

Online Supplement 1

Search strategy

1. exp Cerebrovascular Disorders/
2. stroke*.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
3. poststroke*.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
4. cerebrovascular*.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
5. cerebral vascular.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
6. 2 or 3
7. 4 or 5
8. infarct*.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
9. isch?emi*.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
10. thrombo*.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
11. emboli*.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
12. apoplexy.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
13. 8 or 9 or 10 or 11 or 12
14. cerebral.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
15. intracerebral.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
16. intracranial.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
17. brain*.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
18. cerebellar.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
19. vertebrobasilar.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
20. 14 or 15 or 16 or 17 or 18 or 19
21. h?emorrhage.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
22. bleed.mp. [mp=ti, ot, ab, nm, hw, ui, an, tc, id, sh, tn, dm, mf]
23. 21 or 22
24. 13 and 20
25. 20 and 23
26. 1 or 6 or 7 or 24 or 25
27. Depression/
28. Depressive Disorder/
29. 27 or 28
30. 26 and 29
31. limit 30 to human

Table DS1 Prevalence of depression after stroke

Author & year	Study setting	Country	Depression diagnosis	Time since stroke	Assessed (N)	Depressed (n)	Depressed (%)
Daily 1983 ¹	Rehabilitation	USA	HRSD	7 days	32	5	16
Wade 1987 ²	Population	UK	WDI >18	3 weeks 6 months 12 months	379 377 348	84 74 63	22 20 18
Ebrahim 1987 ³	Hospital	UK	GHQ >11	6 months	149	34	23
Eastwood 1989 ⁴	Rehabilitation	Canada	GDS	3 weeks - 6 months	87	47	54
Bacher 1990 ⁵	Rehabilitation	Canada	ZDS	Baseline 6 weeks 6 months 1 year	48 43 42 39	12 12 10 12	25 26 24 31
Morris 1990 ⁶	Rehabilitation	Australia	DSM-III	2 months 15 months	99 56	32 67	32 12
House 1991 ⁷	Population	UK	BDI >9	1 months 6 months 12 months	76 107 88	24 34 14	32 32 16
Aström 1993 ⁸	Rehabilitation	Sweden	DSM-III	Discharge 3 months 1 year 2 years 3 years	76 73 68 57 49	19 23 11 11 14	25 31 16 19 29
Shima 1994 ⁹	Rehabilitation	Japan	DSM-III-R	3 months - 10 years	68	41	60
Diamond 1995 ¹⁰	Rehab.	USA	GDS >10	Admission Discharge	14	5 4	36 29
Ng 1995 ¹¹	Rehabilitation	Singapore	DSM-III	22 days Discharge	52 49	29 14	55 29
Burvill 1995 ¹²	Population	Australia	DSM-III	4 months	294	68	23
Angeleri 1997 ¹³	Rehabilitation	Italy	BDI >14	2 years	180	62	34
Knapp 1998 ¹⁴	Hospital	UK	HADS >7	<1 month 1 months after discharge 6 months	30 30 30	10 11 8	33 37 27
Lincoln 1998 ¹⁵	Rehabilitation	UK	HADS >10	1 month	84	11	13
Kauhanen 1999 ¹⁶	Rehabilitation	Finland	DSM-III	3 months 1 year	101 92	53 39	53 41
Robinson 1999 ¹⁷	Hospital	USA	DSM-IV	Acute phase 3-6 months 1-2 years	50 50 50	22 20 21	44 40 42
VandeWeg 1999 ¹⁸	Rehabilitation	Netherlands	DSM-III	3-6 weeks	85	30	35
Jürgensen 1999 ¹⁹	Rehabilitation	Germany	DSM-IV (MD)	6 months	77	15	20
Löfgren 1999 ²⁰	Rehabilitation	Sweden	DSM IV	3 years	47	18	38
Gesztelyi 1999 ²¹	Hospital	Hungary	BDI >14	2 years	119	13	11
Kellermann 1999 ²²	Rehabilitation	Hungary	BDI >10	1 weeks	82	22	27
Langhorne 2000 ²³	Rehabilitation	UK	Single question	Acute phase	311	50	16
Hayee 2001 ²⁴	Hospital	Bangladesh	BDI >9	3 months 1 year	161 156	66 65	41 42

