

Table DS1 Details of included studies

No. of 3-Year Citations	Previous Studies					Newer Studies			Previous Studies		Newer Studies			Comparison
	Title	Journal	Design	Intervention (Sample Size)	Control (Sample Size)	Title	Intervention (Sample Size)	Control (Sample Size)	Outcome	SMD	Outcome	SMD	95% CI	
164	Keller 2000 A comparison of nefazodone, the cognitive behavioral-analysis system of psychotherapy, and their combination for the treatment of chronic depression	N Engl J Med	RCT	Nefazodone + Psychotherapy (227)	Nefazodone (226) Psychotherapy (228)									Unchallenged
164	Zandi 2002 Hormone replacement therapy and incidence of Alzheimer disease in older women - The Cache County Study	JAMA	Cohort	Hormone Replacement Therapy (1066)	No use (800)									Unchallenged
164	In't Veld 2001 Nonsteroidal antiinflammatory drugs and the risk of Alzheimer's disease	N Engl J Med	Cohort	NSAIDs long-term use (233)	No use (2553)	Breitner 2011 Extended results of the Alzheimer's disease anti-inflammatory prevention trial	NSAIDs (1445)	Placebo (1083)	Development of Alzheimer's Disease	0.93	Development of Alzheimer's Disease	0.02	-0.06 to 0.10	Contradicted
160	Unutzer 2002 Collaborative care management of late-life depression in the primary care setting - A randomized controlled trial	JAMA	RCT	The Improving Mood-Promoting Access to Collaborative Treatment program (889)	Usual care (870)	Patel 2010 Effectiveness of an intervention led by lay health counsellors for depressive and anxiety disorders in primary care in Goa, India (MANAS): a cluster randomised controlled trial	Collaborative Stepped-care (1360)	Usual Care (1436)	Response (SCL-20)	0.68	Recovery (ICD-10)	0.06	-0.10 to 0.22	Contradicted
158	McKeith 2000 Efficacy of rivastigmine in dementia with Lewy bodies: a randomised, double-blind, placebo-controlled international study	Lancet	RCT	Rivastigmine (59)	Placebo (61)	Emre 2004 Rivastigmine for dementia associated with Parkinson's disease	Rivastigmine (362)	Placebo (179)	NPI-4	0.22	NPI-10	0.16	-0.03 to 0.35	Replicated
142	Erkinjuntti 2002 Efficacy of galantamine in probable vascular dementia and Alzheimer's disease combined with cerebrovascular disease: a randomised trial	Lancet	RCT	Galantamine (396)	Placebo (196)	Auchus 2007 Galantamine treatment of vascular dementia: a randomized trial	Galantamine (396)	Placebo (390)	ADAS-cog/11	0.35	ADAS-cog/11	0.33	0.18 to 0.48	Replicated
140	McCracken 2002 Risperidone in children with autism and serious behavioral problems	N Engl J Med	RCT	Risperidone (49)	Placebo (52)									Unchallenged
138	Csernansky 2002 A comparison of risperidone and haloperidol for the prevention of relapse in patients with schizophrenia	N Engl J Med	RCT	Risperidone (177)	Haloperidol (188)	Schooler 2005 Risperidone and haloperidol in first-episode psychosis: a long-term randomized trial	Risperidone (278)	Haloperidol (277)	Relapse	0.89	Relapse	0.29	0.09 to 0.49	Initially Stronger
133	Musselman 2001 Paroxetine for the prevention of depression induced by high-dose interferon alfa	N Engl J Med	RCT	Paroxetine (20)	Placebo (20)	Raison 2007 Paroxetine for prevention of depressive symptoms induced by interferon-alpha and ribavirin for hepatitis C	Paroxetine (28)	Placebo (33)	Development of Depression	1.05	Development of Depression	0.31	-0.24 to 0.86	Initially Stronger
129	Tohen 2000 Efficacy of olanzapine in acute bipolar mania - A double-blind, placebo-controlled study	Arch Gen Psychiatry	RCT	Olanzapine (55)	Placebo (60)	McIntyre 2009 A 3-week, randomized, placebo-controlled trial of asenapine in the treatment of acute mania in bipolar mania and mixed states	Olanzapine (190)	Placebo (104)	YMRS	0.99	YMRS	1.19	0.93 to 1.45	Replicated
124	Street 2000 Olanzapine treatment of psychotic and behavioral symptoms in patients with Alzheimer disease in nursing care facilities - A double-blind, randomized, placebo-controlled trial	Arch Gen Psychiatry	RCT	Olanzapine 5mg (56) + Olanzapine 10mg (50)	Placebo (47)	De Deyn 2004 Olanzapine versus placebo in the treatment of psychosis with or without associated behavioral disturbances in patients with Alzheimer's disease	Olanzapine 5mg (125) + Olanzapine 7.5mg (132)	Placebo (129)	Core Total of NPI/NH	0.41	Core Total of NPI/NH	0.04	-0.17 to 0.25	Initially Stronger
121	Bilder 2002 Neurocognitive effects of clozapine, olanzapine, risperidone, and haloperidol in patients with chronic schizophrenia or schizoaffective disorder	Am J Psychiatry	RCT	Risperidone (26) + Olanzapine (26)	Haloperidol (25)	Jerrell 2008 Changes in neuropsychological functioning following treatment with risperidone, olanzapine, and conventional antipsychotic medications	Risperidone (36) + Olanzapine (30)	Conventional (42)	Neurocognitive Global Score	0.55	F, A, S Total Score	0.55	0.16 to 0.94	Replicated

