NKR astma PICO 7+8 Dustmites

Characteristics of studies

Characteristics of included studies

Bahir 1997

Methods	
Participants	**Baseline Characteristics** Intervention ● *Mean age in years (SD)*: 9.2(2.4 Avoidence ● *Mean age in years (SD)*: 11.8(3.2 Control ● *Mean age in years (SD)*: 10.4(2.6
Interventions	**Intervention Characteristics** Intervention ● *Description*: Se Gøtzsche 2011 ● *Duration (weeks)*: 26 Avoidence ● *Description*: Se Gøtzsche 2011 ● *Duration (weeks)*: 26 Control ● *Description*: Se Gøtzsche 2011 ● *Duration (weeks)*: 26

Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits
Identification	
Notes	**Study design:** **Baseline characteristics:** *Henning Keinke Andersen* Included in analyses is also an 'avoidance' group (N=16). Instructions on how to prevent dust accumulation in the participants bedrooms stated in table 2. **Intervention characteristics:** *Henning Keinke Andersen* Stated in the systematic review by Gøtzsche 2011 **Continuous outcomes:** *Henning Keinke Andersen* Most of the outlined outcomes are represented in a narrative way. Take for example the use of Beta 2 agonists: 'There was no significant difference in the use of Beta 2 agonists among the three groups' Thus very difficult to add accurate figures in the table below *Tina Povlsen* There was a small reduction in the amount of B2-agonists used by children in all groups during the study period. There was no significant difference in the use of B2-agonists among the three groups.Symptom score is from a graph

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: Method not stated. Participants were randomly divided into three groups
Allocation concealment (selection bias)	Unclear risk	Comment: Insufficient information to permit judgement
Blinding of participants and personnel (performance bias)	Low risk	Comment: Placebo group received a canister of acaricide identical to that of the acaricide group
Blinding of outcome assessment (detection bias)	Unclear risk	Comment: Not addressed in the study
Incomplete outcome data (attrition bias)	Low risk	Comment: No missing outcome data. Reasons for drop-outs stated
Selective reporting (reporting bias)	High risk	Comment: Graphs that can't be used in a meta-analysis
Other bias	Low risk	

Burr 1980

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	See Gøtzsche 2011

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	

Burr 1981

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	See Gøtzsche 2011

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	

Carswell 1996

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** **Included criteria:** Positive skin test to mite allergen, >= 3mm weal diameter **Excluded criteria:** Children with allergy to cat >= 3mm weal diameter excluded
Interventions	**Intervention Characteristics** Intervention ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 24 Control ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 24
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits

	● Inhaled steroids ● Symptoms
Identification	**Sponsorship source:** Wellcome Trust;Gore Ltd for provision of the Intervent and placebo covers **Country:** United Kingdom **Setting:** Primary schools **Authors name:** Carswell, 1996 **Institution:** Institute of Child Health **Email:** Not provided **Address:** Respiratory Research Group. Institute of Child Health, Royal Hospital for Sick Children. Bristol. UK
Notes	**Baseline characteristics:** *Henning Keinke Andersen* No differentiation between IV and control group, but of the 70 randomised participants, 14 didn't start (no data), 7 participants with incomplete data - and 49 with complete data. Hereoff mean age 9,9 (0.98), 28 males (= 57,1%) **Intervention characteristics:** *Henning Keinke Andersen* See review by Gøtzsche 2011 **Dichotomous outcomes:** *Henning Keinke Andersen* Numbers are from a graph.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: Not described
Allocation concealment (selection bias)	Unclear risk	Comment: Insufficient information to permit judgement
Blinding of participants and personnel (performance bias)	Low risk	Quote: "The treatments were carried out with the parents, sample collectors and assessors (K.B., J.W.. J.O.) all successfully blinded to the children's ther- apeutic groups."
Blinding of outcome assessment (detection bias)	Low risk	Quote: "The treatments were carried out with the parents, sample collectors and assessors (K.B., J.W.. J.O.) all successfully blinded to the children's ther- apeutic groups. These"

Incomplete outcome data (attrition bias)	High risk	Comment: No intention to treat analysis
Selective reporting (reporting bias)	High risk	Comment: Graphs not suitable for meta analysis
Other bias	Unclear risk	Comment: It is stated that out of 113 mite positive participants eligible for inclusion, the study picks the 70 subjects with the highest Der p 1 values. Selective inclusion might cause over-estimation of the effects

Carter 2001

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention ● *Age range*: 6-16 Control ● *Age range*: 6-16 Avoidence ● *Age range*: 6-16 **Included criteria:** Not described **Excluded criteria:** Not described
Interventions	**Intervention Characteristics** Intervention ● *Description*: C C C Tina Avoidance measures for the intervention group included allergenimpermeable mattress and pillow covers provided by Allergy Control Products (Danbury, Conn), effective roach bait (Combat), and instructions to wash the bedding once a week in hot water.13-16. Parents of children in the active group were also given instructions about cleaning measures to control dust mites and cockroaches ● *Duration (weeks)*: 52 Control ● *Description*: The children in the control group continued to have their routine medical care provided at the clinic, but allergen-control measures in the home were not discussed.

	● *Duration (weeks)*: 52 Avoidence ● *Description*: The placebo group received allergen-permeable mattress and pillow covers, ineffective roach traps, and instructions to continue their normal practice of washing the bedding in cool or cold water. ● *Duration (weeks)*: 52
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits
Identification	**Sponsorship source:** Supported by National Institutes of Health grants AI-20565 and 1P01 AI50989. **Country:** USA **Setting:** Outpatient Unit in Atlanta **Authors name:** Carter, 2001 **Institution:** Department of Family Medicine, Emory University, Atlanta; **Email:** not provided **Address:** Department of Family Medicine, Emory University, Atlanta; andbthe Asthma and Allergic Disease Center, University of Virginia, Charlottesville.
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: Randomisation method not stated
Allocation concealment (selection bias)	Unclear risk	Comment: Insufficient information to permit judgement
Blinding of participants and personnel (performance bias)	Unclear risk	Comment: Participants blinded, but no information on personnel!
Blinding of outcome assessment (detection bias)	Unclear risk	Comment: Not described
Incomplete outcome data (attrition bias)	Unclear risk	Comment: Drop-out rate 19/104 not justified in the results
Selective reporting (reporting bias)	Low risk	Comment: No study protocol, however all outcomes seam assessed
Other bias	Low risk	

Chen 1996

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention ● *Mean age in years (SD)*: 9.16(2.53) Avoidence ● *Mean age in years (SD)*: 7.93(2.45) **Included criteria:** Mite-sensitive asthma **Excluded criteria:** Not described
Interventions	**Intervention Characteristics** Intervention ● *Description*: Provided with new, Microstop treated bedding ● *Duration (weeks)*: 52 Avoidence ● *Description*: Provided with new bedding that was not Microstop treated;

	● *Duration (weeks)*: 52
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits
Identification	**Sponsorship source:** This study was supported in part byMedline Taiwan Co" Ltd. and Microstop Corporation . **Country:** Taiwan **Authors name:** Chen 1996 **Institution:** Department of Pediatrics, Taipei MunicipalWomen and Children Hospital **Address:** Department of Pediatrics, Taipei MunicipalWomen and Children Hospital, 12, Fu-ChouSt.,Taipei,Taiwan,R.O.C.
Notes	**Continuous outcomes:** *Tina Povlsen* They have reported an asthma symptom score, however it is impossible to read the graph.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: method not stated
Allocation concealment (selection bias)	Unclear risk	Comment: Insuficient information to make a judgement

Blinding of participants and personnel (performance bias)	Low risk	Comment: Neither subjects nor the physicians knew which group the children were placed
Blinding of outcome assessment (detection bias)	Low risk	Quote: "Nei- ther the subjects nor the physicians knew in wh ich group the children were placed."
Incomplete outcome data (attrition bias)	Low risk	Comment: Drop outs justified for
Selective reporting (reporting bias)	High risk	Comment: Graphs are not suitable for metaanalysis
Other bias	Low risk	

Ehnert 1992

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	See Gøtzsche 2011

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	

El Ghitany 2012

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention (chemical) ● *Mean age in years (SD)*: 86.65 (15.06) ● *Males (%)*: 55 Intervention (Physical) Intervention (Chemical and physical) Control **Included criteria:** Bronchial asthma, positive skin test to HDM (weal >=3mm), family must have a vacuum cleaner, **Excluded criteria:** Not described
Interventions	**Intervention Characteristics** Intervention (chemical) ● *Description*: Tannic acid 3% was provided as a chemical control measure to be used twice weekly for spraying the carpets and beddings ● *Duration (weeks)*: 16 Intervention (Physical) Intervention (Chemical and physical) Control
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life

