Best Evidence Summaries of Topics in Mental Healthcare

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

Question

"What is the evidence for efficacy of medication for treatment of ADHD in people with a learning disability"

Clarification of question using PICO structure (PICTRO for diagnostic questions)

Patients: Adults with a diagnosis of ADHD alongside a learning disability.
Intervention: Pharmacological medication
Comparator: Treatment as usual
Outcome: Improved outcomes/minimising symptoms of ADHD

Clinical and research implications

No directly relevant studies were found to answer this question, therefore no clinical implications can be made. A number of studies were found that examined the efficacy of medication therapies for adolescents with ADHD and a learning disability, however non that concerned adults. Two high quality systematic reviews were found that supported the lack of evidence for adults, these are referenced for information purposes.

What does the evidence say?

Number of included studies/reviews (number of participants)
No directly relevant studies were identified.

Main Findings
N/A

Authors Conclusions
N/A

Reliability of conclusions/Strength of evidence
N/A

What do guidelines say?

There were no relevant guidelines found regarding medication for co-morbid ADHD and learning disabilities in adults.

Date question received: 15/01/2013
Date searches conducted: 15/01/2013
Date answer completed: 21/01/2013

References

1. Thomson A, Maltezos S, Paliokosta E, Xenitidis K. Amfetamine for attention deficit hyperactivity disorder in people with intellectual disabilities. *Cochrane Database of Systematic Reviews* 2009, Issue 1. Art. No.: CD007009. DOI: 10.1002/14651858.CD007009.pub2. (http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007009.pub2/pdf)

2. Thomson A, Maltezos S, Paliokosta E, Xenitidis K. Risperidone for attention-deficit hyperactivity disorder in people with intellectual disabilities. *Cochrane Database of Systematic Reviews* 2009, Issue 2. Art. No.: CD007011. DOI: 10.1002/14651858.CD007011.pub2. (http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007011.pub2/pdf)

Results

Systematic Reviews

Author (year)	Search Date	Inclusion criteria	Number of included studies	Summary of results	Risk of bias
Thomson, Maltezos, Paliokosta and Xenitidis (2009)	02/2009	Randomised controlled trials with patients (male or female, a children, adolescents or adults) with a diagnosis of an intellectual disorder and ADHD (diagnosed by ICD-10, DSM-II, DSM-III or DSM-IV). The patients must have been being treated with Risperidone.	0	No relevant studies were found.	N/A
Thomson, Maltezos, Paliokosta and Xenitidis (2009)	08/2007	Trials were included if they investigated treatment with amphetamine, either dexamfetamine or a mixture of enantiomers such as mixed amfetamine salts, compared to medication placebo. Children, adolescents or adults with a diagnosis of Intellectual Disability (ID) and Attention Deficit Hyperactivity Disorder. The diagnosis of ADHD must be made according to specified	1	Only one study was found relevant in this systematic review, however it only considered children and deemed not relevant for this evidence summary.	N/A

		diagnostic criteria, e.g. ICD-10 (WHO 1992), DSM-III (APA 1987), DSM-IV (APA 2000) or equivalent.			

Search Details

Source	Search Strategy	Number of hits	Relevant evidence identified
SRs and Guidelines			
NICE	Learning disabilities Intellectual Mental retardation ADHD Attention deficit	554	0
DARE	1 (ADHD) IN DARE 2 (attention adj2 deficit) IN DARE 3 MeSH DESCRIPTOR Attention Deficit and Disruptive Behavior Disorders EXPLODE ALL TREES 4 MeSH DESCRIPTOR Attention Deficit Disorder with Hyperactivity EXPLODE ALL TREES 5 (addh) IN DARE 6 (adhs) IN DARE 7 (hyperactiv*) IN DARE 8 (learning adj4 (difficult* OR disabilit*)) IN DARE 9 (mental adj4 (handicap* OR retard* OR deficien* OR inapacit*)) IN DARE 10 MeSH DESCRIPTOR Learning Disorders EXPLODE ALL TREES		0

