Supplementary material.
Table 1: PRISMA 2009 Checklist.

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	3
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	3
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	4
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	4
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	4
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	4
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	4
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	4
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	4
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	4
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	4-5
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	4-5

Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	4
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	4-5
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	5
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	5
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	5
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	5
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	5-6
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	5
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	5-6
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	6-7
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	7-8
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	8
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	1,8

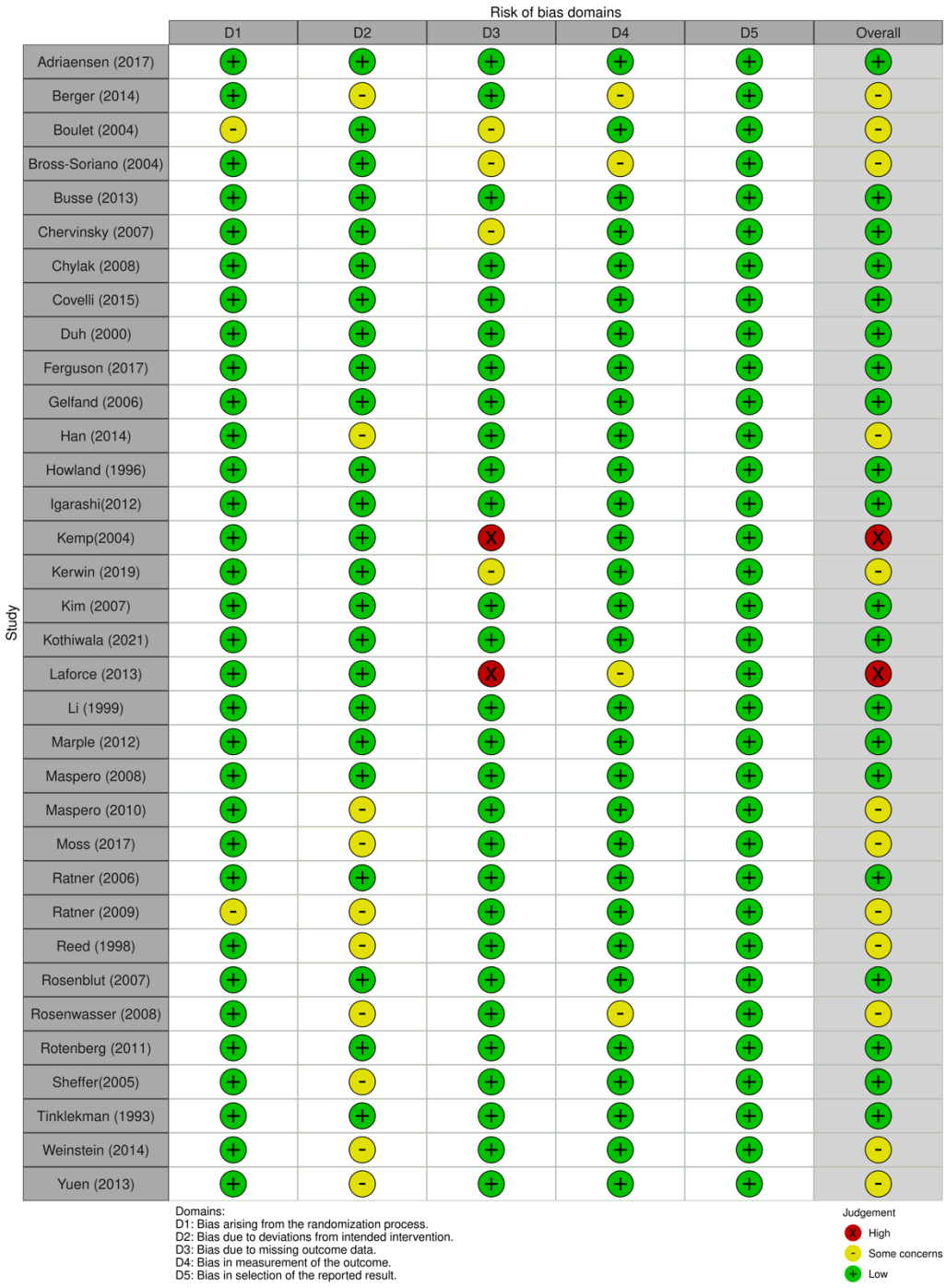
From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097. For more information, visit: **www.prisma-statement.org**.

Supplementary material.

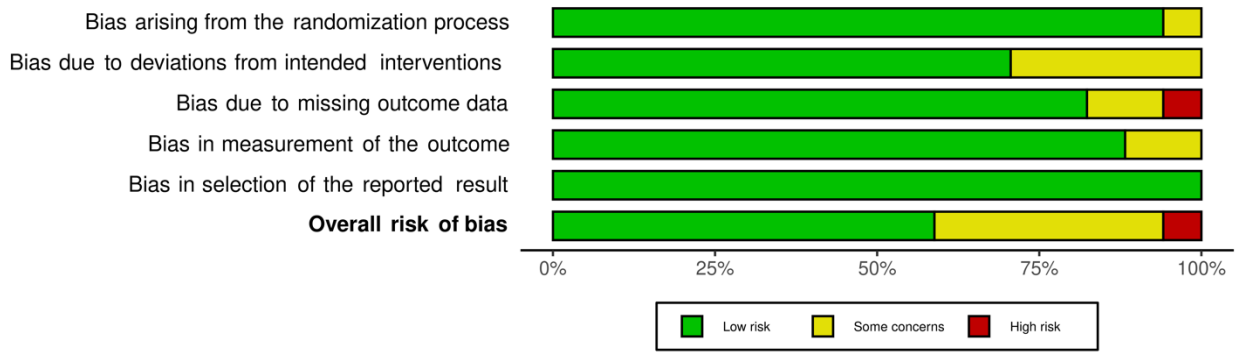
Figure 1. Risk of bias assessment results. RCT assessed using RoB-2 instrument: A) traffic light plot, demonstrating scoring in each domain for each individual result; B) summary plot, demonstrating weighted distribution of scoring within each bias domain. NRSI assessed using ROBINS-I instrument: C) traffic light plot, D) summary plot.

Abbreviations: RCT, randomized control trials; NRSI, non-randomized studies of interventions; RoB, Risk of Bias; ROBINS-I, Risk Of Bias In Non-randomized Studies.

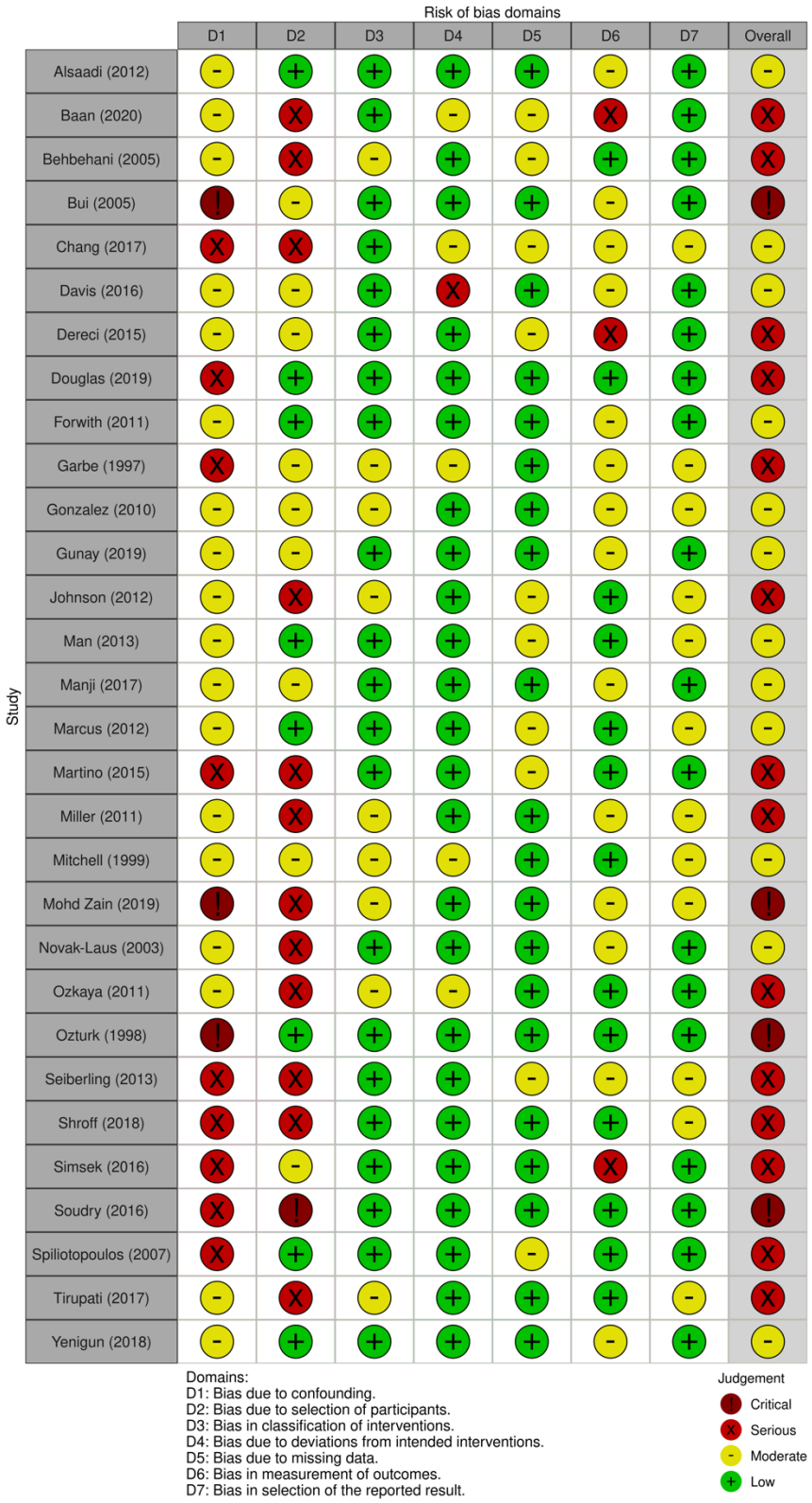
A)



