Atomoxetin versus placebo for ADHD

Review information

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Citation example: [Empty name], Amdisen BLind. Atomoxetin versus placebo for ADHD. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

Contact person

[Empty name]

Dates

Assessed as Up-to-date:	
Date of Search:	
Next Stage Expected:	
Protocol First Published:	Not specified
Review First Published:	Not specified
Last Citation Issue:	Not specified

What's new

Date / Event	Description

History

Date / Event	Description

Characteristics of studies

Characteristics of included studies

Adler 2008

Methods	Randomized, double-blinded placebo-controlled trial.
Participants	Patients be from ages 18 to 50 years old, meet criteria for current ADHD and a historical childhood diagnosis of ADHD according to the Diagnostic and Statistical Manual of Mental Disorders (4th ed., text revision; DSM-IV-TR; American Psychiatric Association, 2000), have a severity of illness of at least 4 (moderate) on the Clinician Global Impressions Severity Scale (CGI; Guy, 1976), and be employed for at least 20 hours per week for 6 months prior to study entry. Participants were excluded if they had a diagnosis of current major depression, an anxiety disorder (including generalized anxiety disorder, panic disorder, or social phobia), any current alcohol or substance

	abuse, or any lifetime history of bipolar illness or psychotic disorder. They were also excluded if they had any medical illness that would contraindicate the use of atomoxetine, current or past hypertension, and any history of organic brain disease or seizures other than febrile. Participants were free of all psychotropic medications for at least 1 week prior to randomization.
Interventions	ATX titeret fra 40mg til 80mg efter 1 uge øget til 100 mg efter tolerance
Outcomes	ADHD symptomer both patient and clinician rated, QoL, function, adverse events
Notes	Ref ID 1612

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Not descibed
Allocation concealment (selection bias)	Unclear risk	Not descibed
Blinding of participants and personnel (performance bias)	Low risk	Double-blinded
Blinding of outcome assessment (detection bias)	Low risk	Double-blinded
Incomplete outcome data (attrition bias)	Low risk	Dropouts are descibed
Selective reporting (reporting bias)	High risk	Patients number are unclear
Other bias	Low risk	None detected

Adler 2009 Ref ID 1613

Methods	Randomized, double-blinded placebo-controlled trial.
Participants	Adults, aged 18 to 54 years, who met DSM-IV, Text Revision (DSM-IV-TR) criteria for adult ADHD as assessed by the Adult ADHD Clinician Diagnostic Scale version 1.2, had a Clinical Global ImpressionsYADHDYSeverity of Illness (CGIADHD- S)12 score of 4 (moderate symptoms) or higher, had AISRS Symptom Checklist scores that did not change by more than 25% between visits 1 and 2, and had impairment due to ADHD symptoms in the home setting as indicated in the diagnostic interview were eligible to participate. Based upon clinical history and the Structured Clinical Interview for DSMIV Axis Disorders Research Version, patients were excluded from the study if they met diagnostic criteria for current major depression, a current anxiety disorder, any history of bipolar disorder, or any history of a psychotic disorder. Failure to respond to an adequate trial of treatment with ADHD stimulant medication, bupropion, or other nonstimulant medications (based upon the clinician's judgment) was also exclusionary. Patients were recruited during routine office visits for ADHD, by referral, and by advertisement.
Interventions	ATX 25mg i 7 dage, 40mg i 7 dage, 80mg ved 3. besøg og øges til 100mg. ved 5 besøg.
Outcomes	ADHD symptoms both investigator and self-rated, QoL, function, adverse events
Notes	Ref ID 1613

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Computer algorithm generated 1:1 Radomisation via telefone interactive voice response system
Allocation concealment (selection bias)	Low risk	The treatmnet assignment were not unblinded until the database was locked
Blinding of participants and personnel (performance bias)	Low risk	Double-blinded
Blinding of outcome assessment (detection bias)	Low risk	Double-blinded
Incomplete outcome data (attrition bias)	Low risk	Dropout low
Selective reporting (reporting bias)	Low risk	None detected
Other bias	High risk	Failure to respons to ATX or stimulants was an exclusion criteria

Caporeale 2013

Methods	Randomized, double-blinded placebo-controlled trial.
Participants	Patients aged 18-50 with DSM-IC current and childhood ADHD assessed by the Conners ADHD interview. Has a score of 2 or more on at least 6 items of inattention or hyperactivity on the CAARS-Inv:SV and CAARS-O:SV. Had a score of 20 or more in CAARS_Inv:SV and CGI-ADHD-S of 4 or more. Exclusion criteria: history of internalizing disorders, psychotic disorder and current alcohol or drug abuse. Patients excluded if non-responders in the pre-study period with effect less than a 30 % reduction in baseline CAARS-Inv-SV and CGI-ADHD-S score of more than 3.
Interventions	Atomoxetin 80 or 100mg
Outcomes	Adverse events
Notes	Ref Id 1822 (same population as in Upadhyaya 2013 ref ID 1823)

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Not described
Allocation concealment (selection bias)	High risk	Blinding af patient kan være confounded fordi de alle starter med ATX og senere randomiseres.
Blinding of participants and personnel (performance bias)	High risk	Blinding af patient kan være confounded fordi de alle starter med ATX og senere randomiseres.

Blinding of outcome assessment (detection bias)	High risk	Blinding af patient kan være confounded fordi de alle starter med ATX og senere randomiseres.
Incomplete outcome data (attrition bias)	Low risk	Eqauel attrition
Selective reporting (reporting bias)	Unclear risk	None detected
Other bias	High risk	Only patients who had effect on ATX in earlier study

Durell 2013

Methods	Randomized, double-blinded placebo-controlled trial.
Participants	Adults, aged 18 to 30 years, met DSM-IV, Text Revision (DSM-IV-TR) criteria for ADHD as determined by a clinical interview and assessed by the Adult ADHD Clinician Diagnostic Scale version 1.2. All participants also must have had a Clinical Global Impression-ADHD-Severity (CGI-S) score of 4 (moderate symptoms) or greater to be eligible for study participation. Participants with concomitant current or lifetime diagnoses of specific phobias, generalized anxiety disorder, or social anxiety disorder were allowed in the trial, as were participants with a history of dysthymia within 2 years of study screening. Potential participants were excluded from the trial if they had current major depression, panic disorder, posttraumatic stress disorder, an eating disorder, or substance abuse or dependence, as well as current or lifetime obsessive-compulsive disorder, bipolar disorder, or psychosis. In addition, any participant who had more than a 25% reduction in their ADHD symptoms as measured by the Conners' Adult ADHD Rating Scale: Investigator-Rated: Screening Version (CAARS-Inv:SV) Total ADHD Symptoms scores between visits 1 and 2 (screening period) was excluded from the study.
Interventions	ATX max 100mg.
Outcomes	ADHD symptoms and anxiety both self and clinician rated, QoL, sepression, anxiety, alkohol, marjuana, drugs, adverse events
Notes	Ref ID 1730

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Computergenerated list. Interactive voice recording system.
Allocation concealment (selection bias)	Low risk	System assign packages of doubleblind drug to each participant
Blinding of participants and personnel (performance bias)	Low risk	Double-blinded
Blinding of outcome assessment (detection bias)	Low risk	Double-blinded
Incomplete outcome data (attrition bias)	Unclear risk	Not described
Selective reporting (reporting bias)	Unclear risk	None detected

Other bias	Low risk	None detected

McRae-Clark 2010

Methods	Randomized, double-blinded placebo-controlled trial.
Participants	"Adults, aged 18 to 30 years, met DSM-IV, Text Revision (DSM-IV-TR) criteria for ADHD as determined by a clinical interview and assessed by the Adult ADHD Clinician Diagnostic Scale version 1.2. All participants also must have had a Clinical Global Impression-ADHD-Severity (CGI-S) score of 4 (moderate symptoms) or greater to be eligible for study participation. Participants with concomitant current or lifetime diagnoses of specific phobias, generalized anxiety disorder, or social anxiety disorder were allowed in the trial, as were participants with a history of dysthymia within 2 years of study screening. Potential participants were excluded from the trial if they had current major depression, panic disorder, posttraumatic stress disorder, an eating disorder, or substance abuse or dependence, as well as current or lifetime obsessive-compulsive disorder, bipolar disorder, or psychosis. In addition, any participant who had more than a 25% reduction in their ADHD symptoms as measured by the Conners' Adult ADHD Rating Scale: Investigator-Rated: Screening Version (CAARS-Inv:SV) Total ADHD Symptoms scores between visits 1 and 2 (screening period) was excluded from the study."
Interventions	Atomoxetin flexible dosis up to 100mg.
Outcomes	ADHD symptoms both self and investigator rated, function, marijuana use, adverse events
Notes	Ref ID 1614. All participant had a diagnosis of marijuana dependence as an inclusion criteria

