

NKR 22: Høfeber og allergiskhelårssnue (allergisk rhinoconjunctivitis), PICO 4: Intramuskulære glucocorticoider eller nasalesteorid og perorale antihistaminer ved pollenallergi.

Review information

Authors

Sundhedsstyrelsen¹

¹[Empty affiliation]

Citation example: S. NKR 22: Høfeber og allergiskhelårssnue (allergisk rhinoconjunctivitis), PICO 4: Intramuskulære glucocorticoider eller nasalesteorid og perorale antihistaminer ved pollenallergi.. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

Characteristics of studies

Characteristics of included studies

Aasbjerg 2013

Methods	Observational study
Participants	
Interventions	
Outcomes	
Identification	
Notes	Quality assessed with ACROBAT NRSi-tool: quality=moderat

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	

Laursen 1988

Methods	<p>Study design: Randomized controlled trial</p> <p>Study grouping:</p> <p>Open Label:</p> <p>Cluster RCT:</p>
Participants	<p>Baseline Characteristics</p> <p>Glucocorticoids intramuscular</p> <p>Nasal steroids</p> <p>Included criteria: Birch pollen allergy- > 15 years old- positive past anamnesis of allergic rhinoconjunctivitis during previous Birch pollen seasons.- positive skin prick test to Birch pollen</p> <p>Excluded criteria: Continuous hyposensitisation, treatment with steroids 3 months prior to birch pollen season. Diabetes, arterial hypertension, liver diseases, thyroid gland, pregnancy.</p>
Interventions	<p>Intervention Characteristics</p> <p>Glucocorticoids intramuscular</p> <ul style="list-style-type: none"> ● <i>treatment:</i> single dose intramuscular injection diprospan 2 ml (contains 10 mg betamethasone di propionate and 4 mgbetamethasone disodium phosphate)and placebo nasal aerosol 1 puff morning and evening <p>Nasal steroids</p>

	<ul style="list-style-type: none"> ● <i>treatment</i>: nasalsteroid beclomethasone dipropionate200 mikrogram 1 puff morning and 1 puff evening.single placebo injection intramuscular
Outcomes	<p><i>Continuous</i>:</p> <ul style="list-style-type: none"> ● total daily symptomscore
Identification	<p>Sponsorship source: Country: Denmark Setting: Comments: Authors name: L.C. Laursen, P Fauruschou, EP Munch Institution: Lung- and Allergy department, Frederiksberg County Hospital, Denmark. Email: Address:</p>
Notes	<p>Identification: Participants: Study design: Baseline characteristics: Intervention characteristics: Pretreatment: Continuous outcomes: Dichotomous outcomes: Adverse outcomes:</p>

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: How the sequence for the allocation was made is unclear
Allocation concealment (selection bias)	Low risk	

Blinding of participants and personnel (performance bias)	Unclear risk	Comment: They makes a double dummy treatment, even though patients properly have tried steroid treatment before, and knows characteristics symptoms they get. It is a bit unclear described. relatively many persons in the Group with steroid injection didnt follow the prescribed treatment - they might have found our by feeling better that they get active treatment
Blinding of outcome assessment (detection bias)	Low risk	Comment: It is unlikely that the blinding has been broken
Incomplete outcome data (attrition bias)	Unclear risk	Comment: It is unclear how they handled missing data. Very little data is missing. One person left the study 9 patients didnt follow the treatment.
Selective reporting (reporting bias)	Unclear risk	Comment: No protocol was located. They report reasonable outcomes; nothing obvious seems to be missing.
Other bias	Unclear risk	Comment: This study had all their medications provided from a famacutical compagny, it is unclear whether this could influence the results

Pichler 1988

Methods	<p>Study design: Randomized controlled trial</p> <p>Study grouping:</p> <p>Open Label:</p> <p>Cluster RCT:</p>
Participants	<p>Baseline Characteristics</p> <p>Glucocorticoids intramuscular</p> <ul style="list-style-type: none"> ● Sex, males: 6 mal and 8 fema ● Age, mean: 24 ● duration of Pollinosis, years: 8.2 <p>Nasal steroids</p> <ul style="list-style-type: none"> ● Sex, males: 9 mal and 7 fem ● Age, mean: 26 ● duration of Pollinosis, years: 8.5 <p>Included criteria: hay fever and typical nasal eye symtomsgrass and rye pollen allergy</p> <p>Excluded criteria: <16 years old, pregnancy, ulcus ventriculi, diabetes, nasal polyps causing obstruction, chronic respiratory diseases, any systematic og infective disease at trial entry, hyposentisization during the previous 12 months</p>