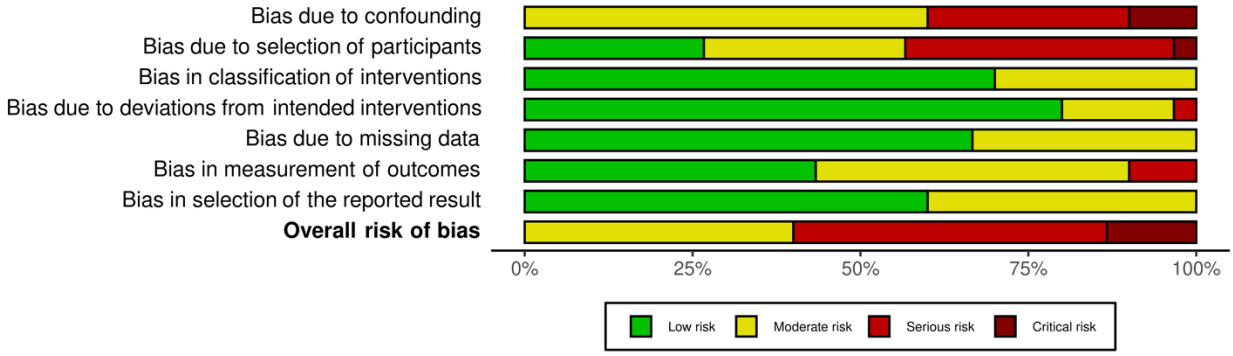
B)


Bias arising from the randomization process
Bias due to deviations from intended interventions
Bias due to missing outcome data
Bias in measurement of the outcome
Bias in selection of the reported result
Overall risk of bias
0%
25%
50%
75%
100%
Low risk
Some concerns
High risk

C)


Risk of bias domains
D1
D2
D3
D4
D5
D6
D7
Overall
Study
Alsaadi (2012)
Baan (2020)
Behbehani (2005)
Bui (2005)
Chang (2017)
Davis (2016)
Dereci (2015)
Douglas (2019)
Forwith (2011)
Garbe (1997)
Gonzalez (2010)
Gunay (2019)
Johnson (2012)
Man (2013)
Manji (2017)
Marcus (2012)
Martino (2015)
Miller (2011)
Mitchell (1999)
Mohd Zain (2019)
Novak-Laus (2003)
Ozkaya (2011)
Ozturk (1998)
Seiberling (2013)
Shroff (2018)
Simsek (2016)
Soudry (2016)
Spiliotopoulos (2007)
Tirupati (2017)
Yenigun (2018)
Domains:
D1: Bias due to confounding.
D2: Bias due to selection of participants.
D3: Bias in classification of interventions.
D4: Bias due to deviations from intended interventions.
D5: Bias due to missing data.
D6: Bias in measurement of outcomes.
D7: Bias in selection of the reported result.
Judgement
Critical
Serious
Moderate
Low

D)

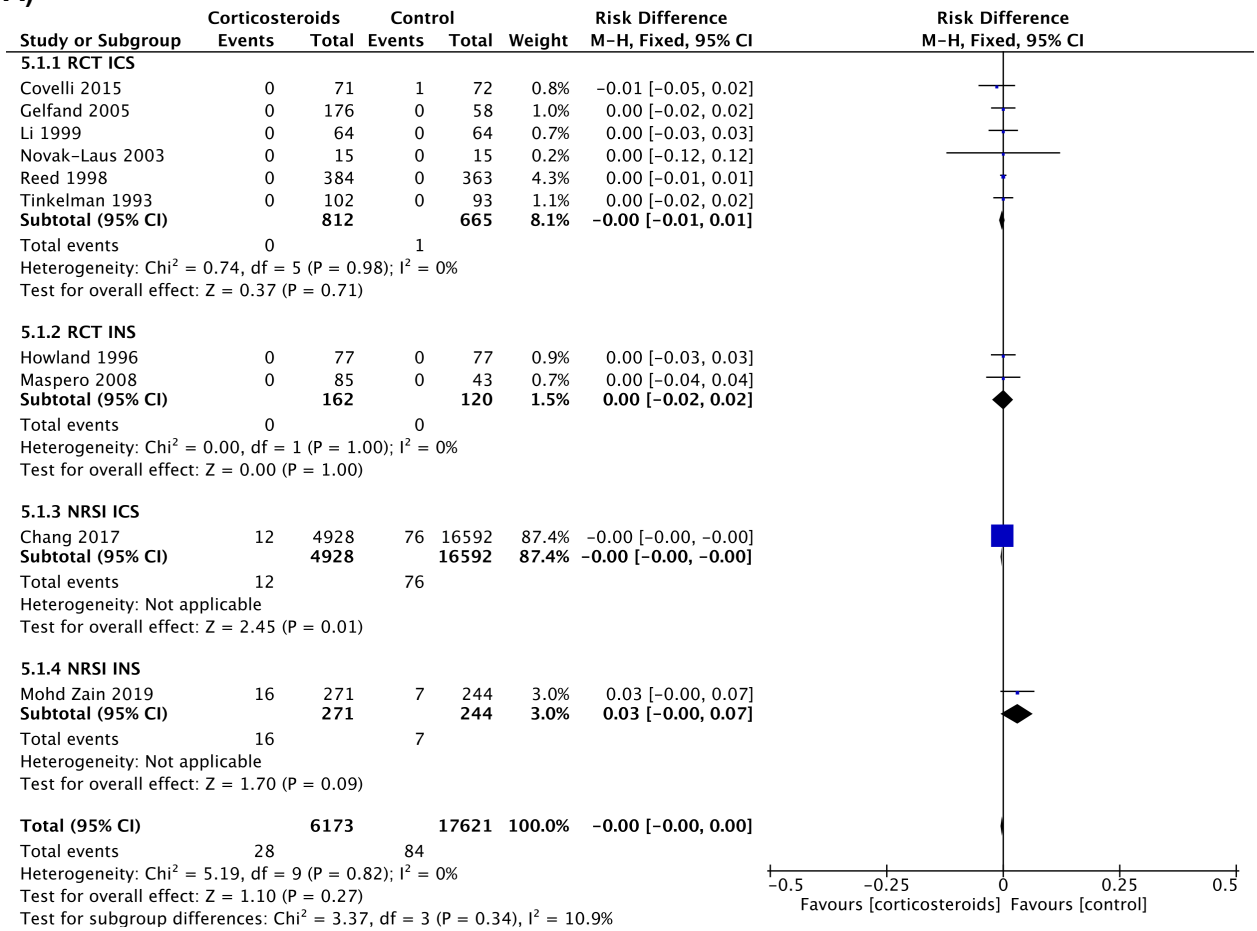

Bias due to confounding
Bias due to selection of participants
Bias in classification of interventions
Bias due to deviations from intended interventions
Bias due to missing data
Bias in measurement of outcomes
Bias in selection of the reported result
Overall risk of bias
0%
25%
50%
75%
100%
Low risk
Moderate risk
Serious risk
Critical risk

Supplementary material.

Figure 2. Sensitivity analyses for A,B) glaucoma incidence; C) OHT incidence; D) endpoint IOP difference between ICS or INS users and controls; E) change in IOP after ICS or INS use compared to pre-treatment baseline.

