BEST in Mental Health

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Best Evidence Summaries of Topics in Mental Healthcare

BEST *in* MH *clinical question-answering service*

Question

"In adults with epilepsy and depression, which are the safest antidepressants, i.e. least likely to lower seizure threshold or interact with phenytoin?"

Clarification of question using PICO structure

Patients:	Adults with epilepsy and depression
Intervention:	Antidepressants
Comparator:	Any other antidepressant
Outcome:	Safety, i.e. least likely to lower seizure threshold or interact with phenytoin

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Clinical and research implications

No relevant, high quality randomised controlled trial evidence was identified.

What does the evidence say?

Number of included studies/reviews (number of participants)
N/A

Main Findings
N/A

Authors Conclusions
N/A

Reliability of conclusions/Strength of evidence
N/A

What do guidelines say?

NICE guidelines do not comment on the safest antidepressants for adults with epilepsy and depression.

SIGN Guidelines for Diagnosis and Management of Epilepsy in Adults (2003, Guideline 70) suggest the following:

"A wide variety of drugs has been reported to precipitate or potentiate seizures in patients with or without a history of epilepsy. This does not preclude their use when indicated in patients with epilepsy and supported by a risk-benefit assessment. Common examples include:

- antidepressants, when a selective serotonin re-uptake inhibitor (SSRI, eg sertraline, citalopram) may be a reasonable choice."

This suggestion is not based upon evidence from randomised controlled trials. It is based upon evidence which is not considered to be of a high standard (e.g., case studies).

Date question received: 13/05/2014
Date searches conducted: 22/05/2014
Date answer completed: 09/06/2014

Search Details

Source	Search Strategy	Number of hits	Relevant evidence identified
SRs and Guidelines			
NICE	Epilepsy antidepressant	127	1
DARE	MeSH DESCRIPTOR Epilepsy EXPLODE ALL TREES MeSH DESCRIPTOR Seizures EXPLODE ALL TREES (epilep* OR seizure* OR convuls*) IN DARE #1 OR #2 OR #3 (antipsychotic*) IN DARE MeSH DESCRIPTOR Antipsychotic Agents EXPLODE ALL TREES (psychotic*) IN DARE (psychosis*) IN DARE (schizo*) IN DARE #5 OR #6 OR #7 OR #8 OR #9 #4 AND #10	42	0
Primary studies			
CENTRAL	#1 MeSH descriptor: [Epilepsy] explode all trees 2263 #2 MeSH descriptor: [Depressive Disorder] explode all trees 7467 #3 #1 and #2 36 #4 depression and epilepsy 481 #5 #3 or #4 513 #6 MeSH descriptor: [Antidepressive Agents] explode all trees 4885 #7 phenytoin 1158 #8 seizure 4181 #9 "drug safety" 9153 #10 "seizure risk" 11 #11 MeSH descriptor: [Drug Interactions] explode all trees 7077 #12 "pharmacokinetic interactions" 295	134	0

	#13 #6 or #7 or #8 or #9 or #10 or #11 or #12 25573 #14 #5 and #13 332 Central only 134		
PsycINFO	1. PsycINFO; exp EPILEPSY/; 19204 results. 2. PsycINFO; "DEPRESSION (EMOTION)"/ OR exp "LONG-TERM DEPRESSION (NEURONAL)"/; 22050 results. 3. PsycINFO; (epilepsy adj3 depression).ti,ab; 349 results. 4. PsycINFO; 1 AND 2; 80 results. 5. PsycINFO; 3 OR 4; 415 results. 6. PsycINFO; exp MAJOR DEPRESSION/; 92402 results. 7. PsycINFO; 1 AND 6; 529 results. 8. PsycINFO; 5 OR 7; 781 results. 9. PsycINFO; exp ANTIDEPRESSANT DRUGS/; 31839 results. 10. PsycINFO; exp "SIDE EFFECTS (DRUG)"/; 43648 results. 11. PsycINFO; "drug safety".ti,ab; 171 results. 12. PsycINFO; exp ANTICONVULSIVE DRUGS/; 9370 results. 13. PsycINFO; exp SEIZURES/; 11547 results. 14. PsycINFO; "seizure threshold".ti,ab; 558 results. 15. PsycINFO; "seizure risk".ti,ab; 73 results. 16. PsycINFO; "pharmacokinetic interactions".ti,ab; 152 results. 17. PsycINFO; (drug adj3 interaction*).ti,ab; 2711 results. 18. PsycINFO; 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17; 89517 results. 19. PsycINFO; 8 AND 18; 245 results. 20. PsycINFO; COHORT ANALYSIS/; 1024 results. 21. PsycINFO; "cohort stud*".ti,ab; 10193 results. 22. PsycINFO; CLINICAL TRIALS/; 7614 results. 23. PsycINFO; random*.ti,ab; 129924 results. 24. PsycINFO; groups.ti,ab; 366854 results. 25. PsycINFO; (double adj3 blind).ti,ab; 17848 results.	64	0

