Appendix H: Meta-analysis and Network meta-analysis Results

H.1 Patient information

- What information do people with cataracts and their carers find useful, and what format (for example written or verbal) do they prefer it to be provided in?
- What information on cataract surgery do people and their carers find useful when deciding whether surgery is appropriate for them, and before, during and after any operation(s) they elect to undergo? What format (for example written or verbal) do they prefer it to be provided in?

There were no meta-analyses conducted for these questions.

H.2 Indicators for referral

- What are the indicators for referral for cataract surgery?
- What are the optimal clinical thresholds in terms of severity and impairment for referral for cataract surgery?

There were no meta-analyses conducted for these questions.

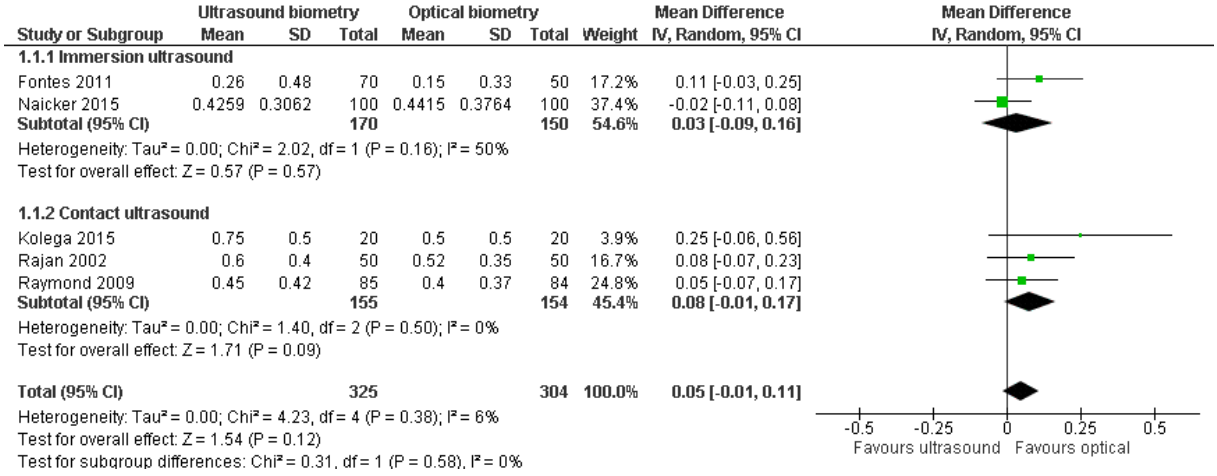
H.3 Pre-operative assessment and biometry

- What is the effectiveness of different techniques for undertaking biometry?
- What are the most appropriate formulae to optimise intraocular lens biometry calculation?
- What is the effectiveness of strategies used to select intraocular lens constants in order to optimise biometry calculation?
- What other factors should be considered such as, who should undertake biometry and when should preoperative biometry be assessed?
- What is the effectiveness of risk stratification techniques to reduce surgical complications?
- What are the risk factors associated with increased surgical complications in cataract surgery?

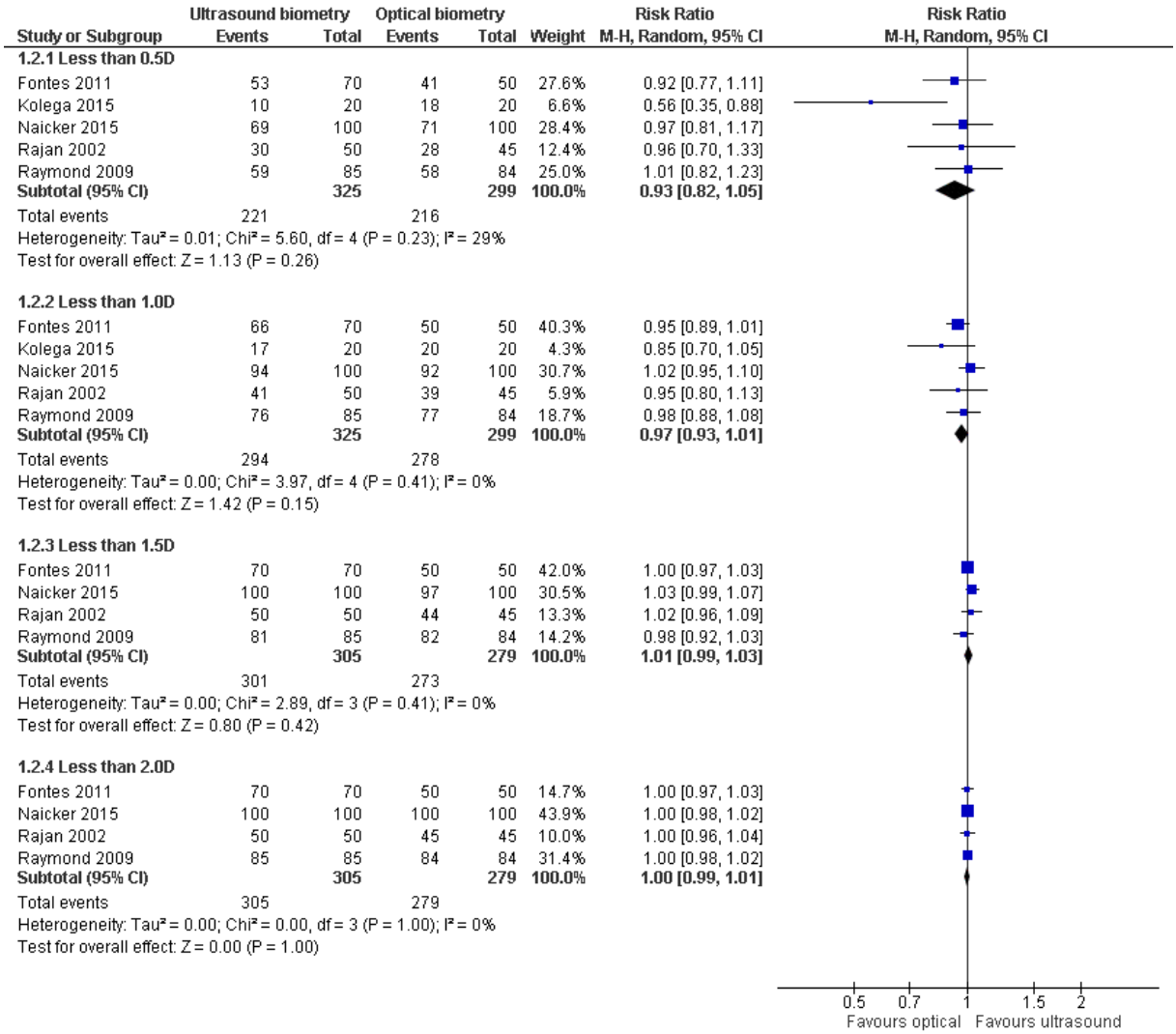
H.3.1 Biometry techniques - Forest plots of outcomes

H.3.1.1 Ultrasound (immersion and contact) and optical biometry to measure axial length

Mean absolute prediction errors

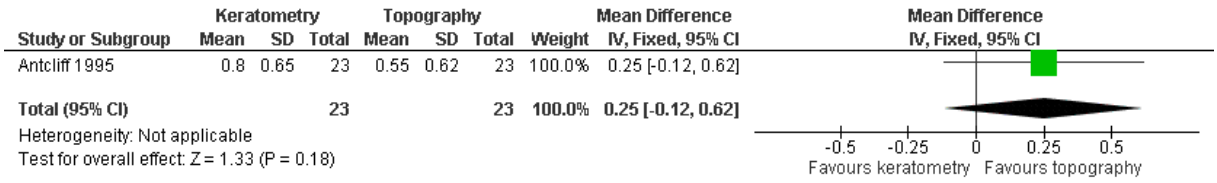


Cumulative proportion of eyes within various ranges of absolute prediction errors

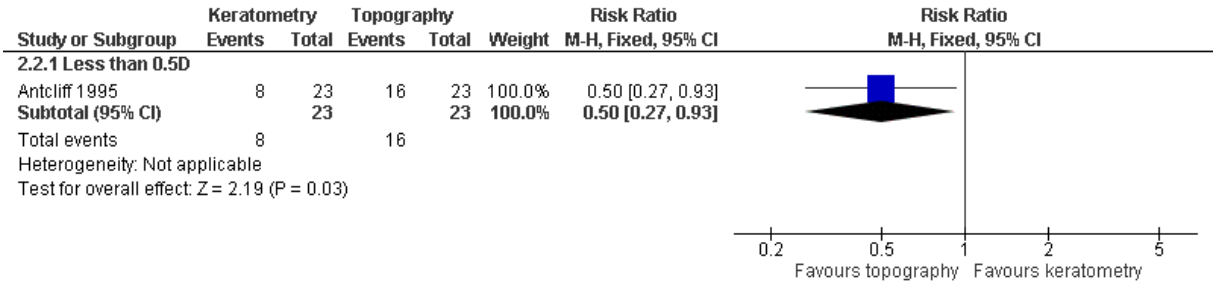


H.3.1.2 Keratometry (manual and automated) and topography to measure corneal curvature

Mean absolute prediction errors



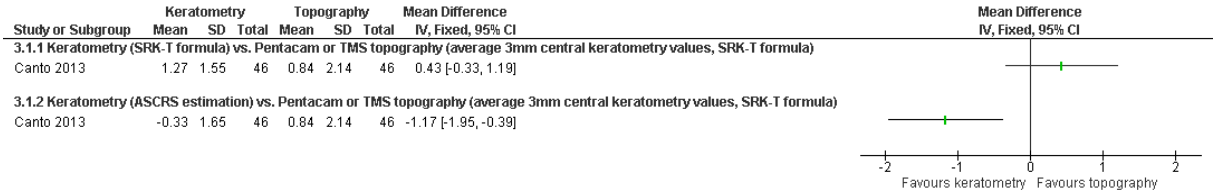
Cumulative proportion of eyes within various ranges of absolute prediction errors



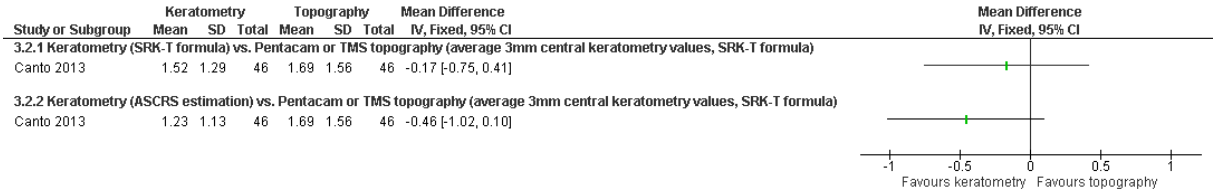
H.3.1.3 Observational studies in people undergoing phacoemulsification cataract surgery with a history of corneal refractive surgery

Studies including mixed populations of individuals with a history of different types of refractive surgery (laser-assisted in situ keratomileusis, photorefractive keratectomy and radial keratotomy) for various indications (myopia, hyperopia)

Mean prediction errors



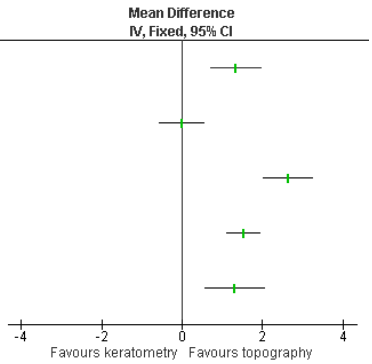
Mean absolute prediction errors



Studies including individuals with a history of laser-assisted in situ keratomileusis and photorefractive keratectomy for myopia

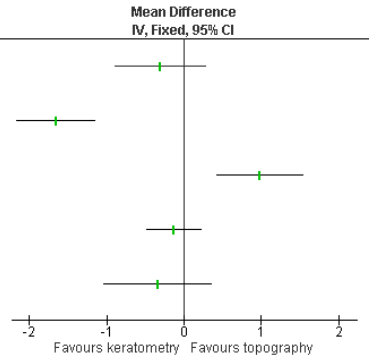
Mean prediction errors: keratometry (SRK-T formula) vs topography (SRK-T formula)

Study or Subgroup	Keratometry Mean	SD	Total	Topography Mean	SD	Total	Mean Difference IV, Fixed, 95% CI
4.1.1 Keratometry (SRK-T formula) vs. Pentacam topography (true net corneal power, SRK-T formula)							
Kim 2013	1.68	1.34	47	0.34	1.75	47	1.34 [0.71, 1.97]
4.1.2 Keratometry (SRK-T formula) vs. Pentacam topography (equivalent K, SRK-T formula)							
Kim 2013	1.68	1.34	47	1.69	1.41	47	-0.01 [-0.57, 0.55]
4.1.3 Keratometry (SRK-T formula) vs. Orbscan topography (simulated K, SRK-T formula)							
Kim 2013	1.68	1.34	47	-0.95	1.61	47	2.63 [2.03, 3.23]
4.1.4 Keratometry (SRK-T formula) vs. Orbscan topography (2.0mm diameter central zone of total mean power, SRK-T formula)							
Kim 2013	1.68	1.34	47	0.16	1.9	470	1.52 [1.10, 1.94]
4.1.5 Keratometry (SRK-T formula) vs. Orbscan topography (4.0mm diameter central zone of total mean power, SRK-T formula)							
Kim 2013	1.68	1.34	47	0.37	2.18	47	1.31 [0.58, 2.04]



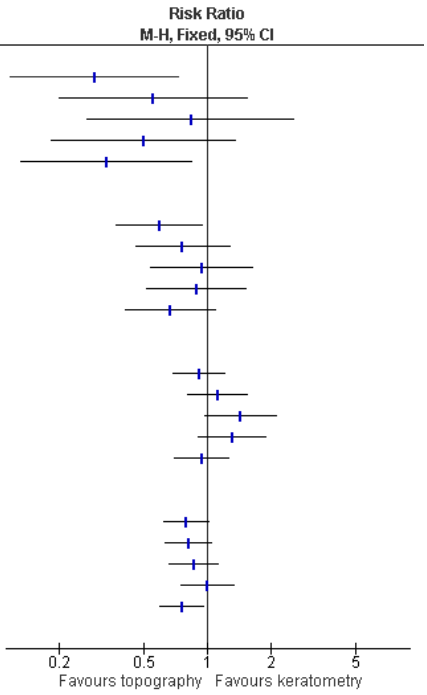
Mean prediction errors: keratometry (Haigis-L formula) vs topography (SRK-T formula)

Study or Subgroup	Keratometry Mean	SD	Total	Topography Mean	SD	Total	Mean Difference IV, Fixed, 95% CI
4.2.1 Keratometry (Haigis-L formula) vs. Pentacam topography (true net corneal power, SRK-T formula)							
Kim 2013	0.03	1.06	47	0.34	1.75	47	-0.31 [-0.89, 0.27]
4.2.2 Keratometry (Haigis-L formula) vs. Pentacam topography (equivalent K, SRK-T formula)							
Kim 2013	0.03	1.06	47	1.69	1.41	47	-1.66 [-2.16, -1.16]
4.2.3 Keratometry (Haigis-L formula) vs. Orbscan topography (simulated K, SRK-T formula)							
Kim 2013	0.03	1.06	47	-0.95	1.61	47	0.98 [0.43, 1.53]
4.2.4 Keratometry (Haigis-L formula) vs. Orbscan topography (2.0mm diameter central zone of total mean power, SRK-T formula)							
Kim 2013	0.03	1.06	47	0.16	1.9	470	-0.13 [-0.48, 0.22]
4.2.5 Keratometry (Haigis-L formula) vs. Orbscan topography (4.0mm diameter central zone of total mean power, SRK-T formula)							
Kim 2013	0.03	1.06	47	0.37	2.18	47	-0.34 [-1.03, 0.35]



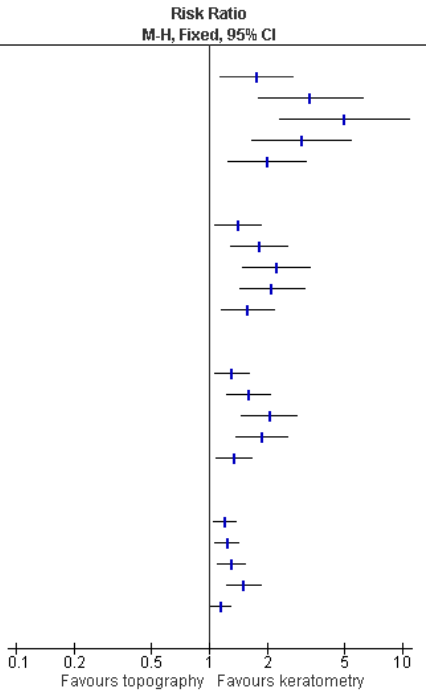
Cumulative proportion of eyes within various ranges of absolute prediction errors: keratometry (SRK-T formula) vs topography (SRK-T formula)

Study or Subgroup	Keratometry Events	Keratometry Total	Topography Events	Topography Total	Risk Ratio M-H, Fixed, 95% CI
4.3.1 Less than 0.5D					
Kim 2013 - Orbscan 2.0mm diameter central zone	5	47	17	47	0.29 [0.12, 0.73]
Kim 2013 - Orbscan 4.0mm diameter central zone	5	47	9	47	0.56 [0.20, 1.53]
Kim 2013 - Orbscan simulated K	5	47	6	47	0.83 [0.27, 2.54]
Kim 2013 - Pentacam equivalent K	5	47	10	47	0.50 [0.18, 1.35]
Kim 2013 - Pentacam true net corneal power	5	47	15	47	0.33 [0.13, 0.84]
4.3.2 Less than 1.0D					
Kim 2013 - Orbscan 2.0mm diameter central zone	16	47	27	47	0.59 [0.37, 0.95]
Kim 2013 - Orbscan 4.0mm diameter central zone	16	47	21	47	0.76 [0.46, 1.27]
Kim 2013 - Orbscan simulated K	16	47	17	47	0.94 [0.54, 1.63]
Kim 2013 - Pentacam equivalent K	16	47	18	47	0.89 [0.52, 1.52]
Kim 2013 - Pentacam true net corneal power	16	47	24	47	0.67 [0.41, 1.08]
4.3.3 Less than 1.5D					
Kim 2013 - Orbscan 2.0mm diameter central zone	30	47	33	47	0.91 [0.68, 1.21]
Kim 2013 - Orbscan 4.0mm diameter central zone	30	47	27	47	1.11 [0.80, 1.54]
Kim 2013 - Orbscan simulated K	30	47	21	47	1.43 [0.97, 2.10]
Kim 2013 - Pentacam equivalent K	30	47	23	47	1.30 [0.91, 1.87]
Kim 2013 - Pentacam true net corneal power	30	47	32	47	0.94 [0.70, 1.25]
4.3.4 Less than 2.0D					
Kim 2013 - Orbscan 2.0mm diameter central zone	31	47	39	47	0.79 [0.62, 1.01]
Kim 2013 - Orbscan 4.0mm diameter central zone	31	47	38	47	0.82 [0.64, 1.05]
Kim 2013 - Orbscan simulated K	31	47	36	47	0.86 [0.66, 1.12]
Kim 2013 - Pentacam equivalent K	31	47	31	47	1.00 [0.75, 1.34]
Kim 2013 - Pentacam true net corneal power	31	47	41	47	0.76 [0.60, 0.95]



Cumulative proportion of eyes within various ranges of absolute prediction errors: keratometry (Haigis-L formula) vs topography (SRK-T formula)

Study or Subgroup	Keratometry Events	Keratometry Total	Topography Events	Topography Total	Risk Ratio M-H, Fixed, 95% CI
4.4.1 Less than 0.5D					
Kim 2013 - Orbscan 2.0mm diameter central zone	30	47	17	47	1.76 [1.14, 2.73]
Kim 2013 - Orbscan 4.0mm diameter central zone	30	47	9	47	3.33 [1.78, 6.23]
Kim 2013 - Orbscan simulated K	30	47	6	47	5.00 [2.30, 10.88]
Kim 2013 - Pentacam equivalent K	30	47	10	47	3.00 [1.66, 5.41]
Kim 2013 - Pentacam true net corneal power	30	47	15	47	2.00 [1.25, 3.20]
4.4.2 Less than 1.0D					
Kim 2013 - Orbscan 2.0mm diameter central zone	38	47	27	47	1.41 [1.06, 1.87]
Kim 2013 - Orbscan 4.0mm diameter central zone	38	47	21	47	1.81 [1.28, 2.56]
Kim 2013 - Orbscan simulated K	38	47	17	47	2.24 [1.49, 3.35]
Kim 2013 - Pentacam equivalent K	38	47	18	47	2.11 [1.43, 3.11]
Kim 2013 - Pentacam true net corneal power	38	47	24	47	1.58 [1.16, 2.16]
4.4.3 Less than 1.5D					
Kim 2013 - Orbscan 2.0mm diameter central zone	43	47	33	47	1.30 [1.06, 1.60]
Kim 2013 - Orbscan 4.0mm diameter central zone	43	47	27	47	1.59 [1.23, 2.07]
Kim 2013 - Orbscan simulated K	43	47	21	47	2.05 [1.47, 2.85]
Kim 2013 - Pentacam equivalent K	43	47	23	47	1.87 [1.38, 2.54]
Kim 2013 - Pentacam true net corneal power	43	47	32	47	1.34 [1.08, 1.66]
4.4.4 Less than 2.0D					
Kim 2013 - Orbscan 2.0mm diameter central zone	47	47	39	47	1.20 [1.05, 1.38]
Kim 2013 - Orbscan 4.0mm diameter central zone	47	47	38	47	1.23 [1.07, 1.42]
Kim 2013 - Orbscan simulated K	47	47	36	47	1.30 [1.11, 1.53]
Kim 2013 - Pentacam equivalent K	47	47	31	47	1.51 [1.23, 1.85]
Kim 2013 - Pentacam true net corneal power	47	47	41	47	1.14 [1.02, 1.28]



H.3.2 Intraocular lens formulas: Network meta-analyses results: Virgin eyes without a history of corneal refractive surgery

H.3.2.1 Model fit statistics for all outcomes

Table 1: Model fit statistics used to select fixed or random effect models for all comparisons and outcomes

Studies	Outcome	Model	Total model DIC	Total model DIC (FE – RE)	Total residual deviance	No. of data-points	Between-study SD (95% CrI)	Preferred model
VIRGIN EYES WITHOUT A HISTORY OF CORNEAL REFRACTIVE SURGERY								
Axial length less than 22.00mm								
7 (Carifi, Cooke, Day, Doshi, Moschos, Ozcura, Srivannaboon)	Mean absolute error	FE	43.024	87.582	137.8	37	-	RE
		RE	-44.558		36.72		0.267 (0.174, 0.424)	
5 (Aristodemou, Day, Eom, Kane, Srivannaboon)	Within 0.25D	FE	157.592	-1.143	22.47	28	-	FE
		RE	158.735		21.67		0.124 (0.004, 0.439)	
11 (Aristodemou, Carifi, Cooke, Day, Doshi, Eom, Kane, Moschos, Ozcura, Percival, Srivannaboon)	Within 0.5D	FE	344.21	28.658	97.82	52	-	RE
		RE	315.552		52.32		0.589 (0.345, 0.920)	
11 (Aristodemou, Carifi, Cooke, Day, Doshi, Eom, Kane, Moschos, Ozcura, Percival, Srivannaboon)	Within 1.0D	FE	295.164	18.295	83.66	52	-	RE
		RE	276.869		50.87		0.653 (0.367, 1.035)	
3 (Carifi, Kane, Ozcura)	Within 2.0D	FE	43.015	-1.091	9.174	12	-	FE
		RE	44.106		9.731		0.593 (0.024, 1.834)	
Axial length 22.00 to 24.50mm								
2 (Ozcura, Srivannaboon)	Mean absolute error	FE	-20.877	-0.027	6.015	6	-	FE
		RE	-20.85		6.028		1004 (0.051, 1.948)	

Studies	Outcome	Model	Total model DIC	Total model DIC (FE – RE)	Total residual deviance	No. of data-points	Between-study SD (95% CrI)	Preferred model
3 (Aristodemou, Kane, Srivannaboon)	Within 0.25D	FE	126.752	-1.491	12.98	14	-	FE
		RE	128.243		12.62		0.069 (0.005, 0.360)	
4 (Aristodemou, Kane, Ozcura, Srivannaboon)	Within 0.5D	FE	138.89	-2.357	12.8	16	-	FE
		RE	141.247		13.65		0.046 (0.002, 0.242)	
4 (Aristodemou, Kane, Ozcura, Srivannaboon)	Within 1.0D	FE	119.799	-1.358	13.68	16	-	FE
		RE	121.157		13.7		0.090 (0.003, 0.465)	
2 (Kane, Ozcura)	Within 2.0D	FE	43.439	-1.011	7.367	8	-	FE
		RE	44.45		7.782		0.745 (0.044, 1.918)	
Axial length 24.50 to 26.00mm								
1 (Srivannaboon)	Mean absolute error	FE	-6.133	0.009	3.991	4	-	FE
		RE	-6.142		3.986		0.964 (0.040, 1.949)	
3 (Aristodemou, Kane, Srivannaboon)	Within 0.25D	FE	99.785	-1.785	11.55	14	-	FE
		RE	101.57		12.01		0.132 (0.006, 0.726)	
4 (Aristodemou, Kane, Percival, Srivannaboon)	Within 0.5D	FE	113.319	-2.338	15	17	-	FE
		RE	115.657		15.63		0.129 (0.004, 0.755)	
6 (Aristodemou, El-Nafees, Kane, Mitra, Percival, Srivannaboon)	Within 1.0D	FE	113.402	-1.7	20.9	21	-	FE
		RE	115.102		20.49		0.227 (0.012, 1.052)	
1 (Kane)	Within 2.0D	FE	26.195	-0.029	6.666	6	-	FE

Studies	Outcome	Model	Total model DIC	Total model DIC (FE – RE)	Total residual deviance	No. of data-points	Between-study SD (95% CrI)	Preferred model
		RE	26.224		6.711		1.010 (0.059, 1.948)	
Axial length greater than 26.00mm								
2 (Bang, Cooke)	Mean absolute error	FE	-19.062	1.227	16.31	13	-	FE
		RE	-20.289		13.25		0.294 (0.021, 1.623)	
2 (Aristodemou, Kane)	Within 0.25D	FE	73.422	-2.148	10.05	12	-	FE
		RE	75.57		10.93		0.260 (0.008, 1.540)	
5 (Aristodemou, Bang, Cooke, Kane, Percival)	Within 0.5D	FE	160.51	-1.369	24.45	28	-	FE
		RE	161.879		24.31		0.122 (0.007, 0.457)	
8 (Aristodemou, Bang, Cooke, El-Nafees, Kane, Mitra, Percival, Petermeier)	Within 1.0D	FE	196.074	19.255	64.1	35	-	RE
		RE	176.819		35.1		0.974 (0.506, 1724)	
2 (Bang, Kane)	Within 2.0D	FE	44.466	1.002	13.49	10	-	FE
		RE	43.464		10.79		1.033 (0.095, 1.933)	

H.3.2.2 Full dataset: Axial length subgroup – less than 22.00mm

MEAN ABSOLUTE ERROR – random effects model

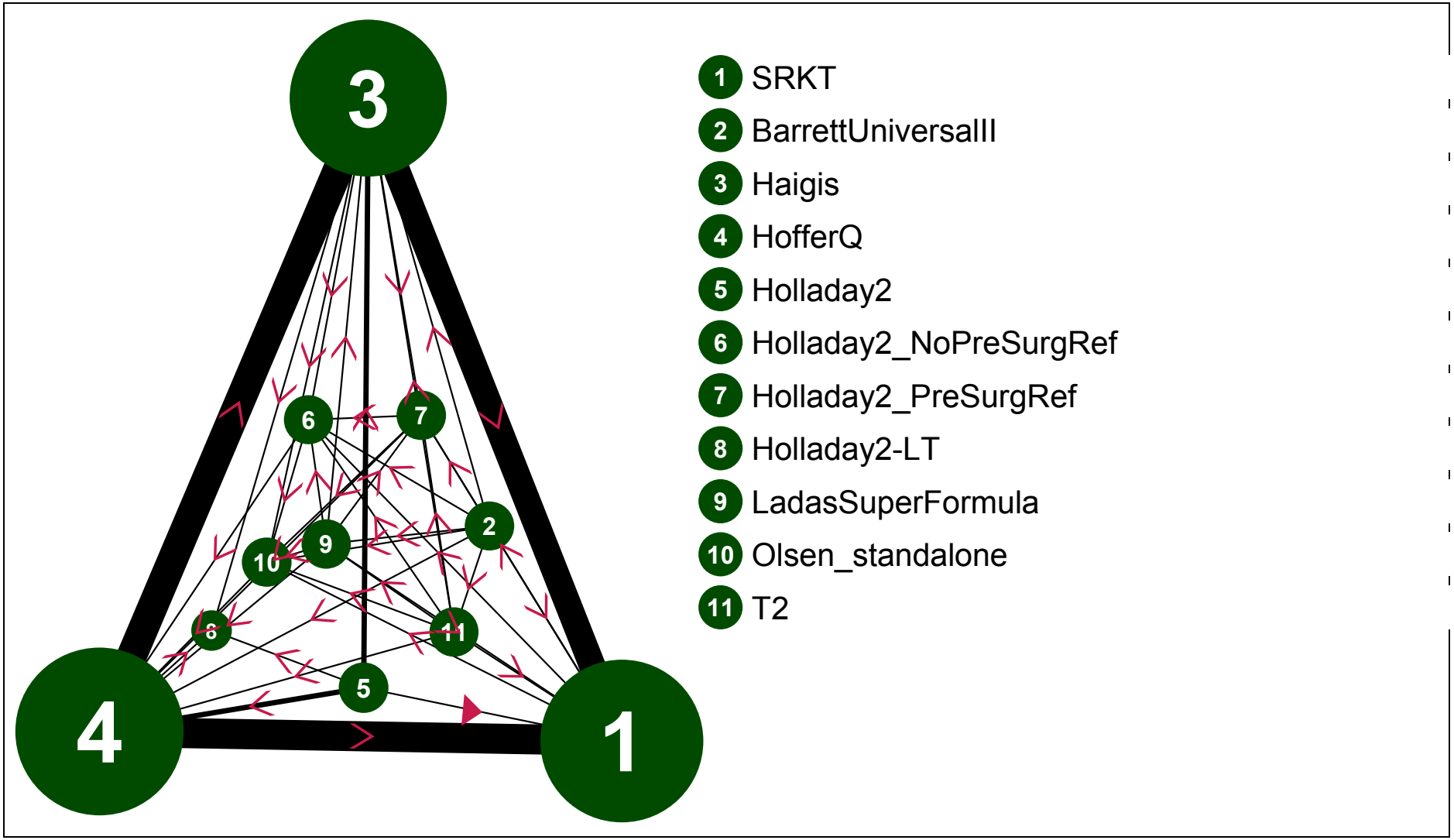


Figure 1: AL <22.0mm: Mean absolute error - random effects model – evidence network

Table 2: AL <22.0mm: Mean absolute error - random effects model – input data

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	Holladay2-LT	LadasSuperFormula	Olsen_standalone	T2
Cooke & (2016)	0.40 (0.51)	0.39 (0.48)	0.41 (0.51)	0.48 (0.49)		0.44 (0.47)	0.43 (0.47)		0.40 (0.48)	0.46 (0.57)	0.39 (0.49)
Doshi et al. (2017)	0.54 (0.46)		1.36 (0.75)	0.59 (0.36)							
Ozcura et al. (2016)	0.70 (0.64)			0.76 (0.65)							
Carifi et al. (2015)	1.34 (1.04)		1.03 (0.87)	0.95 (0.78)	0.82 (0.77)						
Srivannaboon et al. (2013)			0.44 (0.40)	0.42 (0.33)	0.44 (0.31)			0.45 (0.30)			
Day et al. (2012)	0.52 (0.42)		0.44 (0.35)	0.46 (0.39)							
Day et al. (2012)	0.50 (0.37)		0.37 (0.28)	0.50 (0.37)							
Day et al. (2012)	0.79 (0.56)		0.86 (0.58)	0.74 (0.58)							
Day et al. (2012)	0.85 (0.56)		0.77 (0.51)	0.83 (0.61)							
Moschos et al. (2014)	0.97 (0.38)		0.43 (0.22)	0.72 (0.51)							

Table 3: AL <22.0mm: Mean absolute error - random effects model – relative effectiveness of all pairwise combinations (MD and 95% credible interval)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	Holladay2-LT	LadasSuperFormula	Olsen_standalone	T2
SRKT		-0.01 (-0.22, 0.20)	-0.03 (-0.30, 0.24)	-0.05 (-0.14, 0.04)	-0.52 (-1.00, -0.04)	0.04 (-0.17, 0.25)	0.03 (-0.19, 0.24)	-	0.00 (-0.21, 0.21)	0.06 (-0.18, 0.29)	-0.01 (-0.22, 0.21)
BarrettUniversalII	-0.07 (-0.57, 0.44)		0.02 (-0.20, 0.23)	0.09 (-0.12, 0.30)	-	0.05 (-0.15, 0.26)	0.04 (-0.17, 0.24)	-	0.01 (-0.20, 0.22)	0.07 (-0.16, 0.29)	0.00 (-0.21, 0.21)
Haigis	-0.04 (-0.25, 0.18)	0.03 (-0.48, 0.54)		-0.03 (-0.22, 0.15)	-0.05 (-0.27, 0.17)	0.04 (-0.18, 0.25)	0.02 (-0.19, 0.23)	0.01 (-0.24, 0.26)	-0.01 (-0.22, 0.21)	0.05 (-0.18, 0.28)	-0.01 (-0.23, 0.20)
HofferQ	-0.06 (-0.27, 0.14)	0.01 (-0.49, 0.51)	-0.02 (-0.23, 0.18)		-0.02 (-0.22, 0.18)	-0.04 (-0.25, 0.17)	-0.06 (-0.26, 0.15)	0.03 (-0.20, 0.26)	-0.08 (-0.29, 0.13)	-0.03 (-0.25, 0.20)	-0.09 (-0.30, 0.12)
Holladay2	-0.16 (-0.58, 0.27)	-0.09 (-0.72, 0.54)	-0.12 (-0.53, 0.28)	-0.09 (-0.50, 0.30)		-	-	0.01 (-0.21, 0.23)	-	-	-
Holladay2_NoPreSurgRef	-0.02 (-0.51, 0.48)	0.05 (-0.54, 0.65)	0.02 (-0.48, 0.52)	0.04 (-0.46, 0.54)	0.14 (-0.49, 0.77)		-0.02 (-0.22, 0.19)	-	-0.04 (-0.25, 0.16)	0.02 (-0.21, 0.24)	-0.05 (-0.26, 0.16)
Holladay2_PreSurgRef	-0.04 (-0.54, 0.47)	0.03 (-0.57, 0.64)	0.00 (-0.51, 0.50)	0.02 (-0.48, 0.53)	0.12 (-0.50, 0.75)	-0.02 (-0.62, 0.57)		-	-0.03 (-0.23, 0.18)	0.03 (-0.19, 0.26)	-0.03 (-0.24, 0.18)
Holladay2-LT	-0.07 (-0.61, 0.47)	0.00 (-0.72, 0.72)	-0.03 (-0.56, 0.49)	-0.01 (-0.53, 0.52)	0.08 (-0.46, 0.65)	-0.05 (-0.76, 0.66)	-0.03 (-0.75, 0.68)		-	-	-
LadasSuperFormula	-0.06 (-0.56, 0.45)	0.01 (-0.60, 0.61)	-0.02 (-0.53, 0.48)	0.00 (-0.50, 0.51)	0.10 (-0.53, 0.72)	-0.04 (-0.63, 0.54)	-0.02 (-0.62, 0.58)	0.01 (-0.70, 0.72)		0.06 (-0.17, 0.28)	-0.01 (-0.22, 0.20)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	Holladay2-LT	LadasSuperFormula	Olsen_standalone	T2
Olsen_standalone	0.00 (-0.52, 0.50)	0.07 (-0.54, 0.67)	0.04 (-0.49, 0.54)	0.06 (-0.46, 0.56)	0.16 (-0.48, 0.79)	0.02 (-0.59, 0.62)	0.04 (-0.57, 0.64)	0.07 (-0.65, 0.78)	0.06 (-0.55, 0.67)		-0.06 (-0.29, 0.17)
T2	-0.07 (-0.57, 0.43)	0.00 (-0.60, 0.60)	-0.03 (-0.54, 0.47)	-0.01 (-0.51, 0.49)	0.09 (-0.54, 0.71)	-0.05 (-0.65, 0.55)	-0.03 (-0.63, 0.56)	0.00 (-0.71, 0.71)	-0.01 (-0.61, 0.59)	-0.07 (-0.67, 0.53)	

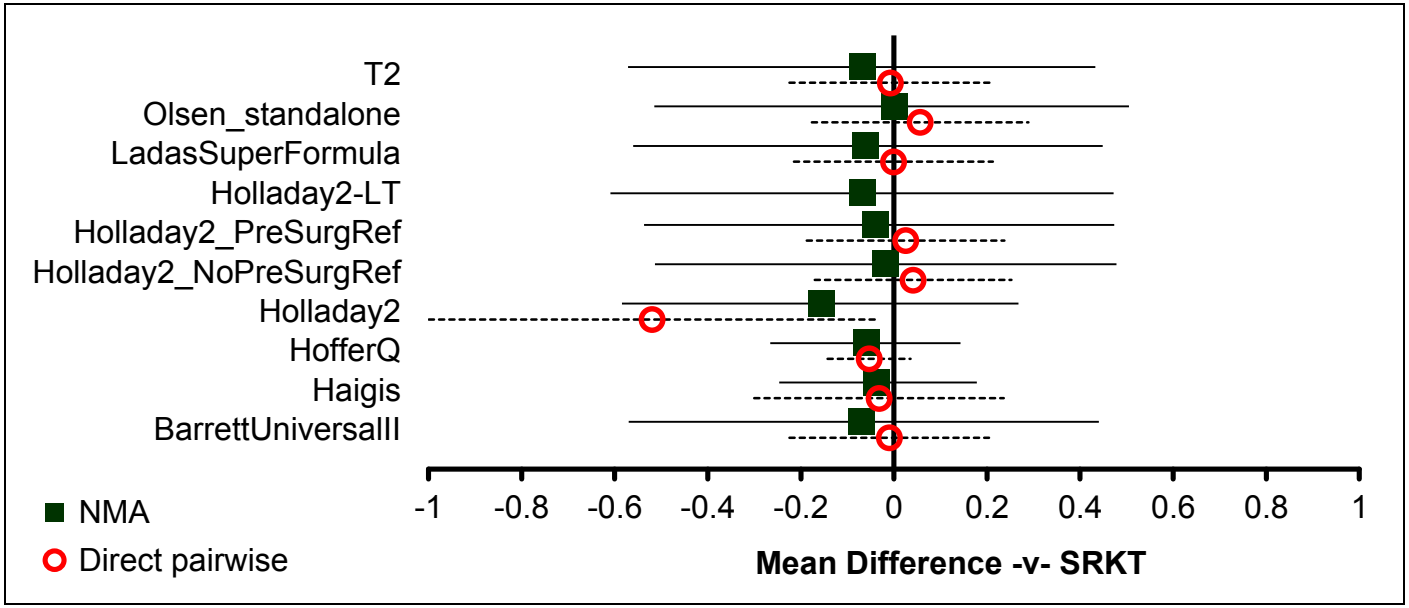


Figure 2: AL <22.0mm: Mean absolute error - random effects model – relative effect of all options versus common comparator

Table 4: AL <22.0mm: Mean absolute error - random effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.005	7 (2, 11)
BarrettUniversalII	0.122	5 (1, 11)
Haigis	0.012	6 (2, 10)
HofferQ	0.017	6 (2, 10)
Holladay2	0.214	3 (1, 11)
Holladay2_NoPreSurgRef	0.078	7 (1, 11)
Holladay2_PreSurgRef	0.090	6 (1, 11)
Holladay2-LT	0.155	5 (1, 11)
LadasSuperFormula	0.112	6 (1, 11)
Olsen_standalone	0.073	7 (1, 11)
T2	0.122	5 (1, 11)

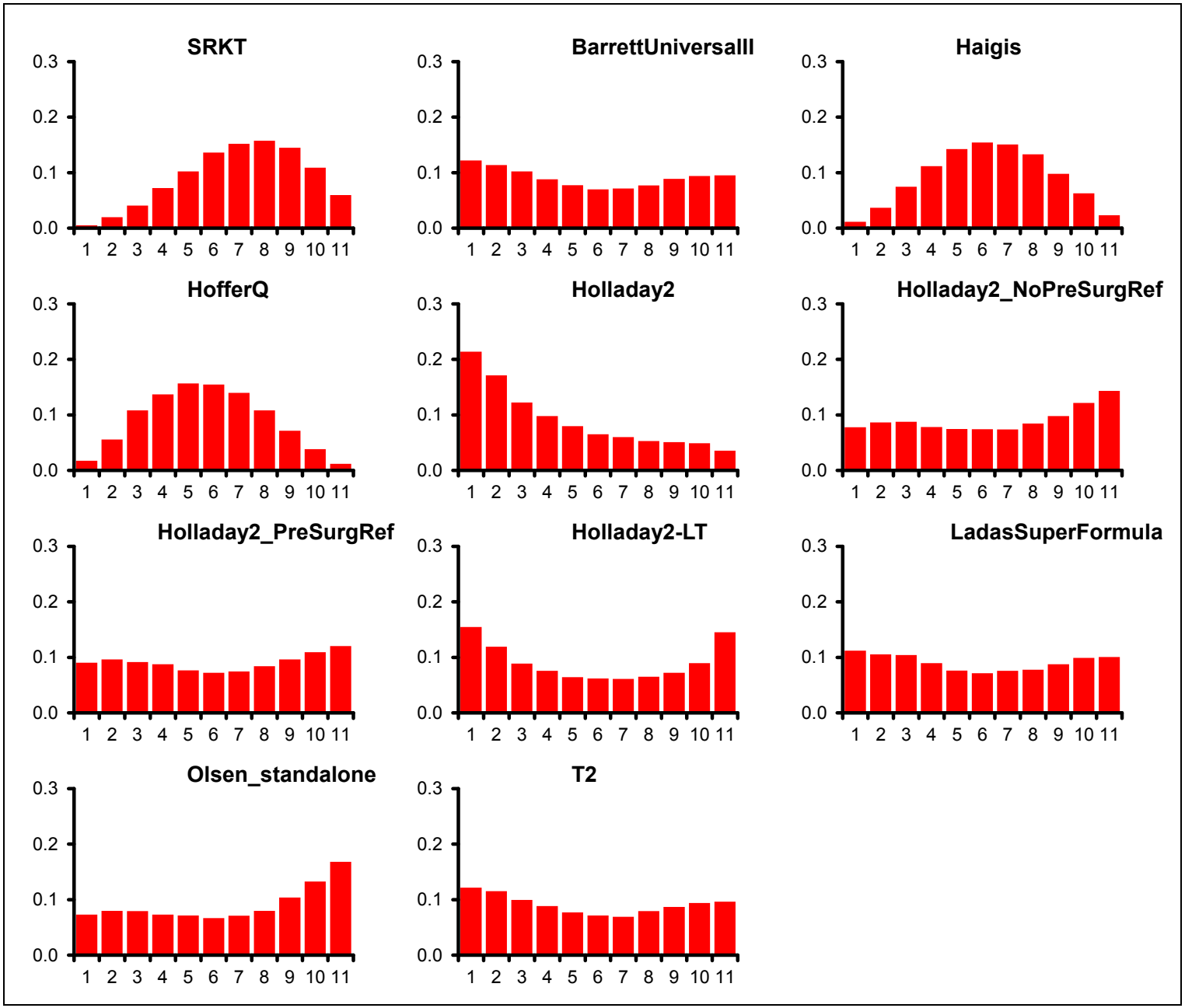

SRKT
BarrettUniversalII
Haigis
HofferQ
Holladay2
Holladay2_NoPreSurgRef
Holladay2_PreSurgRef
Holladay2-LT
LadasSuperFormula
Olsen_standalone
T2
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11

Figure 3: AL <22.0mm: Mean absolute error - random effects model – rank probability histograms

Table 5: AL <22.0mm: Mean absolute error - random effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau
36.72 (compared to 37 datapoints)	-78.017	-111.476	33.459	-44.558	0.267 (95%CI: 0.174, 0.424)

Table 6: AL <22.0mm: Mean absolute error - random effects model – notes

- Continuous (normal; identity link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 0.25 DIOPTRES – fixed effects model

