MeSH Terms] OR "uzbekistan"[TIAB]) OR ("vanuatu"[MeSH Terms] OR "vanuatu"[TIAB]) OR ("venezuela"[MeSH Terms] OR "venezuela"[TIAB]) OR ("vietnam"[MeSH Terms] OR "vietnam"[TIAB]) OR (("middle east"[MeSH Terms] OR "middle"[TIAB] AND "east"[TIAB]) OR "middle east"[TIAB] OR ("west"[TIAB] AND "bank"[TIAB]) OR "west bank"[TIAB]) AND Gaza[TIAB]) OR ("yemen"[MeSH Terms] OR "yemen"[TIAB]) OR ("zambia"[MeSH Terms] OR "zambia"[TIAB]) OR ("zimbabwe"[MeSH Terms] OR "zimbabwe"[TIAB]))	
#21	Search (Africa [TIAB] OR Asia[TIAB] OR Caribbean[TIAB] OR West Indies[TIAB] OR South America[TIAB] OR Latin America[TIAB] OR Central America[TIAB] OR ("afghanistan"[MeSH Terms] OR "afghanistan"[TIAB]) OR ("albania"[MeSH Terms] OR "albania"[TIAB]) OR ("algeria"[MeSH Terms] OR "algeria"[TIAB]) OR ("american samoa"[MeSH Terms] OR ("american"[TIAB] AND "samoa"[TIAB]) OR "american samoa"[TIAB]) OR ("angola"[MeSH Terms] OR "angola"[TIAB]) OR ("argentina"[MeSH Terms] OR "argentina"[TIAB]) OR ("armenia"[MeSH Terms] OR "armenia"[TIAB]) OR ("azerbaijan"[MeSH Terms] OR "azerbaijan"[TIAB]) OR ("bangladesh"[MeSH Terms] OR "bangladesh"[TIAB]) OR ("republic of belarus"[MeSH Terms] OR ("republic"[TIAB] AND "belarus"[TIAB]) OR "republic of belarus"[TIAB] OR "belarus"[TIAB]) OR ("belize"[MeSH Terms] OR "belize"[TIAB]) OR ("benin"[MeSH Terms] OR "benin"[TIAB]) OR ("bhutan"[MeSH Terms] OR "bhutan"[TIAB]) OR ("bolivia"[MeSH Terms] OR "bolivia"[TIAB]) OR ("bosnia and herzegovina"[MeSH Terms] OR ("bosnia"[TIAB] AND "herzegovina"[TIAB]) OR "bosnia and herzegovina"[TIAB]) OR ("botswana"[MeSH Terms] OR "botswana"[TIAB]) OR ("brazil"[MeSH Terms] OR "brazil"[TIAB]) OR ("bulgaria"[MeSH Terms] OR "bulgaria"[TIAB]) OR ("burkina faso"[MeSH Terms] OR ("burkina"[TIAB] AND "faso"[TIAB]) OR "burkina faso"[TIAB]) OR ("burundi"[MeSH Terms] OR "burundi"[TIAB]) OR ("cape verde"[MeSH Terms] OR ("cape"[TIAB] AND "verde"[TIAB]) OR "cape verde"[TIAB]) OR ("cabo"[TIAB] AND "verde"[TIAB]) OR "cabo verde"[TIAB]) OR ("cape verde"[MeSH Terms] OR ("cape"[TIAB] AND "verde"[TIAB]) OR "cape verde"[TIAB]) OR ("cambodia"[MeSH Terms] OR "cambodia"[TIAB]) OR ("cameroon"[MeSH Terms] OR "cameroon"[TIAB]) OR ("cameroon"[MeSH Terms] OR "cameroon"[TIAB]) OR ("central african republic"[MeSH Terms] OR ("central"[TIAB] AND "african"[TIAB] AND "republic"[TIAB]) OR "central african republic"[TIAB]) OR ("chad"[MeSH Terms] OR "chad"[TIAB]) OR Tchad[TIAB] OR ("china"[MeSH Terms] OR "china"[TIAB]) OR ("colombia"[MeSH Terms] OR "colombia"[TIAB]) OR ("comoros"[MeSH Terms] OR "comoros"[TIAB]) OR ("congo"[MeSH Terms] OR "congo"[TIAB]) OR (Democratic[TIAB] AND Republic[TIAB] AND ("congo"[MeSH Terms] OR "congo"[TIAB])) OR ("costa rica"[MeSH Terms] OR ("costa"[TIAB] AND "rica"[TIAB]) OR "costa rica"[TIAB]) OR ("cote d'ivoire"[MeSH Terms] OR ("cote"[TIAB] AND "d'ivoire"[TIAB]) OR "cote d'ivoire"[TIAB]) OR ("cote d'ivoire"[MeSH Terms] OR ("cote"[TIAB] AND "d'ivoire"[TIAB]) OR "cote d'ivoire"[TIAB]) OR ("cote d'ivoire"[MeSH Terms] OR ("cote"[TIAB] AND "d'ivoire"[TIAB]) OR "cote d'ivoire"[TIAB]) OR ("cuba"[MeSH Terms] OR "cuba"[TIAB]) OR ("djibouti"[MeSH Terms] OR "djibouti"[TIAB]) OR ("dominica"[MeSH Terms] OR "dominica"[TIAB]) OR ("dominican republic"[MeSH Terms] OR ("dominican"[TIAB] AND "republic"[TIAB]) OR "dominican republic"[TIAB]) OR ("ecuador"[MeSH Terms] OR "ecuador"[TIAB]) OR ("egypt"[MeSH Terms] OR "egypt"[TIAB]) OR ("el salvador"[MeSH Terms] OR ("el"[TIAB] AND "salvador"[TIAB]) OR "el salvador"[TIAB]) OR ("equatorial guinea"[MeSH Terms] OR ("equatorial"[TIAB] AND "guinea"[TIAB]) OR "equatorial guinea"[TIAB]) OR ("eritrea"[MeSH Terms] OR "eritrea"[TIAB]) OR ("ethiopia"[MeSH Terms] OR "ethiopia"[TIAB]) OR ("fiji"[MeSH Terms] OR "fiji"[TIAB]) OR ("gabon"[MeSH Terms] OR "gabon"[TIAB]) OR ("gambia"[MeSH Terms] OR "gambia"[TIAB]) OR ("georgia (republic)"[MeSH Terms] OR ("georgia"[TIAB] AND "(republic)"[TIAB]) OR "georgia (republic)"[TIAB] OR ("georgia"[TIAB] AND "republic"[TIAB]) OR "georgia republic"[TIAB]) OR ("ghana"[MeSH Terms] OR "ghana"[TIAB]) OR ("grenada"[MeSH Terms] OR "grenada"[TIAB]) OR ("guatemala"[MeSH Terms] OR "guatemala"[TIAB]) OR ("guinea"[MeSH Terms] OR "guinea"[TIAB]) OR ("guinea-bissau"[MeSH Terms] OR "guinea-bissau"[TIAB] OR ("guinea"[TIAB] AND "bissau"[TIAB]) OR "guinea bissau"[TIAB]) OR ("guyana"[MeSH Terms] OR "guyana"[TIAB]) OR ("haiti"[MeSH Terms] OR "haiti"[TIAB]) OR ("honduras"[MeSH Terms] OR "honduras"[TIAB]) OR ("india"[MeSH Terms] OR "india"[TIAB]) OR ("indonesia"[MeSH Terms] OR "indonesia"[TIAB]) OR ("iran"[MeSH Terms] OR "iran"[TIAB]) OR ("iraq"[MeSH	1328064