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Simple randomization not futher descibed
Allocation concealment (selection bias)	Unclear risk	Not descibed
Blinding of participants and personnel (performance bias)	Unclear risk	Enslignede præparater i udseende og vægt, men det er uvist om personale og patient har vidst hvad der var i kapslen
Blinding of outcome assessment (detection bias)	Unclear risk	Enslignede præparater i udseende og vægt, men det er uvist om personale og patient har vidst hvad der var i kapslen
Incomplete outcome data (attrition bias)	Low risk	Large dropout in a small sample, but eqauel
Selective reporting (reporting bias)	High risk	HAM-A and HAM-D was not reported?
Other bias	High risk	Small sample and randomizing unclear

Michelson 2003

Methods	Two identical randomized, double-bilnd, placebo-controlled trials.
Participants	Adults who met DSM-IV criteria for ADHD and confirmed by the Conners'Adult ADHD Diagnostic Interview for DSM-IV (CAAR-D;Conners et al 1999) were recruited from clinics and by advertisement. Patients were required to have at least moderate symptom severity, and the diagnosis had to be corroborated by a second reporter for either current symptoms (by a significantother) or childhood symptoms (by a parent or older sibling). If the second reporter's rating did not corroborate the patient's report, the patient was ineligible to participate in the study. Comorbid psychiatric diagnoses were assessed by clinical interview and by the Structured Clinical Interview for DSM-IV (SCID; First et al 2000). Patients who met diagnostic criteria for current major depression or anxiety disorder or for current or past bipolar or psychotic disorders were excluded, as were patients with serious medical illness and patients who met DSM-IV criteria for alcohol dependence. A history of episodic recreational drug use did not exclude patients, but patients actively using drugs of abuse at the time of study entry were excluded. Urine screening for drugs of abuse was performed at the initial visit and could be repeated at any time during the trial at the investigator's discretion.
Interventions	Atomoxetine 40-120mg.
Outcomes	ADHD symptoms clinican + self-rated, function, depression, anxiety, adverse events
Notes	Two studies reported in one paper. Ref ID 1620 (Cardiovascular safety only reported in Wernicke 2003 ref ID 1619)

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Computer generated treatment codes obtained from a interactive voice-response system
Allocation concealment (selection bias)	Unclear risk	Not descibed
Blinding of participants and personnel (performance bias)	Low risk	Double-blinded
Blinding of outcome assessment (detection bias)	Low risk	Double-blinded
Incomplete outcome data (attrition bias)	Low risk	None detected
Selective reporting (reporting bias)	Low risk	None detected
Other bias	High risk	Use of PBO lead in periode - patients responded to PBO were excluded

NCT00510276 ClinicalT.gov

Methods	Randomized, double-blinded placebo-controlled trials.
Participants	?
Interventions	Atomoxetine
Outcomes	ADHD symptoms both self and clinician rated.
Notes	No original data. data is from Cunill 2013 (metaanalyse) ref ID 1148. Publiced in Durell 2013 Ref ID 1730

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	?
Allocation concealment (selection bias)	Unclear risk	?
Blinding of participants and personnel (performance bias)	Unclear risk	?
Blinding of outcome assessment (detection bias)	Unclear risk	?
Incomplete outcome data (attrition bias)	Unclear risk	?
Selective reporting (reporting bias)	Unclear risk	?
Other bias	Unclear risk	?

Sutherland 2012

Methods	Randomized, double-blinded placebo-controlled 3 arm trial.
Participants	Adults ages 18-60 ADHD met criteria from DSM-IV-TR. excluded if lifetime or current psychosis, bipolar disorder, mental ratardation or learning disbility. Current anxiety or depresive disorder. Substance abuse. Had any current general medical condition considered clinically significant as judge by the investigator
Interventions	ATX 40mg øges til 80mg efter 2 uger, øges til 100mg efter 4 uger.
Outcomes	ADHD symptoms investigator rated, adverse events
Notes	Ref ID 1616

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	randomized 2:2:1. Not futher described
Allocation concealment (selection bias)	Unclear risk	Not described
Blinding of participants and personnel (performance bias)	Low risk	Double-blinded
Blinding of outcome assessment (detection bias)	Low risk	Double-blinded

Incomplete outcome data (attrition bias)	Low risk	Large drop out but equal in both ATX and PBO and are descirbed
Selective reporting (reporting bias)	Low risk	None detected
Other bias	Low risk	None detected

Upadhyaya 2013

Methods	Randomized, double-blinded placebo-controlled trial.
Participants	Patients aged 18-50 with DSM-IC current and childhood ADHD assessed by the Conners ADHD interview. Has a score of 2 or more on at least 6 items of inattention or hyperactivity on the CAARS-Inv:SV and CAARS-O:SV. Had a score of 20 or more in CAARS_Inv:SV and CGI-ADHD-S of 4 or more. Exclusion criteria: history of internalizing disorders, psychotic disorder and current alcohol or drug abuse. Patients excluded if non-responders in the pre-study period with effect less than a 30 % reduction in baseline CAARS-Inv-SV and CGI-ADHD-S score of more than 3.
Interventions	Atomoxetin 80 or 100mg
Outcomes	ADHD symptomer both self and ivestigator rated, QoL, Anxiety and depression
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Not described
Allocation concealment (selection bias)	High risk	Blinding af patient kan være confounded fordi de alle starter med ATX og senere randomiseres.
Blinding of participants and personnel (performance bias)	High risk	Blinding af patient kan være confounded fordi de alle starter med ATX og senere randomiseres.
Blinding of outcome assessment (detection bias)	High risk	Blinding af patient kan være confounded fordi de alle starter med ATX og senere randomiseres.
Incomplete outcome data (attrition bias)	Low risk	Eqauel attrition
Selective reporting (reporting bias)	Low risk	None detected
Other bias	High risk	Only patients who had effect on ATX in earlier study

Weisler 2012

Methods	Randomized, double-blinded placebo-controlled trial.
Participants	The study included men and women (aged 18–55 years) who met the following inclusion criteria: (a) an established DSM-IV-TR diagnosis of ADHD as confirmed by the Conners Adult ADHD Diagnostic Interview for DSM-IV (CAADID);[25] (b) a Clinical Global Impression-Severity (CGI-S) score of ‡4 at screening and baseline;[26] and (c) a Conners Adult ADHD Rating Scale Self-Report: Screening

	Version (CAARS-S:SV) DSM-IV ADHD H3Receptor Antagonist for the Treatment of Adult ADHD 423 Adis ª 2012 Springer International Publishing AG. All rights reserved. CNS Drugs 2012; 26 (5)Total Symptoms subscale score depending on age and gender (18–39 years: ‡26 men and ‡32 women; ‡40 years: ‡29 men and ‡27 women) to ensure adequate symptom severity at baseline.[25]
Interventions	Atomoxetin
Outcomes	ADHD symptoms, adverse events
Notes	Ref Id 1836

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Computer generate randomizing 4:10 women and men
Allocation concealment (selection bias)	Unclear risk	Not described
Blinding of participants and personnel (performance bias)	Low risk	Double-blinded
Blinding of outcome assessment (detection bias)	Low risk	Double-blinded
Incomplete outcome data (attrition bias)	Unclear risk	Double attrition in ATX vs. PBO but not described
Selective reporting (reporting bias)	High risk	Lack e.g. CGI scores for active comparisons ATX and MPH
Other bias	High risk	Strict inclusion no comobity. Excluded if ealier non-responders to ATX or stimulants.