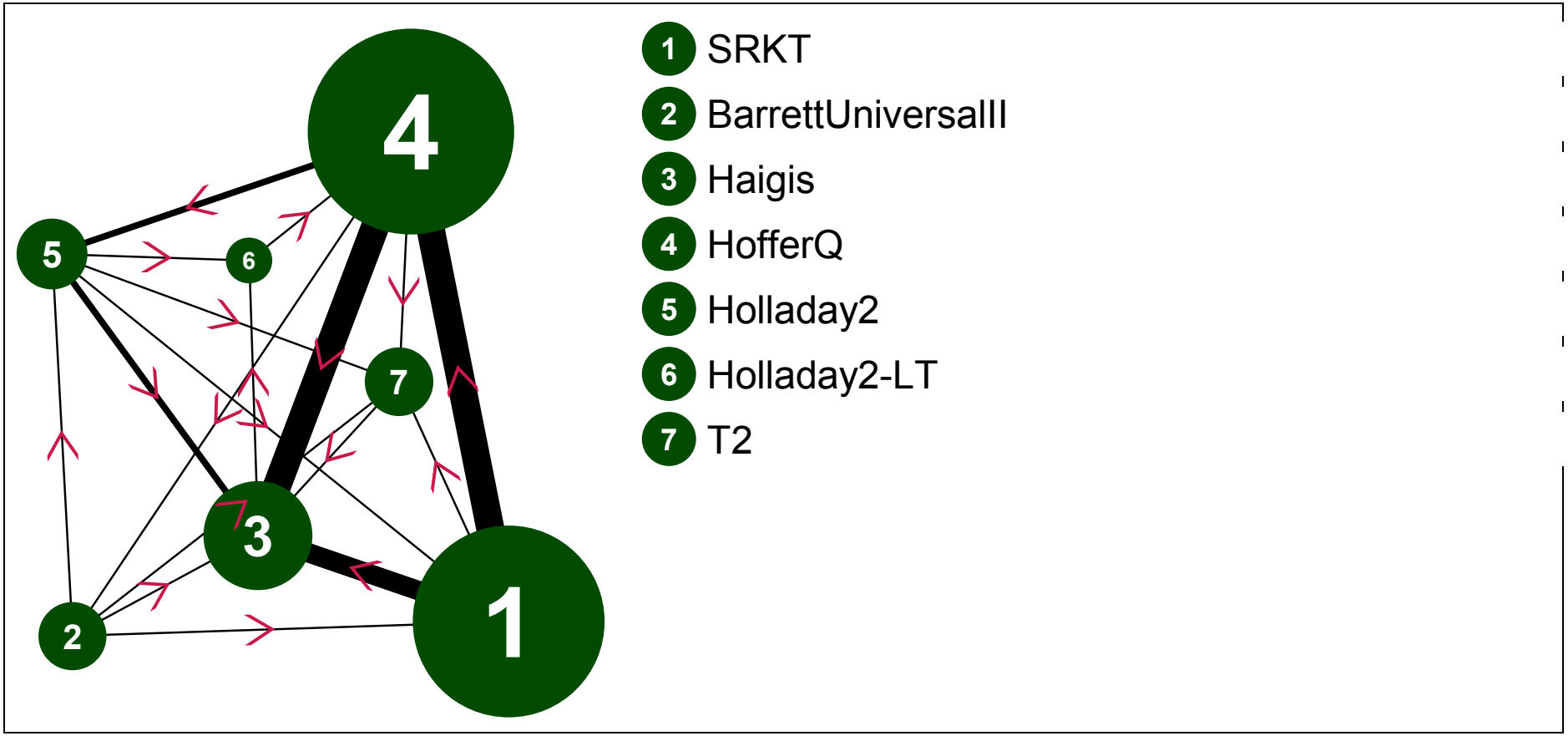


Figure 4: AL <22.0mm: Within 0.25D - fixed effects model – evidence network

Table 7: AL <22.0mm: Within 0.25D - fixed effects model – input data

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Kane,J. et al. (2016)	51/156	48/156	57/156	44/156	49/156		52/156
Eom et al. (2014)			28/75	22/75			
Srivannaboon et al. (2013)			5/15	6/15	5/15	5/15	
Day et al. (2012)	11/32		12/32	10/32			
Day et al. (2012)	32/100		35/100	39/100			
Day et al. (2012)	2/19		3/19	3/19			
Day et al. (2012)	3/12		2/12	4/12			
Aristodemou et al. (2011)	50/151			44/151			
Aristodemou et al. (2011)	145/457			168/457			

Table 8: AL <22.0mm: Within 0.25D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
SRKT		0.92 (0.57, 1.47)	1.16 (0.83, 1.61)	1.09 (0.90, 1.33)	0.94 (0.59, 1.52)	-	1.03 (0.64, 1.65)
BarrettUniversalII	1.01 (0.67, 1.53)		1.30 (0.81, 2.07)	0.88 (0.54, 1.44)	1.03 (0.64, 1.66)	-	1.13 (0.70, 1.81)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Haigis	1.23 (0.92, 1.64)	1.21 (0.79, 1.85)		0.86 (0.64, 1.15)	0.81 (0.52, 1.27)	1.00 (0.22, 4.56)	0.87 (0.55, 1.38)
HofferQ	1.09 (0.90, 1.32)	1.07 (0.71, 1.62)	0.88 (0.67, 1.16)		1.12 (0.70, 1.77)	0.75 (0.17, 3.33)	1.27 (0.79, 2.06)
Holladay2	1.04 (0.70, 1.55)	1.03 (0.64, 1.65)	0.85 (0.56, 1.27)	0.96 (0.64, 1.41)		1.00 (0.22, 4.56)	1.09 (0.68, 1.75)
Holladay2-LT	0.99 (0.26, 3.53)	0.98 (0.24, 3.57)	0.81 (0.21, 2.82)	0.92 (0.24, 3.20)	0.96 (0.25, 3.38)		-
T2	1.14 (0.76, 1.71)	1.13 (0.70, 1.83)	0.93 (0.61, 1.42)	1.05 (0.70, 1.57)	1.10 (0.69, 1.76)	1.15 (0.31, 4.64)	

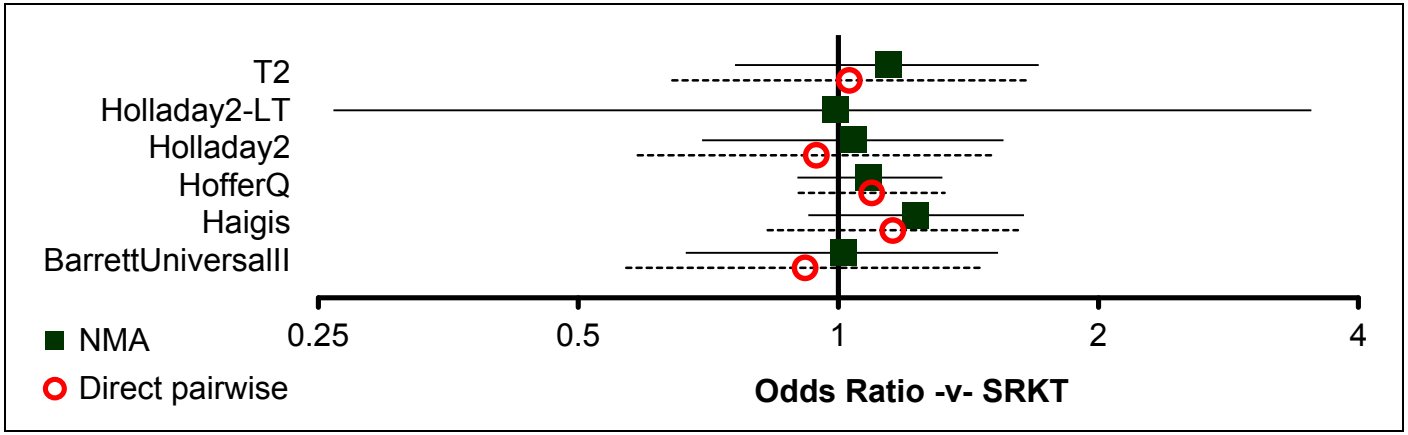


Figure 5: AL <22.0mm: Within 0.25D - fixed effects model – relative effect of all options versus common comparator

94 **Table 9: AL <22.0mm: Within 0.25D - fixed effects model – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT	0.007	5 (2, 7)
BarrettUniversalII	0.066	5 (1, 7)
Haigis	0.286	2 (1, 6)
HofferQ	0.044	4 (1, 7)
Holladay2	0.074	5 (1, 7)
Holladay2-LT	0.327	5 (1, 7)
T2	0.196	3 (1, 7)

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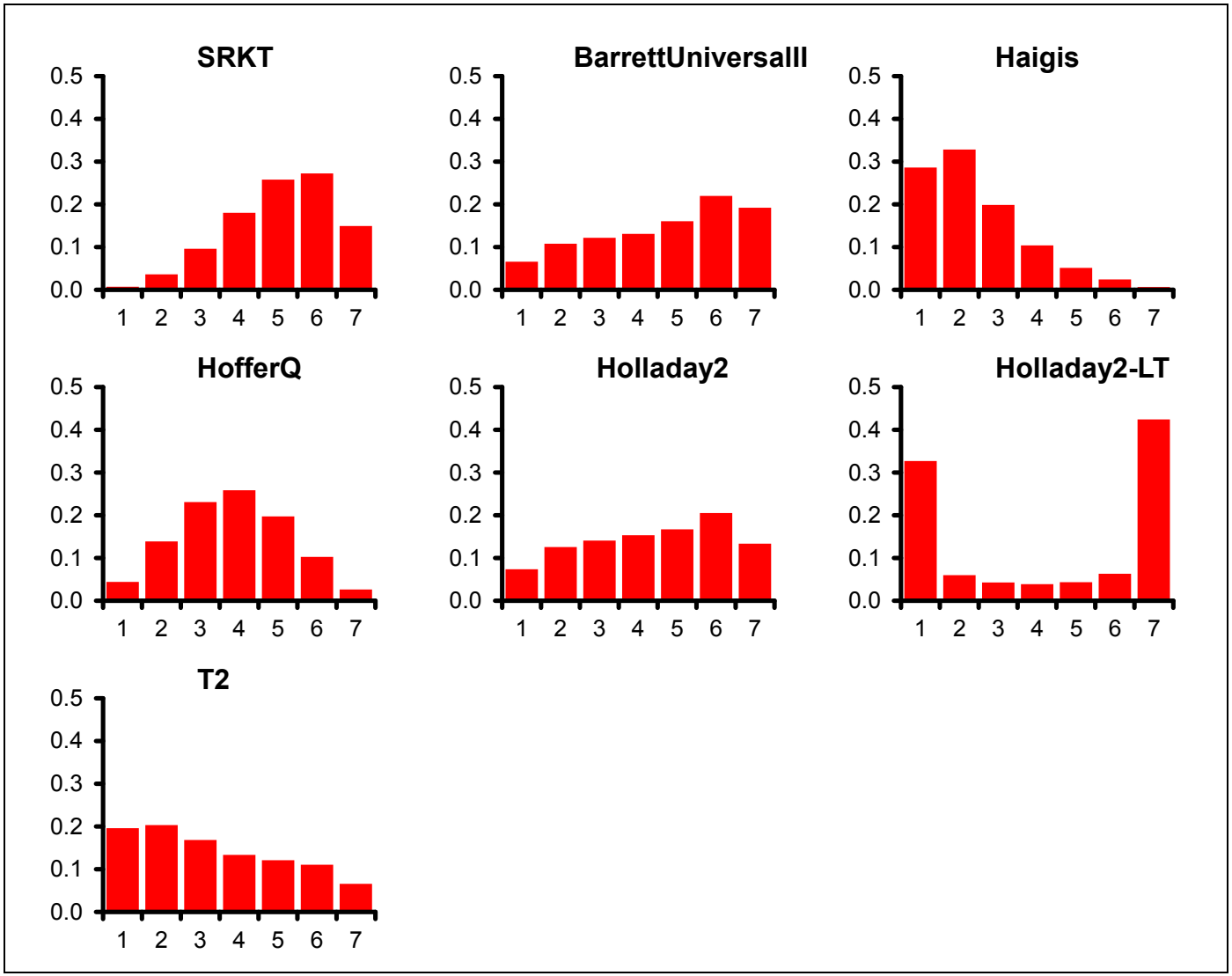

96 **Figure 6: AL <22.0mm: Within 0.25D - fixed effects model – rank probability histograms**

Table 10: AL <22.0mm: Within 0.25D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
22.47 (compared to 28 datapoints)	142.482	127.373	15.109	157.592	

Table 11: AL <22.0mm: Within 0.25D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 0.5 DIOPTRES – random effects model

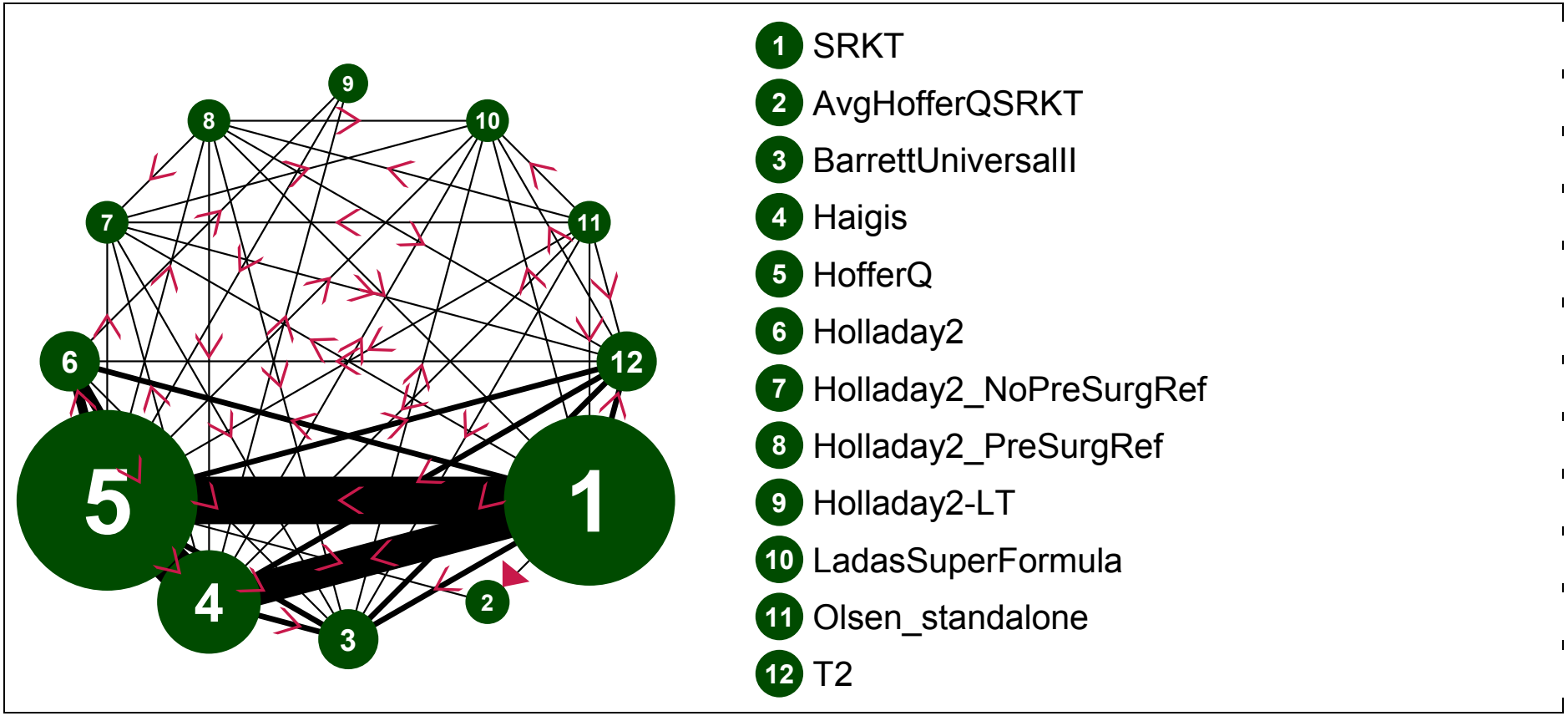

Figure 7: AL <22.0mm: Within 0.50D - random effects model – evidence network

105 **Table 12: AL <22.0mm: Within 0.50D - random effects model – input data**

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	Holladay2-LT	LadasSuperFormula	Olsen_standalone	T2
Cooke & (2016)	28/41		32/41	28/41	26/41		30/41	27/41		33/41	25/41	30/41
Doshi et al. (2017)	22/40			7/40	17/40							
Kane,J. et al. (2016)	93/156		97/156	98/156	87/156	96/156						94/156
Ozcura et al. (2016)	14/32				15/32							
Carifi et al. (2015)	6/28			12/28	11/28	12/28						
Eom et al. (2014)				50/75	47/75							
Srivannaboon et al. (2013)				6/15	9/15	7/15			7/15			
Day et al. (2012)	20/32			24/32	18/32							
Day et al. (2012)	54/100			68/100	60/100							
Day et al. (2012)	6/19			4/19	9/19							
Day et al. (2012)	4/12			4/12	4/12							
Aristodemou et al. (2011)	91/151				85/151							
Aristodemou et al. (2011)	276/457				293/457							
Percival et al. (2002)	25/54	36/54			35/54							
Moschos et al. (2014)	13/69			50/69	41/69							

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Table 13: AL <22.0mm: Within 0.50D - random effects model – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	Holladay2-LT	LadasSuperFormula	Olsen_standalone	T2
SRKT		2.32 (1.06, 5.05)	1.19 (0.79, 1.80)	1.38 (0.68, 2.80)	1.25 (0.92, 1.71)	1.47 (0.62, 3.45)	1.27 (0.49, 3.29)	0.90 (0.36, 2.25)	-	1.92 (0.69, 5.28)	0.73 (0.29, 1.80)	1.07 (0.71, 1.61)
AvgHofferQSRKT	1.82 (0.51, 6.65)		-	-	0.92 (0.42, 2.04)	-	-	-	-	-	-	-
BarrettUniversalII	1.65 (0.70, 3.92)	0.91 (0.20, 4.12)		0.94 (0.62, 1.42)	0.71 (0.47, 1.07)	0.97 (0.62, 1.54)	0.77 (0.28, 2.11)	0.54 (0.20, 1.45)	-	1.16 (0.40, 3.38)	0.44 (0.17, 1.16)	0.89 (0.59, 1.35)
Haigis	1.38 (0.84, 2.21)	0.76 (0.20, 2.80)	0.84 (0.34, 1.96)		0.90 (0.65, 1.26)	0.98 (0.65, 1.47)	1.27 (0.49, 3.29)	0.90 (0.36, 2.25)	1.31 (0.31, 5.58)	1.92 (0.69, 5.28)	0.73 (0.29, 1.80)	0.96 (0.63, 1.44)
HofferQ	1.30 (0.86, 1.96)	0.71 (0.20, 2.53)	0.79 (0.34, 1.85)	0.94 (0.61, 1.50)		1.18 (0.79, 1.76)	1.57 (0.62, 4.02)	1.11 (0.45, 2.75)	0.58 (0.14, 2.48)	2.38 (0.88, 6.47)	0.90 (0.37, 2.20)	1.26 (0.84, 1.90)
Holladay2	1.45 (0.66, 3.17)	0.80 (0.18, 3.42)	0.88 (0.31, 2.43)	1.05 (0.49, 2.31)	1.11 (0.52, 2.41)		-	-	1.00 (0.24, 4.20)	-	-	0.95 (0.60, 1.49)
Holladay2_NoPreSurgRef	1.53 (0.43, 5.53)	0.84 (0.14, 4.98)	0.93 (0.23, 3.75)	1.11 (0.32, 4.08)	1.17 (0.34, 4.21)	1.06 (0.26, 4.40)		0.71 (0.27, 1.82)	-	1.51 (0.54, 4.26)	0.57 (0.23, 1.46)	1.00 (0.38, 2.66)
Holladay2_PreSurgRef	1.07 (0.31, 3.67)	0.59 (0.10, 3.36)	0.65 (0.17, 2.50)	0.78 (0.23, 2.69)	0.83 (0.24, 2.81)	0.74 (0.18, 2.95)	0.70 (0.15, 3.30)		-	2.14 (0.78, 5.85)	0.81 (0.33, 1.99)	1.41 (0.55, 3.64)
Holladay2-LT	1.23 (0.24, 6.19)	0.67 (0.09, 5.14)	0.75 (0.13, 4.28)	0.90 (0.18, 4.45)	0.95 (0.19, 4.60)	0.85 (0.16, 4.39)	0.80 (0.11, 5.95)	1.14 (0.16, 8.35)		-	-	-

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	Holladay2-LT	LadasSuperFormula	Olsen_standalone	T2
LadasSuperFormula	2.36 (0.64, 8.96)	1.30 (0.21, 7.91)	1.44 (0.35, 6.04)	1.73 (0.47, 6.49)	1.82 (0.49, 6.79)	1.64 (0.39, 7.07)	1.55 (0.31, 7.85)	2.21 (0.46, 10.94)	1.94 (0.26, 14.95)		0.38 (0.14, 1.02)	0.66 (0.23, 1.86)
Olsen_standalone	0.86 (0.25, 2.98)	0.47 (0.08, 2.72)	0.52 (0.14, 2.01)	0.62 (0.18, 2.17)	0.66 (0.19, 2.25)	0.59 (0.15, 2.41)	0.56 (0.12, 2.64)	0.80 (0.18, 3.69)	0.70 (0.10, 5.04)	0.36 (0.07, 1.73)		1.75 (0.69, 4.44)
T2	1.42 (0.60, 3.35)	0.78 (0.17, 3.48)	0.86 (0.31, 2.36)	1.03 (0.44, 2.47)	1.09 (0.47, 2.56)	0.98 (0.35, 2.72)	0.93 (0.23, 3.64)	1.32 (0.35, 4.97)	1.15 (0.20, 6.75)	0.60 (0.14, 2.43)	1.65 (0.43, 6.43)	

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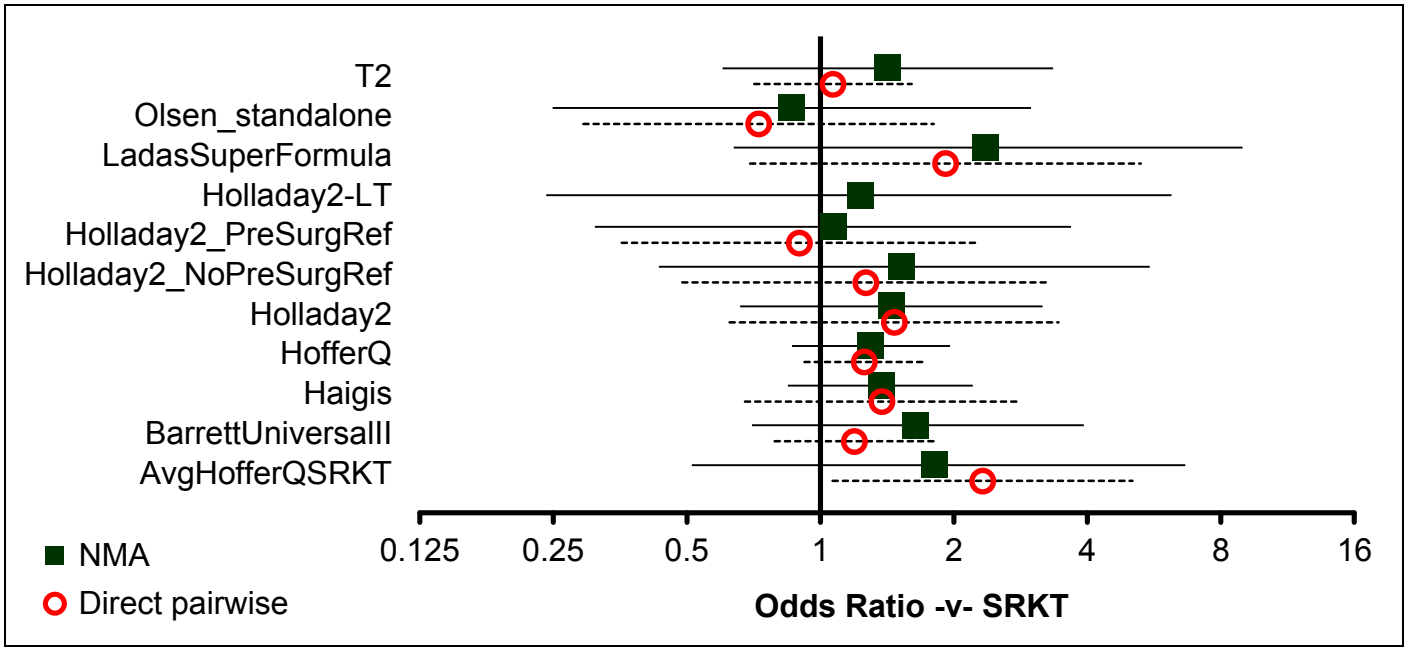

Figure 8: AL <22.0mm: Within 0.50D - random effects model – relative effect of all options versus common comparator

Table 14: AL <22.0mm: Within 0.50D - random effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.000	10 (5, 12)
AvgHofferQSRKT	0.217	4 (1, 12)
BarrettUniversalII	0.074	4 (1, 11)
Haigis	0.006	6 (2, 10)
HofferQ	0.002	7 (3, 11)
Holladay2	0.034	6 (1, 11)
Holladay2_NoPreSurgRef	0.113	5 (1, 12)
Holladay2_PreSurgRef	0.032	9 (1, 12)

	Probability best	Median rank (95%CI)
Holladay2-LT	0.122	8 (1, 12)
LadasSuperFormula	0.357	2 (1, 11)
Olsen_standalone	0.014	11 (2, 12)
T2	0.031	6 (1, 12)

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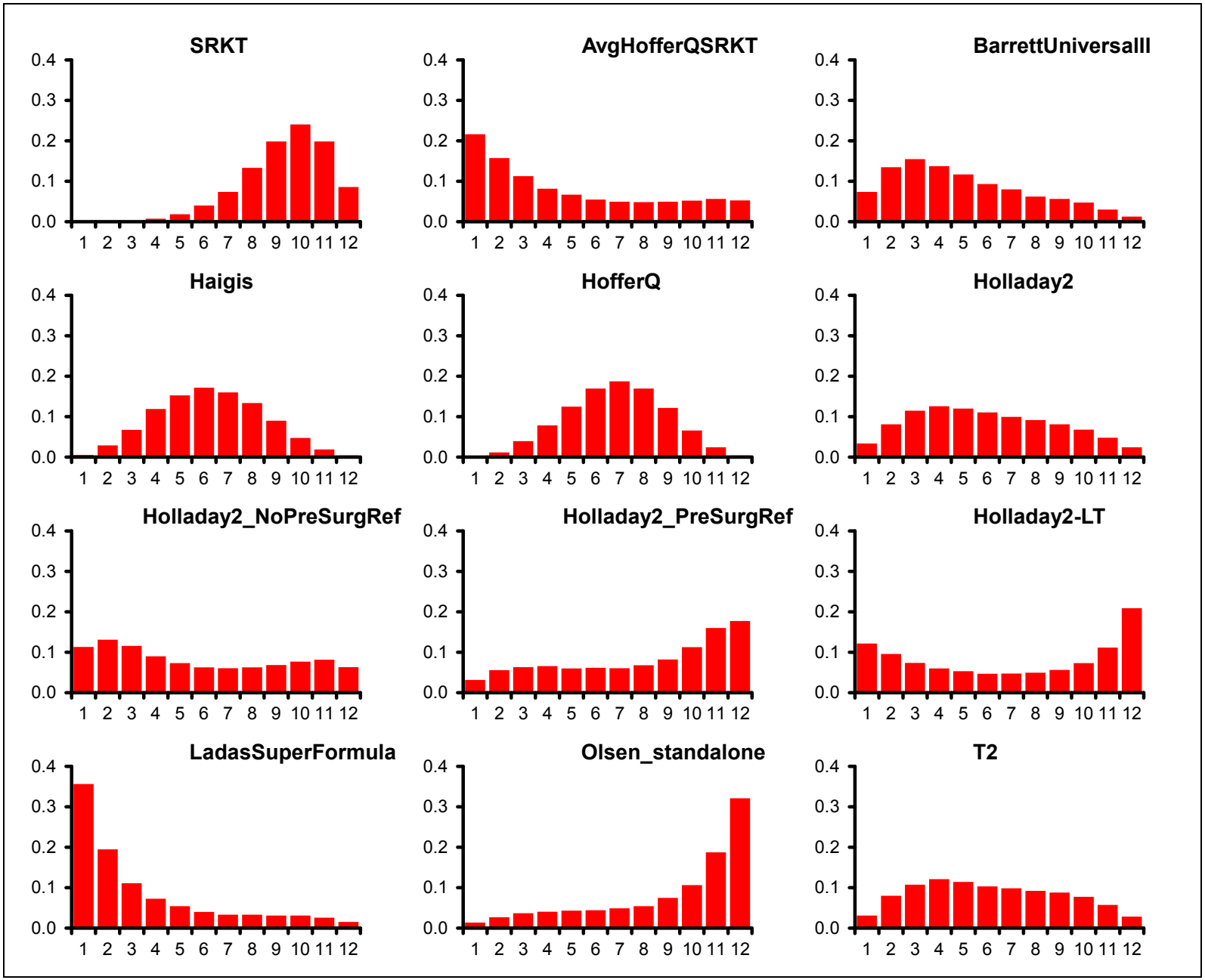

SRKT
AvgHofferQSRKT
BarrettUniversalII
Haigis
HofferQ
Holladay2
Holladay2_NoPreSurgRef
Holladay2_PreSurgRef
Holladay2-LT
LadasSuperFormula
Olsen_standalone
T2
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12

Figure 9: AL <22.0mm: Within 0.50D - random effects model – rank probability histograms

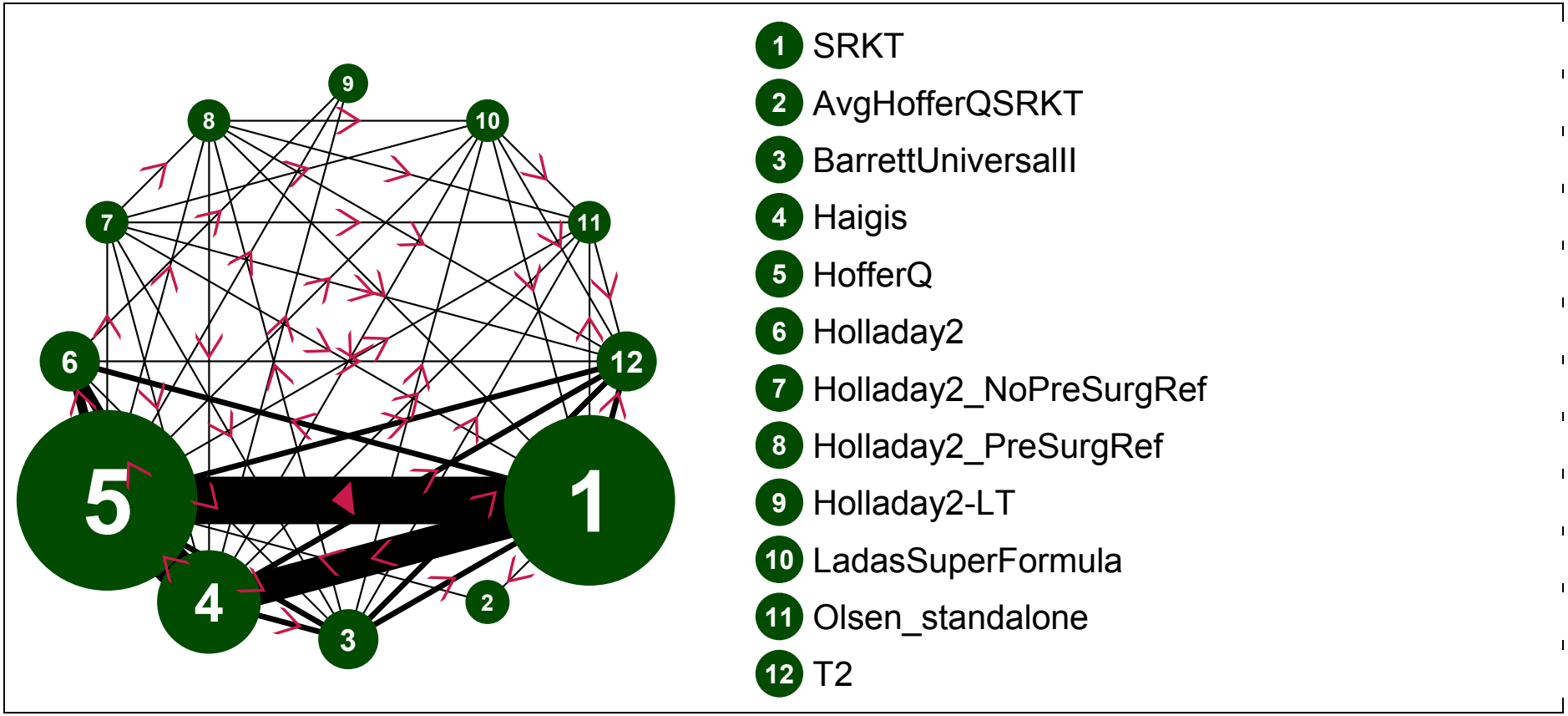
Table 15: AL <22.0mm: Within 0.50D - random effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau
52.32 (compared to 52 datapoints)	272.542	229.532	43.01	315.552	0.589 (95%CI: 0.345, 0.920)

Table 16: AL <22.0mm: Within 0.50D - random effects model – notes

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations

120 **PROPORTION WITHIN 1.0 DIOPTRE – random effects model**



121 **Figure 10: AL <22.0mm: Within 1.0D - random effects model – evidence network**

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123 **Table 17: AL <22.0mm: Within 1.0D - random effects model – input data**

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	Holladay2-LT	LadasSuperFormula	Olsen_standalone	T2
Cooke & (2016)	39/41		38/41	39/41	36/41		36/41	38/41		38/41	39/41	39/41
Doshi et al. (2017)	33/40			14/40	36/40							
Kane,J. et al. (2016)	144/156		144/156	142/156	142/156	143/156						145/156
Ozcura et al. (2016)	24/32				26/32							
Carifi et al. (2015)	12/28			13/28	17/28	18/28						
Eom et al. (2014)				66/75	66/75							
Srivannaboon et al. (2013)				11/15	13/15	13/15			13/15			
Day et al. (2012)	28/32			31/32	28/32							
Day et al. (2012)	89/100			93/100	92/100							
Day et al. (2012)	14/19			12/19	14/19							
Day et al. (2012)	6/12			7/12	6/12							
Aristodemou et al. (2011)	130/151				131/151							
Aristodemou et al. (2011)	399/457				408/457							
Percival et al. (2002)	43/54	45/54			48/54							
Moschos et al. (2014)	47/69			64/69	59/69							

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Table 18: AL <22.0mm: Within 1.0D - random effects model – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	Holladay2-LT	LadasSuperFormula	Olsen_standalone	T2
SRKT		1.28 (0.48, 3.39)	0.93 (0.44, 1.99)	1.10 (0.49, 2.48)	1.29 (1.02, 1.65)	1.39 (0.55, 3.53)	0.37 (0.07, 2.02)	0.65 (0.10, 4.11)	-	0.65 (0.10, 4.11)	1.00 (0.13, 7.46)	1.08 (0.50, 2.37)
AvgHofferQSRKT	1.05 (0.23, 4.61)		-	-	1.60 (0.53, 4.86)	-	-	-	-	-	-	-
BarrettUniversalII	1.27 (0.43, 3.83)	1.21 (0.20, 7.73)		0.93 (0.44, 1.95)	0.77 (0.38, 1.57)	0.92 (0.40, 2.08)	0.57 (0.13, 2.55)	1.00 (0.19, 5.27)	-	1.00 (0.19, 5.27)	1.54 (0.24, 9.73)	1.17 (0.54, 2.52)
Haigis	1.07 (0.62, 1.88)	1.02 (0.22, 4.95)	0.84 (0.28, 2.50)		1.18 (0.63, 2.20)	1.44 (0.79, 2.63)	0.37 (0.07, 2.02)	0.65 (0.10, 4.11)	2.36 (0.36, 15.45)	0.65 (0.10, 4.11)	1.00 (0.13, 7.46)	1.25 (0.58, 2.68)
HofferQ	1.32 (0.81, 2.11)	1.26 (0.28, 5.75)	1.04 (0.34, 3.00)	1.23 (0.71, 2.10)		1.10 (0.60, 2.03)	1.00 (0.27, 3.75)	1.76 (0.39, 7.90)	1.00 (0.12, 8.21)	1.76 (0.39, 7.90)	2.71 (0.49, 14.84)	1.49 (0.71, 3.13)
Holladay2	1.56 (0.63, 4.02)	1.48 (0.27, 8.68)	1.23 (0.35, 4.38)	1.45 (0.59, 3.70)	1.18 (0.48, 3.04)		-	-	1.00 (0.12, 8.21)	-	-	1.20 (0.52, 2.76)
Holladay2_NoPreSurgRef	0.63 (0.13, 3.23)	0.60 (0.07, 5.29)	0.50 (0.09, 2.81)	0.59 (0.12, 2.94)	0.48 (0.10, 2.41)	0.41 (0.07, 2.40)		1.76 (0.39, 7.90)	-	1.76 (0.39, 7.90)	2.71 (0.49, 14.84)	2.71 (0.49, 14.84)
Holladay2_PreSurgRef	1.20 (0.22, 8.15)	1.16 (0.12, 13.02)	0.95 (0.15, 7.30)	1.12 (0.20, 7.69)	0.91 (0.16, 6.23)	0.77 (0.12, 6.00)	1.90 (0.25, 16.72)		-	1.00 (0.19, 5.27)	1.54 (0.24, 9.73)	1.54 (0.24, 9.73)
Holladay2-LT	2.00 (0.26, 22.38)	1.94 (0.16, 32.60)	1.58 (0.17, 21.34)	1.87 (0.25, 21.28)	1.52 (0.20, 17.15)	1.29 (0.16, 14.88)	3.20 (0.24, 55.29)	1.70 (0.10, 30.39)		-	-	-

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	Holladay2-LT	LadasSuperFormula	Olsen_standalone	T2
LadasSuperFormula	1.18 (0.21, 7.80)	1.14 (0.12, 12.03)	0.94 (0.14, 6.75)	1.11 (0.20, 7.26)	0.90 (0.16, 5.99)	0.76 (0.11, 5.82)	1.87 (0.24, 16.44)	0.99 (0.10, 9.58)	0.59 (0.03, 8.93)		1.54 (0.24, 9.73)	1.54 (0.24, 9.73)
Olsen_standalone	2.00 (0.31, 20.29)	1.96 (0.17, 27.07)	1.58 (0.21, 16.97)	1.86 (0.28, 18.71)	1.51 (0.24, 15.13)	1.29 (0.17, 14.30)	3.21 (0.35, 38.30)	1.66 (0.15, 22.15)	1.01 (0.05, 19.87)	1.69 (0.16, 21.88)		1.00 (0.13, 7.46)
T2	1.57 (0.53, 4.94)	1.50 (0.24, 9.77)	1.23 (0.34, 4.73)	1.46 (0.48, 4.64)	1.19 (0.40, 3.73)	1.01 (0.28, 3.68)	2.46 (0.43, 14.60)	1.31 (0.17, 8.54)	0.79 (0.06, 7.53)	1.32 (0.17, 8.98)	0.78 (0.07, 6.03)	

127

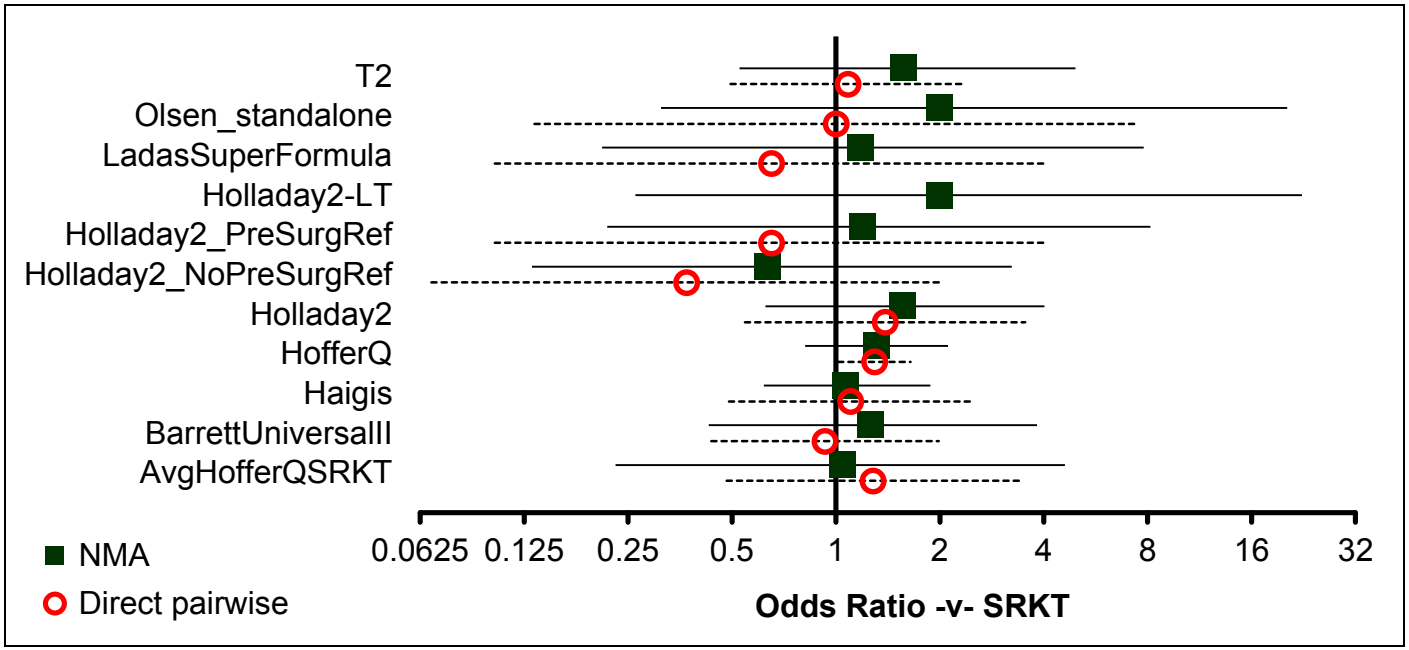

Figure 11: AL <22.0mm: Within 1.0D - random effects model – relative effect of all options versus common comparator

Table 19: AL <22.0mm: Within 1.0D - random effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.001	8 (4, 12)
AvgHofferQSRKT	0.058	8 (1, 12)
BarrettUniversalII	0.032	6 (1, 12)
Haigis	0.002	8 (3, 11)
HofferQ	0.006	6 (2, 10)
Holladay2	0.056	5 (1, 11)
Holladay2_NoPreSurgRef	0.012	11 (2, 12)
Holladay2_PreSurgRef	0.095	7 (1, 12)

	Probability best	Median rank (95%CI)
Holladay2-LT	0.298	3 (1, 12)
LadasSuperFormula	0.093	7 (1, 12)
Olsen_standalone	0.273	3 (1, 12)
T2	0.075	5 (1, 11)

131

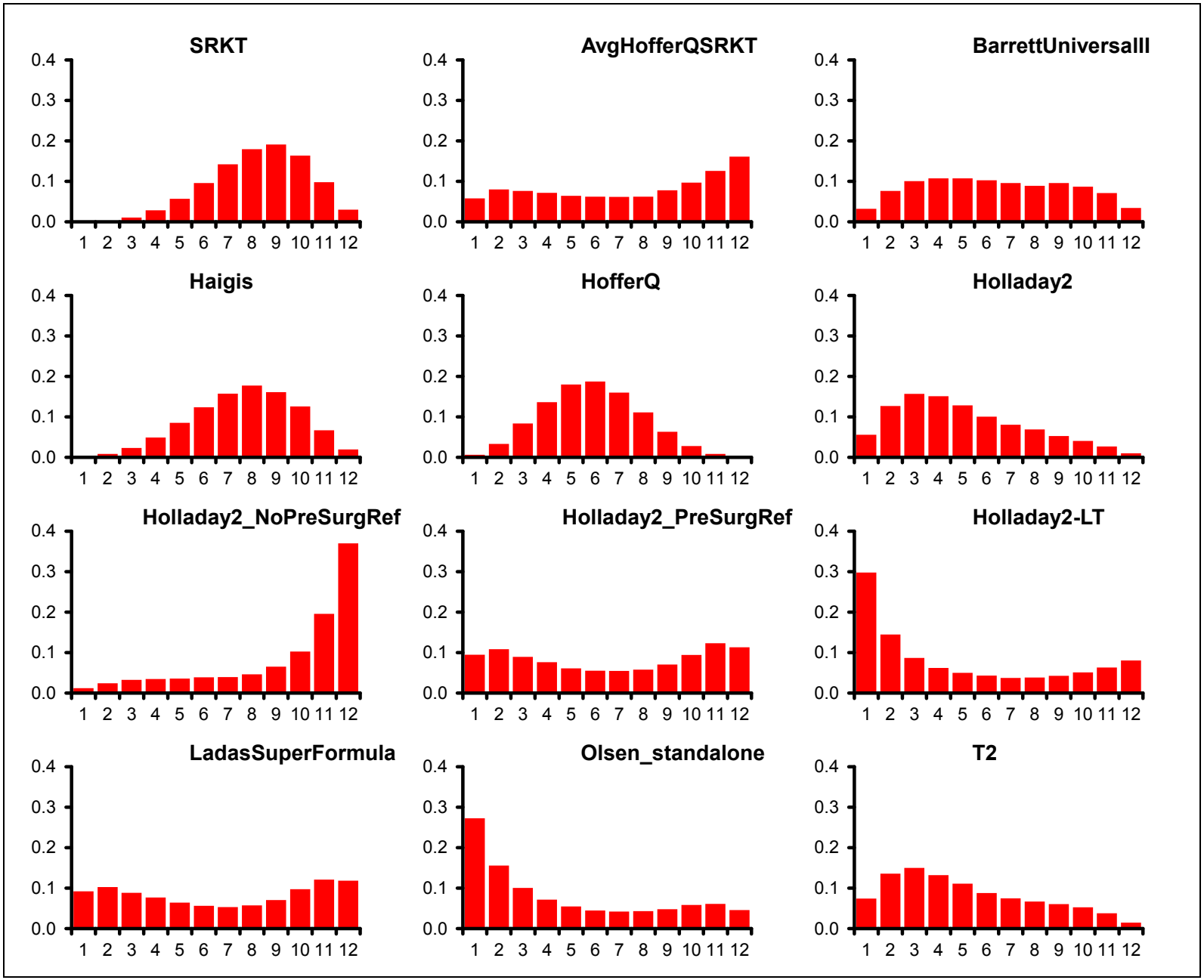
SRKT
AvgHofferQSRKT
BarrettUniversalII
Haigis
HofferQ
Holladay2
Holladay2_NoPreSurgRef
Holladay2_PreSurgRef
Holladay2-LT
LadasSuperFormula
Olsen_standalone
T2
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12

Figure 12: AL <22.0mm: Within 1.0D - random effects model – rank probability histograms

Table 20: AL <22.0mm: Within 1.0D - random effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau
50.87 (compared to 52 datapoints)	236.411	195.954	40.458	276.869	0.653 (95%CI: 0.367, 1.035)

Table 21: AL <22.0mm: Within 1.0D - random effects model – notes

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 2.0 DIOPTRES – fixed effects model