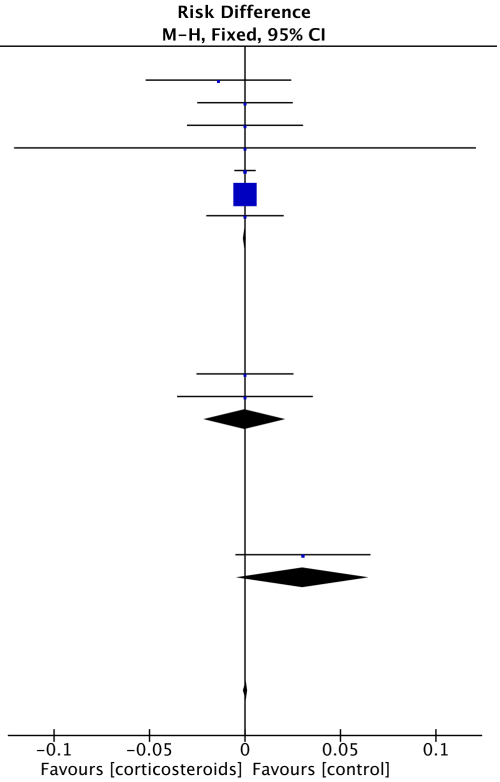
Abbreviations: CI, confidence interval; OHT, ocular hypertension; IOP, intraocular pressure; ICS, inhalational corticosteroids; INS, intranasal corticosteroids; RCT, randomized control trial; NRSI, non-randomized study of interventions.

A)

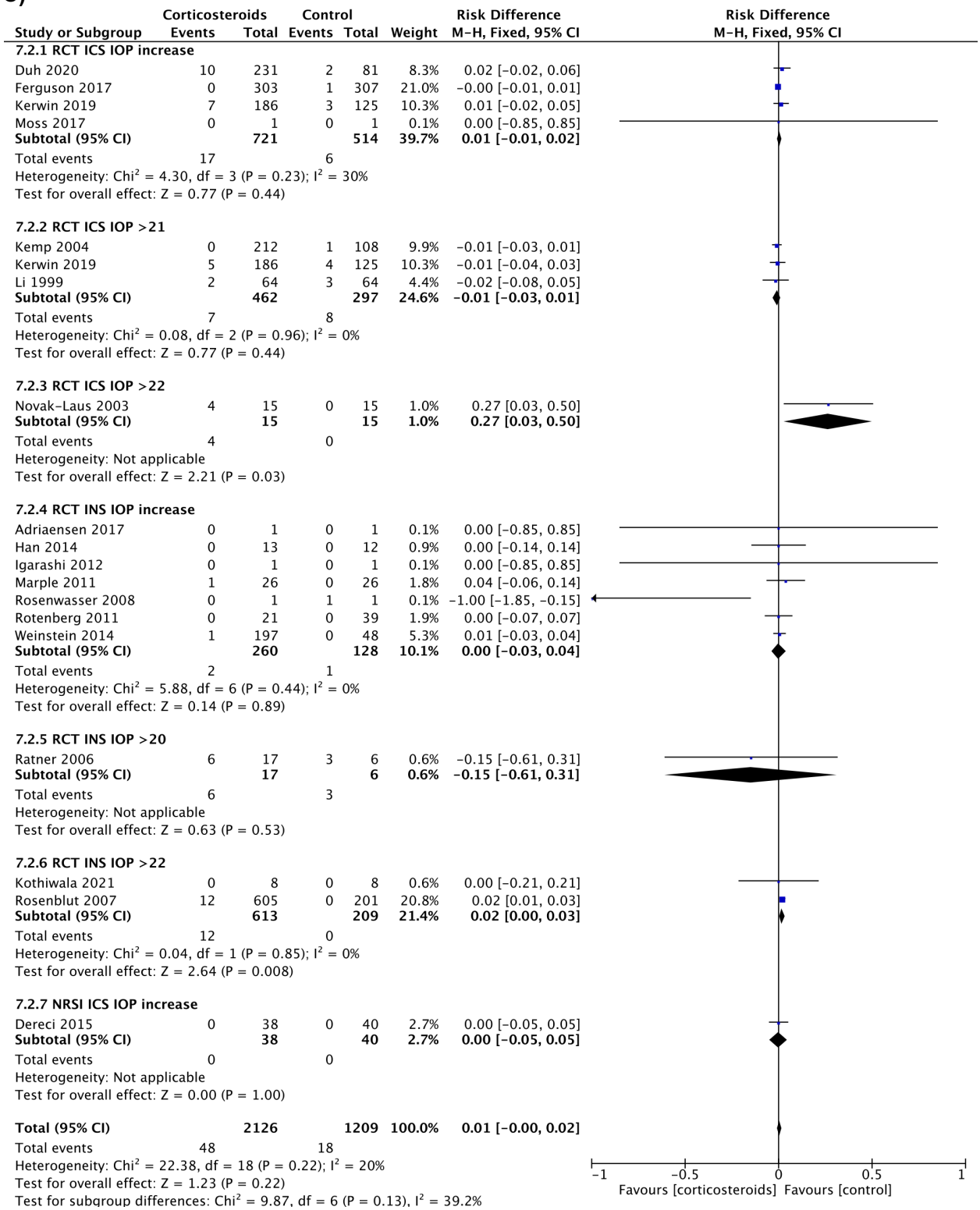


B)

Study or Subgroup	Corticosteroids Events	Total	Control Events	Total	Weight	Risk Difference M-H, Fixed, 95% CI
6.1.1 RCT ICS						
Covelli 2015	0	71	1	72	0.6%	-0.01 [-0.05, 0.02]
Gelfand 2005	0	176	0	58	0.7%	0.00 [-0.02, 0.02]
Li 1999	0	64	0	64	0.5%	0.00 [-0.03, 0.03]
Novak-Laus 2003	0	15	0	15	0.1%	0.00 [-0.12, 0.12]
Reed 1998	0	384	0	363	3.1%	0.00 [-0.01, 0.01]
Sheffer 2005	2	10890	2	10773	90.8%	-0.00 [-0.00, 0.00]
Tinkelman 1993	0	102	0	93	0.8%	0.00 [-0.02, 0.02]
Subtotal (95% CI)		**11702**		**11438**	**96.7%**	**-0.00 [-0.00, 0.00]**
Total events	2		3			
Heterogeneity: $Chi^2 = 0.73$, df = 6 (P = 0.99); $I^2 = 0\%$						
Test for overall effect: Z = 0.30 (P = 0.76)						
6.1.2 RCT INS						
Howland 1996	0	77	0	77	0.6%	0.00 [-0.03, 0.03]
Maspero 2008	0	85	0	43	0.5%	0.00 [-0.04, 0.04]
Subtotal (95% CI)		**162**		**120**	**1.1%**	**0.00 [-0.02, 0.02]**
Total events	0		0			
Heterogeneity: $Chi^2 = 0.00$, df = 1 (P = 1.00); $I^2 = 0\%$						
Test for overall effect: Z = 0.00 (P = 1.00)						
6.1.4 NRSI INS						
Mohd Zain 2019	16	271	7	244	2.2%	0.03 [-0.00, 0.07]
Subtotal (95% CI)		**271**		**244**	**2.2%**	**0.03 [-0.00, 0.07]**
Total events	16		7			
Heterogeneity: Not applicable						
Test for overall effect: Z = 1.70 (P = 0.09)						
Total (95% CI)		**12135**		**11802**	**100.0%**	**0.00 [-0.00, 0.00]**
Total events	18		10			
Heterogeneity: $Chi^2 = 12.94$, df = 9 (P = 0.17); $I^2 = 30\%$						
Test for overall effect: Z = 1.16 (P = 0.25)						
Test for subgroup differences: $Chi^2 = 2.90$, df = 2 (P = 0.23), $I^2 = 31.1\%$						

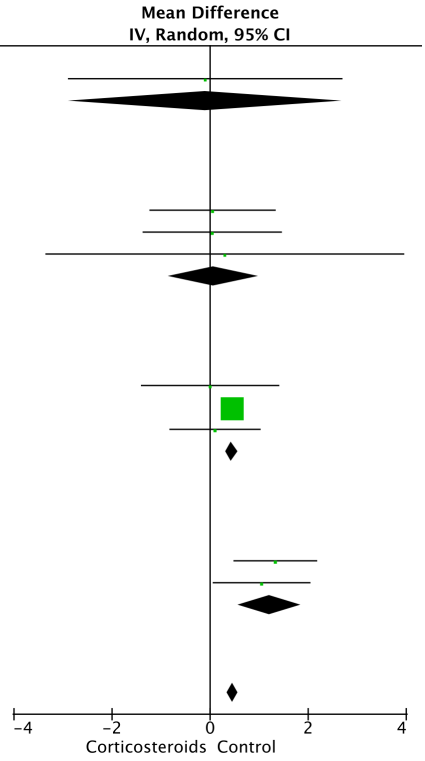


C)