	26. PsycINFO; (single adj3 blind).ti,ab; 1410 results. 27. PsycINFO; EXPERIMENTAL DESIGN/; 9100 results. 28. PsycINFO; controlled.ti,ab; 80735 results. 29. PsycINFO; (clinical adj3 study).ti,ab; 7939 results. 30. PsycINFO; trial.ti,ab; 68382 results. 31. PsycINFO; "treatment outcome clinical trial".md; 26991 results. 32. PsycINFO; 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31; 567912 results. 33. PsycINFO; 20 OR 21 OR 32; 576308 results. 34. PsycINFO; 19 AND 33; 64 results.		
Embase	1. EMBASE; exp EPILEPSY/; 162813 results. 2. EMBASE; exp DEPRESSION/; 303784 results. 3. EMBASE; 1 AND 2; 7382 results. 4. EMBASE; exp ANTIDEPRESSANT AGENT/; 298398 results. 5. EMBASE; 3 AND 4; 2469 results. 6. EMBASE; DRUG SAFETY/; 235056 results. 7. EMBASE; SEIZURE THRESHOLD/; 1983 results. 8. EMBASE; PHENYTOIN/; 49117 results. 9. EMBASE; "seizure risk".ti,ab; 200 results. 10. EMBASE; (drug adj3 interaction*).ti,ab; 32717 results. 11. EMBASE; "pharmacokinetic interactions".ti,ab; 1767 results. 12. EMBASE; 6 OR 7 OR 8 OR 9 OR 10 OR 11; 311003 results. 13. EMBASE; 5 AND 12; 865 results. 14. EMBASE; random*.ti,ab; 868967 results. 15. EMBASE; factorial*.ti,ab; 22641 results. 16. EMBASE; (crossover* OR cross-over*).ti,ab; 68047 results. 17. EMBASE; placebo*.ti,ab; 196174 results. 18. EMBASE; (doubl* ADJ blind*).ti,ab; 139801 results. 19. EMBASE; (singl* ADJ blind*).ti,ab; 14167 results.	110	0

	20. EMBASE; assign*.ti,ab; 234867 results. 21. EMBASE; allocat*.ti,ab; 82147 results. 22. EMBASE; volunteer*.ti,ab; 173689 results. 23. EMBASE; CROSSOVER PROCEDURE/; 38904 results. 24. EMBASE; DOUBLE BLIND PROCEDURE/; 113211 results. 25. EMBASE; RANDOMIZED CONTROLLED TRIAL/; 341969 results. 26. EMBASE; SINGLE BLIND PROCEDURE/; 18272 results. 27. EMBASE; 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR 25 OR 26; 1388803 results. 28. EMBASE; cohort.ti,ab; 358190 results. 29. EMBASE; COHORT ANALYSIS/; 167342 results. 30. EMBASE; 28 OR 29; 394222 results. 31. EMBASE; 27 OR 30; 1736368 results. 32. EMBASE; 13 AND 31; 110 results. _____		
Medline	22. MEDLINE; exp EPILEPSY/; 128596 results. 23. MEDLINE; "DEPRESSION (EMOTION)"/ OR exp "LONG-TERM DEPRESSION (NEURONAL)"/; 75730 results. 24. MEDLINE; (epilepsy adj3 depression).ti,ab; 566 results. 25. MEDLINE; 22 AND 23; 1037 results. 26. MEDLINE; 24 OR 25; 1459 results. 27. MEDLINE; exp MAJOR DEPRESSION/; 0 results. 28. MEDLINE; 22 AND 27; 0 results. 29. MEDLINE; 26 OR 28; 1459 results. 30. MEDLINE; exp ANTIDEPRESSANT DRUGS/; 120602 results. 31. MEDLINE; exp "SIDE EFFECTS (DRUG)"/; 0 results. 32. MEDLINE; "drug safety".ti,ab; 2581 results. 33. MEDLINE; exp ANTICONVULSIVE DRUGS/; 118275 results. 34. MEDLINE; exp SEIZURES/; 41385 results. 35. MEDLINE; "seizure threshold".ti,ab; 1493 results.	607	0

	36. MEDLINE; "seizure risk".ti,ab; 157 results. 37. MEDLINE; "pharmacokinetic interactions".ti,ab; 1450 results. 38. MEDLINE; (drug adj3 interaction*).ti,ab; 25115 results. 39. MEDLINE; 30 OR 31 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37 OR 38; 291367 results. 40. MEDLINE; 29 AND 39; 588 results. 41. MEDLINE; COHORT ANALYSIS/; 166124 results. 42. MEDLINE; "cohort stud*".ti,ab; 88037 results. 43. MEDLINE; DEPRESSION/; 75730 results. 44. MEDLINE; exp DEPRESSIVE DISORDER/; 80515 results. 45. MEDLINE; 43 AND 44; 4126 results. 46. MEDLINE; 43 OR 44; 152119 results. 47. MEDLINE; 22 AND 46; 1880 results. 48. MEDLINE; 26 OR 47; 2207 results. 49. MEDLINE; DRUG-RELATED SIDE EFFECTS AND ADVERSE REACTIONS/; 21374 results. 50. MEDLINE; 30 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37 OR 38 OR 49; 310568 results. 51. MEDLINE; 48 AND 50; 1037 results. 52. MEDLINE; "randomized controlled trial".pt; 374163 results. 53. MEDLINE; "controlled clinical trial".pt; 88395 results. 54. MEDLINE; randomized.ab; 294114 results. 55. MEDLINE; placebo.ab; 154103 results. 56. MEDLINE; "drug therapy".fs; 1699822 results. 57. MEDLINE; randomly.ab; 213046 results. 58. MEDLINE; trial.ab; 305414 results. 59. MEDLINE; groups.ab; 1355916 results. 60. MEDLINE; 52 OR 53 OR 54 OR 55 OR 56 OR 57 OR 58 OR 59; 3340302 results. 61. MEDLINE; 41 OR 42 OR 60; 3488236 results. 62. MEDLINE; 51 AND 61; 642 results. 63. MEDLINE; 62 [Limit to: Humans]; 607 results.		
Summary	**NA**	**NA**	

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