Appendix 17a: pharmacology forest plots

Section 1: Pharmacology forest plots

The pharmacological forest plots are referenced 'Pharm xx.xx' in the evidence profiles (appendix 18) and summary evidence profiles in the chapters.

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Pharm 01.02 placebo-controlled trials: anger

BPD pharmacology 01 Placebo-controlled trials - efficacy data Comparison:

02 Anger Outcome:

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		SMD (fixe 95% C	,	SMD (fixed) 95% CI
01 STAXI - state anger subsca	ale (8 weeks)							
Nickel 2004 TOP	19	22.50(1.80)	10	29.00(1.60)				-3.64 [-4.91, -2.37]
Nickel 2005 TOP	22	26.70(2.30)	20	32.60(3.80)		-		-1.86 [-2.60, -1.13]
Nickel2006 ARIPIPRAZ	26	18.50(4.10)	26	26.20(4.40)		-		-1.78 [-2.43, -1.13]
Tritt 2003 LAM	18	21.10(2.90)	9	29.60(3.20)				-2.75 [-3.87, -1.62]
Subtotal (95% CI)	85		65			•		-2.15 [-2.57, -1.73]
Test for heterogeneity: Chi ² = Test for overall effect: Z = 10.0	00 (P < 0.000							
02 ZAN-BPD Intense Anger Ite Schultz2008 OLZ	em 155	-0.90(1.12)	159	-0.70(1.13)		<u>.</u>		-0.18 [-0.40, 0.04]
Subtotal (95% CI)	155	0.50(1.12)	159	0.70(1.13)		7		-0.18 [-0.40, 0.04]
Test for heterogeneity: not app Test for overall effect: Z = 1.57	olicable		100			1		0.10 (0.10, 0.01)
	,				-10	-5 0	5	10
					Favou	urs treatment F	avours contro	ol .

Pharm 01.03 placebo-controlled trials: anger (sensitivity analysis)

BPD pharmacology
01 Placebo-controlled trials - efficacy data Comparison:

Outcome: 03 Anger - sensitivity analysis

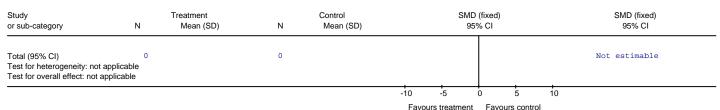
Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		SMD (fixed 95% CI)	SMD (fixed) 95% CI
01 STAXI - state anger subsca	ale (8 weeks)							
Nickel 2005 TOP	22	26.70(2.30)	20	32.60(3.80)		-		-1.86 [-2.60, -1.13]
Nickel2006 ARIPIPRAZ	26	18.50(4.10)	26	26.20(4.40)		-		-1.78 [-2.43, -1.13]
Tritt 2003 LAM	18	21.10(2.90)	9	29.60(3.20)				-2.75 [-3.87, -1.62]
Subtotal (95% CI)	66		55			•		-1.97 [-2.41, -1.52]
Test for heterogeneity: Chi ² = Test for overall effect: Z = 8.61								
02 ZAN-BPD Intense Anger Ite	em							
Schultz2008 OLZ	155	-0.90(1.12)	159	-0.70(1.13)				-0.18 [-0.40, 0.04]
Subtotal (95% CI)	155		159			•		-0.18 [-0.40, 0.04]
Test for heterogeneity: not app Test for overall effect: Z = 1.57								
Total (95% CI) Test for heterogeneity: Chi ² = Test for overall effect: Z = 5.23			214					-0.53 [-0.73, -0.33]
					-10	-5 0	5 10	
					Favour	s treatment Fav	ours control	

Pharm 01.04 placebo-controlled trials: anxiety

Review: BPD pharmacology

01 Placebo-controlled trials - efficacy data Comparison:

04 Anxiety - insufficient data Outcome:



Pharm 01.05 placebo-controlled trials: depression

BPD pharmacology

01 Placebo-controlled trials - efficacy data Comparison:

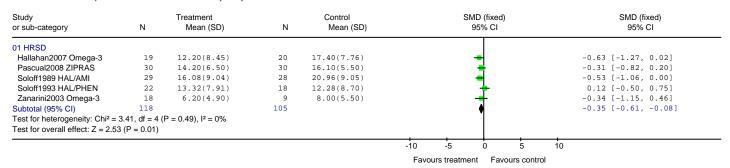
Outcome: 05 Depression - clinician-rated

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		8	SMD (fixed) 95% CI		SMD (fixed) 95% CI
01 HRSD									
Hallahan2007 Omega-3	19	12.20(8.45)	20	17.40(7.76)					-0.63 [-1.27, 0.02]
Nickel2006 ARIPIPRAZ	26	13.90(2.80)	26	18.80(4.70)					-1.25 [-1.85, -0.65]
Pascual2008 ZIPRAS	30	14.20(6.50)	30	16.10(5.50)			- 		-0.31 [-0.82, 0.20]
Soloff1989 HAL/AMI	29	16.08(9.04)	28	20.96(9.05)			-		-0.53 [-1.06, 0.00]
Soloff1993 HAL/PHEN	22	13.32(7.91)	18	12.28(8.70)			+		0.12 [-0.50, 0.75]
Zanarini2003 Omega-3	18	6.20(4.90)	9	8.00(5.50)			+		-0.34 [-1.15, 0.46]
Subtotal (95% CI)	144		131				♦ I		-0.50 [-0.74, -0.25]
Test for heterogeneity: $Chi^2 =$ Test for overall effect: $Z = 3.9$		' ''							
					-10	-5	Ö	5	10
					Favo	urs treatm	ent Favoi	irs contro	nl

Pharm 01.06 placebo-controlled trials: depression (sensitivity analysis)

Review: BPD pharmacology 01 Placebo-controlled trials - efficacy data

Comparison: 06 Depression - clinician-rated - sensitivity analysis Outcome:



BPD pharmacology

Review:

Pharm 01.07 placebo-controlled trials: depression

Comparison: 01 Placebo-controlled trials - efficacy data Outcome: 07 Depression - self-rated SMD (random) SMD (random) Study Treatment Control Mean (SD) or sub-category Ν Mean (SD) Ν 95% CI 95% CI 01 Anticonvulsants De LaFuente 1994 CBZ 12.28(13.65) 22.66(16.06) -0.67 [-1.57, 0.24] Frankenburg 2002 DVP 20 1.80(0.60) 10 2.20(1.10) -0.49 [-1.26, 0.28] Hollander 2001 DVP 5 8.20(9.10) 4 18.00(7.00) -1.05 [-2.52, 0.41] Loew 2006 TOP 28 70.30(5.20) 28 72.70(4.00) -0.51 [-1.04, 0.02] Subtotal (95% CI) 63 52 -0.57 [-0.95, -0.19] Test for heterogeneity: Chi² = 0.55, df = 3 (P = 0.91), I^2 = 0% Test for overall effect: Z = 2.93 (P = 0.003) 02 Antidepressants 28 23.04(14.88) -0.59 [-1.12, -0.06] Soloff1989 HAL/AMI 15.34(10.71) Soloff1993 HAL/PHEN 34 15.69(9.46) 28 19.54(13.04) -0.34 [-0.84, 0.16] Subtotal (95% CI) 63 56 -0.46 [-0.82, -0.09] Test for heterogeneity: $Chi^2 = 0.44$, df = 1 (P = 0.51), $I^2 = 0\%$ Test for overall effect: Z = 2.45 (P = 0.01) 03 Antipsychotics Nickel2006 ARIPIPRAZ 26 56.80(6.60) 26 73.20(9.60) -1.96 [-2.63, -1.29] Pascual2008 ZIPRAS 30 43.40(13.20) 30 47.80(13.50) -0.33 [-0.83, 0.18] Subtotal (95% CI) 56 -1.13 [-2.73, 0.47] Test for heterogeneity: $Chi^2 = 14.50$, df = 1 (P = 0.0001), $I^2 = 93.1\%$ Test for overall effect: Z = 1.38 (P = 0.17) 04 Omega-3 fatty acids 28 90(11 18) Hallahan2007 Omega-3 17.50(12.00) 20 -0.96 [-1.63, -0.30] Subtotal (95% CI) 19 20 -0.96 [-1.63, -0.30] Test for heterogeneity: not applicable Test for overall effect: Z = 2.83 (P = 0.005) Total (95% CI) 184 -0.72 [-1.06, -0.38] Test for heterogeneity: $Chi^2 = 19.32$, df = 8 (P = 0.01), $I^2 = 58.6\%$ Test for overall effect: Z = 4.15 (P < 0.0001)

-5

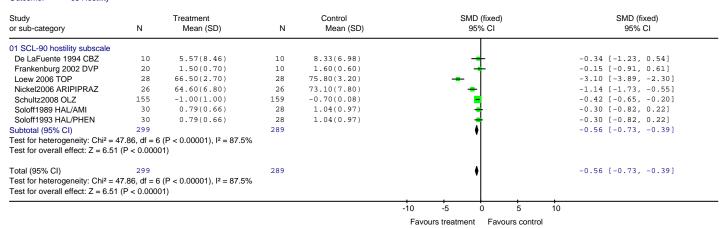
Favours treatment Favours control

Pharm 01.08 placebo-controlled trials: hostility

Review: BPD pharmacology

Comparison: 01 Placebo-controlled trials - efficacy data

Outcome: 08 Hostility



Pharm 01.09 placebo-controlled trials: hostility (sensitivity analysis)

Review: BPD pharmacology
Comparison: 01 Placebo-controlled trials - efficacy data
Outcome: 09 Hostility - sensitivity analysis

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)			MD (fixed) 95% CI		SMD (fixed) 95% CI
01 SCL-90 hostility subscale									
De LaFuente 1994 CBZ	10	5.57(8.46)	10	8.33(6.98)			+		-0.34 [-1.23, 0.54]
Frankenburg 2002 DVP	20	1.50(0.70)	10	1.60(0.60)			+		-0.15 [-0.91, 0.61]
Schultz2008 OLZ	155	-1.00(1.00)	159	-0.70(0.08)					-0.42 [-0.65, -0.20]
Soloff1989 HAL/AMI	30	0.79(0.66)	28	1.04(0.97)			+		-0.30 [-0.82, 0.22]
Soloff1993 HAL/PHEN	30	0.79(0.66)	28	1.04(0.97)			#		-0.30 [-0.82, 0.22]
Subtotal (95% CI)	245		235				ا		-0.37 [-0.56, -0.19]
Test for heterogeneity: Chi ² =	0.71, df = 4 ($P = 0.95$), $I^2 = 0\%$					1		
Test for overall effect: $Z = 4.05$	5 (P < 0.0001)							
Total (95% CI)	245		235				•		-0.37 [-0.56, -0.19]
Test for heterogeneity: $Chi^2 =$ Test for overall effect: $Z = 4.05$									
					-10	-5	0	5	10
					Favou	urs treatmer	nt Fav	ours control	

Pharm 01.10 placebo-controlled trials: impulsiveness

Review: BPD pharmacology

Comparison: 01 Placebo-controlled trials - efficacy data

Outcome: 10 Impulsiveness

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		S	MD (fixed) 95% CI)	SMD (fixed) 95% CI
01 Barratt Impulsiveness Sca	le								
Pascual2008 ZIPRAS	30	67.70(22.70)	30	69.10(21.20)			+		-0.06 [-0.57, 0.44]
Soloff1989 HAL/AMI	28	104.02(15.71)	28	103.06(21.48)			-		0.05 [-0.47, 0.57]
Soloff1993 HAL/PHEN	30	240.95(37.60)	28	237.74(42.02)			+		0.08 [-0.44, 0.59]
Subtotal (95% CI)	88		86				•		0.02 [-0.28, 0.32]
Test for heterogeneity: Chi2 =	0.17, $df = 2$	$(P = 0.92), I^2 = 0\%$							
Test for overall effect: Z = 0.1	4 (P = 0.89)								
					-10	-5	0	5	10
					Favou	urs treatme	ent Fav	ours contro	ol