Corticosteroids
Control
Risk Difference
Risk Difference
Study or Subgroup Events Total Events Total Weight M-H, Fixed, 95% CI
M-H, Fixed, 95% CI
7.2.1 RCT ICS IOP increase
Duh 2020 10 231 2 81 8.3% 0.02 [-0.02, 0.06]
Ferguson 2017 0 303 1 307 21.0% -0.00 [-0.01, 0.01]
Kerwin 2019 7 186 3 125 10.3% 0.01 [-0.02, 0.05]
Moss 2017 0 1 0 1 0.1% 0.00 [-0.85, 0.85]
Subtotal (95% CI) 721 514 39.7% 0.01 [-0.01, 0.02]
Total events 17 6
Heterogeneity: Chi² = 4.30, df = 3 (P = 0.23); I² = 30%
Test for overall effect: Z = 0.77 (P = 0.44)
7.2.2 RCT ICS IOP >21
Kemp 2004 0 212 1 108 9.9% -0.01 [-0.03, 0.01]
Kerwin 2019 5 186 4 125 10.3% -0.01 [-0.04, 0.03]
Li 1999 2 64 3 64 4.4% -0.02 [-0.08, 0.05]
Subtotal (95% CI) 462 297 24.6% -0.01 [-0.03, 0.01]
Total events 7 8
Heterogeneity: Chi² = 0.08, df = 2 (P = 0.96); I² = 0%
Test for overall effect: Z = 0.77 (P = 0.44)
7.2.3 RCT ICS IOP >22
Novak-Laus 2003 4 15 0 15 1.0% 0.27 [0.03, 0.50]
Subtotal (95% CI) 15 15 1.0% 0.27 [0.03, 0.50]
Total events 4 0
Heterogeneity: Not applicable
Test for overall effect: Z = 2.21 (P = 0.03)
7.2.4 RCT INS IOP increase
Adriaensen 2017 0 1 0 1 0.1% 0.00 [-0.85, 0.85]
Han 2014 0 13 0 12 0.9% 0.00 [-0.14, 0.14]
Igarashi 2012 0 1 0 1 0.1% 0.00 [-0.85, 0.85]
Marple 2011 1 26 0 26 1.8% 0.04 [-0.06, 0.14]
Rosenwasser 2008 0 1 1 1 0.1% -1.00 [-1.85, -0.15]
Rotenberg 2011 0 21 0 39 1.9% 0.00 [-0.07, 0.07]
Weinstein 2014 1 197 0 48 5.3% 0.01 [-0.03, 0.04]
Subtotal (95% CI) 260 128 10.1% 0.00 [-0.03, 0.04]
Total events 2 1
Heterogeneity: Chi² = 5.88, df = 6 (P = 0.44); I² = 0%
Test for overall effect: Z = 0.14 (P = 0.89)
7.2.5 RCT INS IOP >20
Ratner 2006 6 17 3 6 0.6% -0.15 [-0.61, 0.31]
Subtotal (95% CI) 17 6 0.6% -0.15 [-0.61, 0.31]
Total events 6 3
Heterogeneity: Not applicable
Test for overall effect: Z = 0.63 (P = 0.53)
7.2.6 RCT INS IOP >22
Kothiwala 2021 0 8 0 8 0.6% 0.00 [-0.21, 0.21]
Rosenblut 2007 12 605 0 201 20.8% 0.02 [0.01, 0.03]
Subtotal (95% CI) 613 209 21.4% 0.02 [0.00, 0.03]
Total events 12 0
Heterogeneity: Chi² = 0.04, df = 1 (P = 0.85); I² = 0%
Test for overall effect: Z = 2.64 (P = 0.008)
7.2.7 NRSI ICS IOP increase
Dereci 2015 0 38 0 40 2.7% 0.00 [-0.05, 0.05]
Subtotal (95% CI) 38 40 2.7% 0.00 [-0.05, 0.05]
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Z = 0.00 (P = 1.00)
Total (95% CI) 2126 1209 100.0% 0.01 [-0.00, 0.02]
Total events 48 18
Heterogeneity: Chi² = 22.38, df = 18 (P = 0.22); I² = 20%
Test for overall effect: Z = 1.23 (P = 0.22)
Test for subgroup differences: Chi² = 9.87, df = 6 (P = 0.13), I² = 39.2%
-1
-0.5
0
0.5
1
Favours [corticosteroids]
Favours [control]

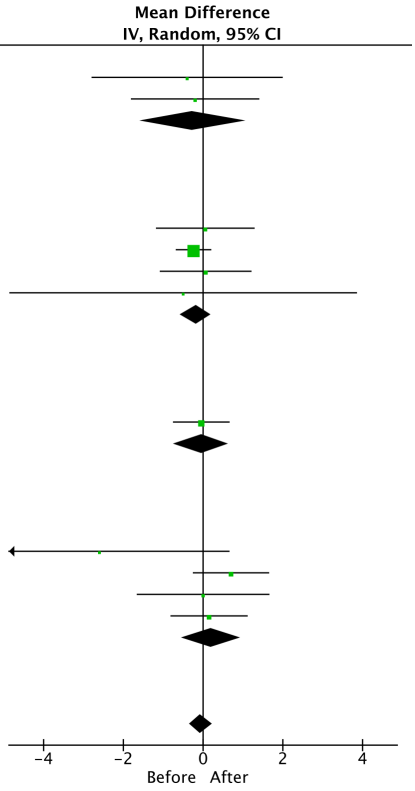
D)

Study or Subgroup	Corticosteroids Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
9.1.1 RCT ICS								
Moss 2017	14.7	2.4	10	14.8	3.8	10	0.2%	−0.10 [−2.89, 2.69]
Subtotal (95% CI)			**10**			**10**	**0.2%**	**−0.10 [−2.89, 2.69]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.07 (P = 0.94)								
9.1.2 RCT INS								
Kothiwala 2021	16.26	2.59	33	16.21	2.69	33	0.8%	0.05 [−1.22, 1.32]
Rotenberg 2011	13.1436	2.3522	39	13.1	2.8	21	0.7%	0.04 [−1.36, 1.45]
Yuen 2013	16.3	4.8	9	16	3	10	0.1%	0.30 [−3.35, 3.95]
Subtotal (95% CI)			**81**			**64**	**1.6%**	**0.06 [−0.85, 0.98]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 0.02$, df = 2 (P = 0.99); $I^2 = 0\%$								
Test for overall effect: Z = 0.14 (P = 0.89)								
9.1.3 NRSI ICS								
Alsaadi 2012	14	3.3	69	14	2.9	24	0.7%	0.00 [−1.40, 1.40]
Emin 2011	13.1	0.5378	266	12.65	0.6518	160	92.7%	0.45 [0.33, 0.57]
Gunay 2019	15.9	1.9	31	15.8	1.5	22	1.6%	0.10 [−0.82, 1.02]
Subtotal (95% CI)			**366**			**206**	**95.0%**	**0.44 [0.32, 0.56]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 0.94$, df = 2 (P = 0.63); $I^2 = 0\%$								
Test for overall effect: Z = 7.29 (P < 0.00001)								
9.1.4 NRSI INS								
Mohd Zain 2019	15.24	2.314	50	13.91	1.858	45	1.9%	1.33 [0.49, 2.17]
Ozkaya 2011	17	4.3529	150	15.95	3.3588	90	1.4%	1.05 [0.07, 2.03]
Subtotal (95% CI)			**200**			**135**	**3.3%**	**1.21 [0.57, 1.85]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 0.18$, df = 1 (P = 0.67); $I^2 = 0\%$								
Test for overall effect: Z = 3.72 (P = 0.0002)								
Total (95% CI)			**657**			**415**	**100.0%**	**0.46 [0.34, 0.57]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 7.43$, df = 8 (P = 0.49); $I^2 = 0\%$								
Test for overall effect: Z = 7.80 (P < 0.00001)								
Test for subgroup differences: $Chi^2 = 6.30$, df = 3 (P = 0.10), $I^2 = 52.4\%$								



E)

Study or Subgroup	Before Mean	Before SD	Before Total	After Mean	After SD	After Total	Weight	Mean Difference IV, Random, 95% CI
8.2.1 RCT ICS								
Moss 2017	14.3	3	10	14.7	2.4	10	1.4%	−0.40 [−2.78, 1.98]
Novak-Laus 2003	17.1	3.1	30	17.3	3.2	30	3.2%	−0.20 [−1.79, 1.39]
Subtotal (95% CI)			**40**			**40**	**4.6%**	**−0.26 [−1.59, 1.06]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 0.02$, df = 1 (P = 0.89); $I^2 = 0\%$								
Test for overall effect: Z = 0.39 (P = 0.70)								
8.2.2 RCT INS								
Kothiwala 2021	16.315	2.47	33	16.26	2.59	33	5.5%	0.05 [−1.17, 1.28]
Ratner 2009	14.6608	2.4961	251	14.9007	2.4138	251	44.2%	−0.24 [−0.67, 0.19]
Rotenberg 2011	13.2077	2.7431	39	13.1436	2.3522	39	6.3%	0.06 [−1.07, 1.20]
Yuen 2013	15.8	4.6	9	16.3	4.8	9	0.4%	−0.50 [−4.84, 3.84]
Subtotal (95% CI)			**332**			**332**	**56.4%**	**−0.18 [−0.56, 0.20]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 0.42$, df = 3 (P = 0.94); $I^2 = 0\%$								
Test for overall effect: Z = 0.92 (P = 0.36)								
8.2.3 NRSI ICS								
Simsek 2016	13.755	1.8264	50	13.8	1.7129	50	16.9%	−0.04 [−0.74, 0.65]
Subtotal (95% CI)			**50**			**50**	**16.9%**	**−0.04 [−0.74, 0.65]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.13 (P = 0.90)								
8.2.4 NRSI INS								
Bui 2005	15.4	4.3	12	18	3.8	12	0.8%	−2.60 [−5.85, 0.65]
Forwith 2011	15	3.1	89	14.3	3.3	89	9.2%	0.70 [−0.24, 1.64]
Man 2013	13.3	2.9	23	13.3	2.8	23	3.0%	0.00 [−1.65, 1.65]
Yenigun 2018	16.9	2.035	29	16.75	1.6432	29	9.0%	0.15 [−0.80, 1.10]
Subtotal (95% CI)			**153**			**153**	**22.0%**	**0.20 [−0.55, 0.95]**
Heterogeneity: $Tau^2 = 0.15$; $Chi^2 = 3.97$, df = 3 (P = 0.26); $I^2 = 24\%$								
Test for overall effect: Z = 0.52 (P = 0.60)								
Total (95% CI)			**575**			**575**	**100.0%**	**−0.06 [−0.35, 0.22]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 5.95$, df = 10 (P = 0.82); $I^2 = 0\%$								
Test for overall effect: Z = 0.43 (P = 0.67)								
Test for subgroup differences: $Chi^2 = 0.85$, df = 3 (P = 0.84), $I^2 = 0\%$								