<p>Terms] OR "iraq"[TIAB]) OR ("jamaica"[MeSH Terms] OR "jamaica"[TIAB]) OR ("jordan"[MeSH Terms] OR "jordan"[TIAB]) OR ("kazakhstan"[MeSH Terms] OR "kazakhstan"[TIAB]) OR ("kenya"[MeSH Terms] OR "kenya"[TIAB]) OR ("micronesia"[MeSH Terms] OR "micronesia"[TIAB] OR "kiribati"[TIAB]) OR (Democratic[TIAB] AND ("republic of korea"[TIAB] OR ("republic"[TIAB] AND "korea"[TIAB]) OR "republic of korea"[TIAB])) OR ("kosovo"[MeSH Terms] OR "kosovo"[TIAB]) OR ("kyrgyzstan"[MeSH Terms] OR "kyrgyzstan"[TIAB]) OR ("laos"[MeSH Terms] OR "laos"[TIAB]) OR ("lebanon"[MeSH Terms] OR "lebanon"[TIAB]) OR ("lesotho"[MeSH Terms] OR "lesotho"[TIAB]) OR ("liberia"[MeSH Terms] OR "liberia"[TIAB]) OR ("libya"[MeSH Terms] OR "libya"[TIAB]) OR ("macedonia (republic)"[MeSH Terms] OR ("macedonia"[TIAB] AND ("republic)"[TIAB]) OR "macedonia (republic)"[TIAB] OR "macedonia"[TIAB]) OR ("madagascar"[MeSH Terms] OR "madagascar"[TIAB]) OR ("malawi"[MeSH Terms] OR "malawi"[TIAB]) OR ("malaysia"[MeSH Terms] OR "malaysia"[TIAB]) OR ("indian ocean islands"[MeSH Terms] OR ("indian"[TIAB] AND "ocean"[TIAB] AND "islands"[TIAB]) OR "indian ocean islands"[TIAB] OR "maldives"[TIAB]) OR ("mali"[MeSH Terms] OR "mali"[TIAB]) OR "micronesia"[MeSH Terms] OR "micronesia"[TIAB] OR ("marshall"[TIAB] AND "islands"[TIAB]) OR "marshall islands"[TIAB]) OR ("mauritania"[MeSH Terms] OR "mauritania"[TIAB]) OR ("mauritius"[MeSH Terms] OR "mauritius"[TIAB]) OR ("mexico"[MeSH Terms] OR "mexico"[TIAB]) OR ("micronesia"[MeSH Terms] OR "micronesia"[TIAB]) OR ("moldova"[MeSH Terms] OR "moldova"[TIAB]) OR ("mongolia"[MeSH Terms] OR "mongolia"[TIAB]) OR ("montenegro"[MeSH Terms] OR "montenegro"[TIAB]) OR ("morocco"[MeSH Terms] OR "morocco"[TIAB]) OR ("mozambique"[MeSH Terms] OR "mozambique"[TIAB]) OR ("myanmar"[MeSH Terms] OR "myanmar"[TIAB]) OR ("namibia"[MeSH Terms] OR "namibia"[TIAB]) OR ("nepal"[MeSH Terms] OR "nepal"[TIAB]) OR ("nicaragua"[MeSH Terms] OR "nicaragua"[TIAB]) OR ("niger"[MeSH Terms] OR "niger"[TIAB]) OR ("nigeria"[MeSH Terms] OR "nigeria"[TIAB]) OR ("pakistan"[MeSH Terms] OR "pakistan"[TIAB]) OR ("palau"[MeSH Terms] OR "palau"[TIAB]) OR ("panama"[MeSH Terms] OR "panama"[TIAB]) OR ("papua new guinea"[MeSH Terms] OR ("papua"[TIAB] AND "new"[TIAB] AND "guinea"[TIAB]) OR "papua new guinea"[TIAB]) OR ("paraguay"[MeSH Terms] OR "paraguay"[TIAB]) OR ("peru"[MeSH Terms] OR "peru"[TIAB]) OR ("philippines"[MeSH Terms] OR "philippines"[TIAB]) OR ("romania"[MeSH Terms] OR "romania"[TIAB]) OR ("russia"[MeSH Terms] OR "russia"[TIAB]) OR ("rwanda"[MeSH Terms] OR "rwanda"[TIAB]) OR ("samoa"[MeSH Terms] OR "samoa"[TIAB]) OR ("atlantic islands"[MeSH Terms] OR ("atlantic"[TIAB] AND "islands"[TIAB]) OR "atlantic islands"[TIAB] OR ("sao"[TIAB] AND "tome"[TIAB] AND "principe"[TIAB]) OR "sao tome and principe"[TIAB]) OR ("senegal"[MeSH Terms] OR "senegal"[TIAB]) OR ("serbia"[MeSH Terms] OR "serbia"[TIAB]) OR ("sierra leone"[MeSH Terms] OR ("sierra"[TIAB] AND "leone"[TIAB]) OR "sierra leone"[TIAB]) OR ("melanesia"[MeSH Terms] OR "melanesia"[TIAB]) OR ("solomon"[TIAB] AND "islands"[TIAB]) OR "solomon islands"[TIAB]) OR ("somalia"[MeSH Terms] OR "somalia"[TIAB]) OR ("south africa"[MeSH Terms] OR ("south"[TIAB] AND "africa"[TIAB]) OR "south africa"[TIAB]) OR ("south sudan"[MeSH Terms] OR ("south"[TIAB] AND "sudan"[TIAB]) OR "south sudan"[TIAB]) OR ("sri lanka"[MeSH Terms] OR ("sri"[TIAB] AND "lanka"[TIAB]) OR "sri lanka"[TIAB]) OR ("saint lucia"[MeSH Terms] OR ("saint"[TIAB] AND "lucia"[TIAB]) OR "saint lucia"[TIAB] OR ("st"[TIAB] AND "lucia"[TIAB]) OR "st lucia"[TIAB]) OR ("saint vincent and the grenadines"[MeSH Terms] OR ("saint"[TIAB] AND "vincent"[TIAB] AND "grenadines"[TIAB]) OR "saint vincent and the grenadines"[TIAB] OR ("st"[TIAB] AND "vincent"[TIAB] AND "grenadines"[TIAB]) OR "st vincent and the grenadines"[TIAB]) OR ("sudan"[MeSH Terms] OR "sudan"[TIAB]) OR ("suriname"[MeSH Terms] OR "suriname"[TIAB]) OR ("swaziland"[MeSH Terms] OR "swaziland"[TIAB]) OR ("syria"[MeSH Terms] OR "syria"[TIAB]) OR ("tajikistan"[MeSH Terms] OR "tajikistan"[TIAB]) OR ("tanzania"[MeSH Terms] OR "tanzania"[TIAB]) OR ("thailand"[MeSH Terms] OR "thailand"[TIAB]) OR ("timor-leste"[MeSH Terms] OR "timor-leste"[TIAB] OR ("east"[TIAB] AND "timor"[TIAB]) OR "east timor"[TIAB]) OR ("timor-leste"[MeSH Terms] OR "timor-leste"[TIAB] OR ("timor"[TIAB] AND "leste"[TIAB]) OR "timor leste"[TIAB]) OR ("togo"[MeSH Terms] OR "togo"[TIAB]) OR ("tonga"[MeSH Terms] OR "tonga"[TIAB]) OR ("tunisia"[MeSH Terms] OR "tunisia"[TIAB]) OR ("turkey"[MeSH Terms] OR "turkey"[TIAB]) OR ("turkmenistan"[MeSH Terms] OR "turkmenistan"[TIAB]) OR ("micronesia"[MeSH Terms] OR "micronesia"[TIAB] OR "tuvalu"[TIAB]) OR ("uganda"[MeSH Terms] OR "uganda"[TIAB]) OR ("ukraine"[MeSH Terms] OR "ukraine"[TIAB]) OR</p>	
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	("uzbekistan"[MeSH Terms] OR "uzbekistan"[TIAB]) OR ("vanuatu"[MeSH Terms] OR "vanuatu"[TIAB]) OR ("venezuela"[MeSH Terms] OR "venezuela"[TIAB]) OR ("vietnam"[MeSH Terms] OR "vietnam"[TIAB]) OR (("middle east"[MeSH Terms] OR "middle"[TIAB] AND "east"[TIAB]) OR "middle east"[TIAB] OR ("west"[TIAB] AND "bank"[TIAB]) OR "west bank"[TIAB]) AND Gaza[TIAB]) OR ("yemen"[MeSH Terms] OR "yemen"[TIAB]) OR ("zambia"[MeSH Terms] OR "zambia"[TIAB]) OR ("zimbabwe"[MeSH Terms] OR "zimbabwe"[TIAB]))	
#20	Search ((((((((((((((surg* OR neurosurg*) OR operati*) OR surg* treatment) OR surg* procedure) OR disconnecti*) OR resecti*) OR neurostimulati*) OR stereotactic) OR vagus nerve stimulation) OR VNS) OR surg* outcome) OR surg* complication) OR surg* cost) OR presurg* evaluation) OR presurg* investigat*) OR quality of life) OR QOL	332209
#19	Search QOL	31039
#18	Search quality of life	328872
#17	Search presurg* investigat*	1426
#16	Search presurg* evaluation	2757
#15	Search surg* cost	70567
#14	Search surg* complication	137468
#13	Search surg* outcome	585226
#12	Search VNS	1693
#11	Search vagus nerve stimulation	9477
#10	Search stereotactic	21939
#9	Search neurostimulati*	2240
#8	Search resecti*	264619
#7	Search disconnecti*	6321
#6	Search surg* procedure	1503557
#5	Search surg* treatment	2534001
#4	Search operati*	611212
#3	Search neurosurg*	259525
#2	Search surg*	3307001
#1	Search epilep*	152391
The search number (#) signifies the search term for each level and the search builds-up with increase in the number. Individual names for the low- and middle-income countries were used for the search, in addition to the Medical Subject Heading (MeSH) terms for these countries. To focus the searches for these countries we searched within the title and abstract (TIAB).		