Pharm 01.11 placebo-controlled trials: mental distress

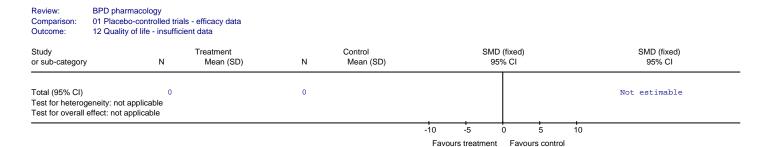
Review: BPD pharmacology

Comparison: 01 Placebo-controlled trials - efficacy data

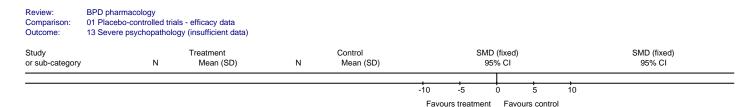
Outcome: 11 Mental distress

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		SM	ID (random 95% CI)		O (random) 95% CI
01 GSI										
Eli Lilly #6253 (hi)	138	-0.74(0.57)	136	-0.53(0.55)			-		-0.37 [-0.	61, -0.13]
Nickel2006 ARIPIPRAZ	26	60.10(4.20)	26	69.40(9.30)			-		-1.27 [-1.	87, -0.67]
Pascual2008 ZIPRAS	30	2.10(0.80)	30	2.40(0.80)			+		-0.37 [-0.	88, 0.14]
Schultz2008 OLZ	142	-0.60(0.69)	141	-0.56(0.75)			•		-0.06 [-0.	29, 0.18]
Soloff1993 HAL/PHEN	30	1.34(0.67)	28	1.16(0.84)			 -		0.23 [-0.	28, 0.75]
Subtotal (95% CI)	366		361						-0.33 [-0.	68, 0.03]
Test for heterogeneity: Chi ² =	18.39, df = 4	$(P = 0.001), I^2 = 78.3\%$					1			
Test for overall effect: Z = 1.80	0 (P = 0.07)									
02 GSI - sensitivity analysis										
Eli Lilly #6253 (hi)	138	-0.74(0.57)	136	-0.53(0.55)					-0.37 [-0.	61, -0.13]
Schultz2008 OLZ	142	-0.60(0.69)	141	-0.56(0.75)					-0.06 [-0.	29, 0.18]
Soloff1993 HAL/PHEN	30	1.34(0.67)	28	1.16(0.84)			+		0.23 [-0.	28, 0.75]
Subtotal (95% CI)	310		305				•		-0.12 [-0.	42, 0.18]
Test for heterogeneity: Chi2 =	6.08, df = 2	P = 0.05), I ² = 67.1%					1			
Test for overall effect: $Z = 0.78$	8 (P = 0.44)									
					-10	-5	0	5	10	
					Favou	urs treatme	ent Favo	urs contro	ol	

Pharm 01.12 placebo-controlled trials: quality of life



Pharm 01.13 placebo-controlled trials: severe psychopathology

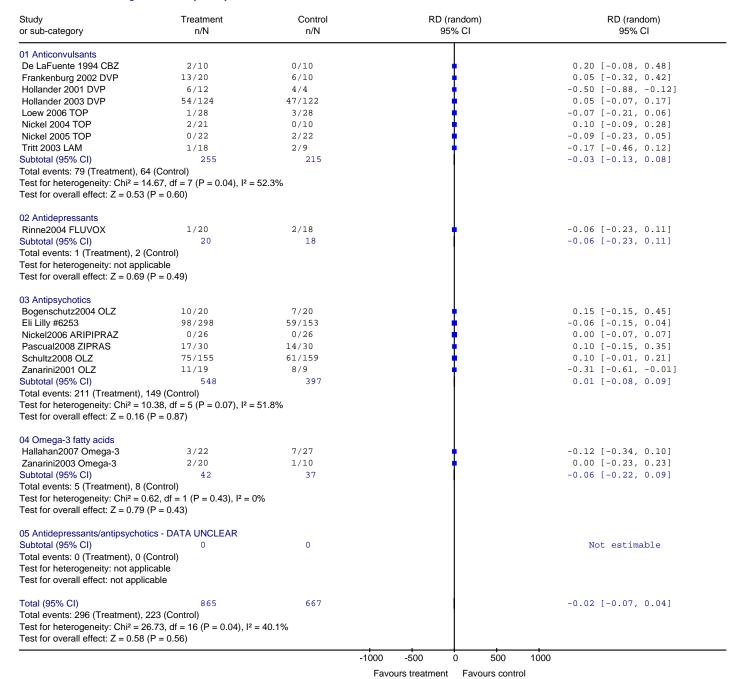


Pharm 02.01 placebo-controlled trials: leaving treatment early for any reason

Review: BPD pharmacology

Comparison: 02 Placebo-controlled trials - acceptability/tolerability data

Outcome: 01 Leaving treatment early for any reason

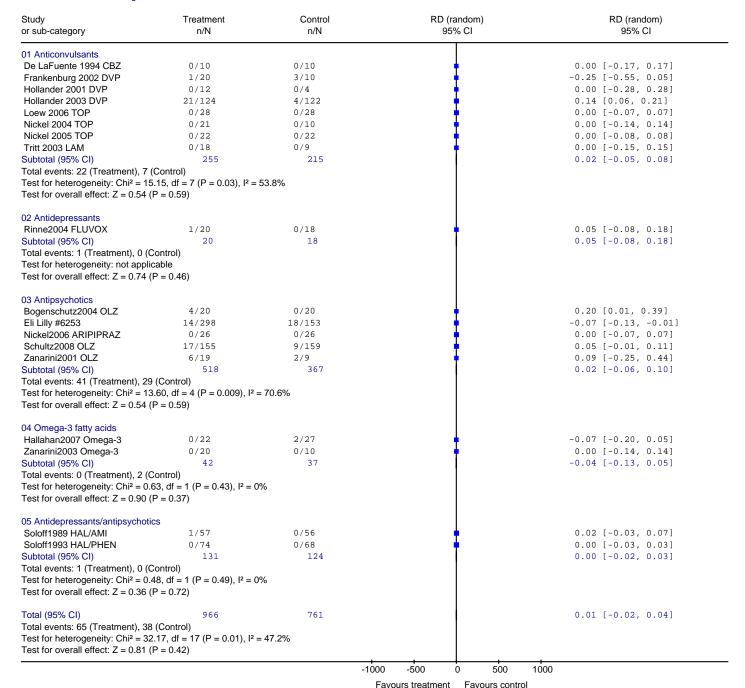


Pharm 02.02 placebo-controlled trials: leaving treatment due to side effects

Review: BPD pharmacology

Comparison: 02 Placebo-controlled trials - acceptability/tolerability data

Outcome: 02 Leaving treatment due to side effects



Pharm 02.03 placebo-controlled trials: number reporting side effects

Review: BPD pharmacology
Comparison: 02 Placebo-controlled trials - acceptability/tolerability data

03 Number reporting side effects Outcome:

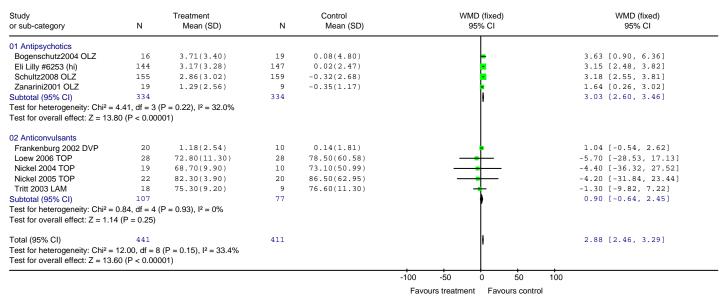
Study or sub-category	Treatment n/N	Control n/N	RD (fixed) 95% CI	RD (fixed) 95% CI
01 Anticonvulsants				
De LaFuente 1994 CBZ	0/10	0/10	. ↓	0.00 [-0.17, 0.17]
Frankenburg 2002 DVP	1/20	1/10	I	-0.05 [-0.26, 0.16]
Hollander 2001 DVP	0/12	0/4	I	0.00 [-0.28, 0.28]
Hollander 2003 DVP	115/124	99/122	I .	0.12 [0.03, 0.20]
Nickel 2004 TOP	0/21	0/21	I	0.00 [-0.09, 0.09]
Nickel 2005 TOP	0/22	0/22	I	0.00 [-0.08, 0.08]
Pascual2008 ZIPRAS	11/30	4/30		0.23 [0.02, 0.44]
Schultz2008 OLZ	1/150	9/153	<u>.</u>	-0.05 [-0.09, -0.01]
Fritt 2003 LAM	0/18	0/18		0.00 [-0.10, 0.10]
ubtotal (95% CI)	407	390		0.03 [0.00, 0.07]
otal events: 128 (Treatment),	113 (Control)			
est for heterogeneity: Chi ² = 2	'	² = 70.5%		
est for overall effect: Z = 1.73				
2 Antidepressants				
Rinne2004 FLUVOX	18/20	10/18	•	0.34 [0.08, 0.61]
Subtotal (95% CI)	20	18		0.34 [0.08, 0.61]
otal events: 18 (Treatment), 1	0 (Control)			
est for heterogeneity: not appl	icable			
Test for overall effect: $Z = 2.55$	(P = 0.01)			
3 Antipsychotics				
Rogenschutz2004 OLZ	4/20	0/20	•	0.20 [0.01, 0.39]
Eli Lilly #6253	197/298	92/150	•	0.05 [-0.05, 0.14]
Nickel2006 ARIPIPRAZ	0/26	0/26	•	0.00 [-0.07, 0.07]
subtotal (95% CI)	344	196		0.06 [-0.02, 0.13]
otal events: 201 (Treatment),	92 (Control)			
est for heterogeneity: Chi ² = 4	.58, $df = 2 (P = 0.10), I^2 = 1$	56.3%		
est for overall effect: Z = 1.37	(P = 0.17)			
4 Omega-3 fatty acids				
Hallahan2007 Omega-3	10/22	3/27	•	0.34 [0.10, 0.58]
Zanarini2003 Omega-3	2/20	1/10	•	0.00 [-0.23, 0.23]
Subtotal (95% CI)	42	37		0.22 [0.05, 0.40]
otal events: 12 (Treatment), 4	(Control)			
est for heterogeneity: Chi2 = 4	.63, df = 1 (P = 0.03), I^2 =	78.4%		
est for overall effect: Z = 2.49	(P = 0.01)			
5 Antidepressants/antipsychot	ics			
Soloff1989 HAL/AMI	0/57	0/56	•	0.00 [-0.03, 0.03]
Soloff1993 HAL/PHEN	0/74	0/68	•	0.00 [-0.03, 0.03]
subtotal (95% CI)	131	124		0.00 [-0.02, 0.02]
otal events: 0 (Treatment), 0 (Control)			
est for heterogeneity: Chi ² = 0	.00, $df = 1 (P = 1.00), I^2 =$	0%		
est for overall effect: Z = 0.00	(P = 1.00)			
otal (95% CI)	944	765		0.05 [0.02, 0.08]
Total events: 359 (Treatment),	219 (Control)			
est for heterogeneity: Chi ² = 7	1.97, df = 16 (P < 0.00001), I ² = 77.8%		
est for overall effect: Z = 3.14	(P = 0.002)			
	•			

Pharm 02.04 placebo-controlled trials: weight change

Review: BPD pharmacology

Comparison: 02 Placebo-controlled trials - acceptability/tolerability data

Outcome: 04 Weight



Pharm 02.05 placebo-controlled trials: self-harm (dichotomous data)