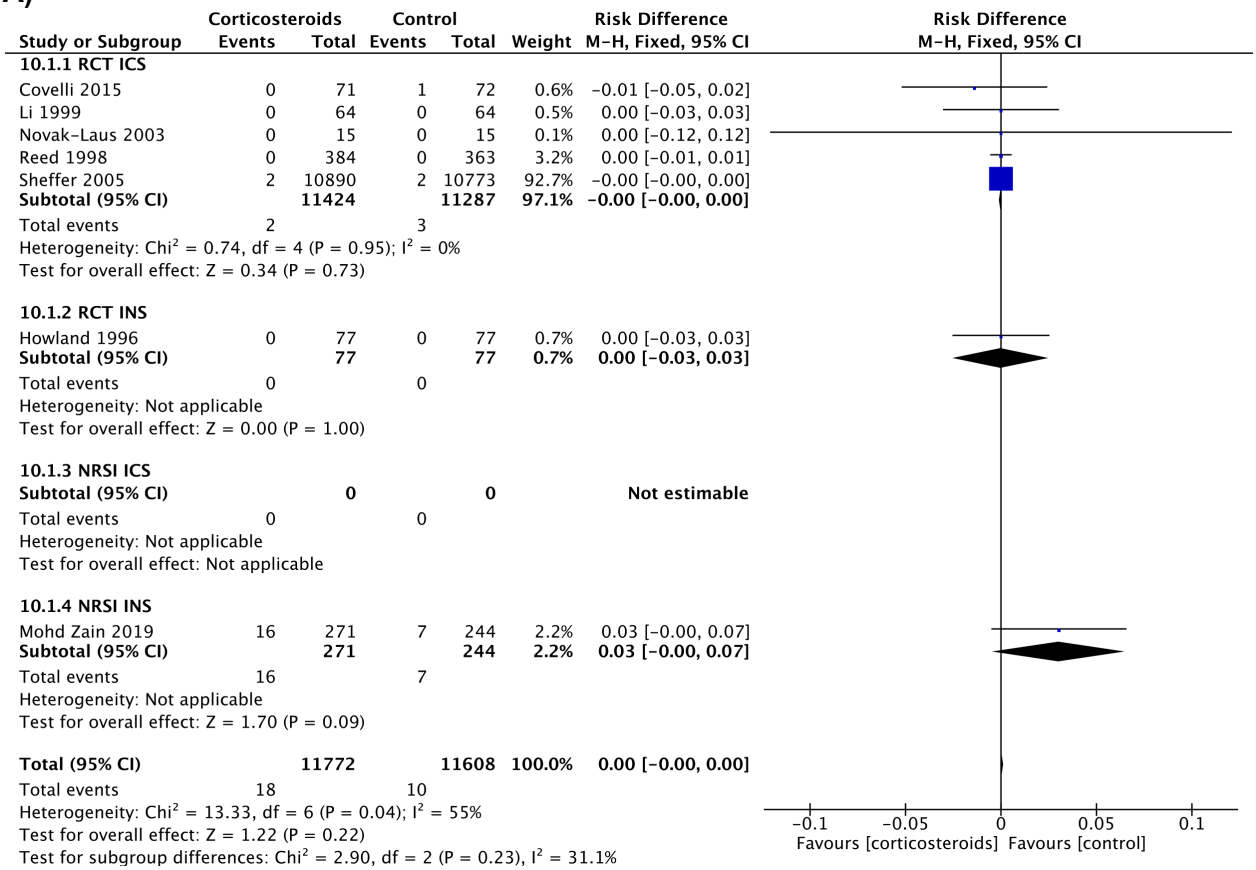


Supplementary material.

Figure 3. Sensitivity analyses for comparing adult and pediatric populations (respectively) for A,B) glaucoma incidence; C,D) OHT incidence; E,F) endpoint IOP difference between ICS or INS users and controls; G,H) change in IOP after ICS or INS use compared to pre-treatment baseline.

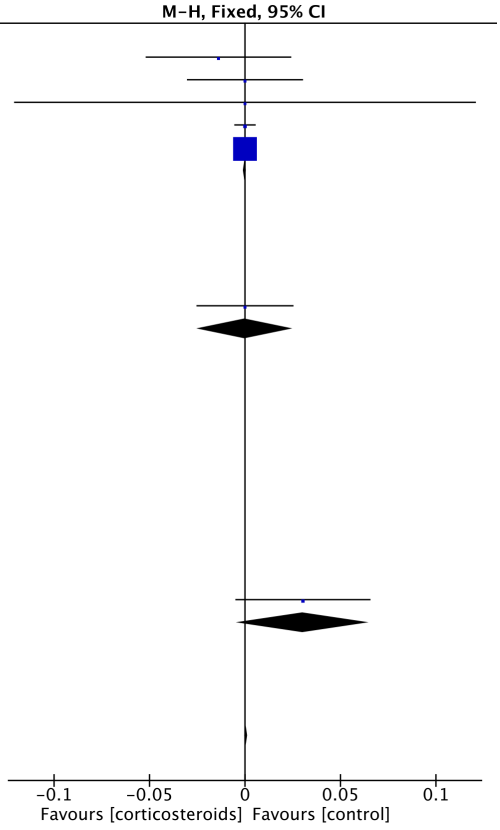
Abbreviations: CI, confidence interval; OHT, ocular hypertension; IOP, intraocular pressure; ICS, inhalational corticosteroids; INS, intranasal corticosteroids; RCT, randomized control trial; NRSI, non-randomized study of interventions.

A)