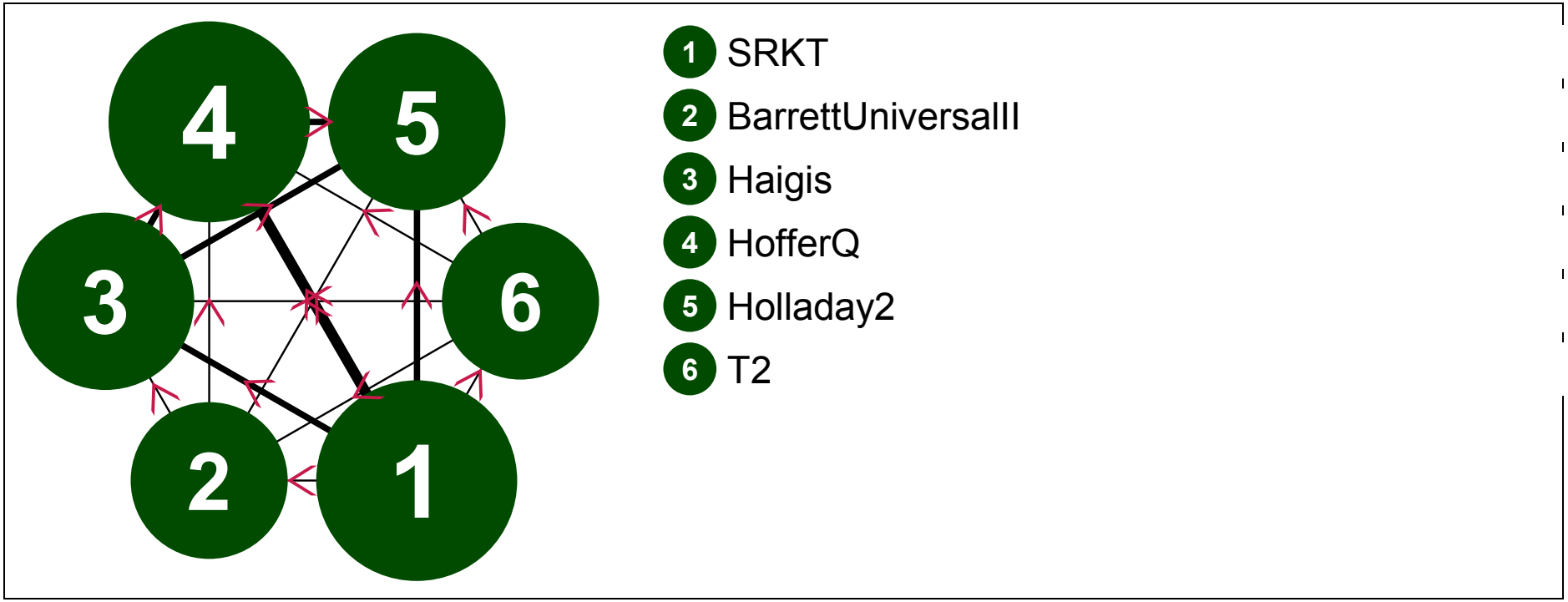

Figure 13: AL <22.0mm: Within 2.0D - fixed effects model – evidence network

Table 22: AL <22.0mm: Within 2.0D - fixed effects model – input data

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
Kane,J. et al. (2016)	155/156	156/156	156/156	156/156	156/156	155/156

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
Ozcura et al. (2016)	31/32			31/32		
Carifi et al. (2015)	22/28		24/28	25/28	26/28	

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143 **Table 23: AL <22.0mm: Within 2.0D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible**
144 **interval)**

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
SRKT		3.02 (0.12, 74.69)	1.83 (0.51, 6.48)	2.05 (0.61, 6.86)	3.42 (0.76, 15.35)	1.00 (0.06, 16.13)
BarrettUniversalII	4.65 (0.25, 2033.00)		1.00 (0.02, 50.71)	1.00 (0.02, 50.71)	1.00 (0.02, 50.71)	0.33 (0.01, 8.19)
Haigis	1.77 (0.51, 7.04)	0.38 (0.00, 8.10)		1.33 (0.30, 5.81)	1.90 (0.38, 9.54)	0.33 (0.01, 8.19)
HofferQ	2.14 (0.63, 8.20)	0.46 (0.00, 9.67)	1.21 (0.28, 5.31)		1.44 (0.27, 7.74)	0.33 (0.01, 8.19)
Holladay2	3.61 (0.85, 21.95)	0.77 (0.00, 20.64)	2.03 (0.40, 13.61)	1.67 (0.32, 11.15)		0.33 (0.01, 8.19)
T2	0.91 (0.10, 12.74)	0.20 (0.00, 6.00)	0.51 (0.05, 7.38)	0.42 (0.04, 6.24)	0.25 (0.02, 4.14)	

145

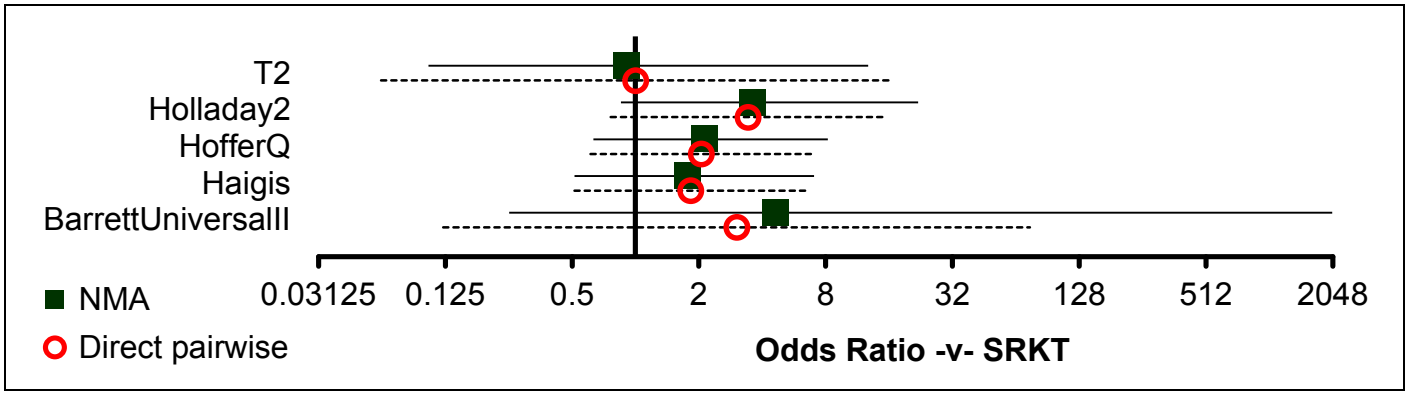


Figure 14: AL <22.0mm: Within 2.0D - fixed effects model – relative effect of all options versus common comparator

Table 24: AL <22.0mm: Within 2.0D - fixed effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.003	5 (3, 6)
BarrettUniversalII	0.492	2 (1, 6)
Haigis	0.052	4 (1, 6)
HofferQ	0.089	3 (1, 6)
Holladay2	0.309	2 (1, 5)
T2	0.055	5 (1, 6)

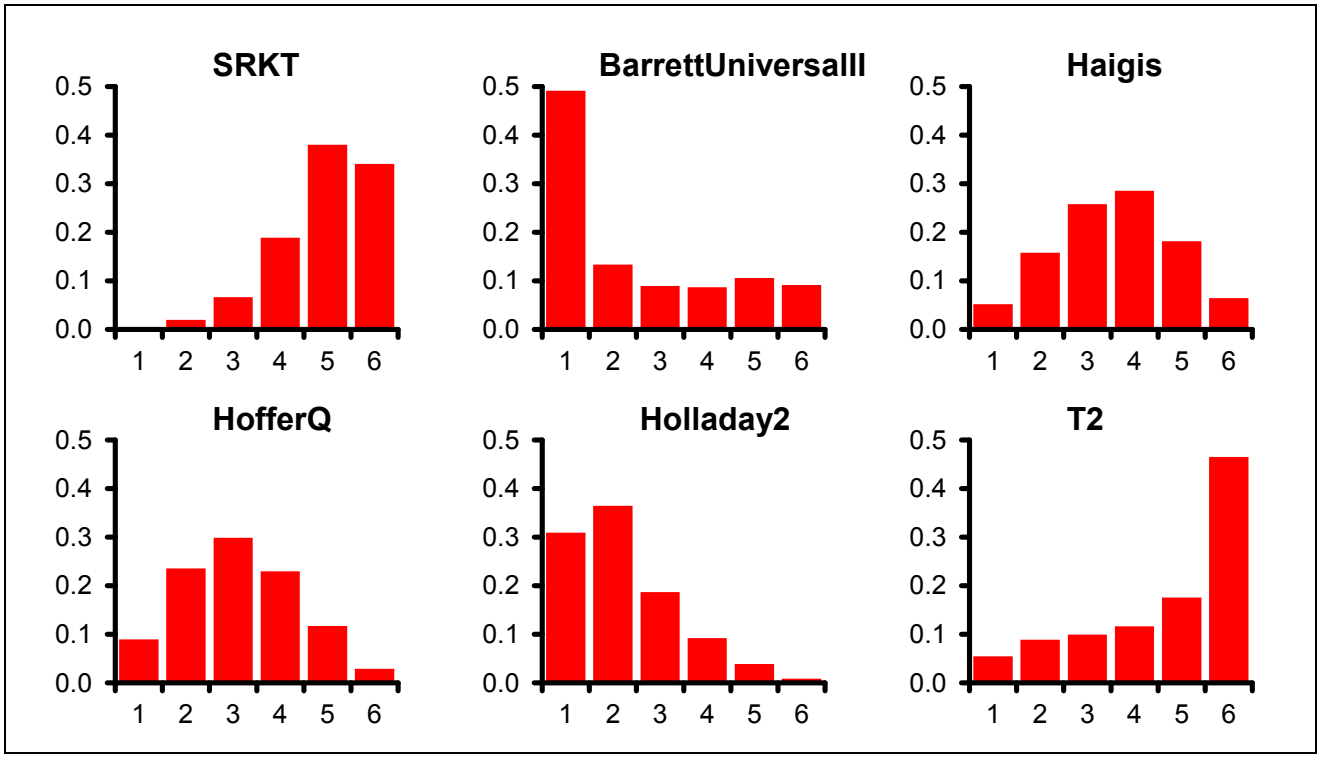


Figure 15: AL <22.0mm: Within 2.0D - fixed effects model – rank probability histograms

Table 25: AL <22.0mm: Within 2.0D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
9.174 (compared to 12 datapoints)	35.541	28.066	7.474	43.015	

Table 26: AL <22.0mm: Within 2.0D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

H.3.2.3 Full dataset: Axial length subgroup – 22.00 to 24.50mm

MEAN ABSOLUTE ERROR – fixed effects model

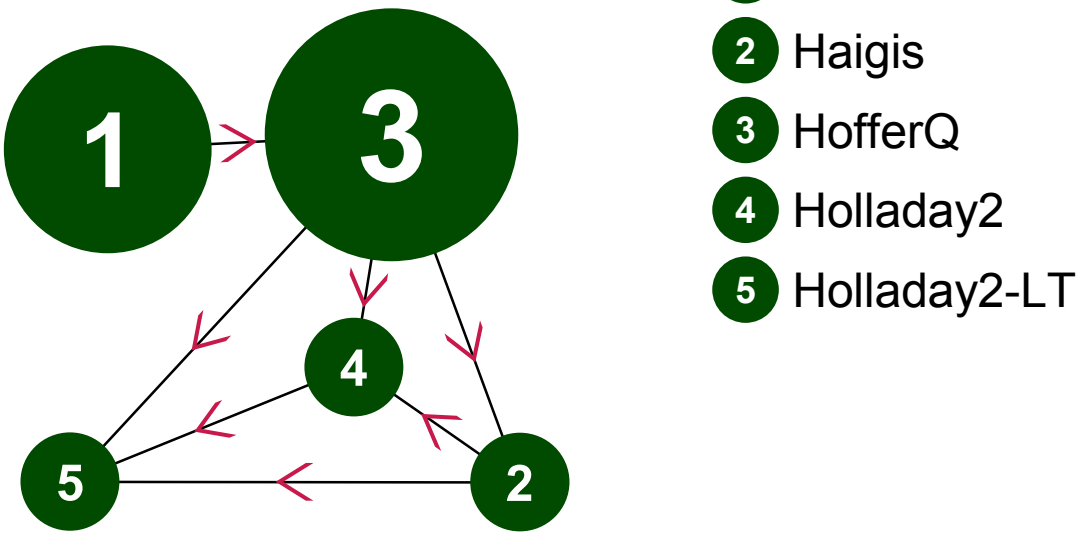


Figure 16: AL 22.0-24.5mm: Mean absolute error - fixed effects model – evidence network

Table 27: AL 22.0-24.5mm: Mean absolute error - fixed effects model – input data

	SRKT	Haigis	HofferQ	Holladay2	Holladay2-LT
Ozcura et al. (2016)	0.51 (0.42)		0.55 (0.44)		
Srivannaboon et al. (2013)		0.40 (0.33)	0.39 (0.33)	0.41 (0.31)	0.42 (0.30)

Table 28: AL 22.0-24.5mm: Mean absolute error - fixed effects model – relative effectiveness of all pairwise combinations (MD and 95% credible interval)

	SRKT	Haigis	HofferQ	Holladay2	Holladay2-LT
SRKT		-	0.04 (-0.02, 0.10)	-	-
Haigis	0.05 (-0.05, 0.15)		-0.01 (-0.09, 0.07)	0.01 (-0.07, 0.09)	0.02 (-0.06, 0.10)
HofferQ	0.04 (-0.02, 0.10)	-0.01 (-0.09, 0.07)		0.02 (-0.06, 0.10)	0.03 (-0.05, 0.11)
Holladay2	0.06 (-0.04, 0.16)	0.01 (-0.07, 0.09)	0.02 (-0.06, 0.10)		0.01 (-0.07, 0.09)
Holladay2-LT	0.07 (-0.03, 0.17)	0.02 (-0.06, 0.10)	0.03 (-0.05, 0.11)	0.01 (-0.07, 0.09)	

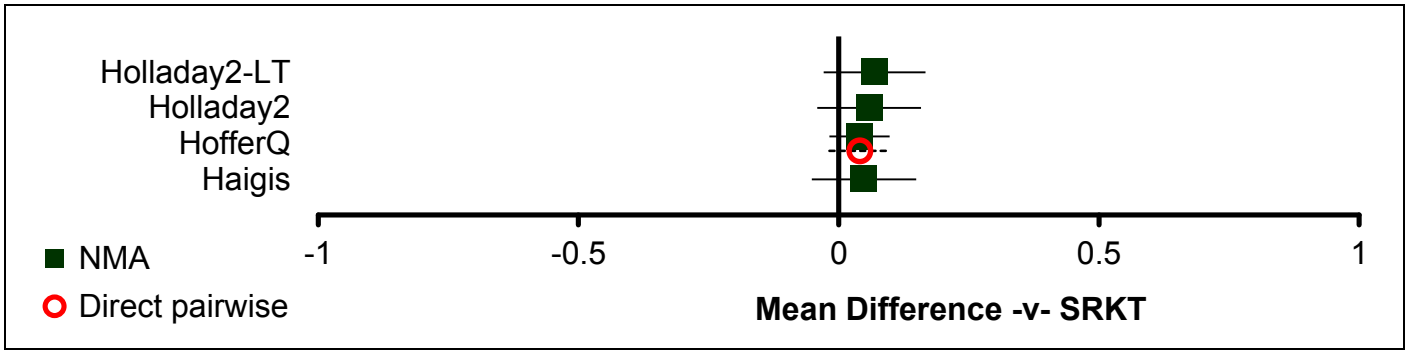


Figure 17: AL 22.0-24.5mm: Mean absolute error - fixed effects model – relative effect of all options versus common comparator

Table 29: AL 22.0-24.5mm: Mean absolute error - fixed effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.739	1 (1, 4)
Haigis	0.123	3 (1, 5)
HofferQ	0.037	3 (1, 5)
Holladay2	0.068	4 (1, 5)
Holladay2-LT	0.032	4 (1, 5)

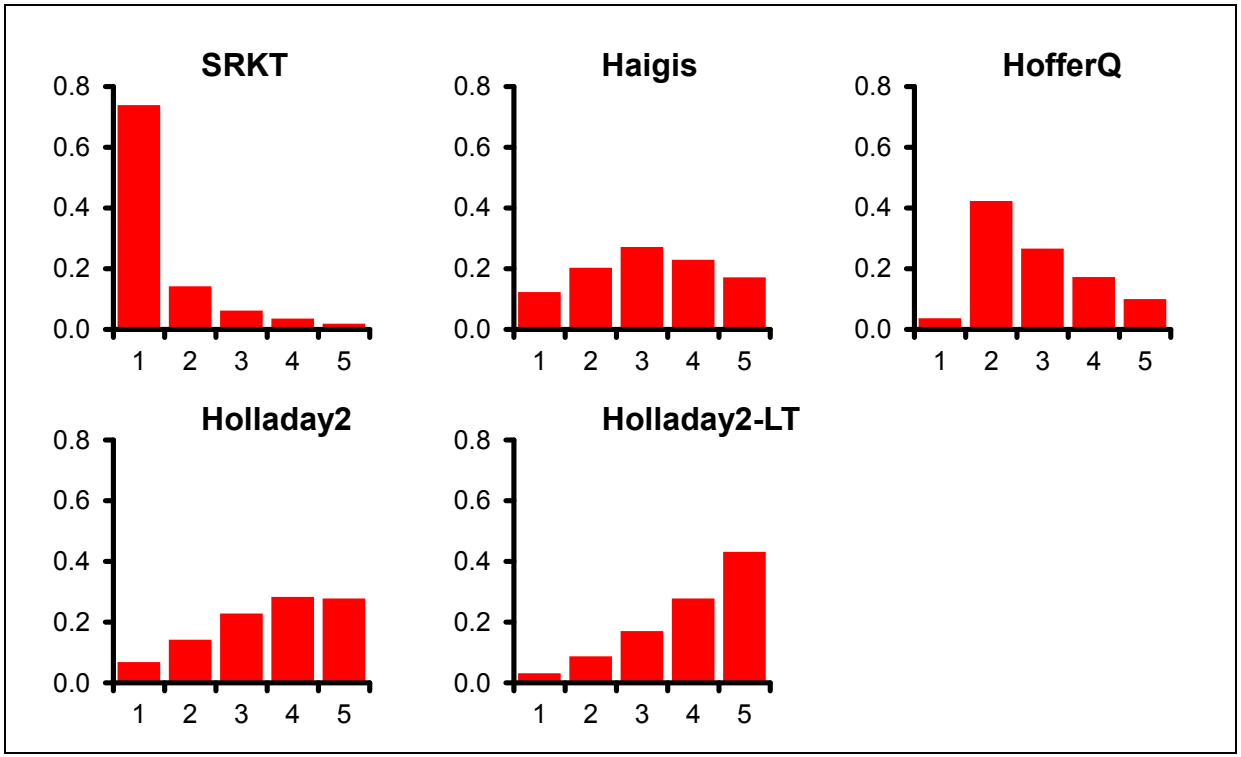


Figure 18: AL 22.0-24.5mm: Mean absolute error - fixed effects model – rank probability histograms

Table 30: AL 22.0-24.5mm: Mean absolute error - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
6.015 (compared to 6 datapoints)	-26.891	-32.905	6.014	-20.877	

Table 31: AL 22.0-24.5mm: Mean absolute error - fixed effects model – notes

- Continuous (normal; identity link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 0.25 DIOPTRES – fixed effects model

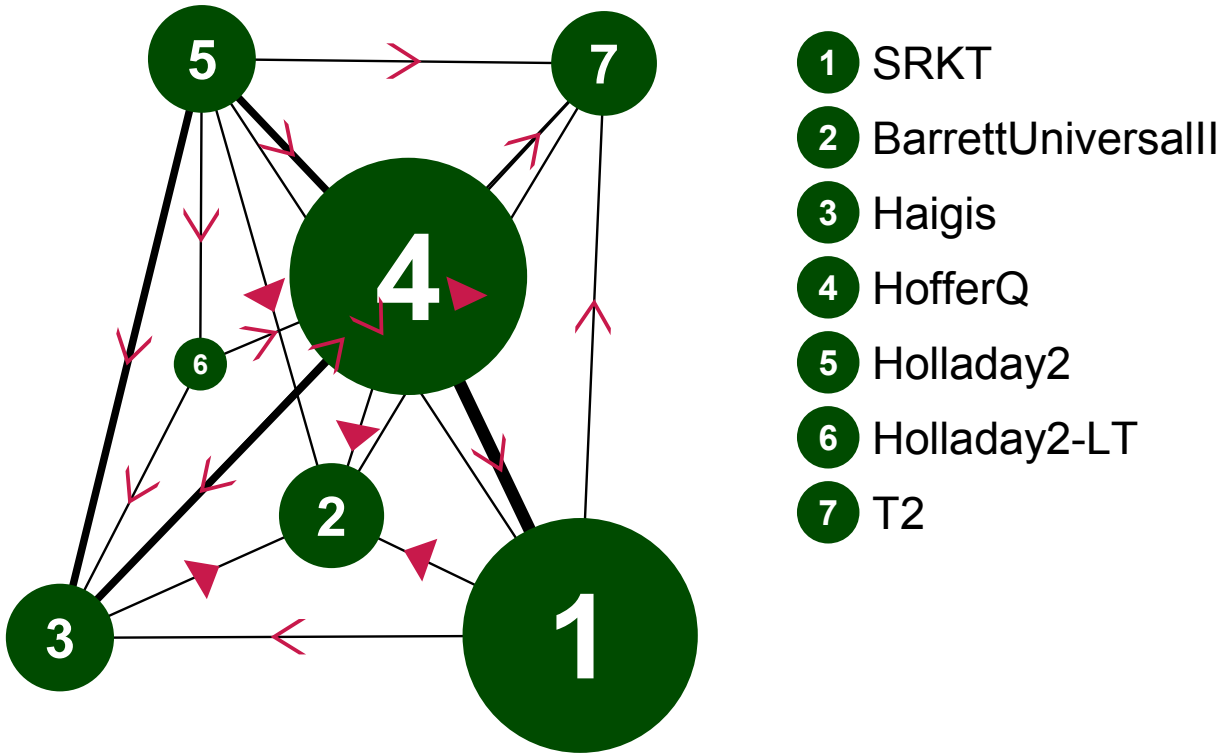


Figure 19: AL 22.0-24.5mm: Within 0.25D - fixed effects model – evidence network

Table 32: AL 22.0-24.5mm: Within 0.25D - fixed effects model – input data

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Kane,J. et al. (2016)	1018/2638	1126/2638	1029/2638	1029/2638	1000/2638		1029/2638
Srivannaboon et al. (2013)			52/124	50/124	45/124	46/124	
Aristodemou et al. (2011)	599/1508			609/1508			
Aristodemou et al. (2011)	1985/4699			1900/4699			

Table 33: AL 22.0-24.5mm: Within 0.25D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
SRKT		1.19 (1.06, 1.32)	1.02 (0.91, 1.14)	0.97 (0.91, 1.03)	0.97 (0.87, 1.09)	-	1.02 (0.91, 1.14)
BarrettUniversalII	1.16 (1.05, 1.28)		0.86 (0.77, 0.96)	0.86 (0.77, 0.96)	0.82 (0.73, 0.92)	-	0.86 (0.77, 0.96)
Haigis	1.00 (0.90, 1.10)	0.86 (0.77, 0.96)		1.00 (0.89, 1.11)	0.95 (0.85, 1.05)	0.82 (0.49, 1.36)	1.00 (0.90, 1.12)
HofferQ	0.97 (0.91, 1.03)	0.84 (0.76, 0.93)	0.97 (0.88, 1.08)		0.95 (0.85, 1.06)	0.87 (0.52, 1.46)	1.00 (0.90, 1.12)
Holladay2	0.94 (0.85, 1.04)	0.82 (0.73, 0.91)	0.95 (0.85, 1.06)	0.97 (0.88, 1.07)		1.04 (0.62, 1.74)	1.05 (0.94, 1.17)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Holladay2-LT	0.87 (0.57, 1.33)	0.76 (0.49, 1.15)	0.88 (0.57, 1.33)	0.90 (0.59, 1.36)	0.93 (0.60, 1.41)		-
T2	0.99 (0.90, 1.10)	0.86 (0.77, 0.96)	1.00 (0.89, 1.11)	1.02 (0.93, 1.13)	1.05 (0.94, 1.18)	1.14 (0.75, 1.76)	

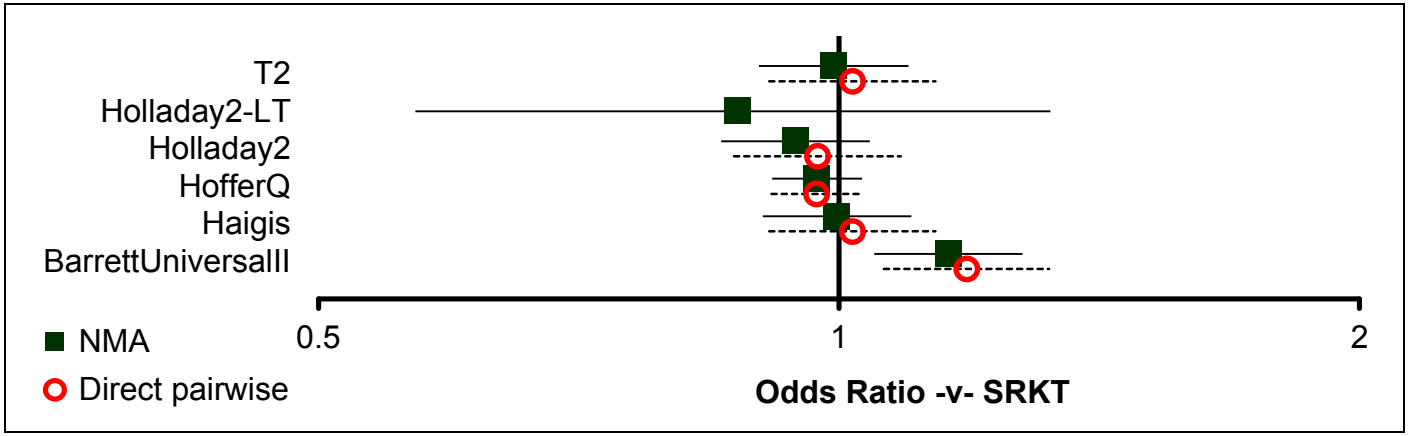


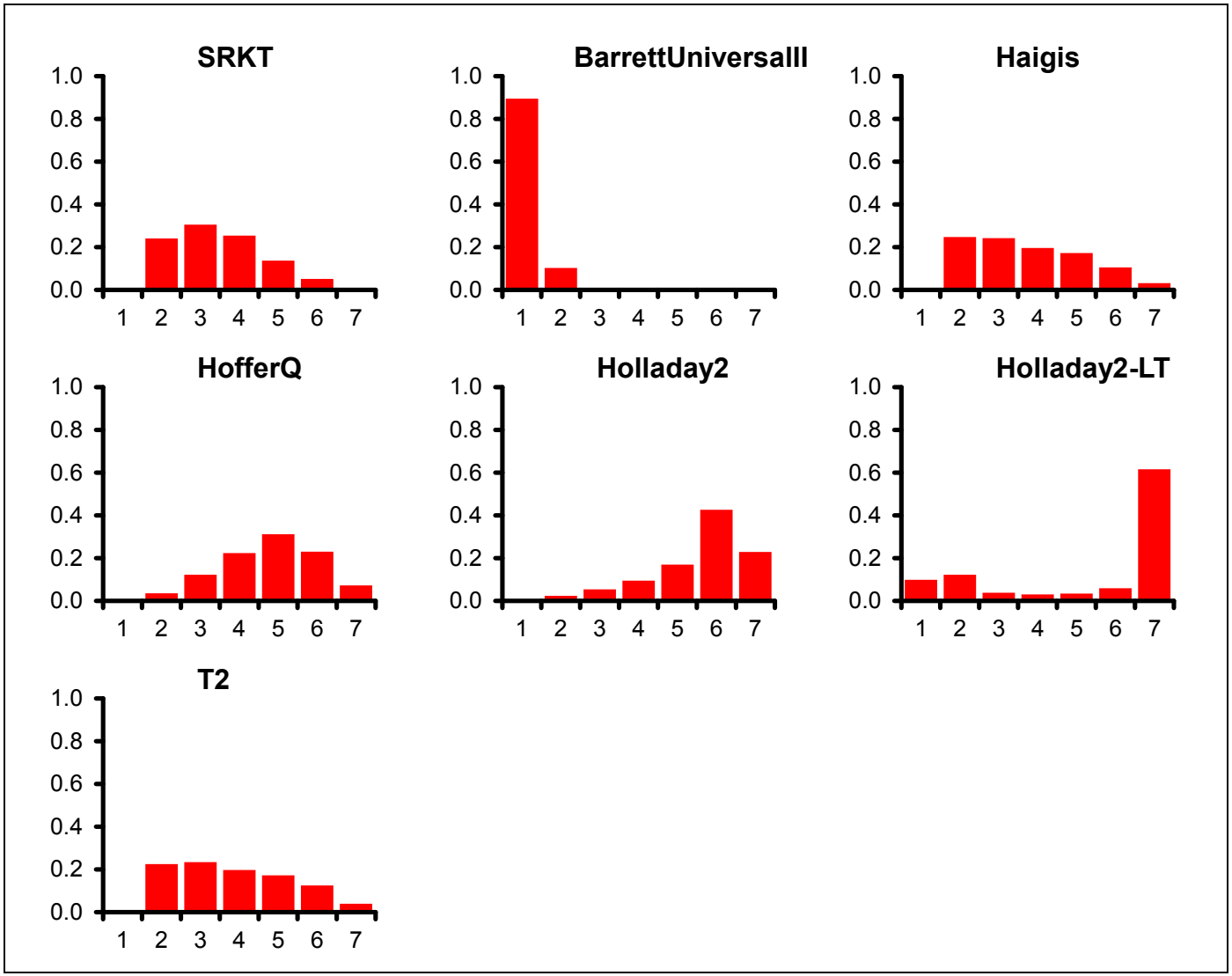
Figure 20: AL 22.0-24.5mm: Within 0.25D - fixed effects model – relative effect of all options versus common comparator

Table 34: AL 22.0-24.5mm: Within 0.25D - fixed effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.001	3 (2, 6)
BarrettUniversalII	0.895	1 (1, 2)
Haigis	0.003	4 (2, 7)
HofferQ	0.000	5 (2, 7)

	Probability best	Median rank (95%CI)
Holladay2	0.000	6 (3, 7)
Holladay2-LT	0.098	7 (1, 7)
T2	0.003	4 (2, 7)

190



191 **Figure 21: AL 22.0-24.5mm: Within 0.25D - fixed effects model – rank probability histograms**

Table 35: AL 22.0-24.5mm: Within 0.25D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
12.98 (compared to 14 datapoints)	116.779	106.805	9.974	126.752	

Table 36: AL 22.0-24.5mm: Within 0.25D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 0.5 DIOPTRES – fixed effects model

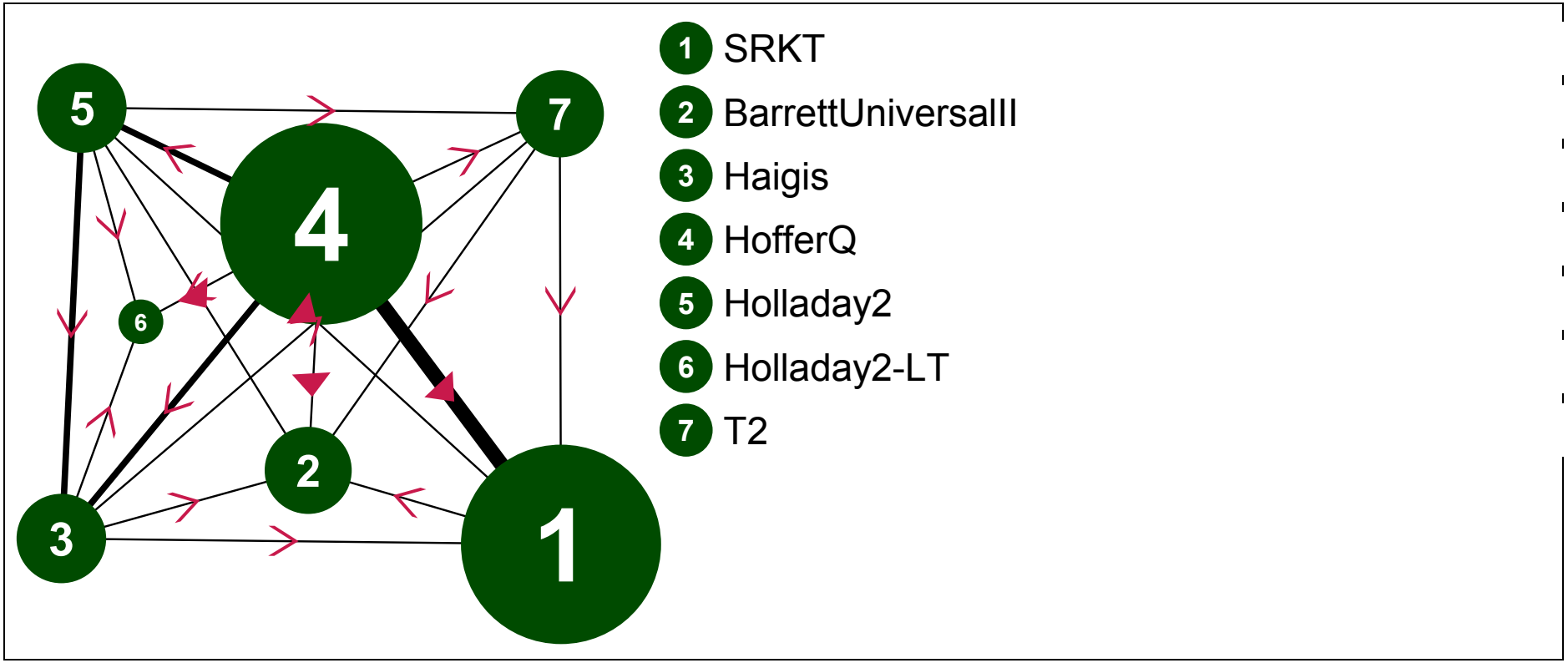


Figure 22: AL 22.0-24.5mm: Within 0.5D - fixed effects model – evidence network

200 **Table 37: AL 22.0-24.5mm: Within 0.5D - fixed effects model – input data**

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Kane,J. et al. (2016)	1868/2638	1881/2638	1820/2638	1796/2638	1796/2638		1833/2638
Ozcura et al. (2016)	245/422			221/422			
Srivannaboon et al. (2013)			82/124	84/124	87/124	89/124	
Aristodemou et al. (2011)	1062/1508			1033/1508			
Aristodemou et al. (2011)	3353/4699			3266/4699			

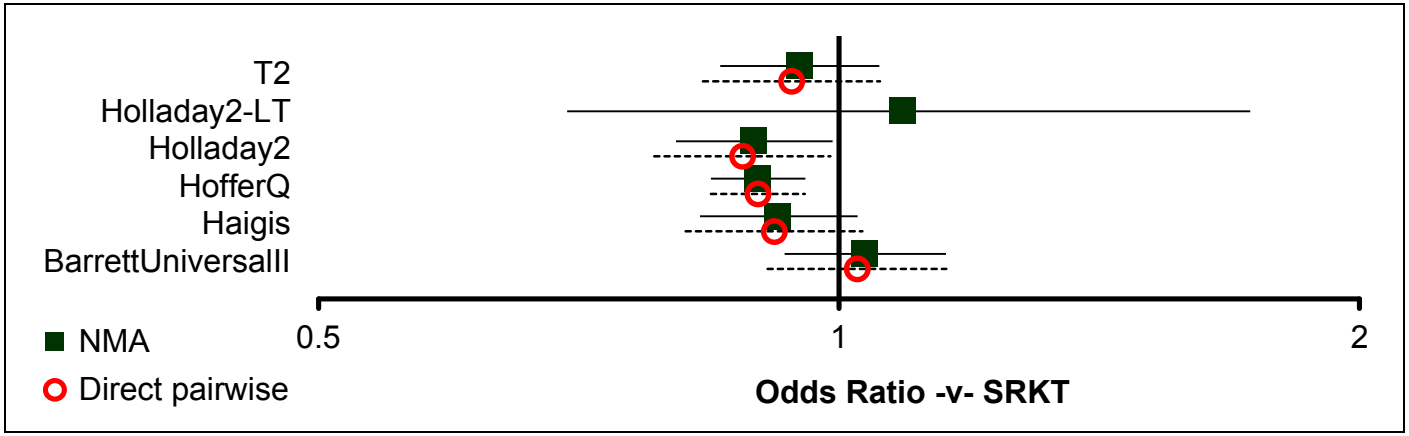
201

202 **Table 38: AL 22.0-24.5mm: Within 0.5D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible**
203 **interval)**

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
SRKT		1.02 (0.91, 1.15)	0.92 (0.82, 1.03)	0.90 (0.84, 0.96)	0.88 (0.78, 0.99)	-	0.94 (0.83, 1.06)
BarrettUniversalII	1.04 (0.93, 1.15)		0.90 (0.80, 1.01)	0.86 (0.76, 0.97)	0.86 (0.76, 0.97)	-	0.92 (0.81, 1.03)
Haigis	0.92 (0.83, 1.03)	0.89 (0.79, 1.00)		0.96 (0.86, 1.08)	0.97 (0.86, 1.09)	1.30 (0.76, 2.23)	1.02 (0.91, 1.15)
HofferQ	0.90 (0.84, 0.96)	0.87 (0.78, 0.96)	0.97 (0.88, 1.08)		1.01 (0.90, 1.13)	1.21 (0.70, 2.08)	1.07 (0.95, 1.20)
Holladay2	0.89 (0.81, 0.99)	0.86 (0.77, 0.97)	0.97 (0.86, 1.09)	1.00 (0.90, 1.11)		1.08 (0.62, 1.87)	1.07 (0.95, 1.20)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Holladay2-LT	1.09 (0.70, 1.73)	1.05 (0.67, 1.68)	1.18 (0.75, 1.87)	1.21 (0.78, 1.92)	1.22 (0.78, 1.93)		-
T2	0.95 (0.85, 1.06)	0.92 (0.81, 1.03)	1.03 (0.92, 1.16)	1.06 (0.95, 1.17)	1.06 (0.95, 1.19)	0.87 (0.55, 1.37)	

204



205 **Figure 23: AL 22.0-24.5mm: Within 0.5D - fixed effects model – relative effect of all options versus common comparator**

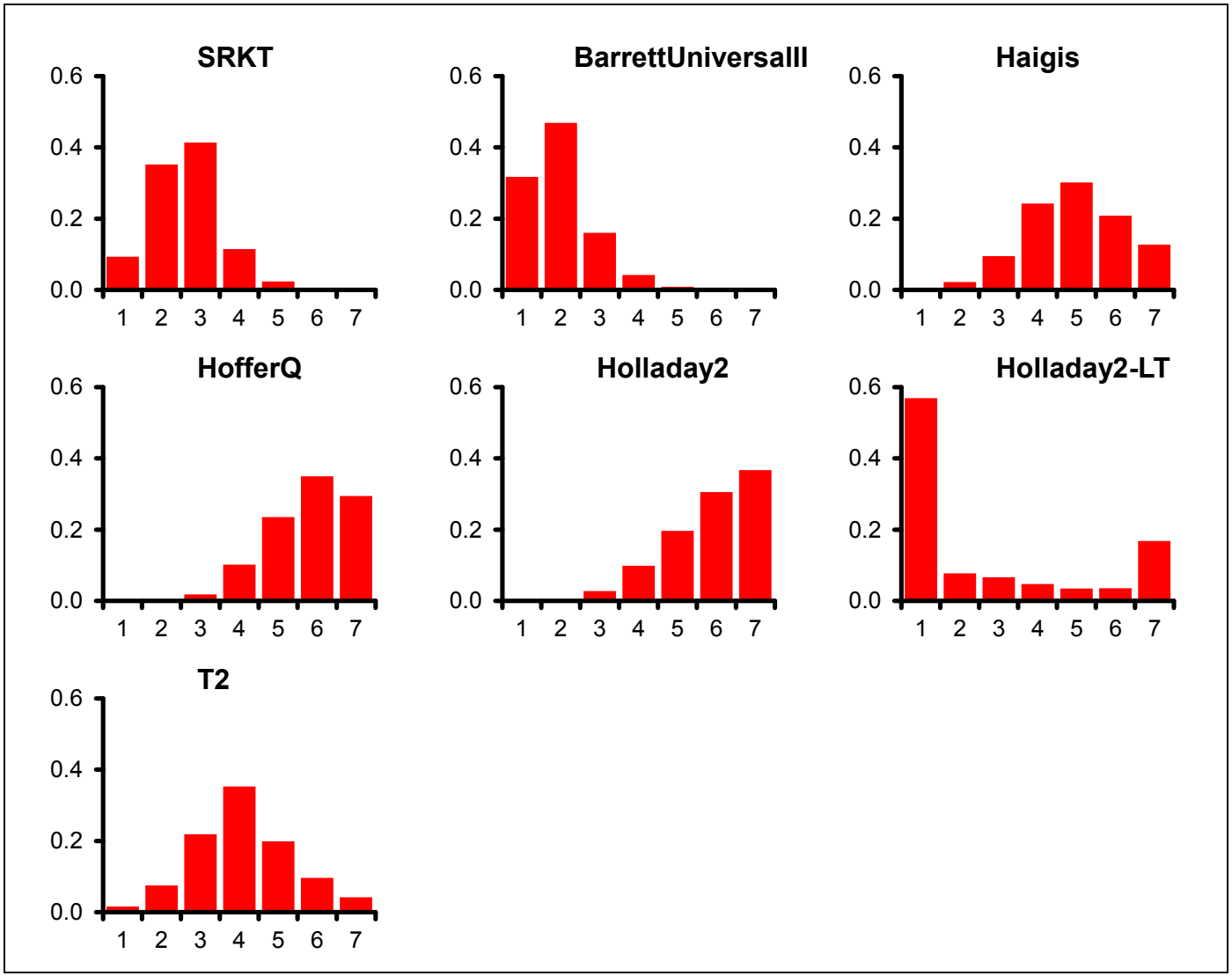
206

207 **Table 39: AL 22.0-24.5mm: Within 0.5D - fixed effects model – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT	0.094	3 (1, 5)
BarrettUniversalII	0.318	2 (1, 4)
Haigis	0.004	5 (2, 7)
HofferQ	0.000	6 (4, 7)

	Probability best	Median rank (95%CI)
Holladay2	0.000	6 (3, 7)
Holladay2-LT	0.569	1 (1, 7)
T2	0.016	4 (2, 7)

208



209 **Figure 24: AL 22.0-24.5mm: Within 0.5D - fixed effects model – rank probability histograms**

Table 40: AL 22.0-24.5mm: Within 0.5D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
12.8 (compared to 16 datapoints)	127.886	116.882	11.004	138.89	

Table 41: AL 22.0-24.5mm: Within 0.5D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 1.0 DIOPTRE – fixed effects model

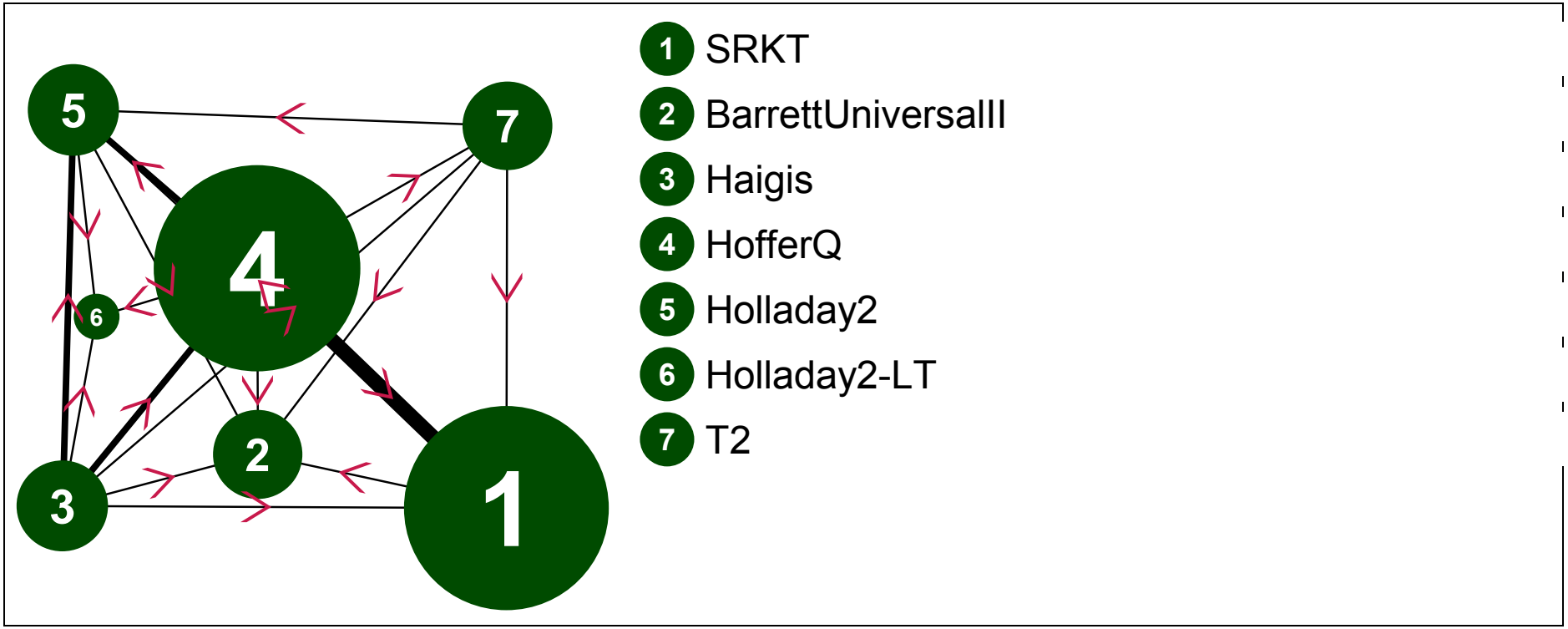


Figure 25: AL 22.0-24.5mm: Within 1.0D - fixed effects model – evidence network

Table 42: AL 22.0-24.5mm: Within 1.0D - fixed effects model – input data

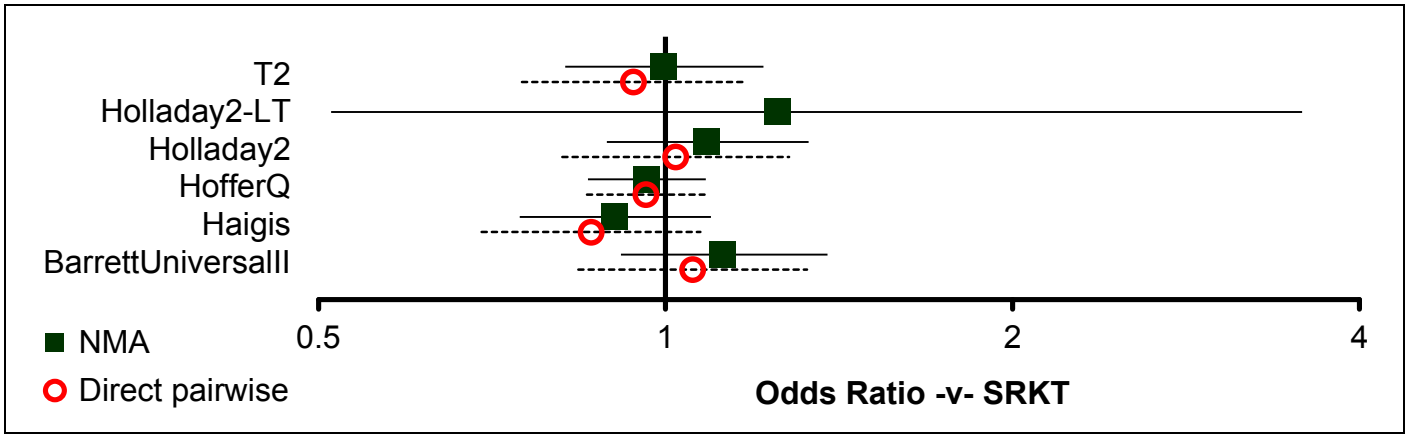
	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Kane,J. et al. (2016)	2477/2638	2485/2638	2453/2638	2451/2638	2480/2638		2467/2638
Ozcura et al. (2016)	374/422			374/422			
Srivannaboon et al. (2013)			114/124	118/124	118/124	118/124	
Aristodemou et al. (2011)	1398/1508			1400/1508			
Aristodemou et al. (2011)	4430/4699			4432/4699			