Review: BPD pharmacology

Comparison: 02 Placebo-controlled trials - acceptability/tolerability data

Outcome: 05 Self-harm

Study or sub-category	Treatment n/N	Control n/N		i	RD (fixed) 95% CI			RD (fixed) 95% CI
01 Omega-3								
Hallahan2007 Omega-3	7/19	7/20						0.02 [-0.28, 0.32]
Zanarini2003 Omega-3	2/20	1/10						0.00 [-0.23, 0.23]
Subtotal (95% CI)	39	30			Ì			0.01 [-0.19, 0.21]
Total events: 9 (Treatment), 8 (0	Control)				Ĭ			
Test for heterogeneity: $Chi^2 = 0$.	01, df = 1 (P = 0.92), $I^2 = 0$)%						
Test for overall effect: Z = 0.11 (
			4000	500			1000	
			-1000	-500	0	500	1000	
			Favo	urs treatme	ent Fav	ours cont	rol	

Pharm 02.06 placebo-controlled trials: self-harm (continuous data)

Review: BPD pharmacology

Comparison: 02 Placebo-controlled trials - acceptability/tolerability data

Outcome: 06 Self-harm (continuous data)

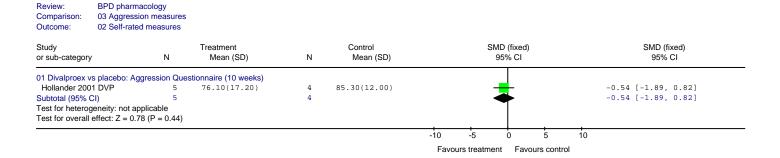
Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		S	MD (fixed 95% CI)		SMD (fixed) 95% CI
01 ZAN-BPD suicidal/self-n	nutilating behavi	iour								
Schultz2008 OLZ	155	-0.30(1.00)	159	-0.60(1.01)						0.30 [0.08, 0.52]
Subtotal (95% CI)	155		159				\			0.30 [0.08, 0.52]
Test for heterogeneity: not	applicable						ľ			
Test for overall effect: Z = 2	2.62 (P = 0.009)									
					-10	-5	0	5	10	
					Favo	urs treatm	ent Fav	ours contr	ol	

Test for overall effect: Z = 0.48 (P = 0.63)

Pharm 03.01 all available trials: aggression measures (clinician-rated)

Review: BPD pharmacology 03 Aggression measures Comparison: Outcome: 01 Clinician-rated measures SMD (fixed) Study Treatment Control SMD (fixed) Ν Mean (SD) Ν Mean (SD) or sub-category 95% CI 95% CI 02 Omega-3 fatty acids vs placebo: OAS-M - total mean endpoint (8/12 weeks) 14.50(7.30) Hallahan2007 Omega-3 19 10.30(7.78) 20 -0.55 [-1.19, 0.09] Zanarini2003 Omega-3 18 7.20(8.10) 9 12.90(17.10) -0.47 [-1.28, 0.34] 37 -0.52 [-1.02, -0.01] Test for heterogeneity: $Chi^2 = 0.02$, df = 1 (P = 0.89), $I^2 = 0\%$ Test for overall effect: Z = 2.01 (P = 0.04) 03 Olanzapine vs fluoxetine + olanzapine: OAS-M - total mean change (8 weeks) Zanarini2004 OLZ+FLX 0.02 [-0.71, 0.76] -20.15(15.95) 16 -19.69(20.83) 13 Subtotal (95% CI) 16 13 0.02 [-0.71, 0.76] Test for heterogeneity: not applicable Test for overall effect: Z = 0.06 (P = 0.95) 04 Fluoxetine vs fluoxetine + olanzapine: OAS-M - total mean change (8 weeks) Zanarini2004 OLZ+FLX 13 -15.38(21.25) 13 -20.15(15.95) 0.25 [-0.53, 1.02] Subtotal (95% CI) 13 13 0.25 [-0.53, 1.02] Test for heterogeneity: not applicable Test for overall effect: Z = 0.62 (P = 0.53) 05 Olanzapine vs fluoxetine: OAS-M - total mean change (8 weeks) -0.20 [-0.93, 0.53] -15.38(21.25) Zanarini2004 OLZ+FLX 16 Subtotal (95% CI) 16 13 -0.20 [-0.93, 0.53] Test for heterogeneity: not applicable Test for overall effect: Z = 0.53 (P = 0.59) 06 Divalproex vs placebo: OAS-M - total mean for last 4 weeks of trial (12 weeks) -0.15 [-0.56, 0.27] 38.60(61.10) Hollander 2003 DVP 43 29.20(66.10) 48 Subtotal (95% CI) 43 48 -0.15 [-0.56, 0.27] Test for heterogeneity: not applicable Test for overall effect: Z = 0.70 (P = 0.49) 07 Olanzapine vs placebo: OAS-M - aggression subscale mean change (12 weeks) Eli Lilly #6253 (hi) 144 -27.32(50.02) -25.35(73.80) -0.03 [-0.26, 0.20] Schultz2008 OLZ 148 -20.88(61.73) 151 -28.45(78.42) 0.11 [-0.12, 0.33] Subtotal (95% CI) 292 293 0.04 [-0.12, 0.20] Test for heterogeneity: Chi² = 0.70, df = 1 (P = 0.40), I^2 = 0%

Pharm 03.02 all available trials: aggression measures (self-rated)



-10

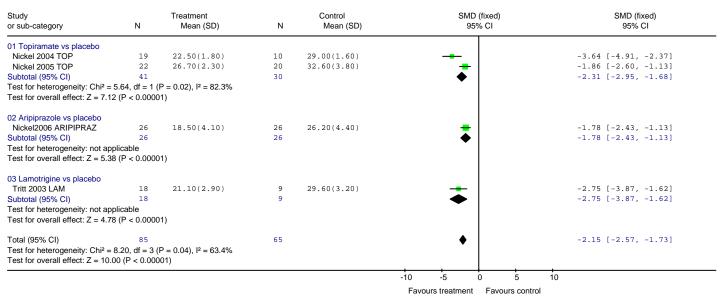
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0 Favours treatment Favours control 10

Pharm 04.01 all available trials: anger measures (1)

Review: BPD pharmacology Comparison: 04 Anger measures

Outcome: 01 STAXI - state anger subscale (8 weeks)



Pharm 04.02 all available trials: anger measures (2)

Review: BPD pharmacology Comparison: 04 Anger measures

Outcome: 02 ZAN-BPD intense anger item

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)			MD (fixed) 95% CI		SMD (fixed) 95% CI
01 Olanzapine vs placebo									
Schultz2008 OLZ	.55	-0.90(1.12)	159	-0.70(1.13)					-0.18 [-0.40, 0.04]
Subtotal (95% CI)	.55		159				7		-0.18 [-0.40, 0.04]
Test for heterogeneity: not applicable	9						1		
Test for overall effect: Z = 1.57 (P = 0	0.12)								
Total (95% CI) 1	155		159				4		-0.18 [-0.40, 0.04]
Test for heterogeneity: not applicable	Э						1		
Test for overall effect: $Z = 1.57$ (P = 0									
					-10	-5	Ö	5	10
					Favoi	urs treatme	ent Favo	ours contro	ol .

Pharm 04.03 all available trials: anger measures (follow-up)

Review: BPD pharmacology Comparison: 04 Anger measures

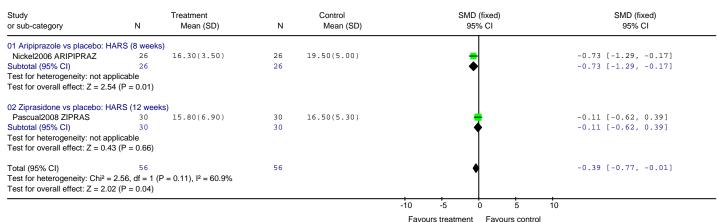
Outcome: 03 STAXI - state anger subscale (follow-up)

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)			D (fixed) 5% CI	SMD (fixed) 95% CI	
01 Aripiprazole vs placebo (6 m	onths)								
Nickel2006 ARIPIPRAZ	1	0.00(0.00)	1	0.00(0.00)				Not estimable	
Subtotal (95% CI)	1		1					Not estimable	
Test for heterogeneity: not appli									
Test for overall effect: not applic	able								
02 Aripiprazole vs placebo (12 r	months)								
Nickel2006 ARIPIPRAZ	22	15.70(3.40)	17	27.10(2.10)		-		-3.84 [-4.94, -2.74	1]
Subtotal (95% CI)	22		17			•		-3.84 [-4.94, -2.74	1]
Test for heterogeneity: not appli	icable								
Test for overall effect: Z = 6.85 ((P < 0.0000	01)							
03 Aripiprazole vs placebo (18 r	months)								
Nickel2006 ARIPIPRAZ	22	16.00(3.40)	17	27.00(2.20)		-		-3.66 [-4.73, -2.60)]
Subtotal (95% CI)	22		17			•		-3.66 [-4.73, -2.60)]
Test for heterogeneity: not appli	icable								
Test for overall effect: Z = 6.74 ((P < 0.0000	01)							
					-10	-5	0 5	10	
					Favo	urs treatmen	t Favours cont	trol	

Pharm 05.01 all available trials: anxiety measures (clinician-rated)

Review: BPD pharmacology Comparison: 05 Anxiety measures

Outcome: 01 Clinician-rated measures (endpoint)

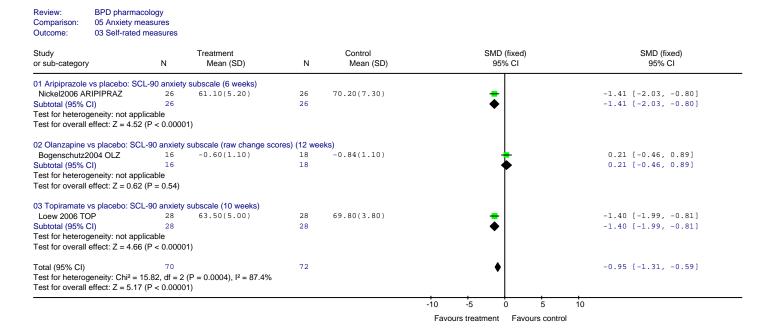


Pharm 05.02 all available trials: anxiety measures (clinician-rated, follow-up)

BPD pharmacology Review: Comparison: 05 Anxiety measures Outcome: 02 Clinician-rated measures (follow-up) SMD (fixed) Study Treatment Control SMD (fixed) Ν Mean (SD) Ν Mean (SD) or sub-category 95% CI 95% CI 01 Aripiprazole vs placebo: HARS (6 months) Subtotal (95% CI) Not estimable Test for heterogeneity: not applicable Test for overall effect: not applicable 02 Aripiprazole vs placebo: HARS (12 months) -2.67 [-3.56, -1.78] Nickel2006 ARIPIPRAZ 2.2 13.40(3.10) 17 20.90(2.20) Subtotal (95% CI) 22 -2.67 [-3.56, -1.78] Test for heterogeneity: not applicable
Test for overall effect: Z = 5.89 (P < 0.00001) 03 Aripiprazole vs placebo: HARS (18 months) Nickel2006 ARIPIPRAZ 13.90(3.10) 17 20.60(2.10) -2.42 [-3.27, -1.57] Subtotal (95% CI) 22 -2.42 [-3.27, -1.57] Test for heterogeneity: not applicable Test for overall effect: Z = 5.58 (P < 0.00001)

Favours treatment Favours control

Pharm 05.03 all available trials: anxiety measures (self-rated)

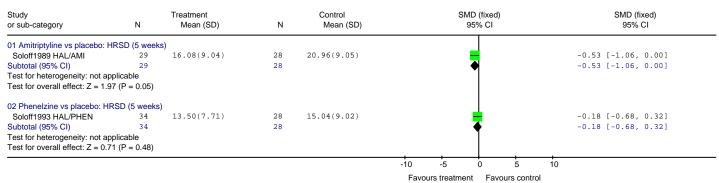


Pharm 06.01 antidepressants: depression measures (clinician-rated)

BPD pharmacology Review:

Comparison: 06 Depression measures: clinician-rated

Outcome: 01 Clinician-rated measures (endpoint): antidepressants



Pharm 06.02 antidepressants: depression measures (clinician-rated, follow-up)