	Dichotomous: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits
Identification	**Country:** Egypt **Authors name:** El-Ghitany, 2012 **Institution:** Tropical Health Department, High Institute of Public Health, Alexandria University **Email:** ingy.elghitany@gmail.com **Address:** Tropical Health Department, High Institute of Public Health, Alexandria University, 165 El Horreya Avenue, Alexandria, Egypt
Notes	**Study design:** *Henning Keinke Andersen* There are four groups: intervention medical; intervention physical; combined intervention (medical and physical); none (=control) **Baseline characteristics:** *Tina Povlsen* Intervention (Physical): Mean age in years: 83.80 (15.87) Males (%): 55Intervention (Chemical and physical): Mean age in years: 92 (17.60) Males (%): 65Control: Mean age in years: 90.70 (16.08) Males (%):50 **Intervention characteristics:** *Tina Povlsen* Physical: recommended physical methods were usedto modify the environment of the child [24]. Theseincluded proper ventilation practice; completely encasingmattresses and pillows; washing the beddingweekly with hot water and detergents; vacuuming theliving room and bedroom vacuum at least twice aweek; washing or refrigerating soft and furry toys oncea week, or excluding them from the bedrooms;removing carpets or vacuuming them more than onceweekly; no pets.Chemical: tannic acid 3% was provided as a chemicalcontrol measure to be used twice weekly for spraying thecarpets and beddings.Physical and chemical methods described above were useControl group. No HDM control measureswere implemented, and normal daily activities and livingconditions were the same as those prior to enrollment inthe study.Intervention (Physical): Description: Duration: 16Intervention (Chemical and physical): Description: Duration: 16Control: Description: Duration: 16 **Continuous outcomes:** *Henning Keinke Andersen* The only outcome reported to be used in the NKR 17 was Hospitalizations, but expressed as median number (interquartile range) *Tina Povlsen* Median number of hospitalization (interquartile range) Change:Intervention (Chimical): 1.00 (0-2)Intervention (Physical): 0.50 (0-1)Intervention (Chemical and physical): 1.00 (0-1)Control: 1.30 (1-2)

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Quote: "Through block randomization [23] using random sequences of block sizes, the children were randomly allocated into one of four groups"
Allocation concealment (selection bias)	Unclear risk	Comment: Not described
Blinding of participants and personnel (performance bias)	Unclear risk	Comment: Not described
Blinding of outcome assessment (detection bias)	Unclear risk	Comment: Not described
Incomplete outcome data (attrition bias)	Low risk	Comment: No missing outcome data
Selective reporting (reporting bias)	Low risk	Comment: No study protocol available, however all predefined outcomes are reported.
Other bias	Low risk	Comment: No other apparent biases

Frederick 1997

Methods	**Study design:** Randomized controlled trial **Study grouping:** Crossover
Participants	**Baseline Characteristics** Intervention Control **Included criteria:** All patients had either a positive skin-prick test toHDM (≥ 4 mm in diameter) and/or specific immunoglobulinE (IgE) to HDM (radioallergenosorbent test (RAST)≥ grade 3), and a documented history of perennial asthma. **Excluded criteria:** Not described

Interventions	**Intervention Characteristics** Intervention ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 12 Control ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 12
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits
Identification	**Sponsorship source:** W.L.Gore for funding JMF and WJJ and for providing the"Intervent" bedding covers for the study. They wouldalso like to thank the National Asthma Campaign andthe British Lung Foundation for funding JAW, **Country:** United Kingdom **Authors name:** Frederick, 1997 **Institution:** Child Health, University of Southampton, **Address:** Child HealthLevel G, Centre BlockSouthampton General HospitalTremona RoadSouthamptonSO16 6YDUK
Notes	**Baseline characteristics:** *Tina Povlsen* Baseline characteristics are not stated after randomisation. **Continuous outcomes:** *Henning Keinke Andersen* Medication values (in ug, beta2 agonists) after 3 months: IV: 80 (range 0-312), control: 40

	(range 0-372)For the symptom scores, these are composed of three separate components: Asthma last night (ALN), Daytime wheeze (DW) and exercise tolerance (ET). Not directly able to summarise, as range varies.Please be aware that this is a cross over study, thus N must be a total of 31 participants (summarized from two different periods). *Tina Povlsen* Symptoms:Asthma last night (0-3): Intervention: 0.1 (0-0.8). Control: 0.09 (0-1.7).

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: Not described
Allocation concealment (selection bias)	Unclear risk	Comment: Not described
Blinding of participants and personnel (performance bias)	Unclear risk	Comment: This was a cross over study. All participants received both IV and control. Uncertain whether this affect the outcome measurements
Blinding of outcome assessment (detection bias)	Unclear risk	Comment: A single-blind cross-over study. However it is not stated which part that was blinded.
Incomplete outcome data (attrition bias)	Low risk	Comment: Drop outs justified in both groups.
Selective reporting (reporting bias)	Low risk	All outcomes are reported
Other bias	Low risk	Apparently no other bias

Geller Bernstein 1995

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention ● *Mean age in years (SD)*: 9.71 (2.64) ● *Males (%)*: 66.7 Control

	● *Mean age in years (SD)*: 8.07 (2.58) ● *Males (%)*: 64.7 **Included criteria:** Children with a positive skin test only to HDM, a 15%decrease in FEV1 or expected peak flow in asthma cases, seriously enogh to be medicated preventively, an Acarex test of at least ++ in the child's matress dust **Excluded criteria:** allergens other than HDM, use of Acardust or similar products three months prior to start of the study
Interventions	**Intervention Characteristics** Intervention ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 26 weeks Control ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 26 weeks
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits
Identification	**Country:** Isreal **Authors name:** Geller-Bernstein, 1995 **Institution:** Kapland Hospital and Zamenhof Allergy Clinics, Tel Aviv, Isreal. **Email:** Not provided

	Address: Not provided
Notes	**Intervention characteristics:** *Henning Keinke Andersen* See Gøtzsche 2011 **Continuous outcomes:** *Henning Keinke Andersen* Four different symptom scores for asthma presented: Daily activity disruption; parents evaluation of asthma severity; doctors evaluation of asthma severity; wheezing frequency. None provides SDBut should be presented in the SR by Gøtzsche et al. 2011 *Tina Povlsen* Se Gøtzsche, 2011 for tal for symptom score.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: Not described
Allocation concealment (selection bias)	Unclear risk	Comment: Not described
Blinding of participants and personnel (performance bias)	Low risk	Comment: This is a double blinded study, so I assume the participants are blinded. Uncertain about the personnel and assessors
Blinding of outcome assessment (detection bias)	Unclear risk	Comment: Uncertain about blinding of the personnel and assessors
Incomplete outcome data (attrition bias)	Low risk	Comment: Dropouts stated
Selective reporting (reporting bias)	Low risk	Comment: The outlined outcomes are all reported
Other bias	Low risk	Comment: Apparently no other bias

Gillies 1987

Methods	**Study design:** Controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention ● *Mean age in years (SD)*: 9.92 (no SD ● *Astma severity (As reported in the study)*: mild to moderate Control ● *Mean age in years (SD)*: 9.42 (no SD ● *Astma severity (As reported in the study)*: mild to moderate **Included criteria:** mild to moderate asthmatic children with a positive prick test for HDM (weal >=2mm **Excluded criteria:** Not described
Interventions	**Intervention Characteristics** Intervention ● *Description*: Se Gøtzche, 2011 ● *Duration (weeks)*: 12 Control ● *Description*: Se Gøtzche, 2011 ● *Duration (weeks)*: 12
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life

	Dichotomous: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits
Identification	**Country:** United Kingdom **Authors name:** Gillies, 1986 **Institution:** St James's University Hospital, Leeds, and Harrogate General Hospital, Harrogate, **Email:** Not provided **Address:** Harrogate General Hospital, Harrogate,North Yorkshire HG2 7ND, U.K.
Notes	**Intervention characteristics:** *Henning Keinke Andersen* see SR by Gøtzsche et al. 2011 **Continuous outcomes:** *Henning Keinke Andersen* None of the reported outcomes in the study can be used in this NKR

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: Not described, doubtfull whether or not the subjects were randomized.
Allocation concealment (selection bias)	Unclear risk	Comment: Not described, doubtfull whether or not the subjects were randomized.
Blinding of participants and personnel (performance bias)	Unclear risk	Comment: not stated. Probably facing high risk of bias - see 'flow chart' fig 1. and reported 'home visits' by the doctors prior to and during the stud
Blinding of outcome assessment (detection bias)	Unclear risk	Comment: Not described
Incomplete outcome data (attrition bias)	Low risk	Comment: one drop out, justified and not included in analyses

Selective reporting (reporting bias)	High risk	Comment: Of the predefined outcomes reported and analysed in the study, none of the dieray cards are presented. Thus none to be used in this national clinical guideline.
Other bias	Low risk	Comment: None known

Halken 2003

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention ● *Mean age in years (SD)*: Not reported ● *Males (%)*: Not reported ● *Astma severity (As reported in the study)*: Not reported Control ● *Mean age in years (SD)*: Not reported ● *Males (%)*: Not reported ● *Astma severity (As reported in the study)*: Not reported **Included criteria:** Doctor-diagnosed asthma; a positive skin prick test (SPT) response to HDM (Dermatophagoidespteronyssinus); a positive bronchial provocation testresult with HDM allergen extract (D pteronyssinus; PC20 less than 100,000 SQU); and a total HDM concentration (Der p 1, Der f 1, and Der m 1) of ≥ 2000 ng/g dust from the child's mattress. **Excluded criteria:** Previous treatment of the patient, parents,or siblings with mattress encasing; clinical relevant allergies other than HDM allergy (eg, pollen allergy and cat allergy if the child was exposed to a cat at home); previous immunotherapy; and other concomitant diseases or medications that might influence the symptoms. During the study, the children were excluded if they changed thebed or mattress, moved to another room or residence, or did not take the medication as prescribed.
Interventions	**Intervention Characteristics** Intervention ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 52