b. Embase search (May 2018)

1	exp epilepsy/	208373
2	exp surgery/	4217302
3	exp neurosurgery/	230491
4	exp surgical technique/	1400852
5	disconnective surgery.mp.	48
6	resective surgery.mp.	1758
7	neurostimulation.mp. or exp nerve stimulation/	115145
8	exp vagus nerve stimulation/	8911
9	exp stereotactic treatment/ or exp stereotactic procedure/	38894
10	exp treatment outcome/	1389722
11	exp postoperative complication/	603617
12	exp "health care cost"/ or exp "cost benefit analysis"/	318322
13	exp preoperative evaluation/	92771
14	exp "quality of life"/	419286
15	exp middle income country/ or exp low income country/ or exp developing country/	91701

16 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14
 17 1 and 15 and 16

5657333
 247

We used the Medical Subject Heading (MeSH) terms for low- and middle-income countries rather than individual countries as used for PubMed search above. “exp” – signifies that the subject heading has been exploded, “mp” – signifies keyword search.

c. Global health archives (May 2018)

1	epilep*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	1223
2	surg*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	11256
3	neurosurg*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	81
4	operati*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	17428
5	surg* treatment.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	868
6	surg* procedure.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	77
7	disconnecti*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	8
8	resecti*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	1082
9	neurostimulati*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	0
10	stereotactic.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	1
11	vagus nerve stimulation.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	0
12	VNS.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	4
13	surgical complication.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	4
14	surgical outcome.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	0
15	surgical cost.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	0
16	presurgical evaluation.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	1
17	presurgical investigation.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	0
18	quality of life.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	36
19	QOL.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	0
20	(Africa or Asia or Caribbean or West Indies or South America or Latin America or Central America).mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	135552
21	((Afghanistan or Albania or Algeria or American Samoa or Angola or Argentina or Armenia or Azerbaijan or Bangladesh or Belarus or Belize or Benin or Bhutan or Bolivia or	102527

Bosnia) and Herzegovina) or Botswana or Brazil or Bulgaria or Burkina Faso or Burundi or Cabo Verde or Cape Verde or Cambodia or Cameroon or Cameroon or Central African Republic or Chad or Tchad or China or Colombia or Comoros or Congo or Democratic Republic of Congo or Costa Rica or Cote d'Ivoire or Ivory Coast or Cuba or Djibouti or Dominica or Dominican Republic or Ecuador or Egypt or El Salvador or Equatorial Guinea or Eritrea or Ethiopia or Fiji or Gabon or Gambia or Georgia Republic or Ghana or Grenada or Guatemala or Guinea or Guinea-Bissau or Guyana or Haiti or Honduras or India or Indonesia or Iran or Iraq or Jamaica or Jordan or Kazakhstan or Kenya or Kiribati or Democratic republic of Korea or Kosovo or Kyrgyzstan or Laos or Lebanon or Lesotho or Liberia or Libya or Macedonia or Madagascar or Malawi or Malaysia or Maldives or Mali or Marshall Islands or Mauritania or Mauritius or Mexico or Micronesia or Moldova or Mongolia or Montenegro or Morocco or Mozambique or Myanmar or Namibia or Nepal).mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]

22	(((((((Nicaragua or Niger or Nigeria or Pakistan or Palau or Panama or Papua New Guinea or Paraguay or Peru or Philippines or Romania or Russia or Rwanda or Samoa or Sao Tome) and Principe) or Senegal or Serbia or Sierra Leone or Solomon Islands or Somalia or South Africa or South Sudan or Sri Lanka or Saint Lucia or Saint Vincent) and the Grenadines) or Sudan or Suriname or Swaziland or Syria or Tajikistan or Tanzania or Thailand or East Timor or Timor-Leste or Togo or Tonga or Tunisia or Turkey or Turkmenistan or Tuvalu or Uganda or Ukraine or Uzbekistan or Vanuatu or Venezuela or Vietnam or West Bank) and Gaza) or Yemen or Zambia or Zimbabwe).mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	2982
23	2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19	25648
24	20 or 21 or 22	160387
25	1 and 23 and 24	52

The names of the individual low- and middle-income countries were used for the search. “mp” – signifies keyword search.

Search details from the WHO Global Health Index

(tw:(epilepsy)) AND (tw:(surgery)) AND (instance:"ghl") AND (db:("WPRIM" OR "LILACS" OR "IMEMR" OR "IMSEAR"))

- d. Latin American & Caribbean Health Sciences Literature (LILACS) = **305**
- e. African Index Medicus (AIM) = **0**
- f. Index Medicus for Eastern Mediterranean Region (IMEMR) = **45**
- g. Index Medicus for South East Asian Region (IMSEAR) = **40**
- h. Western Pacific Region Index Medicus (WPRIM) = **311**
- i. African Journal Online (AJOL) = **3**
- j. Others:= **29** (Mainly from google scholar and website search)

“tw” indicates a free text search in the title and abstract fields only, ghl – Global Health Index, db –database. Databases D, E, F, G and H were accessed via the World Health Organisation (WHO) Global Health Index. In order not to miss relevant articles, we simplified the search and used few search terms.

Total = 1365

Supplement 2: The outcome scores

Adapted from the ILAE Commission Report on Proposal for a New Classification of Outcome with Respect to Epileptic Seizures Following Epilepsy Surgery; Commission on Neurosurgery of the International League Against Epilepsy (ILAE) 1997–2001 (Wieser et al. 2001).