Review: BPD pharmacology

06 Depression measures: clinician-rated Comparison: Outcome: 02 Clinician-rated measures (follow-up): antidepressants

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		SMD (fixed) 95% CI				SMD (fixed) 95% CI
01 Phenelzine vs placebo: HR	SD (16 week	(S)								
Soloff1993 HAL/PHEN	22	13.32(7.91)	18	12.28(8.70)						0.12 [-0.50, 0.75]
Subtotal (95% CI)	22		18				•			0.12 [-0.50, 0.75]
Fest for heterogeneity: not app	olicable						ſ			
Test for overall effect: $Z = 0.39$	9 (P = 0.70)									
					-10	-5	0	5	10	
					Favou	urs treatme	ent Fav	ours contr	ol	

Pharm 06.03 antipsychotics: depression measures (clinician-rated)

Review: BPD pharmacology

Comparison: 06 Depression measures: clinician-rated

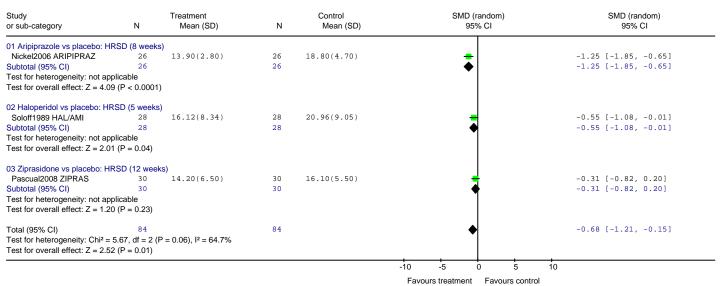
Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)	SMD (fixed) 95% CI	SMD (fixed) 95% CI
11 Aripiprazole vs placebo: HF	RSD (8 week	s)				
Nickel2006 ARIPIPRAZ	26	13.90(2.80)	26	18.80(4.70)	-	-1.25 [-1.85, -0.65]
Subtotal (95% CI)	26		26		◆	-1.25 [-1.85, -0.65]
Test for heterogeneity: not app Test for overall effect: Z = 4.09)				
02 Haloperidol vs placebo: HR	SD (5 weeks	3)				
Soloff1989 HAL/AMI	28	16.12(8.34)	28	20.96(9.05)	- 	-0.55 [-1.08, -0.01]
Soloff1993 HAL/PHEN	30	18.60(7.44)	28	15.04(9.02)	 -	0.43 [-0.10, 0.95]
Subtotal (95% CI)	58		56		•	-0.05 [-0.42, 0.32]
Test for heterogeneity: $Chi^2 = 0.26$ Test for overall effect: $Z = 0.26$		P = 0.01), I ² = 84.7%				
03 Ziprasidone vs placebo: HF	SD (12 wee	ks)				
Pascual2008 ZIPRAS	30	14.20(6.50)	30	16.10(5.50)	- 	-0.31 [-0.82, 0.20]
Subtotal (95% CI)	30		30		♦	-0.31 [-0.82, 0.20]
Test for heterogeneity: not app Test for overall effect: Z = 1.20						
Total (95% CI)	114		112		•	-0.36 [-0.63, -0.10]
Test for heterogeneity: $Chi^2 =$ Test for overall effect: $Z = 2.66$					Ĭ	

Pharm 06.04 antipsychotics: depression measures (clinician-rated)

BPD pharmacology Review:

Comparison: 06 Depression measures: clinician-rated

Outcome: 04 Sensitivity analysis: Clinician-rated measures (endpoint): antipsychotics



Pharm 06.05 antipsychotics: depression measures (clinician-rated, follow-up)

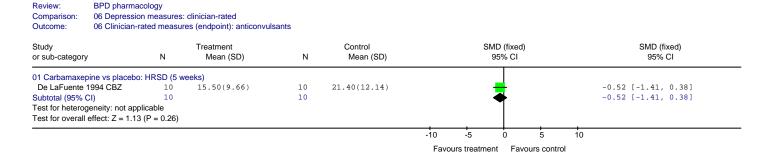
BPD pharmacology Comparison: 06 Depression measures: clinician-rated

Review:

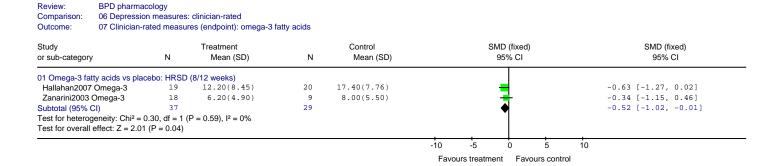
05 Clinician-rated measures (follow-up): antipsychotics Outcome:

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		SMD (fixed) 95% CI				SMD (fixed) 95% CI
01 Aripiprazole vs placebo: HR	SD (6 mont	hs)								
Nickel2006 ARIPIPRAZ	1	0.00(0.00)	1	0.00(0.00)						Not estimable
Subtotal (95% CI)	1		1							Not estimable
Test for heterogeneity: not appl	icable									
Test for overall effect: not applie										
02 Aripiprazole vs placebo: HR	SD (12 mor	nths)								
Nickel2006 ARIPIPRAZ	22	11.40(2.70)	17	19.50(3.20)		-				-2.71 [-3.61, -1.81]
Subtotal (95% CI)	22		17			•				-2.71 [-3.61, -1.81]
Test for heterogeneity: not appl	icable									
Test for overall effect: Z = 5.93	(P < 0.0000	01)								
03 Aripiprazole vs placebo: HR	SD (18 mor	nths)								
Nickel2006 ARIPIPRAZ	22	12.00(2.60)	17	19.10(3.10)		-				-2.46 [-3.32, -1.60]
Subtotal (95% CI)	22		17			•				-2.46 [-3.32, -1.60]
Test for heterogeneity: not appl	icable									
Test for overall effect: Z = 5.64	(P < 0.0000	01)								
04 Haloperidol vs placebo: HRS	SD (21 weel	ks)								
Soloff1993 HAL/PHEN	14	22.00(11.08)	18	12.28(8.70)						0.97 [0.22, 1.71]
Subtotal (95% CI)	14		18							0.97 [0.22, 1.71]
Test for heterogeneity: not appl	icable									
Test for overall effect: $Z = 2.55$	(P = 0.01)									
					-10	-5	0	5	10	
					Favor	ırs treatmen	t Favo	ours contro	ol.	

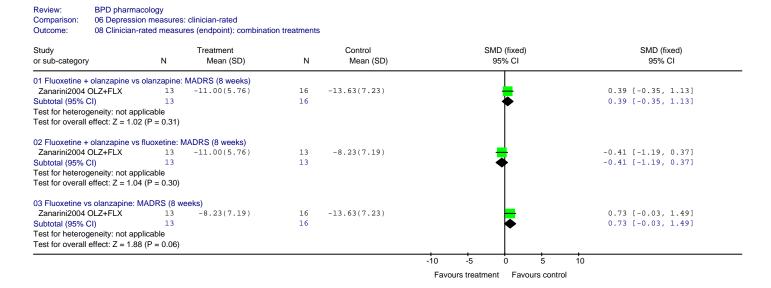
Pharm 06.06 anticonvulsants: depression measures (clinician-rated)



Pharm 06.07 omega-3 fatty acids: depression measures (clinician-rated)



Pharm 06.08 drug combinations: depression measures (clinician-rated)



Pharm 07.01 antidepressants: depression measures (self-rated)

Review: BPD pharmacology

Comparison: 07 Depression measures: self-rated

Outcome: 01 Self-rated measures (endpoint): antidepressants

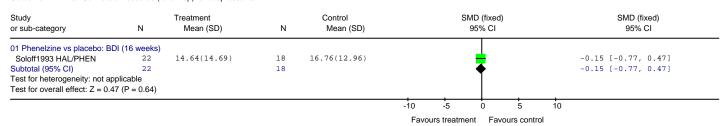
Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		SMD (fix 95% (,	SMD (fixed) 95% CI
01 Amitriptyline vs placebo: Bl	DI (5 weeks)							
Soloff1989 HAL/AMI	29	15.34(10.71)	28	23.04(14.88)		=		-0.59 [-1.12, -0.06]
Subtotal (95% CI)	29		28			•		-0.59 [-1.12, -0.06]
Test for heterogeneity: not app	olicable					1		
Test for overall effect: $Z = 2.17$	7 (P = 0.03)							
02 Phenelzine vs placebo: BD	I (5 weeks)							
Soloff1993 HAL/PHEN	34	15.69(9.46)	28	19.54(13.04)		=		-0.34 [-0.84, 0.16]
Subtotal (95% CI)	34		28			•		-0.34 [-0.84, 0.16]
Test for heterogeneity: not app	olicable					1		
Test for overall effect: Z = 1.32	2 (P = 0.19)							
Total (95% CI)	63		56			•		-0.46 [-0.82, -0.09]
Test for heterogeneity: Chi ² =	0.44, df = 1 (P = 0.51), I ² = 0%				1		
Test for overall effect: Z = 2.45	5 (P = 0.01)	•						
					-10	-5 0	5	10
					Favour	s treatment	Favours contro	ol

Pharm 07.02 antidepressants: depression measures (self-rated, follow-up)

Review: BPD pharmacology

Comparison: 07 Depression measures: self-rated

Outcome: 02 Self-rated measures (follow-up): antidepressants



Review:

BPD pharmacology

Pharm 07.03 antipsychotics: depression measures (self-rated)

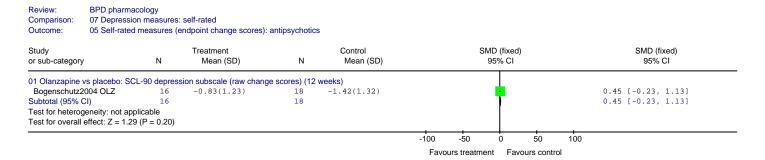
Review: BPD pharmacology Comparison: 07 Depression measures: self-rated Outcome: 03 Self-rated measures (endpoint): antipsychotics SMD (fixed) SMD (fixed) Control Study Treatment Mean (SD) or sub-category Ν Mean (SD) Ν 95% CI 95% CI 01 Aripiprazole vs placebo: SCL-90 depression subscale (8 weeks) Nickel2006 ARIPIPRAZ 26 73.20(9.60) -1.96 [-2.63, -1.29] Subtotal (95% CI) 26 -1.96 [-2.63, -1.29] Test for heterogeneity: not applicable Test for overall effect: Z = 5.73 (P < 0.00001) 02 Haloperidol vs placebo: BDI (5 weeks) Soloff1989 HAL/AMI 28 16.22(12.32) 23.04(14.88) -0.49 [-1.02, 0.04] 28 Soloff1993 HAL/PHEN 30 23.50(13.16) 28 19.54(13.04) 0.30 [-0.22, 0.82] -0.09 [-0.46, 0.28] Subtotal (95% CI) Test for heterogeneity: $Chi^2 = 4.35$, df = 1 (P = 0.04), $I^2 = 77.0\%$ Test for overall effect: Z = 0.46 (P = 0.65) 03 Ziprasidone vs placebo: BDI (12 weeks) -0.33 [-0.83, 0.18] Pascual2008 ZIPRAS 3.0 43.40(13.20) 30 47.80(13.50) Subtotal (95% CI) 30 30 -0.33 [-0.83, 0.18] Test for heterogeneity: not applicable Test for overall effect: Z = 1.25 (P = 0.21) Total (95% CI) -0.47 [-0.74, -0.19] Test for heterogeneity: $Chi^2 = 27.77$, df = 3 (P < 0.00001), $I^2 = 89.2\%$ Test for overall effect: Z = 3.35 (P = 0.0008) -100 -50 50 100

Pharm 07.04 antipsychotics: depression measures (self-rated) (sensitivity analysis)