Table 43: AL 22.0-24.5mm: Within 1.0D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
SRKT		1.06 (0.84, 1.33)	0.86 (0.69, 1.07)	0.96 (0.86, 1.08)	1.02 (0.81, 1.28)	-	0.94 (0.75, 1.17)
BarrettUniversalII	1.12 (0.91, 1.38)		0.82 (0.65, 1.02)	0.81 (0.65, 1.01)	0.97 (0.77, 1.22)	-	0.89 (0.71, 1.11)
Haigis	0.90 (0.75, 1.10)	0.81 (0.65, 1.00)		1.01 (0.82, 1.24)	1.20 (0.97, 1.49)	1.73 (0.61, 4.90)	1.09 (0.88, 1.35)
HofferQ	0.96 (0.86, 1.08)	0.86 (0.70, 1.05)	1.07 (0.88, 1.29)		1.19 (0.96, 1.48)	1.00 (0.31, 3.19)	1.10 (0.89, 1.36)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Holladay2	1.09 (0.89, 1.33)	0.97 (0.77, 1.22)	1.21 (0.97, 1.49)	1.13 (0.92, 1.38)		1.00 (0.31, 3.19)	0.92 (0.74, 1.15)
Holladay2-LT	1.25 (0.51, 3.57)	1.12 (0.45, 3.25)	1.39 (0.57, 3.99)	1.30 (0.54, 3.70)	1.15 (0.47, 3.29)		-
T2	1.00 (0.82, 1.22)	0.89 (0.71, 1.11)	1.10 (0.89, 1.37)	1.03 (0.85, 1.27)	0.92 (0.73, 1.14)	0.79 (0.28, 1.97)	

223



224 **Figure 26: AL 22.0-24.5mm: Within 1.0D - fixed effects model – relative effect of all options versus common comparator**

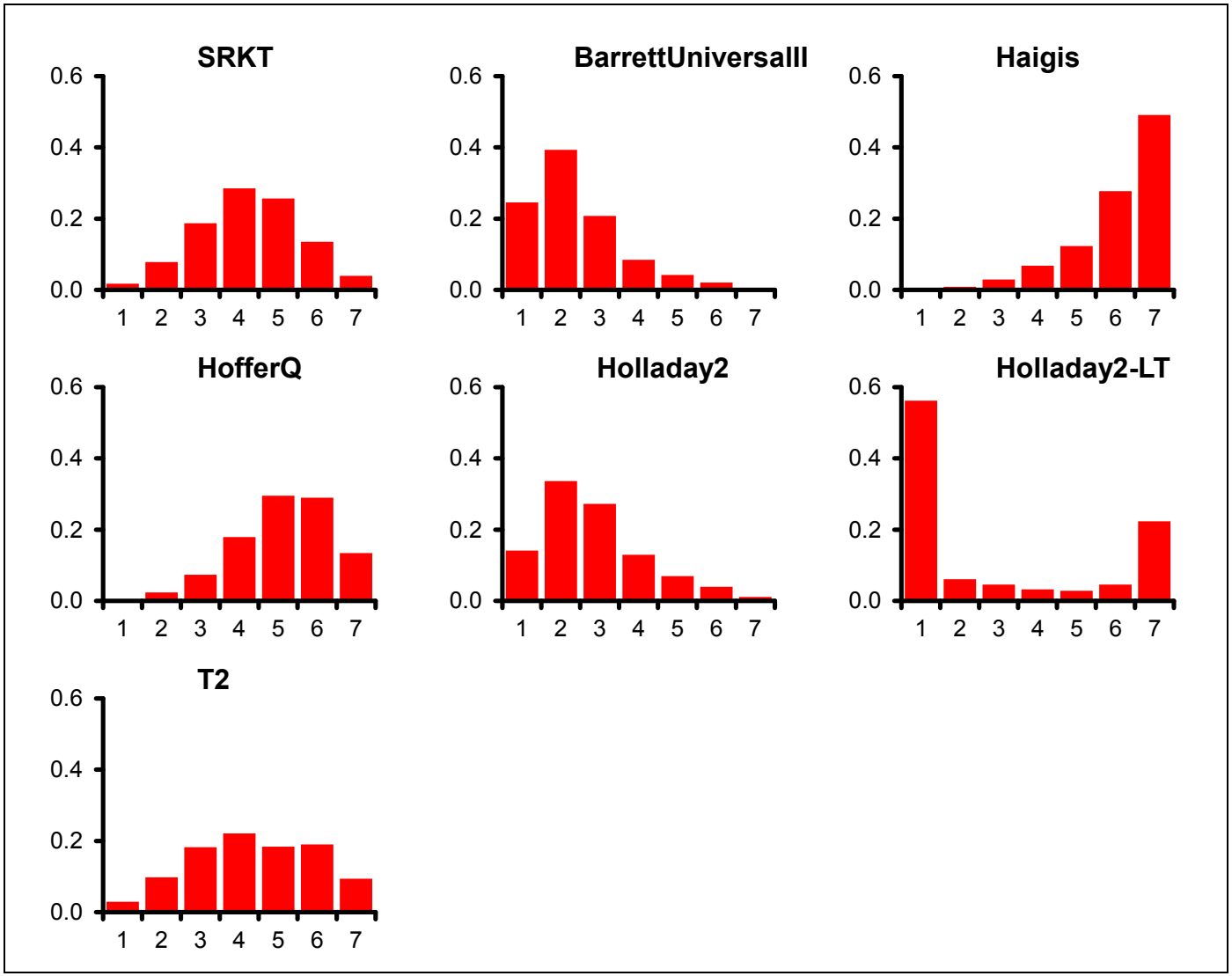
225

226 **Table 44: AL 22.0-24.5mm: Within 1.0D - fixed effects model – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT	0.017	4 (2, 7)
BarrettUniversalII	0.245	2 (1, 6)

	Probability best	Median rank (95%CI)
Haigis	0.001	6 (3, 7)
HofferQ	0.003	5 (2, 7)
Holladay2	0.141	3 (1, 6)
Holladay2-LT	0.562	1 (1, 7)
T2	0.029	4 (1, 7)

227



228 **Figure 27: AL 22.0-24.5mm: Within 1.0D - fixed effects model – rank probability histograms**

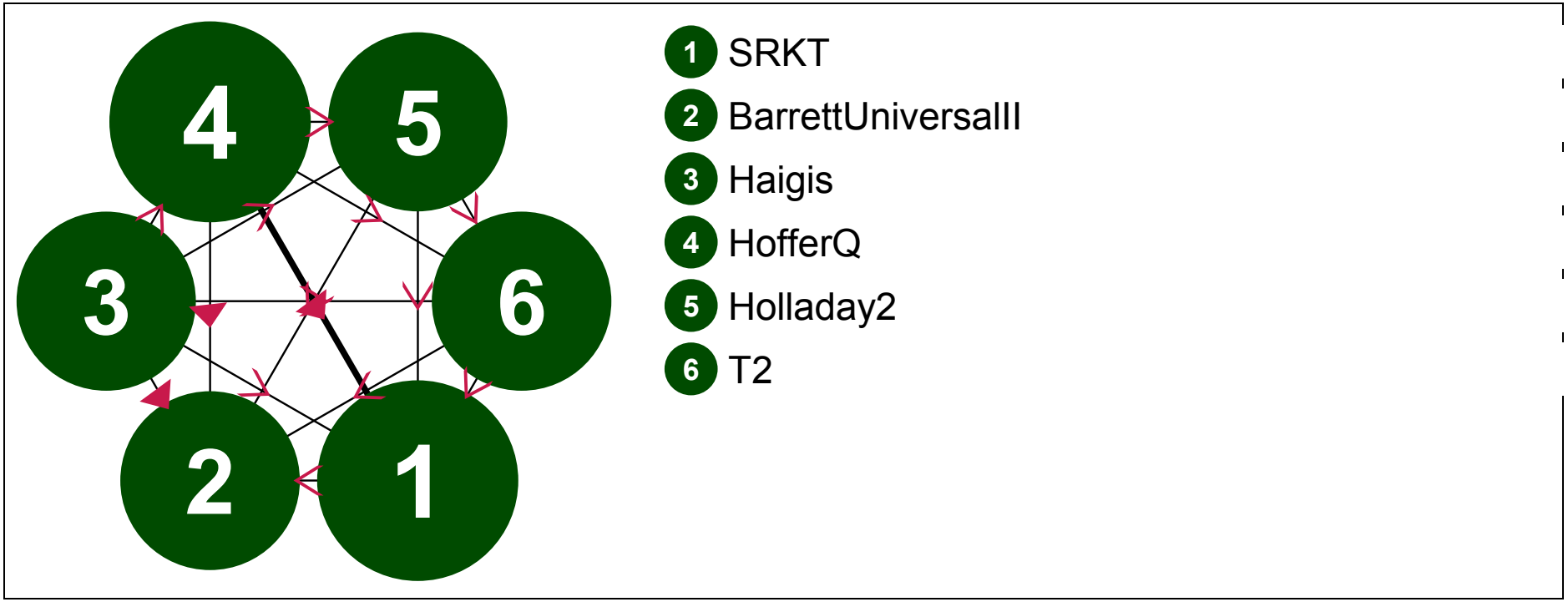
Table 45: AL 22.0-24.5mm: Within 1.0D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
13.68 (compared to 16 datapoints)	108.82	97.841	10.979	119.799	

Table 46: AL 22.0-24.5mm: Within 1.0D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

234 **PROPORTION WITHIN 2.0 DIOPTRES – fixed effects model**



235 **Figure 28: AL 22.0-24.5mm: Within 2.0D - fixed effects model – evidence network**

236

237 **Table 47: AL 22.0-24.5mm: Within 2.0D - fixed effects model – input data**

	SRKT	BarrettUniversal II	Haigis	HofferQ	Holladay2	T2
Kane,J. et al. (2016)	2633/2638	2635/2638	2627/2638	2627/2638	2630/2638	2630/2638

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
Ozcura et al. (2016)	420/422			415/422		

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240 **Table 48: AL 22.0-24.5mm: Within 2.0D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible**
241 **interval)**

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
SRKT		1.67 (0.40, 6.99)	0.45 (0.16, 1.31)	0.39 (0.16, 0.93)	0.62 (0.20, 1.91)	0.62 (0.20, 1.91)
BarrettUniversalII	1.57 (0.41, 7.93)		0.27 (0.08, 0.98)	0.27 (0.08, 0.98)	0.37 (0.10, 1.41)	0.37 (0.10, 1.41)
Haigis	0.39 (0.14, 1.05)	0.25 (0.05, 0.83)		1.00 (0.43, 2.31)	1.38 (0.55, 3.43)	1.38 (0.55, 3.43)
HofferQ	0.37 (0.14, 0.87)	0.24 (0.05, 0.77)	0.95 (0.41, 2.14)		1.38 (0.55, 3.43)	1.38 (0.55, 3.43)
Holladay2	0.54 (0.18, 1.59)	0.35 (0.07, 1.23)	1.39 (0.56, 3.66)	1.46 (0.61, 3.71)		1.00 (0.37, 2.67)
T2	0.55 (0.18, 1.59)	0.35 (0.07, 1.25)	1.39 (0.56, 3.70)	1.46 (0.61, 3.75)	1.00 (0.36, 2.75)	

242

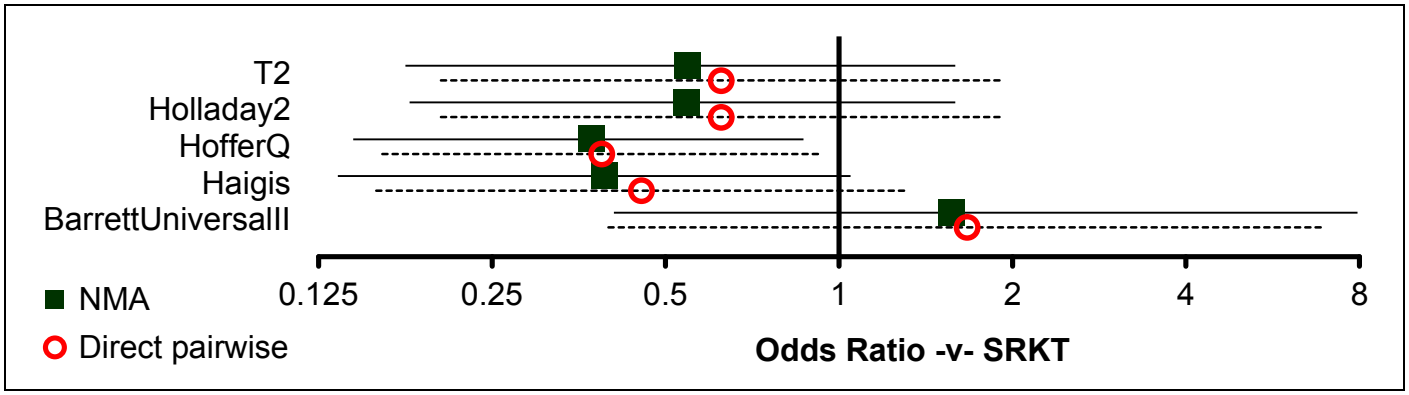

Figure 29: AL 22.0-24.5mm: Within 2.0D - fixed effects model – relative effect of all options versus common comparator

Table 49: AL 22.0-24.5mm: Within 2.0D - fixed effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.242	2 (1, 4)
BarrettUniversalII	0.714	1 (1, 3)
Haigis	0.002	5 (3, 6)
HofferQ	0.001	5 (3, 6)
Holladay2	0.020	4 (2, 6)
T2	0.022	4 (2, 6)

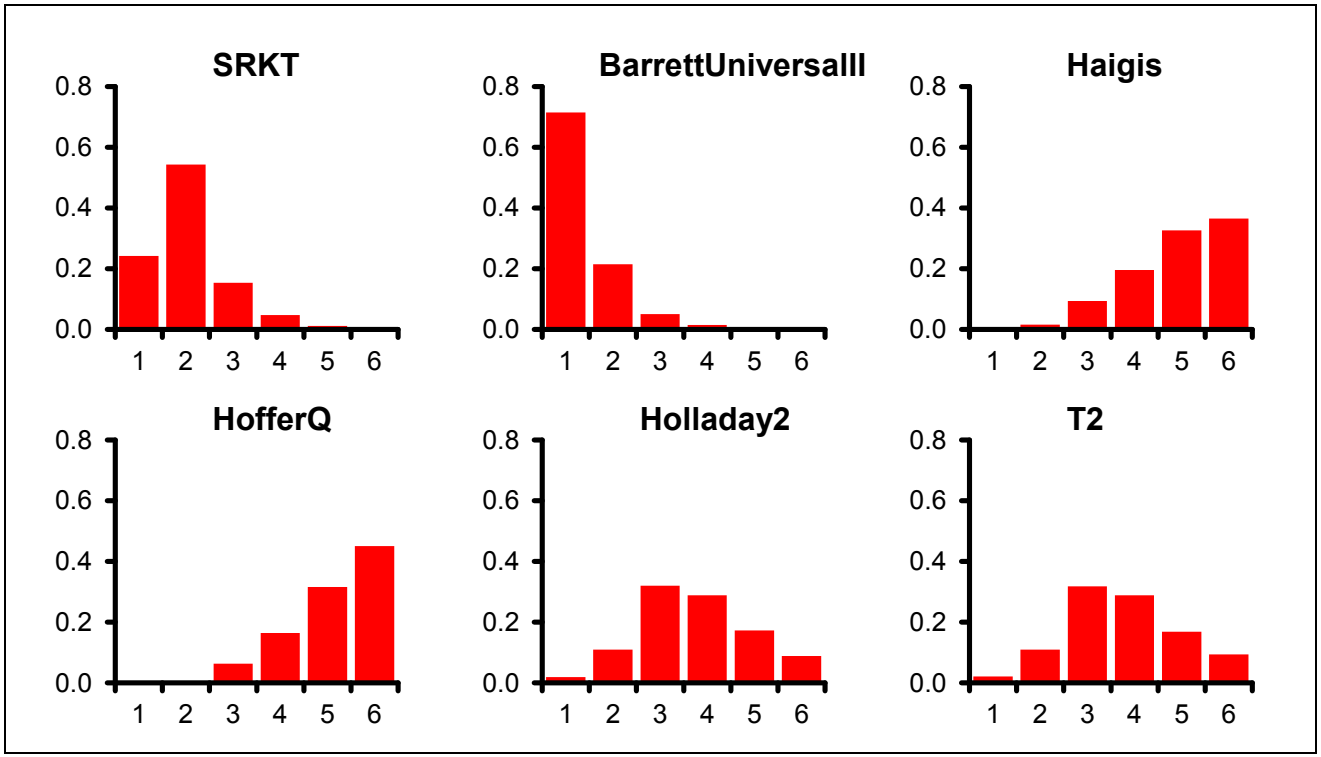

Figure 30: AL 22.0-24.5mm: Within 2.0D - fixed effects model – rank probability histograms

Table 50: AL 22.0-24.5mm: Within 2.0D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
7.367 (compared to 8 datapoints)	36.6	29.761	6.839	43.439	

Table 51: AL 22.0-24.5mm: Within 2.0D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

H.3.2.4 Full dataset: Axial length subgroup – 24.50 to 26.00mm

MEAN ABSOLUTE ERROR – fixed effects model

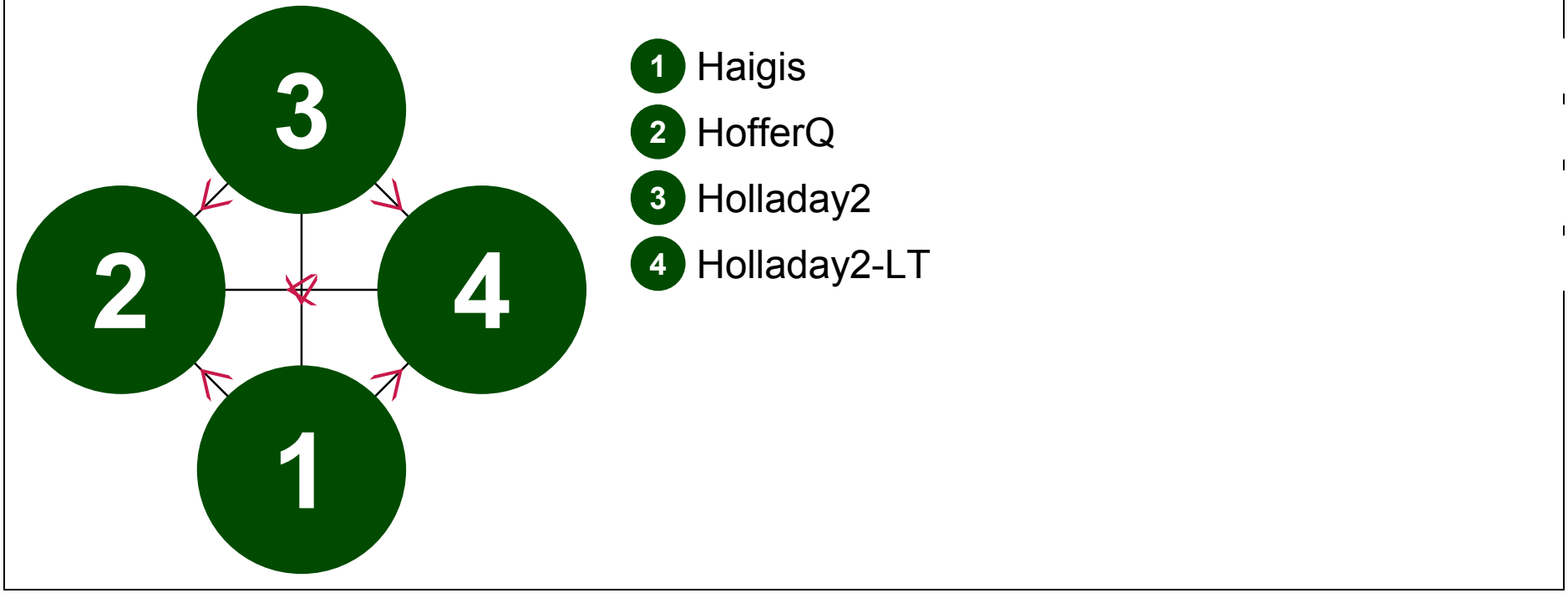

Figure 31: AL 24.5-26.0mm: Mean absolute error - fixed effects model – evidence network

Table 52: AL 24.5-26.0mm: Mean absolute error - fixed effects model – input data

	Haigis	HofferQ	Holladay2	Holladay2-LT
Srivannaboon et al. (2013)	0.39 (0.32)	0.45 (0.35)	0.38 (0.34)	0.39 (0.33)

Table 53: AL 24.5-26.0mm: Mean absolute error - fixed effects model – relative effectiveness of all pairwise combinations (MD and 95% credible interval)

	Haigis	HofferQ	Holladay2	Holladay2-LT
Haigis		0.06 (-0.13, 0.25)	-0.01 (-0.20, 0.18)	0.00 (-0.18, 0.18)
HofferQ	0.06 (-0.13, 0.25)		-0.07 (-0.27, 0.13)	-0.06 (-0.25, 0.13)
Holladay2	-0.01 (-0.20, 0.18)	-0.07 (-0.27, 0.13)		0.01 (-0.18, 0.20)
Holladay2-LT	0.00 (-0.18, 0.18)	-0.06 (-0.25, 0.13)	0.01 (-0.18, 0.20)	

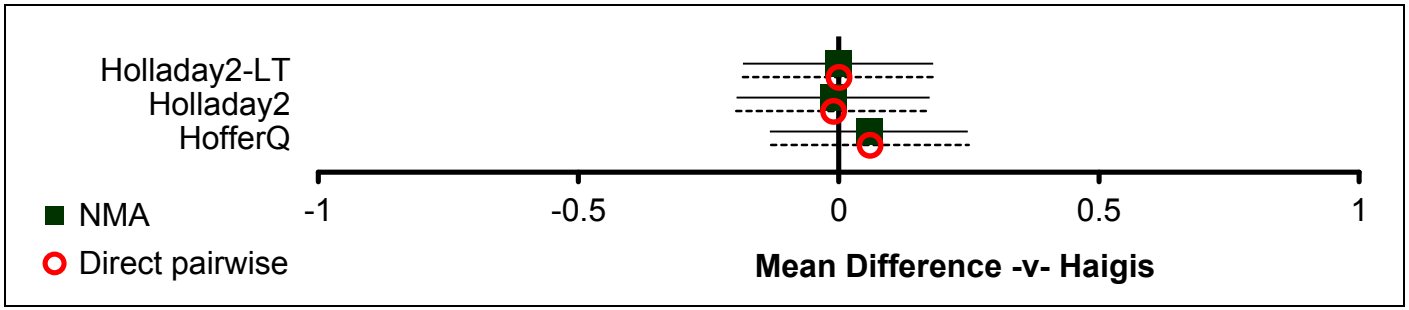

Figure 32: AL 24.5-26.0mm: Mean absolute error - fixed effects model – relative effect of all options versus common comparator

Table 54: AL 24.5-26.0mm: Mean absolute error - fixed effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
Haigis	0.280	2 (1, 4)
HofferQ	0.085	4 (1, 4)
Holladay2	0.349	2 (1, 4)
Holladay2-LT	0.286	2 (1, 4)

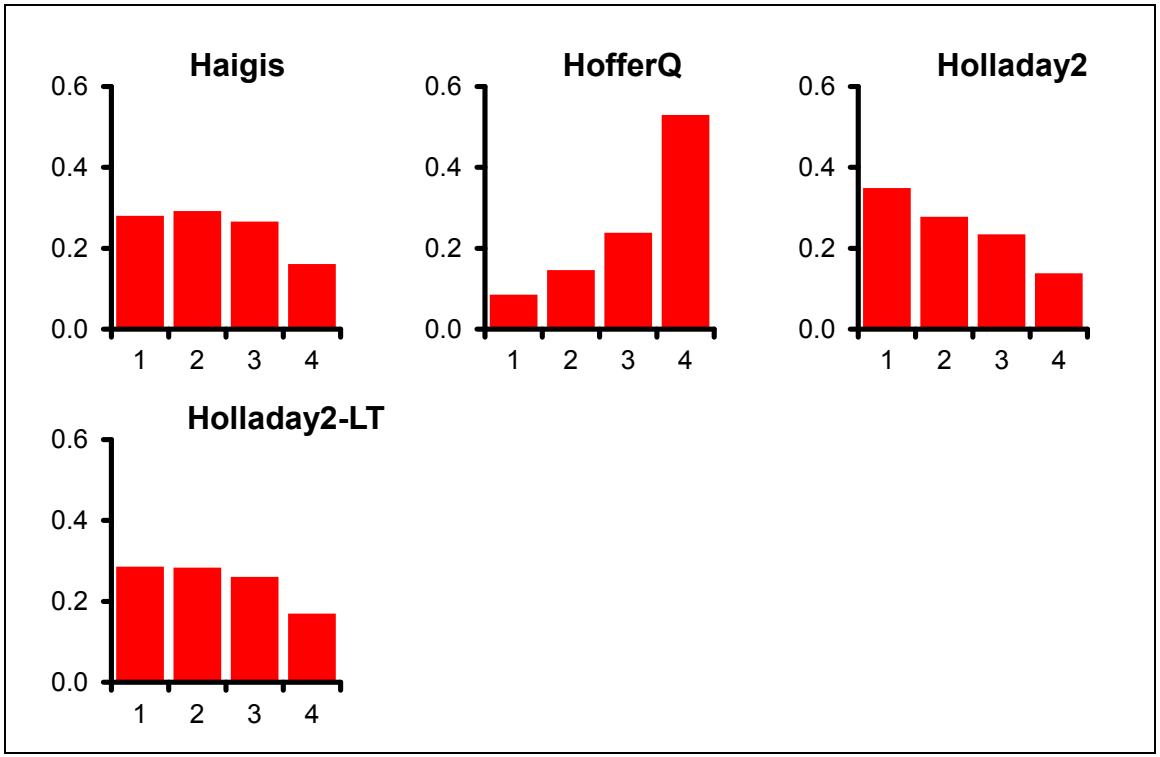

Figure 33: AL 24.5-26.0mm: Mean absolute error - fixed effects model – rank probability histograms

Table 55: AL 24.5-26.0mm: Mean absolute error - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
3.991 (compared to 4 datapoints)	-10.123	-14.114	3.991	-6.133	

Table 56: AL 24.5-26.0mm: Mean absolute error - fixed effects model – notes

- Continuous (normal; identity link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 0.25 DIOPTRES – fixed effects model

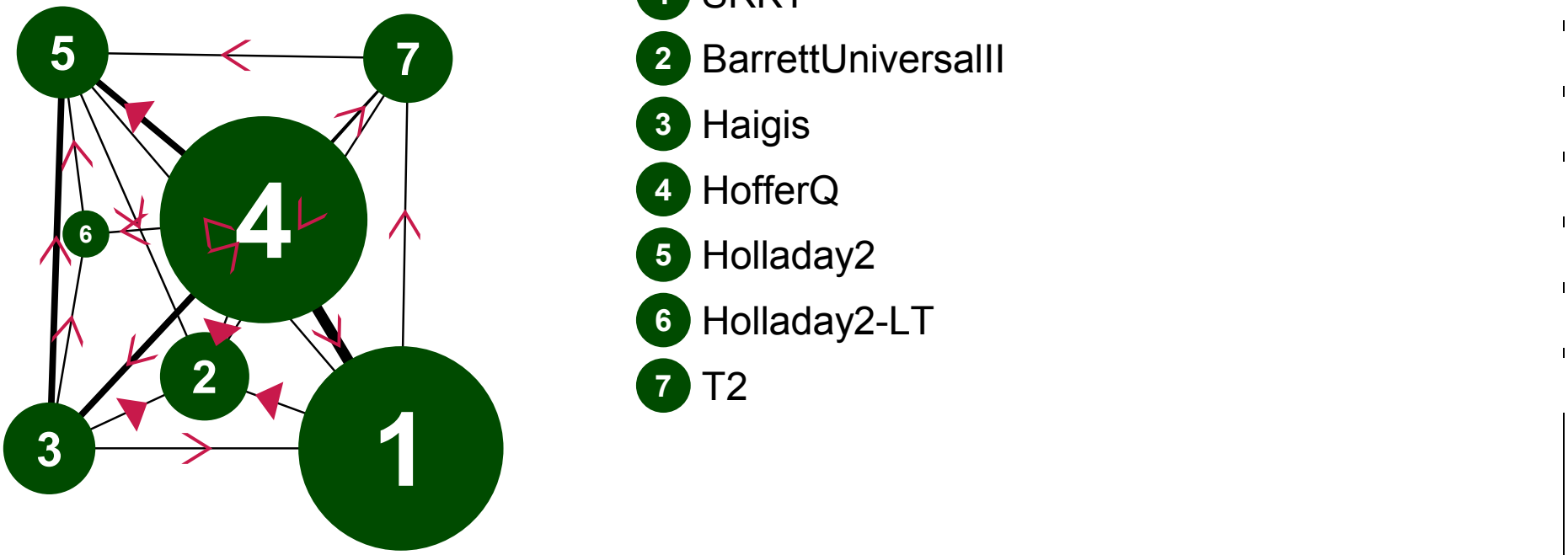

Figure 34: AL 24.5-26.0mm: Within 0.25D - fixed effects model – evidence network

278 **Table 57: AL 24.5-26.0mm: Within 0.25D - fixed effects model – input data**

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Kane,J. et al. (2016)	144/372	172/372	143/372	130/372	154/372		147/372
Srivannaboon et al. (2013)			12/24	10/24	14/24	12/24	
Aristodemou et al. (2011)	105/234			104/234			
Aristodemou et al. (2011)	272/712			275/712			

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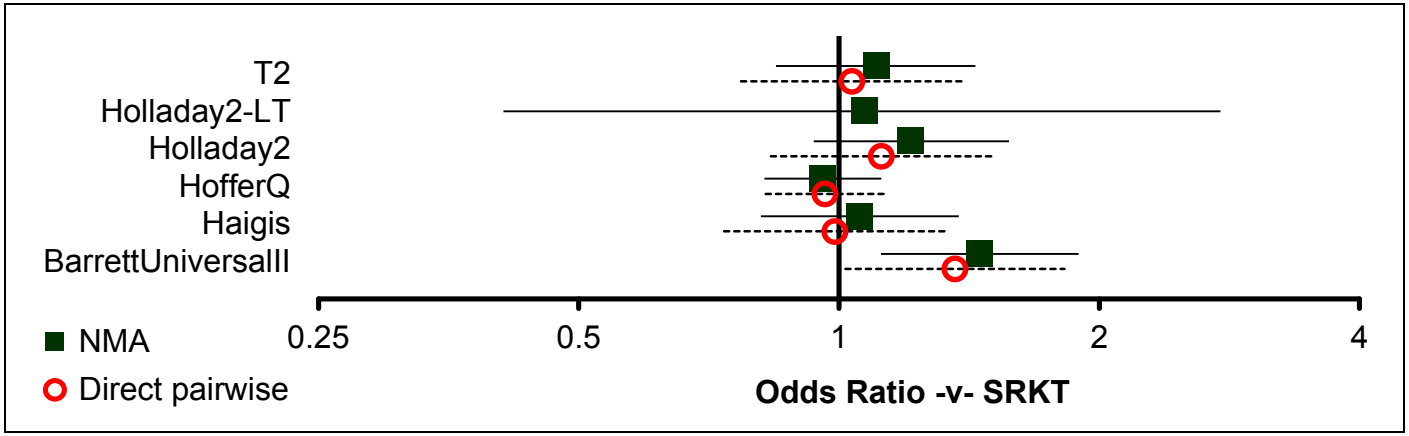
281 **Table 58: AL 24.5-26.0mm: Within 0.25D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95%**
282 **credible interval)**

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
SRKT		1.36 (1.02, 1.82)	0.99 (0.74, 1.33)	0.96 (0.82, 1.13)	1.12 (0.83, 1.50)	-	1.03 (0.77, 1.39)
BarrettUniversalII	1.45 (1.12, 1.89)		0.73 (0.54, 0.97)	0.62 (0.47, 0.84)	0.82 (0.61, 1.10)	-	0.76 (0.57, 1.02)
Haigis	1.06 (0.81, 1.38)	0.73 (0.54, 0.97)		0.85 (0.64, 1.13)	1.15 (0.86, 1.52)	1.00 (0.32, 3.10)	1.05 (0.78, 1.40)
HofferQ	0.96 (0.82, 1.12)	0.66 (0.51, 0.86)	0.91 (0.70, 1.18)		1.35 (1.01, 1.80)	1.40 (0.45, 4.38)	1.22 (0.90, 1.64)
Holladay2	1.21 (0.93, 1.57)	0.83 (0.63, 1.11)	1.15 (0.86, 1.52)	1.27 (0.98, 1.64)		0.71 (0.23, 2.23)	0.92 (0.69, 1.24)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Holladay2-LT	1.07 (0.41, 2.76)	0.74 (0.28, 1.94)	1.01 (0.39, 2.61)	1.12 (0.43, 2.89)	0.88 (0.34, 2.30)		-
T2	1.10 (0.85, 1.44)	0.76 (0.57, 1.01)	1.05 (0.78, 1.40)	1.15 (0.88, 1.51)	0.91 (0.68, 1.22)	1.04 (0.39, 2.73)	

283



284 **Figure 35: AL 24.5-26.0mm: Within 0.25D - fixed effects model – relative effect of all options versus common comparator**

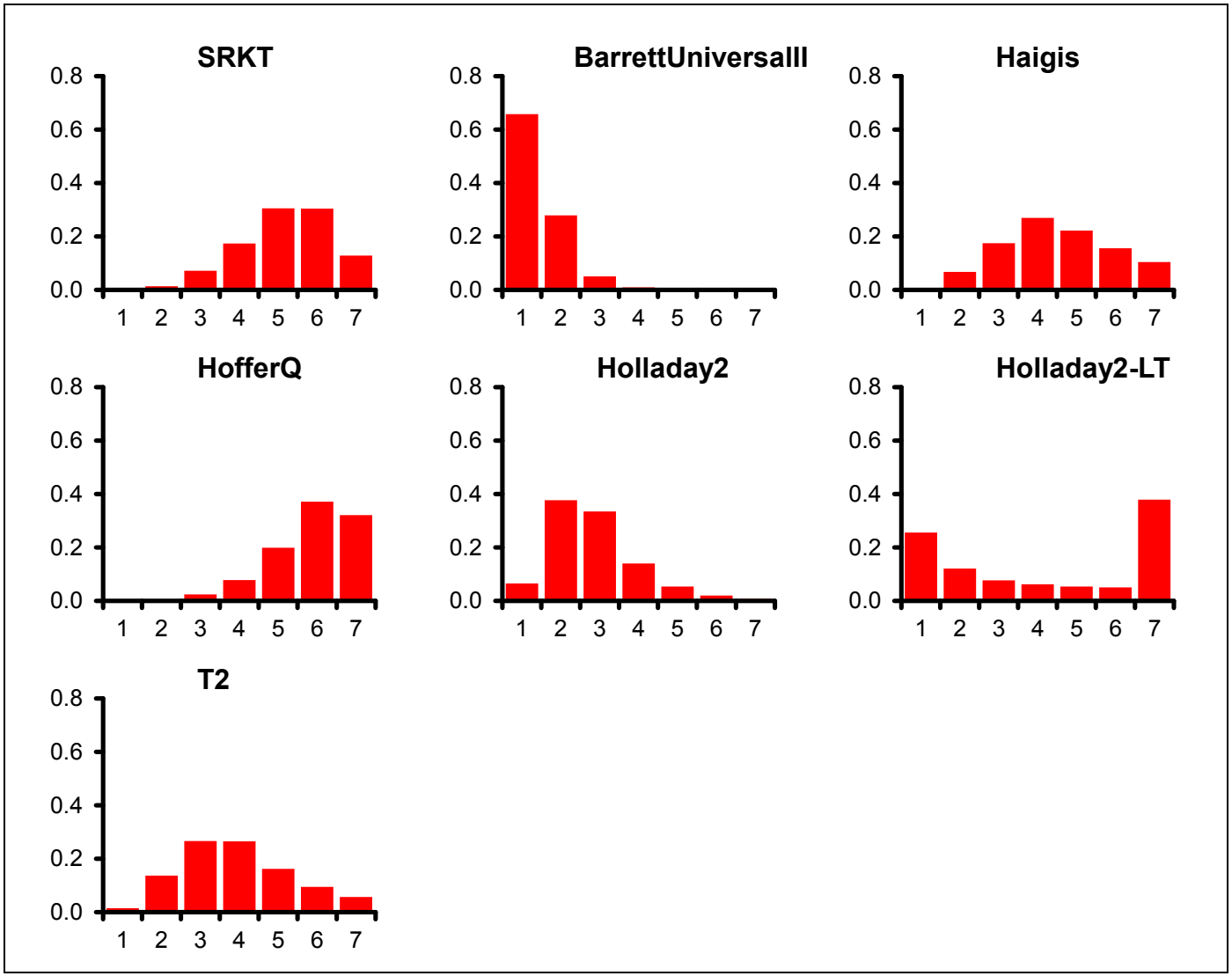
285

286 **Table 59: AL 24.5-26.0mm: Within 0.25D - fixed effects model – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT	0.001	5 (3, 7)
BarrettUniversalII	0.658	1 (1, 3)
Haigis	0.005	4 (2, 7)
HofferQ	0.000	6 (3, 7)

	Probability best	Median rank (95%CI)
Holladay2	0.065	3 (1, 6)
Holladay2-LT	0.256	4 (1, 7)
T2	0.015	4 (2, 7)

287



288 **Figure 36: AL 24.5-26.0mm: Within 0.25D - fixed effects model – rank probability histograms**

289

290 **Table 60: AL 24.5-26.0mm: Within 0.25D - fixed effects model – model fit statistics**

Residual deviance	Dbar	Dhat	pD	DIC	
11.55 (compared to 14 datapoints)	89.771	79.757	10.014	99.785	

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293 **Table 61: AL 24.5-26.0mm: Within 0.25D - fixed effects model – notes**

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

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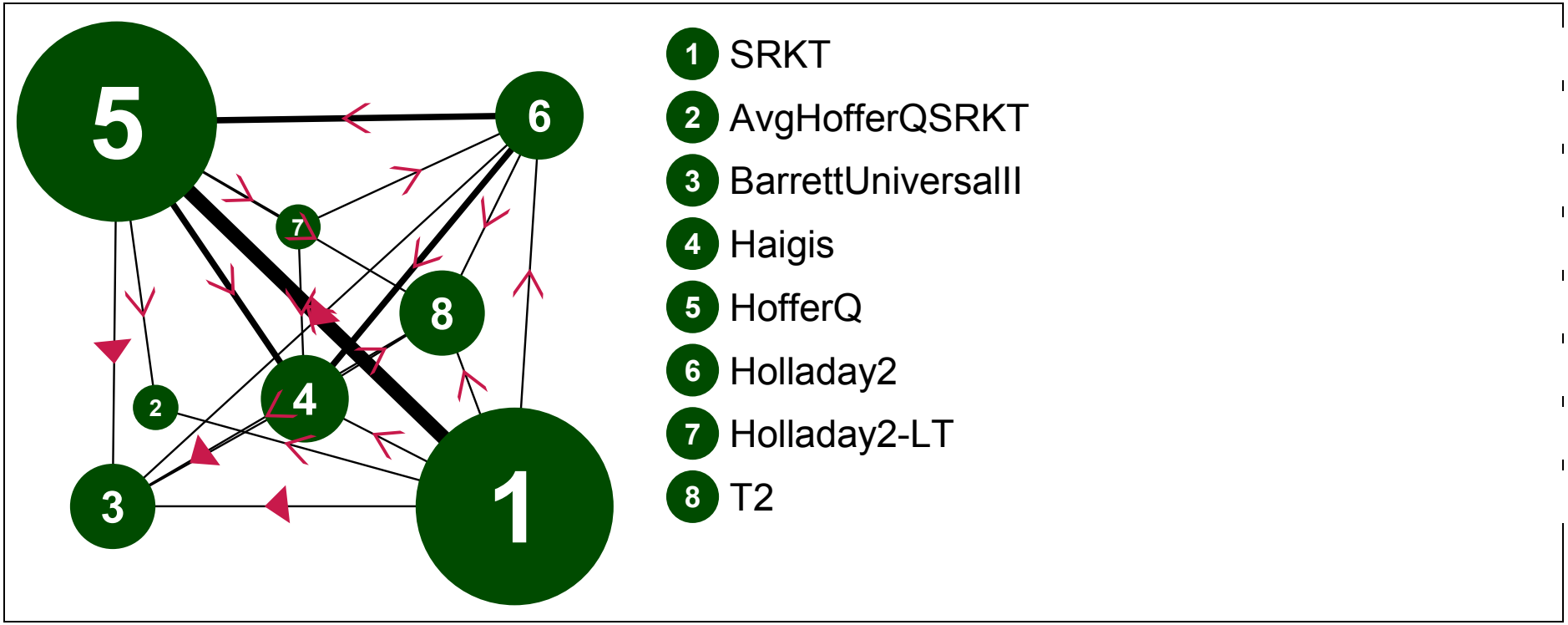
295 **PROPORTION WITHIN 0.5 DIOPTRES – fixed effects model**



296 **Figure 37: AL 24.5-26.0mm: Within 0.5D - fixed effects model – evidence network**

297

298 **Table 62: AL 24.5-26.0mm: Within 0.5D - fixed effects model – input data**

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Kane,J. et al. (2016)	248/372		285/372	255/372	256/372	250/372		265/372
Srivannaboon et al. (2013)				19/24	14/24	17/24	14/24	
Aristodemou et al. (2011)	170/234				173/234			
Aristodemou et al. (2011)	481/712				473/712			
Percival et al. (2002)	20/26	21/26			20/26			

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301 **Table 63: AL 24.5-26.0mm: Within 0.5D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible**
302 **interval)**

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
SRKT		1.26 (0.33, 4.79)	1.64 (1.19, 2.26)	1.09 (0.80, 1.48)	1.01 (0.86, 1.19)	1.02 (0.75, 1.39)	-	1.24 (0.91, 1.69)
AvgHofferQSRKT	1.30 (0.41, 4.73)		-	-	0.79 (0.21, 3.02)	-	-	-
BarrettUniversalII	1.59 (1.19, 2.15)	1.21 (0.33, 4.02)		0.67 (0.48, 0.92)	0.67 (0.49, 0.93)	0.63 (0.45, 0.86)	-	0.76 (0.54, 1.05)
Haigis	1.08 (0.82, 1.43)	0.83 (0.22, 2.75)	0.68 (0.49, 0.94)		0.95 (0.71, 1.29)	0.92 (0.68, 1.24)	0.37 (0.10, 1.32)	1.14 (0.83, 1.55)

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
HofferQ	1.00 (0.85, 1.17)	0.77 (0.21, 2.45)	0.63 (0.47, 0.84)	0.92 (0.70, 1.22)		0.97 (0.72, 1.30)	1.00 (0.32, 3.15)	1.12 (0.82, 1.54)
Holladay2	1.00 (0.76, 1.31)	0.76 (0.21, 2.53)	0.63 (0.46, 0.86)	0.92 (0.68, 1.24)	1.00 (0.76, 1.31)		0.58 (0.17, 1.91)	1.21 (0.88, 1.65)
Holladay2-LT	0.63 (0.24, 1.72)	0.48 (0.10, 2.21)	0.40 (0.15, 1.10)	0.58 (0.22, 1.58)	0.63 (0.24, 1.70)	0.63 (0.24, 1.71)		-
T2	1.20 (0.91, 1.60)	0.92 (0.25, 3.07)	0.76 (0.54, 1.05)	1.11 (0.81, 1.52)	1.20 (0.90, 1.60)	1.20 (0.88, 1.63)	1.90 (0.69, 5.16)	