Wernicke 2003

Methods	Polled analyses of Randomized double-blinded placebo-controlled trials.
Participants	Adult meeting DSM-IV ADHD criteria with at least moderate severity. A significant other had to confirm childhood ADHD behavior. Patients with current major depression, anxiety disorder or current or past bipolar disorder or psychotic disorder, with serious medical illness or meeting criteria for alcohol dependence were excluded.
Interventions	Atomoxetine
Outcomes	Cardiovascular adverse events
Notes	Ref ID 1619. Only data from Michelson 2003 (ref Id 1620) were included

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Voice over web
Allocation concealment (selection bias)	Unclear risk	Not desceibed
Blinding of participants and personnel (performance bias)	Low risk	Double-blinded
Blinding of outcome assessment (detection bias)	Low risk	Double-blinded
Incomplete outcome data (attrition bias)	Low risk	Equal attrition
Selective reporting (reporting bias)	Low risk	None detected
Other bias	High risk	Use of PBO lead in period patients respond to PBO excluded

Wietecha 2012

Methods	Randomized, double-blinded placebo-controlled trials.
Participants	Adults 18 years of age or older were required tomeet DSMIV- TR1 criteria for adult ADHD and have a historical diagnosis of ADHD during childhood (both assessed by the Conners Adult ADHD Diagnostic Interview for DSM-IV: Screening Version [CAADID]),15 and have a Clinical Global Impression-ADHDVSeverity (CGI-ADHD-S)16 score of 4 (moderate symptoms) or greater. Additionally, patients were required to meet family unit criteria of a reciprocal relationship with a person of the opposite sex living in the same defined household with at least 1 child between ages 6 and 17 years.
Interventions	ATX 60-100mg
Outcomes	ADHD symptoms investigator rated, function, adverse events
Notes	Ref ID 1740

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Computer algorithm and stratificed by the presence of a having ADHD
Allocation concealment (selection bias)	Unclear risk	Not described
Blinding of participants and personnel (performance bias)	Low risk	Double-blinded
Blinding of outcome assessment (detection bias)	Low risk	Double-blinded
Incomplete outcome data (attrition bias)	Low risk	Attrion equal between ATX and PBO
Selective reporting (reporting bias)	Low risk	None detected

Other bias	Low risk	None detected

Wilens 2008

Methods	Randomized, double-blinded, placebo-controlled trial
Participants	This multicenter trial, conducted at 14 sites (13 in the United States and 1 in Canada), included adults ≥ 18 years of age meeting DSM-IV-TR (American Psychiatric Association, 2000) criteria for ADHD (any subtype), determined by clinical interview and confirmed by the Adult ADHD Clinician Diagnostic Scale (Adler and Cohen, 2004). ADHD symptom severity was ≥ 20 on the ADHD Investigator Symptom Rating Scale (AISRS) (Adler and Cohen, 2004). Subjects also met Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR; American Psychiatric Association, 2000) criteria for alcohol use disorders (abuse or dependence). Other substance use histories did not preclude participation provided the primary substance which the patient abused or had dependence (as judged by the investigator) was alcohol and subjects were not actively abusing other substances at study entry. This study focused on very recently abstinent adults at high relapse risk to heavy alcohol use; hence, all subjects were alcohol-free for at least 4 days before randomization but not longer than 30 days. The minimum four abstinent days had to be consecutive and overlap with the week before randomization. Psychotherapy, pharmacological, or other interventions for substance abuse (other than 12-step participation) were not permitted. Exclusion criteria included diagnosis of current bipolar disorder, major depressive disorder, or psychosis as determined by Structured Clinical Interview for DSM-IV-TR Axis I Disorders (First et al., 2002) or Hamilton Depression Rating Scale (HAM-D-17) (Hamilton, 1960, 1967) or Hamilton Anxiety Scale (HAM-A) (Hamilton, 1959) scores >18 at the evaluation visit. Subjects with significant cognitive impairment, judged by the investigator, were excluded. No other psychopharmacological treatments were permitted during the study, other than limited, intermittent hypnotic use.
Interventions	Atomoxetine 25mg increases to 100mg.
Outcomes	ADHD symptoms both self-rated and investigator rated, anxiety, depression, function
Notes	Ref ID 1617

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Not described
Allocation concealment (selection bias)	Unclear risk	Not described
Blinding of participants and personnel (performance bias)	Unclear risk	Blinding unclear
Blinding of outcome assessment (detection bias)	Unclear risk	Blinding unclear

Incomplete outcome data (attrition bias)	High risk	Uens frafald i ATX (halvdelen)og PBO (en tredjedel). Forskellig frafalds årsager,
Selective reporting (reporting bias)	Low risk	None detected
Other bias	High risk	Inkluderer ikke de patienter i dataanalysen, som ikke har en post-baseline assessment - det er uklart beskrevet, om de har nået at få ATX - men de her frafaldne må være blevet randomiseret til en arm.

Young 2011

Methods	Randomized, double-blinded placebo-controlled trial.
Participants	18 years of age or older were required tomeet DSMIV- TR1 criteria for adult ADHD and have a historical diagnosis of ADHD during childhood (both assessed by the Conners Adult ADHD Diagnostic Interview for DSM-IV: Screening Version [CAADID]),15 and have a Clinical Global Impression- ADHDVSeverity (CGI-ADHD-S)16 score of 4 (moderate symptoms) or greater. Additionally, patients were required to meet family unit criteria of a reciprocal relationship with a person of the opposite sex living in the same defined household with at least 1 child between ages 6 and 17 years. A complete description of the study was provided to each patient, and informed consent was obtained before enrollment.
Interventions	ATX 40mg i 3 dage efterfølgende 80mg. Efter 2 uger 100mg.
Outcomes	ADHD symptoms and anxiety both clinician and self-rated, function, depression, adverse events
Notes	Ref ID 1618

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	computer algoritm
Allocation concealment (selection bias)	Unclear risk	Not described
Blinding of participants and personnel (performance bias)	Low risk	Double-blinded
Blinding of outcome assessment (detection bias)	Low risk	Double-blinded
Incomplete outcome data (attrition bias)	Low risk	Dropouts low
Selective reporting (reporting bias)	Low risk	None detected
Other bias	Low risk	None detected

Footnotes

Characteristics of excluded studies

Footnotes

Characteristics of studies awaiting classification

Footnotes

Characteristics of ongoing studies

Footnotes

Summary of findings tables

Additional tables

References to studies

Included studies

Adler 2008

[Other: Ref ID 1612]

[Empty]

Adler 2009 Ref ID 1613

[Other: Ref ID 1613]

[Empty]

Caporeale 2013

[Other: Ref ID 1822]

[Empty]

Durell 2013

[Other: Ref ID 1740]

[Empty]

McRae-Clark 2010

[Other: Ref ID 1614]

[Empty]

Michelson 2003

[Other: ; Other: Ref ID 1620]

[Empty]

NCT00510276 ClinicalT.gov

[Other: Ref ID 1859]

[Empty]

Sutherland 2012

[Other: Ref ID 1616]

[Empty]

Upadhyaya 2013

[Empty]

Weisler 2012

[Other: Ref ID 1836]

[Empty]

Wernicke 2003

[Other: Ref ID 1619]

[Empty]

Wietecha 2012

[Other: Ref ID 1740]

[Empty]

Wilens 2008

[Other: Ref ID 1617]

[Empty]

Young 2011

[Other: Ref ID 1618]

[Empty]