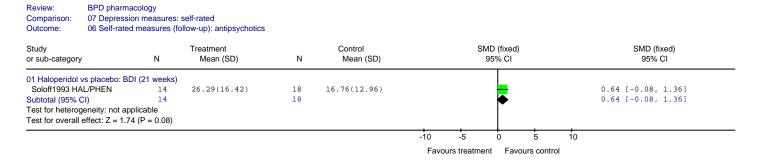
Favours treatment Favours control

Comparison: 07 Depression measures: self-rated Outcome: 04 Sensitivity analysis: Self-rated measures (endpoint); antipsychotics SMD (fixed) SMD (fixed) Study Treatment Control or sub-category Ν Mean (SD) Mean (SD) 95% CI 95% CI 02 Haloperidol vs placebo: BDI (5 weeks) Soloff1989 HAL/AMI 16.22(12.32) 28 23.04(14.88) -0.49 [-1.02, 0.04] Subtotal (95% CI) 28 28 -0.49 [-1.02, 0.04] Test for heterogeneity: not applicable Test for overall effect: Z = 1.81 (P = 0.07) 03 Ziprasidone vs placebo: BDI (12 weeks) 43.40(13.20) 47.80(13.50) Pascual2008 ZIPRAS 30 -0.33 [-0.83, 0.18] Subtotal (95% CI) -0.33 [-0.83, 0.18] Test for heterogeneity: not applicable Test for overall effect: Z = 1.25 (P = 0.21) -0.41 [-0.77, -0.04] Total (95% CI) 58 Test for heterogeneity: $Chi^2 = 0.20$, df = 1 (P = 0.66), $I^2 = 0\%$ Test for overall effect: Z = 2.16 (P = 0.03) -5 10 -10 Favours treatment Favours control

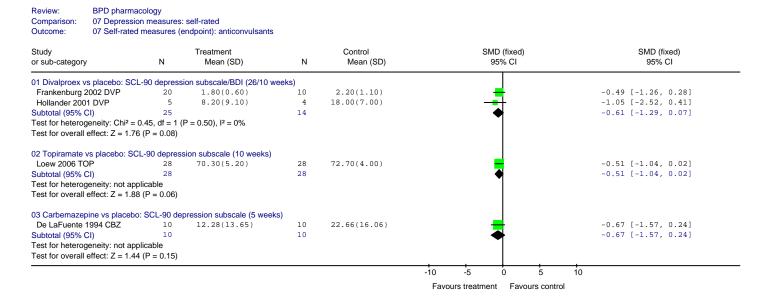
Pharm 07.05 antipsychotics: depression measures (self-rated)



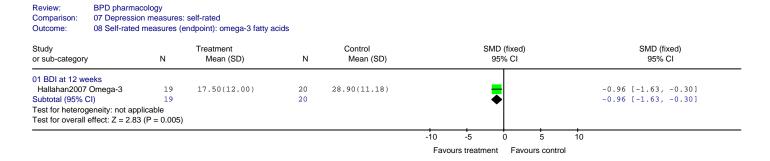
Pharm 07.06 antipsychotics: depression measures (self-rated, follow-up)



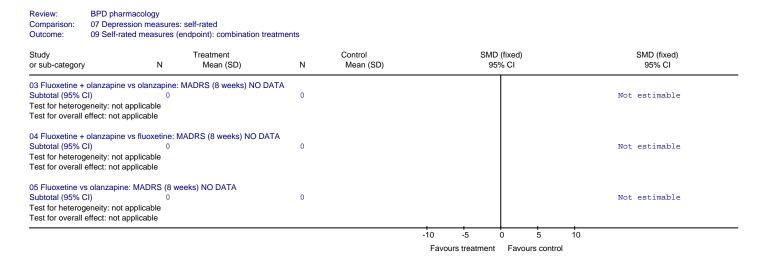
Pharm 07.07 anticonvulsants: depression measures (self-rated)



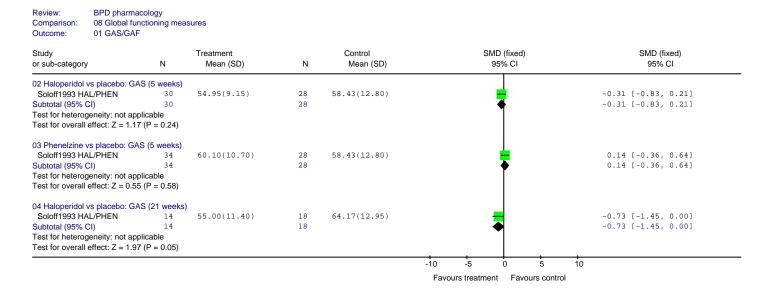
Pharm 07.08 omega-3 fatty acids: depression measures (self-rated)



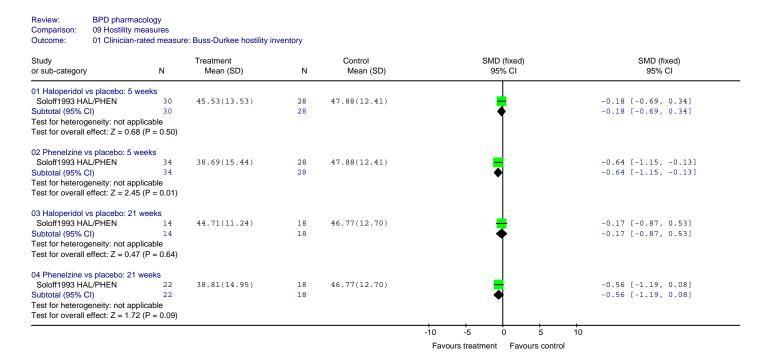
Pharm 07.09 drug combinations: depression measures (self-rated)



Pharm 08.01 all available trials: global functioning measures

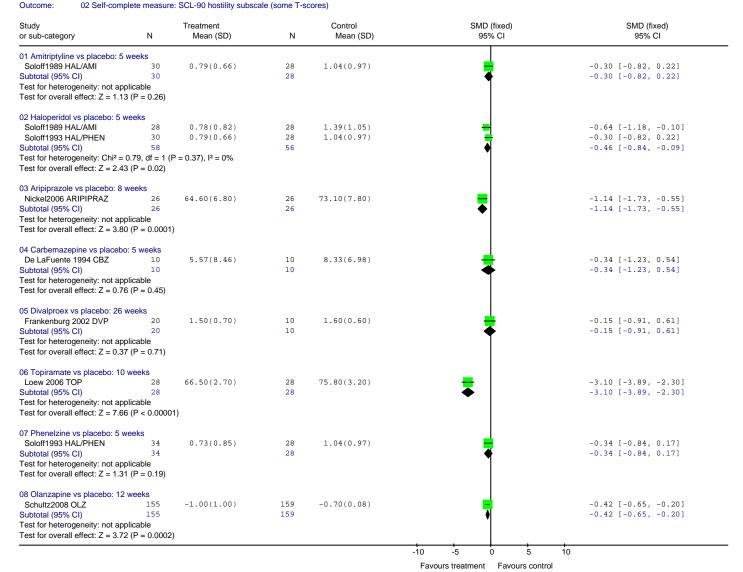


Pharm 09.01 all available trials: hostility measures (clinician-rated)



Pharm 09.02 all available trials: hostility measures (self-rated)

Review: BPD pharmacology
Comparison: 09 Hostility measures



Test for heterogeneity: $Chi^2 = 17.72$, df = 3 (P = 0.0005), $I^2 = 83.1\%$

Test for overall effect: Z = 1.83 (P = 0.07)

Total (95% CI)

Pharm 09.03 antipsychotics: hostility measures (self-rated)

Review: BPD pharmacology Comparison: 09 Hostility measures Outcome: 03 Self-complete measure: SCL-90 hostility subscale (antipsychotics) some T-scores WMD (random) WMD (random) Study Treatment Control Mean (SD) or sub-category Ν Mean (SD) 95% CI 95% CI 01 Olanzapine vs placebo: 12 weeks Schultz2008 OLZ -1.00(1.00) 159 -0.70(0.08) -0.30 [-0.46, -0.14] Subtotal (95% CI) 159 -0.30 [-0.46, -0.14] Test for heterogeneity: not applicable Test for overall effect: Z = 3.72 (P = 0.0002) 02 Haloperidol vs placebo: 5 weeks Soloff1989 HAL/AMI 0.78(0.82) 1.39(1.05) -0.61 [-1.10, -0.12] 28 Soloff1993 HAL/PHEN 30 0.79(0.66) 28 1.04(0.97) -0.25 [-0.68, 0.18] -0.41 [-0.76, -0.06] Subtotal (95% CI) Test for heterogeneity: $Chi^2 = 1.16$, df = 1 (P = 0.28), $I^2 = 14.0\%$ Test for overall effect: Z = 2.29 (P = 0.02) 03 Aripiprazole vs placebo: 8 weeks Nickel2006 ARIPIPRAZ 26 64.60(6.80) 26 73.10(7.80) -8.50 [-12.48, -4.52] Subtotal (95% CI) 26 26 -8.50 [-12.48, -4.52] Test for heterogeneity: not applicable Test for overall effect: Z = 4.19 (P < 0.0001)

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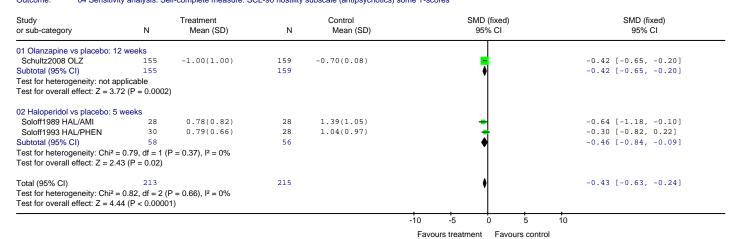
Favours treatment Favours control

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Pharm 09.04 antipsychotics: hostility measures (self-rated) (sensitivity analysis)

Review: BPD pharmacology
Comparison: 09 Hostility measures
Outcome: 04 Sensitivity analysis: Self-complete measure: SCL-90 hostility subscale (antipsychotics) some T-scores



-0.54 [-1.13, 0.04]

BPD pharmacology

Review:

Pharm 10.01 all available trials: impulsiveness measures (clinician-rated)

Review: BPD pharmacology Comparison: 10 Impulsiveness measures Outcome: 01 Clinician-rated measure: Barratt Impulsiveness Scale SMD (fixed) SMD (fixed) Study Treatment Control Mean (SD) or sub-category Ν Mean (SD) Ν 95% CI 95% CI 01 Haloperidol vs placebo: 5 weeks Soloff1989 HAL/AMI 104.02(15.71) 103.06(21.48) 0.05 [-0.47, 0.57] Soloff1993 HAL/PHEN 30 240.95(37.60) 28 237.74(42.02) 0.08 [-0.44, 0.59] Subtotal (95% CI) 58 56 0.07 [-0.30, 0.43] Test for heterogeneity: Chi² = 0.01, df = 1 (P = 0.94), I^2 = 0% Test for overall effect: Z = 0.35 (P = 0.73) 02 Phenelzine vs placebo: 5 weeks 0.00 [-0.50, 0.50] Soloff1993 HAL/PHEN 237.66(34.73) 28 237.74(42.02) Subtotal (95% CI) 0.00 [-0.50, 0.50] Test for heterogeneity: not applicable Test for overall effect: Z = 0.01 (P = 0.99) 03 Ziprasidone vs placebo: 12 weeks Pascual2008 ZIPRAS 3.0 67.70(22.70) 30 69.10(21.20) -0.06 [-0.57, 0.44] -0.06 [-0.57, 0.44] Subtotal (95% CI) 30 30 Test for heterogeneity: not applicable Test for overall effect: Z = 0.24 (P = 0.81) 04 Amitriptyline vs placebo: 5 weeks Soloff1989 HAL/AMI 100.50(19.01) 103.06(21.48) -0.12 [-0.64, 0.40] Subtotal (95% CI) 28 -0.12 [-0.64, 0.40] Test for heterogeneity: not applicable Test for overall effect: Z = 0.47 (P = 0.64) 10 -5

Favours treatment Favours control

Pharm 10.02 all available trials: impulsiveness measures (self-rated)