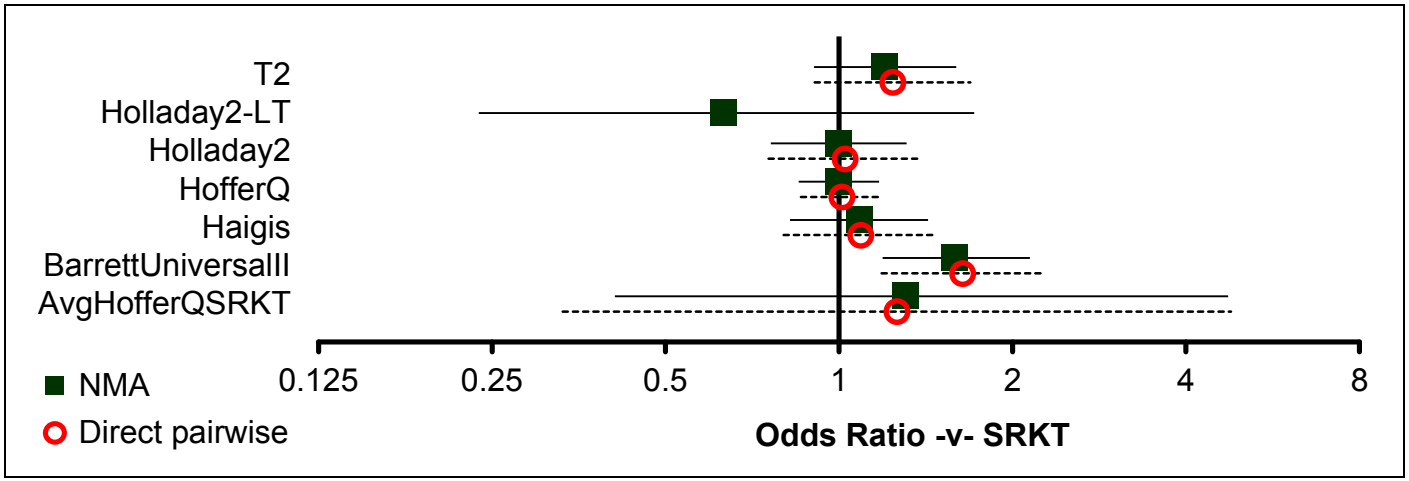
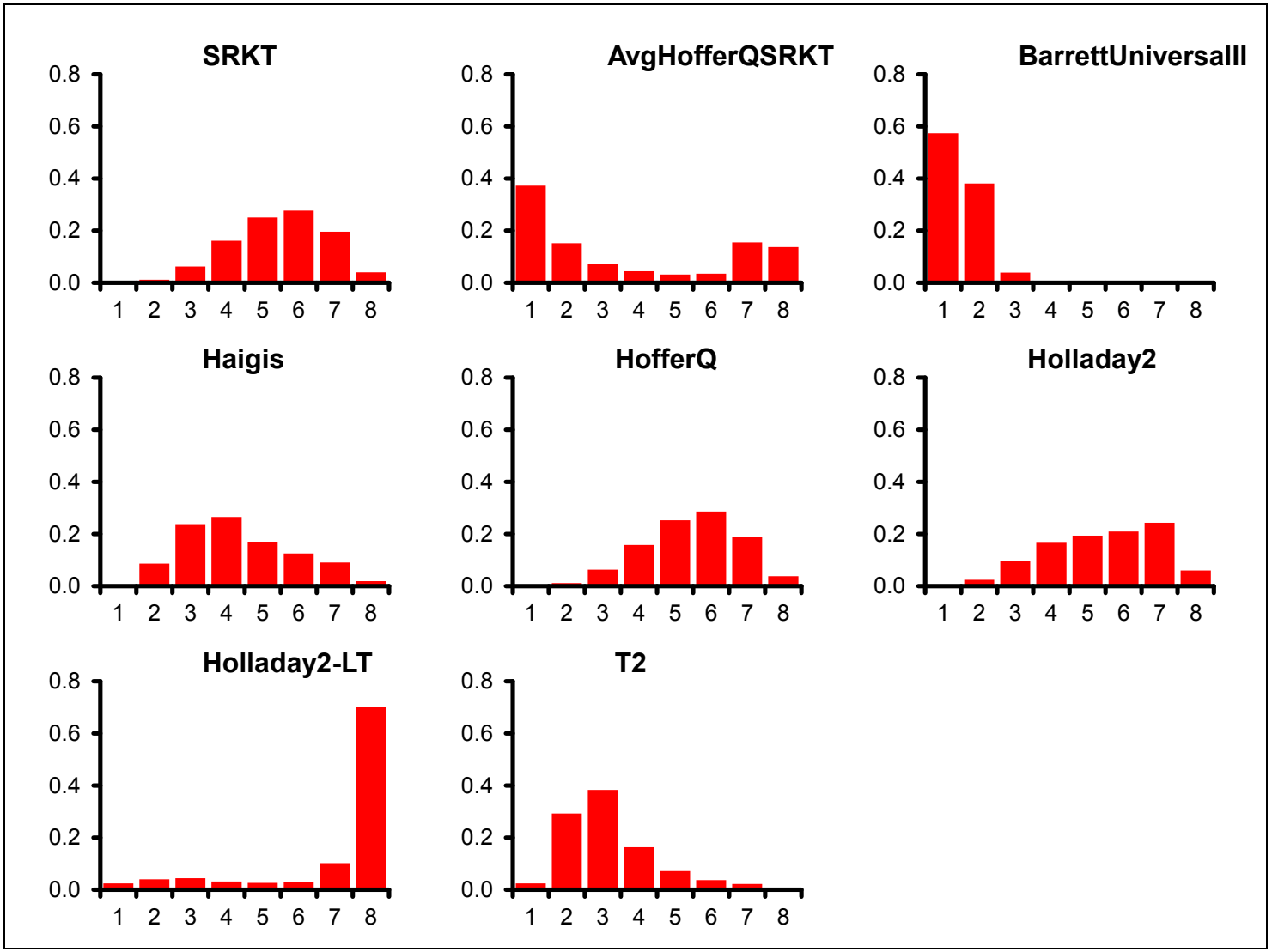


Figure 38: AL 24.5-26.0mm: Within 0.5D - fixed effects model – relative effect of all options versus common comparator

306 **Table 64: AL 24.5-26.0mm: Within 0.5D - fixed effects model – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT	0.000	6 (3, 8)
AvgHofferQSRKT	0.373	2 (1, 8)
BarrettUniversalII	0.574	1 (1, 3)
Haigis	0.003	4 (2, 7)
HofferQ	0.000	6 (3, 8)
Holladay2	0.001	6 (2, 8)
Holladay2-LT	0.025	8 (2, 8)
T2	0.025	3 (2, 7)

307



308 **Figure 39: AL 24.5-26.0mm: Within 0.5D - fixed effects model – rank probability histograms**

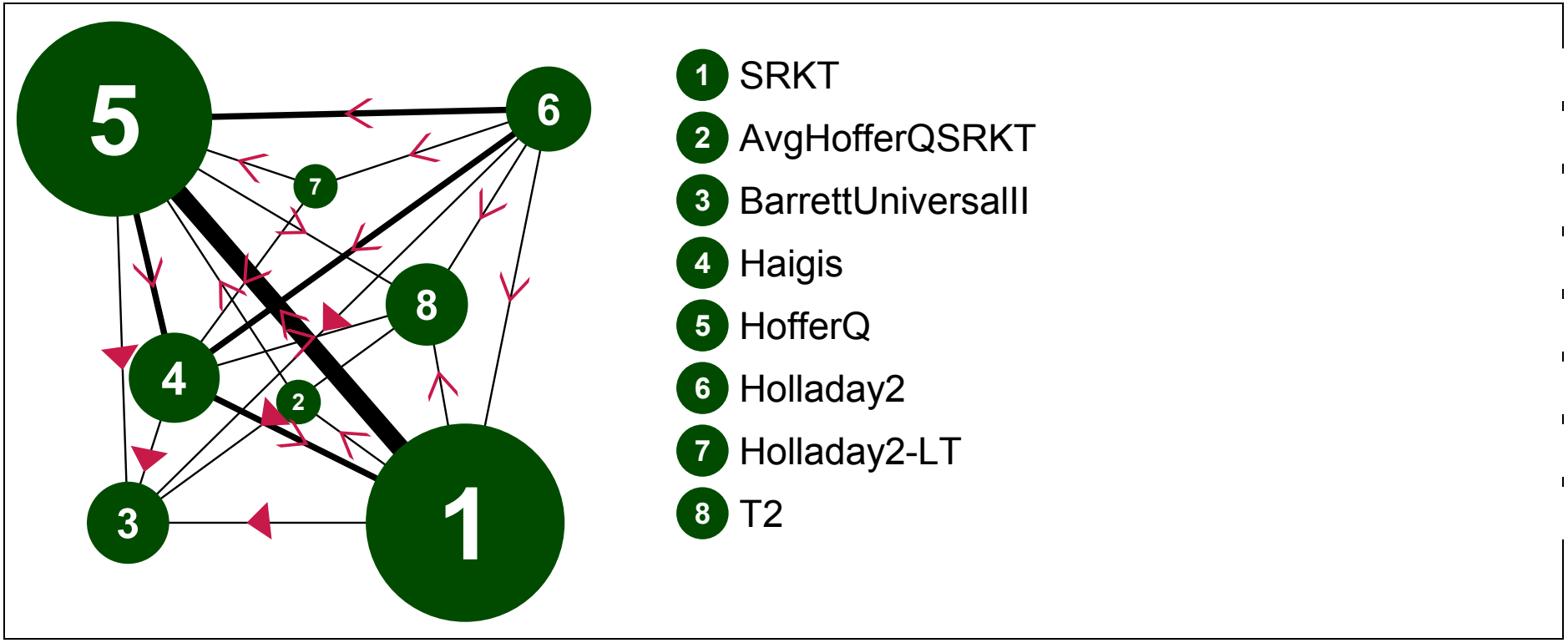
Table 65: AL 24.5-26.0mm: Within 0.5D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
15 (compared to 17 datapoints)	101.303	89.288	12.015	113.319	

Table 66: AL 24.5-26.0mm: Within 0.5D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

315 **PROPORTION WITHIN 1.0 DIOPTRE – fixed effects model**



316 **Figure 40: AL 24.5-26.0mm: Within 1.0D - fixed effects model – evidence network**

317

318 **Table 67: AL 24.5-26.0mm: Within 1.0D - fixed effects model – input data**

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Kane,J. et al. (2016)	351/372		364/372	349/372	350/372	348/372		353/372
Srivannaboon et al. (2013)				24/24	22/24	20/24	20/24	
Aristodemou et al. (2011)	215/234				224/234			
Aristodemou et al. (2011)	673/712				672/712			
Percival et al. (2002)	26/26	26/26			26/26			
Mitra et al. (2014)	17/43				19/43			
El-Nafees et al. (2010)	44/53			44/53				

319

320

321 **Table 68: AL 24.5-26.0mm: Within 1.0D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible**
322 **interval)**

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
SRKT		1.00 (0.02, 52.29)	2.72 (1.19, 6.23)	0.93 (0.55, 1.57)	1.12 (0.82, 1.52)	0.87 (0.47, 1.59)	-	1.11 (0.59, 2.10)
AvgHofferQSRKT	1.58 (0.03, 769.90)		-	-	1.00 (0.02, 52.29)	-	-	-
BarrettUniversalII	3.03 (1.46, 7.12)	1.96 (0.00, 130.80)		0.33 (0.15, 0.76)	0.35 (0.15, 0.80)	0.32 (0.14, 0.72)	-	0.41 (0.18, 0.94)

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2-LT	T2
Haigis	1.07 (0.67, 1.73)	0.67 (0.00, 42.56)	0.35 (0.15, 0.75)		0.95 (0.53, 1.71)	0.81 (0.46, 1.42)	0.09 (0.00, 1.83)	1.22 (0.66, 2.29)
HofferQ	1.11 (0.82, 1.51)	0.71 (0.00, 43.61)	0.37 (0.16, 0.76)	1.04 (0.64, 1.71)		0.85 (0.48, 1.49)	0.45 (0.07, 2.76)	1.17 (0.62, 2.20)
Holladay2	0.88 (0.53, 1.46)	0.55 (0.00, 34.21)	0.29 (0.12, 0.61)	0.82 (0.48, 1.42)	0.79 (0.48, 1.32)		1.00 (0.22, 4.56)	1.28 (0.69, 2.38)
Holladay2-LT	0.51 (0.14, 2.12)	0.32 (0.00, 24.96)	0.17 (0.04, 0.77)	0.48 (0.13, 1.94)	0.46 (0.13, 1.87)	0.59 (0.16, 2.35)		-
T2	1.21 (0.70, 2.18)	0.77 (0.00, 48.51)	0.40 (0.16, 0.90)	1.14 (0.63, 2.14)	1.09 (0.63, 1.99)	1.39 (0.76, 2.60)	2.37 (0.55, 9.43)	

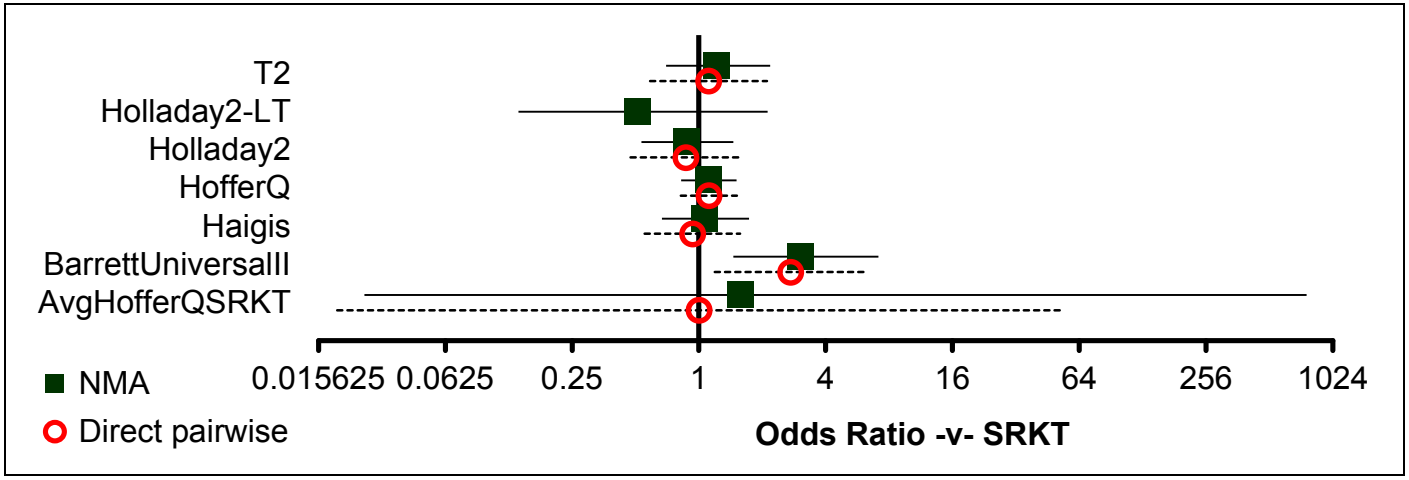
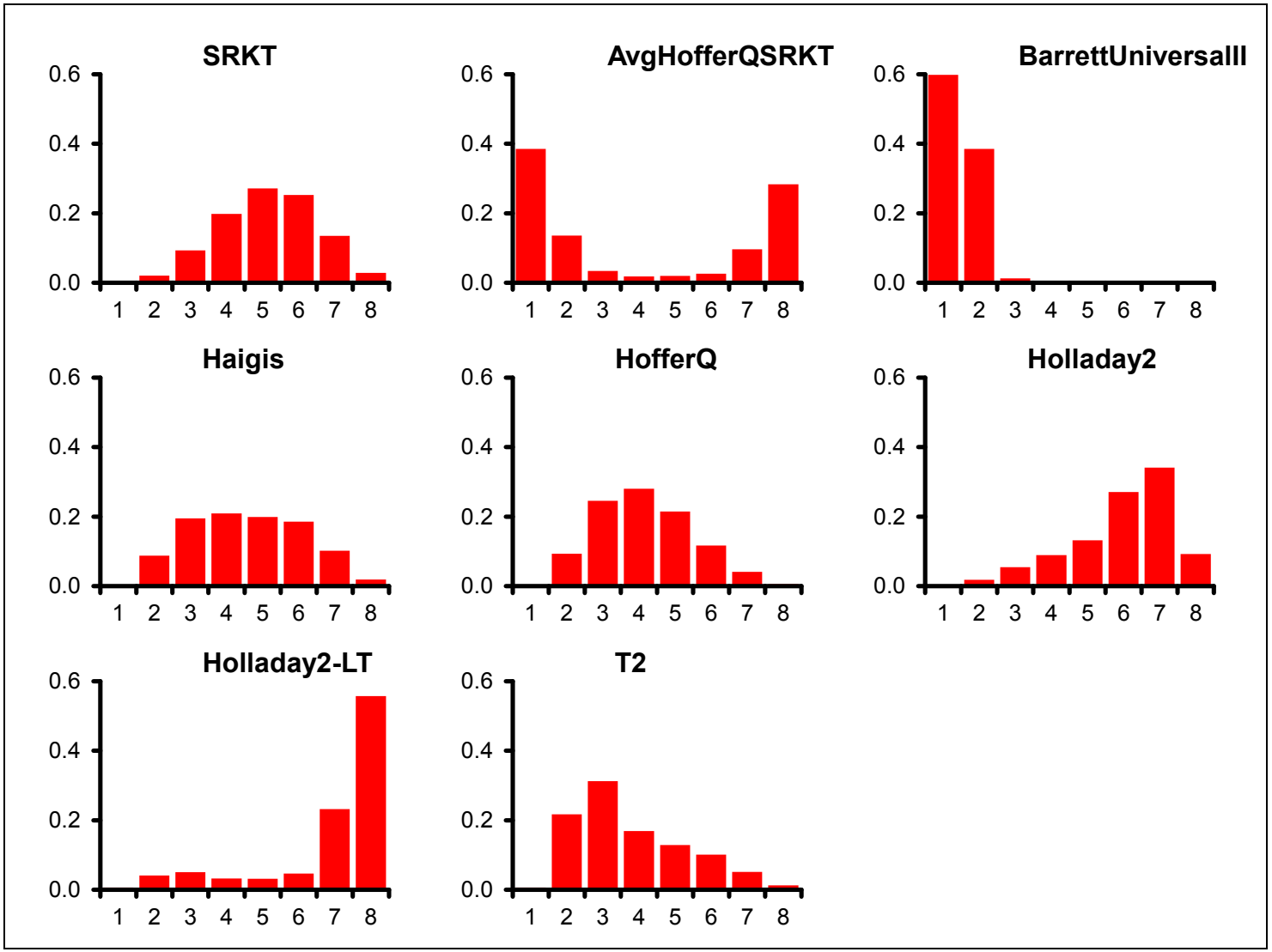


Figure 41: AL 24.5-26.0mm: Within 1.0D - fixed effects model – relative effect of all options versus common comparator

Table 69: AL 24.5-26.0mm: Within 1.0D - fixed effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.000	5 (3, 8)
AvgHofferQSRKT	0.386	2 (1, 8)
BarrettUniversalII	0.598	1 (1, 2)
Haigis	0.001	5 (2, 7)
HofferQ	0.001	4 (2, 7)
Holladay2	0.000	6 (3, 8)
Holladay2-LT	0.007	8 (2, 8)
T2	0.007	3 (2, 7)



328 **Figure 42: AL 24.5-26.0mm: Within 1.0D - fixed effects model – rank probability histograms**

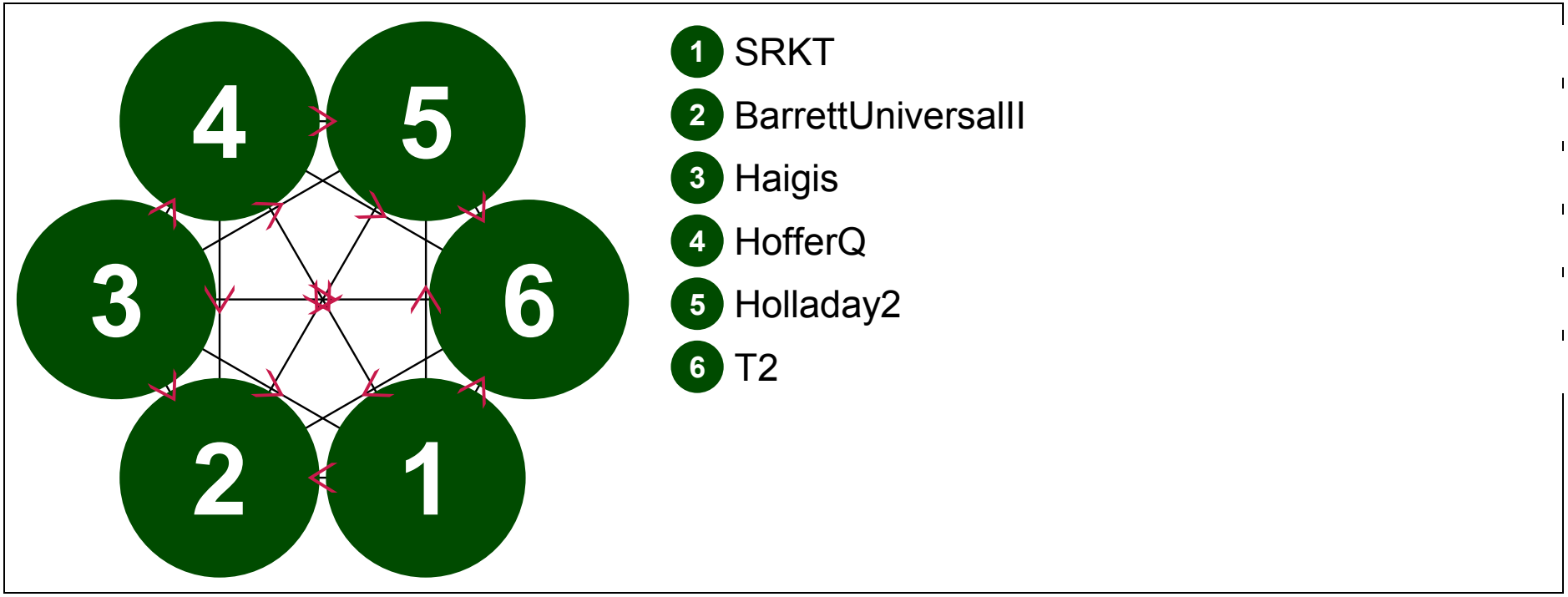
Table 70: AL 24.5-26.0mm: Within 1.0D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
20.9 (compared to 21 datapoints)	99.813	86.224	13.589	113.402	

Table 71: AL 24.5-26.0mm: Within 1.0D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

335 **PROPORTION WITHIN 2.0 DIOPTRES – fixed effects model**



336 **Figure 43: AL 24.5-26.0mm: Within 2.0D - fixed effects model – evidence network**

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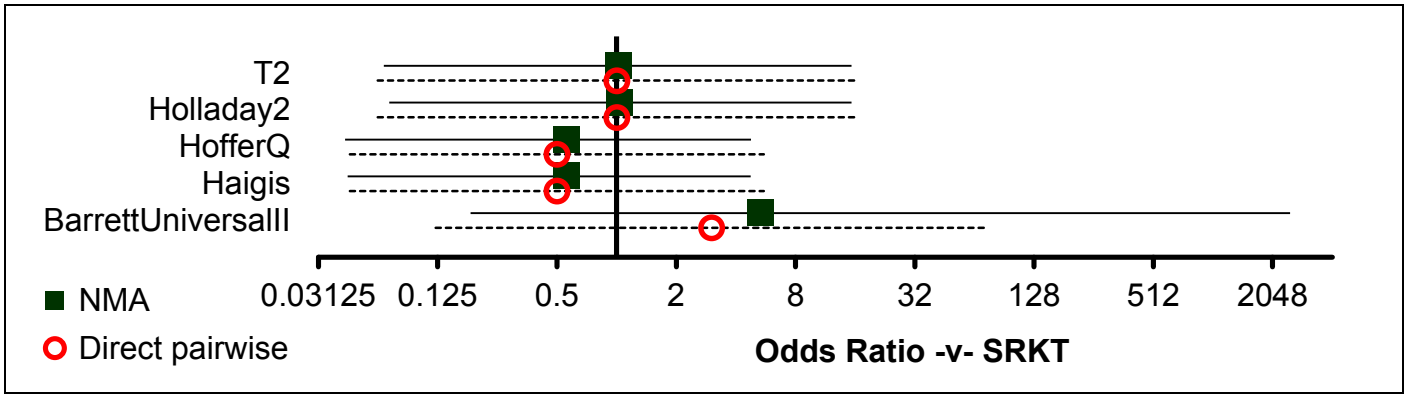
338 **Table 72: AL 24.5-26.0mm: Within 2.0D - fixed effects model – input data**

	SRKT	BarrettUniversal II	Haigis	HofferQ	Holladay2	T2
Kane,J. et al. (2016)	371/372	372/372	370/372	370/372	371/372	371/372

Table 73: AL 24.5-26.0mm: Within 2.0D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
SRKT		3.01 (0.12, 74.08)	0.50 (0.05, 5.52)	0.50 (0.05, 5.52)	1.00 (0.06, 16.05)	1.00 (0.06, 16.05)
BarrettUniversalII	5.33 (0.18, 2510.00)		0.20 (0.01, 4.16)	0.20 (0.01, 4.16)	0.33 (0.01, 8.19)	0.33 (0.01, 8.19)
Haigis	0.56 (0.04, 4.75)	0.11 (0.00, 2.01)		1.00 (0.14, 7.14)	2.01 (0.18, 22.21)	2.01 (0.18, 22.21)
HofferQ	0.56 (0.04, 4.76)	0.11 (0.00, 1.99)	1.01 (0.14, 7.20)		2.01 (0.18, 22.21)	2.01 (0.18, 22.21)
Holladay2	1.04 (0.07, 15.34)	0.19 (0.00, 5.79)	1.83 (0.22, 24.22)	1.83 (0.22, 25.09)		1.00 (0.06, 16.05)
T2	1.03 (0.07, 15.35)	0.20 (0.00, 5.62)	1.83 (0.21, 24.40)	1.82 (0.21, 24.37)	1.00 (0.07, 14.99)	



344 **Figure 44: AL 24.5-26.0mm: Within 2.0D - fixed effects model – relative effect of all options versus common comparator**

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346 **Table 74: AL 24.5-26.0mm: Within 2.0D - fixed effects model – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT	0.097	3 (1, 6)
BarrettUniversalII	0.651	1 (1, 5)
Haigis	0.021	5 (2, 6)
HofferQ	0.021	5 (2, 6)
Holladay2	0.104	3 (1, 6)
T2	0.106	3 (1, 6)

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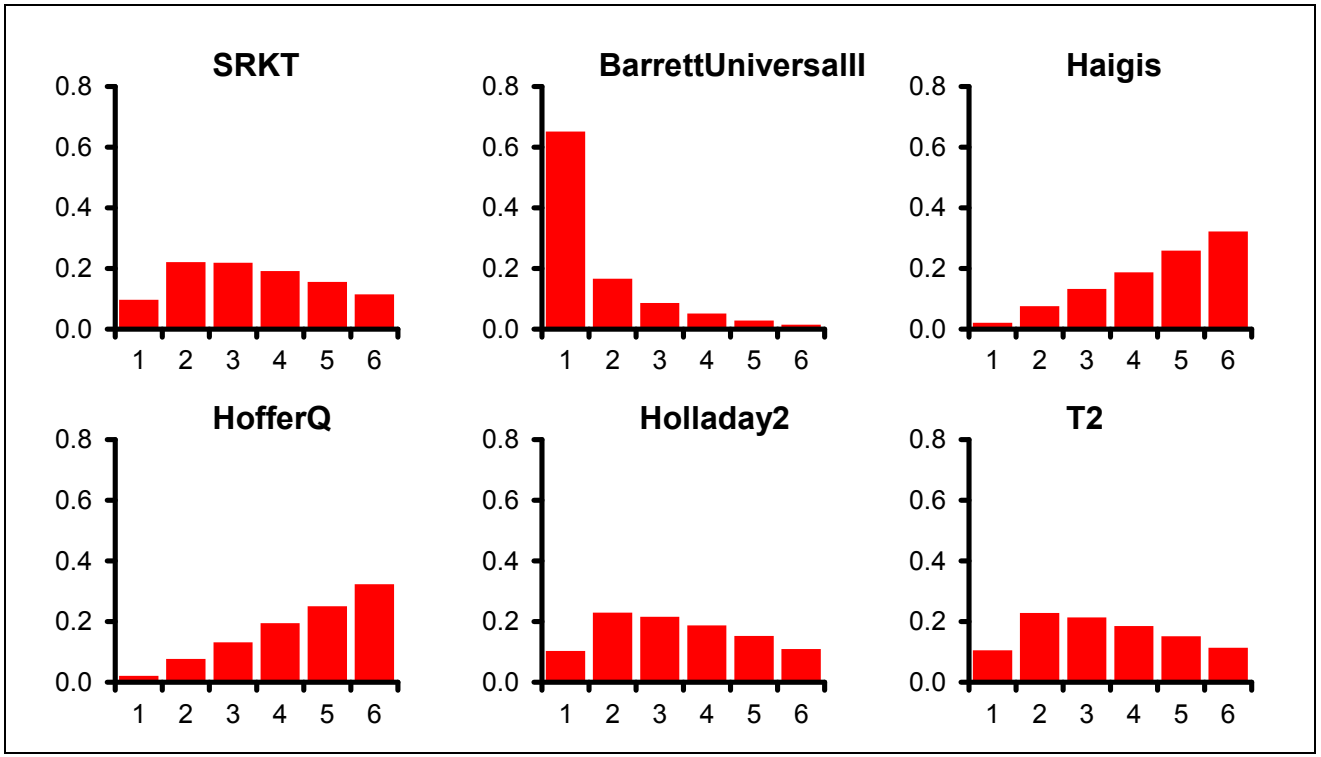

Figure 45: AL 24.5-26.0mm: Within 2.0D - fixed effects model – rank probability histograms

Table 75: AL 24.5-26.0mm: Within 2.0D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
6.666 (compared to 6 datapoints)	20.791	15.387	5.404	26.195	

353 **Table 76: AL 24.5-26.0mm: Within 2.0D - fixed effects model – notes**

• Dichotomous synchronic (binomial; logit link); fixed effects • 50000 burn-ins; 10000 recorded iterations

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H.3.2.5 Full dataset: Axial length subgroup – Greater than 26.00mm

MEAN ABSOLUTE ERROR – fixed effects model

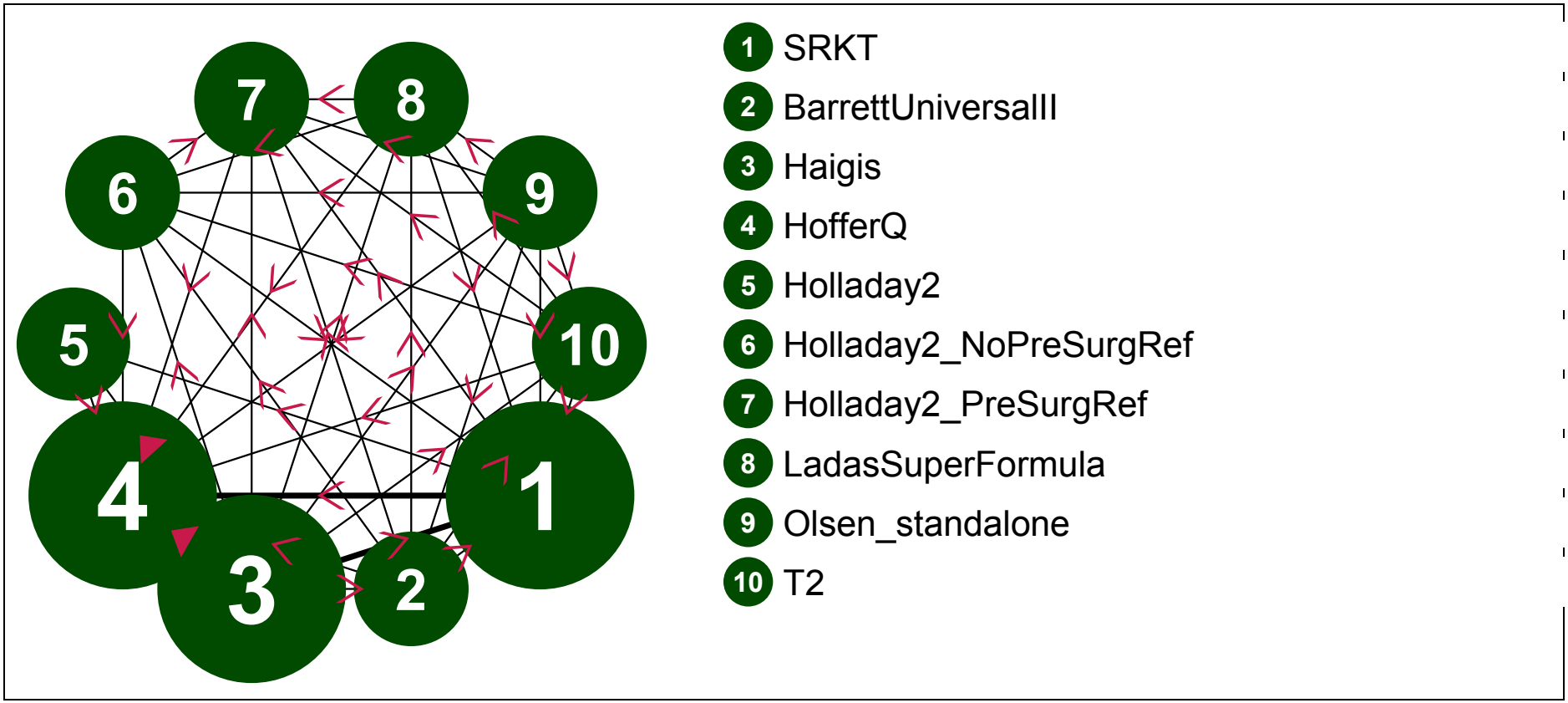

Figure 46: AL >26.0mm: Mean absolute error - fixed effects model – evidence network

Table 77: AL >26.0mm: Mean absolute error - fixed effects model – input data

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	LadasSuperFormula	Olsen_standalone	T2
Cooke & (2016)	0.40 (0.45)	0.30 (0.38)	0.28 (0.37)	0.43 (0.45)		0.39 (0.41)	0.41 (0.43)	0.35 (0.40)	0.29 (0.35)	0.32 (0.40)
Bang et al. (2011)	0.62 (0.77)		0.52 (0.63)	1.02 (0.88)	0.81 (0.81)					

Table 78: AL >26.0mm: Mean absolute error - fixed effects model – relative effectiveness of all pairwise combinations (MD and 95% credible interval)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	LadasSuperFormula	Olsen_standalone	T2
SRKT		-0.10 (-0.25, 0.06)	-0.11 (-0.25, 0.02)	0.11 (-0.04, 0.26)	0.19 (-0.11, 0.49)	-0.01 (-0.17, 0.15)	0.01 (-0.16, 0.17)	-0.05 (-0.21, 0.11)	-0.11 (-0.26, 0.04)	-0.08 (-0.24, 0.08)
BarrettUniversalII	-0.07 (-0.22, 0.08)		-0.02 (-0.16, 0.12)	0.13 (-0.03, 0.28)	-	0.09 (-0.06, 0.24)	0.10 (-0.05, 0.26)	0.05 (-0.10, 0.19)	-0.01 (-0.15, 0.12)	0.02 (-0.13, 0.16)
Haigis	-0.11 (-0.25, 0.02)	-0.04 (-0.18, 0.09)		0.23 (0.09, 0.36)	0.29 (0.01, 0.57)	0.11 (-0.04, 0.26)	0.13 (-0.02, 0.28)	0.07 (-0.08, 0.21)	0.01 (-0.13, 0.15)	0.04 (-0.11, 0.18)
HofferQ	0.11 (-0.04, 0.26)	0.18 (0.03, 0.33)	0.22 (0.09, 0.36)		-0.21 (-0.53, 0.11)	-0.04 (-0.20, 0.12)	-0.02 (-0.19, 0.14)	-0.08 (-0.24, 0.08)	-0.14 (-0.29, 0.01)	-0.11 (-0.27, 0.05)
Holladay2	0.12 (-0.15, 0.38)	0.19 (-0.09, 0.46)	0.23 (-0.02, 0.48)	0.01 (-0.26, 0.27)		-	-	-	-	-
Holladay2_NoPreSurgRef	0.02 (-0.14, 0.17)	0.09 (-0.06, 0.24)	0.13 (-0.01, 0.27)	-0.09 (-0.25, 0.06)	-0.10 (-0.38, 0.18)		0.02 (-0.14, 0.17)	-0.04 (-0.19, 0.11)	-0.10 (-0.24, 0.04)	-0.07 (-0.22, 0.08)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	LadasSuperFormula	Olsen_standalone	T2
Holladay2_PreSurgRef	0.03 (-0.13, 0.19)	0.10 (-0.05, 0.26)	0.15 (0.00, 0.29)	-0.08 (-0.24, 0.08)	-0.08 (-0.36, 0.20)	0.02 (-0.14, 0.17)		-0.06 (-0.22, 0.10)	-0.12 (-0.26, 0.03)	-0.09 (-0.24, 0.07)
LadasSuperFormula	-0.02 (-0.18, 0.13)	0.05 (-0.10, 0.19)	0.09 (-0.05, 0.23)	-0.14 (-0.29, 0.02)	-0.14 (-0.42, 0.14)	-0.04 (-0.19, 0.11)	-0.06 (-0.21, 0.10)		-0.06 (-0.20, 0.08)	-0.03 (-0.18, 0.12)
Olsen_standalone	-0.08 (-0.23, 0.06)	-0.01 (-0.15, 0.13)	0.03 (-0.10, 0.16)	-0.19 (-0.34, -0.05)	-0.20 (-0.47, 0.07)	-0.10 (-0.24, 0.04)	-0.12 (-0.26, 0.03)	-0.06 (-0.20, 0.09)		0.03 (-0.11, 0.17)
T2	-0.05 (-0.21, 0.10)	0.02 (-0.13, 0.16)	0.06 (-0.08, 0.20)	-0.17 (-0.32, -0.01)	-0.17 (-0.45, 0.11)	-0.07 (-0.22, 0.08)	-0.09 (-0.25, 0.07)	-0.03 (-0.18, 0.12)	0.03 (-0.11, 0.17)	

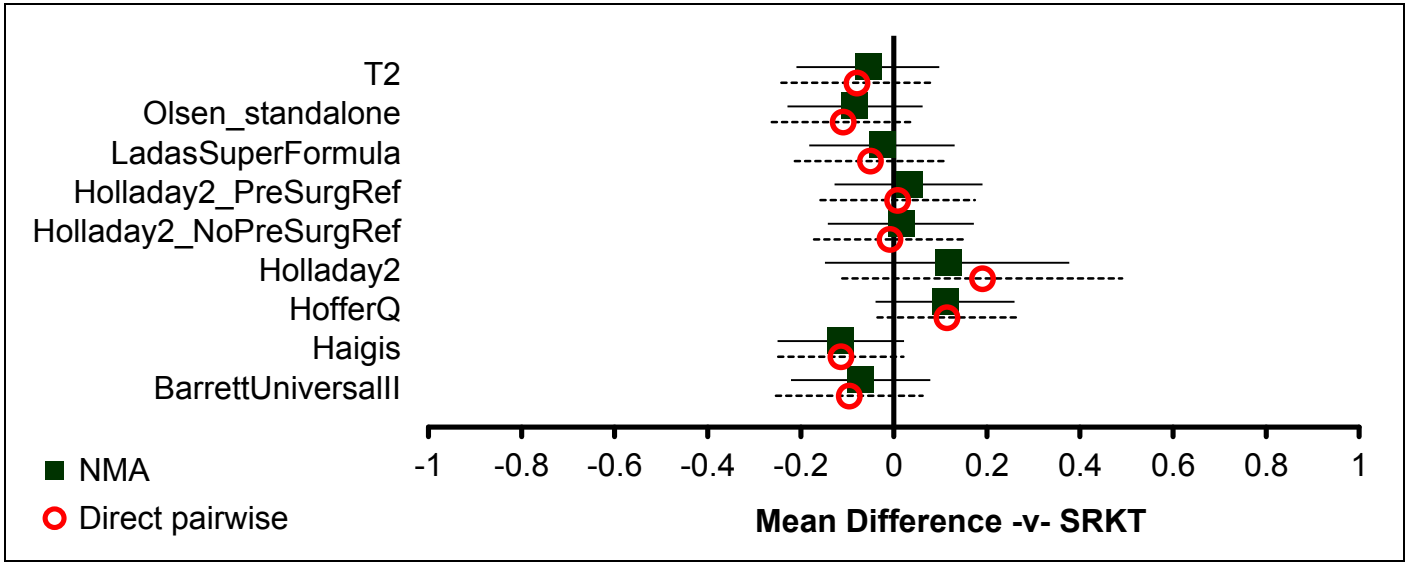

Figure 47: AL >26.0mm: Mean absolute error - fixed effects model – relative effect of all options versus common comparator

Table 79: AL >26.0mm: Mean absolute error - fixed effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.012	6 (2, 9)
BarrettUniversalII	0.153	3 (1, 8)
Haigis	0.450	2 (1, 5)
HofferQ	0.000	9 (6, 10)
Holladay2	0.025	9 (1, 10)
Holladay2_NoPreSurgRef	0.008	7 (2, 10)
Holladay2_PreSurgRef	0.004	7 (3, 10)
LadasSuperFormula	0.038	5 (1, 9)
Olsen_standalone	0.204	3 (1, 7)
T2	0.105	4 (1, 8)

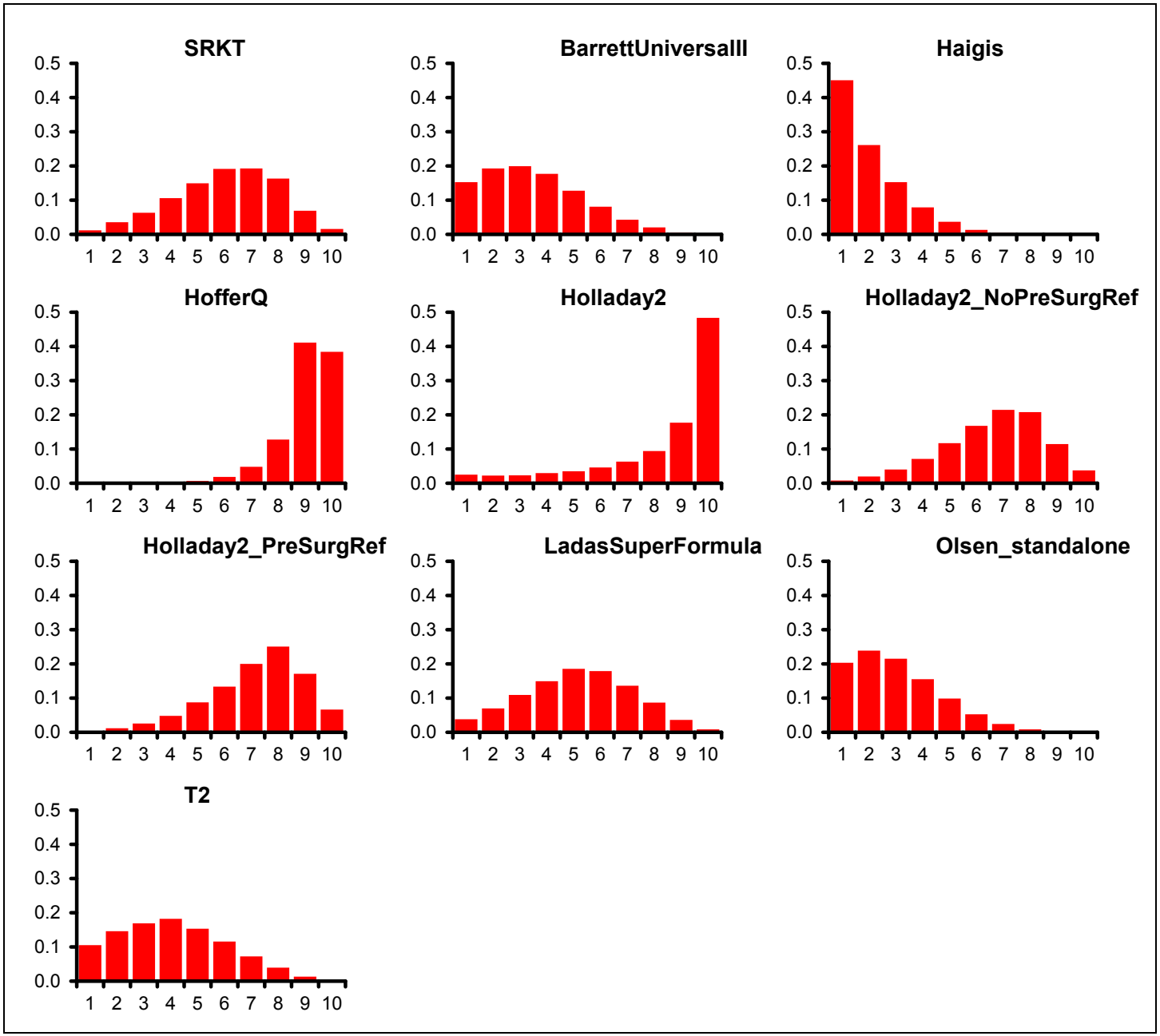
SRKT
BarrettUniversalII
Haigis
HofferQ
Holladay2
Holladay2_NoPreSurgRef
Holladay2_PreSurgRef
LadasSuperFormula
Olsen_standalone
T2
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10

Figure 48: AL >26.0mm: Mean absolute error - fixed effects model – rank probability histograms

Table 80: AL >26.0mm: Mean absolute error - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
16.31 (compared to 13 datapoints)	-30.087	-41.112	11.025	-19.062	

Table 81: AL >26.0mm: Mean absolute error - fixed effects model – notes

- Continuous (normal; identity link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 0.25 DIOPTRES – fixed effects model