Excluded studies

Studies awaiting classification

Ongoing studies

Other references

Additional references

Other published versions of this review

Data and analyses

1 Atomoxetine versus placebo

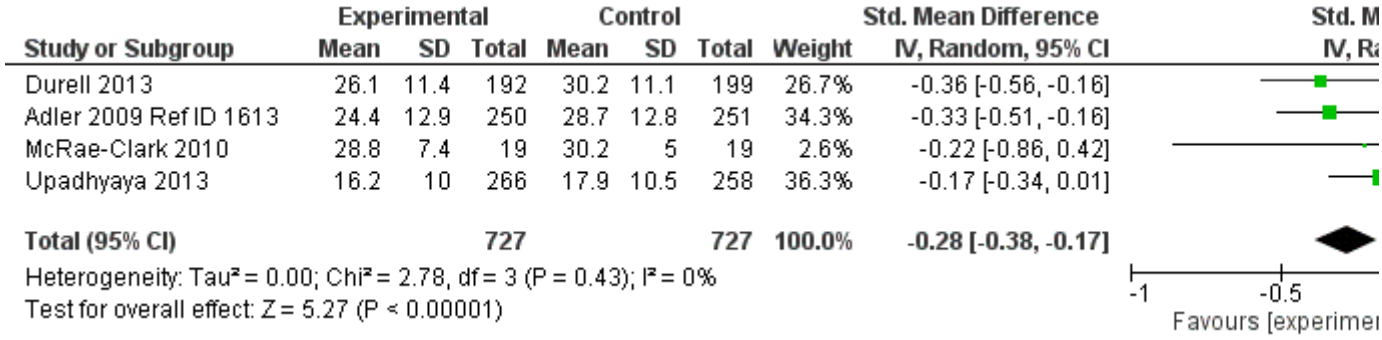
Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 Funktion (CGI-skala)	2	435	Mean Difference (IV, Random, 95% CI)	-0.37 [-0.57, -0.17]

1.2 ADHD symptomer, observatør-vurdering	4	1454	Std. Mean Difference (IV, Random, 95% CI)	-0.28 [-0.38, -0.17]
1.3 QoL, self-rated	2	911	Std. Mean Difference (IV, Random, 95% CI)	0.26 [0.13, 0.39]
1.4 Depression	2	388	Std. Mean Difference (IV, Random, 95% CI)	-0.08 [-0.28, 0.12]
1.5 Nausea	7	2759	Odds Ratio (M-H, Random, 95% CI)	4.46 [2.89, 6.86]
1.6 Dry mouth	8	2761	Odds Ratio (M-H, Random, 95% CI)	4.09 [3.07, 5.46]
1.7 Headache	7	2229	Odds Ratio (M-H, Random, 95% CI)	1.09 [0.78, 1.52]
1.8 Fatigue	6	2085	Odds Ratio (M-H, Random, 95% CI)	1.64 [1.10, 2.45]
1.9 Decreased appetite	5	2194	Odds Ratio (M-H, Random, 95% CI)	4.69 [3.13, 7.04]
1.10 Insomnia	8	2761	Odds Ratio (M-H, Random, 95% CI)	1.94 [1.23, 3.04]
1.11 Dizziness	8	2761	Odds Ratio (M-H, Random, 95% CI)	2.50 [1.70, 3.67]
1.12 Constipation	5	1691	Odds Ratio (M-H, Random, 95% CI)	2.12 [1.40, 3.22]
1.13 Somnolence	6	2190	Odds Ratio (M-H, Fixed, 95% CI)	1.81 [1.18, 2.76]
1.14 Irritability	5	1561	Odds Ratio (M-H, Random, 95% CI)	1.87 [1.19, 2.94]
1.15 Erectile dysfunction	5	1871	Odds Ratio (M-H, Random, 95% CI)	6.35 [2.96, 13.65]
1.16 Decreased libido	3	822	Odds Ratio (M-H, Random, 95% CI)	3.46 [1.56, 7.64]
1.17 Sweating	5	1841	Odds Ratio (M-H, Random, 95% CI)	8.01 [2.99, 21.46]
1.18 Systolisk BT	2	1040	Mean Difference (IV, Random, 95% CI)	1.57 [-1.08, 4.22]
1.19 Diastolisk BT	2	1040	Mean Difference (IV, Random, 95% CI)	1.75 [0.77, 2.74]

1.20 Puls	2	1040	Mean Difference (IV, Fixed, 95% CI)	4.70 [3.49, 5.91]

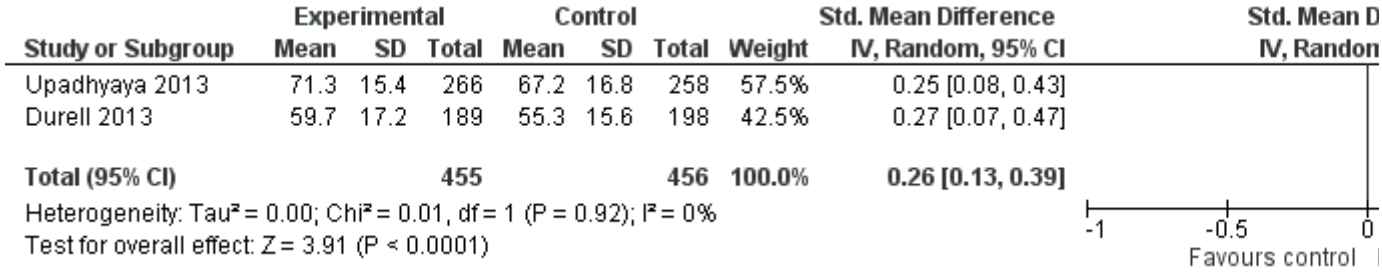
Figures

Figure 1 (Analysis 1.2)



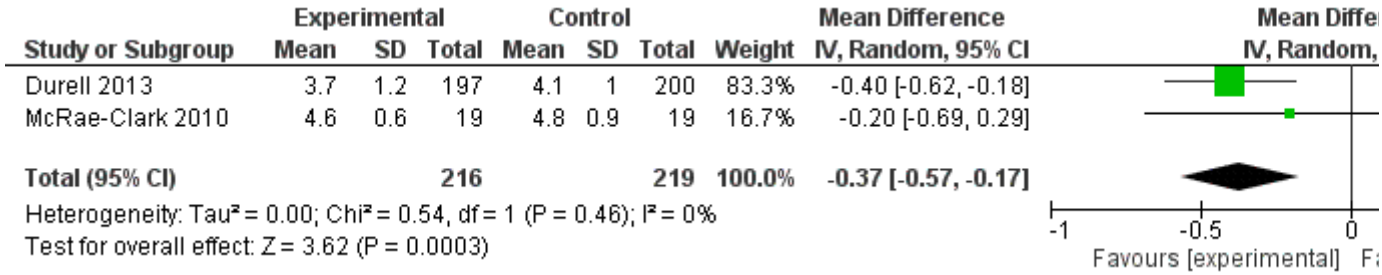
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.2 ADHD symptomer, observatør-vurdering.

Figure 2 (Analysis 1.3)



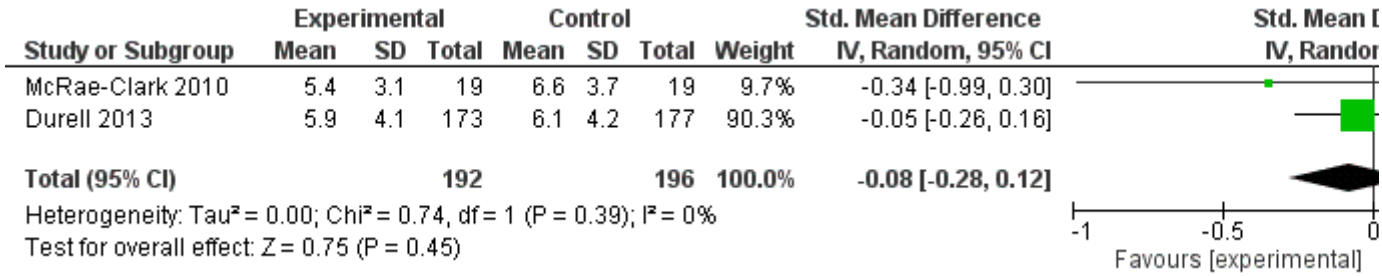
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.3 QoL, self-rated.