	11 MeSH DESCRIPTOR Intellectual Disability EXPLODE ALL TREES 12 (intellectual adj3 disabilit*) IN DARE 13 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 14 #8 OR #9 OR #10 OR #11 OR #12 15 #13 AND #14 1 (ADHD) IN DARE		
Primary studies			
CENTRAL	#1 ADHD 1351 #2 "attention deficit""attention deficit" 1990 #3 MeSH descriptor: [Attention Deficit Disorder with Hyperactivity] 1386 #4 #3 or #2 or #1#3 or #2 or #1 2169 #5 "learning disabilit*""learning disabilit*" 507 #6 "learning difficult*""learning difficult*" 133 #7 "intellectual disab*""intellectual disab*" 674 #8 "intellectual impair*""intellectual impair*" 118 #9 "learning disorder*""learning disorder*" 356 #10 MeSH descriptor: [Learning Disorders] 414 #11 #5 or #6 or #7 or #8 or #9 or #10#5 or #6 or #7 or #8 or #9 or #10 1625 #12 methylphenidatemethylphenidate 1427 #13 atomoxetineatomoxetine 214 #14 dexamphetaminedexamphetamine 163 #15 dexamfetaminedexamfetamine 11 #16 MeSH descriptor: [Methylphenidate] 956 #17 MeSH descriptor: [Dextroamphetamine] 478 #18 MeSH descriptor: [Drug Therapy] 106866 #19 #12 or #13 or #14 or #15 or #16 or #17 or #18 108563 #20 #4 and #11 and #19 76 #21 MeSH descriptor: [child] #22 MeSH descriptor: [adolescent]	36	0

	#23 #20 NOT (#21 OR #22) 36		
PsycINFO	1. PsycINFO; "Attention deficit hyperactivity disorder".ti,ab; 14459 results. 2. PsycINFO; ADHD.ti,ab; 15185 results. 3. PsycINFO; ATTENTION DEFICIT DISORDER WITH HYPERACTIVITY/; 11861 results. 4. PsycINFO; 1 OR 2 OR 3; 18597 results. 5. PsycINFO; "learning disabilit*".ti,ab; 13263 results. 6. PsycINFO; (learning adj3 disabilit*).ti,ab; 13587. 7. PsycINFO; (learning adj3 disable*).ti,ab; 6899 results. 8. PsycINFO; (learning adj3 difficult*).ti,ab; 4789 results. 9. PsycINFO; (learning adj3 handicap*).ti,ab; 430. 10. PsycINFO; (intellect* adj3 disabilit*).ti,ab; 7296. 11. PsycINFO; (intellect* adj3 disable*).ti,ab; 394 results. 12. PsycINFO; (intellect* adj3 impair*).ti,ab; 1263. 14. PsycINFO; (mental* adj3 incapacit*).ti,ab; 188. 15. PsycINFO; (mental* adj3 deficien*).ti,ab; 2862. 16. PsycINFO; "down* syndrome".ti,ab; 5428 results. 17. PsycINFO; (fragile adj3 syndrome).ti,ab; 1161. 18. PsycINFO; (mental* adj3 retard*).ti,ab; 24051. 19. PsycINFO; LEARNING DISABILITIES/; 18365. 20. PsycINFO; 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19; 63450 results. 21. PsycINFO; METHYLPHENIDATE/; 2693 results. 22. PsycINFO; ATOMOXETINE/; 284 results. 23. PsycINFO; DEXTROAMPHETAMINE/; 1927 results. 24. PsycINFO; methylphenidate.ti,ab; 3386 results. 25. PsycINFO; atomoxetine.ti,ab; 493 results. 26. PsycINFO; (dexamphetamine OR dexamfetamine).ti,ab; 153 results. 27. PsycINFO; DRUG THERAPY/; 98222 results.	55	0