The Engel Outcome Scale

Class I: Free of disabling seizures

IA: Completely seizure-free since surgery

IB: Non-disabling simple partial seizures only since surgery

IC: Some disabling seizures after surgery, but free of disabling seizures for at least 2 years

ID: Generalized convulsions with antiepileptic drug withdrawal only

Class II: Rare disabling seizures (“almost seizure-free”)

IIA: Initially free of disabling seizures but has rare seizures now

IIB: Rare disabling seizures since surgery

IIC: More than rare disabling seizures after surgery, but rare seizures for at least 2 years

IID: Nocturnal seizures only

Class III: Worthwhile improvement

IIIA: Worthwhile seizure reduction

IIIB: Prolonged seizure-free intervals amounting to greater than half the follow-up period, but not less than 2 years

Class IV: No worthwhile improvement

IVA: Significant seizure reduction

IVB: No appreciable change

IVC: Seizures worse

The ILAE Outcome Scale

Class 1: Completely seizure free; no auras

Class 2: Only auras; no other seizures

Class 3: 1 to 3 seizure days per year; \pm auras

Class 4: 4 seizure days per year to 50% reduction of baseline seizure days; \pm auras

Class 5: Less than 50% reduction of baseline seizure days; \pm auras

Class 6: More than 100% increase of baseline seizure days; \pm auras

Supplement 3a: Publications describing epilepsy surgery in Africa

Author/Date	Country	Period	Centre	Number operated	Mean Follow-up	Type of Surgeries	Seizure Outcome Engel score	Complications/ Mortality
Krynauw 1950	South Africa	1940s	Johannesburg Hospital	10		Hemispherectomies	Good seizure outcome, which stopped in all.	One mortality
Ruperti 1997	Kenya	1980-1990	African Neurological Diseases Research Foundation	97		Traumatic lesion excision, TL, hemispherectomy, CC	Good outcome	No short-term mortality
Butler 2005	South Africa	1990s - 2000s	Two university neurology departments and a private epilepsy centre	> 250	~ 5 years	TL, neocorticectomies, CC, MST, hemispherectomies,	Good outcome in majority. Had improved QOL.	
Boling et al. 2009	Uganda	2005-2007	CCHU	10	1 year	CAH	Engel I = 60% Engel II = 20% Engel III = 20%	One post-surgical wound sepsis
Fletcher et al. 2015	Uganda	2005-2007	CCHU	10	8 years.	CAH	Engel I = 70%	One wound sepsis
Lahjouji et al. 2009	Morocco (Rabat)	2005-2009	Hôpital des Spécialités, CHU Rabat	35		19 Hippocampectomy and 16 lesion excision	80% had good outcome.	
Souirti et al. 2016	Morocco (Fez)	2011 - 2013	Hassan II University Hospital of Fez	7		2 Hippocampectomy and 5 lesion excision	Engel I – 57%, Engel II – 14.3%, Engel IV – 28.6 %	
Khiari et al. 2010	Tunisia	2006-2008	Charles Nicolle Hospital Tunis	10	2 years	Hippocampectomy	Engel I – 40% (100% seizure-free immediate post-surgery)	No major complication or mortality
Kassem et al. 2013	Egypt	2006-2011	Cairo University Hospital	137 (65% with TLE)	1 year	Hippocampectomy	Good outcome in > 70%.	

TL – Temporal lobectomy; CC – Corpus callosotomy; MST – Multiple subpial transection; CCHU - CURE Children's Hospital of Uganda; CAH – Corticoamygdalohippocampectomy, TLE – Temporal lobe epilepsy

Supplement 3b: Publications describing epilepsy surgery in Latin America and the Caribbean

Author/Date	Country	Period	Centre	Number operated	Mean Follow-up	Type of Surgeries	Seizure Outcome Engel score	Complications/ Mortality
Alonso et al. 2006	Brazil		Universidade Federal de São Paulo	35	6 months	CAH	Seizure free – 51%. Significant improvement in QOL post-surgery	
de Araújo Filho 2012	Brazil	2003 to 2011	Universidade Federal de São Paulo	115 TLE-MTS	4.7±1.66	CAH	Engel IA – 42.6% Engel IB/IC/ID – 26.9% Engel II – 20% Engel III – 8.7% Engel IV – 1.8% Pre-surgical psychiatric disorder may be a predictor of worse surgical outcome	
Jardim et al.2012	Brazil	2005 to 2011	Universidade Federal de São Paulo (UNIFESP), São Paulo	66	≥ 6 months	ATL	Engel I – 72.7% Engel II – 16.7% Engel III – 6.1% Engel IV – 4.5% Best in MTS type 1a (83.3%)	
Amaral et al. 2014	Brazil	2007 – 2010	Universidade Federal de Minas Gerais (UFMG)	34		MTS (79.4%)	Engel I to III – 64.7%	Complications in 23.5%
Baldauf et al. 2006	Brazil	1997 - 1999	Serviço de Cirurgia de Epilepsia, Hospital Brigadeiro, São Paulo	41	4.3±1.1	CAH	Engel I – 95.1% Engel IA – 70.6% Engel II – 4.9%	
Meguins et al. 2015	Brazil	2000 - 2013	Faculdade de Medicina de Sao Jose do Rio Preto (FAMERP)	127	1 year	NCC associated TLE-HS	Engel I – 62.2% Engel II – 29.1% Engel III – 4.7% Engel IV – 3.9%	No mortality. 14.2% had post-operative complications.
Meguins et al. 2015	Brazil	2000 - 2013	Faculdade de Medicina de Sao Jose do Rio Preto (FAMERP)	229	1 year	ATL	Engel I – 62% in those < 50 years. Engel I – 66% in those < 50 years. From those Engel I, 61% reported epilepsy duration < 10 years and 39% > 10 years	

Paglioli et al. 2004	Brazil	1992 – 2000	University Hospital of São Lucas Hospital PUCRS, Porto Alegre	135	1 year	TLR Mean FU 5.47 years	Engel IA – 85% Engel I – 89% Engel III or IV – 6.7%	No mortality
					2 years		Engel IA – 77% Engel I – 86%	
					5 years		Engel IA – 74% Engel I – 83%	
					10 years		Engel IA – 66% Engel I – 81%	
Almeida et al. 2010	Brazil	1992 – 2002.	PUCRS, Porto Alegre	384		Temporal epilepsy and extratemporal epilepsy	Engel I – 91.4% Engel II and III – 0% Engel IV – 8.6%	3.7% died from probable SUDEP
Hemb et al. 2013	Brazil	1992 – 2010	PUCRS, Porto Alegre,	108	11 years	ATL, SAH	The probability of remaining at Engel IA at 12 years and 18 years was 65% and 62%, respectively. Engel I, the corresponding probabilities were 77% and 77%, respectively	
Meneses et al. 2005	Brazil	1998 – 2003	Universidade Federal do Paraná (UFPR) Curitiba	43		Temporal lobe surgery	Engel I – 83.7%	No deaths. Complication - 18.6%
Nascimento et al. 2015	Brazil	2005 - 2012	Universidade Federal do Paraná (UFPR), Curitiba	67 (out of 212 who had surgery)	Median 64 months	Comparing 2 approaches ATL and SAH	Engel I or II – 82% of all patients Engel IA – 51.2%	No death. Complications in 28.35%
Yasuda et al. 2009	Brazil		UNICAMP Campinas Sao Paulo	67		Anterior temporal lobe resection plus AH	Engel IA – 50.7% Engel IB-IIA – 34.3% Engel III and IV – 14.9%	
Bonilha et al. 2004	Brazil		UNICAMP Campinas Sao Paulo	30	46 months.	Anterior temporal lobe resection plus AH	Engel I – 53% Engel II – 30% Engel III – 17%	One patient had a second surgery
Sales et al. 2006	Brazil	1999 – 2001	University Hospital, Ribeirão Preto School of Medicine, University of São Paulo	10 (< 12 years)	3 years	TL	Good in a large proportion	