112	Purdon 2000 Neuropsychological change in early phase schizophrenia during 12 months of treatment with olanzapine, risperidone, or haloperidol	Arch Gen Psychiatry	RCT	Olanzapine (21)	Haloperidol (23) Risperidone (21)	Keefe 2006 One-year double-blind study of the neurocognitive efficacy of olanzapine, risperidone, and haloperidol in schizophrenia	Olanzapine (159)	Haloperidol (97) Risperidone (158)	The General Cognitive Index	OZP vs. HPD 0.91 OZP vs. RIS 0.50	Neurocognitive Composite Score	OZP vs. HPD 0.10 OZP vs. RIS 0.03	-0.18 to 0.38 -0.21 to 0.27	Initially Stronger
112	Sackeim 2000 A prospective, randomized, double-blind comparison of bilateral and right unilateral electroconvulsive therapy at different stimulus intensities	Arch Gen Psychiatry	RCT	High-Dosage Right Unilateral ECT (20)	High-Dosage Bilateral ECT (20)									Unchallenged
102	Wilson 2002 Participation in cognitively stimulating activities and risk of incident Alzheimer disease	JAMA	Cohort	High cognitive activities	Low cognitive activities (Total Sample Size 801)									Unchallenged
100	Sachs 2002 Combination of a mood stabilizer with risperidone or haloperidol for treatment of acute mania: A double-blind, placebo-controlled comparison of efficacy and safety	Am J Psychiatry	RCT	Risperidone + Mood Stabilizer (52)	Placebo + Mood Stabilizer (51)	Yatham 2003 Mood stabilisers plus risperidone or placebo in the treatment of acute mania. International, double-blind, randomised controlled trial	Risperidone + Mood Stabilizer (75)	Placebo + Mood Stabilizer (75)	YMRS	0.61	YMRS	0.95	0.56 to 1.34	Replicated
99	Volavka 2002 Clozapine, olanzapine, risperidone, and haloperidol in the treatment of patients with chronic schizophrenia and schizoaffective disorder	Am J Psychiatry	RCT	Clozapine (40) Olanzapine (39)	Haloperidol (37)									Unchallenged
97	Frye 2000 A placebo-controlled study of lamotrigine and gabapentin monotherapy in refractory mood disorders	J Clin Psycho pharmacol	Cross-over RCT	Lamotrigine	Gabapentin Placebo (Total Sample Size 31)									Unchallenged