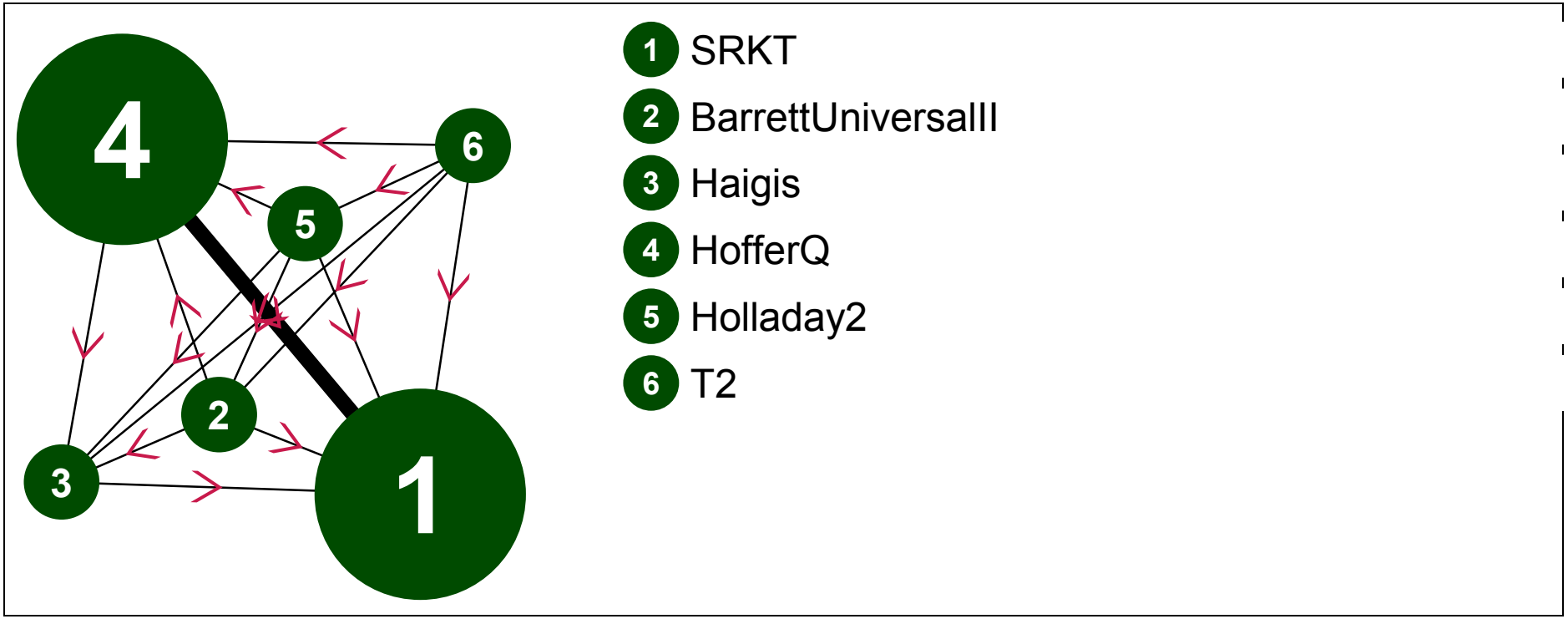

Figure 49: AL >26.0mm: Within 0.25D - fixed effects model – evidence network

Table 82: AL >26.0mm: Within 0.25D - fixed effects model – input data

	SRKT	BarrettUniversal II	Haigis	HofferQ	Holladay2	T2
Kane,J. et al. (2016)	30/77	26/77	28/77	26/77	25/77	24/77

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
Aristodemou et al. (2011)	21/47			18/47		
Aristodemou et al. (2011)	111/271			96/271		
Aristodemou et al. (2011)	5/17			2/17		

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385 **Table 83: AL >26.0mm: Within 0.25D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible**
386 **interval)**

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
SRKT		0.80 (0.41, 1.54)	0.90 (0.47, 1.72)	0.77 (0.58, 1.02)	0.75 (0.39, 1.46)	0.71 (0.36, 1.38)
BarrettUniversalII	0.78 (0.43, 1.41)		1.12 (0.58, 2.17)	1.00 (0.51, 1.95)	0.94 (0.48, 1.85)	0.89 (0.45, 1.74)
Haigis	0.88 (0.48, 1.57)	1.12 (0.58, 2.21)		0.89 (0.46, 1.73)	0.84 (0.43, 1.64)	0.79 (0.41, 1.55)
HofferQ	0.77 (0.58, 1.02)	0.98 (0.55, 1.80)	0.88 (0.49, 1.61)		0.94 (0.48, 1.85)	0.89 (0.45, 1.74)
Holladay2	0.74 (0.40, 1.32)	0.94 (0.48, 1.84)	0.84 (0.43, 1.63)	0.96 (0.52, 1.71)		0.94 (0.48, 1.86)
T2	0.69 (0.38, 1.25)	0.88 (0.45, 1.74)	0.79 (0.40, 1.55)	0.90 (0.49, 1.63)	0.94 (0.48, 1.85)	

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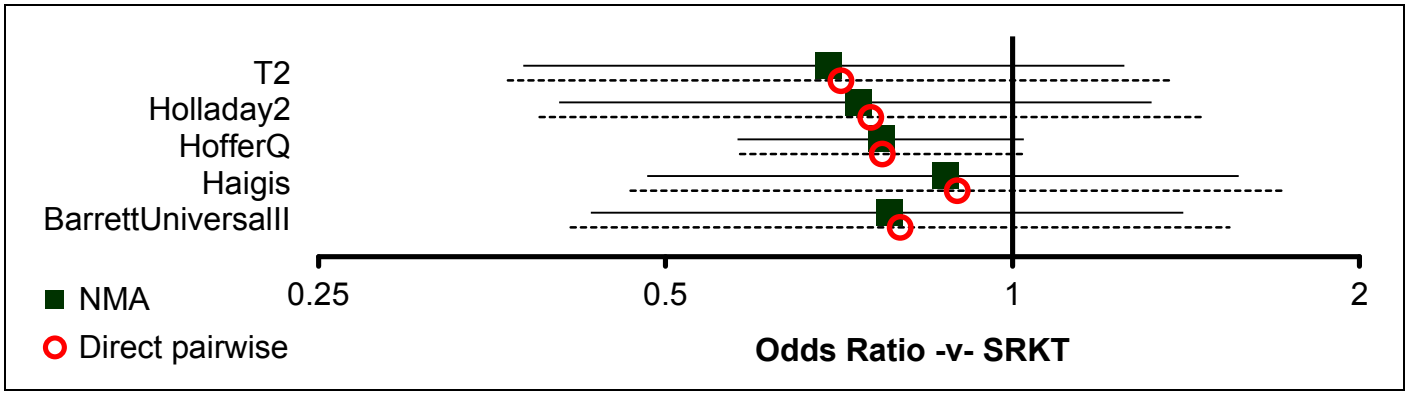

388 **Figure 50: AL >26.0mm: Within 0.25D - fixed effects model – relative effect of all options versus common comparator**

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390 **Table 84: AL >26.0mm: Within 0.25D - fixed effects model – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT	0.490	2 (1, 4)
BarrettUniversalII	0.119	4 (1, 6)
Haigis	0.247	3 (1, 6)
HofferQ	0.011	4 (2, 6)
Holladay2	0.079	4 (1, 6)
T2	0.053	5 (1, 6)

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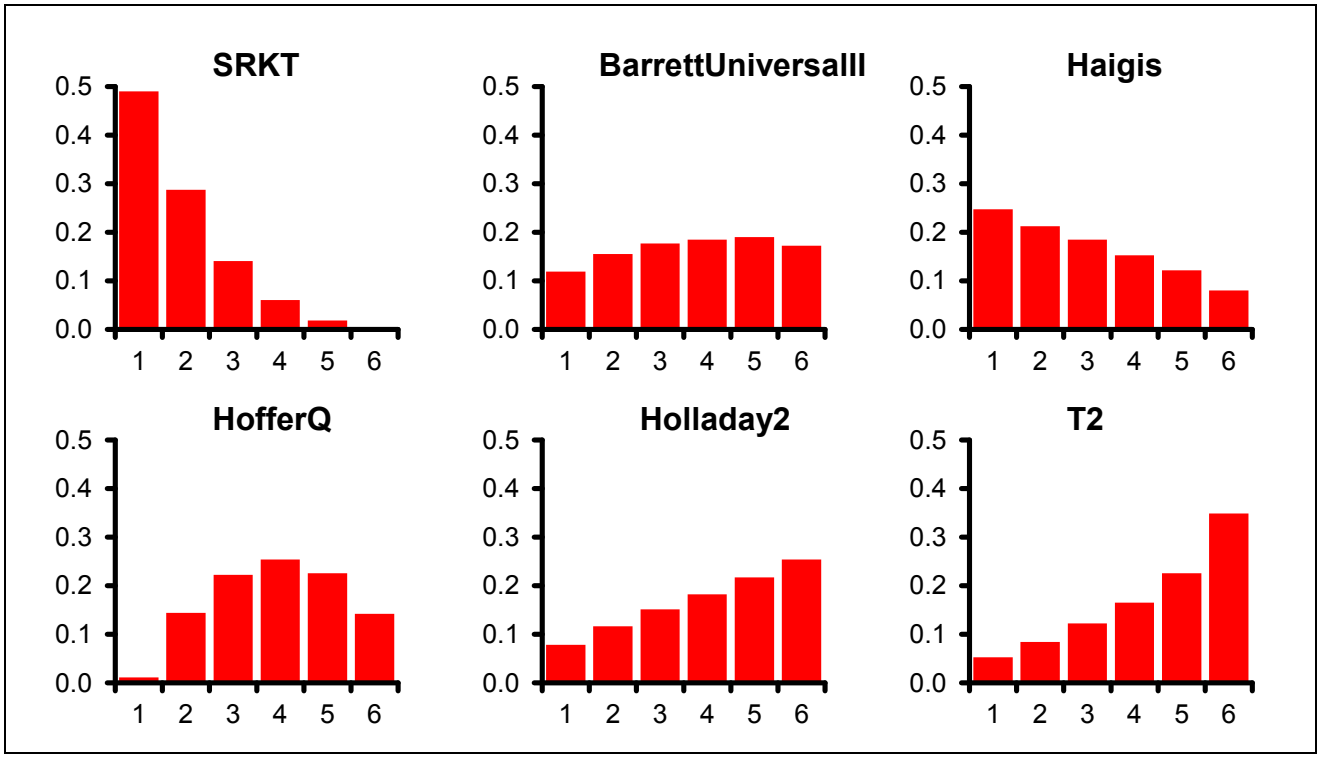

Figure 51: AL >26.0mm: Within 0.25D - fixed effects model – rank probability histograms

Table 85: AL >26.0mm: Within 0.25D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
10.05 (compared to 12 datapoints)	64.405	55.388	9.017	73.422	

Table 86: AL >26.0mm: Within 0.25D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 0.5 DIOPTRES – fixed effects model

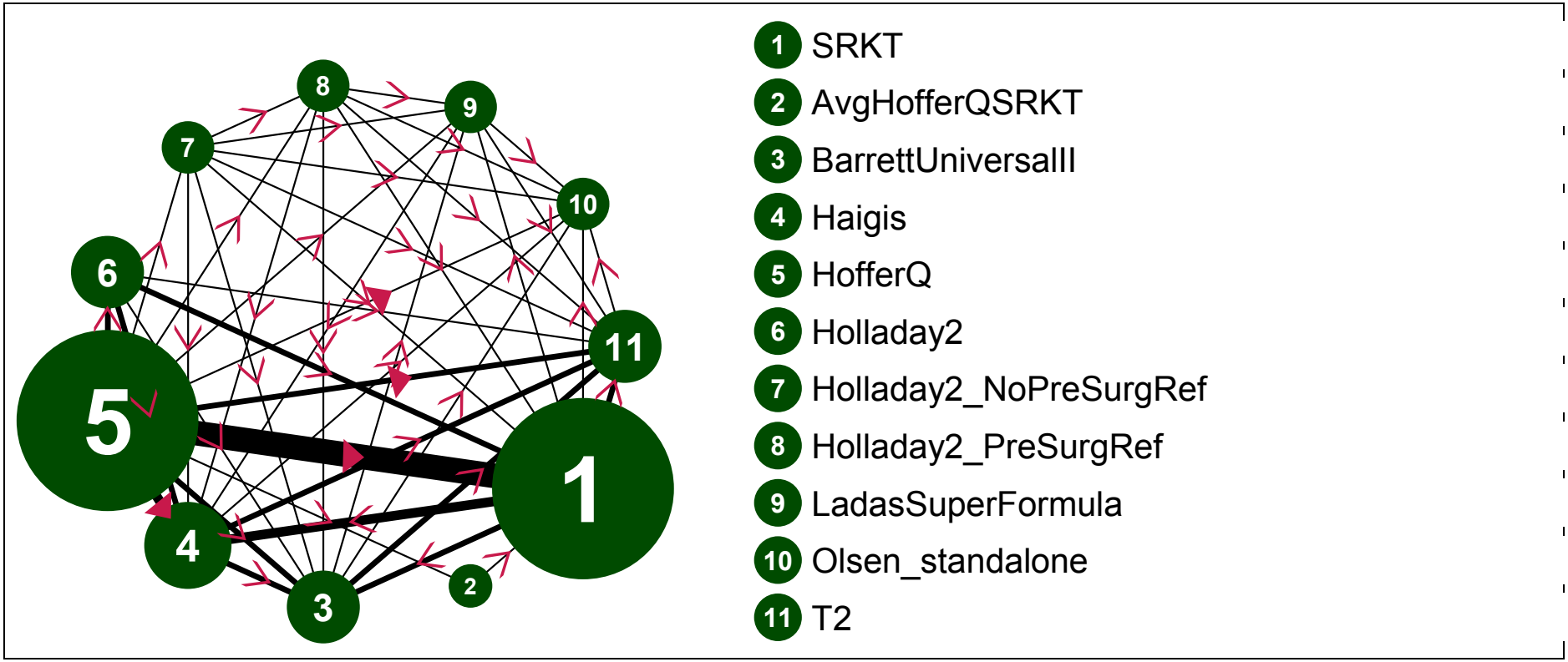

Figure 52: AL >26.0mm: Within 0.5D - fixed effects model – evidence network

Table 87: AL >26.0mm: Within 0.5D - fixed effects model – input data

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	LadasSuperFormula	Olsen_standalone	T2
Cooke & (2016)	41/54		41/54	44/54	34/54		37/54	37/54	41/54	45/54	44/54
Kane,J. et al. (2016)	48/77		48/77	44/77	41/77	44/77					49/77
Bang et al. (2011)	27/53			30/53	18/53	22/53					
Aristodemou et al. (2011)	37/47				33/47						
Aristodemou et al. (2011)	197/271				167/271						
Aristodemou et al. (2011)	10/17				3/17						
Percival et al. (2002)	16/20	15/20			12/20						

Table 88: AL >26.0mm: Within 0.5D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	LadasSuperFormula	Olsen_standalone	T2
SRKT		0.75 (0.17, 3.33)	1.00 (0.59, 1.69)	1.05 (0.68, 1.62)	0.57 (0.44, 0.73)	0.75 (0.46, 1.23)	0.69 (0.30, 1.61)	0.69 (0.30, 1.61)	1.00 (0.41, 2.42)	1.59 (0.61, 4.10)	1.16 (0.68, 1.98)
AvgHofferQSRKT	0.98 (0.29, 3.72)		-	-	0.50 (0.13, 1.93)	-	-	-	-	-	-

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	LadasSuperFormula	Olsen_standalone	T2
BarrettUniversalII	0.97 (0.61, 1.54)	0.98 (0.25, 3.65)		0.96 (0.57, 1.63)	0.63 (0.38, 1.04)	0.81 (0.42, 1.54)	0.69 (0.30, 1.61)	0.69 (0.30, 1.61)	1.00 (0.41, 2.42)	1.59 (0.61, 4.10)	1.16 (0.68, 1.98)
Haigis	1.03 (0.69, 1.53)	1.05 (0.26, 3.74)	1.07 (0.64, 1.74)		0.56 (0.36, 0.86)	0.78 (0.48, 1.27)	0.49 (0.20, 1.21)	0.49 (0.20, 1.21)	0.72 (0.28, 1.81)	1.14 (0.42, 3.06)	1.21 (0.70, 2.07)
HofferQ	0.56 (0.43, 0.72)	0.57 (0.15, 1.95)	0.58 (0.37, 0.91)	0.54 (0.37, 0.80)		1.25 (0.76, 2.05)	1.28 (0.58, 2.84)	1.28 (0.58, 2.84)	1.86 (0.81, 4.27)	2.94 (1.19, 7.26)	1.85 (1.10, 3.10)
Holladay2	0.75 (0.49, 1.17)	0.76 (0.19, 2.79)	0.77 (0.45, 1.32)	0.73 (0.45, 1.17)	1.34 (0.87, 2.08)		-	-	-	-	1.31 (0.69, 2.51)
Holladay2_NoPreSurgRef	0.63 (0.33, 1.27)	0.65 (0.15, 2.62)	0.65 (0.32, 1.37)	0.61 (0.30, 1.27)	1.13 (0.58, 2.26)	0.84 (0.40, 1.82)		1.00 (0.44, 2.25)	1.45 (0.62, 3.38)	2.30 (0.92, 5.75)	2.02 (0.83, 4.95)
Holladay2_PreSurgRef	0.63 (0.33, 1.28)	0.64 (0.15, 2.63)	0.65 (0.32, 1.38)	0.61 (0.31, 1.27)	1.13 (0.58, 2.26)	0.84 (0.40, 1.82)	1.00 (0.44, 2.29)		1.45 (0.62, 3.38)	2.30 (0.92, 5.75)	2.02 (0.83, 4.95)
LadasSuperFormula	0.93 (0.46, 1.97)	0.95 (0.21, 3.93)	0.96 (0.45, 2.12)	0.90 (0.44, 1.95)	1.65 (0.82, 3.48)	1.23 (0.57, 2.80)	1.46 (0.62, 3.52)	1.46 (0.63, 3.50)		1.59 (0.61, 4.10)	1.40 (0.55, 3.53)
Olsen_standalone	1.50 (0.69, 3.52)	1.53 (0.32, 6.72)	1.54 (0.68, 3.79)	1.45 (0.65, 3.49)	2.66 (1.23, 6.27)	1.99 (0.86, 4.99)	2.37 (0.94, 6.21)	2.36 (0.95, 6.21)	1.62 (0.62, 4.35)		0.88 (0.33, 2.37)
T2	1.13 (0.71, 1.81)	1.14 (0.28, 4.25)	1.16 (0.68, 1.99)	1.09 (0.66, 1.81)	2.01 (1.26, 3.22)	1.50 (0.87, 2.58)	1.78 (0.85, 3.66)	1.78 (0.84, 3.65)	1.22 (0.55, 2.58)	0.75 (0.31, 1.72)	

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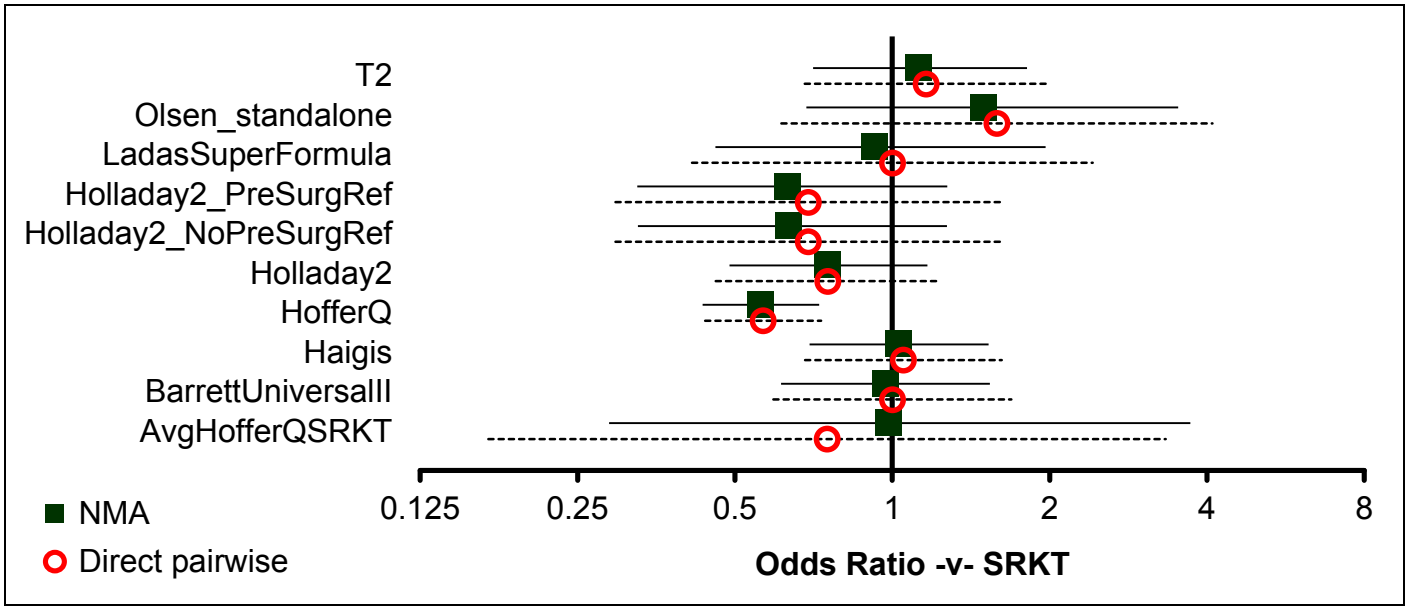

Figure 53: AL >26.0mm: Within 0.5D - fixed effects model – relative effect of all options versus common comparator

Table 89: AL >26.0mm: Within 0.5D - fixed effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.017	5 (2, 8)
AvgHofferQSRKT	0.231	5 (1, 11)
BarrettUniversalII	0.029	5 (1, 9)
Haigis	0.035	4 (1, 8)
HofferQ	0.000	10 (8, 11)
Holladay2	0.002	8 (3, 11)
Holladay2_NoPreSurgRef	0.005	9 (3, 11)
Holladay2_PreSurgRef	0.004	9 (3, 11)
LadasSuperFormula	0.069	6 (1, 11)

	Probability best	Median rank (95%CI)
Olsen_standalone	0.508	1 (1, 8)
T2	0.100	3 (1, 8)

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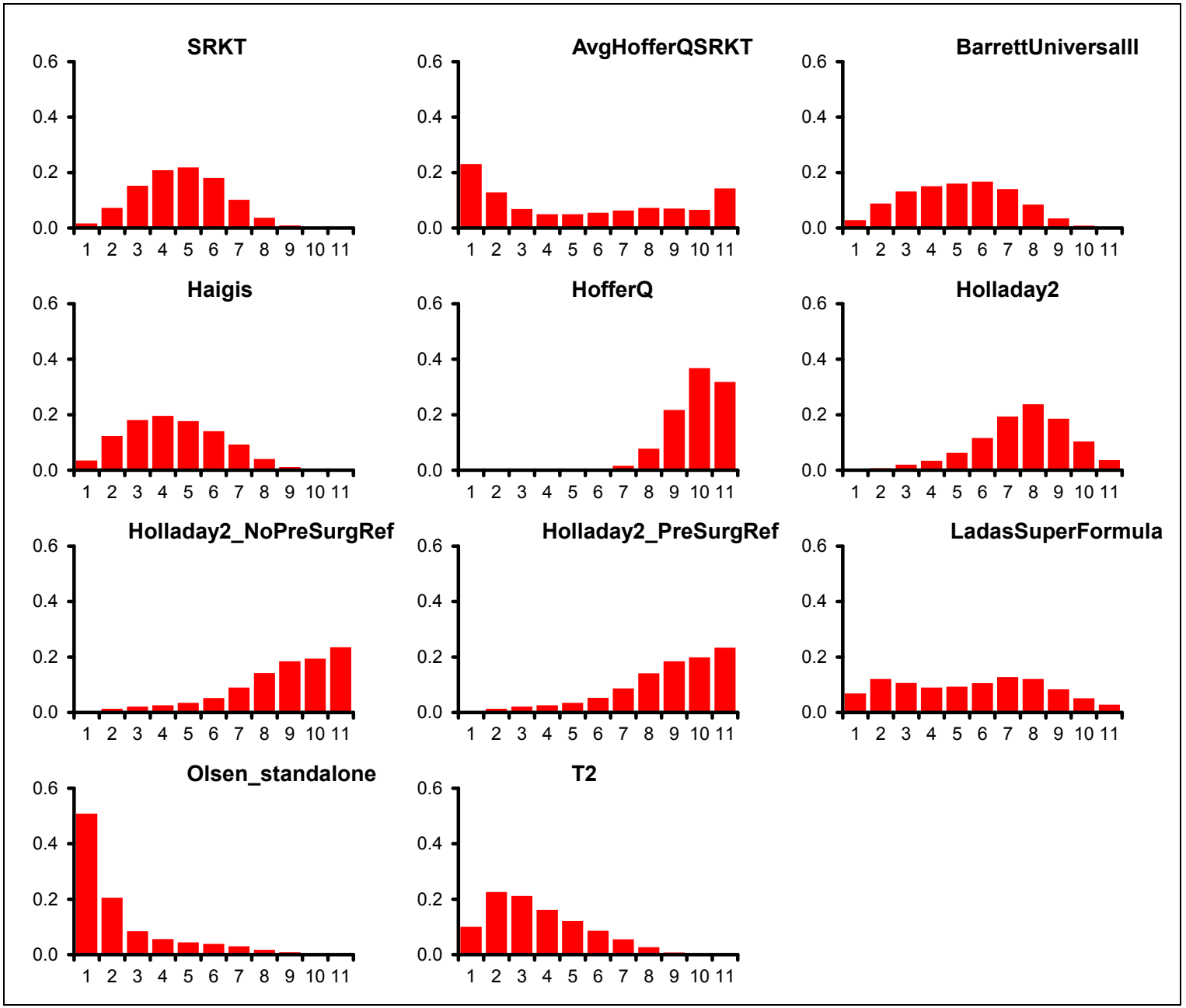
SRKT
AvgHofferQSRKT
BarrettUniversalII
Haigis
HofferQ
Holladay2
Holladay2_NoPreSurgRef
Holladay2_PreSurgRef
LadasSuperFormula
Olsen_standalone
T2
0.6
0.4
0.2
0.0
1 2 3 4 5 6 7 8 9 10 11

Figure 54: AL >26.0mm: Within 0.5D - fixed effects model – rank probability histograms

Table 90: AL >26.0mm: Within 0.5D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
24.45 (compared to 28 datapoints)	143.413	126.316	17.097	160.51	

Table 91: AL >26.0mm: Within 0.5D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 1.0 DIOPTRE – random effects model

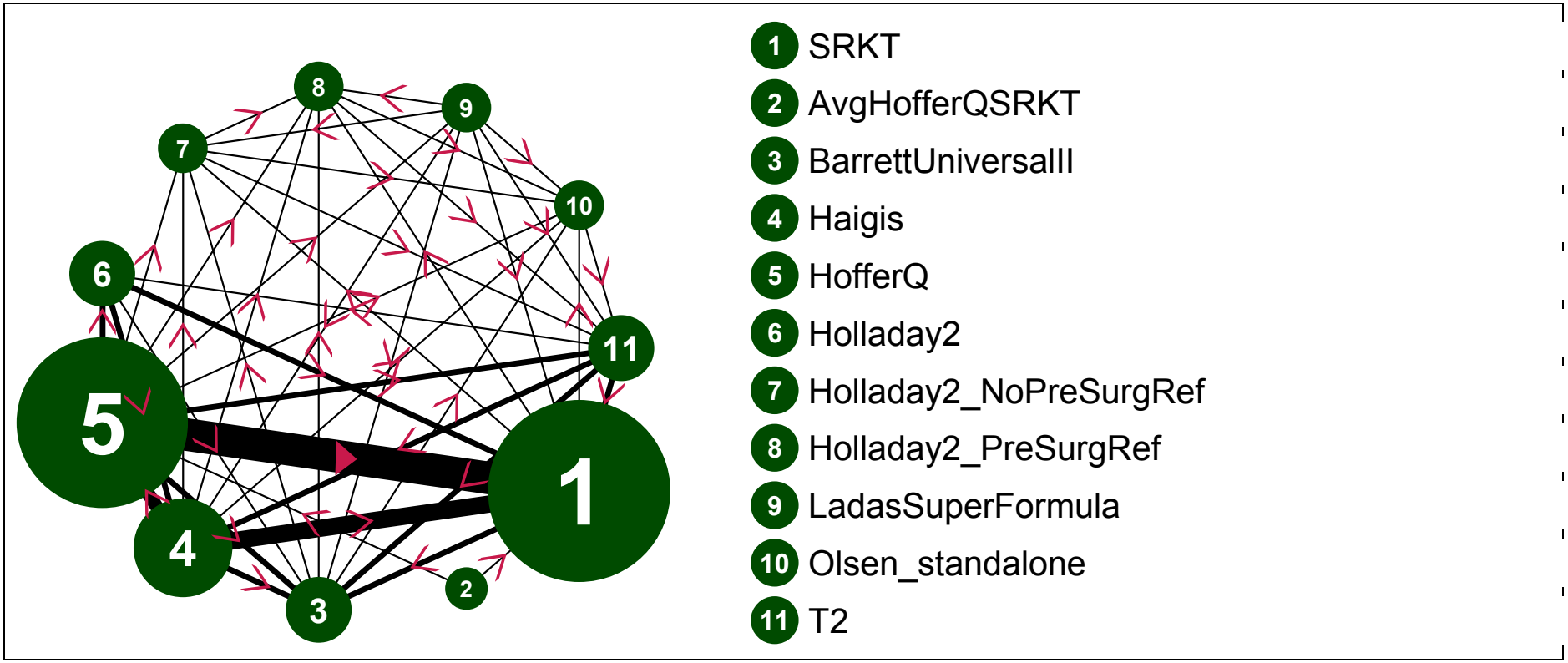

Figure 55: AL >26.0mm: Within 1.0D - random effects model – evidence network

Table 92: AL >26.0mm: Within 1.0D - random effects model – input data

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	LadasSuperFormula	Olsen_standalone	T2
Cooke & (2016)	53/54		53/54	53/54	52/54		53/54	53/54	52/54	53/54	53/54
Kane,J. et al. (2016)	71/77		71/77	68/77	64/77	68/77					67/77
Bang et al. (2011)	35/53			39/53	32/53	33/53					
Aristodemou et al. (2011)	44/47				43/47						
Aristodemou et al. (2011)	253/271				239/271						
Aristodemou et al. (2011)	14/17				12/17						
Petermeier et al. (2009)	50/50			32/50	50/50						
Percival et al. (2002)	19/20	17/20			17/20						
Mitra et al. (2014)	17/43				19/43						
El-Nafees et al. (2010)	44/53			44/53							

Table 93: AL >26.0mm: Within 1.0D - random effects model – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	LadasSuperFormula	Olsen_standalone	T2
SRKT		0.30 (0.03, 3.15)	1.00 (0.34, 2.96)	0.71 (0.28, 1.78)	0.65 (0.45, 0.92)	0.77 (0.40, 1.46)	1.00 (0.06, 16.41)	1.00 (0.06, 16.41)	0.49 (0.04, 5.58)	1.00 (0.06, 16.41)	0.61 (0.22, 1.65)

	SRKT	AvgHofferQSRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	Holladay2_NoPreSurgRef	Holladay2_PreSurgRef	LadasSuperFormula	Olsen_standalone	T2
AvgHofferQSRKT	0.46 (0.04, 5.92)		-	-	1.00 (0.18, 5.67)	-	-	-	-	-	-
BarrettUniversalII	1.05 (0.19, 6.08)	2.28 (0.12, 47.00)		0.68 (0.25, 1.86)	0.43 (0.17, 1.10)	0.64 (0.22, 1.89)	1.00 (0.06, 16.41)	1.00 (0.06, 16.41)	0.49 (0.04, 5.58)	1.00 (0.06, 16.41)	0.61 (0.22, 1.65)
Haigis	0.48 (0.16, 1.36)	1.04 (0.07, 15.16)	0.46 (0.07, 2.53)		1.07 (0.30, 3.81)	0.74 (0.39, 1.38)	1.00 (0.06, 16.41)	1.00 (0.06, 16.41)	0.49 (0.04, 5.58)	1.00 (0.06, 16.41)	0.90 (0.36, 2.23)
HofferQ	0.65 (0.27, 1.49)	1.40 (0.11, 17.29)	0.62 (0.11, 3.36)	1.35 (0.46, 4.25)		1.25 (0.69, 2.27)	2.04 (0.18, 23.17)	2.04 (0.18, 23.17)	1.00 (0.14, 7.37)	2.04 (0.18, 23.17)	1.43 (0.62, 3.30)
Holladay2	0.63 (0.15, 2.59)	1.35 (0.08, 23.34)	0.59 (0.08, 4.24)	1.31 (0.30, 6.02)	0.97 (0.23, 4.04)		-	-	-	-	0.89 (0.34, 2.32)
Holladay2_NoPreSurgRef	1.07 (0.07, 41.13)	2.48 (0.06, 174.90)	1.03 (0.05, 46.32)	2.24 (0.14, 88.12)	1.64 (0.11, 63.46)	1.75 (0.09, 77.21)		1.00 (0.06, 16.41)	0.49 (0.04, 5.58)	1.00 (0.06, 16.41)	1.00 (0.06, 16.41)
Holladay2_PreSurgRef	1.08 (0.07, 46.67)	2.46 (0.06, 215.20)	1.03 (0.05, 49.49)	2.22 (0.14, 104.20)	1.66 (0.11, 72.32)	1.73 (0.09, 89.57)	1.01 (0.01, 77.45)		0.49 (0.04, 5.58)	1.00 (0.06, 16.41)	1.00 (0.06, 16.41)
LadasSuperFormula	0.42 (0.03, 5.61)	0.91 (0.03, 32.60)	0.40 (0.03, 6.94)	0.87 (0.07, 12.61)	0.64 (0.06, 9.08)	0.68 (0.04, 11.28)	0.38 (0.01, 10.65)	0.38 (0.01, 11.08)		2.04 (0.18, 23.17)	2.04 (0.18, 23.17)
Olsen_standalone	1.10 (0.07, 45.60)	2.43 (0.06, 207.10)	1.05 (0.05, 49.59)	2.28 (0.14, 97.44)	1.71 (0.10, 69.48)	1.79 (0.09, 83.45)	1.01 (0.02, 70.36)	0.98 (0.01, 70.90)	2.64 (0.09, 158.90)		1.00 (0.06, 16.41)
T2	0.68 (0.13, 3.61)	1.48 (0.08, 30.72)	0.64 (0.09, 4.94)	1.41 (0.28, 8.25)	1.05 (0.21, 5.74)	1.10 (0.17, 7.52)	0.63 (0.01, 12.17)	0.63 (0.01, 12.54)	1.62 (0.10, 23.86)	0.62 (0.01, 12.23)	

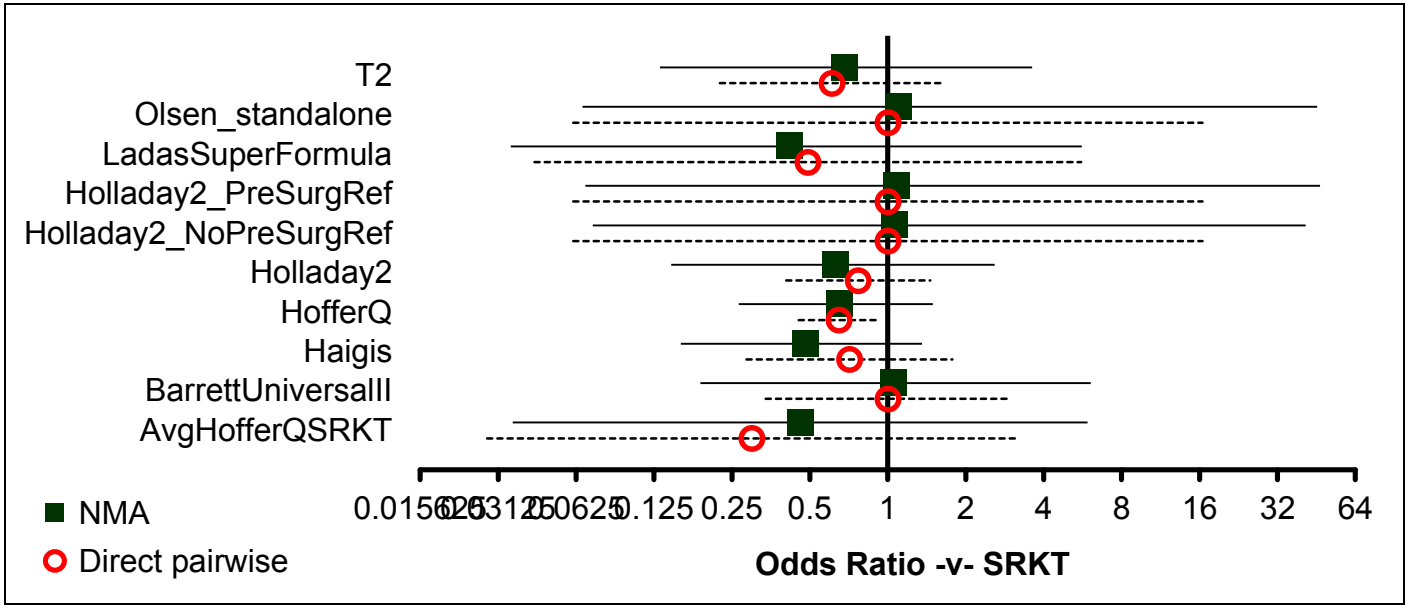

Figure 56: AL >26.0mm: Within 1.0D - random effects model – relative effect of all options versus common comparator

Table 94: AL >26.0mm: Within 1.0D - random effects model – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT	0.045	4 (1, 8)
AvgHofferQSRKT	0.066	8 (1, 11)
BarrettUniversalII	0.102	4 (1, 10)
Haigis	0.002	8 (3, 11)
HofferQ	0.004	7 (3, 10)
Holladay2	0.022	7 (2, 11)
Holladay2_NoPreSurgRef	0.227	4 (1, 11)
Holladay2_PreSurgRef	0.229	4 (1, 11)

	Probability best	Median rank (95%CI)
LadasSuperFormula	0.042	9 (1, 11)
Olsen_standalone	0.226	4 (1, 11)
T2	0.035	6 (1, 11)

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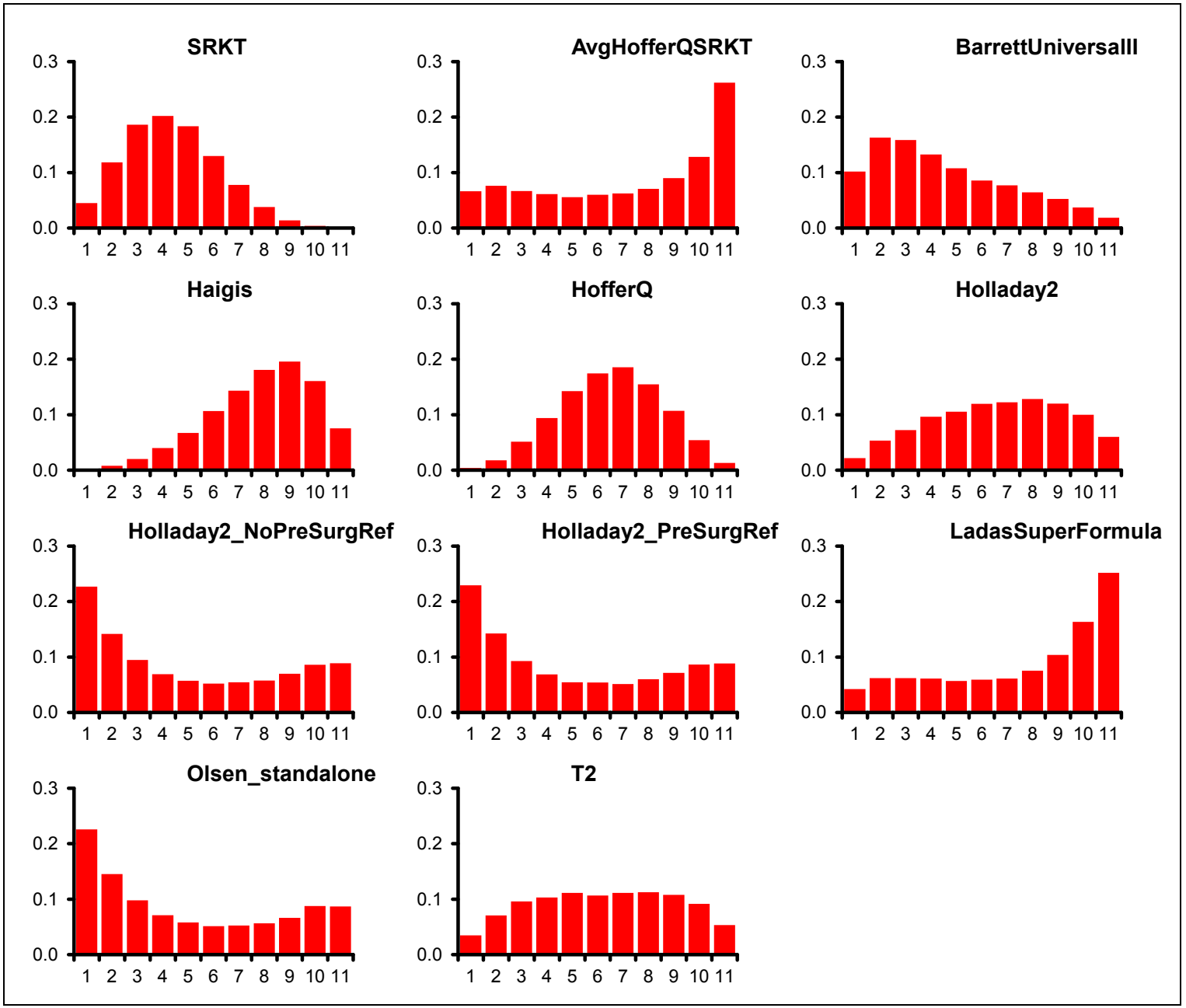

SRKT
AvgHofferQSRKT
BarrettUniversalII
Haigis
HofferQ
Holladay2
Holladay2_NoPreSurgRef
Holladay2_PreSurgRef
LadasSuperFormula
Olsen_standalone
T2
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11

Figure 57: AL >26.0mm: Within 1.0D - random effects model – rank probability histograms

Table 95: AL >26.0mm: Within 1.0D - random effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau
35.1 (compared to 35 datapoints)	147.479	118.139	29.34	176.819	0.974 (95%CI: 0.506, 1.724)

Table 96: AL >26.0mm: Within 1.0D - random effects model – notes

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 2.0 DIOPTRES – fixed effects model

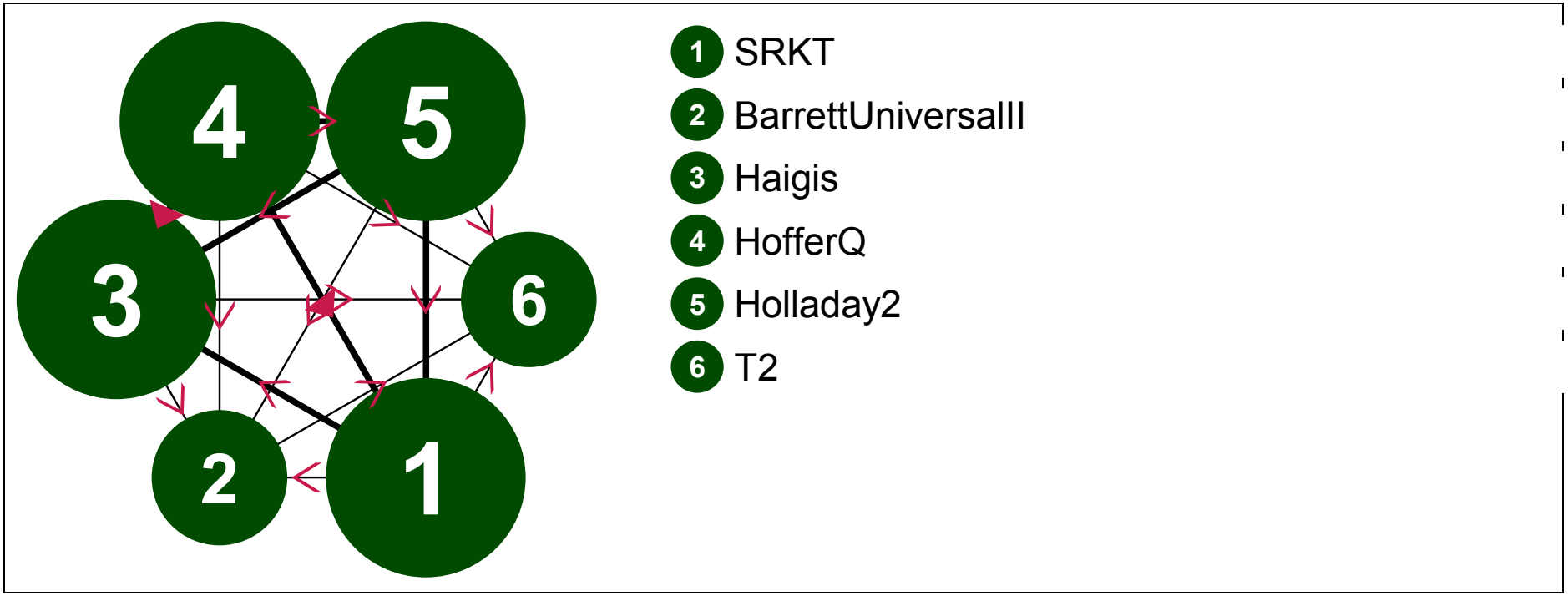


Figure 58: AL >26.0mm: Within 2.0D - fixed effects model – evidence network

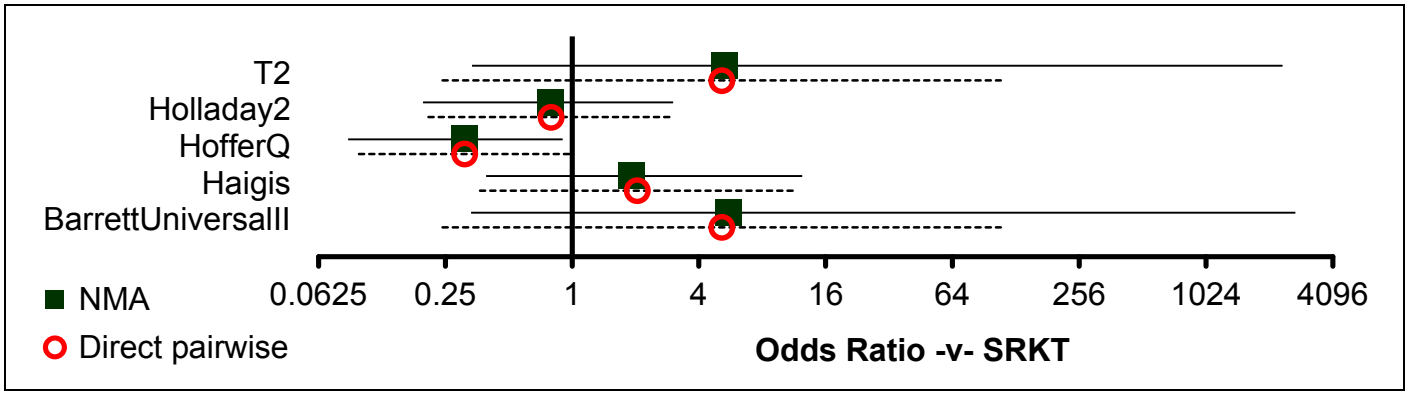
Table 97: AL >26.0mm: Within 2.0D - fixed effects model – input data