Comparison: 10 Impulsiveness measures Outcome: 02 Self-rated measure: STIC SMD (fixed) Study Treatment Control SMD (fixed) Ν Mean (SD) or sub-category Mean (SD) Ν 95% CI 95% CI 01 Haloperidol vs placebo: 5 weeks 0.18 [-0.34, 0.70] Soloff1993 HAL/PHEN 29.49(8.26) 28 28.04(7.70) Subtotal (95% CI) 28 0.18 [-0.34, 0.70] Test for heterogeneity: not applicable Test for overall effect: Z = 0.68 (P = 0.50) 02 Phenelzine vs placebo: 5 weeks 0.26 [-0.24, 0.76] Soloff1993 HAL/PHEN 30.12(7.95) 28 28.04(7.70) Subtotal (95% CI) 0.26 [-0.24, 0.76] 28 Test for heterogeneity: not applicable Test for overall effect: Z = 1.02 (P = 0.31) 10 -5 Favours treatment Favours control

Pharm 11.01 all available trials: mental distress

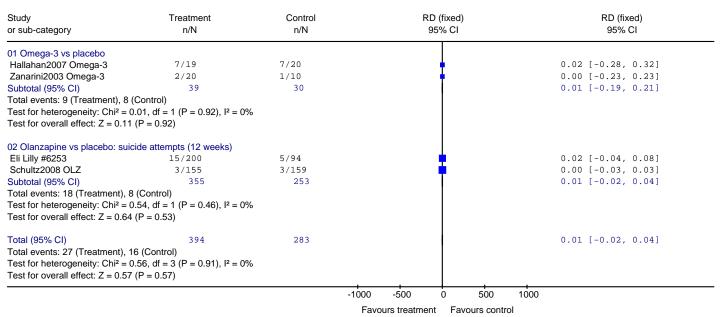
Review: BPD pharmacology Comparison: 11 Mental distress Outcome: 01 GSI

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)	SMD (random) 95% CI	SMD (random) 95% CI
11 Aripiprazole vs placebo (8 we						
Nickel2006 ARIPIPRAZ	26	60.10(4.20)	26	69.40(9.30)		-1.27 [-1.87, -0.67]
Subtotal (95% CI)	26		26			-1.27 [-1.87, -0.67]
Fest for heterogeneity: not applic Fest for overall effect: Z = 4.15 (F		\				
est for overall effect: Z = 4.15 (F	< 0.0001)				
2 Haloperidol vs placebo (5 wee	eks)					
Soloff1993 HAL/PHEN	30	1.34(0.67)	28	1.16(0.84)		0.23 [-0.28, 0.75]
Subtotal (95% CI)	30		28			0.23 [-0.28, 0.75]
Test for heterogeneity: not applic						
est for overall effect: Z = 0.89 (F	P = 0.37)					
3 Phenelzine vs placebo (5 wee	eks)					
Soloff1993 HAL/PHEN	34	0.99(0.64)	28	1.16(0.84)	e e e e e e e e e e e e e e e e e e e	-0.23 [-0.73, 0.27]
Subtotal (95% CI)	34		28		T	-0.23 [-0.73, 0.27]
Test for heterogeneity: not applic	able					
est for overall effect: Z = 0.89 (F	P = 0.37)					
04 Aripiprazole vs placebo (6 mo	onths)					
Nickel2006 ARIPIPRAZ	1	0.00(0.00)	1	0.00(0.00)		Not estimable
Subtotal (95% CI)	1		1			Not estimable
est for heterogeneity: not applic	able					
est for overall effect: not applica	able					
5 Aripiprazole vs placebo (12 m	onths)					
Nickel2006 ARIPIPRAZ	22	55.60(6.90)	17	74.50(7.30)		-2.62 [-3.50, -1.74]
Subtotal (95% CI)	22		17		<u>₩</u>	-2.62 [-3.50, -1.74]
est for heterogeneity: not applic	able				1	
est for overall effect: Z = 5.82 (F	P < 0.0000	1)				
6 Aripiprazole vs placebo (18 m	ionths)					
Nickel2006 ARIPIPRAZ	22	57.20(5.90)	17	72.90(8.10)	<u> </u>	-2.22 [-3.04, -1.40]
Subtotal (95% CI)	22		17		T	-2.22 [-3.04, -1.40]
est for heterogeneity: not applic					1	
est for overall effect: Z = 5.31 (F		1)				
7 Olanzapine vs placebo (12 we	eeks)					
Eli Lilly #6253 (hi)	138	-0.74(0.57)	136	-0.53(0.55)	<u> </u>	-0.37 [-0.61, -0.13]
Schultz2008 OLZ	142	-0.60(0.69)	141	-0.56(0.75)	<u> </u>	-0.06 [-0.29, 0.18]
ubtotal (95% CI)	280		277		T	-0.21 [-0.53, 0.10]
est for heterogeneity: Chi ² = 3.5	50, df = 1 (F	P = 0.06), I ² = 71.4%				
Test for overall effect: $Z = 1.34$ (F	P = 0.18)					
				-1	00 -50 0 50	100
					Favours treatment Favours control	ıl

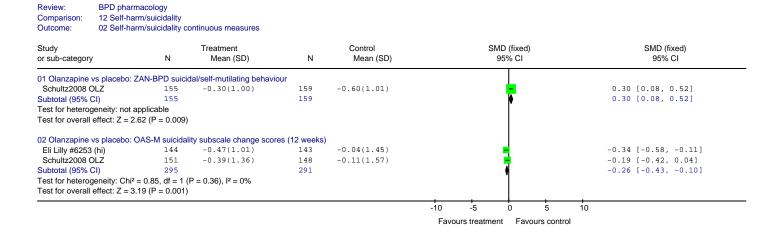
Pharm 12.01 all available trials: self-harm/suicidality (dichotomous measures)

Review: BPD pharmacology
Comparison: 12 Self-harm/suicidality

Outcome: 01 Number of participants (8/12 weeks)



Pharm 12.02 all available trials: self-harm/suicidality (continuous measures)



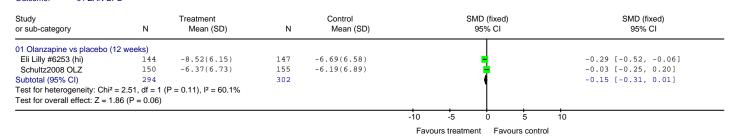
Pharm 13.01 all available trials: severe psychopathology

Review: BPD pharmacology
Comparison: 13 Severe psychopathology
Outcome: 01 BPRS

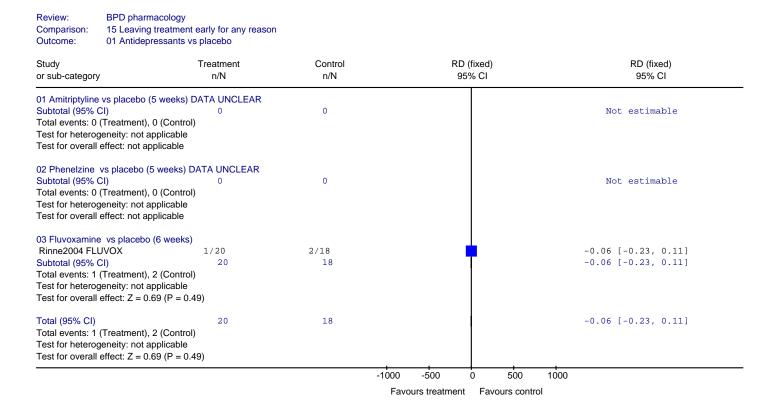
Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)		s	MD (fixed) 95% CI		SMD (fixed) 95% CI
01 Carbamazepine vs placeb	o: 5 weeks								
De LaFuente 1994 CBZ	10	67.12(16.17)	10	46.30(15.16)			-		1.27 [0.29, 2.25]
Subtotal (95% CI)	10		10						1.27 [0.29, 2.25]
Test for heterogeneity: not ap	plicable						1		
Test for overall effect: $Z = 2.5$	4 (P = 0.01)								
02 Ziprasidone vs placebo: 12	2 weeks								
Pascual2008 ZIPRAS	30	10.50(5.70)	30	12.30(7.20)					-0.27 [-0.78, 0.23]
Subtotal (95% CI)	30		30				♦		-0.27 [-0.78, 0.23]
Test for heterogeneity: not ap	plicable						1		
Test for overall effect: $Z = 1.0$	5 (P = 0.29)								
Total (95% CI)	40		40				•		0.05 [-0.40, 0.51]
Test for heterogeneity: Chi ² =		P = 0.006), I ² = 86.7%							
Test for overall effect: Z = 0.2	3 (P = 0.81)								
		-		-	-10	-5	Ö	5	10
					Favou	irs treatme	ent Favo	ours contro	ıl

Pharm 14.01 all available trials: BPD symptomatoloty

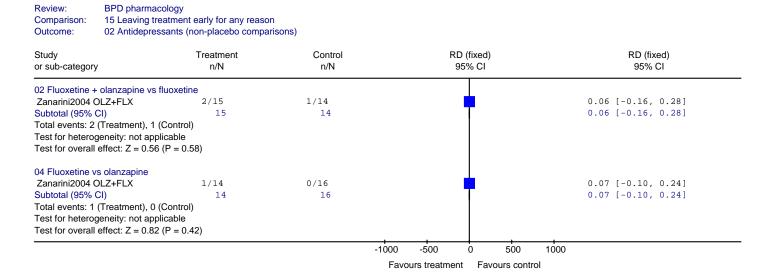
Review: BPD pharmacology
Comparison: 14 BPD symptomatology
Outcome: 01 ZAN-BPD



Pharm 15.01 antidepressants vs placebo: leaving treatment early for any reason



Pharm 15.02 antidepressants (non-placebo comparisons): leaving treatment early for any reason



BPD pharmacology

Review:

Total (95% CI)

Total events: 211 (Treatment), 149 (Control)

Test for overall effect: Z = 0.16 (P = 0.87)

Test for heterogeneity: $Chi^2 = 10.38$, df = 5 (P = 0.07), $I^2 = 51.8\%$

Pharm 15.03 antipsychotics vs placebo: leaving treatment early for any reason

15 Leaving treatment early for any reason Comparison: Outcome: 03 Antipsychotics vs placebo RD (random) RD (random) Study Treatment Control or sub-category n/N n/N 95% CI 95% CI 01 Olanzapine vs placebo (26/12/8 weeks) 0.15 [-0.15, 0.45] 7/20 Bogenschutz2004 OLZ 10/20 Eli Lilly #6253 98/298 59/153 -0.06 [-0.15, 0.04] Schultz2008 OLZ 75/155 0.10 [-0.01, 0.21] 61/159 -0.31 [-0.61, -0.01] Zanarini2001 OLZ 11/19 8/9 Subtotal (95% CI) 492 341 -0.01 [-0.16, 0.14] Total events: 194 (Treatment), 135 (Control) Test for heterogeneity: $Chi^2 = 9.68$, df = 3 (P = 0.02), $I^2 = 69.0\%$ Test for overall effect: Z = 0.14 (P = 0.89) 02 Aripiprazole vs placebo (8 weeks) 0/26 0.00 [-0.07, 0.07] Nickel2006 ARIPIPRAZ 0/26 Subtotal (95% CI) 26 0.00 [-0.07, 0.07] 26 Total events: 0 (Treatment), 0 (Control) Test for heterogeneity: not applicable Test for overall effect: Z = 0.00 (P = 1.00) 03 Haloperidol vs placebo (5 weeks) DATA UNCLEAR Subtotal (95% CI) 0 Not estimable Total events: 0 (Treatment), 0 (Control) Test for heterogeneity: not applicable Test for overall effect: not applicable 04 Ziprasidone vs placebo (12 weeks) Pascual2008 ZIPRAS 17/30 14/30 0.10 [-0.15, 0.35] Subtotal (95% CI) 30 0.10 [-0.15, 0.35] Total events: 17 (Treatment), 14 (Control) Test for heterogeneity: not applicable Test for overall effect: Z = 0.78 (P = 0.44)