Terra et al. 2010	Brazil	1995 – 2008	Ribeirão Preto Epilepsy Surgery Program. (CIREP)	267	~ 5 years	TL, Hemispherectomy Lesionectomy, Multilobar resections, lobectomy, CC, SAH	Engel I and II – 72.6% Engel III and IV – 27.4%	2 early deaths, 7 deaths 2 to 10 years after.
Bianchin et al. 2014	Brazil	1995 – 2000	Center for Epilepsy Surgery at Ribeirao Preto (CIREP)	191		Anterior temporal resection For MTLE-HS with or without Neurocysticercosis	Engel I - 74%, Engel II, III and IV – 26%	
Campos et al. 2000	Chile	1991 - 1998	Catholic University of Chile, Santiago de Chile.	17	29.1 months	ATL	Engel I – 88.2% Engel II – 5.9% Engel IV – 5.9%	One transient complication. No mortality
Acevedo et al. 2015	Chile	2009-2014	Instituto de Neurocirugia Asenjo (INCA)	16		Callosotomy	Seizures reduction > 50% in 75% of patients	
Fernandez-Concepcion et al. 2018	Ecuador		Hospital Baca Ortiz in Quito,			21 corpus callosotomies and 6 resective surgeries		
Fandino-Franky 2000	Colombia	1989 – 1997	Hospital Neurologico Liga Colombiana Contra La Epilepsia, Cartagena, Colombia.	97	35 months	CC	Engel I and II – 66.3%, [9.4% seizure-free). Engel III – 23.1%; Engel IV – 10.5%.	No mortality, Ten (10.3%) had transient deficits
Tureczek et al. 2000	Colombia		Hospital Neurologico, HN-LCE Cartagena,	185 (n=89)	6 years.	ATL	Engel I – 81%, Engel II – 16.8%, Engel III – 1.1%, Engel IV – 1.1%	
				11	6 years.	Hemispherectomies	Engel I – 45.5%, Engel II – 36.4%, Engel III – 18.1%	
				80	6 years.	CC	Engel I – 30%, Engel II – 41.25%, Engel III – 23.75%, Engel IV – 5%	
Freire et al. 2016	Colombia	2010-2015	Fundación cardiovascular of Colombia	26	≥ 12 months	13 TLR; 3 ETR; 10 palliative surgeries; 9 VNS implantations and 1 callosotomy	TLR: Engel I – 90% in VNS implantations and callosotomy - 100% in Engel III, and ETR 66% in Engel I	
Jiménez Torres et al. 2014	Bolivia	2008 - 2011	Neurología/Neurocirugía del Hospital Materno	16		TLR and Extra-TLR	Engel I – 50% Engel II – 19%	

			Infantil de la Caja Nacional de Salud Regional La Paz,				Engel I – 12% Engel I – 19%	
Mejía-Tupa et al. 2014	Perú		Hospital Nacional Guillermo Almenara (HNGAI) EsSalud. Lima	7		Hemispherectomy, lesionectomy, TR	Seizure-free – 71% >75% reduction – 29%.	
Benedetti-Isaac et al. 2013	Colombia		Colombian Foundation and Centre for Epilepsy and Neurological Diseases (Cartagena de Indias, Colombia).	21 (from a 256 temporal lobectomies)	6.5 years	Temporal lobectomies	Engel IA – 42.9%, Engel I and II – 90.5%	No mortality
Pomata et al. 2010	Argentina	1988 – 2009	Hospital Nacional de Pediatría “Juan P Garrahan	150	1 year	CDM Resections, ATL, CAH, CC, lesionectomy, corticoectomy	Engel I – 75.3%, Engel II – 11.3%, Engel III – 4% and Engel IV – 2%	
Carballo et al. 2011	Argentina	1990 – 2010	Hospital de Pediatría Prof. Dr. Juan P. Garrahan, Buenos Aires	45 children	9.5 years.	Hemispherectomy	Engel I – 73.5% Engel II – 13.3% Engel III – 4.4% Engel class IV – 8.8%	
Donadio et al. 2011	Argentina	1998 – 2008	Institute for Neurological Research FLENI, Buenos Aires	110 (84 resective procedure	1 year	Lobectomies (62.7%), Lesionectomies (13.6%) CC (5.4%), MST (5.4%), VNS (10%) and Hemispherectomies (2.7%).	Engel I – 72.6%, Engel II – 16.6%, Engel III–IV 15.5%	Two died
				110	1 to 3 years		Engel I – 68.1%, Engel II – 15.9%, Engel III–IV – 15.5%.	
					3 to 5 years		Engel I – 74%, Engel II – 14%, Engel III–IV – 14%.	
				45	5 years		Engel I – 78% Engel II – 13.5% Engel III–IV – 8.1%	
Vázquez et al. 2008	Argentina	1989 and 2007	National Pediátrica Prof Dr. Juan Garrahan, FLENI, Dr. Cosme Argerich, and Prof Dr. R. Rossi Hospitals	91 (19,4%) from a series of 469 surgeries		TLR	Engel IA – 75.8% Engel IB – 4.4% Engel IC – 3.3% Engel ID – 1.1% Engel IIA – 4.4% Engel IIB – 5:5%	

							Engel IV – 3,3%.	
Vázquez et al. 2008	Argentina	1988 and 2008	National Pediátrica Prof Dr. Juan Garrahan, FLENI, Dr. Cosme Argerich, and Prof Dr. R. Rossi Hospitals	49		Hemispherectomy	Engel I – 81.6% Engel II – 8.2% Engel III and IV – 10.2%	One mortality, complications in 12%
Oddo et al. 2012	Argentina		Epilepsy Center of the Hospital Ramos Mejia		1 year	TL	Engel I – 85.7%, Engel II – 8.5%, Engel III – 2.8%.	
Velasco Monroy, et al. 2013	México	1993 - 2008	Epilepsy Clinic of the General Hospital of México	57	1 year	ATL with AH	Engel I – 84%	No serious complication reported
Alonso-Vanegas et al. 2016, 2017	Mexico	1999 – 2014	National Institute of Neurology and Neurosurgery and Centro Neurológico Centro Médico ABC Santa Fe.	67 (15 excluded from analysis).	5.7 years	SMA resection using the subpial/endopial technique	Engel I – 61%, Engel II – 31%,	No mortality.
<p><i>CAH – Corticoamygdalohippocampectomy, CC – Corpus Callosotomy, TL – Temporal lobectomy, ATL – Anterior temporal lobectomy, ALTL – Anterolateral temporal resections, TLE – Temporal lobe epilepsy, ETLE – extra-temporal lobe epilepsy - HH – Hypothalamic Hamartoma, AH – Amygdalohippocampectomy, SAH – Selective Amygdalohippocampectomy, TLR – Temporal lobe resection, TR – Temporal resection, MST – Multiple subpial transection, HH – Hypothalamic Harmatoma, VNS – Vagus nerve stimulation, VEEG – Video-electroencephalography, NCC – neurocysticercosis, CDM – Cortical developmental malformation, SMA – Supplementary motor area.</i></p>								