	SRKT	BarrettUniversal II	Haigis	HofferQ	Holladay2	T2
Kane,J. et al. (2016)	75/77	77/77	76/77	76/77	75/77	77/77

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
Bang et al. (2011)	51/53		52/53	42/53	50/53	

Table 98: AL >26.0mm: Within 2.0D - fixed effects model – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT	BarrettUniversalII	Haigis	HofferQ	Holladay2	T2
SRKT		5.13 (0.24, 108.68)	2.03 (0.37, 11.30)	0.31 (0.10, 0.97)	0.79 (0.21, 3.03)	5.13 (0.24, 108.68)
BarrettUniversalII	5.53 (0.33, 2725.00)		0.33 (0.01, 8.20)	0.33 (0.01, 8.20)	0.19 (0.01, 4.13)	1.00 (0.02, 51.04)
Haigis	1.93 (0.39, 12.36)	0.36 (0.00, 7.38)		0.15 (0.03, 0.68)	0.39 (0.07, 2.05)	3.04 (0.12, 75.77)
HofferQ	0.31 (0.09, 0.90)	0.06 (0.00, 0.76)	0.16 (0.03, 0.58)		2.61 (0.89, 7.67)	3.04 (0.12, 75.77)
Holladay2	0.79 (0.20, 3.02)	0.14 (0.00, 2.21)	0.41 (0.07, 1.85)	2.55 (0.92, 8.15)		5.13 (0.24, 108.68)
T2	5.32 (0.34, 2364.00)	0.98 (0.00, 635.90)	2.75 (0.13, 1348.00)	17.49 (1.34, 7933.00)	6.84 (0.44, 3162.00)	



448 **Figure 59: AL >26.0mm: Within 2.0D - fixed effects model – relative effect of all options versus common comparator**

449

450 **Table 99: AL >26.0mm: Within 2.0D - fixed effects model – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT	0.014	4 (2, 5)
BarrettUniversalII	0.445	2 (1, 5)
Haigis	0.096	3 (1, 5)
HofferQ	0.000	6 (5, 6)
Holladay2	0.005	5 (2, 6)
T2	0.440	2 (1, 5)

451

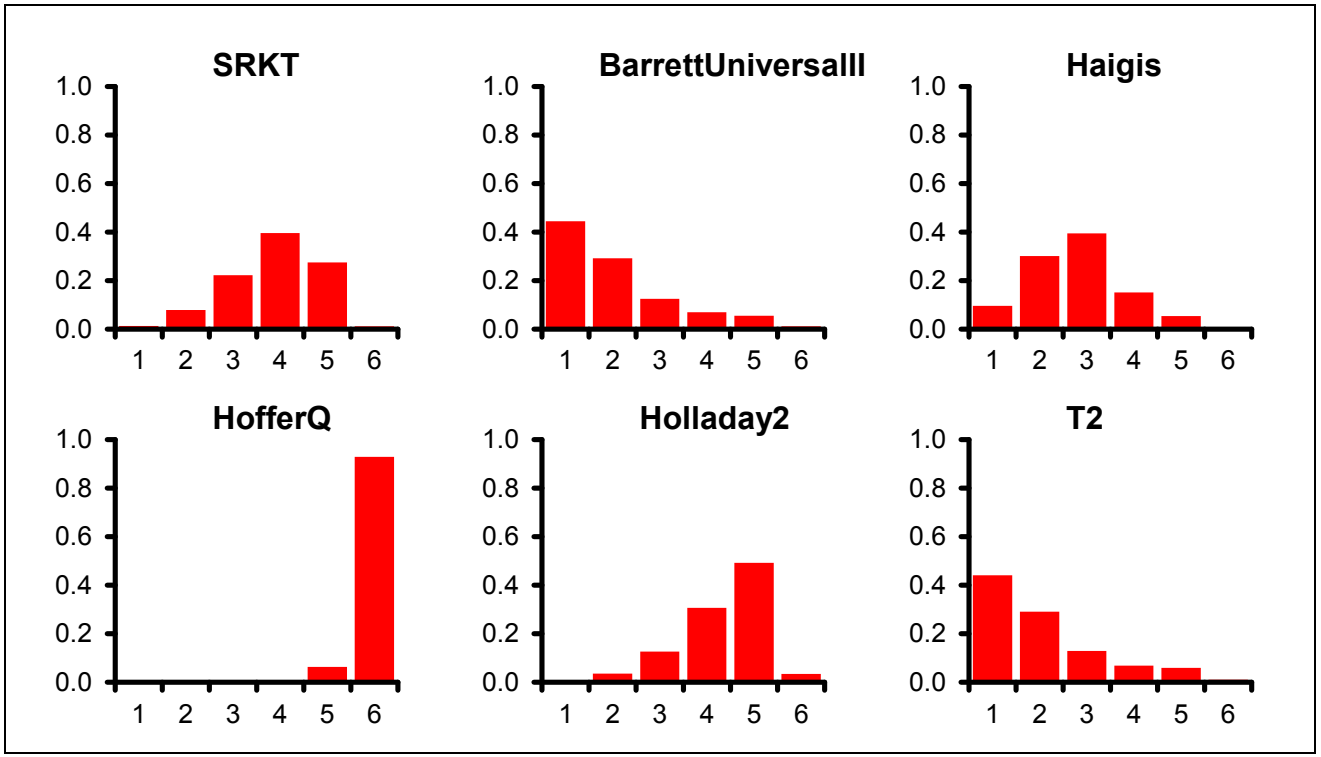


Figure 60: AL >26.0mm: Within 2.0D - fixed effects model – rank probability histograms

Table 100: AL >26.0mm: Within 2.0D - fixed effects model – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
13.49 (compared to 10 datapoints)	38.132	31.797	6.335	44.466	

Table 101: AL >26.0mm: Within 2.0D - fixed effects model – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

H.3.3 Intraocular lens formulas: Network meta-analyses results: Eyes with a history of myopic LASIK/LASEK/PRK

H.3.3.1 Model fit statistics for all outcomes

Table 102: Model fit statistics used to select fixed or random effect models for all comparisons and outcomes

Studies	Outcome	Model	Total model DIC	Total model DIC (FE – RE)	Total residual deviance	No. of data-points	Between-study SD (95% CrI)	Preferred model
FULL DATASET: HISTORICAL AND NO HISTORICAL DATA METHODS								
2 (Fam, Savini)	Mean absolute error	FE	9.833		38.54	27	-	RE
		RE	0.2		27.1		0.81 (0.24, 1.89)	
5 (Fam, Huang, Kim, Savini, Xu)	Prediction error	FE	62.1	46.7	79.7	31	-	RE
		RE	15.3		31		1.42 (0.72, 1.97)	
5 (Fam, Huang, Kim, Saiki, Xu)	Within 0.5D	FE	144.0	0.7	29.8	26	-	RE
		RE	143.3		27.4		0.96 (0.07, 1.93)	
5 (Fam, Huang, Kim, Saiki, Xu)	Within 1.0D	FE	151.7	5.8	34.7	26	-	RE
		RE	145.9		27.0		1.21 (0.29, 1.95)	
1 ***(Kim – pairwise comparison)***	Within 1.5D	FE	-	-	-	-	-	FE
1 (Fam)	Within 2.0D	FE	29.4	-	6.4	6	-	FE
1 ***(Kim – pairwise comparison)***		FE	-	-	-	-	-	FE
NO HISTORICAL DATA METHODS ONLY								
4 (Huang, Kim, Saiki, Xu)	Within 0.5D	FE	78.7	1.1	17.5	14	-	RE
		RE	77.6		14.9		0.94 (0.07, 1.93)	
4 (Huang, Kim, Saiki, Xu)	Within 1.0D	FE	86.0	6.1	22.4	14	-	RE
		RE	79.9		14.5		1.20 (0.30, 1.95)	
HISTORICAL DATA METHODS ONLY								
2 (Fam, Savini)	Mean absolute error	FE	9.8	9.7	32.5	21	-	RE
		RE	0.13		21.0		0.82 (0.24, 1.89)	
2 (Fam, Saiki) – NB: network connector (SRKT DK) uses historical data in Fam but no historical data in Saiki	Within 0.5D	FE	60.0	-	11.4	11	-	FE

Studies	Outcome	Model	Total model DIC	Total model DIC (FE – RE)	Total residual deviance	No. of data-points	Between-study SD (95% CrI)	Preferred model
2 (Fam, Saiki) – NB: network connector (SRKT DK) uses historical data in Fam but no historical data in Saiki	Within 1.0D	FE	60.5	-	11.3	11	-	FE
1 (Fam)	Within 2.0D	FE	29.4	-	6.4	6	-	FE

H.3.3.2 Full dataset: historical and no historical methods

MEAN ABSOLUTE ERROR – random effects model

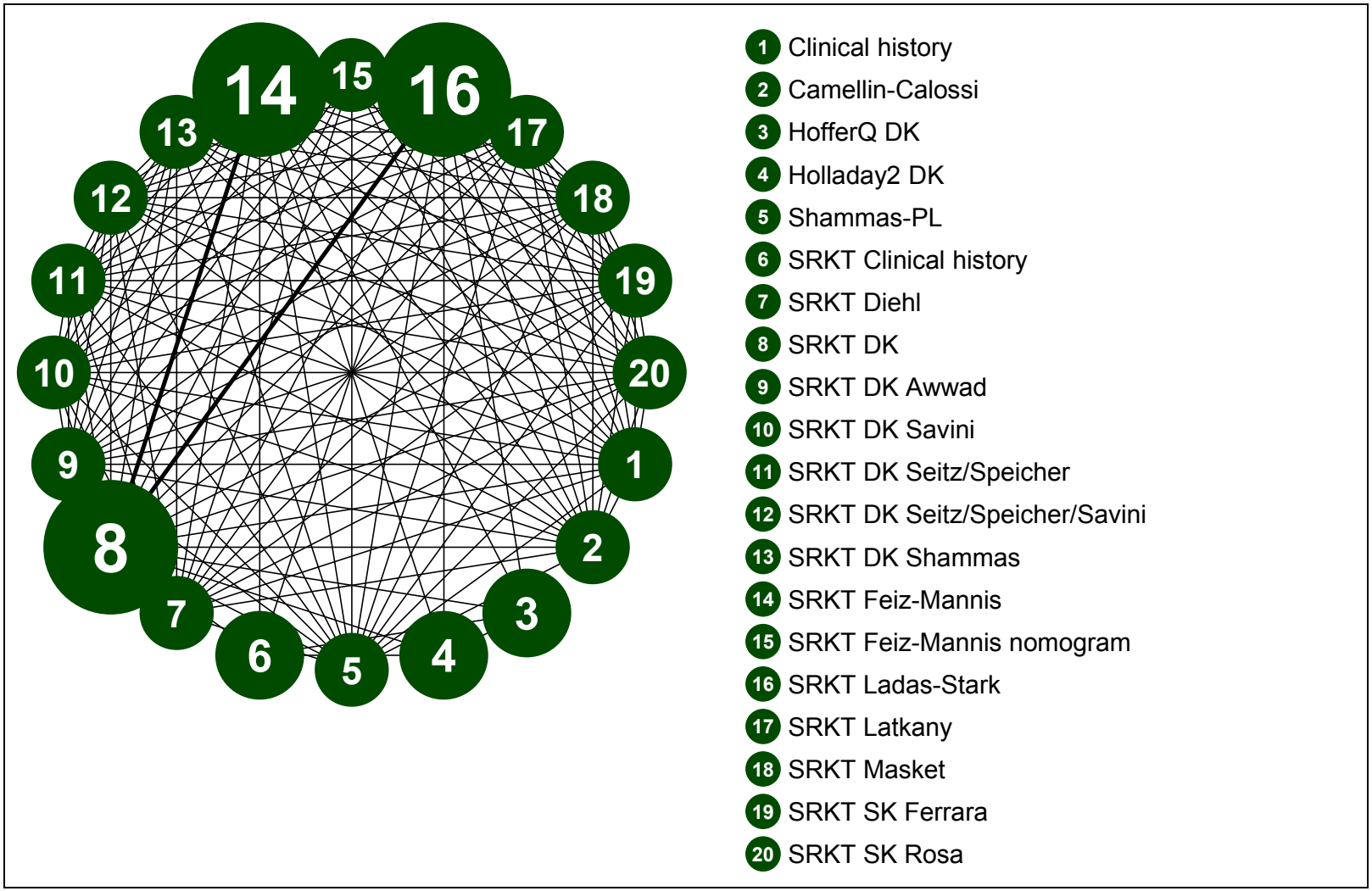


Figure 61: Myopic corneal refractive surgery: Mean absolute error – evidence network

Table 103: Myopic corneal refractive surgery: Mean absolute error – input data

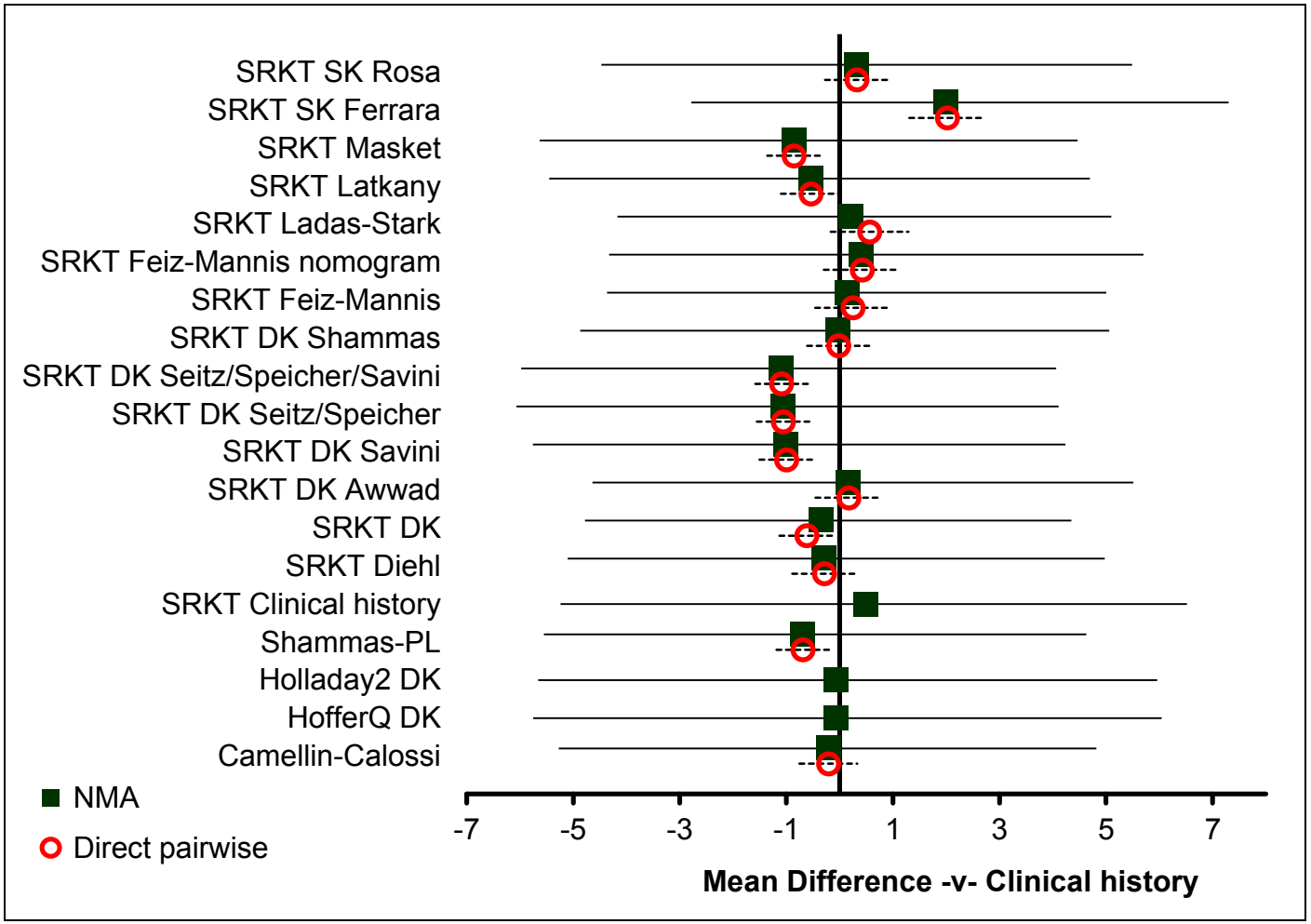
	Clinical history	Camellin-Calossi	HofferQ DK	Holladay2 DK	Shammas-PL	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Savini	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa
Savini et al. (2010)	1.62 (1.25)	1.41 (0.76)			0.93 (0.48)		1.33 (1.03)	1.00 (0.57)	1.79 (1.13)	0.62 (0.52)	0.56 (0.45)	0.53 (0.46)	1.60 (0.98)	1.87 (1.44)	2.04 (1.48)	2.18 (1.52)	1.08 (0.86)	0.76 (0.49)	3.64 (1.45)	1.94 (1.01)
Fam & (2008)			0.75 (0.52)	0.75 (0.62)		1.32 (0.73)		0.76 (0.60)						0.93 (0.83)		0.80 (0.63)				

Table 104: Myopic corneal refractive surgery: Mean absolute error – relative effectiveness of all pairwise combinations (MD and 95% credible interval)

	Clinical history	Camellin-Calossi	HofferQ DK	Holladay2 DK	Shammas-PL	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Savini	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa
Clinical history		-0.21 (-0.75, 0.33)	-	-	-0.69 (-1.19, -0.19)	-	-0.29 (-0.89, 0.31)	-0.62 (-1.13, -0.11)	0.17 (-0.45, 0.79)	-1.00 (-1.50, -0.50)	-1.06 (-1.55, -0.57)	-1.09 (-1.58, -0.60)	-0.02 (-0.61, 0.57)	0.25 (-0.46, 0.96)	0.42 (-0.30, 1.14)	0.56 (-0.17, 1.29)	-0.54 (-1.10, 0.02)	-0.86 (-1.36, -0.36)	2.02 (1.31, 2.73)	0.32 (-0.28, 0.92)
Camellin-Calossi	-0.20 (-5.27, 4.82)		-	-	-0.48 (-0.81, -0.15)	-	-0.08 (-0.55, 0.39)	-0.41 (-0.76, -0.06)	0.38 (-0.12, 0.88)	-0.79 (-1.13, -0.45)	-0.85 (-1.18, -0.52)	-0.88 (-1.21, -0.55)	0.19 (-0.27, 0.65)	0.46 (-0.14, 1.06)	0.63 (0.01, 1.25)	0.77 (0.14, 1.40)	-0.33 (-0.76, 0.10)	-0.65 (-0.98, -0.32)	2.23 (1.62, 2.84)	0.53 (0.06, 1.00)
HofferQ DK	-0.06 (-5.75, 6.04)	0.14 (-5.72, 6.24)		0.00 (-0.26, 0.26)	-	0.57 (0.28, 0.86)	-	0.01 (-0.25, 0.27)	-	-	-	-	-	0.18 (-0.14, 0.50)	-	0.05 (-0.21, 0.31)	-	-	-	-
Holladay2 DK	-0.07 (-5.66, 5.96)	0.13 (-5.52, 6.08)	0.00 (-5.08, 5.04)		-	0.57 (0.26, 0.88)	-	0.01 (-0.27, 0.29)	-	-	-	-	-	0.18 (-0.15, 0.51)	-	0.05 (-0.23, 0.33)	-	-	-	-

	Clinical history	Camellin-Calossi	HofferQ DK	Holladay2 DK	Shammas-PL	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Savini	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa
Shammas-PL	-0.69 (-5.55, 4.63)	-0.48 (-5.36, 4.81)	-0.62 (-6.50, 5.44)	-0.62 (-6.57, 5.45)		-	0.40 (-0.02, 0.82)	0.07 (-0.21, 0.35)	0.86 (0.41, 1.31)	-0.31 (-0.57, -0.05)	-0.37 (-0.61, -0.13)	-0.40 (-0.65, -0.15)	0.67 (0.27, 1.07)	0.94 (0.38, 1.50)	1.11 (0.53, 1.69)	1.25 (0.66, 1.84)	0.15 (-0.21, 0.51)	-0.17 (-0.42, 0.08)	2.71 (2.14, 3.28)	1.01 (0.60, 1.42)
SRKT Clinical history	0.49 (-5.24, 6.52)	0.69 (-5.09, 6.67)	0.56 (-4.64, 5.56)	0.57 (-4.59, 5.72)	1.18 (-4.75, 7.02)		-	-0.56 (-0.86, -0.26)	-	-	-	-	-	-0.39 (-0.75, -0.03)	-	-0.52 (-0.83, -0.21)	-	-	-	-
SRKT Diehl	-0.28 (-5.11, 4.98)	-0.08 (-5.10, 5.04)	-0.22 (-6.08, 5.43)	-0.21 (-6.11, 5.52)	0.41 (-4.81, 5.39)	-0.79 (-6.63, 4.93)		-0.33 (-0.77, 0.11)	0.46 (-0.11, 1.03)	-0.71 (-1.14, -0.28)	-0.77 (-1.19, -0.35)	-0.80 (-1.22, -0.38)	0.27 (-0.26, 0.80)	0.54 (-0.12, 1.20)	0.71 (0.04, 1.38)	0.85 (0.17, 1.53)	-0.25 (-0.75, 0.25)	-0.57 (-0.99, -0.15)	2.31 (1.65, 2.97)	0.61 (0.08, 1.14)
SRKT DK	-0.34 (-4.78, 4.35)	-0.13 (-4.75, 4.46)	-0.27 (-4.96, 4.26)	-0.26 (-4.94, 4.28)	0.35 (-4.45, 4.87)	-0.84 (-5.45, 3.67)	-0.06 (-4.72, 4.51)		0.79 (0.32, 1.26)	-0.38 (-0.67, -0.09)	-0.44 (-0.71, -0.17)	-0.47 (-0.74, -0.20)	0.60 (0.18, 1.02)	0.48 (-0.20, 1.16)	1.04 (0.45, 1.63)	0.58 (-0.54, 1.69)	0.08 (-0.30, 0.46)	-0.24 (-0.52, 0.04)	2.64 (2.06, 3.22)	0.94 (0.51, 1.37)
SRKT DK Awwad	0.16 (-4.64, 5.51)	0.37 (-4.53, 5.70)	0.23 (-5.66, 6.36)	0.23 (-5.65, 6.23)	0.85 (-4.26, 6.06)	-0.34 (-6.03, 5.68)	0.45 (-4.63, 5.68)	0.50 (-4.03, 5.37)		-1.17 (-1.63, -0.71)	-1.23 (-1.68, -0.78)	-1.26 (-1.71, -0.81)	-0.19 (-0.74, 0.36)	0.08 (-0.60, 0.76)	0.25 (-0.44, 0.94)	0.39 (-0.31, 1.09)	-0.71 (-1.24, -0.18)	-1.03 (-1.49, -0.57)	1.85 (1.17, 2.53)	0.15 (-0.41, 0.71)
SRKT DK Savini	-1.01 (-5.76, 4.24)	-0.79 (-5.77, 4.31)	-0.93 (-6.95, 4.98)	-0.93 (-6.75, 4.98)	-0.31 (-5.57, 4.78)	-1.51 (-7.46, 4.35)	-0.72 (-5.93, 4.37)	-0.66 (-5.29, 4.06)	-1.17 (-6.33, 3.91)		-0.06 (-0.31, 0.19)	-0.09 (-0.35, 0.17)	0.98 (0.57, 1.39)	1.25 (0.68, 1.82)	1.42 (0.84, 2.00)	1.56 (0.96, 2.16)	0.46 (0.09, 0.83)	0.14 (-0.12, 0.40)	3.02 (2.45, 3.59)	1.32 (0.90, 1.74)
SRKT DK Seitz/Speicher	-1.07 (-6.07, 4.11)	-0.86 (-5.94, 4.32)	-0.99 (-6.94, 4.78)	-0.99 (-6.95, 4.83)	-0.37 (-5.54, 4.71)	-1.56 (-7.36, 4.29)	-0.78 (-5.86, 4.31)	-0.72 (-5.41, 3.94)	-1.22 (-6.50, 3.77)	-0.06 (-5.23, 5.07)		-0.03 (-0.27, 0.21)	1.04 (0.64, 1.44)	1.31 (0.75, 1.87)	1.48 (0.91, 2.05)	1.62 (1.03, 2.21)	0.52 (0.16, 0.88)	0.20 (-0.05, 0.45)	3.08 (2.52, 3.64)	1.38 (0.97, 1.79)
SRKT DK Seitz/Speicher/Savini	-1.09 (-5.98, 4.07)	-0.88 (-5.81, 4.25)	-1.01 (-6.86, 4.76)	-1.02 (-6.86, 4.77)	-0.40 (-5.64, 4.62)	-1.58 (-7.32, 4.29)	-0.81 (-5.89, 4.32)	-0.74 (-5.33, 3.95)	-1.25 (-6.41, 3.64)	-0.08 (-5.09, 5.02)	-0.02 (-4.99, 5.09)		1.07 (0.67, 1.47)	1.34 (0.78, 1.90)	1.51 (0.94, 2.08)	1.65 (1.06, 2.24)	0.55 (0.19, 0.91)	0.23 (-0.02, 0.48)	3.11 (2.55, 3.67)	1.41 (1.00, 1.82)
SRKT DK Shammas	-0.02 (-4.87, 5.06)	0.18 (-4.81, 5.29)	0.05 (-5.84, 5.89)	0.05 (-5.80, 5.73)	0.66 (-4.41, 5.53)	-0.52 (-6.31, 5.21)	0.26 (-4.80, 5.28)	0.32 (-4.19, 4.86)	-0.18 (-5.41, 4.62)	0.97 (-4.14, 5.94)	1.05 (-4.10, 6.06)	1.07 (-4.03, 6.04)		0.27 (-0.38, 0.92)	0.44 (-0.22, 1.10)	0.58 (-0.09, 1.25)	-0.52 (-1.00, -0.04)	-0.84 (-1.25, -0.43)	2.04 (1.39, 2.69)	0.34 (-0.18, 0.86)
SRKT Feiz-Mannis	0.15 (-4.37, 5.01)	0.37 (-4.18, 5.07)	0.23 (-4.41, 4.92)	0.25 (-4.42, 4.84)	0.86 (-3.89, 5.49)	-0.33 (-4.88, 4.30)	0.46 (-4.12, 5.00)	0.50 (-3.03, 4.17)	0.00 (-4.84, 4.52)	1.16 (-3.53, 5.86)	1.23 (-3.40, 5.81)	1.26 (-3.32, 5.86)	0.19 (-4.39, 4.81)		0.17 (-0.59, 0.93)	-0.05 (-0.38, 0.27)	-0.79 (-1.41, -0.17)	-1.11 (-1.67, -0.55)	1.77 (1.01, 2.53)	0.07 (-0.58, 0.72)
SRKT Feiz-Mannis nomogram	0.42 (-4.33, 5.70)	0.63 (-4.36, 5.80)	0.49 (-5.33, 6.26)	0.49 (-5.33, 6.27)	1.11 (-4.03, 6.21)	-0.09 (-5.86, 5.73)	0.71 (-4.41, 5.78)	0.76 (-3.74, 5.37)	0.26 (-4.95, 5.27)	1.42 (-3.73, 6.61)	1.49 (-3.51, 6.52)	1.51 (-3.51, 6.53)	0.44 (-4.67, 5.70)	0.25 (-4.34, 4.97)		0.14 (-0.65, 0.93)	-0.96 (-1.59, -0.33)	-1.28 (-1.86, -0.70)	1.60 (0.83, 2.37)	-0.10 (-0.76, 0.56)
SRKT Ladas-Stark	0.22 (-4.17, 5.10)	0.42 (-4.00, 5.17)	0.28 (-4.35, 4.96)	0.28 (-4.22, 4.92)	0.91 (-3.77, 5.64)	-0.29 (-4.81, 4.42)	0.50 (-4.14, 5.12)	0.56 (-3.01, 4.22)	0.05 (-4.68, 4.62)	1.22 (-3.35, 6.03)	1.28 (-3.20, 5.94)	1.30 (-3.29, 5.90)	0.23 (-4.35, 4.91)	0.05 (-3.43, 3.61)	-0.20 (-4.80, 4.46)		-1.10 (-1.75, -0.45)	-1.42 (-2.01, -0.83)	1.46 (0.68, 2.24)	-0.24 (-0.92, 0.44)

	Clinical history	Camellin-Calossi	HofferQ DK	Holladay2 DK	Shammas-PL	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Savini	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa
SRKT Latkany	-0.54 (-5.45, 4.70)	-0.33 (-5.39, 4.96)	-0.48 (-6.28, 5.38)	-0.47 (-6.36, 5.33)	0.15 (-5.04, 5.26)	-1.05 (-6.79, 4.90)	-0.26 (-5.31, 4.84)	-0.20 (-4.78, 4.50)	-0.71 (-5.95, 4.30)	0.46 (-4.64, 5.58)	0.52 (-4.45, 5.72)	0.55 (-4.36, 5.59)	-0.52 (-5.56, 4.62)	-0.70 (-5.33, 3.98)	-0.96 (-6.06, 4.03)	-0.76 (-5.48, 3.98)		-0.32 (-0.69, 0.05)	2.56 (1.94, 3.18)	0.86 (0.37, 1.35)
SRKT Masket	-0.85 (-5.63, 4.47)	-0.64 (-5.63, 4.64)	-0.79 (-6.55, 5.18)	-0.78 (-6.73, 5.25)	-0.17 (-5.32, 5.06)	-1.35 (-7.20, 4.68)	-0.57 (-5.48, 4.63)	-0.51 (-4.99, 4.31)	-1.01 (-6.22, 4.22)	0.15 (-4.70, 5.27)	0.21 (-4.79, 5.33)	0.25 (-4.75, 5.35)	-0.83 (-5.79, 4.36)	-1.02 (-5.63, 3.79)	-1.27 (-6.28, 3.94)	-1.06 (-5.65, 3.67)	-0.32 (-5.36, 4.90)		2.88 (2.31, 3.45)	1.18 (0.76, 1.60)
SRKT SK Ferrara	2.01 (-2.79, 7.30)	2.21 (-2.73, 7.42)	2.08 (-3.74, 7.90)	2.09 (-3.64, 7.93)	2.71 (-2.43, 7.68)	1.51 (-4.14, 7.46)	2.30 (-2.82, 7.50)	2.35 (-2.19, 7.18)	1.86 (-3.29, 6.81)	3.01 (-1.95, 8.27)	3.07 (-1.90, 8.20)	3.10 (-1.84, 8.09)	2.03 (-2.83, 7.19)	1.85 (-2.62, 6.53)	1.59 (-3.48, 6.71)	1.80 (-2.85, 6.53)	2.55 (-2.38, 7.80)	2.86 (-2.16, 7.84)		-1.70 (-2.35, -1.05)
SRKT SK Rosa	0.32 (-4.47, 5.49)	0.53 (-4.42, 5.75)	0.40 (-5.53, 6.31)	0.40 (-5.49, 6.19)	1.01 (-4.04, 6.02)	-0.17 (-5.93, 5.83)	0.61 (-4.44, 5.66)	0.67 (-3.90, 5.44)	0.16 (-5.09, 5.32)	1.32 (-3.66, 6.33)	1.39 (-3.69, 6.51)	1.41 (-3.58, 6.56)	0.34 (-4.64, 5.47)	0.16 (-4.43, 4.86)	-0.09 (-5.13, 5.03)	0.11 (-4.50, 4.68)	0.86 (-4.16, 5.96)	1.18 (-4.00, 6.21)	-1.69 (-6.78, 3.31)	



471 **Figure 62: Myopic corneal refractive surgery: Mean absolute error – relative effect of all options versus common comparator**

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Table 105: Myopic corneal refractive surgery: Mean absolute error – rankings for each comparator

	Probability best	Median rank (95%CI)
Clinical history	0.019	12 (2, 19)
Camellin-Calossi	0.024	10 (2, 19)
HofferQ DK	0.035	11 (1, 20)
Holladay2 DK	0.035	11 (1, 20)
Shammas-PL	0.067	6 (1, 18)
SRKT Clinical history	0.017	16 (2, 20)
SRKT Diehl	0.030	9 (1, 19)
SRKT DK	0.011	9 (2, 17)
SRKT DK Awwad	0.014	13 (2, 20)
SRKT DK Savini	0.157	4 (1, 18)
SRKT DK Seitz/Speicher	0.186	4 (1, 17)
SRKT DK Seitz/Speicher/Savini	0.200	4 (1, 17)
SRKT DK Shammas	0.018	12 (2, 19)
SRKT Feiz-Mannis	0.004	13 (4, 19)
SRKT Feiz-Mannis nomogram	0.010	15 (3, 20)
SRKT Ladas-Stark	0.004	14 (4, 19)
SRKT Latkany	0.051	7 (1, 19)
SRKT Masket	0.106	5 (1, 18)
SRKT SK Ferrara	0.002	20 (7, 20)
SRKT SK Rosa	0.012	15 (2, 20)

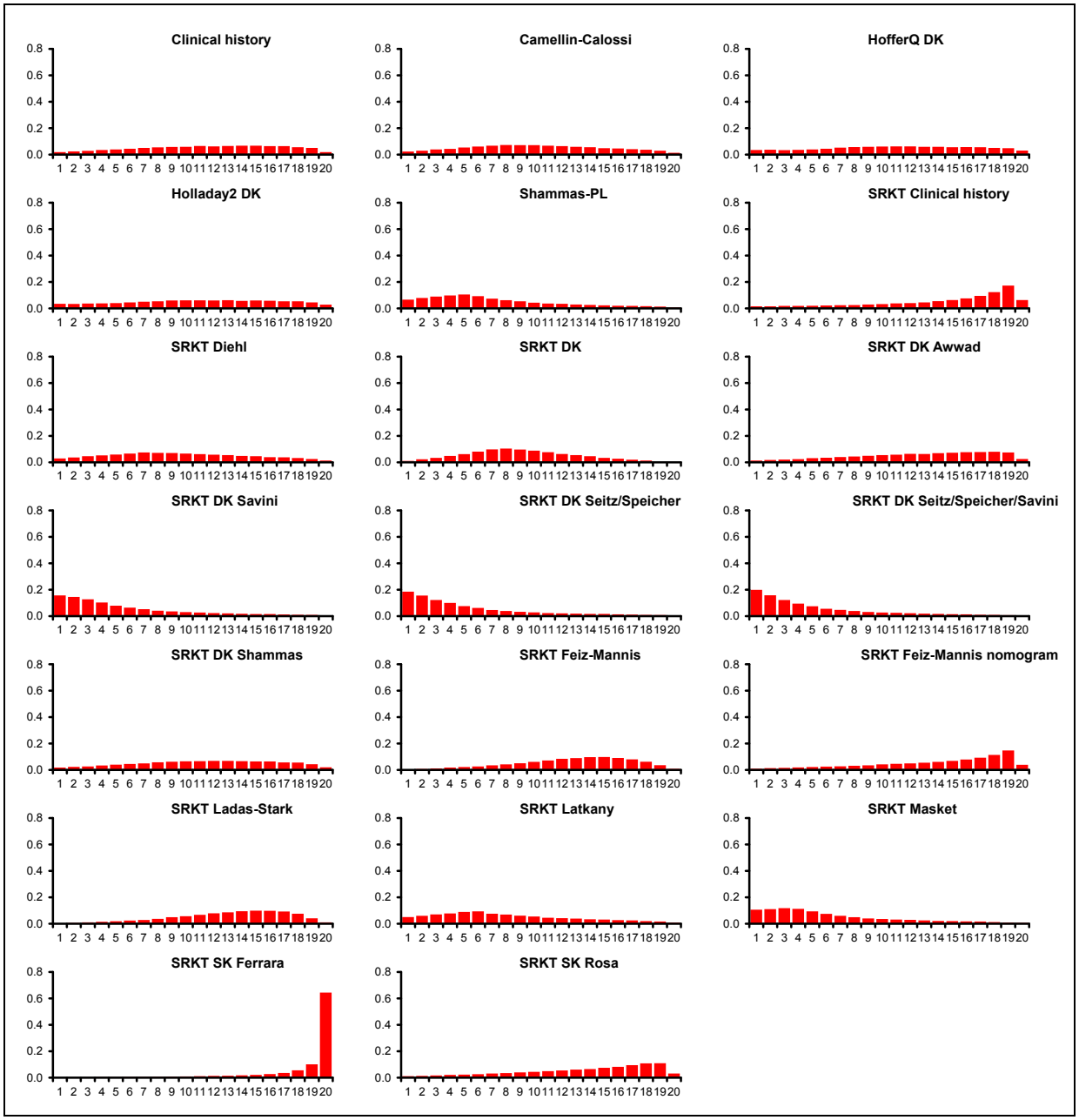
Clinical history
Camellin-Calossi
HofferQ DK
Holladay2 DK
Shammas-PL
SRKT Clinical history
SRKT Diehl
SRKT DK
SRKT DK Awwad
SRKT DK Savini
SRKT DK Seitz/Speicher
SRKT DK Seitz/Speicher/Savini
SRKT DK Shammas
SRKT Feiz-Mannis
SRKT Feiz-Mannis nomogram
SRKT Ladas-Stark
SRKT Latkany
SRKT Masket
SRKT SK Ferrara
SRKT SK Rosa
0.0
0.2
0.4
0.6
0.8
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Figure 63: Myopic corneal refractive surgery: Mean absolute error – rank probability histograms

Table 106: Myopic corneal refractive surgery: Mean absolute error – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau
23.18 (compared to 23 datapoints)	-23.582	-46.65	23.068	-0.513	1.053 (95%CI: 0.250, 7.282)

Table 107: Myopic corneal refractive surgery: Mean absolute error – notes

- Continuous (normal; identity link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=10)
- 50000 burn-ins; 10000 recorded iterations

PREDICTION ERROR – random effects model

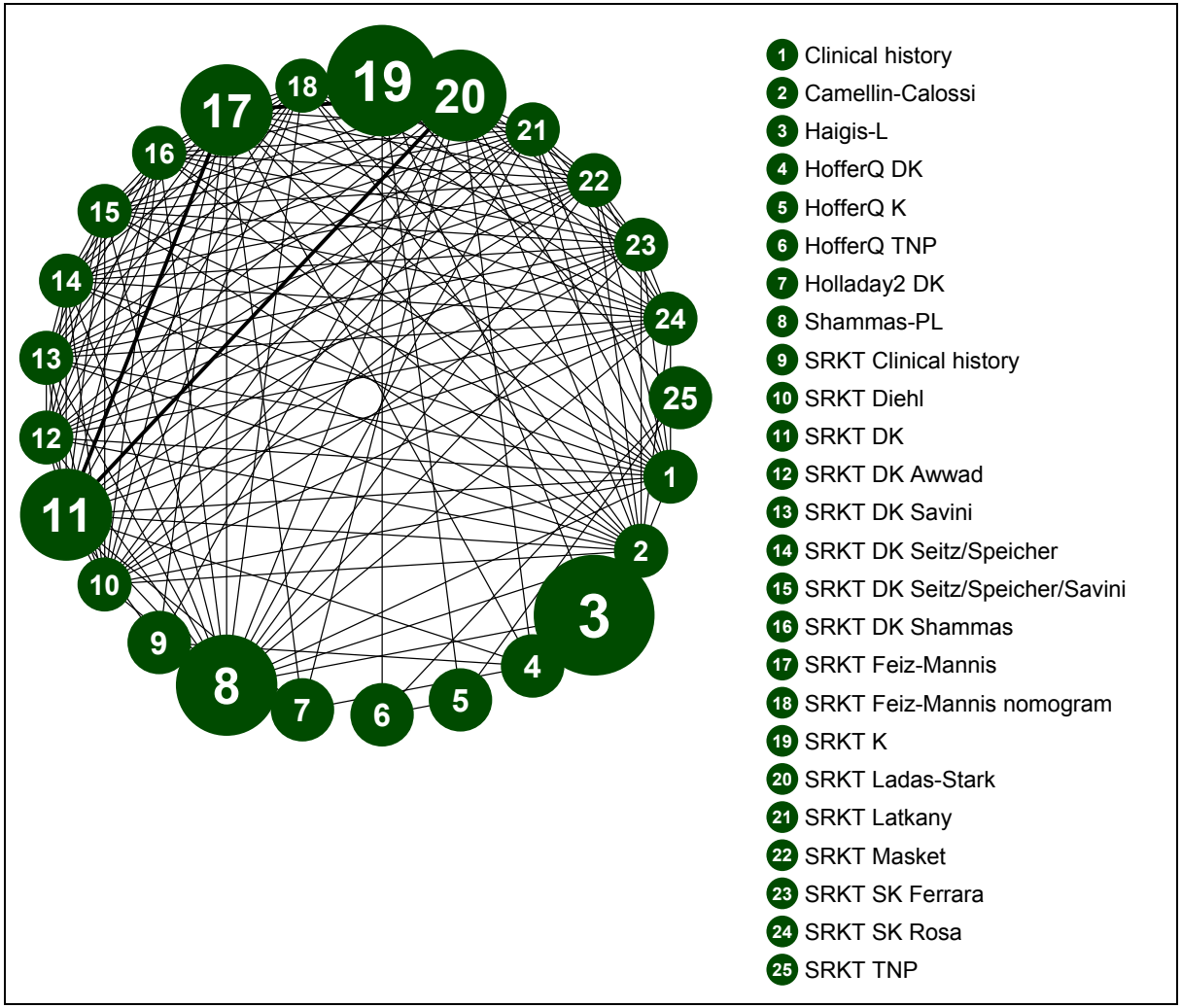

Figure 64: Myopic corneal refractive surgery: prediction error – evidence network

484 **Table 108: Myopic corneal refractive surgery: prediction error – input data**

	Clinical history	Camellin-Calossi	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Shammas-PL	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Sa	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis	SRKT K	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa	SRKT TNP
Xu et al. (2014)					1.58 (1.20)	-2.30 (1.25)													1.64 (0.93)						-1.79 (1.11)
Huang et al. (2013)			0.14 (0.83)					0.24 (0.82)																	
Kim et al. (2013)			0.03 (1.06)																1.68 (1.34)						
Savini et al. (2010)	1.08 (1.75)	1.37 (0.83)						0.50 (0.94)		0.83 (1.48)	-0.88 (0.75)	1.73 (1.23)	0.21 (0.79)	0.05 (0.73)	0.09 (0.70)	1.60 (0.98)	1.37 (1.94)	2.00 (1.53)		1.83 (1.95)	0.80 (1.13)	-0.27 (0.88)	3.64 (1.45)	1.90 (1.10)	
Fam & (2008)				0.19 (0.90)			-0.04 (0.98)		1.15 (0.99)		-0.19 (0.95)						-0.51 (1.15)			-0.01 (1.02)					

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Table 109: Myopic corneal refractive surgery: prediction error – relative effectiveness of all pairwise combinations (MD and 95% credible interval)

	Clinical history	Camellin-Calossi	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Shammas-PL	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Sa	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT K	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa	SRKT TNP
Clinical history		0.29 (-0.43, 1.01)	-	-	-	-	-	-0.58 (-1.32, 0.16)	-	-0.25 (-1.10, 0.60)	-1.96 (-2.67, -1.25)	0.65 (-0.14, 1.44)	-0.87 (-1.58, -0.16)	-1.03 (-1.73, -0.33)	-0.99 (-1.69, -0.29)	0.52 (-0.22, 1.26)	0.29 (-0.68, 1.26)	0.92 (0.06, 1.78)	-	0.75 (-0.22, 1.72)	-0.28 (-1.05, 0.49)	-1.35 (-2.08, -0.62)	2.56 (1.72, 3.40)	0.82 (0.05, 1.59)	-
Camellin-Calossi	0.30 (-2.67, 3.28)		-	-	-	-	-	-0.87 (-1.33, -0.41)	-	-0.54 (-1.17, 0.09)	-2.25 (-2.66, -1.84)	0.36 (-0.19, 0.91)	-1.16 (-1.58, -0.74)	-1.32 (-1.73, -0.91)	-1.28 (-1.68, -0.88)	0.23 (-0.25, 0.71)	0.00 (-0.78, 0.78)	0.63 (-0.01, 1.27)	-	0.46 (-0.32, 1.24)	-0.57 (-1.09, -0.05)	-1.64 (-2.09, -1.19)	2.27 (1.65, 2.89)	0.53 (0.02, 1.04)	-
Haigis-L	-0.66 (-4.85, 3.58)	-0.94 (-5.14, 3.22)		-	-	-	-	0.10 (-0.24, 0.44)	-	-	-	-	-	-	-	-	-	-	1.65 (1.16, 2.14)	-	-	-	-	-	-
HofferQ DK	0.06 (-3.35, 3.57)	-0.24 (-3.64, 3.25)	0.71 (-3.80, 5.18)		-	-	-0.23 (-0.66, 0.20)	-	0.96 (0.53, 1.39)	-	-0.38 (-0.80, 0.04)	-	-	-	-	-	-0.70 (-1.17, -0.23)	-	-	-0.20 (-0.64, 0.24)	-	-	-	-	-
HofferQ K	0.95 (-5.07, 6.96)	0.65 (-5.28, 6.55)	1.59 (-2.61, 5.80)	0.87 (-5.31, 7.03)		-3.88 (-4.44, -3.32)	-	-	-	-	-	-	-	-	-	-	-	-	0.06 (-0.43, 0.55)	-	-	-	-	-	-3.37 (-3.90, -2.84)
HofferQ TNP	-2.93 (-8.90, 3.01)	-3.24 (-9.18, 2.68)	-2.29 (-6.49, 1.92)	-3.01 (-9.14, 3.14)	-3.88 (-6.82, -0.93)		-	-	-	-	-	-	-	-	-	-	-	-	3.94 (3.44, 4.44)	-	-	-	-	-	0.51 (-0.03, 1.05)
Holladay2 DK	-0.16 (-3.60, 3.33)	-0.45 (-3.84, 3.05)	0.50 (-4.03, 5.02)	-0.21 (-3.15, 2.76)	-1.12 (-7.27, 5.15)	2.79 (-3.37, 8.96)		-	1.19 (0.74, 1.64)	-	-0.15 (-0.59, 0.29)	-	-	-	-	-	-0.47 (-0.96, 0.02)	-	-	0.03 (-0.43, 0.49)	-	-	-	-	-
Shammas-PL	-0.56 (-3.54, 2.49)	-0.86 (-3.82, 2.11)	0.08 (-2.88, 3.02)	-0.63 (-4.01, 2.77)	-1.51 (-6.65, 3.68)	2.36 (-2.79, 7.54)	-0.41 (-3.83, 3.01)		-	0.33 (-0.32, 0.98)	-1.38 (-1.83, -0.93)	1.23 (0.66, 1.80)	-0.29 (-0.74, 0.16)	-0.45 (-0.89, -0.01)	-0.41 (-0.84, 0.02)	1.10 (0.60, 1.60)	0.87 (0.07, 1.67)	1.50 (0.83, 2.17)	-	1.33 (0.53, 2.13)	0.30 (-0.24, 0.84)	-0.77 (-1.25,	3.14 (2.50, 3.78)	1.40 (0.86, 1.94)	-