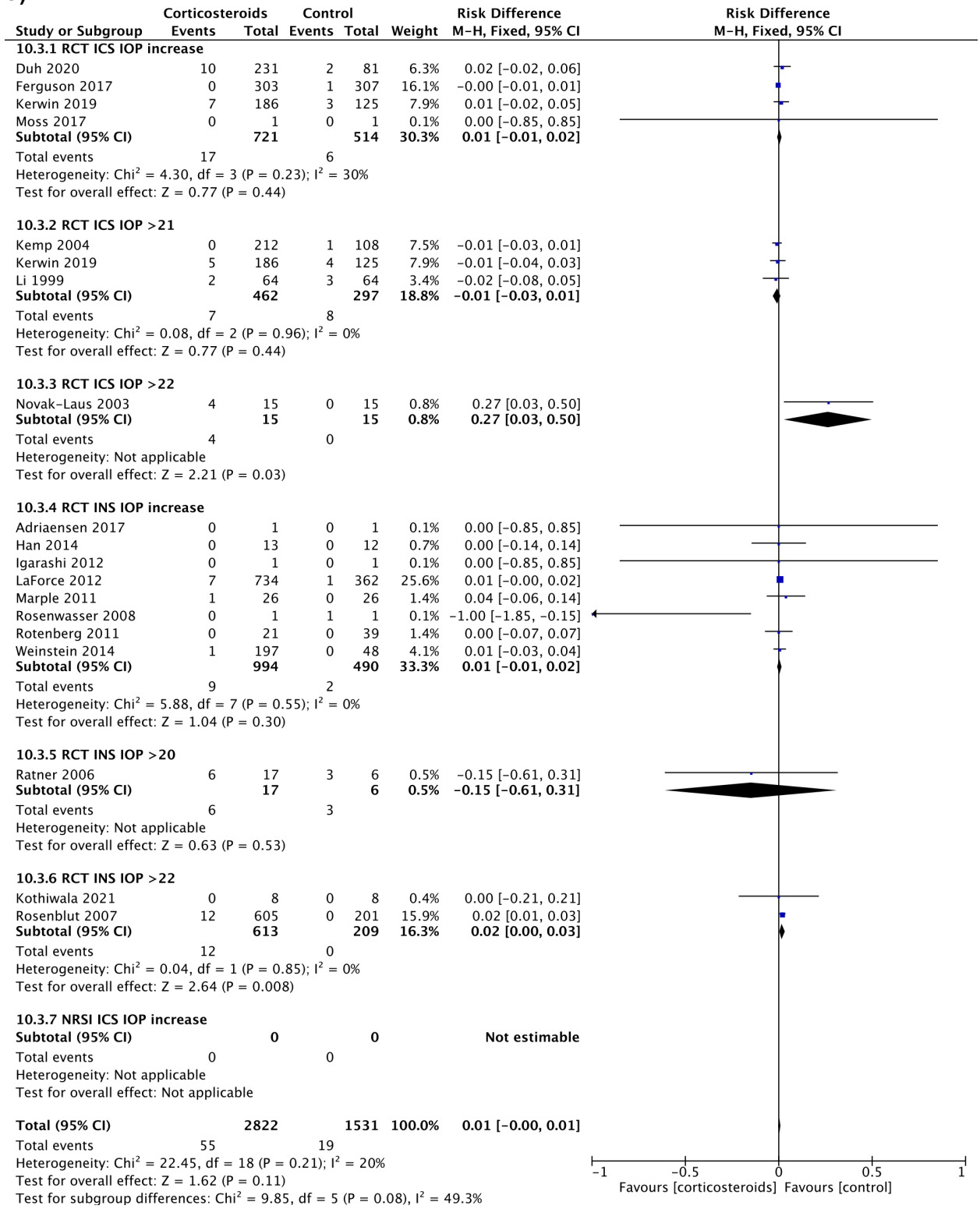


B)

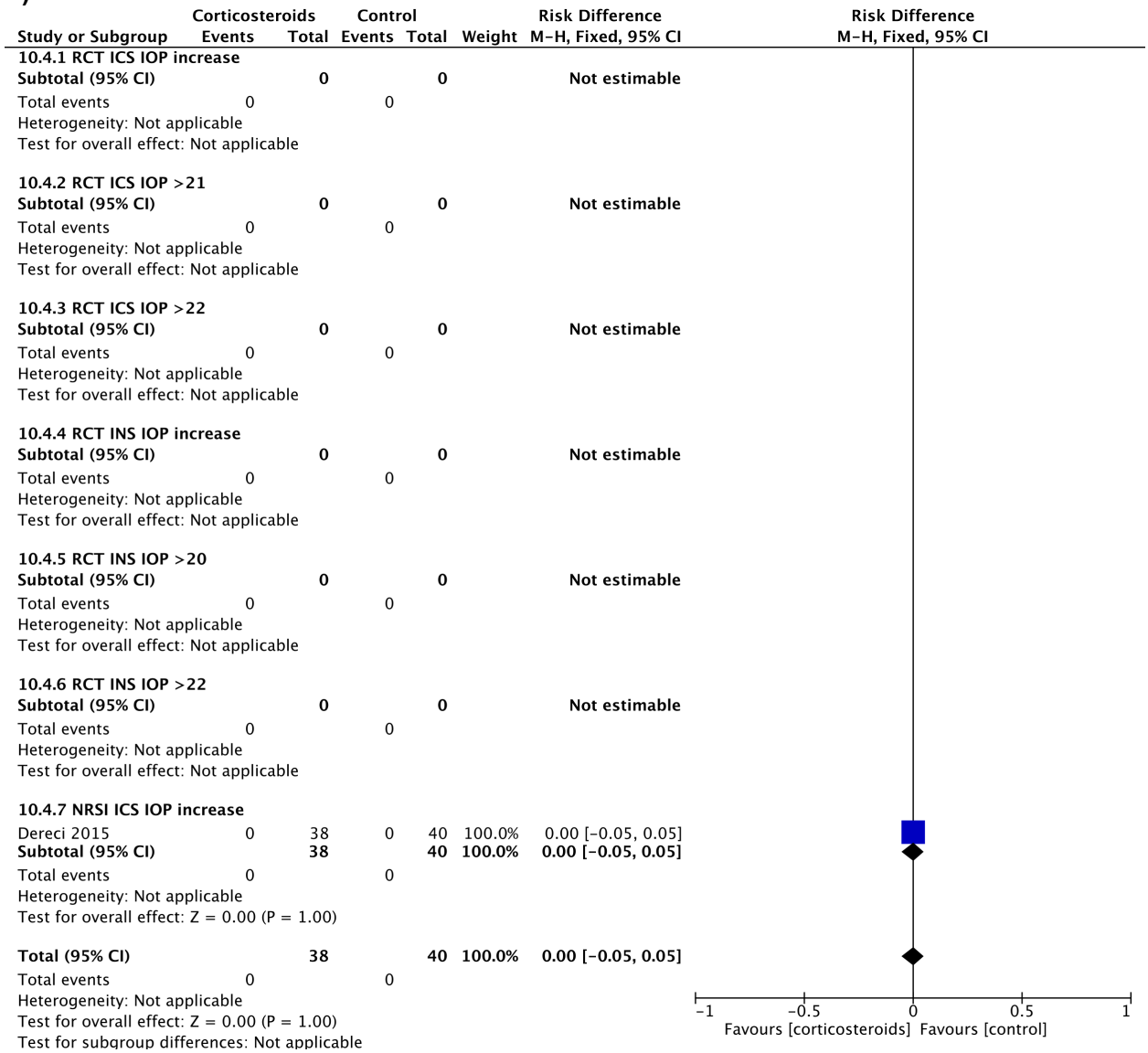
Study or Subgroup	Corticosteroids Events	Total	Control Events	Total	Weight	Risk Difference M-H, Fixed, 95% CI
10.1.1 RCT ICS						
Covelli 2015	0	71	1	72	0.6%	-0.01 [-0.05, 0.02]
Li 1999	0	64	0	64	0.5%	0.00 [-0.03, 0.03]
Novak-Laus 2003	0	15	0	15	0.1%	0.00 [-0.12, 0.12]
Reed 1998	0	384	0	363	3.2%	0.00 [-0.01, 0.01]
Sheffer 2005	2	10890	2	10773	92.7%	-0.00 [-0.00, 0.00]
Subtotal (95% CI)		**11424**		**11287**	**97.1%**	**-0.00 [-0.00, 0.00]**
Total events	2		3			
Heterogeneity: $Chi^2 = 0.74$, df = 4 (P = 0.95); $I^2 = 0\%$						
Test for overall effect: Z = 0.34 (P = 0.73)						
10.1.2 RCT INS						
Howland 1996	0	77	0	77	0.7%	0.00 [-0.03, 0.03]
Subtotal (95% CI)		**77**		**77**	**0.7%**	**0.00 [-0.03, 0.03]**
Total events	0		0			
Heterogeneity: Not applicable						
Test for overall effect: Z = 0.00 (P = 1.00)						
10.1.3 NRSI ICS						
Subtotal (95% CI)		**0**		**0**		**Not estimable**
Total events	0		0			
Heterogeneity: Not applicable						
Test for overall effect: Not applicable						
10.1.4 NRSI INS						
Mohd Zain 2019	16	271	7	244	2.2%	0.03 [-0.00, 0.07]
Subtotal (95% CI)		**271**		**244**	**2.2%**	**0.03 [-0.00, 0.07]**
Total events	16		7			
Heterogeneity: Not applicable						
Test for overall effect: Z = 1.70 (P = 0.09)						
Total (95% CI)		**11772**		**11608**	**100.0%**	**0.00 [-0.00, 0.00]**
Total events	18		10			
Heterogeneity: $Chi^2 = 13.33$, df = 6 (P = 0.04); $I^2 = 55\%$						
Test for overall effect: Z = 1.22 (P = 0.22)						
Test for subgroup differences: $Chi^2 = 2.90$, df = 2 (P = 0.23), $I^2 = 31.1\%$						