97	Shelton 2001 A novel augmentation strategy for treating resistant major depression	Am J Psychiatry	RCT	Olanzapine + Fluoxetine(10)	Olanzapine + Placebo(8) Fluoxetine + Placebo(10)	Shelton 2005 Olanzapine/fluoxetine combination for treatment-resistant depression: a controlled study of SSRI and nortriptyline resistance	Olanzapine + Fluoxetine (146)	Olanzapine + Placebo (144) Fluoxetine + Placebo (142)	Response (MADRS)	OZP+FLX vs. OZP+PLA 1.76 OZP+FLX vs. FLX+PLA 1.43	MADRS	OZP+FLX vs. OZP+PLA 0.24 OZP+FLX vs. FLX+PLA 0.03	0.01 to 0.47 -0.21 to 0.25	Contradicted
92	Brady 2000 Efficacy and safety of sertraline treatment of posttraumatic stress disorder - A randomized controlled trial	JAMA	RCT	Sertraline (94)	Placebo (93)	Davidson 2006 Venlafaxine extended release in posttraumatic stress disorder: a sertraline- and placebo-controlled study	Sertraline (173)	Placebo (179)	CAPS-2	0.30	CAPS-SX ₁₇	0.19	-0.02 to 0.40	Replicated
84	RUPPASG 2001 Fluvoxamine for the treatment of anxiety disorders in children and adolescents	N Engl J Med	RCT	Fluvoxamine (63)	Placebo (65)									Unchallenged
83	Barlow 2000 Cognitive-behavioral therapy, imipramine, or their combination for panic disorder - A randomized controlled trial	JAMA	RCT	CBT + Imipramine (65)	Imipramine (83) CBT (77) Placebo (24) CBT + Placebo (63)									Unchallenged
82	Tohen 2002 Olanzapine versus divalproex in the treatment of acute mania	Am J Psychiatry	RCT	Olanzapine (125)	Divalproex (126)	Tohen 2008 Olanzapine versus divalproex versus placebo in the treatment of mild to moderate mania: a randomized, 12-week, double-blind study	Olanzapine (215)	Divalproex (201)	YMRS	0.31	YMRS	0.14	-0.06 to 0.34	Contradicted
80	Nemets 2002 Addition of omega-3 fatty acid to maintenance medication treatment for recurrent unipolar depressive disorder	Am J Psychiatry	RCT	E-EPA (10)	Placebo (9)	Lesperance 2011 The efficacy of omega-3 supplementation for major depression: a randomized controlled trial	E-EPA (218)	Placebo (214)	HAM-D	1.09	MADRS	0.12 (Marginally Significant)	-0.07 to 0.31	Initially Stronger
80	Sensky 2002 A randomized controlled trial of cognitive-behavioral therapy for persistent symptoms in schizophrenia resistant to medication	Arch Gen Psychiatry	RCT	CBT (46)	nonspecific befriending (44)	Klingberg 2011 Negative symptoms of schizophrenia as primary target of cognitive behavioral therapy: results of the randomized clinical TONES study	CBT (99)	Cognitive Remediation (99)	Comprehensive Psychiatric Rating Scale	0.57	GAF	0.17	-0.11 to 0.45	Contradicted