	Control ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 52
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits
Identification	**Sponsorship source:** Danish Asthma and Allergy Association, and the Danish Research Foundation **Country:** Denmark **Authors name:** Halken, 2003 **Institution:** Department of Pediatrics **Email:** Not provided **Address:** Department of Pediatrics, SønderborgHospital, DK-6400 Sønderborg, Denmark.
Notes	**Intervention characteristics:** *Henning Keinke Andersen* See SR by Gøtzsche et al. 2011 **Continuous outcomes:** *Henning Keinke Andersen* Primary outcome (Inhalation steroid) is presented narratively as dose reduction (individual data points) from start (for both active and control group) - and presented for the individual participant (with medians presented) - fig 4.Likewise for the symptom score, nonetheless presented as mean (but without SD's)... *Tina Povlsen* Daytime asthma score: Intervention:1.73 Control: 2.57Nighttime asthma score: Intervention: 1.08 Control:1.90Inhaled steroids:Change i reduction %. Fig. 3.Median change from baseline to end of study expressed as

	individual data points. Fig. 4.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Quote: "The randomization was performed blockwise with 10 patients in each group by using a computer program after stratification accord- ing to age (2 groups: <10 years or ≥ 10 years of age), sex, initial HDM concentrations (2 groups: <10,000 ng/g or ≥ 10,000 ng/g dust), and center. The Danish Allergy Association performed the randomization, and the code was not broken until all data were reg- istered. All"
Allocation concealment (selection bias)	Low risk	Comment: Central allocation (see above)
Blinding of participants and personnel (performance bias)	Low risk	Comment: Double blinded RCT, and assume the participants couldn't possible know what treatment they received
Blinding of outcome assessment (detection bias)	Low risk	Comment: The RCT code wasn't broken until all data were registered
Incomplete outcome data (attrition bias)	High risk	Comment: Drop-out stated, however no intention to treat analysis.Some numbers of interest can't be provided in a meta-analysis.
Selective reporting (reporting bias)	Low risk	Comment: All primary and secondary outcomes reported.
Other bias	Low risk	Comment: None known

Howarth 1992

Methods	**Study design:** Randomized controlled trial
Participants	**Baseline Characteristics** Intervention ● *Age range*: 13-23 Control ● *Age range*: 13-23

	Included criteria: Not described **Excluded criteria:** Not described
Interventions	**Intervention Characteristics** Intervention ● *Description*: Active (intervent, W.L. Gore & Associates U.K. ltd) mattress, duvet and pillow covers. ● *Duration (weeks)*: 6 ● *Lenght of follow up (weeks)*: Control ● *Description*: Placebo mattress, duvet and pillow covers. ● *Duration (weeks)*: 6 ● *Lenght of follow up (weeks)*:
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits ● Astma score
Identification	**Country:** United Kingdom **Authors name:** Howarth, 1992 **Institution:** Medicine I, Southampton General

Notes	**Baseline characteristics:** *Tina Povlsen* Subjects between 13-23 years

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: Not described - abstract
Allocation concealment (selection bias)	Unclear risk	Comment: Not described - abstract
Blinding of participants and personnel (performance bias)	Unclear risk	Comment: We don't know who was blinded.
Blinding of outcome assessment (detection bias)	Unclear risk	Comment: We don't know who was blinded.
Incomplete outcome data (attrition bias)	Unclear risk	Comment: Not described.
Selective reporting (reporting bias)	High risk	Comment: No study protocol available and no reports of included outcomes
Other bias	Unclear risk	An abstract, so the hole method was not described

Jooma 1995

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	See Gøtzsche 2011

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	

Morgan 2004a

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention ● *Mean age in years (SD)*: 7.6(0.09) ● *Males (%)*: 63 Control ● *Mean age in years (SD)*: 7.7(0.09) ● *Males (%)*: 62. **Included criteria:** Eligibility was limited to residents of census tractsin which at least 20 percent of households had incomes below the federal poverty level. Other eligibility criteria included at least one asthma-relatedhospitalization or two unscheduled, asthma-relatedvisits to the clinic or emergency department during the previous six months and a positive skin test inresponse to at least 1 of 11 indoor allergens.
Interventions	**Intervention Characteristics** Intervention ● *Description*: The intervention was organized into six modulesthat focused on remediation of exposure to dust mites, passive smoking, cockroaches, pets, rodents,and mold.During the first visit, the interventionteams taught the

	caretaker about the role ofallergens and irritants in the child's asthma andintroduced the environmental intervention plan,including the creation of an environmentally safesleeping zone.Allergen-impermeable covers (Allergy Control Products) were placed on the mattress,box spring, and pillows of the child's bed at this visit. Families were given a vacuum cleaner equippedwith a high-efficiency particulate air (HEPA) filterand either a power brush (model S434-I, Miele) ifthe child's bedroom or family room was carpetedor a bare-floor brush (model S312-I, Miele) and instructedin its use. A HEPA air purifier (model 293, Holmes Products) was set up in the child's bedroom if the child was exposed to passive smoking, sensitizedand exposed to cat or dog allergens, or sensitizedto mold. For children sensitized and exposedto cockroach allergen, professional pest control(Terminix) was provided. ● *Duration*: 52 Control ● *Description*: Families in the control group received visits for evaluation at six-month intervals throughout the study. ● *Duration*: 52
Outcomes	*Continuous*: ● Asthma score ● Symptom score ● No. of exacerbations ● Inhalations steroid ● Mean ED visits ● Mean hospitalization ● Quality of life ● No. of days with symp. ● ED visits ● Hospital visits ● Schools days missed ● Night awakening *Dichotomous*: ● No. of ED visits ● No. of hospitalization visits ● No. of ED visits ● No. of hospitalizations visits

Identification	**Sponsorship source:** Supported by grants (AI-39769, AI-39900, AI-39902, AI-39789, AI-39901, AI-39761, AI-39785, and AI-39776) from the National Institute of Allergy and Infectious Diseases and the National Instituteof Environmental Health Sciences, National Institutes of Health, and by a grant (M01 RR00533) from the National Center for Research Resources, National Institutes of Health. Dr. Morgan reports having received consulting fees and grant support from Genentech and lecture fees from GlaxoSmithKline,AstraZeneca, and Merck; Dr. Gruchalla reports having served as a paid consultant to GlaxoSmithKline and having received grant support from Exxon Mobil; Dr. O'Connor reports having chaired a data and safety monitoring board for GlaxoSmithKline; Dr. Kattan reports having received consulting and lecture fees from AstraZeneca; Dr. Evans reports having served as a consultant to Schering-Plough and AstraZeneca; and Dr. Stout reports having lectured at an eventsponsored by Schering-Plough and having received unrestricted grant support from GlaxoSmithKline. **Country:** Usa **Authors name:** Morgan, 2004 **Institution:** From the University of Arizona College of Medicine, Tucson
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Children were randomly assigned to either the control group or the intervention group by blocked randomization within a site
Allocation concealment (selection bias)	Unclear risk	not described
Blinding of participants and personnel (performance bias)	High risk	no blinding of staff or families after intervention start
Blinding of outcome assessment (detection bias)	Unclear risk	not mentioned, probably not blinded
Incomplete outcome data (attrition bias)	Low risk	Intention to treat analysis
Selective reporting (reporting bias)	Low risk	No study protocol available, however all predefined outcomes are reported.
Other bias	Low risk	

Parker 2008a

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention ● *Mean age in years (SD)*: 9.01 (1.50) ● *Males (%)*: 57 Control ● *Mean age in years (SD)*: 8.8 (1.41) ● *Males (%)*: 59 **Included criteria:** Not described **Excluded criteria:** Not described
Interventions	**Intervention Characteristics** Intervention ● *Description*: Nine household visits over 1-year period by a community environmental specialist (CES). The initian CES home visit included delivery of general information on asthma and the role of environmental triggers. At this visit, an assessment was made of the families' major social service needs. Second intervention visit, a household action plan was developed jointly between the CES and the caregiver. Materials that all intervention participants received during the subsequent home visits included a vacuum cleaner with HEPA filter, mattress and pillow allergen-impermable covers and household cleaning supplies. A booklet of basic information on asthma. ● *Duration*: 52 weeks ● *Lenght of follow-up (weeks)*: 0 Control ● *Description*: A booklet of basic information on asthma. After the 1-year interventiol trial, the participants in the control group received the same household intervention ● *Duration*: 52 weeks ● *Lenght of follow-up (weeks)*: 0

Outcomes	*Continuous*: ● Asthma control score ● Symptom score ● No. of exacerbations ● Fluticasone (microgram) ● Mean ED visits ● Mean daily adherence (hospitalization) ● PAQLQ *Dichotomous*: ● ED+Hospitalization visits
Identification	**Country:** Usa **Authors name:** Parker, 2008 **Institution:** Department of Health Behavior and Health Education **Email:** edithp@umich.edu **Address:** University of Michigan, School of Public Health, Ann Arbor
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Random number generator method, stratified on household location
Allocation concealment (selection bias)	Unclear risk	nothing described
Blinding of participants and personnel (performance bias)	High risk	probably not blinded
Blinding of outcome assessment (detection bias)	High risk	not described -probably not blinded
Incomplete outcome data (attrition bias)	High risk	29% dropout in intervention group and 33% in the control group.
Selective reporting (reporting bias)	Low risk	No study protocol available, however all predefined outsomes are reported
Other bias	Low risk	Non detected

Shapiro 1999

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	See Gøtzsche 2011

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	

Sheikh 2002

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention ● *Mean age in years (SD)*: 10.58 (2.34) ● *Males (%)*: 62