Supplement 3c: Publications describing epilepsy surgery in Asia

Author/Date	Country	Period	Centre	Number operated	Mean Follow-up	Type of Surgeries	Seizure Outcome Engel score	Post-operative Complications/ Mortality
Bhatia et al. 1999	India		AIIMS New Delhi	20	20.5 months.	TL, Extra-temporal resection, CC	Engel I – 65%, Engel II – 10% Engel III – 5%	No major complications. One death
Shukla et al. 2003	India	1995 – 2001	AIIMS New Delhi	25 (24% of operated cases)	16.8 months	Extra-temporal resection	mEngel I and II – 87%, mEngel III and IV – 13%,	Minor complications in 40%. One major complication and death.
Ahmad et al. 2007	India	2004 – 2006	AIIMS New Delhi.	36	6 months	ATL, subpial-AH, extratemporal lesionectomy	Engel I – 77% Seizure-free patients had improved HRQOL	
Tripathi et al. 2008	India	1995 – 2006	AIIMS, New Delhi	57	3.0 ± 5.8 years	Resection ± MST Hemispherotomy in one.	Engel I – 51%, Engel II – 26%, Engel III – 14%, Engel IV – 5%	Complications in 9%. No mortality.
Chandra et al. 2008	India	2001 – 2007	AIIMS New Delhi	19	78 weeks	Hemispherotomy	Engel I – 95%, Engel II – 5%	
Dagar et al. 2011	India	2000 – 2011	AIIMS New Delhi	142 (118 had FU ≥ 1 year)	≥ 1 year	TL, ALTL, extratemporal resections, Hemispherotomies, CC, VNS	Engel I – 79.5% Engel II – 8.9% Engel III – 10.7% Engel IV – 1.07%	Complications in 14 cases. No mortality.
Chandra and Tripathi 2015	India	2010 - 2015	AIIMS New Delhi	11	8.4 months	Endoscopic hemispherotomy (EH)	Engel I – 81.8% Engel II – 18.2%.	
				16	18 ± 4.7 months	CC with anterior/posterior commissurotomy	Significant decrease – 69%, Moderate decrease – 31%	
				7	9.2 ± 1.46 months	Endoscopic disconnection for HH	Engel IA – 71.4%, Engel II – 14.3%, Poor outcome – 14.3%.	
Dwivedi et al. 2017	India	2010-2015	AIIMS New Delhi	57	1 year	TLR, Extra-TLR, hemispherotomy, CC, HH	ILAE Class I – 77.2% ILAE Class II – 7.0% ILAE Class III – 3.5% ILAE Class IV – 3.5%	

							For TL =100% ETLR = 91.7%	
Daniel and Chandy 1999	India	1949 - 1990	CMC Vellore	141 (Follow for 80)	10 years	Topectomy ± Amygdalectomy, TL ± amygdalectomy, hippocampectomy, amygdalectomy, Hemispherectomy, Stereotactic ansotomy	Engel I and II – 53%, Worthwhile – 20%	Complications in 11 (7.8%), Mortality in 3 (2.1%)
Daniel et al. 2001,	India		CMC Vellore	6		Peri-insular hemispherotomy	Engel I – 83.3% Engel II and III – 16.6% Cognitive functions improved in all children	
Rao and Radhakrishnan 2000	India	1995 - 1998	SCTIMST Kerala	164 (119 completed FU)	1 year	ATL	Seizure-free – 53.4%, Excellent outcome – 60.3%.	43 transient complications, 1 major complication, 1 mortality
				68.	2 years	ATL	Seizure-free – 67.6%, Excellent outcome – 77.9%	
				29	3 years	ATL	Seizure-free – 69% Excellent outcome – 72.4%, 34.5% no longer used AEDs	
Sylaja et al. 2004	Indian	1995 - 2001	SCTIMST, Kerala	17 (from 362 who underwent ATL)	FU ≥ 1 year	ATL	Seizure-free – 29.4%, Excellent outcome – 41%, >75% reduction – 29.4%	
Panda et al. 2005	India	1995 - 2003	SCTIMST Kerala	34 of 409 who had TLE surgery	Median 4 years	Lesionectomy, ATL, AH and SAH.	Engel I – 79%, Engel II – 15%) Early seizure recurrence a predictor of poorer long term outcome	No mortality. 18 complications
Radhakrishnan et al. 2007	India	1995 to 2003	SCTIMST, Kerala	373 selected from 472 who had surgery	Median 4.5 years	ATL ± AH, SAH	Seizure-free – 70.5%, Outcome was comparable between groups (72.9% for MTLE-HS-CoA+ patients versus 69.3% for MTLE-HS-CoA- patients	

George et al. 2009	India. Kerala	1995 to 2003	SCTIMST, Kerala	172	4.9 ± 1.1 years	ATL	Excellent outcome – 78.5%, Favourable outcome – 21.5%	
Ramesha et al. 2009	India	1996 – 2007	SCTIMST Kerala	10	2 years	Hemispherotomy, hemispherectomy or focal resection	Seizure-free – 70 %	
Chemmanam et al 2009	India	2004 - 2005	SCTIMST Kerala	48		TLR, extra-temporal resections, CC, VNS.	Seizure-free – 78.4% for those with TLR. VEM contributed significantly to long-term therapeutic and economic benefits.	
Chaudhry et al. 2010	India	1995 - 2005	SCTIMST Kerala	61	Median 5 (2 – 10) years	Lesionectomy – 80.3%, Lobectomy -18% Frontal cyst decompression - 1.6% Multilobar resection – 16.4%, MST – 1.6% AH - 1.6%	Engel I and II – 62.7%, Engel III and IV – 36.1% Seizure-free and aura-free - 54.2%	Two deaths
Ramesha et al. 2011	India	1995 - 2005	SCTIMST Kerala	513 (492 had FU ≥ 2 years)	2.7 years.	TLR	Good in a large proportion. Better in those with demonstrable pathology	
Dash et al. 2012	India	2005 - 2008	SCTIMST Kerala	71	2.6 years	Extratemporal resective surgery	Engel I – 73.2% for the surgical group compared to 7.7% in the non-surgical group.	No mortality.
Jayalakshmi et al. 2011	India	2003 - 2009	Krishna Institute of Medical Sciences (KIMS), Hyderabad, Andhra Pradesh	87 children	≥ 1 year	ATL with AH, lesionectomy, and functional hemispherectomy	Seizure-free - 64.1%. For TR – 71.7%. Extra-TR – 48%. Engel's favourable outcome – 75.6%. Engel's favourable -79.3% for TR, 72% extra-TR; 77.8% for hemispherectomy and 50% for HH.	
Panigrahi et al. 2016	India		KIMS Secunderabad	≥ 1 year	697	TL, lesionectomy, multilobar resections, hemispherotomy, CC, HH resection, VNS	Engel I and IIA - 85.7% for TLE; Engel I and IIA - 65.2% for ETLE.	Complications in 2.0%. Mortality in 0.14%.