Figure 3 (Analysis 1.1)



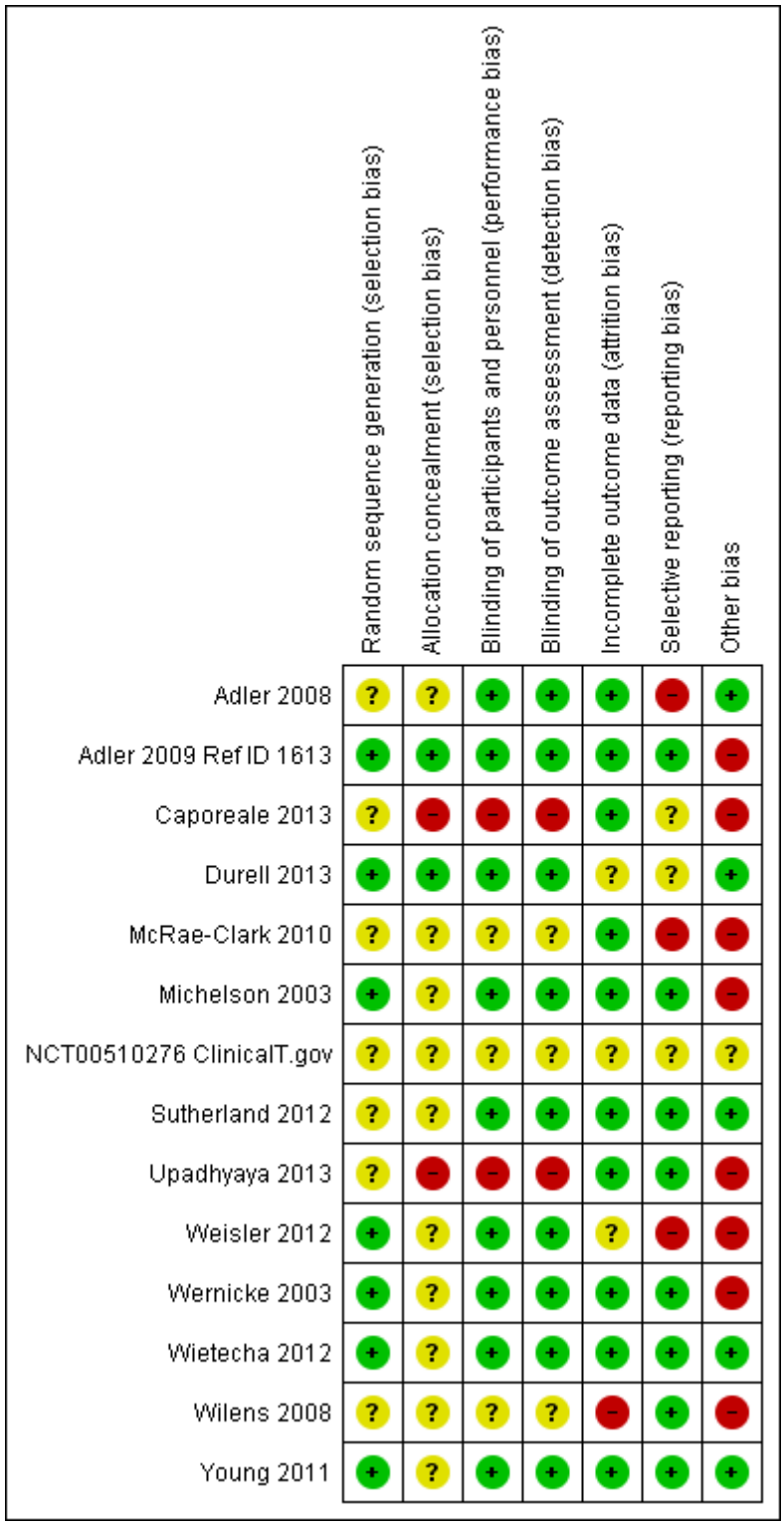
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.1 Funktion (CGI-skala).

Figure 4 (Analysis 1.4)



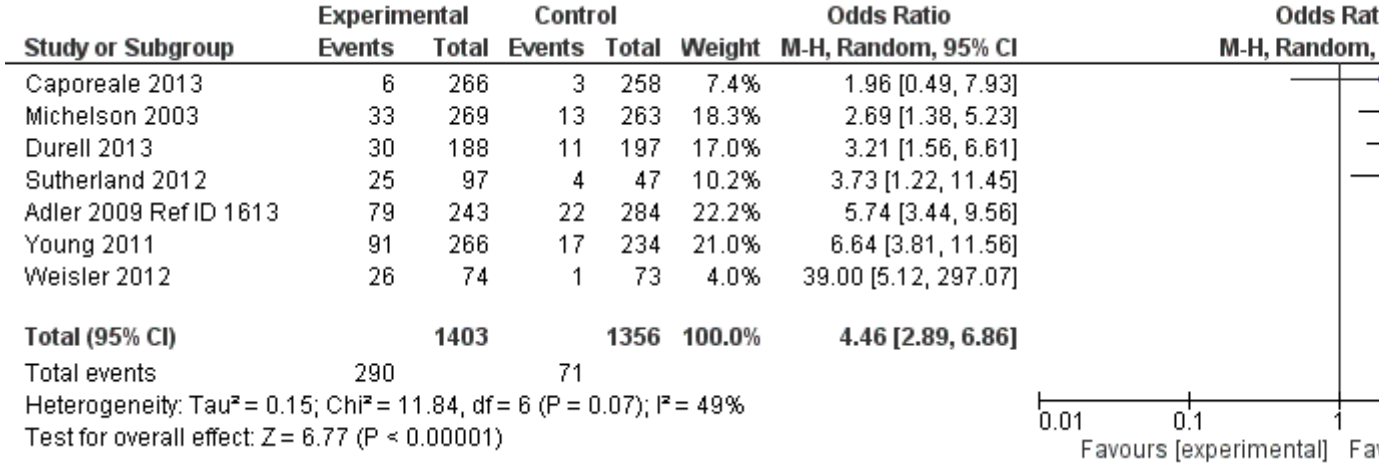
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.4 Depression.

Figure 5



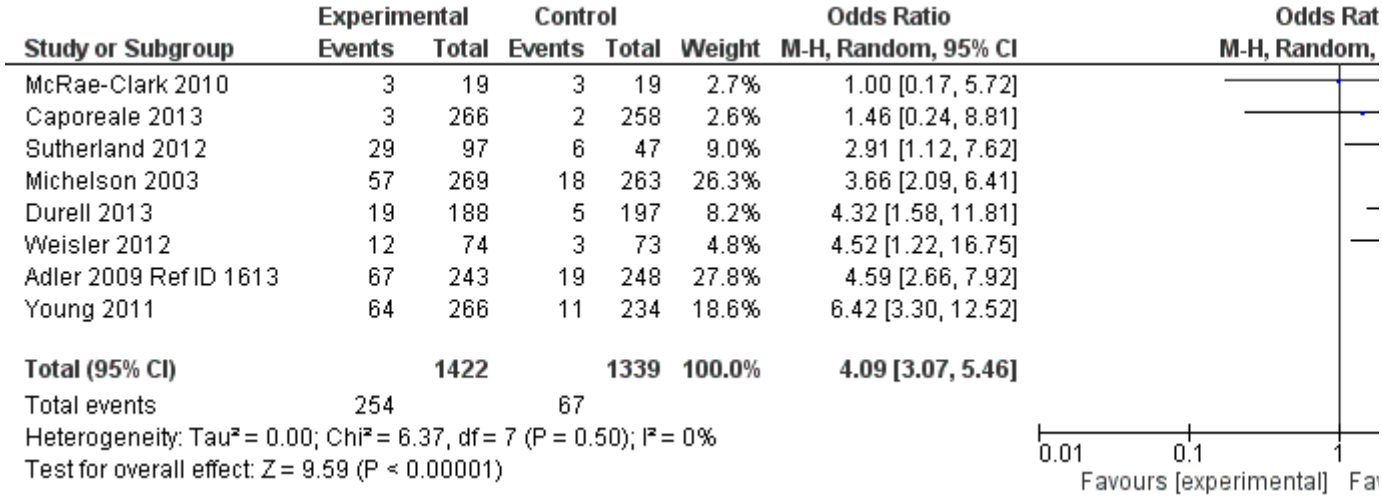
Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

Figure 6 (Analysis 1.5)