	Control ● *Mean age in years (SD)*: 11.57(2.08) ● *Males (%)*: 62 **Included criteria:** Parents of children aged 5–14 years with a recorded diagnosis of asthma and who had been prescribed one or more asthma treatments in the preceding six months, were contacted by telephone. Only children with both subjective and objective evidence of allergy to the house dust mite were invited to participate. **Excluded criteria:** Exclusion criteria were dermographism(because of the difficulty in interpreting skin pricktest results), children who did not use a duvet, those already using allergy control bedding, and cat or dog ownership.
Interventions	**Intervention Characteristics** Intervention ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 26 Control ● *Description*: Se Gøtzsche, 2011 ● *Duration (weeks)*: 26
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life ● Monthly night waking *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits ● Oral steroids

Identification	**Sponsorship source:** ALK Abello for supplying the skin prick test kits and solutions andAllerayde for supplying bedding at a subsidised rate. This study was supportedby a project grant from the National Respiratory Training Centre,Warwick. AS initiated this study whilst funded by the London AcademicTraining Scheme; he currently holds a NHS R&D National Primary CareTraining Award. **Country:** United Kingdom **Authors name:** Sheikh, 2002 **Institution:** Department of Primary Health Care & General Practice **Email:** aziz.sheikh@ic.ac.uk **Address:** Department of Primary Health Care & General Practice, Imperial College of Science, Technology & Medicine, London, UK,
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Comment: Centralised randomisation of individual patients was performed using numbers generated from a random numbers table.
Allocation concealment (selection bias)	Low risk	Comment: Centralised randomisation
Blinding of participants and personnel (performance bias)	Low risk	Comment: Both subjects and nurses were blinded to which trial arm children were allocated to. The trialcode was broken after data analysis had been completed.
Blinding of outcome assessment (detection bias)	Low risk	Comment: Those responsible for data analyses were blinded too, and trial code was broken after data analysis had been completed.
Incomplete outcome data (attrition bias)	Unclear risk	Comment: Drop-outs justified for, but lack of intention to treat analysis!
Selective reporting (reporting bias)	Low risk	Comment: Primary and secondary endpoints analysed and presented in accordance with the outlined intervention
Other bias	Low risk	Comment: None known

Thiam 1999

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention (ACC) ● *Mean age in years (SD)*: 9.5 no SD ● *Males (%)*: 66.7 ● *Astma severity (As reported in the study)*: mild to moderate ● *Age range*: 7-14 Intervention (HEPA) ● *Mean age in years (SD)*: 9.5 no SD ● *Males (%)*: 66.7 ● *Astma severity (As reported in the study)*: mild to moderate ● *Age range*: 6-12 Control ● *Mean age in years (SD)*: 9.5 no SD ● *Males (%)*: 66.7 ● *Astma severity (As reported in the study)*: mild to moderate ● *Age range*: 6-12 **Included criteria:** The entry criteria included sensitization to Dermatophagoides pterronyssinus allergens as evidenced by a strong positive skin prick test reaction! I or FAST (fluorescent allergosorbent tests) (class 3+ or greater, ie. specific 19E >3 ill/ml), and positive exercise bronchoprovocation test just prior to recruitment by free-running testing. 12.!4 **Excluded criteria:** Patients with any recent change in asthma medication (1 month previous), and recent upper respiratory or systemic infection in the two weeks prior were excluded.
Interventions	**Intervention Characteristics** Intervention (ACC) ● *Duration (weeks)*: 16 Intervention (HEPA) ● *Duration (weeks)*: 16

	Control ● *Duration (weeks)*: 16
Outcomes	*Continuous*: ● Symptom score ● No of excerbations ● Mean ED visits ● Inhalationssteroid ● Mean hospitalizations ● Asthma score ● Quality of life *Dichotomous*: ● No. of pt - ED visits ● No. of pt. - hospitalizations visits ● No. of pt. ED visits ● No. of pt. - hospitalizations visits
Identification	**Sponsorship source:** Honeywell (Singapore) Pte Ltd, Allergy Management Systems Pte Ltd, and National University of Singapore research grant RP 950347. **Country:** Singapore **Authors name:** Thiam, 1999 **Institution:** Department of Paediatrics, Nation at University of Singapore **Email:** Not provided **Address:** National University of Singapore, Singapore
Notes	**Study design:** *Tina Povlsen* ACC = Allergy control covers.HEPA = High efficiency particulate air filters *Henning Keinke Andersen* Six participants used mattresses filled with ACC, 12 participants used HEPA filtres in their bedrooms, and 6 participants acted as controls for both interventions **Intervention characteristics:** *Henning Keinke Andersen* See SR by Gøtzsche et al 2011 **Continuous outcomes:** *Tina Povlsen* Daily symptoms scored were cough. wheeze. and nasal symptoms. Each symptom was scored on a scale

	of 0-3.Se Gøtzsche, 2011 for tal.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: no randomisation method stated
Allocation concealment (selection bias)	Unclear risk	Comment: Not descibed
Blinding of participants and personnel (performance bias)	Unclear risk	Comment: Not descibed
Blinding of outcome assessment (detection bias)	Unclear risk	Comment: Not descibed
Incomplete outcome data (attrition bias)	Low risk	Comment: No dropouts
Selective reporting (reporting bias)	Low risk	Comment: All reported outcomes are assesed
Other bias	Low risk	Comment: Apparently no other bias

Williams 2006a

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention ● *Males (%)*: 52 ● *Median age*: 8 Control ● *Males (%)*: 66 ● *Median age*: 8 **Included criteria:** Not described **Excluded criteria:** Not described

Interventions	**Intervention Characteristics** Intervention ● *Description*: Environmental interventions. Community health workers provided information and assisted families with asthma management and environmental intervention measures in their homes. House dust mites. Strategies to reduce exposure to house dust mite included: 1) encasing the mattress,box spring and pillows (used by the affected child) in zippered dust-mite-impermeable covers, and 2) providing instruction on the appropriate care for washing and drying of sheets and blankets, and for carpets, fabrics, upholstered furniture and curtains. Verbal reinforcement on continuing these activities was given at all follow-up home visits.Cockroach. Hydramethylnon gel was used as thecockroach eradication agent based on standard application protocols. Additionally, the communityhealth workers provided education about properfood-handling practices.Environmental tobacco smoke (ETS). In allhomes, the community health worker provided educationabout the impact of ETS on the person with asthma.Professional cleaning of homes. To remove cockroach and other allergens, each family was provided with a one-time professional cleaning of theresidence >2 weeks after the initial intervention visit but before the four-month follow-up visit. Other interventions. On the basis of the reportsof the house audits and assessment of the pertinentfindings for each family, other customized intervention strategies were discussed that could be implementedby the family. These included but were not limited to: controlling moisture and humidity; cleaning areas with obvious signs of fungal growth; removing, or frequent proper cleaning of carpeting, fabric of upholstered furniture and curtains in the child's bedroom; and removing or bathing furry pets. Health education to support the environmental intervention. Along with giving verbal health information specific to the interventions mentionedabove, brochures were provided by the communityhealth workers that reinforced the lessons of theenvironmental interventions at the two-, six- and 10-month visits to the intervention study group. ● *Duration*: 65 weeks Control ● *Description*: ● *Duration*: 65 weeks
Outcomes	*Continuous*: ● Asthma control score ● Symptom score ● No. of exacerbations ● Fluticasone (microgram) ● Mean ED visits ● Mean daily adherence (hospitalization)

	● PAQLQ
Identification	**Sponsorship source:** This research was funded by the Centers for Disease Control and Prevention. **Country:** USA **Authors name:** Wiliams, 2006 **Email:** sjw9@cdc.gov
Notes	**Continuous outcomes:** *Britta Tendal* Asthma severity score mean in graph, no SD or SE.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	randomized into either the inter- vention or delayed intervention group using previ- ously generated random numbers.
Allocation concealment (selection bias)	Unclear risk	Not described
Blinding of participants and personnel (performance bias)	Unclear risk	not described
Blinding of outcome assessment (detection bias)	High risk	Nonblinding of the community health workers was another limitation that may have diluted the effect of the intervention since the community health workers had children and families in both arms of the study and knew which arms of the study the clients were enrolled.
Incomplete outcome data (attrition bias)	High risk	No intention-to-treat analysis. High drop out rate, however in both groups
Selective reporting (reporting bias)	Low risk	No study protocol, however it seams like all outcomes of interest are reported.
Other bias	Low risk	