-1000

-500

Favours treatment

500

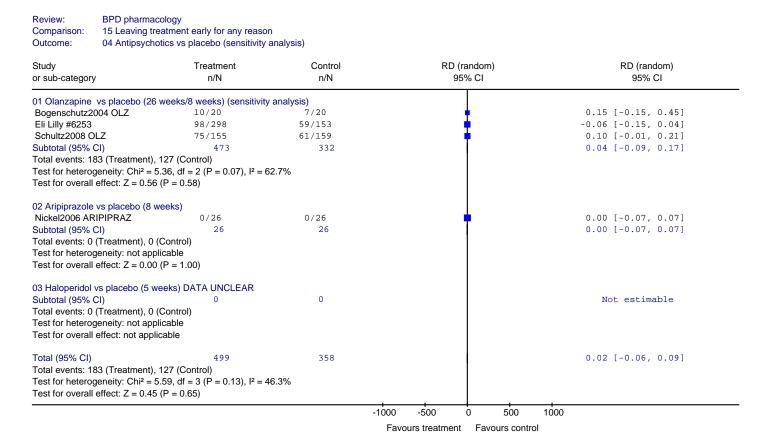
Favours control

1000

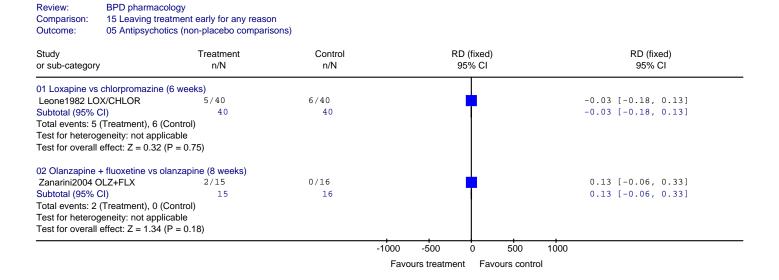
397

0.01 [-0.08, 0.09]

Pharm 15.04 antipsychotics vs placebo: leaving treatment early for any reason (sensitivity analysis)



Pharm 15.05 antipsychotics (non-placebo comparisons): leaving treatment early for any reason



BPD pharmacology

Review:

Pharm 15.06 anticonvulsants vs placebo: leaving treatment early for any reason

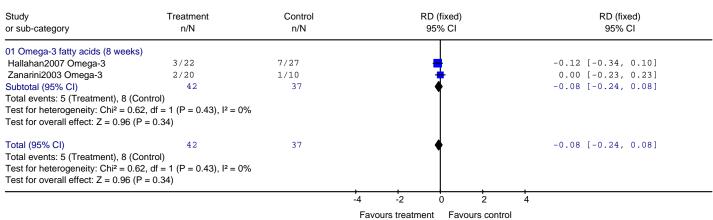
Comparison: 15 Leaving treatment early for any reason Outcome: 06 Anticonvulsants vs placebo Treatment Control RD (fixed) RD (fixed) Study or sub-category n/N n/N 95% CI 95% CI 01 Divalproex vs placebo (10 weeks/12 weeks) 13/20 6/10 0.05 [-0.32, 0.42] Frankenburg 2002 DVP Hollander 2001 DVP 6/12 4/4 -0.50 [-0.88, -0.12] Hollander 2003 DVP 54/124 47/122 0.05 [-0.07, 0.17] Subtotal (95% CI) 0.03 [-0.09, 0.14] 156 136 Total events: 73 (Treatment), 57 (Control) Test for heterogeneity: Chi² = 7.61, df = 2 (P = 0.02), I^2 = 73.7% Test for overall effect: Z = 0.47 (P = 0.64) 02 Topiramate vs placebo (8 weeks) Loew 2006 TOP -0.07 [-0.21, 0.06] 1/28 3/28 Nickel 2004 TOP 2/21 0/10 0.10 [-0.09, 0.28] Nickel 2005 TOP 2/22 0/22 -0.09 [-0.23, 0.05] Subtotal (95% CI) 60 -0.04 [-0.13, 0.05] Total events: 3 (Treatment), 5 (Control) Test for heterogeneity: $Chi^2 = 2.86$, df = 2 (P = 0.24), $I^2 = 30.1\%$ Test for overall effect: Z = 0.95 (P = 0.34) 03 Lamotrigine vs placebo (8 weeks) Tritt 2003 LAM 1/18 2/9 -0.17 [-0.46, 0.12] Subtotal (95% CI) 18 -0.17 [-0.46, 0.12] Total events: 1 (Treatment), 2 (Control) Test for heterogeneity: not applicable Test for overall effect: Z = 1.12 (P = 0.26) 04 Carbamazepine vs placebo (5 weeks) De LaFuente 1994 CBZ 0.20 [-0.08, 0.48] 2/10 0/10 Subtotal (95% CI) 10 0.20 [-0.08, 0.48] Total events: 2 (Treatment), 0 (Control) Test for heterogeneity: not applicable Test for overall effect: Z = 1.42 (P = 0.16) Total (95% CI) 215 0.00 [-0.07, 0.08] Total events: 79 (Treatment), 64 (Control) Test for heterogeneity: $Chi^2 = 14.67$, df = 7 (P = 0.04), $I^2 = 52.3\%$ Test for overall effect: Z = 0.13 (P = 0.90) -1000 -500 1000

Pharm 15.07 omega-3 fatty acids: leaving treatment early for any reason



Comparison: 15 Leaving treatment early for any reason

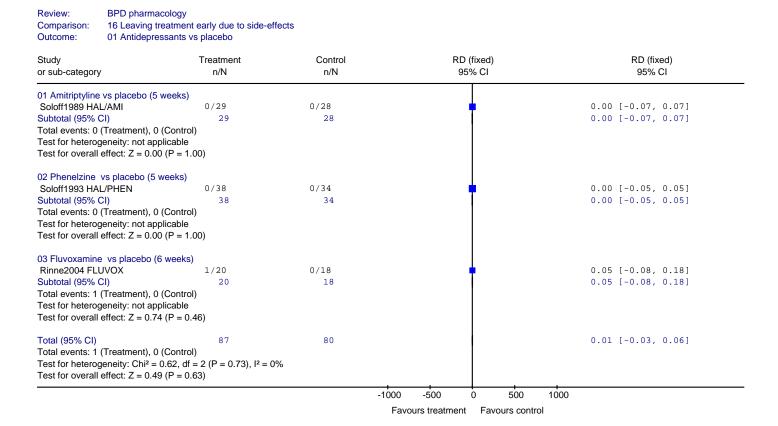
Outcome: 07 Other



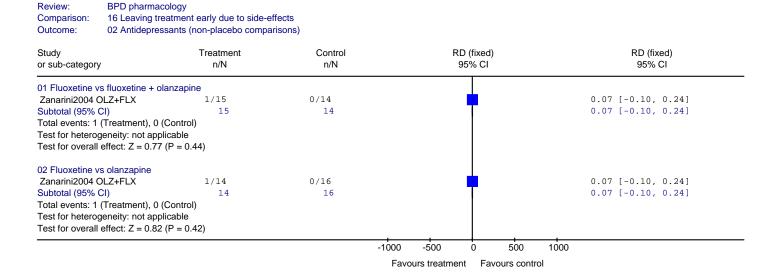
Favours treatment

Favours control

Pharm 16.01 antidepressants vs placebo: leaving treatment early due to side-effects



Pharm 16.02 antidepressants (non-placebo comparisons): leaving treatment early due to side-effects



Pharm 16.03 antipsychotics vs placebo: leaving treatment early due to side-effects

Review: **BPD** pharmacology Comparison: 16 Leaving treatment early due to side-effects Outcome: 03 Antipsychotics vs placebo RD (random) RD (random) Study Treatment Control or sub-category n/N n/N 95% CI 95% CI 01 Olanzapine vs placebo (26/12/8 weeks) 0/20 0.20 [0.01, 0.39] Bogenschutz2004 OLZ 4/20 Eli Lilly #6253 14/298 18/153 -0.07 [-0.13, -0.01] Schultz2008 OLZ 17/155 18/159 0.00 [-0.07, 0.07] 0.09 [-0.25, 0.44] Zanarini2001 OLZ 6/19 2/9 Subtotal (95% CI) 341 0.01 [-0.09, 0.10] Total events: 41 (Treatment), 38 (Control) Test for heterogeneity: $Chi^2 = 8.89$, df = 3 (P = 0.03), $I^2 = 66.3\%$ Test for overall effect: Z = 0.20 (P = 0.84) 02 Aripiprazole vs placebo (8 weeks) 0/26 0.00 [-0.07, 0.07] Nickel2006 ARIPIPRAZ 0/26 Subtotal (95% CI) 26 0.00 [-0.07, 0.07] 26 Total events: 0 (Treatment), 0 (Control) Test for heterogeneity: not applicable Test for overall effect: Z = 0.00 (P = 1.00) 03 Haloperidol vs placebo (5 weeks) Soloff1989 HAL/AMI 1/28 0/28 0.04 [-0.06, 0.13] Soloff1993 HAL/PHEN 0/36 0/34 0.00 [-0.05, 0.05] Subtotal (95% CI) 64 62 0.01 [-0.04, 0.06] Total events: 1 (Treatment), 0 (Control) Test for heterogeneity: $Chi^2 = 0.50$, df = 1 (P = 0.48), $I^2 = 0\%$ Test for overall effect: Z = 0.38 (P = 0.71) Total (95% CI) 429 0.00 [-0.04, 0.04] Total events: 42 (Treatment), 38 (Control) Test for heterogeneity: $Chi^2 = 11.07$, df = 6 (P = 0.09), $I^2 = 45.8\%$ Test for overall effect: Z = 0.03 (P = 0.97)

-1000

-500

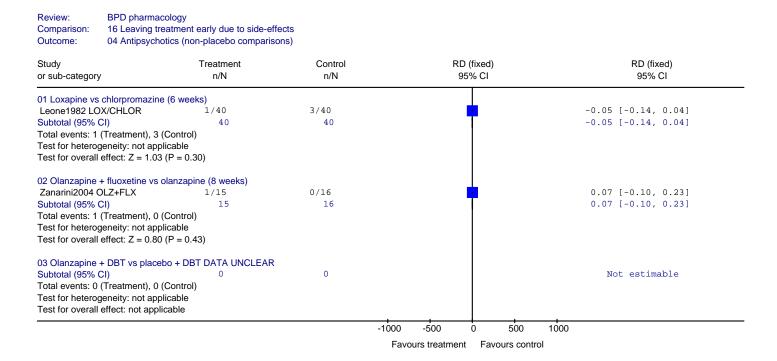
Favours treatment

500

Favours control

1000

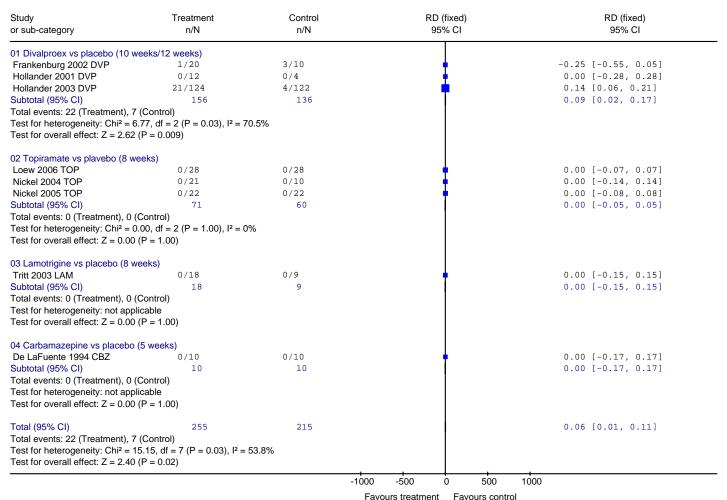
Pharm 16.04 antipsychotics (non-placebo comparisons): leaving treatment early due to side-effects