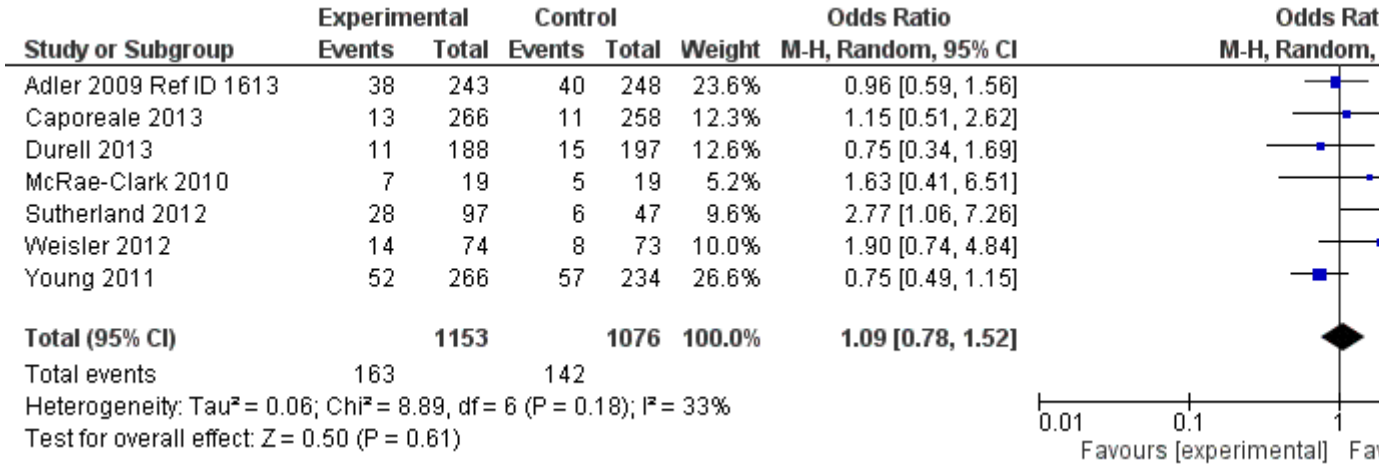
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.5 Nausea.

Figure 7 (Analysis 1.6)



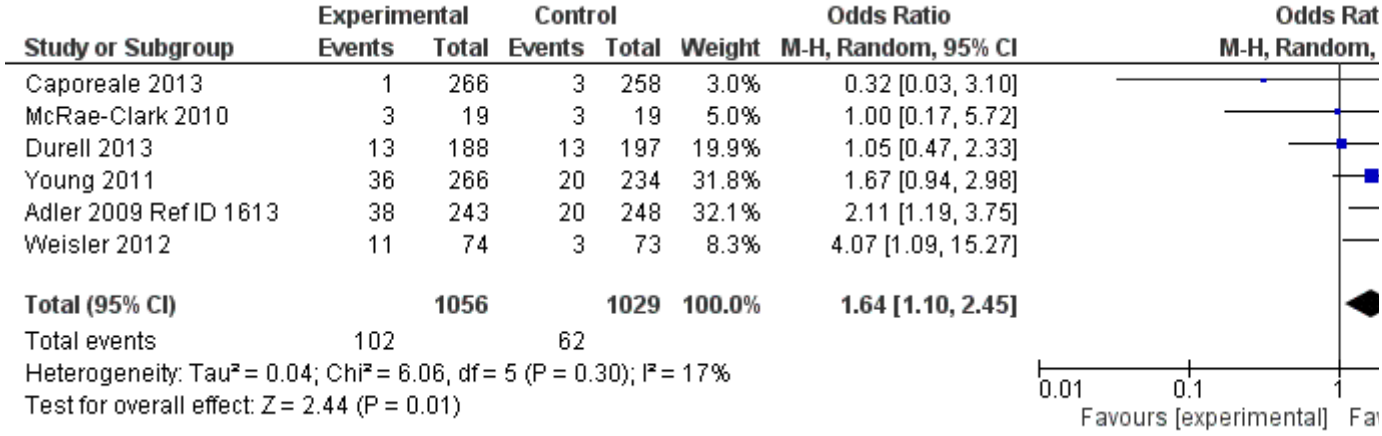
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.6 Dry mouth.

Figure 8 (Analysis 1.7)



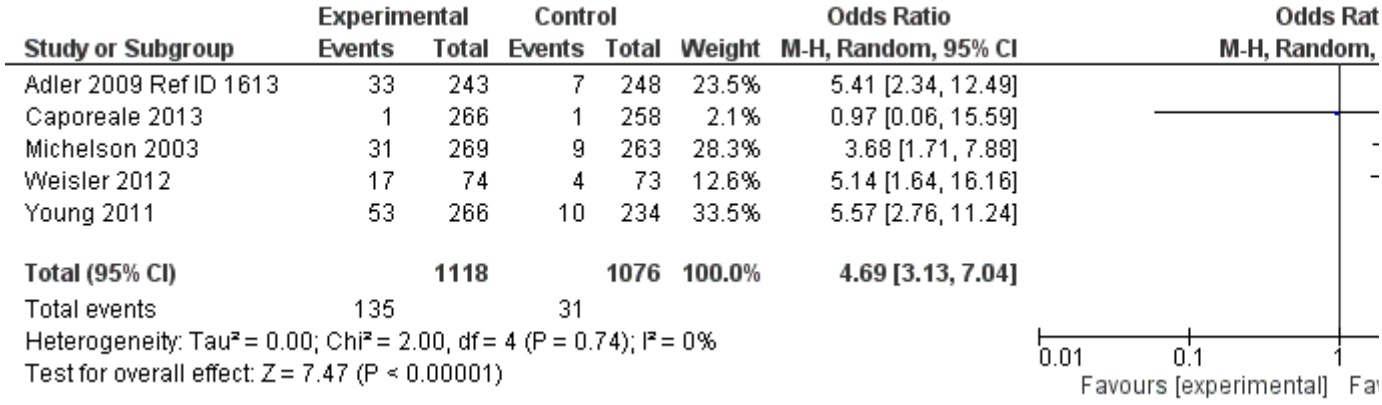
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.7 Headache.

Figure 9 (Analysis 1.8)



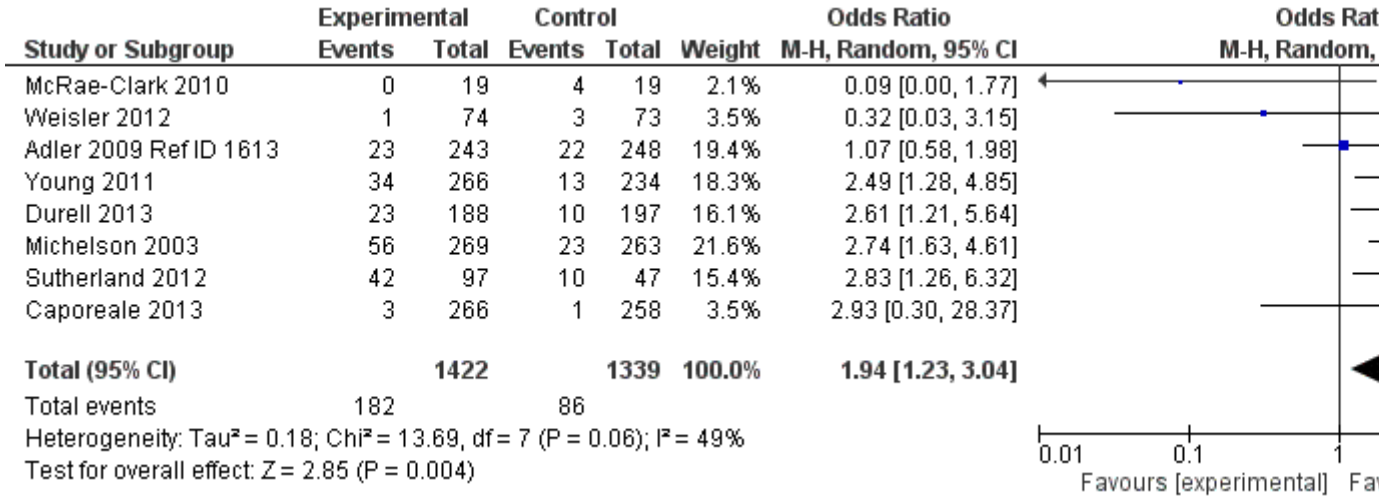
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.8 Fatigue.