Guillen 2001 ²⁵	Rehabilitation	USA	GDS >14	15 days	243	31	13
Bayer 2001 ²⁶	Hospital	Jordan	DSM-IV	3 months	168	42	25
Eriksson 2004 ²⁷	Hospital	Sweden	Single question	3 months	1399 9	1999	14
Mast 2004 ²⁸	Rehabilitation	USA	GDS >10	1 week	195	71	36
Fure 2006 ²⁹	Hospital	Norway	HADS >6	3-7 days	178	25	14
Kaji 2006 ³⁰	Hospital	Japan	HRSD >10	2-5 weeks	92	23	20
Paul 2006 ³¹	Population	Australia	IDA >6	5 years	289	48	17
Caeiro 2006 ³²	Hospital	Portugal	DSM-IV	<5 days	178	82	46
Storor 2006 ³³	Hospital	Australia	HRSD >12	Acute phase	61	20	39
BarkerCollo 2007 ³⁴	Rehabilitation	New Zealand	BDI >9	3 months	73	13	23
Fatoye 2009 ³⁵	Hospital	Nigeria	BDI >9	1 month -2 y	118	47	40
Beghi 2009 ³⁶	Hospital	Italy	DSM-IV	Acute phase	82	24	27
Farner 2010 ³⁷	Rehabilitation	Norway	MADRS >5	18 days 13 months	108 108	60 52	56 48
S-Jarosz 2010 ³⁸	Hospital	Poland	GDS >5	3 months	242	82	34
Chausson 2010 ³⁹	Population	Martinique	MADRS >7	5 years	252	65	26
Bergersen 2010 ⁴⁰	Rehabilitation	Norway	HADS >7	3.5 years	162	45	28
Raju 2010 ⁴¹	Hospital	India	HADS >7	1 months - 3 years	162	60	37
Kitisomprayoonkul 2010 ⁴²	Rehabilitation	Thailand	GDS >12	3 days	83	47	57
Wolfe 2011 ⁴³	Population	UK	HADS >7	3 months 1 year 2 years 3 years 4 years 5 years 6 years 7 years 8 years 9 years 10 years	876 991 743 998 806 569 525 407 334 231 197	289 275 225 315 249 173 163 129 102 87 71	33 28 30 31 31 28 30 32 30 38 36

No cut off point indicates it was not reported by authors.