	28. PsycINFO; 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27; 101521 results. 29. PsycINFO; 4 AND 20 AND 28; 151 results. 30. PsycINFO; CLINICAL TRIALS/; 6491 results. 31. PsycINFO; random*.ti,ab; 114994 results. 32. PsycINFO; groups*.ti,ab; 336957 results. 33. PsycINFO; (doubl* adj3 blind*).ti,ab; 16901 results. 34. PsycINFO; (singl* adj3 blind*).ti,ab; 1424 results. 35. PsycINFO; EXPERIMENTAL DESIGN/; 8471. 36. PsycINFO; controlled.ti,ab; 71737 results. 37. PsycINFO; (clinical adj3 study).ti,ab; 7095 results. 38. PsycINFO; trial.ti,ab; 60511 results. 39. PsycINFO; "treatment outcome clinical trial".md; 23257 results. 40. PsycINFO; 30 OR 31 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37 OR 38 OR 39; 518290 results. 41. PsycINFO; 29 AND 40; 55 results.		
EMBASE	43. EMBASE; "Attention deficit hyperactivity disorder".ti,ab; 15457 results. 44. EMBASE; ADHD.ti,ab; 16036 results. 45. EMBASE; ATTENTION DEFICIT DISORDER/; 32460. 46. EMBASE; 43 OR 44; 20195 results. 47. EMBASE; "learning disabilit*".ti,ab; 7047 results. 48. EMBASE; (learning adj3 disabilit*).ti,ab; 7253 results. 49. EMBASE; (learning adj3 disable*).ti,ab; 1374 results. 50. EMBASE; (learning adj3 difficult*).ti,ab; 3097 results. 51. EMBASE; (learning adj3 handicap*).ti,ab; 108. 52. EMBASE; (intellect* adj3 disabilit*).ti,ab; 7238. 53. EMBASE; (intellect* adj3 disable*).ti,ab; 386 results. 54. EMBASE; (intellect* adj3 impair*).ti,ab; 1800 results.	29	0

	55. EMBASE; (mental* adj3 incapacit*).ti,ab; 273 results. 56. EMBASE; (mental* adj3 deficien*).ti,ab; 2002. 57. EMBASE; "down* syndrome".ti,ab; 18890 results. 58. EMBASE; (fragile adj3 syndrome).ti,ab; 3623 results. 59. EMBASE; (mental* adj3 retard*).ti,ab; 34070 results. 60. EMBASE; LEARNING DISORDER/; 19954 results. 61. EMBASE; 47 OR 48 OR 49 OR 50 OR 51 OR 52 OR 53 OR 54 OR 55 OR 56 OR 57 OR 58 OR 59 OR 60; 84999 results. 62. EMBASE; 43 OR 44 OR 45; 34410 results. 63. EMBASE; 61 AND 62; 3184 results. 64. EMBASE; METHYLPHENIDATE/; 14261 results. 65. EMBASE; atomoxetine.ti,ab; 1128 results. 66. EMBASE; ATOMOXETINE/; 2889 results. 67. EMBASE; methylphenidate.ti,ab; 5537 results. 68. EMBASE; dexamfetamine.ti,ab; 22 results. 69. EMBASE; dexamphetamine.ti,ab; 294 results. 70. EMBASE; DEXAMPHETAMINE/; 9540 results. 71. EMBASE; DRUG THERAPY/; 260113 results. 72. EMBASE; 64 OR 65 OR 66 OR 67 OR 68 OR 69 OR 70 OR 71; 281731 results. 73. EMBASE; 63 AND 72; 474 results. 74. EMBASE; CHILD/; 1177480 results. 75. EMBASE; 73 NOT 74; 246 results. 76. EMBASE; random*.tw; 776012 results. 77. EMBASE; factorial*.tw; 20005 results. 78. EMBASE; placebo*.tw; 183577 results. 79. EMBASE; (crossover* OR cross-over*).tw; 64003. 80. EMBASE; (doubl* adj3 blind*).tw; 133522 results. 81. EMBASE; (singl* adj3 blind*).tw; 14965 results. 82. EMBASE; assign*.tw; 214485 results.		