Footnotes

Characteristics of excluded studies

Arbes 2003

Reason for exclusion	Adult population

Barton 2007

Reason for exclusion	Wrong intervention

Becker 2004

Reason for exclusion	Wrong study design

Bernstein 2006

Reason for exclusion	Wrong study design

Bonner 2006

Reason for exclusion	Wrong study design

Bryant Stephens 2008

Reason for exclusion	Wrong study design

Bryant Stephens 2009

Reason for exclusion	Wrong study design

Burr 2007

Reason for exclusion	Wrong intervention

Carter 2001a

Reason for exclusion	included in PICO 7

Chan Yeung 2005

Reason for exclusion	Wrong study design

Custovic 2005

Reason for exclusion	position paper

Deger 2010

Reason for exclusion	Wrong study design

Eggleston 2005

Reason for exclusion	Wrong study design

Evans 1999

Reason for exclusion	Wrong study design

Gerald 2009

Reason for exclusion	Wrong intervention

Ghazala 2004

Reason for exclusion	Adult population

Gore 2006

Reason for exclusion	Wrong intervention

Green 1999

Reason for exclusion	Wrong study design

Hasan 2003

Reason for exclusion	Wrong study design

Howden Chapman 2007

Reason for exclusion	Wrong intervention

Howden Chapman 2008

Reason for exclusion	Wrong intervention

Htut 2001

Reason for exclusion	Adult population

Hughes 1991

Reason for exclusion	Wrong study design

Kercsmar 2006

Reason for exclusion	Wrong study design

Klinnert 2005

Reason for exclusion	Wrong study design

Krieger 2005

Reason for exclusion	no true control group

Krieger 2009

Reason for exclusion	Wrong intervention

Largo 2011

Reason for exclusion	Wrong study design

Levy 2006

Reason for exclusion	Wrong study design

Manjra 1994

Reason for exclusion	Wrong setting

McConnell 2003

Reason for exclusion	Wrong study design

McConnell 2005

Reason for exclusion	Wrong intervention

Miller 2004

Reason for exclusion	Wrong intervention

Minnesota 2007

Reason for exclusion	Wrong study design

Mitchell 1980

Reason for exclusion	Wrong intervention

Morgan 2004

Reason for exclusion	Wrong study design

Munir 1993

Reason for exclusion	Wrong study design

Nambu 2008

Reason for exclusion	Wrong study design

Nicholas 2005

Reason for exclusion	Wrong study design

Nishioka 2006

Reason for exclusion	Wrong patient population

Parker 2008

Reason for exclusion	Wrong study design

Paulin 2014

Reason for exclusion	Wrong study design

Peroni 1994

Reason for exclusion	Wrong intervention

Peroni 2002

Reason for exclusion	Wrong intervention

Phipatanakul 2004

Reason for exclusion	Wrong patient population

Phipatanakul 2006

Reason for exclusion	overview of literature

Platts Mills 2000

Reason for exclusion	overview of literature

Platts Mills 2003

Reason for exclusion	perspective/letter

Pongracic 2008

Reason for exclusion	Wrong study design

Popplewell 2000

Reason for exclusion	Wrong patient population

Primomo 2006

Reason for exclusion	Wrong intervention

Rabito 2007

Reason for exclusion	Wrong study design

Reiser 1990

Reason for exclusion	Wrong intervention

Reisman 1990

Reason for exclusion	Wrong patient population

Roberts 1999

Reason for exclusion	Wrong study design

Rosenstreich 1997

Reason for exclusion	Wrong study design

Schonberger 2005

Reason for exclusion	Wrong study design

Sercombe 2007

Reason for exclusion	Wrong intervention

Sette 1994

Reason for exclusion	Wrong study design

Sheffer 2004

Reason for exclusion	editorial

Somerville 2000

Reason for exclusion	Wrong intervention

Stout 1998

Reason for exclusion	Wrong intervention

Takaro 2004

Reason for exclusion	Wrong study design

Terreehorst 2005

Reason for exclusion	Adult population

Turyk 2006

Reason for exclusion	Wrong study design

vandenBemt 2004

Reason for exclusion	Adult population

vanderHeide 1997

Reason for exclusion	Adult population

vanderHeide 1999

Reason for exclusion	Wrong study design

Wang 2009

Reason for exclusion	Wrong study design

Warner 1993

Reason for exclusion	Wrong intervention

Warner 2000

Reason for exclusion	Wrong intervention

Wickman 1999

Reason for exclusion	Wrong intervention

Williams 2006

Reason for exclusion	Wrong study design

Wood 1998

Reason for exclusion	Wrong study design

Wood 2002

Reason for exclusion	Wrong study design

Woodcock 2003

Reason for exclusion	Adult population

Wu 2009

Reason for exclusion	Wrong study design

Zwemer 1973

Reason for exclusion	Wrong study design

Footnotes

Characteristics of studies awaiting classification

Footnotes

Characteristics of ongoing studies

Footnotes

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Data and analyses

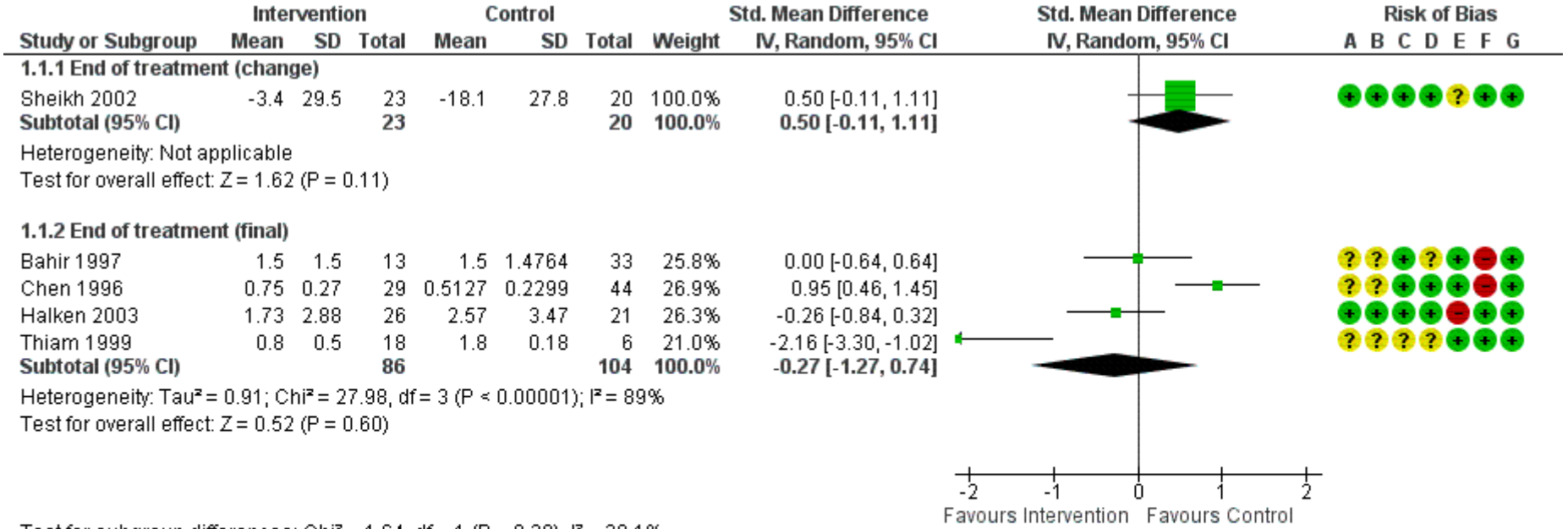
1 Intervention vs Control

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 Symptom score	5		Std. Mean Difference (IV, Random, 95% CI)	Subtotals only
1.1.1 End of treatment (change)	1	43	Std. Mean Difference (IV, Random, 95% CI)	0.50 [-0.11, 1.11]
1.1.2 End of treatment (final)	4	190	Std. Mean Difference (IV, Random, 95% CI)	-0.27 [-1.27, 0.74]
1.2 No of excerbations	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.3 Mean change in 28-day dose ofInhalationssteroid (mcg)	1		Mean Difference (IV, Fixed, 95% CI)	Subtotals only
1.3.1 End of treatment (change)	1	43	Mean Difference (IV, Fixed, 95% CI)	-776.91 [-2557.39, 1003.57]

1.4 Hospital visits	1		Mean Difference (IV, Fixed, 95% CI)	Subtotals only
1.4.1 End of treatment	1	160	Mean Difference (IV, Fixed, 95% CI)	-0.47 [-0.99, 0.05]
1.5 Quality of life	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.6 Change in monthly night waking	1		Mean Difference (IV, Fixed, 95% CI)	Subtotals only
1.6.1 End of treatment (change)	1	43	Mean Difference (IV, Fixed, 95% CI)	0.30 [-1.29, 1.89]
1.7 No. of pt - ED visits	1		Risk Ratio (IV, Fixed, 95% CI)	Subtotals only
1.7.1 End of treatment	1	85	Risk Ratio (IV, Fixed, 95% CI)	0.42 [0.18, 0.99]
1.8 No. of pt. - hospitalizations visits	2		Risk Ratio (IV, Fixed, 95% CI)	Subtotals only
1.8.1 End of treatment	2	128	Risk Ratio (IV, Fixed, 95% CI)	1.83 [0.12, 28.28]
1.9 Oral steroids	2		Risk Ratio (IV, Random, 95% CI)	Subtotals only
1.9.1 End of treatment	2	96	Risk Ratio (IV, Random, 95% CI)	0.46 [0.17, 1.22]
1.10 Night awakening	1	869	Mean Difference (IV, Fixed, 95% CI)	-0.62 [-0.84, -0.40]
1.11 Unscheduled visits to ED/clinic/medical care	2	1096	Risk Ratio (M-H, Random, 95% CI)	0.93 [0.66, 1.29]
1.12 Daily dose of inhaled steroids	1	47	Mean Difference (IV, Fixed, 95% CI)	-63.56 [-199.48, 72.36]
1.13 School days missed	1	869	Mean Difference (IV, Fixed, 95% CI)	-0.17 [-0.28, -0.06]
1.14 No. of children with symptoms in the last 2 weeks	1	58	Risk Ratio (M-H, Fixed, 95% CI)	0.43 [0.15, 1.21]
1.16 ED visits	1	869	Mean Difference (IV, Fixed, 95% CI)	-0.15 [-0.34, 0.04]