	<p>and any medication taken before the study which could possible conceal symptoms of hay fever</p>
<p>Interventions</p>	<p>Intervention Characteristics Glucocorticoids intramuscular ● <i>Management:</i> Placebo spray + single methylprednisolone injection (2ml Depo-Medrol = 80 mg methylprednisolone) Nasal steroids ● <i>Management:</i> Nosespray budesonid total daily dose 400 mikrogram, 2 puffs morning and eveningplacebo single injection with saline 2 ml</p>
<p>Outcomes</p>	<p><i>Continuous:</i> ● Total nasal symotoms (30 days) higher=worse ● Total Eye symotoms (30 days) Higher=worse</p>
<p>Identification</p>	<p>Sponsorship source: Country: Switzerland/Sweden Setting: Comments: Authors name: WJ Pichler, T Klint, M. Blaser, W.Graf, K. Sauter, S.Weiss, K.Witschi Institution: Institute for clinical Immunology, Bern Switzerland and AB Draco dept of clinical research, Lund Sweden Email: Address:</p>
<p>Notes</p>	<p>Identification: Participants: Study design: Baseline characteristics: Intervention characteristics: Pretreatment: Continuous outcomes: Dichotomous outcomes: Adverse outcomes:</p>

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Comment: The sequence generation was not described
Allocation concealment (selection bias)	Unclear risk	Comment: concealment not described
Blinding of participants and personnel (performance bias)	Unclear risk	Comment: Problem with colour of steroid injection and smell/taste nasal steroid
Blinding of outcome assessment (detection bias)	Unclear risk	Comment: Not described
Incomplete outcome data (attrition bias)	Low risk	Comment: No patients dropped out and data is missing for one patient on one outcome.
Selective reporting (reporting bias)	Unclear risk	Comment: Protocol not located, they though report relevant outcomes.
Other bias	Unclear risk	Comment: The study was performed in 1988 where reporting standards were significantly different from what it is today. It is unclear whether funding sources or other bias should be taking into account.

Footnotes

Characteristics of excluded studies

Footnotes

Characteristics of studies awaiting classification

Footnotes

Characteristics of ongoing studies

Footnotes

References to studies

Included studies

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[Empty]

Laursen 1988

Laursen, L. C.; Faurischou, P.; Munch, E. P.. Intramuscular betamethasone dipropionate vs. topical beclomethasone dipropionate and placebo in hay fever. *Allergy* 1988;43(6):420-424. [DOI:]

Pichler 1988

Pichler, W. J.; Klint, T.; Blaser, M.; Graf, W.; Sauter, K.; Weiss, S.; Witschi, K.. Clinical comparison of systemic methylprednisolone acetate versus topical budesonide in patients with seasonal allergic rhinitis. *Allergy* 1988;43(2):87-92. [DOI:]

Excluded studies

Data and analyses

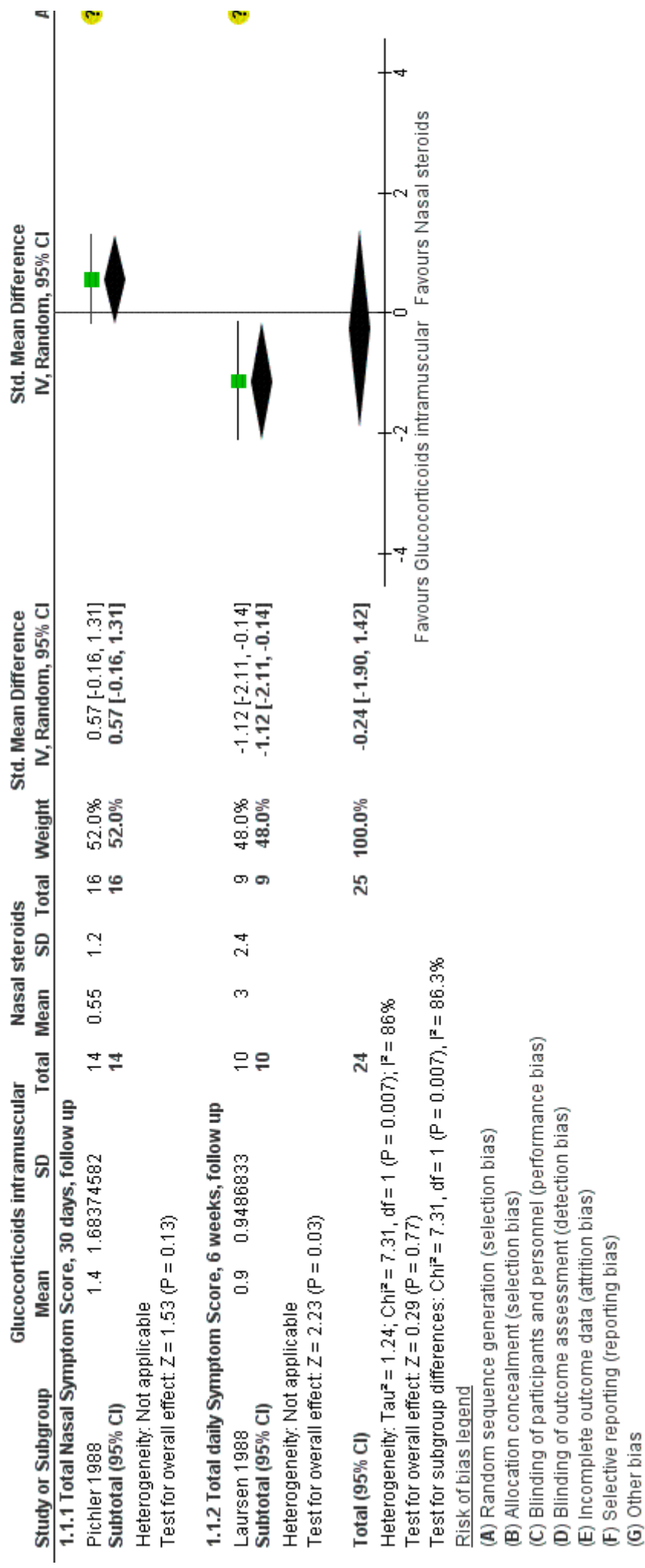
1 Glucocorticoids intramuscular vs Nasal steroids