55	Katon 2001 A randomized trial of relapse prevention of depression in primary care	Arch Gen Psychiatry	RCT	Relapse prevention program (194)	Usual primary care (192)										Unchallenged
52	Kroenke 2001 Similar effectiveness of paroxetine, fluoxetine, and sertraline in primary care - A randomized trial	JAMA	RCT	Fluoxetine (200)	Paroxetine (202) Sertraline (199)										Unchallenged
52	Prins 2001 Cognitive behaviour therapy for chronic fatigue syndrome: a multicentre randomised controlled trial	Lancet	RCT	CBT (93)	Guided Support (94)	White 2011 Comparison of adaptive pacing therapy, cognitive behaviour therapy, graded exercise therapy, and specialist medical care for chronic fatigue syndrome (PACE): a randomised trial	CBT (161)	Adaptive Pacing Therapy (159)	Fatigue Severity	0.67		Chalder Fatigue Questionnaire	0.37	0.14 to 0.60	Initially Stronger
52	Hauser 2002 A prospective study of the incidence and open-label treatment of interferon-induced major depressive disorder in patients with hepatitis C	Mol Psychiatry	Case series	Citalopram (13)	No Control	Kraus 2008 Therapy of interferon-induced depression in chronic hepatitis C with citalopram: a randomised, double-blind, placebo-controlled study	Citalopram (14)	Placebo (14)	Effective for 11 of 13 patients	***		HADS	1.11	0.31 to 1.91	Replicated ⁹
51	Marshall 2001 Efficacy and safety of paroxetine treatment for chronic PTSD: A fixed-dose, placebo-controlled study	Am J Psychiatry	RCT	Paroxetine 20mg (183) Paroxetine 40mg (182)	Placebo (186)										Unchallenged
50	Heustis 2001 Blockade of effects of smoked marijuana by the CB1-selective cannabinoid receptor antagonist SR141716	Arch Gen Psychiatry	RCT	SR141716 + Marijuana (6)	Placebo + Marijuana (10)										Unchallenged
49	Johnson 2000 Ondansetron for reduction of drinking among biologically predisposed alcoholic patients - A randomized controlled trial	JAMA	RCT	Ondansetron 1µg/kg Twice Daily (67) 4µg/kg Twice Daily (77) 16µg/kg Twice Daily (71)	Placebo (56)										Unchallenged
48	Scahill 2001 A placebo-controlled study of guanfacine in the treatment of children with tic disorders and attention deficit hyperactivity disorder	Am J Psychiatry	RCT	Guanfacine (17)	Placebo (17)	Biederman 2008 A randomized, double-blind, placebo-controlled study of guanfacine extended release in children and adolescents with attention-deficit/hyperactivity disorder	Guanfacine ER 2mg (87) 3mg (86) 4mg (86)	Placebo (86)	ADHD Rating Scale	0.65		ADHD Rating Scale-IV	2mg vs. PLA 0.64 3mg vs. PLA 0.66 4mg vs. PLA 0.86	0.33 to 0.95 0.35 to 0.97 0.55 to 1.17	Replicated
48	Wright 2001 Double-blind, placebo-controlled comparison of intramuscular olanzapine and intramuscular haloperidol in the treatment of acute agitation in schizophrenia	Am J Psychiatry	RCT	Olanzapine Injection (131)	Haloperidol Injection (126)	Raveendran 2007 Rapid tranquillisation in psychiatric emergency settings in India: pragmatic randomised controlled trial of intramuscular olanzapine versus intramuscular haloperidol plus promethazine.	Olanzapine Injection (150)	Haloperidol + Promethazine Injection (150)	PANSS	0.03		CGI	0.48	0.25 to 0.71	Replicated
48	Meehan 2001 A double-blind, randomized comparison of the efficacy and safety of intramuscular injections of olanzapine, lorazepam, or placebo in treating acutely agitated patients diagnosed with bipolar mania	J Clin Psychopharmacol	RCT	Olanzapine Injection (99)	Lorazepam Injection (51) Placebo Injection (51)										Unchallenged
48	Alexopoulos 2000 Executive dysfunction and long-term outcomes of geriatric depression	Arch Gen Psychiatry	RCT	Nortriptyline (22)	Placebo (21)										Unchallenged
47	Gelenberg 2000 Efficacy of venlafaxine extended-release capsules in nondepressed outpatients with generalized anxiety disorder - A 6-month randomized controlled trial	JAMA	RCT	Venlafaxine ER (124)	Placebo (127)	Boyer 2004 Social adjustment in generalised anxiety disorder: a long-term placebo-controlled study of venlafaxine extended release	Venlafaxine ER 37.5mg (138) + 75mg (130) + 150mg (131)	Placebo (130)	HAM-A response	0.61		HAM-A response	0.55	0.35 to 0.75	Replicated