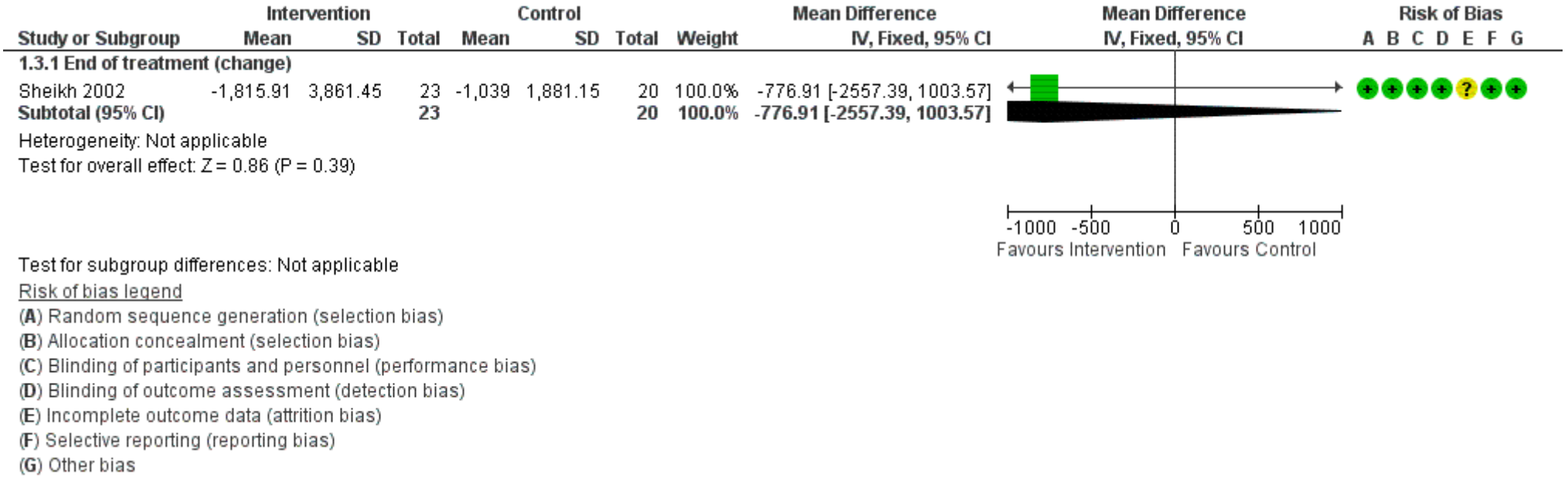
Figures

Figure 1 (Analysis 1.1)



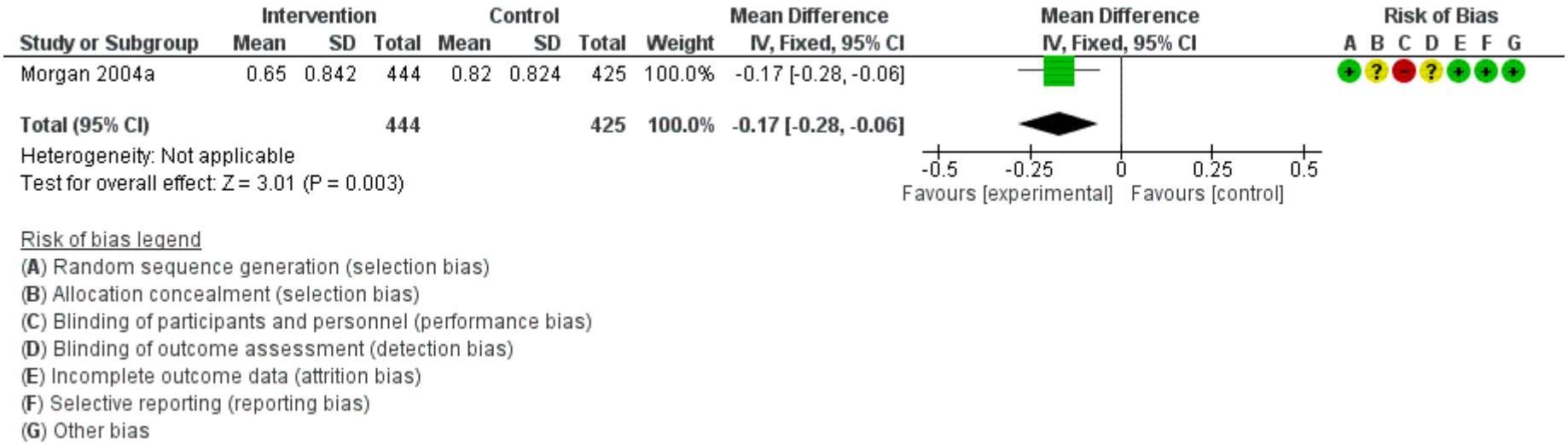
Forest plot of comparison: 1 Intervention vs Control, outcome: 1.1 Symptom score.

Figure 2 (Analysis 1.3)



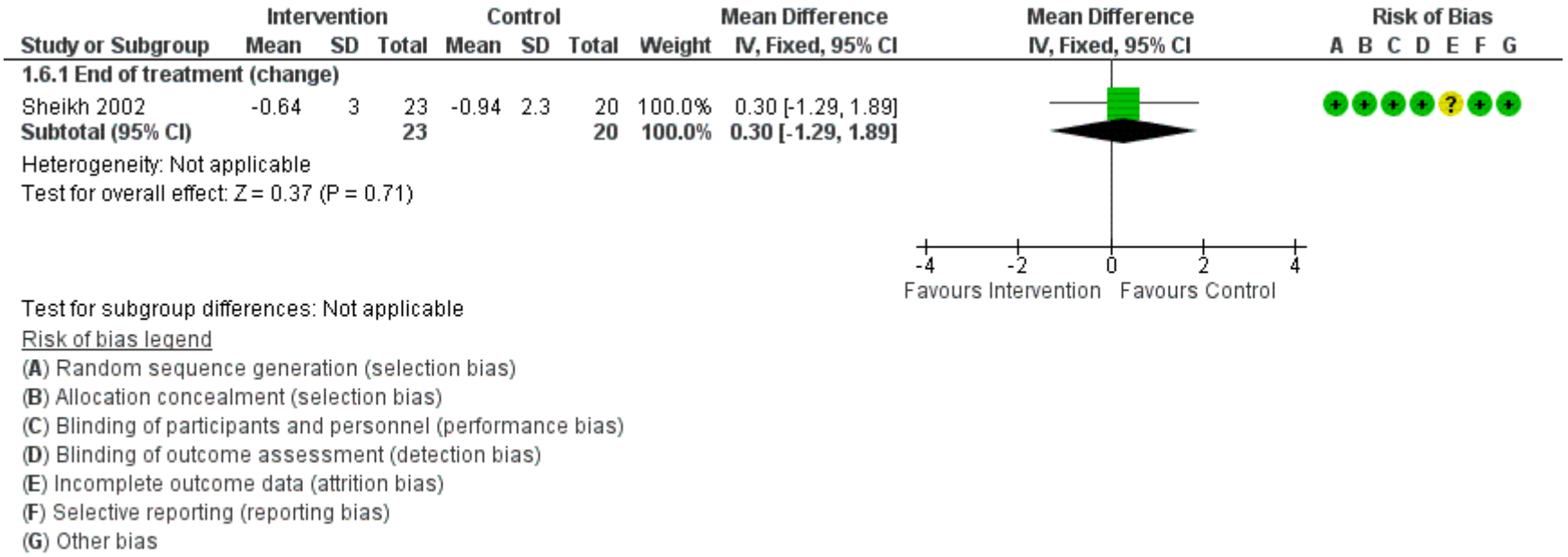
Forest plot of comparison: 1 Intervention vs Control, outcome: 1.3 Mean change in 28-day dose ofInhalationssteroid (mcg).

Figure 3 (Analysis 1.13)



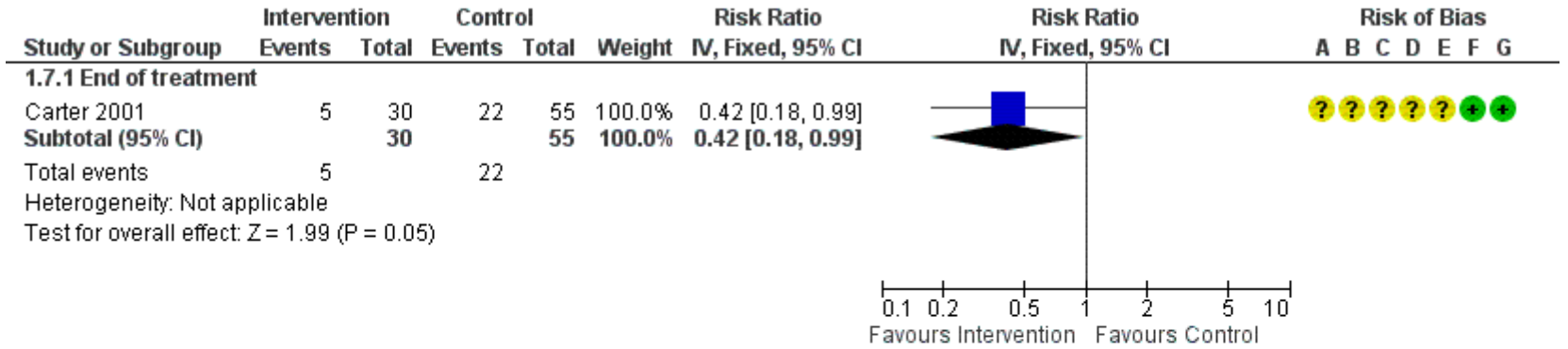
Forest plot of comparison: 1 Intervention vs Control, outcome: 1.13 School days missed.

Figure 4 (Analysis 1.6)



Forest plot of comparison: 1 Intervention vs Control, outcome: 1.6 Change in monthly night waking.