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 Nasal symptom (Næseflåd, kløe og nysen) [Nasal symptoms (Running, itching, sneezing)], Higher=worse	2	49	Std. Mean Difference (IV, Random, 95% CI)	-0.24 [-1.90, 1.42]
1.1.1 Total Nasal Symptom Score, 30 days, follow up	1	30	Std. Mean Difference (IV, Random, 95% CI)	0.57 [-0.16, 1.31]

1.1.2 Total daily Symptom Score, 6 weeks, follow up	1	19	Std. Mean Difference (IV, Random, 95% CI)	-1.12 [-2.11, -0.14]
1.2 Øjensymptomer (Eye symptoms), Higher=worse	1	30	Mean Difference (IV, Fixed, 95% CI)	0.73 [-0.17, 1.63]
1.2.1 Eye symptoms, 30 days, follow up	1	30	Mean Difference (IV, Fixed, 95% CI)	0.73 [-0.17, 1.63]
1.3 Livskvalitet (Quality of life)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.4 Fraværsdage fra arbejde/skole (Day of school/work)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.5 Forstoppelse i næse (Nasal Blockage)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.6 Døighed (Drowsiness)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.7 Knoglebrud (Fractures)	1	44226	Risk Ratio (M-H, Fixed, 95% CI)	0.98 [0.82, 1.17]
1.7.1 Osteoporosis	1	44226	Risk Ratio (M-H, Fixed, 95% CI)	0.98 [0.82, 1.17]
1.8 Diabetes (Diabetes)	1	44226	Risk Ratio (M-H, Fixed, 95% CI)	0.96 [0.83, 1.12]
1.8.1 Diabetes	1	44226	Risk Ratio (M-H, Fixed, 95% CI)	0.96 [0.83, 1.12]
1.9 Væksthæmning (Growth Retardation)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.10 Lokal atrofi (Local atrophy)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable

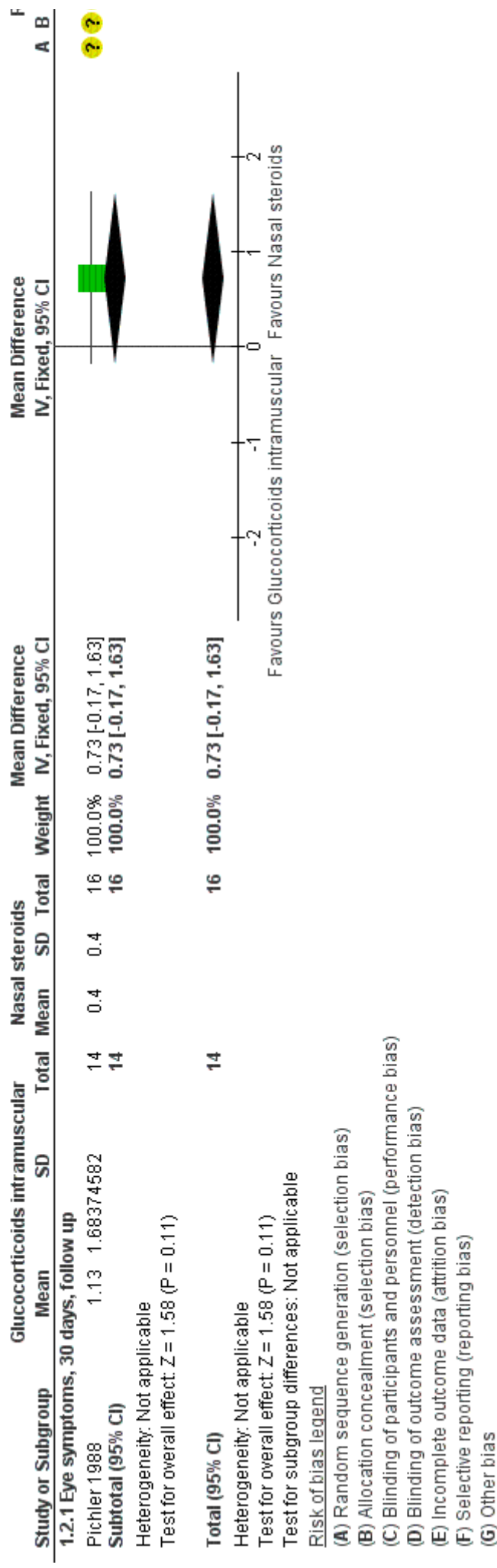
Figures

Figure 1 (Analysis 1.1)



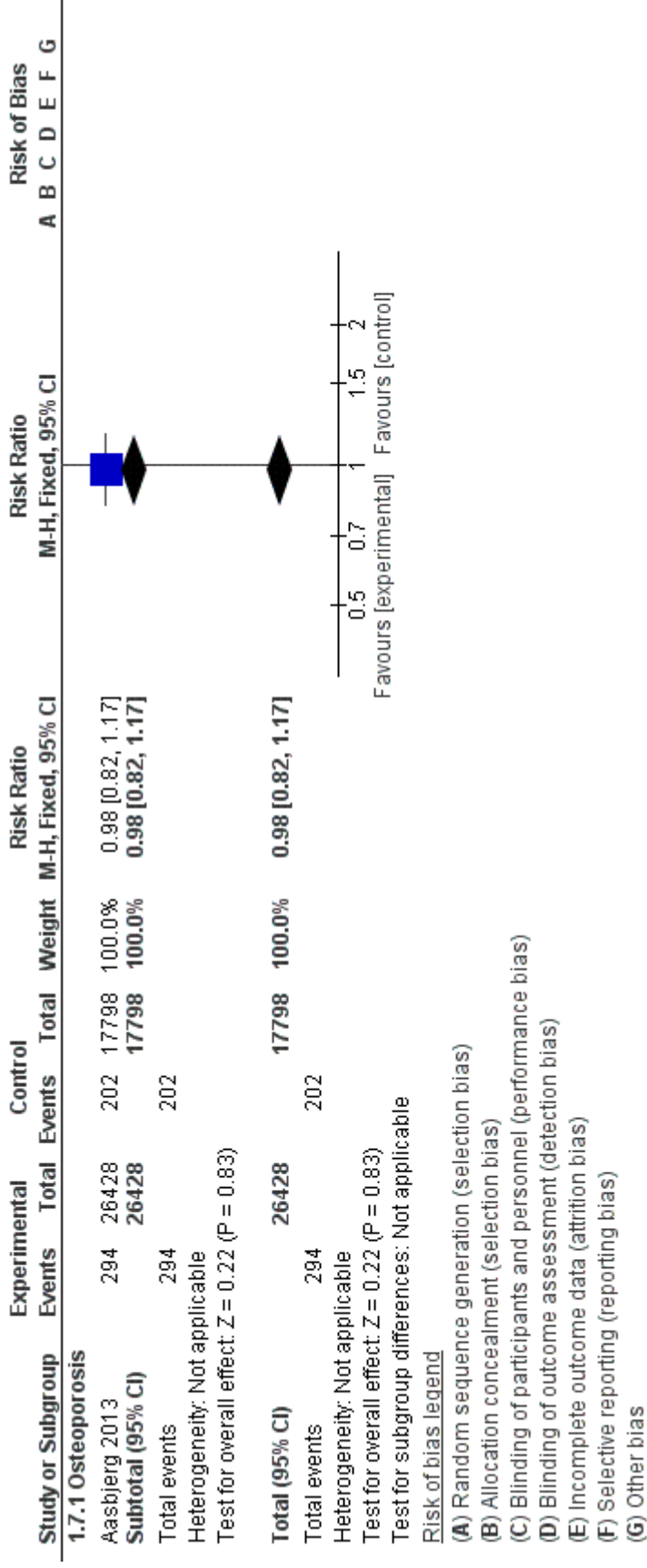
Forest plot of comparison: 1 Glucocorticoids intramuscular vs Nasal steroids, outcome: 1.1 Nasal symptom (Næseflåd, kløe og nysen) [Nasal symptoms (Running, itching, sneezing)], Highler=worse.