Figure 10 (Analysis 1.9)



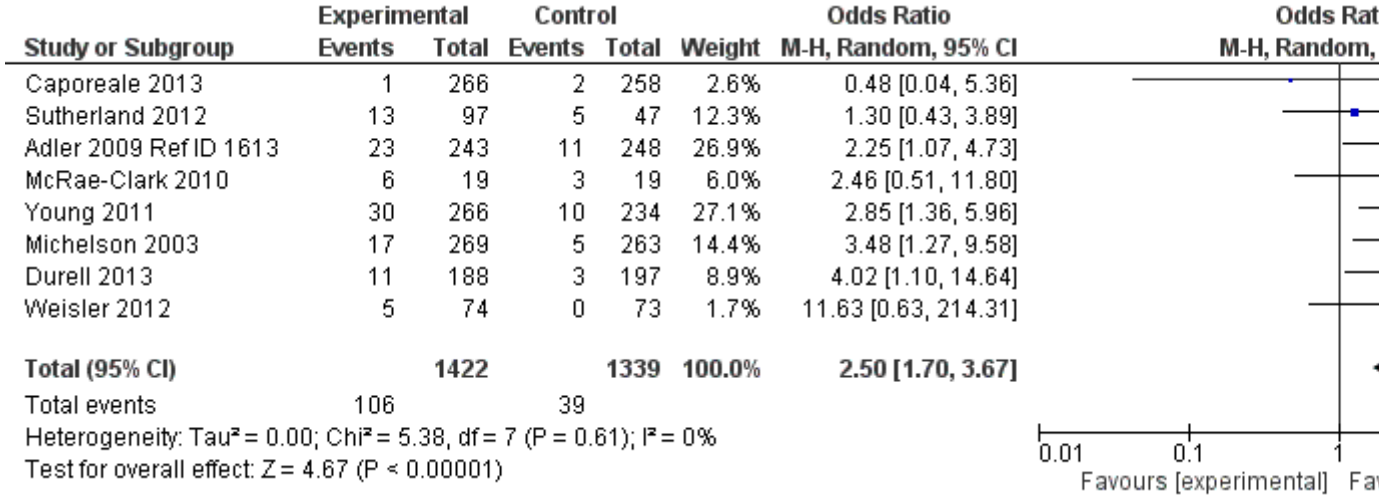
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.9 Decreased appetite.

Figure 11 (Analysis 1.10)



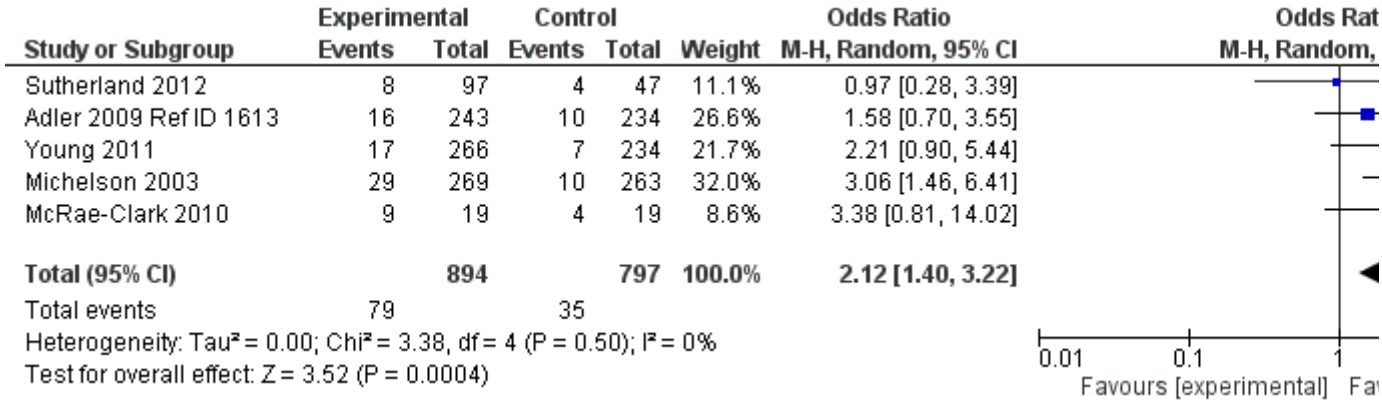
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.10 Insomnia.

Figure 12 (Analysis 1.11)



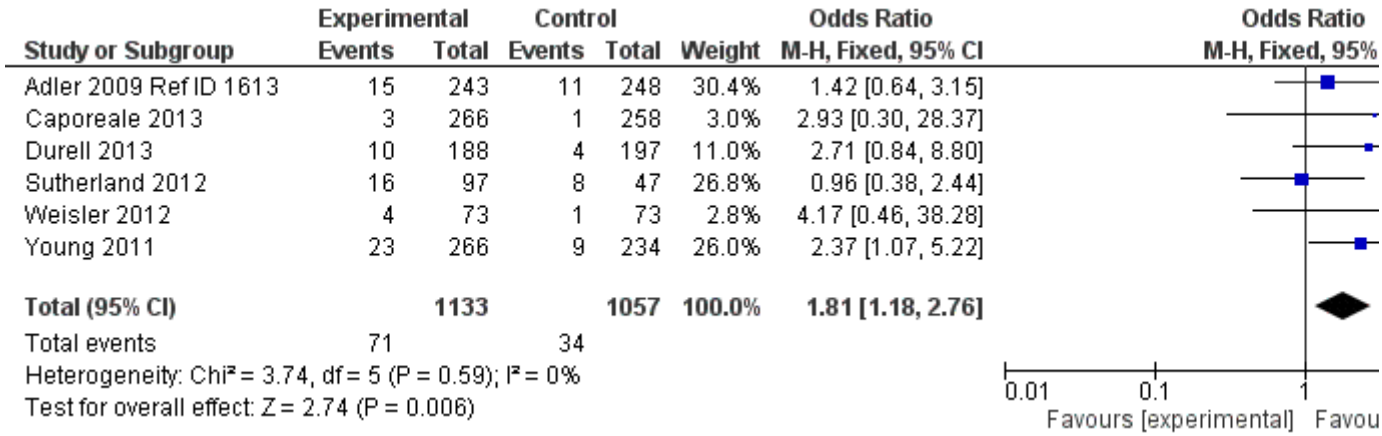
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.11 Dizziness.

Figure 13 (Analysis 1.12)



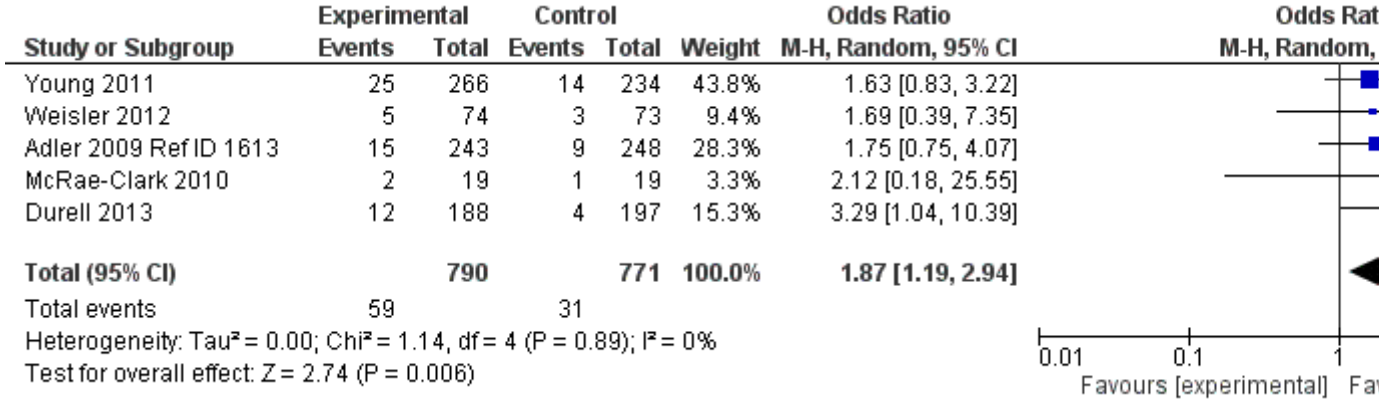
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.12 Constipation.