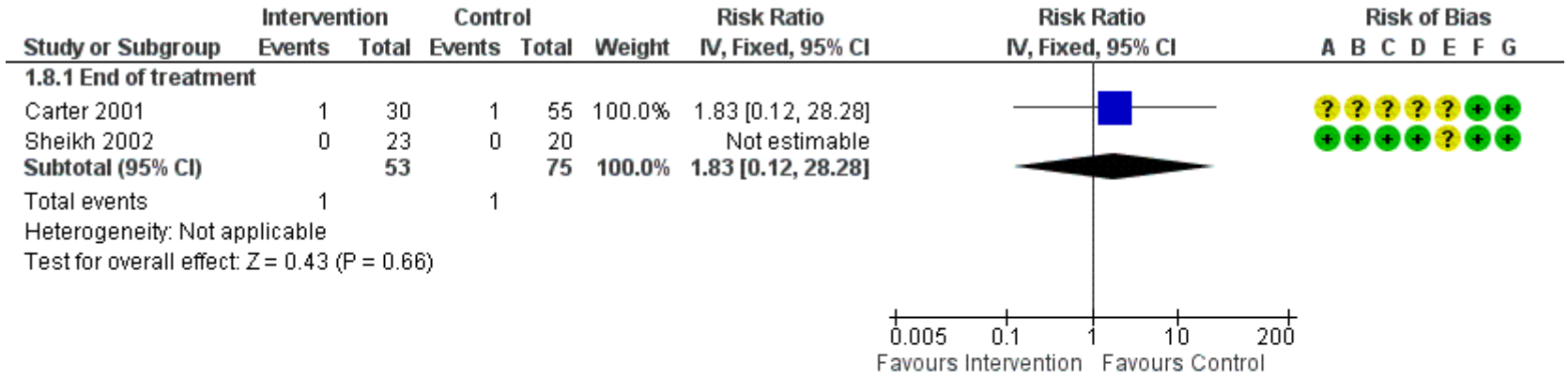
Figure 5 (Analysis 1.7)



Risk of bias legend
(**A**) Random sequence generation (selection bias)
(**B**) Allocation concealment (selection bias)
(**C**) Blinding of participants and personnel (performance bias)
(**D**) Blinding of outcome assessment (detection bias)
(**E**) Incomplete outcome data (attrition bias)
(**F**) Selective reporting (reporting bias)
(**G**) Other bias

Forest plot of comparison: 1 Intervention vs Control, outcome: 1.7 No. of pt - ED visits.

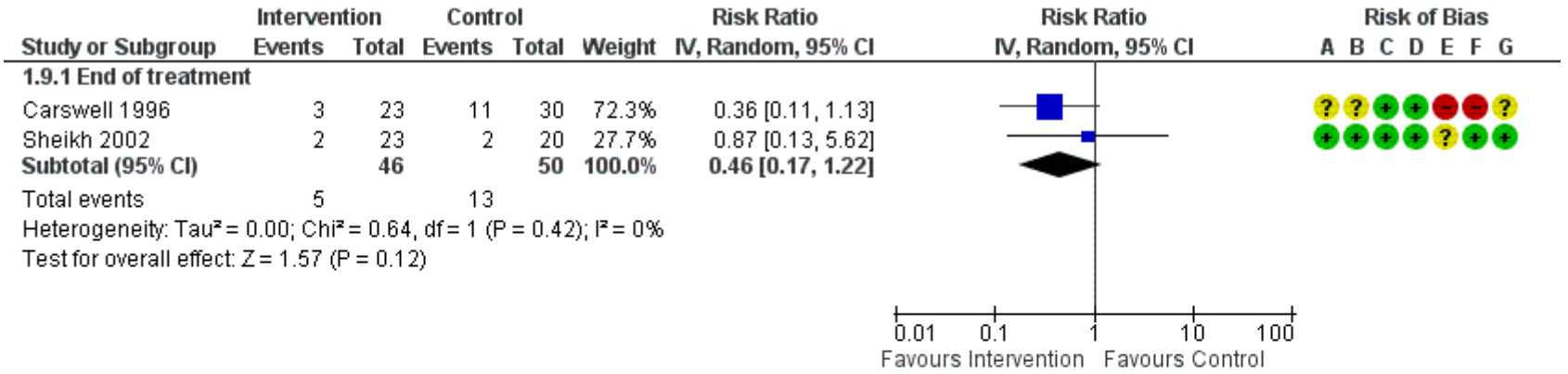
Figure 6 (Analysis 1.8)



Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Intervention vs Control, outcome: 1.8 No. of pt. - hospitalizations visits.

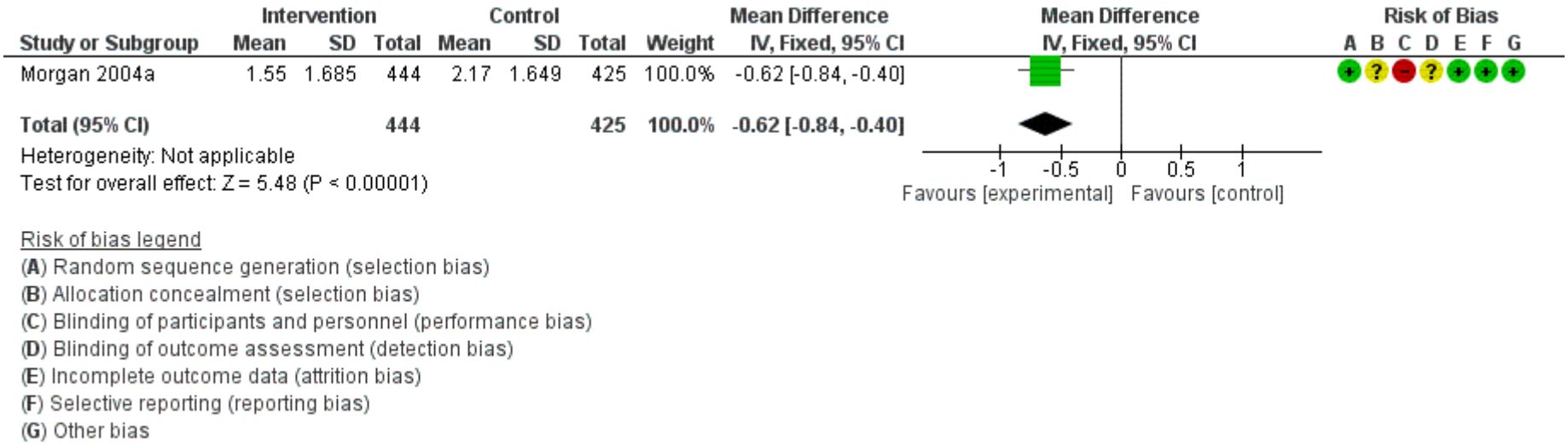
Figure 7 (Analysis 1.9)



Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

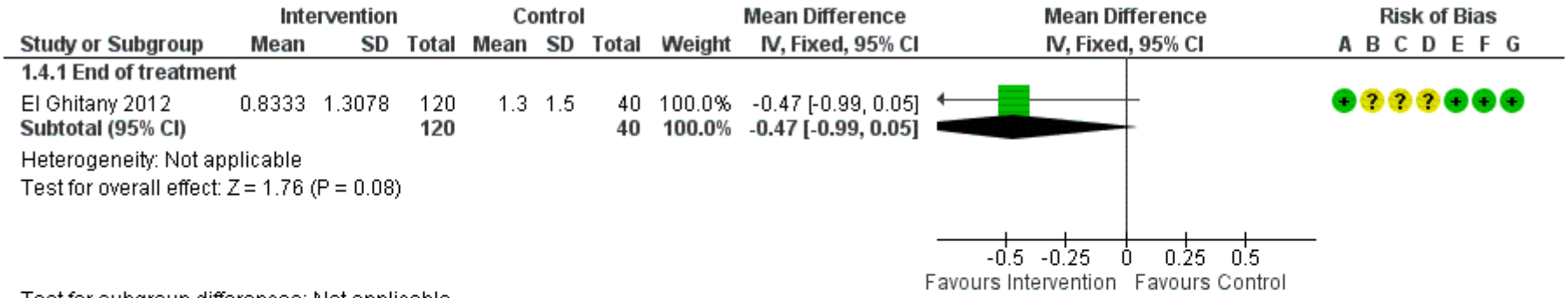
Forest plot of comparison: 1 Intervention vs Control, outcome: 1.9 Oral steroids.

Figure 8 (Analysis 1.10)



Forest plot of comparison: 1 Intervention vs Control, outcome: 1.10 Night awakening.

Figure 9 (Analysis 1.4)



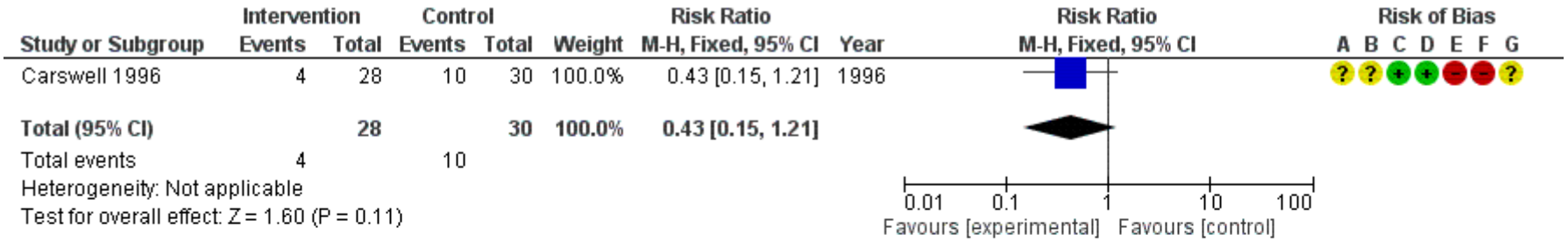
Test for subgroup differences: Not applicable

Risk of bias legend

(**A**) Random sequence generation (selection bias)
(**B**) Allocation concealment (selection bias)
(**C**) Blinding of participants and personnel (performance bias)
(**D**) Blinding of outcome assessment (detection bias)
(**E**) Incomplete outcome data (attrition bias)
(**F**) Selective reporting (reporting bias)
(**G**) Other bias

Forest plot of comparison: 1 Intervention vs Control, outcome: 1.4 Hospital visits.