Figure 2 (Analysis 1.2)



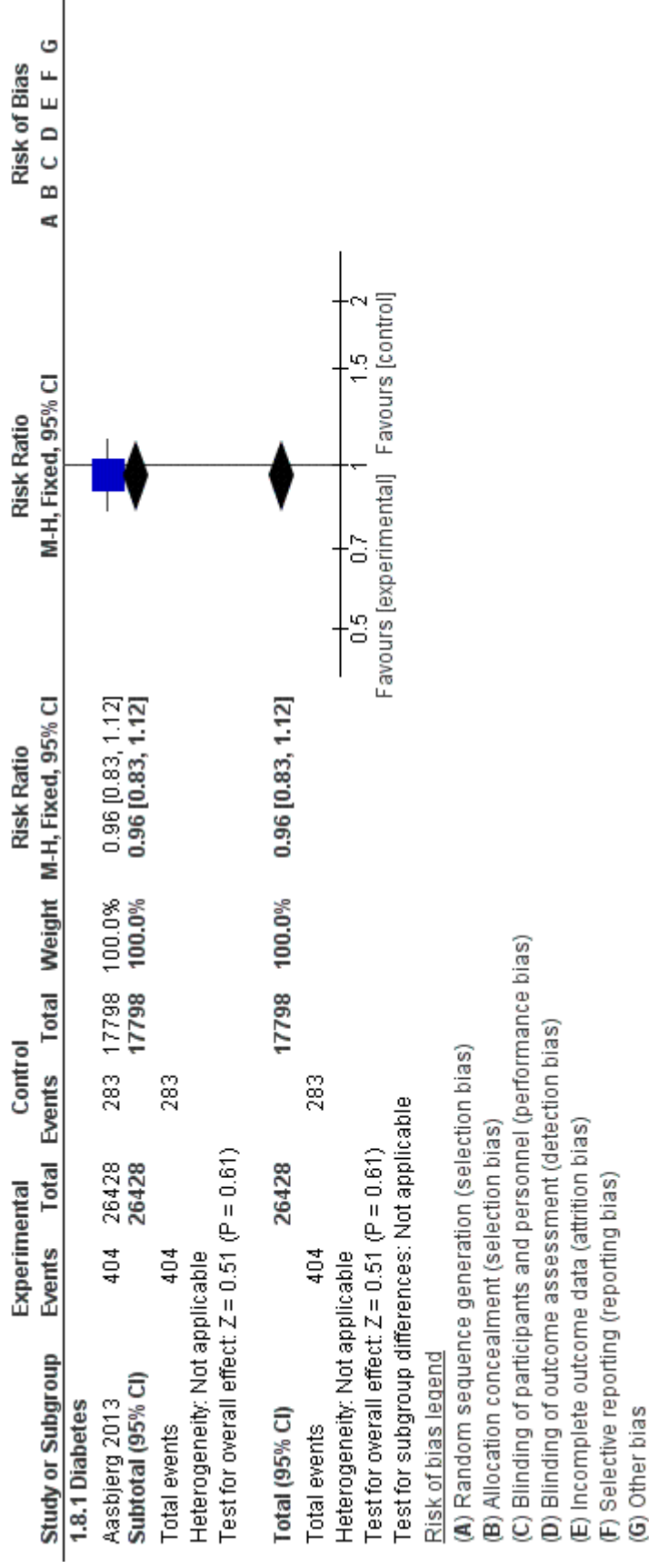
Forest plot of comparison: 1 Glucocorticoids intramuscular vs Nasal steroids, outcome: 1.2 Øjensymptomer (Eye symptoms), Higher=worse.

Figure 3 (Analysis 1.7)



Forest plot of comparison: 1 Glucocorticoids intramuscular vs Nasal steroids, outcome: 1.7 Knoglebrud (Fractures).

Figure 4 (Analysis 1.8)



Forest plot of comparison: 1 Glucocorticoids intramuscular vs Nasal steroids, outcome: 1.8 Diabetes (Diabetes).