Ravat et al. 2016	India	2001 - 2013	KEM Hospital Mumbai	51	33 months	Lesionectomy – 49%, lesionectomy ± ATL –49%, One lesionectomy	Engel I – 84.3%, Engel II – 5.9%, Engel III – 9.8%.	
Ravat et al. 2016	India	2001 - 2013	KEM Hospital Mumbai	34	62 months	ATL with AH, lesionectomy	Class I – 85.3%, Class II – 5.9%, Class III – 8.8%,	
Shah et al. 2016	India	2004 - 2014	KEM hospital Mumbai			ATL	Good outcome. Significant improvements in verbal memory after right ATL	
Liang et al. 2010	China	2007	Capital Epilepsy Therapy Center in Beijing. First Affiliated Hospital of General Hospital of PLA	29 (4.5% of 645 who had epilepsy Surgery)	1 year	Tuber resections, ± lobectomies ± CC	Engel I – 72%, Engel II – 16%, Engel III – 4%, Engel IV – 8%,	No permanent complications.
					2 years		Engel I –60%, Engel II –20%, Engel III –12%, Engel IV –8%,	
					3 years		Engel I –54.5%, Engel II –18.2%, Engel III – 18.2%, Engel IV – 9.1%	
Guan et al. 2013	China	2008 – 2011	Beijing Sanbo Brain Hospital, Capital Medical University, Beijing	16	1.6 years	Temporoparietooccipital and parietooccipital disconnection	Engel I – 81% Engel II – 6.3% Engel III – 12.5%	No mortality.
Dong et al. 2012	China	2009 – 2010	First Affiliated Hospital Baotou Medical College	15	≥ 6 months	TL, SAH, lesionectomy	Engel I and II – 80%, Engel III – 20%	
Wang et al. 2011	China	1992 - 2009	Third People's Hospital Bengbu Anhui	65	6 months – 11 years.	Resection of degenerative brain tissues, TL, CC, MST	Engel I – 40%, Engel II – 13.8%, Engel III – 30.8%, Engel IV – 9.2%..	
Guangming et al. 2013,	Beijing, China	2006 - 2011	Epilepsy Center, Yuquan Hospital Tsinghua University	4 with BMTLE		CAH	The average seizure frequency significantly decreased by 80.8%, 83.5%, and 84.3% at 6 months, 1 year, and 2 years, respectively.	No complication

Jia-tang et al. 2008	China	2003 – 2007	The Second Affiliated Hospital of Guiyang Medical College	72		TL, SAH and Lesionectomy	Based on Tan's standards, Satisfactory – 81.9%, Obvious improvement – 2.8%, Common improvement – 4.2%, Poor improvement – 2.8%, No improvement – 6.9%.	1 death
Kuang et al. 2011	China	2007 - 2010	Chengdu General Hospital of Chengdu Military Command.	32	1 year	Microsurgical excision, Partial ATL, hippocampectomy, amygdalotomy and bipolar electrocoagulation	Seizure free – 84.4%,	14 transient complications. No death
Liang et al. 2015	China	2005 - 2013	Hebei General Hospital, Shijiazhuang,	14	1 year	CC	Seizure-free – 28.6%	No major complications.
					3 years.		Seizure-free – 22.2% Those with drop attack had the best favourable outcome after CC.	
Liang et al. 2012	China	2001 - 2007	From four centres.	206 children	1 year	lesion resection, ATL and SAH	Engel I – 84.0%, Engel II – 10.2%, Engel III and IV – 5.8%	No deaths. No permanent complications.
					2 years		Engel I – 72.3%, Engel II – 15.5%, Engel III and IV – 12.1%	
					5 years		Engel I – 67.5%, Engel II – 17.5%, Engel III and IV – 15.1%	
Luan et al. 2002	China	1996 - 2000	Beijing Tiantan Hospital	124 (108 cases followed-up)	1 to 5 years	Bipolar electrocoagulation on functional cortex (BCFC)	Seizure-free – 75.9%, 75% reduction – 8.4%, 50% - 7.4%, 25% reduction – 4.6%, No change – 3.7%.	Nine had transient side-effects.
Yang et al. 2007	China	2001 - 2005	Xinqiao Hospital, Third Military Medical University	114	1 to 5 years	TL, Extratemporal lobectomy and AH	Engel I – 74.6%, Engel II – 14%, Engel III – 2.6%,	

Yang et al. 2008	China	1990 - 2005	Xinqiao Hospital, Third Military Medical University	189	1 to 14 years	ATL, Extra TL, AH	Engel I – 62.4%, Engel I – 15.3%, Engel III – 13.8%, Engel IV – 8.5%	No severe complications, No mortality
Yang et al. 2009	China	1990 - 2006	Xinqiao Hospital, Third Military Medical University	236	2 to 15	ATL, extra TL, AH; MST	Engel I - 67.4%, Engel II – 14.4%; Engel III – 10.6%, Engel IV – 7.6%.	No mortality, No serious complications.
Yang et al. 2004	China	2001 - 2003	General Hospital Tianjin Medical University, Tianjin	45	3 to 28 months.	MST; epileptogenic zone resection; anterior CC, AH	Seizure-free – 37.8%; Marked improvement – 53.3%; Some improvement – 4.4%; No improvement – 4.4%.	No long term post-operative sequela.
Yang et al. 2007	China	2003 - 2006	General Hospital Tianjin Medical University, Tianjin	16	6 to 32 months.	Stereotactic AH; MST	Engel I – 44%; Engel II – 25%, Engel III – 25%, Engel IV – 6%.	No long term postoperative complications.
Wu et al. 2011	China	2007 - 2009	West China Hospital of Sichuan University	143 (of 212 surgical cases)	1–3 years.	ATL, lesionectomy, Hemispherectomy	Engel I – 63.8%, Engel II – 21.3%, Engel III – 8.5%, Engel IV – 4.3%,.	Three died.
						FLE	Engel I – 61.1%, Engel II – 11.6%, Engel III – 13.6%, Engel IV – 11.6%.	
Yang et al. 2014	China	2004 - 2011	Epilepsy Center, Fuzhou General Hospital	133	>2 years.	Resections.	Engel I – 48.9%, Engel II – 23.3%.	Complications in 21.7%
Yu et al. 2014	China	2000 to 2010	Fourth Neurosurgery Center of the Affiliated Hospital of Harbin Medical University.	379	6-month	ATL + AH, ATL + AH + DECF, AFL + DECF or FL + DECF, lesionectomy, hemispherectomy, CC, VNS	Good outcome – 79%	Transient complications in 10%
					2-year		Good outcome – 78%	
					5-year		Good outcome – 74%	
					10-year		Good outcome – 65%,	
					12-year		Good outcome – 56%.	

Lin et al. 2001	China	1992-2001	First Affiliated Hospital, Fujian Medical University	51	3 years.	ATL, ETLE, AH, MST	Engel I – 64.7%; Engel II – 23.5%.	
Zeng et al. 2012	China	2005 - 2008	West China Hospital Sichuan University	149 (131 analysed)	6 months	89 TL, 42 had extra-temporal surgery	Seizure-free – 104 (79.4%).	
					2 years	89 temporal, lobectomy, 42 had extra-temporal surgery	Engel I – 61.0%, Engel II – 16.8%, Engel III – 17.6%, Engel IV – .6%.	
Zeng et al. 2014	China	2005 – 2008	West China Hospital Sichuan University	319 were analysed from 341 who had surgery.	6 months.	TLE, ETLE and hemispherectomy	Seizure-free – 71.5%, The seizure free rates were 78.8% in those who took LEV compared to 67.5% not on LEV.	
					2 years		Seizure-free – 209 (65.5%) Improvement – 75 (23.5%) Unimproved – 35 (11.0%)	
					5 years		Seizure-free without AEDs – 109 (34.2%), Seizure-free with AEDs – 104 (32.6%).	
Zonghui et al. 1997	China		General Naval Hospital Beijing	80 (60 cases followed up)	6 months	MST	Excellent seizure outcome – 60%, Good – 18%, About 50% reduction – 15%, No change – 6.7%.	No post-operative death.
Sun et al. 2002	China	2000-2001	Beijing Tiantan Hospital	15 combined surgery	3 to 12 months	CC, hippocampectomy , resections and bipolar coagulation	Seizure-free – 14 patients.	No permanent complication No mortality
Chen and Lei 2014	China	2007 - 2009	West China Hospital (WCH) of Sichuan University	100	2 years		Completely seizure-free - 73%, 29% needed to continue maintenance AED.	
					3 years		Completely seizure-free – 75%.	
Al-Ghanem et al. 2009	Jordan	1994 - 2005	Jordan University Hospital, Amman	44	6 months to 7 years.	TLR, Extra-TLR, functional hemispherectomy	Grading by: Kobayashi et al: Seizure-free without AED – 14%; Seizure free on AED – 36%; Seizure reduction (>	