	83. EMBASE; allocat*.tw; 72596 results. 84. EMBASE; volunteer*.tw; 163160 results. 85. EMBASE; CROSSOVER PROCEDURE/; 35920. 86. EMBASE; DOUBLE-BLIND PROCEDURE/; 112622. 87. EMBASE; SINGLE-BLIND PROCEDURE/; 16849. 88. EMBASE; RANDOMIZED CONTROLLED TRIAL/; 335226 results. 89. EMBASE; 76 OR 77 OR 78 OR 79 OR 80 OR 81 OR 82 OR 83 OR 84 OR 85 OR 86 OR 87 OR 88; 1269762. 90. EMBASE; 75 AND 89; 29 results.		
MedLine	91. MEDLINE; "Attention deficit hyperactivity disorder".ti,ab; 12203 results. 92. MEDLINE; ADHD.ti,ab; 11714 results. 93. MEDLINE; ATTENTION DEFICIT DISORDER/; 17770 results. 94. MEDLINE; 91 OR 92 OR 93; 21411 results. 121. MEDLINE; ATTENTION DEFICIT DISORDER WITH HYPERACTIVITY/; 17770 results. 122. MEDLINE; 94 OR 121; 21411 results. 95. MEDLINE; "learning disabilit*".ti,ab; 5588. 96. MEDLINE; (learning adj3 disabilit*).ti,ab; 5725. 97. MEDLINE; (learning adj3 disable*).ti,ab; 1306. 98. MEDLINE; (learning adj3 difficult*).ti,ab; 2227. 99. MEDLINE; (learning adj3 handicap*).ti,ab; 92. 100. MEDLINE; (intellect* adj3 disabilit*).ti,ab; 5014. 101. MEDLINE; (intellect* adj3 disable*).ti,ab; 293. 102. MEDLINE; (intellect* adj3 impair*).ti,ab; 1443. 103. MEDLINE; (mental* adj3 incapacit*).ti,ab; 199. 104. MEDLINE; (mental* adj3 deficien*).ti,ab; 1921. 105. MEDLINE; "down* syndrome".ti,ab; 16217. 106. MEDLINE; (fragile adj3 syndrome).ti,ab; 3013.	27	0

	107. MEDLINE; (mental* adj3 retard*).ti,ab; 28894. 108. MEDLINE; LEARNING DISORDER/; 11916. 109. MEDLINE; LEARNING DISORDERS/; 11916. 110. MEDLINE; 95 OR 96 OR 97 OR 98 OR 99 OR 100 OR 101 OR 102 OR 103 OR 104 OR 105 OR 106 OR 107 OR 108 OR 109; 67984 results. 111. MEDLINE; METHYLPHENIDATE/; 5290. 112. MEDLINE; atomoxetine.ti,ab; 769 results. 113. MEDLINE; ATOMOXETINE/; 0 results. 114. MEDLINE; methylphenidate.ti,ab; 4508. 115. MEDLINE; dexamfetamine.ti,ab; 20 results. 116. MEDLINE; dexamphetamine.ti,ab; 293 results. 117. MEDLINE; DEXAMPHETAMINE/; 6365. 118. MEDLINE; DRUG THERAPY/; 32977 results. 119. MEDLINE; CHILD/ OR ADOLESCENT/; 2094317 results. 120. MEDLINE; 111 OR 112 OR 114 OR 115 OR 116 OR 117 OR 118; 45628 results. 123. MEDLINE; 110 AND 120 AND 122; 145 results. 124. MEDLINE; 123 NOT 119; 27 results.		
Summary	**NA**	**NA**	

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