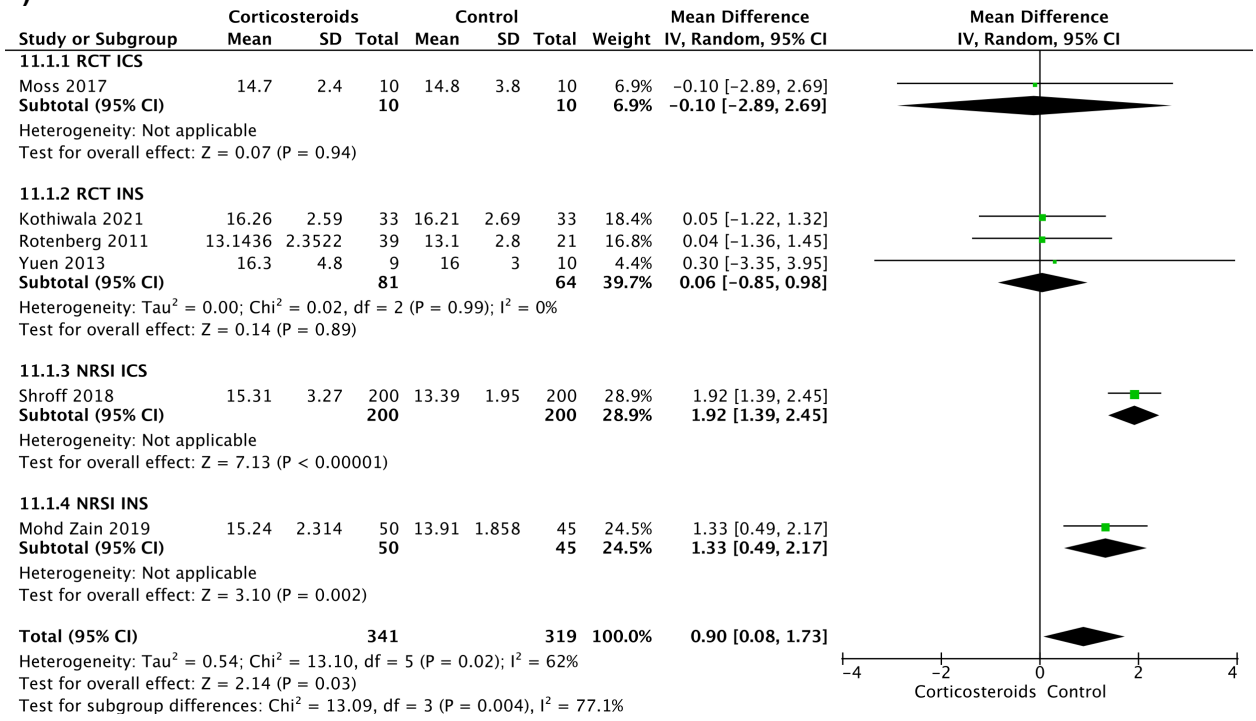
C)


Corticosteroids
Control
Risk Difference
Risk Difference
Study or Subgroup Events Total Events Total Weight M-H, Fixed, 95% CI
M-H, Fixed, 95% CI
10.3.1 RCT ICS IOP increase
Duh 2020 10 231 2 81 6.3% 0.02 [-0.02, 0.06]
Ferguson 2017 0 303 1 307 16.1% -0.00 [-0.01, 0.01]
Kerwin 2019 7 186 3 125 7.9% 0.01 [-0.02, 0.05]
Moss 2017 0 1 0 1 0.1% 0.00 [-0.85, 0.85]
Subtotal (95% CI) 721 514 30.3% 0.01 [-0.01, 0.02]
Total events 17 6
Heterogeneity: Chi² = 4.30, df = 3 (P = 0.23); I² = 30%
Test for overall effect: Z = 0.77 (P = 0.44)
10.3.2 RCT ICS IOP >21
Kemp 2004 0 212 1 108 7.5% -0.01 [-0.03, 0.01]
Kerwin 2019 5 186 4 125 7.9% -0.01 [-0.04, 0.03]
Li 1999 2 64 3 64 3.4% -0.02 [-0.08, 0.05]
Subtotal (95% CI) 462 297 18.8% -0.01 [-0.03, 0.01]
Total events 7 8
Heterogeneity: Chi² = 0.08, df = 2 (P = 0.96); I² = 0%
Test for overall effect: Z = 0.77 (P = 0.44)
10.3.3 RCT ICS IOP >22
Novak-Laus 2003 4 15 0 15 0.8% 0.27 [0.03, 0.50]
Subtotal (95% CI) 15 15 0.8% 0.27 [0.03, 0.50]
Total events 4 0
Heterogeneity: Not applicable
Test for overall effect: Z = 2.21 (P = 0.03)
10.3.4 RCT INS IOP increase
Adriaensen 2017 0 1 0 1 0.1% 0.00 [-0.85, 0.85]
Han 2014 0 13 0 12 0.7% 0.00 [-0.14, 0.14]
Igarashi 2012 0 1 0 1 0.1% 0.00 [-0.85, 0.85]
LaForce 2012 7 734 1 362 25.6% 0.01 [-0.00, 0.02]
Marple 2011 1 26 0 26 1.4% 0.04 [-0.06, 0.14]
Rosenwasser 2008 0 1 1 1 0.1% -1.00 [-1.85, -0.15]
Rotenberg 2011 0 21 0 39 1.4% 0.00 [-0.07, 0.07]
Weinstein 2014 1 197 0 48 4.1% 0.01 [-0.03, 0.04]
Subtotal (95% CI) 994 490 33.3% 0.01 [-0.01, 0.02]
Total events 9 2
Heterogeneity: Chi² = 5.88, df = 7 (P = 0.55); I² = 0%
Test for overall effect: Z = 1.04 (P = 0.30)
10.3.5 RCT INS IOP >20
Ratner 2006 6 17 3 6 0.5% -0.15 [-0.61, 0.31]
Subtotal (95% CI) 17 6 0.5% -0.15 [-0.61, 0.31]
Total events 6 3
Heterogeneity: Not applicable
Test for overall effect: Z = 0.63 (P = 0.53)
10.3.6 RCT INS IOP >22
Kothiwala 2021 0 8 0 8 0.4% 0.00 [-0.21, 0.21]
Rosenblut 2007 12 605 0 201 15.9% 0.02 [0.01, 0.03]
Subtotal (95% CI) 613 209 16.3% 0.02 [0.00, 0.03]
Total events 12 0
Heterogeneity: Chi² = 0.04, df = 1 (P = 0.85); I² = 0%
Test for overall effect: Z = 2.64 (P = 0.008)
10.3.7 NRSI ICS IOP increase
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
Total (95% CI) 2822 1531 100.0% 0.01 [-0.00, 0.01]
Total events 55 19
Heterogeneity: Chi² = 22.45, df = 18 (P = 0.21); I² = 20%
Test for overall effect: Z = 1.62 (P = 0.11)
Test for subgroup differences: Chi² = 9.85, df = 5 (P = 0.08), I² = 49.3%
-1
-0.5
0
0.5
1
Favours [corticosteroids]
Favours [control]

D)

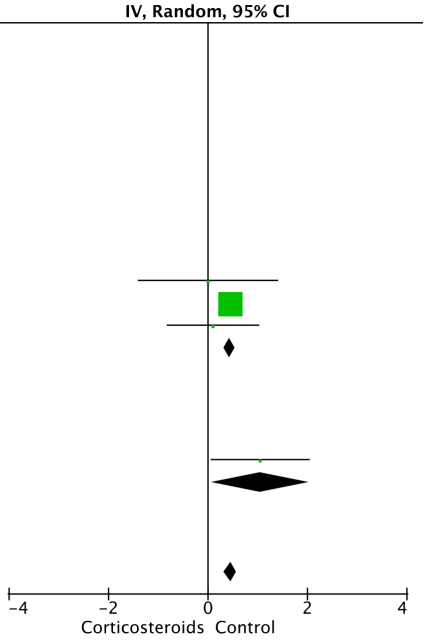

Corticosteroids
Control
Risk Difference
Risk Difference
Study or Subgroup Events Total Events Total Weight M-H, Fixed, 95% CI
M-H, Fixed, 95% CI
10.4.1 RCT ICS IOP increase
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
10.4.2 RCT ICS IOP >21
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
10.4.3 RCT ICS IOP >22
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
10.4.4 RCT INS IOP increase
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
10.4.5 RCT INS IOP >20
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
10.4.6 RCT INS IOP >22
Subtotal (95% CI) 0 0 Not estimable
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Not applicable
10.4.7 NRSI ICS IOP increase
Dereci 2015 0 38 0 40 100.0% 0.00 [-0.05, 0.05]
Subtotal (95% CI) 38 40 100.0% 0.00 [-0.05, 0.05]
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Z = 0.00 (P = 1.00)
Total (95% CI) 38 40 100.0% 0.00 [-0.05, 0.05]
Total events 0 0
Heterogeneity: Not applicable
Test for overall effect: Z = 0.00 (P = 1.00)
Test for subgroup differences: Not applicable
-1
-0.5
0
0.5
1
Favours [corticosteroids]
Favours [control]

E)