BDI: Beck Depression Inventory

GDS: Geriatric Depression Scale

GHQ: General Health Questionnaire

HADS: Hospital Anxiety and Depression Scale

HRSD: Hamilton Rating Scale for Depression

IDA: Irritability Depression and Anxiety Scale

MADRS: Montgomery-Åsberg Depression Rating Scale

MD: major depression

WDI: Wakefield Depression Inventory

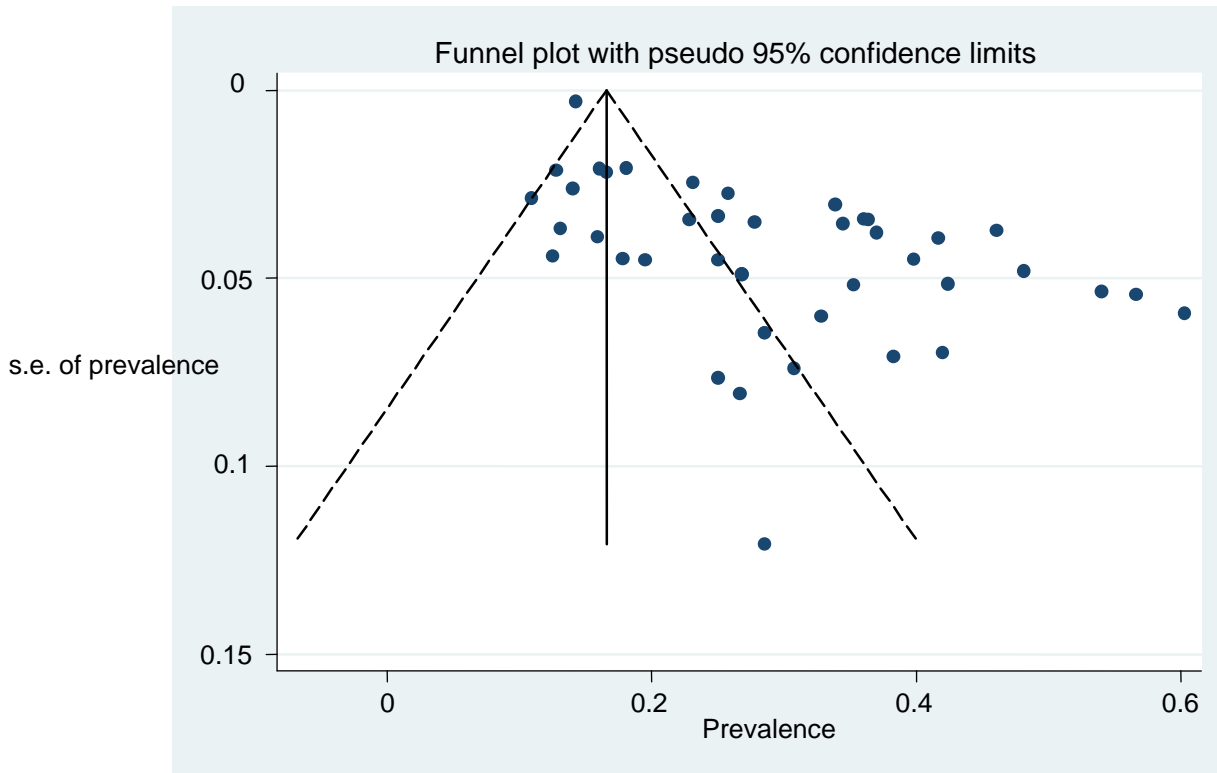
ZDS: Zung Depression Scale

Table DS2 Predictors of depression after stroke

Study	Associated in univariate analysis	Not associated in univariate analysis	Associated in multivariate analysis	Not associated in multivariate analysis
Eriksson 2004 ²⁷	Impaired consciousness on admission	Subtype (Isc/Haem) Stroke unit care Age	Age (<65) Gender (female) PMH of stroke Living alone after stroke Disability after stroke Institutionalised after stroke	Impaired consciousness on admission
Morrison 2005 ⁴⁴			Low engagement on exercise 1 month after stroke Low satisfaction with treatment 1 month after stroke Handicap in acute phase Anxiety 10-20 days post-stroke	Age Gender Marital status Living arrangements pre-stroke Alcohol consumption pre stroke Laterality PMH of stroke Stroke severity Disability pre-stroke
Storor 2006 ³³			Neuroticism PMH of mental disorder	
Caeiro 2006 ³²	Gender (female) Hemiparesis in acute phase PMH depression Handicap		PMH of depression	Age Gender Aphasia
Beghi 2009 ³⁶			PMH psychiatric disorder Psychiatric medication use pre-stroke	Age Gender Subtype (Isc/Haem) Location Stroke severity
Fatoye 2009 ³⁵	Education level Cognitive impairment after stroke Paresis after stroke	Age Gender PMH psychiatric illness pre-stroke	Education level (low) Cognitive impairment after stroke Paresis after stroke	
Sagen 2010 ⁴⁵	Anxiety after stroke		Anxiety after stroke	Age Gender Comorbidities Disability in acute phase
Raju 2010 ⁴¹	Disability after stroke Quality of life Stroke	Age Gender	Handicap after stroke Anxiety after stroke Disability after stroke	Age Gender Income Education Family type

	severity			Stroke severity
Farner 2010 ³⁷			Low activity level pre-stroke	
Ayerbe 2011 ⁴⁶ ENREF 22 ENR EF 27 ENREF 20		Ethnicity Pre-stroke treatment of depression	GCS under 13 at baseline Dysphagia at baseline Incontinence at baseline Cognitive impairment at baseline Disability at baseline Inability to work pre-stroke Pre-stroke treatment of depression Disability at follow-up Cognitive impairment at follow-up Low activity level at follow-up Lack of family support at follow up Institutionalization at follow-up	.

Fig. DS1 Funnel plot for the studies included.



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