Pharm 16.05 anticonvulsants vs placebo: leaving treatment early due to side-effects

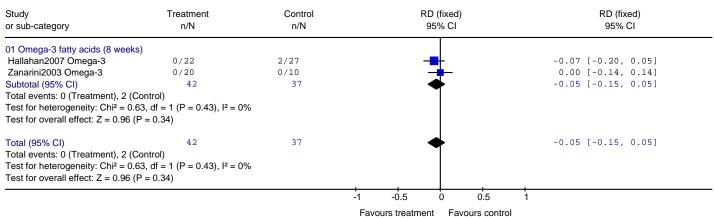
Review: BPD pharmacology
Comparison: 16 Leaving treatment early due to side-effects

Outcome: 05 Anticonvulsants vs placebo



Pharm 16.06 omega-3 fatty acids vs placebo: leaving treatment early due to side-effects

Review: BPD pharmacology
Comparison: 16 Leaving treatment early due to side-effects
Outcome: 06 Other

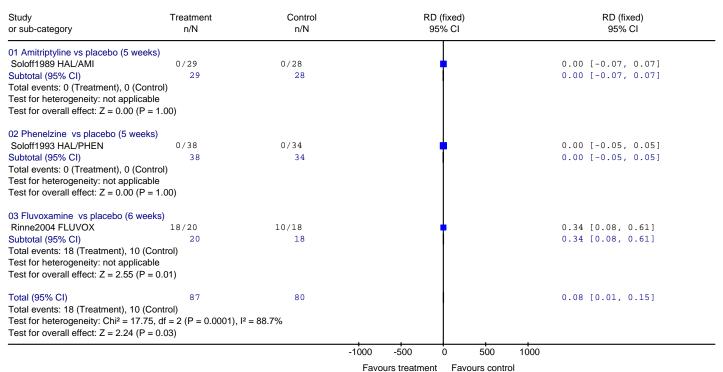


Pharm 17.01 antidepressants vs placebo: number of participants reporting side-effects

Review: BPD pharmacology

Comparison: 17 Number of participants reporting side effects

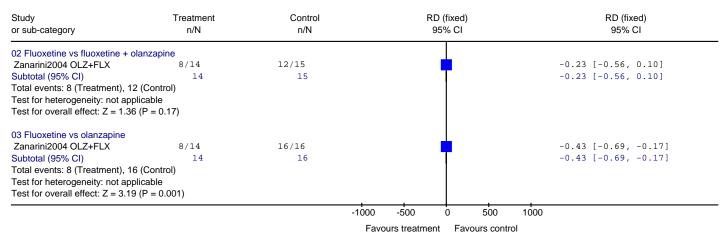
Outcome: 01 Antidepressants vs placebo



Pharm 17.02 antidepressants (non-placebo comparisons): number of participants reporting side-effects

Review: BPD pharmacology

Comparison: 17 Number of participants reporting side effects
Outcome: 02 Antidepressants (non-placebo comparisons)

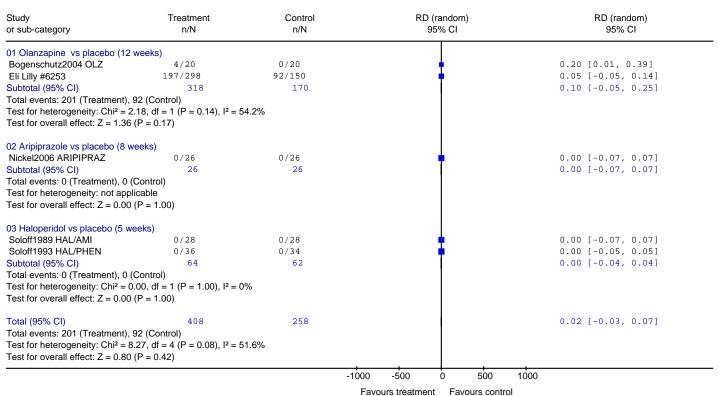


Pharm 17.03 antidepressants vs placebo: number of participants reporting side-effects

Review: BPD pharmacology

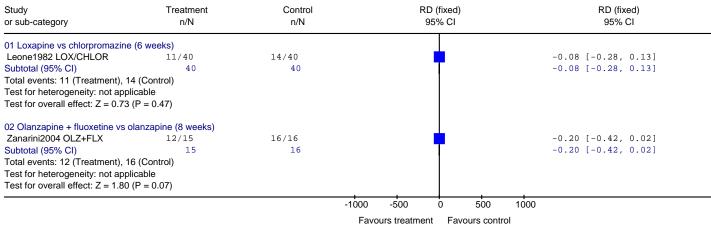
Comparison: 17 Number of participants reporting side effects

Outcome: 03 Antipsychotics vs placebo



Pharm 17.04 antipsychotics vs placebo: number of participants reporting side-effects

Review: BPD pharmacology
Comparison: 17 Number of participants reporting side effects
Outcome: 04 Antipsychotics (non-placebo comparisons)

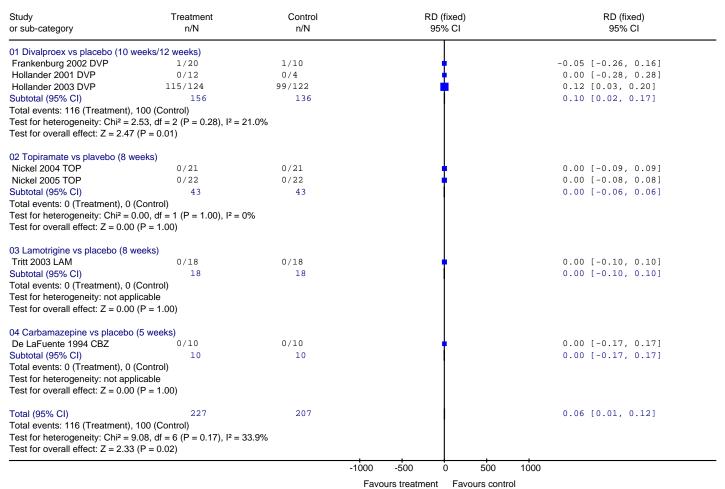


Pharm 17.05 anticonvulsants vs placebo: number of participants reporting side-effects

Review: BPD pharmacology

Comparison: 17 Number of participants reporting side effects

Outcome: 05 Anticonvulsants vs placebo

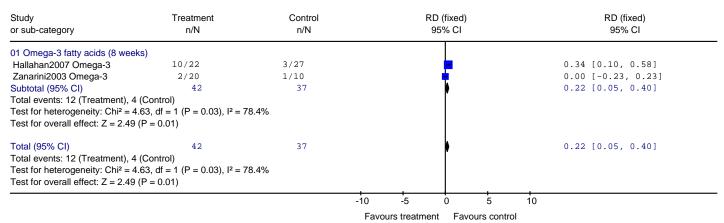


Pharm 17.06 omega-3 fatty acids vs placebo: number of participants reporting sideeffects

Review: BPD pharmacology

Comparison: 17 Number of participants reporting side effects

Outcome: 06 Other

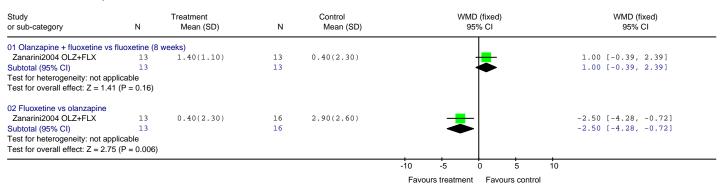


Pharm 18.01 antidepressants (non-placebo comparisons): weight change

Review: BPD pharmacology

Comparison: 18 Side effects: weight or weight change (kg)

Outcome: 01 Antidepressants



Pharm 18.02 antipsychotics: weight change

Review: BPD pharmacology

Comparison: 18 Side effects: weight or weight change (kg)

Outcome: 02 Antipsychotics

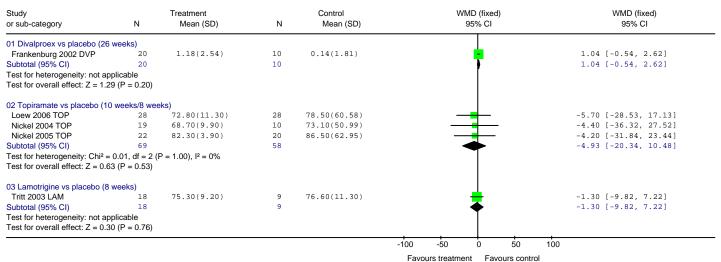
Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)			(random) 5% CI		WMD (random) 95% CI
01 Olanzapine vs placebo (12	weeks)								
Bogenschutz2004 OLZ	16	3.71(3.40)	19	0.08(4.80)			_ 	_	3.63 [0.90, 6.36]
Eli Lilly #6253 (hi)	144	3.17(3.28)	147	0.02(2.47)			-		3.15 [2.48, 3.82]
Schultz2008 OLZ	155	2.86(3.02)	159	-0.32(2.68)			-		3.18 [2.55, 3.81]
Zanarini2001 OLZ	19	1.29(2.56)	9	-0.35(1.17)					1.64 [0.26, 3.02]
Subtotal (95% CI)	334		334				♦		2.96 [2.37, 3.55]
Test for heterogeneity: Chi2 = 4	4.41, df = 3 (F	P = 0.22), I ² = 32.0%					'		
Test for overall effect: Z = 9.86	(P < 0.0000	1)							
02 Olanzapine + DBT vs place	bo + DBT								
Soler2005 Olz+DBT	30	2.74(3.20)	30	-0.05(2.39)					2.79 [1.36, 4.22]
Subtotal (95% CI)	30		30						2.79 [1.36, 4.22]
Test for heterogeneity: not app	licable						•		
Test for overall effect: Z = 3.83	(P = 0.0001)							
03 Olanzapine + fluoxetine vs	olanzapine (8	3 weeks)							
Zanarini2004 OLZ+FLX	13	1.40(1.10)	16	2.90(2.60)		_	H		-1.50 [-2.91, -0.09]
Subtotal (95% CI)	13		16			•	>		-1.50 [-2.91, -0.09]
Test for heterogeneity: not app	licable					•			
Test for overall effect: Z = 2.09	(P = 0.04)								
					-10	-5	0 5	5 10	
					Favou	irs treatmen	t Favours	control	

Pharm 18.03 anticonvulsants: weight change

Review: BPD pharmacology

Comparison: 18 Side effects: weight or weight change (kg)

Outcome: 03 Anticonvulsants

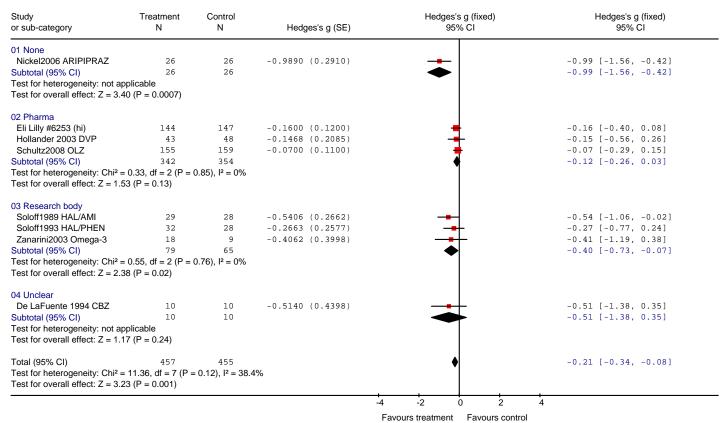


Pharm 19.01 sub-analysis by study funding (clinician-rated measures)

Review: BPD pharmacology

Comparison: 19 Sub-analysis by study funding

Outcome: 01 Single active treatment vs placebo: clinician-rated efficacy measure(s) (combined)



Pharm 19.02 sub-analysis by study funding (self-rated measures)

Review: BPD pharmacology

Comparison: 19 Sub-analysis by study funding

Outcome: 02 Single active treatment vs placebo: Self-rated efficacy measure(s) (combined)