Corticosteroids
Control
Mean Difference
Mean Difference
Study or Subgroup Mean SD Total Mean SD Total Weight IV, Random, 95% CI
IV, Random, 95% CI
11.1.1 RCT ICS
Moss 2017 14.7 2.4 10 14.8 3.8 10 6.9% −0.10 [−2.89, 2.69]
Subtotal (95% CI) 10 10 6.9% −0.10 [−2.89, 2.69]
Heterogeneity: Not applicable
Test for overall effect: Z = 0.07 (P = 0.94)
11.1.2 RCT INS
Kothiwala 2021 16.26 2.59 33 16.21 2.69 33 18.4% 0.05 [−1.22, 1.32]
Rotenberg 2011 13.1436 2.3522 39 13.1 2.8 21 16.8% 0.04 [−1.36, 1.45]
Yuen 2013 16.3 4.8 9 16 3 10 4.4% 0.30 [−3.35, 3.95]
Subtotal (95% CI) 81 64 39.7% 0.06 [−0.85, 0.98]
Heterogeneity: Tau² = 0.00; Chi² = 0.02, df = 2 (P = 0.99); I² = 0%
Test for overall effect: Z = 0.14 (P = 0.89)
11.1.3 NRSI ICS
Shroff 2018 15.31 3.27 200 13.39 1.95 200 28.9% 1.92 [1.39, 2.45]
Subtotal (95% CI) 200 200 28.9% 1.92 [1.39, 2.45]
Heterogeneity: Not applicable
Test for overall effect: Z = 7.13 (P < 0.00001)
11.1.4 NRSI INS
Mohd Zain 2019 15.24 2.314 50 13.91 1.858 45 24.5% 1.33 [0.49, 2.17]
Subtotal (95% CI) 50 45 24.5% 1.33 [0.49, 2.17]
Heterogeneity: Not applicable
Test for overall effect: Z = 3.10 (P = 0.002)
Total (95% CI) 341 319 100.0% 0.90 [0.08, 1.73]
Heterogeneity: Tau² = 0.54; Chi² = 13.10, df = 5 (P = 0.02); I² = 62%
Test for overall effect: Z = 2.14 (P = 0.03)
Test for subgroup differences: Chi² = 13.09, df = 3 (P = 0.004), I² = 77.1%
−4
−2
0
2
4
Corticosteroids
Control

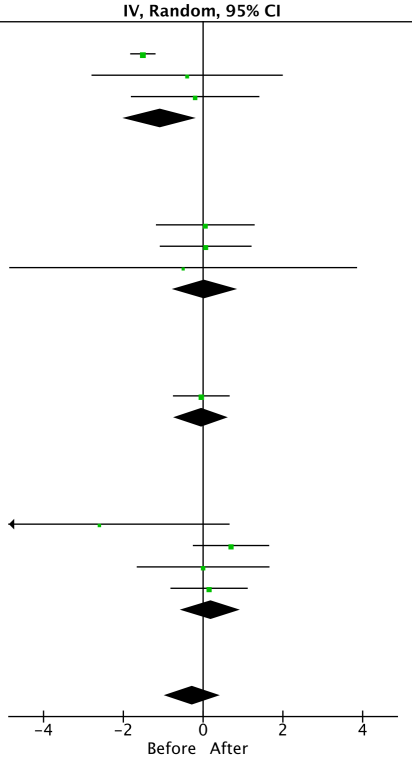
F)

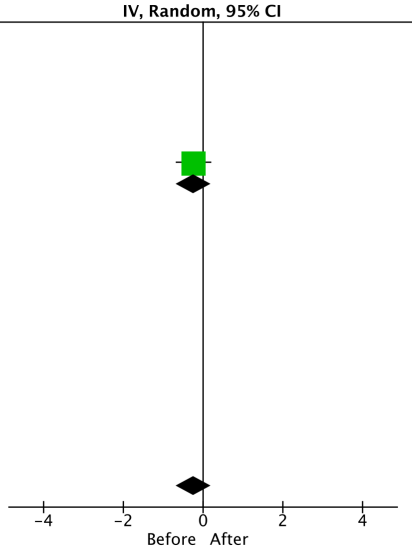
Study or Subgroup	Corticosteroids Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
11.2.1 RCT ICS								
Subtotal (95% CI)			**0**			**0**		**Not estimable**
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
11.2.2 RCT INS								
Subtotal (95% CI)			**0**			**0**		**Not estimable**
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
11.2.3 NRSI ICS								
Alsaadi 2012	14	3.3	69	14	2.9	24	0.7%	0.00 [-1.40, 1.40]
Emin 2011	13.1	0.5378	266	12.65	0.6518	160	96.2%	0.45 [0.33, 0.57]
Gunay 2019	15.9	1.9	31	15.8	1.5	22	1.6%	0.10 [-0.82, 1.02]
Subtotal (95% CI)			**366**			**206**	**98.6%**	**0.44 [0.32, 0.56]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 0.94$, df = 2 (P = 0.63); $I^2 = 0\%$								
Test for overall effect: Z = 7.29 (P < 0.00001)								
11.2.4 NRSI INS								
Ozkaya 2011	17	4.3529	150	15.95	3.3588	90	1.4%	1.05 [0.07, 2.03]
Subtotal (95% CI)			**150**			**90**	**1.4%**	**1.05 [0.07, 2.03]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 2.09 (P = 0.04)								
Total (95% CI)			**516**			**296**	**100.0%**	**0.45 [0.33, 0.57]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 2.39$, df = 3 (P = 0.50); $I^2 = 0\%$								
Test for overall effect: Z = 7.49 (P < 0.00001)								
Test for subgroup differences: $Chi^2 = 1.45$, df = 1 (P = 0.23), $I^2 = 31.2\%$								



G)

Study or Subgroup	Before Mean	Before SD	Before Total	After Mean	After SD	After Total	Weight	Mean Difference IV, Random, 95% CI
11.3.1 RCT ICS								
Chylack 2009	14.8	3	785	16.31	3.088	785	14.5%	−1.51 [−1.81, −1.21]
Moss 2017	14.3	3	10	14.7	2.4	10	5.5%	−0.40 [−2.78, 1.98]
Novak-Laus 2003	17.1	3.1	30	17.3	3.2	30	8.5%	−0.20 [−1.79, 1.39]
Subtotal (95% CI)			**825**			**825**	**28.5%**	**−1.09 [−1.99, −0.18]**
Heterogeneity: $Tau^2 = 0.30$; $Chi^2 = 3.26$, df = 2 (P = 0.20); $I^2 = 39\%$								
Test for overall effect: Z = 2.36 (P = 0.02)								
11.3.2 RCT INS								
Kothiwala 2021	16.315	2.47	33	16.26	2.59	33	10.3%	0.05 [−1.17, 1.28]
Rotenberg 2011	13.2077	2.7431	39	13.1436	2.3522	39	10.7%	0.06 [−1.07, 1.20]
Yuen 2013	15.8	4.6	9	16.3	4.8	9	2.2%	−0.50 [−4.84, 3.84]
Subtotal (95% CI)			**81**			**81**	**23.3%**	**0.04 [−0.78, 0.86]**
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 0.06$, df = 2 (P = 0.97); $I^2 = 0\%$								
Test for overall effect: Z = 0.10 (P = 0.92)								
11.3.3 NRSI ICS								
Simsek 2016	13.755	1.8264	50	13.8	1.7129	50	13.0%	−0.04 [−0.74, 0.65]
Subtotal (95% CI)			**50**			**50**	**13.0%**	**−0.04 [−0.74, 0.65]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.13 (P = 0.90)								
11.3.4 NRSI INS								
Bui 2005	15.4	4.3	12	18	3.8	12	3.6%	−2.60 [−5.85, 0.65]
Forwith 2011	15	3.1	89	14.3	3.3	89	11.8%	0.70 [−0.24, 1.64]
Man 2013	13.3	2.9	23	13.3	2.8	23	8.2%	0.00 [−1.65, 1.65]
Yenigun 2018	16.9	2.035	29	16.75	1.6432	29	11.7%	0.15 [−0.80, 1.10]
Subtotal (95% CI)			**153**			**153**	**35.3%**	**0.20 [−0.55, 0.95]**
Heterogeneity: $Tau^2 = 0.15$; $Chi^2 = 3.97$, df = 3 (P = 0.26); $I^2 = 24\%$								
Test for overall effect: Z = 0.52 (P = 0.60)								
Total (95% CI)			**1109**			**1109**	**100.0%**	**−0.26 [−0.96, 0.45]**
Heterogeneity: $Tau^2 = 0.87$; $Chi^2 = 45.64$, df = 10 (P < 0.00001); $I^2 = 78\%$								
Test for overall effect: Z = 0.71 (P = 0.48)								
Test for subgroup differences: $Chi^2 = 5.24$, df = 3 (P = 0.15), $I^2 = 42.8\%$								



H)

Study or Subgroup	Before Mean	Before SD	Before Total	After Mean	After SD	After Total	Weight	Mean Difference IV, Random, 95% CI
11.4.1 RCT ICS								
Subtotal (95% CI)			**0**			**0**		**Not estimable**
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
11.4.2 RCT INS								
Ratner 2009	14.6608	2.4961	251	14.9007	2.4138	251	100.0%	−0.24 [−0.67, 0.19]
Subtotal (95% CI)			**251**			**251**	**100.0%**	**−0.24 [−0.67, 0.19]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.09 (P = 0.27)								
11.4.3 NRSI ICS								
Subtotal (95% CI)			**0**			**0**		**Not estimable**
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
11.4.4 NRSI INS								
Subtotal (95% CI)			**0**			**0**		**Not estimable**
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
Total (95% CI)			**251**			**251**	**100.0%**	**−0.24 [−0.67, 0.19]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.09 (P = 0.27)								
Test for subgroup differences: Not applicable