							50%) – 43%; Seizure reduction (< 50%) – 7%.	
Faleh-Tamimi and Qudah 2002	Jordan	1996 – 2000	Jordan University Hospital, Amman	12 (from 27 surgical cases)	5 years.	TL, Lesionectomy	For 10 non-neoplastic cases: Engel I and II – 7 (70%), Engel III – 3 (30%). Two neoplastic cases seizure free.	Two (16%) had complications.
Alsemari et al. 2014	Saudi Arabia	1998 - 2012.	King Faisal Specialist Hospital & Research Centre (KFSHRC)	502 (468 FU ≥ 3 years)	1 year	TLE surgeries, ETLE surgeries hemispherectomies, multilobar surgeries, CC, MST, HH resection.	TLE surgery Engel I, II and III – 79.6% FLE surgery Engel I, II and III – 62% Parietal and occipital lobe Engel I, II and III – 67% Multilobar surgery Engel I, II and III – 65% Hemispherectomy Engel I, II and III – 64.2%	
					3 years	TLE surgeries, ETLE surgeries hemispherectomies, multilobar surgeries, CC, MST, HH resection.	TLE surgery Engel I, II and III – 74.2% FLE surgery Engel I, II and III – 52% Parietal and occipital lobe Engel I, II and III – 67% Multilobar surgery Engel I, II and III – 50% Hemispherectomy Engel I, II and III – 63%	
					5 years	TLE surgeries	TLE surgery Engel I, II and III – 67%	
Locharernkul et al. 2005	Thailand	2002 - 2004	Chulalongkorn University Hospital	111	3 years.	ATL, SAH; Lesionectomy cortical resections.	Seizure-free – 83.8 %, Almost seizure-free – 10.8%, Worthwhile improvement – 5.4 %.	
Kanchanatawan and Kasalak 2012	Thailand	2007 - 2008	King Chulalongkorn Memorial Hospital	60 each for surgical non-surgical group	> 1 year.	ATL, tumours, lesionectomy or cortical resection	66% of surgical group compared to 5% of non-surgery group were seizure-free.	

Kanchanatawan et al. 2014	Thailand	2007 - 2008	King Chulalongkorn Memorial Hospital	189	6 months	ATL, tumours, lesionectomy or cortical resection	Engel I – 78.8%	
					2 years.		Engel I – 88.3%	
Visudhiphan 1999	Thailand	1993 - 1998.	Ramathibodi Hospital, Bangkok	14	6 months –5 years.	ATL	Seizure-free – 70% Marked reduction – 30%. Behaviour improvement in 70%	
Kitwitee et al. 2017	Thailand	2010 - 2013	Prasat Neurological Institute (PNI)	63	1 year:	ATL, Resection	Engel I – 79.4% Adjusted for QOL the VEEG was superior to the no-VEEG option	1.4% permanent complications and 20.0% - transient.
					2 years:		Engel I – 77.8%	
Zaknun et al. 2008	Thailand India, Italy and Argentina.		Chulalongkorn University Bangkok, Ospedale Maggiore Bologna, Instituto de Investigaciones Neurologicas Buenos Aires, AIIMS New Delhi	74 (53% from Thailand)	1 year	Temporal lobe surgery	Class I – 89%; Class II – 7%; Class III – 3%; Class IV – 1%	
Srikijvilaikul et al. 2004	Thailand.	1997-2003	King Chulalongkorn Memorial Hospital	35 (from 42 who had surgery)	≥ 1 year	TL	Engel I – 74%, Engel II – 7%, Engel III – 2.4%	Complications in 21.4%
Mikati et al. 2012	Lebanon	1997 - 2007	American University of Beirut	93		TLE resection, ETLE resection, multilobar resections, CC. Hemispherectomy, VNS	Engel I – 70%, Engel II – 9% Engel III – 14%, Engel IV – 7%.	
Mikati et al. 2006	Lebanon		American University of Beirut	20 surgical, 17 non-surgical and 20 healthy controls	33.9 ± 9.1 months	TL	For those who underwent surgery. Engel IA – 85%, Engel class IB –10%, Engel class IIA – 5%. Only 35% of the non-surgery group were seizure-free.	
Ahmed et al. 2009	Pakistan	2006 - 2008	Aga Khan University	3		TL, SAH, lesionectomy	Seizure-free – 67% Reduced seizure – 33%	
Tahir et al. 2012	Pakistan		Aga Khan University Hospital	16	12 months	Neuro-navigation-guided SAH using keyhole technique	Engel I – 100%	One developed hemiplegia and

								one died from postoperative acute cerebral oedema.
					24 months	ATL	Engel 1 – 5 (83%)	
					48 months	Hemispherectomy	Engel 1 – 4 (66%).	
Asadi-Pooya et al. 2014	Iran	2009	Shiraz University of Medical Sciences	81		ATL, CC, lesionectomy	Yet to publish outcome	
Asadi-Pooya et al. 2013	Iran	2009 - 2012	Shiraz University of Medical Sciences	18	1 year.	CC	Favourable outcome – 61.1%	Complications in 45.5%. Mortality in one (5.5%).
				9	2 year		Favourable outcome – 66.6%.	
Asadi-Pooya et al. 2015	Iran	2009 - 2011	Shiraz University of Medical Sciences	22	24.8 ± 7.7 months.	TL	Engel 1 – 15 (68.2%) Engel 2 – 3 (13.6%)	
Aydemir et al. 2004	Turkey		University of Istanbul	20 pre-SAH and 21 post-SAH	27 months	SAH	Good outcome in large percentage.	
Ozkara et al. 2000	Turkey	1995 - 1999	Cerrahpasa Medical Faculty, University of Istanbul	77	17 (2 to 53) months	TLR, extra TL, multilobar resections.	Engel 1 – 57 (75%) Engel II – 12 (15%) Engel III – 3 (5%) Engel IV – 4 (5%) Best outcome for HS (85%).	No major complications
Hirfanoglu et al. 2016	Turkey	1998 - 2013	Gazi University School of Medicine,	45	2 years	TLE resective surgery,	Engel I – 88.9%, Engel II – 4.4%, Engel III – 2.2%, Engel IV – 4.4%.	
				16	2 years	Extra-temporal surgeries	Engel I – 50%, Engel II – 12.5%, Engel III – 25%, Engel IV – 12.5%.	
Sayuthi et al.	Malaysia		Hospital University Sains Malaysia	7	1 year	Lesionectomy, ATL, AH or combination	ILAE score 1 – 71%, ILAE score 3 – 29%	
Matkovskii et al. 2007	Moldova	1978 - 2004	The epilepsy center of the Republic of Moldova	215		Stereotactic and/or resective operations ± hippocampotomy	Good – 23% Satisfactory – 44%	

						Poor – 33%	
				215		TL, cortical resections, ± stereotactic operations,	Excellent and good: For open operations – 42%. For ATL – 69%.
<p><i>CAH – Corticoamygdalohippocampectomy, CC – Corpus Callosotomy, TL – Temporal lobectomy, ATL – Anterior temporal lobectomy, ALTL – Anterolateral temporal resections, TLE – Temporal lobe epilepsy, ETLE – extra-temporal lobe epilepsy - HH – Hypothalamic Hamartoma, AH – Amygdalohippocampectomy, SAH – Selective Amygdalohippocampectomy, TLR – Temporal lobe resection, MST – Multiple subpial transection, HH – Hypothalamic Harmatoma, VNS – Vagus nerve stimulation, VEEG – Video-electroencephalography, ILAE – International League, Against Epilepsy,</i></p>							