35	Targum 2001 Efficacy of quetiapine in Parkinson's patients with psychosis	J Clin Psycho pharmacol	Case series	Quetiapine (11)	No Control	Rabey 2007 Effect of quetiapine in psychotic Parkinson's disease patients: a double-blind labeled study of 3 months' duration	Quetiapine (30)	Placebo (28)	BPRS	***	BPRS	0.28	-0.25 to 0.81	Contradicted ⁱⁱ
35	Heinala 2001 Targeted use of naltrexone without prior detoxification in the treatment of alcohol dependence: A factorial double-blind, placebo-controlled trial	J Clin Psycho pharmacol	Factorial design	Coping + Naltrexone	Coping + Placebo (Total Sample Size 121)	Monti 2001 Naltrexone and cue exposure with coping and communication skills training for alcoholics: treatment process and 1-year outcomes	Coping Skills Training and Communication Skills Training + Naltrexone	Coping Skills Training and Communication Skills Training + Placebo	Never Relapse	1.35	% Heavy Drinking Days	***	***	Contradicted ⁱⁱ
34	Bailine 2000 Comparison of bifrontal and bitemporal ECT for major depression	Am J Psychiatry	RCT	Bifrontal ECT (24)	Bitemporal ECT (24)	Kellner 2010 Bifrontal, bitemporal and right unilateral electrode placement in ECT: randomised trial	Bifrontal ECT (81)	Bitemporal ECT (72)	MMSE	0.69	MMSE	0.02	-0.32 to 0.36	Contradicted
34	Stein 2002 Adjunctive olanzapine for SSRI-resistant combat-related PTSD: A double-blind, placebo-controlled study	Am J Psychiatry	RCT	SSRI + Olanzapine (10)	SSRI + Placebo (9)									Unchallenged
34	Pollock 2002 Comparison of citalopram, perphenazine, and placebo for the acute treatment of psychosis and behavioral disturbances in hospitalized, demented patients	Am J Psychiatry	RCT	Citalopram (31)	Perphenazine (33) Placebo (21)									Unchallenged
33	Edinger 2001 Cognitive behavioral therapy for treatment of chronic primary insomnia - A randomized controlled trial	JAMA	RCT	CBT (25)	Progressive muscle relaxation (25) Placebo treatment (25)									Unchallenged
33	Emsley 2002 Randomized, placebo-controlled study of ethyl-eicosapentaenoic acid as supplemental treatment in schizophrenia	Am J Psychiatry	RCT	E-EPA (20)	Placebo (20)	Emsley 2006 The effects of eicosapentaenoic acid in tardive dyskinesia: A randomized, placebo-controlled trial	E-EPA (39)	Placebo (38)	PANSS	0.70	PANSS	0.02	-0.43 to 0.47	Contradicted
33	Muller-Oerlinghausen 2000 Valproate as an adjunct to neuroleptic medication for the treatment of acute episodes of mania: A prospective, randomized, double-blind, placebo-controlled, multicenter study	J Clin Psycho pharmacol	RCT	Valproate + Basic Neuroleptic (69)	Placebo + Basic Neuroleptic (67)									Unchallenged
31	Rabinowitz 2001 Rehospitalization rates of chronically ill schizophrenic patients discharged on a regimen of risperidone, olanzapine, or conventional antipsychotics	Am J Psychiatry	Cohort	Risperidone (268) Olanzapine (313)	Conventional Antipsychotics (458)	Crespo-Facorro 2011 Relapse prevention and remission attainment in first-episode non-affective psychosis. A randomized, controlled 1-year follow-up comparison of haloperidol, risperidone and olanzapine	Risperidone (63) Olanzapine (55)	Haloperidol (56)	Rehospitalization	RIS vs. CON 0.35 OZP vs. CON 0.40	Relapse	RIS vs. HPD -0.33 OZP vs. HPD -0.14	-0.70 to 0.04 -0.52 to 0.24	Contradicted

*** : Not enough data to calculate SMD

Abbreviations : N Engl J Med, New England Journal of Medicine; JAMA, Journal of the American Medical Association; Arch Gen Psychiatry, Archives of General Psychiatry; Mol Psychiatry, Molecular Psychiatry; Am J Psychiatry, American Journal of Psychiatry; J Clin Psychopharmacol, Journal of Clinical Psychopharmacology

Details of qualitative judgement for replication

- i) We could not obtain SMD of the previous study. SMD of the subsequent study was, however, very large and the two authors judged "replicated".
- ii) The subsequent study denied the treatment effect.
- iii) We could not obtain SMD of the previous study. The subsequent study recommended this treatment to be effective, but the reported SMD was 0.19.
One author gave judgement as "Initially stronger effect", and another author "replicated". The third author adjudicated and judged as "replicated".