Figure 14 (Analysis 1.13)



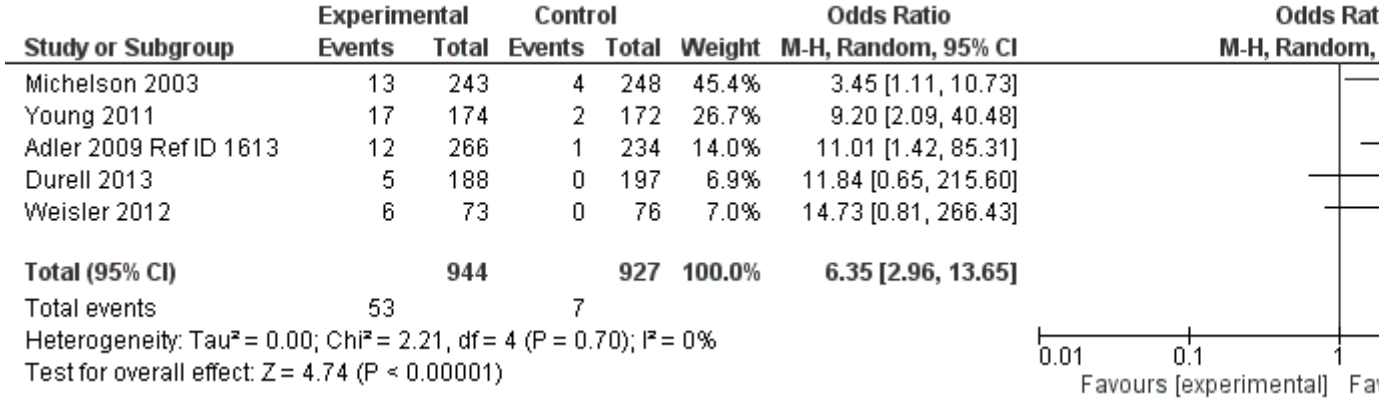
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.13 Somnolence.

Figure 15 (Analysis 1.14)



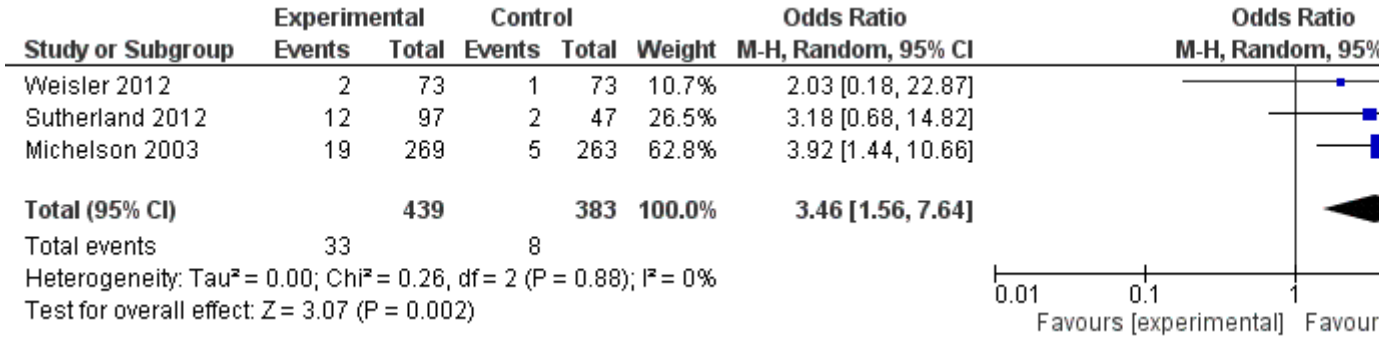
Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.14 Irritability.

Figure 16 (Analysis 1.15)



Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.15 Erectile dysfunction.

Figure 17 (Analysis 1.16)

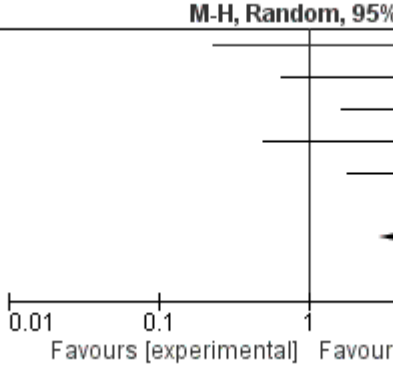


Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.16 Decreased libido.

Figure 18 (Analysis 1.17)

Study or Subgroup	Experimental Events	Experimental Total	Control Events	Control Total	Weight	Odds Ratio M-H, Random, 95% CI
Michelson 2003	2	266	0	258	10.5%	4.89 [0.23, 102.28]
Weisler 2012	10	97	1	47	22.3%	5.29 [0.66, 42.60]
Sutherland 2012	14	264	2	263	43.7%	7.31 [1.64, 32.48]
Young 2011	4	73	0	73	11.2%	9.52 [0.50, 180.06]
Caporeale 2013	16	266	0	234	12.2%	30.89 [1.84, 517.82]
Total (95% CI)		**966**		**875**	**100.0%**	**8.01 [2.99, 21.46]**
Total events	46		3			

Heterogeneity: Tau² = 0.00; Chi² = 1.25, df = 4 (P = 0.87); I² = 0%
Test for overall effect: Z = 4.14 (P < 0.0001)

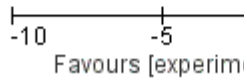


Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.17 Sweating.

Figure 19 (Analysis 1.18)

Study or Subgroup	Experimental Mean	Experimental SD	Experimental Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI
Caporeale 2013	-0.7	11.4167	266	-0.9	11.2437	258	49.3%	0.20 [-1.74, 2.14]
Wernicke 2003	2.9	10.8	258	0	10.4	258	50.7%	2.90 [1.07, 4.73]
Total (95% CI)			**524**			**516**	**100.0%**	**1.57 [-1.08, 4.22]**

Heterogeneity: Tau² = 2.72; Chi² = 3.94, df = 1 (P = 0.05); I² = 75%
Test for overall effect: Z = 1.16 (P = 0.24)

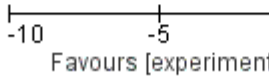


Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.18 Systolisk BT.

Figure 20 (Analysis 1.19)

Study or Subgroup	Experimental Mean	Experimental SD	Experimental Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI
Caporeale 2013	-0.1	8.1548	266	-2.3	8.0312	258	50.5%	2.20 [0.81, 3.59]
Wernicke 2003	1.8	8.5	258	0.5	7.7	258	49.5%	1.30 [-0.10, 2.70]
Total (95% CI)			**524**			**516**	**100.0%**	**1.75 [0.77, 2.74]**

Heterogeneity: Tau² = 0.00; Chi² = 0.80, df = 1 (P = 0.37); I² = 0%
Test for overall effect: Z = 3.49 (P = 0.0005)

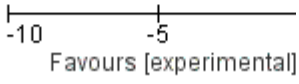


Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.19 Diastolisk BT.

Figure 21 (Analysis 1.20)

Study or Subgroup	Experimental Mean	Experimental SD	Experimental Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Fixed, 95% CI
Caporeale 2013	-1.4	9.7857	266	-5.3	9.6374	258	53.0%	3.90 [2.24, 5.56]
Wernicke 2003	5.3	11	258	-0.3	9.4	258	47.0%	5.60 [3.83, 7.37]
Total (95% CI)			**524**			**516**	**100.0%**	**4.70 [3.49, 5.91]**

Heterogeneity: Chi² = 1.89, df = 1 (P = 0.17); I² = 47%
Test for overall effect: Z = 7.61 (P < 0.00001)



Forest plot of comparison: 1 Atomoxetine versus placebo, outcome: 1.20 Puls.

Sources of support

Internal sources

- No sources of support provided

External sources

- No sources of support provided

Feedback

Appendices