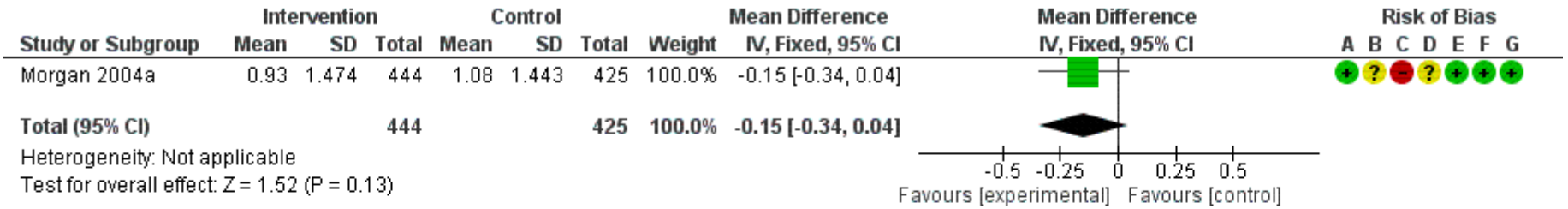
Figure 10 (Analysis 1.14)



Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Intervention vs Control, outcome: 1.14 No. of children with symptoms in the last 2 weeks.

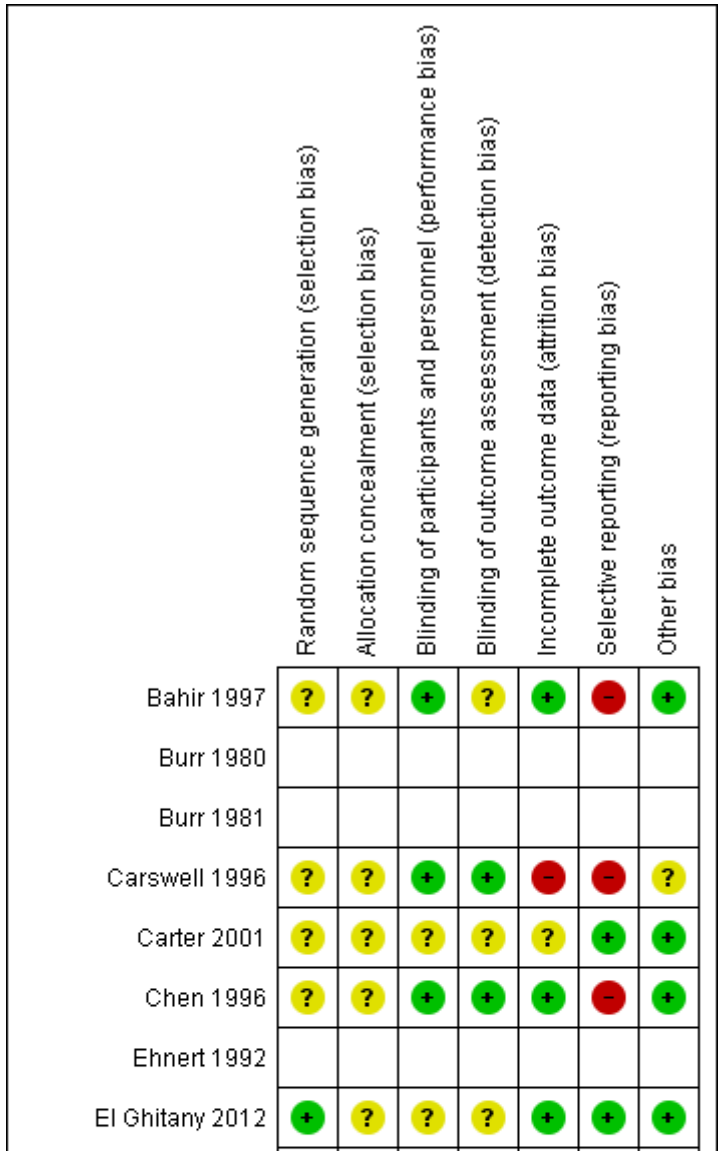
Figure 11 (Analysis 1.16)

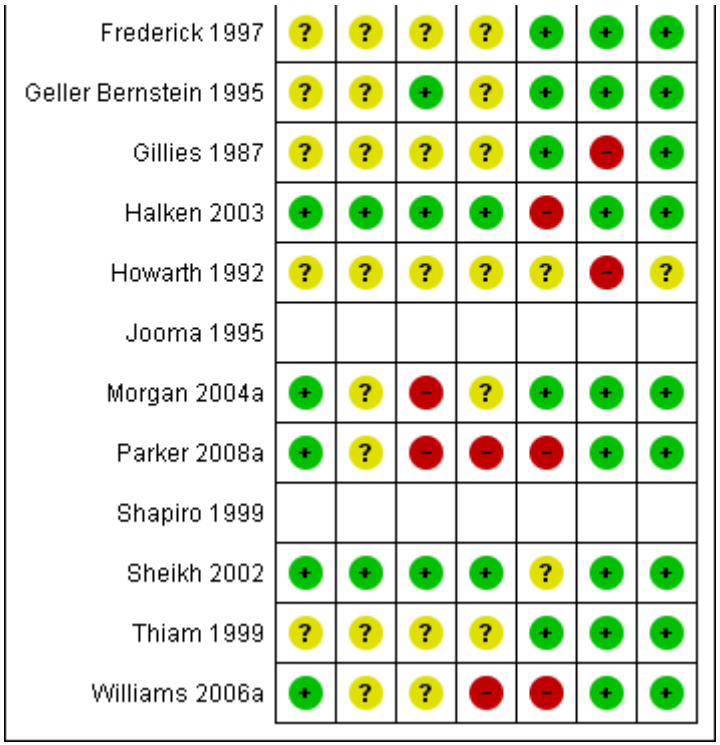


Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Intervention vs Control, outcome: 1.16 ED visits.

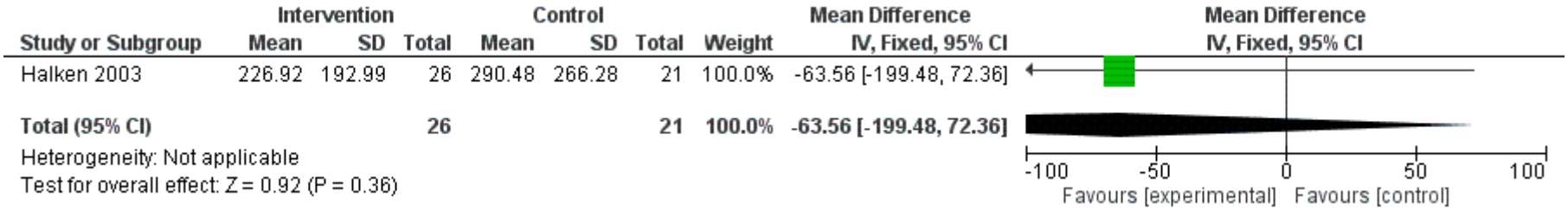
Figure 12





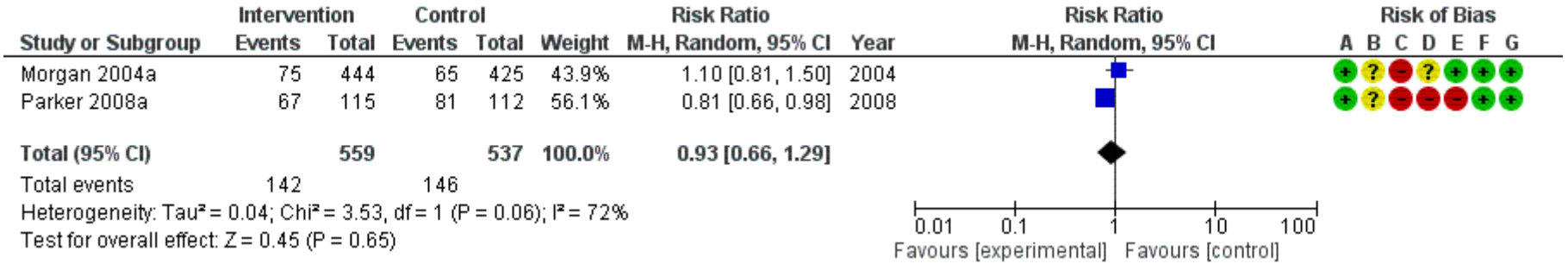
Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

Figure 13 (Analysis 1.12)



Forest plot of comparison: 1 Intervention vs Control, outcome: 1.12 Daily dose of inhaled steroids.

Figure 15 (Analysis 1.11)



Forest plot of comparison: 1 Intervention vs Control, outcome: 1.11 Unscheduled visits to ED/clinic/medical care.