	Clinical history	Camellin-Calossi	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Shammas-PL	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Sa	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT K	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa	SRKT TNP
																						-0.29)			
SRKT Clinical history	1.03 (-2.38, 4.57)	0.74 (-2.63, 4.18)	1.68 (-2.86, 6.23)	0.97 (-1.94, 3.88)	0.10 (-6.02, 6.33)	3.96 (-2.18, 10.18)	1.19 (-1.77, 4.13)	1.60 (-1.81, 5.02)		-	-1.34 (-1.78, -0.90)	-	-	-	-	-	-1.66 (-2.15, -1.17)	-	-	-1.16 (-1.62, -0.70)	-	-	-	-	-
SRKT Diehl	-0.24 (-3.26, 2.79)	-0.54 (-3.53, 2.45)	0.41 (-3.77, 4.64)	-0.32 (-3.78, 3.12)	-1.18 (-7.09, 4.82)	2.67 (-3.21, 8.67)	-0.10 (-3.56, 3.30)	0.33 (-2.69, 3.26)	-1.27 (-4.76, 2.10)		-1.71 (-2.32, -1.10)	0.90 (0.19, 1.61)	-0.62 (-1.24, 0.00)	-0.78 (-1.39, -0.17)	-0.74 (-1.35, -0.13)	0.77 (0.11, 1.43)	0.54 (-0.36, 1.44)	1.17 (0.38, 1.96)	-	1.00 (0.09, 1.91)	-0.03 (-0.72, 0.66)	-1.10 (-1.74, -0.46)	2.81 (2.04, 3.58)	1.07 (0.39, 1.75)	-
SRKT DK	-1.13 (-3.84, 1.61)	-1.43 (-4.14, 1.31)	-0.47 (-4.53, 3.52)	-1.19 (-3.91, 1.49)	-2.06 (-7.87, 3.85)	1.80 (-4.00, 7.71)	-0.98 (-3.69, 1.67)	-0.56 (-3.28, 2.12)	-2.16 (-4.87, 0.52)	-0.89 (-3.61, 1.84)		2.61 (2.08, 3.14)	1.09 (0.69, 1.49)	0.93 (0.54, 1.32)	0.97 (0.59, 1.35)	2.48 (2.02, 2.94)	0.95 (-1.57, 3.46)	2.88 (2.25, 3.51)	-	1.42 (-1.05, 3.90)	1.68 (1.18, 2.18)	0.61 (0.18, 1.04)	4.52 (3.92, 5.12)	2.78 (2.29, 3.27)	-
SRKT DK Awwad	0.66 (-2.35, 3.71)	0.36 (-2.63, 3.36)	1.30 (-2.90, 5.50)	0.59 (-2.87, 4.04)	-0.29 (-6.28, 5.70)	3.56 (-2.36, 9.53)	0.81 (-2.63, 4.22)	1.24 (-1.76, 4.18)	-0.39 (-3.85, 3.08)	0.90 (-2.12, 3.90)	1.79 (-0.93, 4.50)		-1.52 (-2.06, -0.98)	-1.68 (-2.21, -1.15)	-1.64 (-2.16, -1.12)	-0.13 (-0.71, 0.45)	-0.36 (-1.21, 0.49)	0.27 (-0.46, 1.00)	-	0.10 (-0.75, 0.95)	-0.93 (-1.55, -0.31)	-2.00 (-2.56, -1.44)	1.91 (1.21, 2.61)	0.17 (-0.44, 0.78)	-
SRKT DK Savini	-0.85 (-3.87, 2.19)	-1.16 (-4.14, 1.79)	-0.21 (-4.46, 3.98)	-0.93 (-4.39, 2.47)	-1.81 (-7.78, 4.14)	2.06 (-3.86, 8.10)	-0.70 (-4.20, 2.68)	-0.29 (-3.28, 2.65)	-1.89 (-5.35, 1.49)	-0.62 (-3.63, 2.39)	0.26 (-2.46, 2.94)	-1.51 (-4.48, 1.49)		-0.16 (-0.56, 0.24)	-0.12 (-0.51, 0.27)	1.39 (0.92, 1.86)	1.16 (0.38, 1.94)	1.79 (1.15, 2.43)	-	1.62 (0.84, 2.40)	0.59 (0.08, 1.10)	-0.48 (-0.92, -0.04)	3.43 (2.82, 4.04)	1.69 (1.19, 2.19)	-
SRKT DK Seitz/Speicher	-1.02 (-4.00, 1.97)	-1.32 (-4.31, 1.64)	-0.38 (-4.59, 3.81)	-1.08 (-4.56, 2.28)	-1.97 (-7.93, 4.00)	1.92 (-4.05, 7.89)	-0.87 (-4.36, 2.51)	-0.46 (-3.43, 2.47)	-2.05 (-5.51, 1.27)	-0.77 (-3.76, 2.20)	0.11 (-2.63, 2.76)	-1.68 (-4.67, 1.28)	-0.15 (-3.08, 2.80)		0.04 (-0.33, 0.41)	1.55 (1.10, 2.00)	1.32 (0.55, 2.09)	1.95 (1.32, 2.58)	-	1.78 (1.01, 2.55)	0.75 (0.25, 1.25)	-0.32 (-0.74, 0.10)	3.59 (2.99, 4.19)	1.85 (1.36, 2.34)	-
SRKT DK Seitz/Speicher/Savini	-0.99 (-3.98, 2.02)	-1.28 (-4.26, 1.70)	-0.35 (-4.53, 3.84)	-1.04 (-4.57, 2.36)	-1.93 (-7.83, 4.04)	1.95 (-3.99, 7.96)	-0.83 (-4.28, 2.53)	-0.42 (-3.38, 2.54)	-2.01 (-5.47, 1.39)	-0.74 (-3.73, 2.24)	0.14 (-2.60, 2.84)	-1.64 (-4.67, 1.32)	-0.12 (-3.08, 2.85)	0.04 (-2.91, 3.02)		1.51 (1.06, 1.96)	1.28 (0.52, 2.04)	1.91 (1.29, 2.53)	-	1.74 (0.97, 2.51)	0.71 (0.22, 1.20)	-0.36 (-0.78, 0.06)	3.55 (2.95, 4.15)	1.81 (1.33, 2.29)	-
SRKT DK Shammas	0.53 (-2.44, 3.54)	0.22 (-2.71, 3.18)	1.16 (-3.01, 5.37)	0.46 (-3.04, 3.81)	-0.44 (-6.39, 5.58)	3.43 (-2.46, 9.42)	0.68 (-2.79, 4.08)	1.08 (-1.87, 4.05)	-0.51 (-3.98, 2.89)	0.77 (-2.20, 3.73)	1.66 (-1.05, 4.37)	-0.13 (-3.13, 2.83)	1.39 (-1.54, 4.33)	1.55 (-1.39, 4.50)	1.50 (-1.48, 4.51)		-0.23 (-1.04, 0.58)	0.40 (-0.27, 1.07)	-	0.23 (-0.58, 1.04)	-0.80 (-1.35,	-1.87 (-2.36,	2.04 (1.39, 2.69)	0.30 (-0.25, 0.85)	-

	Clinical history	Camellin-Calossi	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Shammas-PL	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Sa	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT K	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa	SRKT TNP
																					- 0.25)	- 1.38)			
SRKT Feiz-Mannis	-0.20 (- 2.89, 2.58)	-0.49 (- 3.20, 2.25)	0.47 (- 3.62, 4.48)	-0.25 (- 2.97, 2.42)	-1.14 (- 6.93, 4.77)	2.74 (- 3.06, 8.65)	-0.04 (- 2.75, 2.65)	0.37 (- 2.36, 3.10)	-1.22 (- 3.96, 1.45)	0.06 (- 2.68, 2.82)	0.93 (- 1.16, 3.05)	-0.85 (- 3.58, 1.90)	0.67 (- 2.04, 3.43)	0.83 (- 1.87, 3.60)	0.80 (- 1.92, 3.51)	-0.71 (- 3.42, 2.02)		0.63 (- 0.29, 1.55)	-	0.49 (0.05, 0.94)	-0.57 (- 1.40, 0.26)	-1.64 (- 2.43, - 0.85)	2.27 (1.37, 3.17)	0.53 (- 0.30, 1.36)	-
SRKT Feiz-Mannis nomogram	0.93 (- 2.11, 3.98)	0.64 (- 2.37, 3.63)	1.59 (- 2.66, 5.82)	0.87 (- 2.58, 4.27)	-0.01 (- 6.01, 5.96)	3.86 (- 2.11, 9.87)	1.10 (- 2.45, 4.49)	1.51 (- 1.52, 4.49)	-0.09 (- 3.57, 3.35)	1.18 (- 1.84, 4.22)	2.08 (- 0.65, 4.80)	0.28 (- 2.77, 3.28)	1.80 (- 1.19, 4.81)	1.96 (- 1.01, 4.94)	1.92 (- 1.04, 4.90)	0.42 (- 2.58, 3.41)	1.13 (- 1.66, 3.87)		-	-0.17 (- 1.09, 0.75)	-1.20 (- 1.90, - 0.50)	-2.27 (- 2.92, - 1.62)	1.64 (0.86, 2.42)	-0.10 (- 0.80, 0.60)	-
SRKT K	1.00 (- 4.17, 6.16)	0.71 (- 4.40, 5.83)	1.65 (- 1.29, 4.59)	0.93 (- 4.43, 6.35)	0.06 (- 2.87, 3.01)	3.94 (0.95, 6.94)	1.13 (- 4.30, 6.54)	1.59 (- 2.59, 5.75)	-0.03 (- 5.41, 5.42)	1.25 (- 3.89, 6.40)	2.14 (- 2.89, 7.10)	0.33 (- 4.73, 5.52)	1.87 (- 3.27, 7.06)	2.03 (- 3.12, 7.17)	1.99 (- 3.15, 7.08)	0.49 (- 4.72, 5.65)	1.19 (- 3.79, 6.22)	0.08 (- 5.15, 5.21)		-	-	-	-	-	-3.43 (- 3.90, - 2.96)
SRKT Ladas-Stark	0.28 (- 2.47, 3.08)	-0.02 (- 2.72, 2.76)	0.92 (- 3.09, 4.96)	0.23 (- 2.51, 2.94)	-0.67 (- 6.47, 5.18)	3.20 (- 2.56, 9.13)	0.44 (- 2.28, 3.14)	0.86 (- 1.86, 3.58)	-0.76 (- 3.46, 1.94)	0.53 (- 2.23, 3.29)	1.42 (- 0.70, 3.51)	-0.37 (- 3.15, 2.38)	1.13 (- 1.57, 3.90)	1.30 (- 1.39, 4.07)	1.27 (- 1.41, 4.04)	-0.23 (- 2.95, 2.51)	0.47 (- 1.67, 2.61)	-0.66 (- 3.39, 2.15)	-0.71 (- 5.72, 4.26)		-1.03 (- 1.86, - 0.20)	-2.10 (- 2.89, - 1.31)	1.81 (0.91, 2.71)	0.07 (- 0.76, 0.90)	-
SRKT Latkany	-0.26 (- 3.27, 2.69)	-0.57 (- 3.51, 2.40)	0.38 (- 3.88, 4.57)	-0.34 (- 3.72, 3.05)	-1.21 (- 7.16, 4.82)	2.66 (- 3.28, 8.69)	-0.12 (- 3.55, 3.25)	0.31 (- 2.66, 3.28)	-1.31 (- 4.72, 2.07)	-0.03 (- 3.01, 2.96)	0.87 (- 1.85, 3.54)	-0.93 (- 3.91, 2.05)	0.59 (- 2.39, 3.57)	0.75 (- 2.17, 3.72)	0.73 (- 2.23, 3.67)	-0.78 (- 3.74, 2.16)	-0.08 (- 2.83, 2.63)	-1.21 (- 4.19, 1.74)	-1.27 (- 6.37, 3.91)	-0.54 (- 3.31, 2.14)		-1.07 (- 1.60, - 0.54)	2.84 (2.16, 3.52)	1.10 (0.52, 1.68)	-
SRKT Masket	-1.35 (- 4.33, 1.66)	-1.64 (- 4.59, 1.27)	-0.71 (- 4.88, 3.49)	-1.41 (- 4.87, 2.01)	-2.29 (- 8.23, 3.68)	1.58 (- 4.37, 7.59)	-1.20 (- 4.63, 2.14)	-0.77 (- 3.79, 2.12)	-2.37 (- 5.82, 1.02)	-1.09 (- 4.05, 1.86)	-0.22 (- 2.94, 2.47)	-2.00 (- 5.03, 0.98)	-0.48 (- 3.47, 2.48)	-0.33 (- 3.26, 2.65)	-0.36 (- 3.32, 2.58)	-1.87 (- 4.84, 1.08)	-1.16 (- 3.88, 1.53)	-2.28 (- 5.29, 0.65)	-2.35 (- 7.42, 2.75)	-1.63 (- 4.38, 1.06)	-1.08 (- 4.01, 1.84)		3.91 (3.28, 4.54)	2.17 (1.65, 2.69)	-
SRKT SK Ferrara	2.56 (- 0.48, 5.57)	2.27 (- 0.74, 5.29)	3.20 (- 1.05, 7.41)	2.49 (- 0.99, 5.92)	1.61 (- 4.35, 7.61)	5.49 (- 0.50, 11.47)	2.71 (- 0.78, 6.13)	3.13 (0.08, 6.12)	1.52 (- 2.02, 5.01)	2.80 (- 0.20, 5.87)	3.69 (0.92, 6.42)	1.91 (- 1.14, 4.93)	3.43 (0.46, 6.42)	3.59 (0.57, 6.62)	3.55 (0.50, 6.52)	2.04 (- 0.95, 5.04)	2.76 (- 0.02, 5.46)	1.62 (- 1.39, 4.65)	1.56 (- 3.64, 6.71)	2.28 (- 0.56, 5.04)	2.83 (- 0.17, 5.80)	3.91 (0.93, 6.89)		-1.74 (- 2.41, - 1.07)	-
SRKT SK Rosa	0.82 (-	0.53 (-	1.46 (-	0.77 (-	-0.12 (-	3.76 (-	0.98 (-	1.39 (-	-0.22 (-	1.07 (-	1.96 (-	0.16 (-	1.68 (-	1.84 (-	1.82 (-	0.30 (-	1.02 (-	-0.11 (-	-0.17 (-	0.54 (-	1.09 (-	2.18 (-	-1.74 (-		-

	Clinical history	Camellin-Calossi	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Shammas-PL	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Sa	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT K	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa	SRKT TNP
	2.17, 3.82)	2.43, 3.48)	2.68, 5.67)	2.71, 4.16)	5.99, 5.79)	2.19, 9.77)	2.51, 4.39)	1.59, 4.35)	3.65, 3.22)	1.92, 4.08)	0.78, 4.65)	2.83, 3.20)	1.28, 4.66)	1.12, 4.87)	1.14, 4.78)	2.66, 3.27)	1.72, 3.75)	3.07, 2.91)	5.26, 4.97)	2.22, 3.29)	1.89, 4.09)	0.78, 5.13)	4.71, 1.27)		
SRKT TNP	-2.43 (-8.33, 3.58)	-2.73 (-8.57, 3.24)	-1.78 (-5.94, 2.38)	-2.51 (-8.63, 3.68)	-3.37 (-6.34, -0.37)	0.49 (-2.50, 3.50)	-2.30 (-8.45, 3.81)	-1.87 (-6.94, 3.31)	-3.45 (-9.62, 2.67)	-2.20 (-8.18, 3.74)	-1.28 (-7.14, 4.48)	-3.10 (-9.01, 2.83)	-1.56 (-7.54, 4.42)	-1.40 (-7.32, 4.50)	-1.43 (-7.37, 4.45)	-2.94 (-8.88, 2.98)	-2.25 (-8.09, 3.59)	-3.36 (-9.26, 2.55)	-3.44 (-6.38, -0.45)	-2.71 (-8.52, 3.09)	-2.15 (-8.04, 3.79)	-1.09 (-6.95, 4.84)	-4.98 (-10.99, 1.03)	-3.25 (-9.16, 2.62)	

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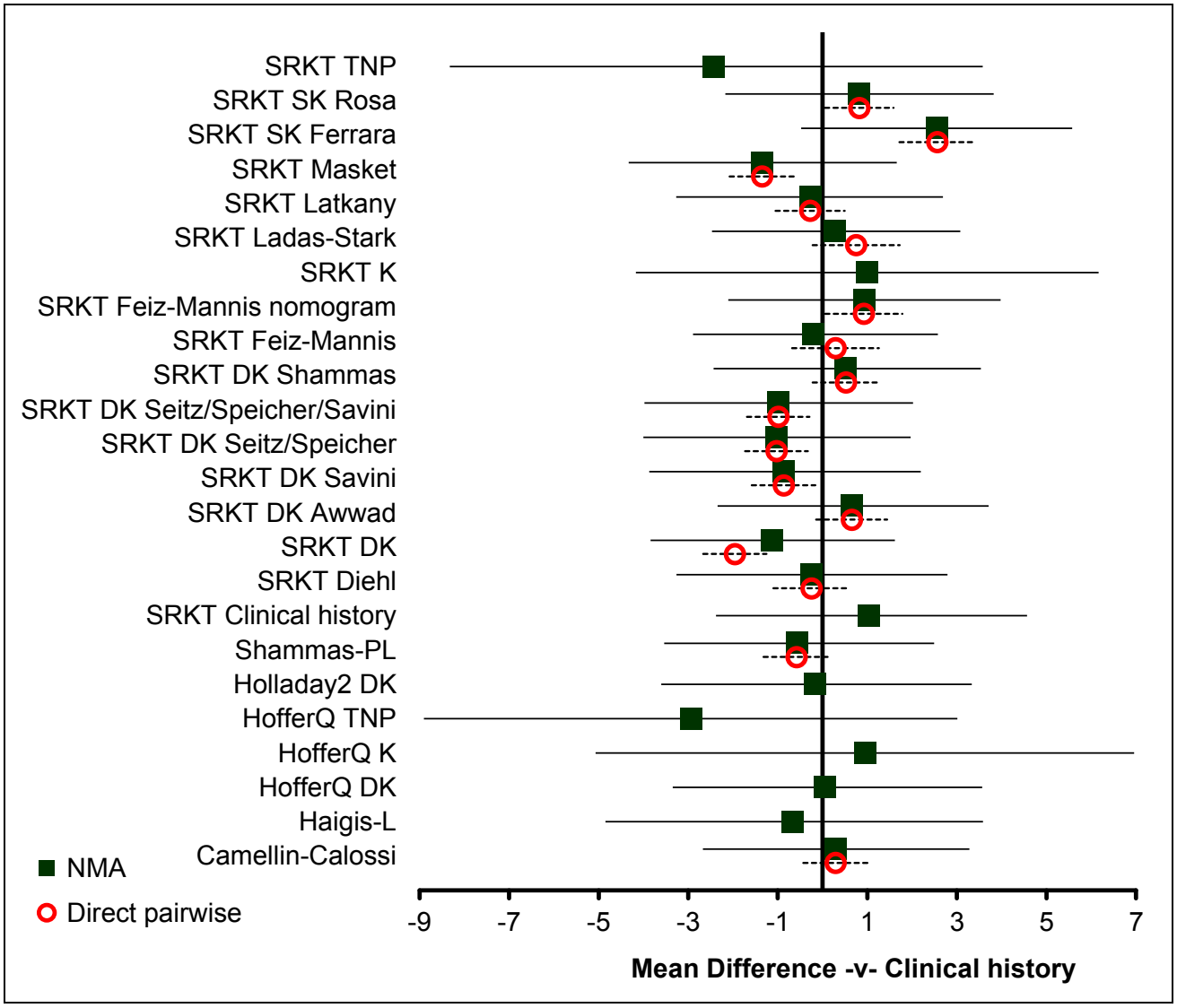
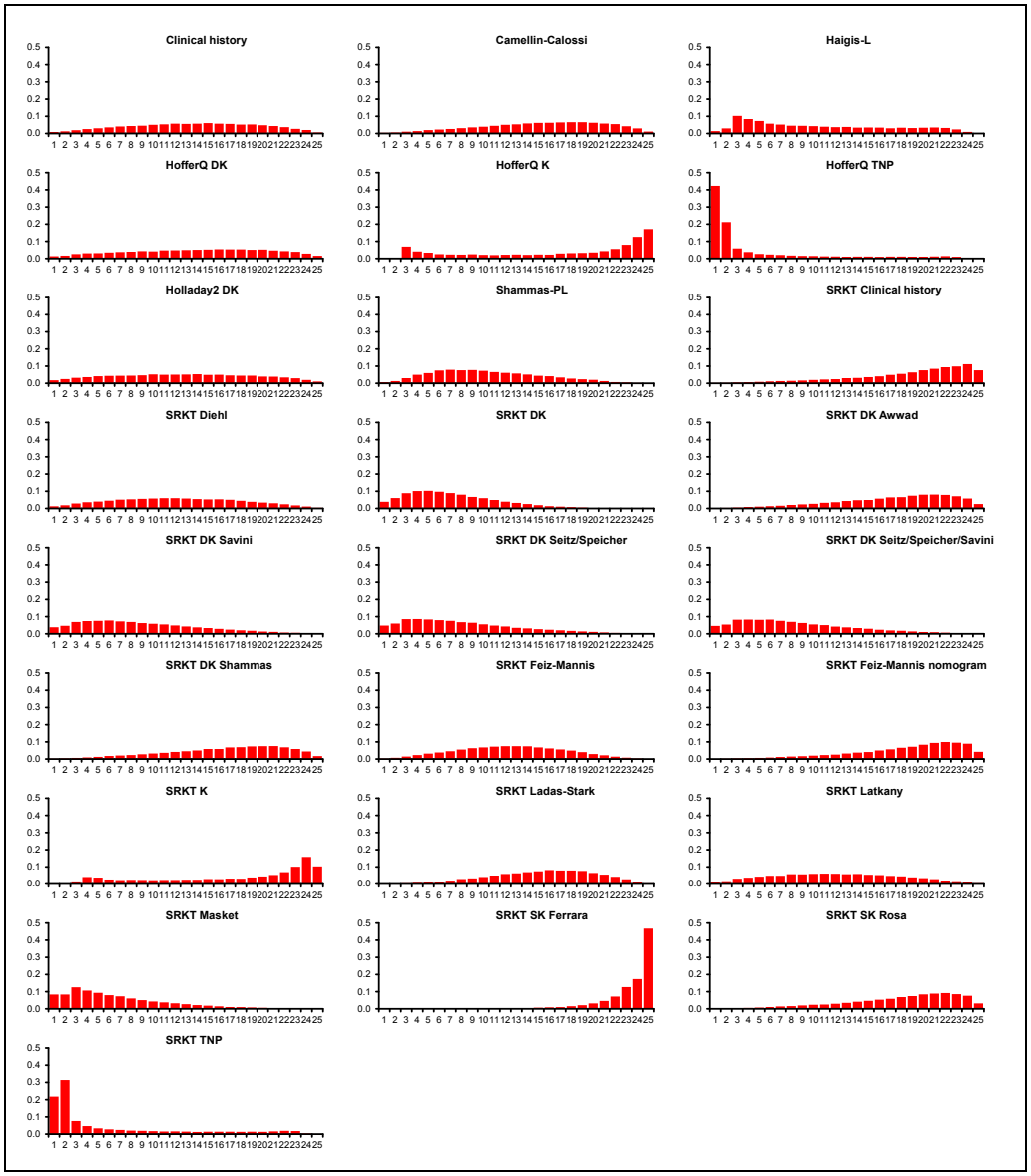


Figure 65: Myopic corneal refractive surgery: prediction error – relative effect of all options versus common comparator

Table 110: Myopic corneal refractive surgery: prediction error – rankings for each comparator

	Probability best	Median rank (95%CI)
Clinical history	0.009	14 (3, 24)
Camellin-Calossi	0.004	16 (4, 24)
Haigis-L	0.014	9 (2, 23)
HofferQ DK	0.013	14 (2, 24)
HofferQ K	0.001	20 (3, 25)
HofferQ TNP	0.423	2 (1, 22)
Holladay2 DK	0.018	13 (2, 24)
Shammas-PL	0.007	10 (3, 21)
SRKT Clinical history	0.002	20 (5, 25)
SRKT Diehl	0.013	12 (2, 23)
SRKT DK	0.039	7 (1, 17)
SRKT DK Awwad	0.002	18 (5, 25)
SRKT DK Savini	0.038	8 (1, 21)
SRKT DK Seitz/Speicher	0.048	7 (1, 20)
SRKT DK Seitz/Speicher/Savini	0.046	7 (1, 20)
SRKT DK Shammas	0.002	17 (5, 24)
SRKT Feiz-Mannis	0.003	13 (4, 22)
SRKT Feiz-Mannis nomogram	0.001	20 (6, 25)
SRKT K	0.000	20 (4, 25)
SRKT Ladas-Stark	0.001	16 (5, 23)
SRKT Latkany	0.012	12 (2, 23)
SRKT Masket	0.084	6 (1, 19)
SRKT SK Ferrara	0.000	24 (15, 25)
SRKT SK Rosa	0.001	19 (6, 25)
SRKT TNP	0.218	2 (1, 22)


Clinical history
Camellin-Calossi
Haigis-L
HofferQ DK
HofferQ K
HofferQ TNP
Holladay2 DK
Shammas-PL
SRKT Clinical history
SRKT Diehl
SRKT DK
SRKT DK Awwad
SRKT DK Savini
SRKT DK Seitz/Speicher
SRKT DK Seitz/Speicher/Savini
SRKT DK Shammas
SRKT Feiz-Mannis
SRKT Feiz-Mannis nomogram
SRKT K
SRKT Ladas-Stark
SRKT Latkany
SRKT Masket
SRKT SK Ferrara
SRKT SK Rosa
SRKT TNP

494 **Figure 66: Myopic corneal refractive surgery: prediction error – rank probability histograms**

495 **Table 111: Myopic corneal refractive surgery: prediction error – model fit statistics**

Residual deviance	Dbar	Dhat	pD	DIC	tau
31 (compared to 31 datapoints)	-15.563	-46.424	30.86	15.297	1.416 (95%CI: 0.720, 1.966)

496 **Table 112: Myopic corneal refractive surgery: prediction error – notes**

- Continuous (normal; identity link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

PROPORTION WITHIN 0.5 DIOPTRES – random effects model

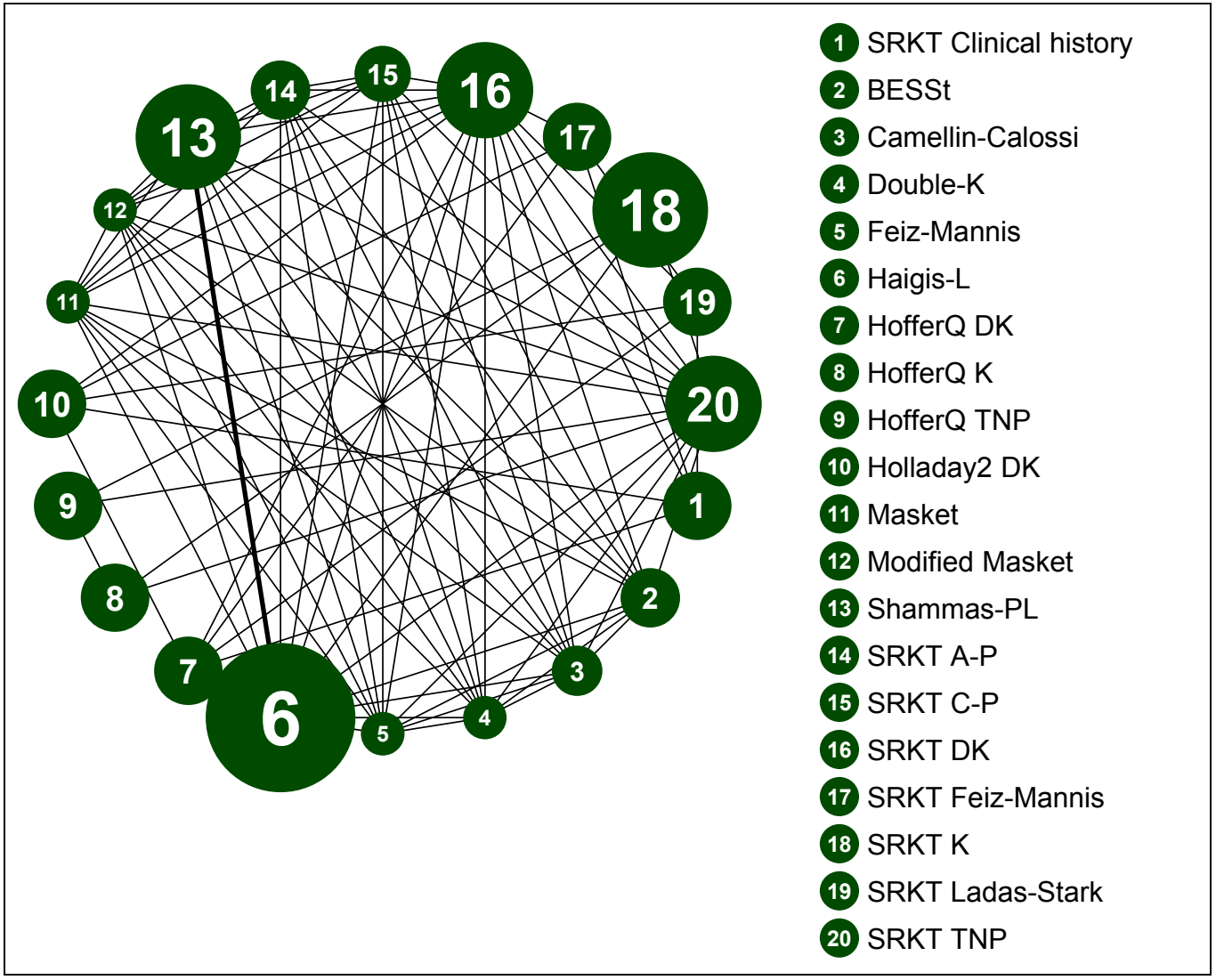


Figure 67: Myopic corneal refractive surgery: within 0.5D – evidence network

499 **Table 113: Myopic corneal refractive surgery: within 0.5D – input data**

	SRKT Clinical history	BESSt	Camellin-Calossi	Double-K	Feiz-Mannis	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Masket	Modified Masket	Shammas-PL	SRKT A-P	SRKT C-P	SRKT DK	SRKT Feiz-Mannis	SRKT K	SRKT Ladas-Stark	SRKT TNP
Xu et al. (2014)								6/37	3/37									4/37		3/37
Huang et al. (2013)						21/46							21/46							
Kim et al. (2013)						30/47												5/47		
Saiki et al. (2013)		3/28	9/19	4/12	1/12	6/25					4/12	5/12	7/28	13/28	12/25	5/28				5/28
Fam & (2008)	5/37						13/37			17/37						19/37	15/37		17/37	

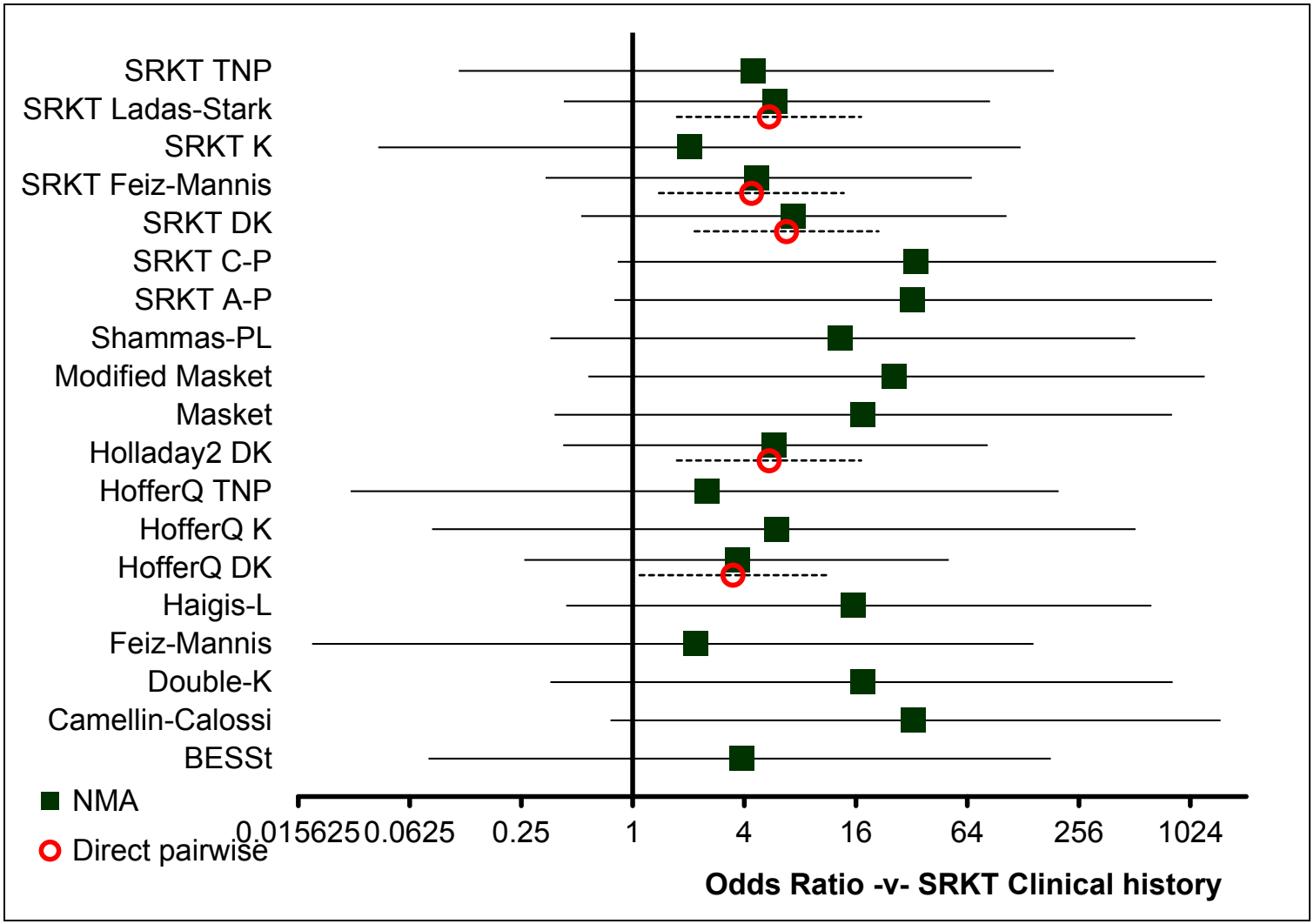
500 **Table 114: Myopic corneal refractive surgery: within 0.5D – relative effectiveness of all pairwise combinations (RR and 95%**
501 **credible interval)**

	SRKT Clinical history	BESSt	Camellin-Calossi	Double-K	Feiz-Mannis	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Masket	Modified Masket	Shammas-PL	SRKT A-P	SRKT C-P	SRKT DK	SRKT Feiz-Mannis	SRKT K	SRKT Ladas-Stark	SRKT TNP
SRKT Clinical history		-	-	-	-	-	3.47 (1.09, 11.05)	-	-	5.44 (1.73, 17.06)	-	-	-	-	-	6.76 (2.16, 21.16)	4.36 (1.38, 13.76)	-	5.44 (1.73, 17.06)	-
BESSt	3.88 (0.08, 180.60)		7.50 (1.68, 33.56)	4.17 (0.76, 22.71)	0.76 (0.07, 8.12)	2.63 (0.58, 11.90)	-	-	-	-	4.17 (0.76, 22.71)	5.95 (1.13, 31.26)	2.78 (0.64, 12.10)	7.22 (1.76, 29.56)	7.69 (1.84, 32.20)	1.81 (0.39, 8.44)	-	-	-	1.81 (0.39, 8.44)
Camellin-Calossi	32.89 (0.76, 1490.00)	8.63 (0.54, 149.10)		0.56 (0.12, 2.49)	0.10 (0.01, 0.95)	0.35 (0.10, 1.27)	-	-	-	-	0.56 (0.12, 2.49)	0.79 (0.18, 3.41)	0.37 (0.11, 1.28)	0.96 (0.30, 3.09)	1.03 (0.31, 3.39)	0.24 (0.06, 0.91)	-	-	-	0.24 (0.06, 0.91)
Double-K	17.55 (0.36, 820.50)	4.53 (0.25, 90.35)	0.53 (0.03, 8.48)		0.18 (0.02, 1.95)	0.63 (0.14, 2.86)	-	-	-	-	1.00 (0.18, 5.46)	1.43 (0.27, 7.52)	0.67 (0.15, 2.91)	1.73 (0.42, 7.11)	1.85 (0.44, 7.74)	0.43 (0.09, 2.03)	-	-	-	0.43 (0.09, 2.03)

	SRKT Clinical history	BESSt	Camellin-Calossi	Double-K	Feiz-Mannis	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Masket	Modified Masket	Shammas-PL	SRKT A-P	SRKT C-P	SRKT DK	SRKT Feiz-Mannis	SRKT K	SRKT Ladas-Stark	SRKT TNP
Feiz-Mannis	2.20 (0.02, 145.80)	0.59 (0.01, 15.97)	0.07 (0.00, 1.64)	0.13 (0.00, 3.46)		3.47 (0.37, 32.74)	-	-	-	-	5.50 (0.51, 59.01)	7.86 (0.75, 82.13)	3.67 (0.40, 33.71)	9.53 (1.08, 84.14)	10.15 (1.13, 90.94)	2.39 (0.25, 23.01)	-	-	-	2.39 (0.25, 23.01)
Haigis-L	15.45 (0.44, 630.20)	4.00 (0.33, 61.03)	0.47 (0.04, 5.51)	0.88 (0.07, 11.93)	6.75 (0.37, 328.20)		-	-	-	-	1.58 (0.35, 7.17)	2.26 (0.52, 9.83)	1.02 (0.51, 2.02)	2.74 (0.84, 8.94)	2.92 (0.87, 9.78)	0.69 (0.18, 2.61)	-	0.07 (0.02, 0.20)	-	0.69 (0.18, 2.61)
HofferQ DK	3.68 (0.26, 50.80)	0.97 (0.02, 44.53)	0.11 (0.00, 4.34)	0.22 (0.00, 10.12)	1.68 (0.03, 184.60)	0.24 (0.01, 7.79)		-	-	1.57 (0.62, 4.00)	-	-	-	-	-	1.95 (0.77, 4.96)	1.26 (0.49, 3.23)	-	1.57 (0.62, 4.00)	-
HofferQ K	6.00 (0.08, 518.00)	1.56 (0.05, 63.77)	0.18 (0.01, 6.20)	0.34 (0.01, 13.15)	2.78 (0.06, 261.40)	0.39 (0.02, 7.74)	1.60 (0.02, 125.70)		0.46 (0.10, 1.98)	-	-	-	-	-	-	-	-	0.63 (0.16, 2.43)	-	0.46 (0.10, 1.98)
HofferQ TNP	2.53 (0.03, 198.90)	0.66 (0.02, 27.58)	0.08 (0.00, 2.82)	0.14 (0.00, 6.06)	1.15 (0.02, 119.30)	0.16 (0.01, 3.52)	0.67 (0.01, 57.33)	0.42 (0.03, 6.24)		-	-	-	-	-	-	-	-	1.37 (0.29, 6.61)	-	1.00 (0.19, 5.31)
Holladay2 DK	5.83 (0.42, 82.42)	1.56 (0.04, 72.66)	0.18 (0.00, 6.71)	0.34 (0.01, 15.19)	2.71 (0.04, 294.60)	0.38 (0.01, 12.49)	1.58 (0.13, 20.93)	0.99 (0.01, 69.46)	2.34 (0.03, 182.90)		-	-	-	-	-	1.24 (0.50, 3.09)	0.80 (0.32, 2.02)	-	1.00 (0.40, 2.50)	-
Masket	17.47 (0.38, 814.40)	4.51 (0.26, 87.62)	0.52 (0.03, 8.83)	0.99 (0.06, 18.32)	7.79 (0.31, 467.40)	1.12 (0.08, 13.95)	4.64 (0.11, 208.30)	2.88 (0.08, 95.93)	6.88 (0.17, 270.30)	2.94 (0.07, 128.20)		1.43 (0.27, 7.52)	0.67 (0.15, 2.91)	1.73 (0.42, 7.11)	1.85 (0.44, 7.74)	0.43 (0.09, 2.03)	-	-	-	0.43 (0.09, 2.03)
Modified Masket	25.83 (0.58, 1224.00)	6.73 (0.37, 128.50)	0.78 (0.05, 12.25)	1.47 (0.09, 26.82)	11.47 (0.46, 681.20)	1.67 (0.13, 20.40)	6.85 (0.17, 301.80)	4.29 (0.12, 134.10)	10.23 (0.27, 362.90)	4.31 (0.11, 201.20)	1.49 (0.08, 25.81)		0.47 (0.11, 1.95)	1.21 (0.31, 4.76)	1.29 (0.32, 5.19)	0.30 (0.07, 1.37)	-	-	-	0.30 (0.07, 1.37)
Shammas-PL	13.19 (0.36, 515.30)	3.45 (0.26, 50.02)	0.40 (0.03, 4.76)	0.76 (0.06, 10.23)	5.86 (0.31, 286.60)	0.86 (0.14, 4.99)	3.56 (0.10, 133.40)	2.20 (0.09, 52.58)	5.28 (0.18, 150.60)	2.24 (0.07, 83.46)	0.76 (0.06, 10.92)	0.51 (0.04, 7.03)		2.60 (0.84, 8.07)	2.77 (0.87, 8.84)	0.65 (0.18, 2.37)	-	-	-	0.65 (0.18, 2.37)
SRKT A-P	32.41 (0.79, 1340.00)	8.36 (0.54, 141.30)	0.96 (0.07, 13.33)	1.84 (0.12, 30.37)	14.38 (0.66, 757.50)	2.08 (0.19, 22.65)	8.58 (0.22, 341.20)	5.34 (0.16, 159.30)	12.68 (0.37, 466.30)	5.39 (0.14, 214.50)	1.84 (0.12, 30.10)	1.24 (0.08, 19.41)	2.39 (0.21, 26.76)		1.07 (0.36, 3.14)	0.25 (0.07, 0.85)	-	-	-	0.25 (0.07, 0.85)
SRKT C-P	34.02 (0.83, 1408.00)	8.83 (0.58, 145.40)	1.03 (0.08, 14.14)	1.95 (0.13, 30.74)	15.09 (0.68, 831.20)	2.21 (0.19, 23.11)	9.07 (0.24, 373.40)	5.70 (0.18, 163.20)	13.73 (0.38, 458.20)	5.69 (0.16, 230.60)	1.97 (0.13, 30.91)	1.32 (0.09, 19.92)	2.55 (0.23, 29.17)	1.06 (0.08, 14.37)		0.24 (0.07, 0.82)	-	-	-	0.24 (0.07, 0.82)

	SRKT Clinical history	BESSt	Camellin-Calossi	Double-K	Feiz-Mannis	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Masket	Modified Masket	Shammas-PL	SRKT A-P	SRKT C-P	SRKT DK	SRKT Feiz-Mannis	SRKT K	SRKT Ladas-Stark	SRKT TNP
SRKT DK	7.35 (0.53, 104.30)	1.94 (0.12, 35.33)	0.23 (0.01, 3.24)	0.42 (0.03, 7.05)	3.31 (0.14, 190.00)	0.48 (0.04, 5.34)	1.97 (0.16, 26.69)	1.23 (0.04, 37.44)	2.94 (0.08, 104.20)	1.25 (0.10, 16.39)	0.43 (0.03, 6.89)	0.29 (0.02, 4.42)	0.56 (0.04, 6.64)	0.23 (0.02, 3.10)	0.22 (0.02, 2.97)		0.65 (0.26, 1.62)	-	0.81 (0.32, 2.01)	1.00 (0.25, 3.93)
SRKT Feiz-Mannis	4.67 (0.34, 67.63)	1.22 (0.03, 56.19)	0.14 (0.00, 5.68)	0.27 (0.01, 11.82)	2.11 (0.04, 236.80)	0.30 (0.01, 10.31)	1.27 (0.10, 16.86)	0.79 (0.01, 54.08)	1.86 (0.02, 151.40)	0.80 (0.06, 10.32)	0.27 (0.01, 11.89)	0.18 (0.00, 7.91)	0.35 (0.01, 12.94)	0.15 (0.00, 5.68)	0.14 (0.00, 5.32)	0.63 (0.05, 8.18)		-	1.25 (0.50, 3.13)	-
SRKT K	2.04 (0.04, 124.20)	0.53 (0.03, 14.55)	0.06 (0.00, 1.34)	0.12 (0.01, 2.90)	0.94 (0.03, 66.34)	0.13 (0.02, 1.27)	0.54 (0.01, 34.83)	0.34 (0.03, 5.01)	0.81 (0.06, 14.05)	0.34 (0.01, 20.26)	0.12 (0.01, 2.82)	0.08 (0.00, 1.86)	0.15 (0.01, 2.31)	0.06 (0.00, 1.34)	0.06 (0.00, 1.32)	0.27 (0.02, 6.20)	0.43 (0.01, 25.76)		-	0.73 (0.15, 3.50)
SRKT Ladas-Stark	5.86 (0.42, 84.94)	1.57 (0.03, 69.48)	0.18 (0.00, 6.77)	0.34 (0.01, 14.92)	2.68 (0.05, 284.60)	0.39 (0.01, 12.06)	1.59 (0.13, 20.83)	0.98 (0.01, 65.53)	2.35 (0.03, 186.80)	1.00 (0.08, 12.46)	0.34 (0.01, 14.34)	0.23 (0.01, 9.70)	0.45 (0.01, 15.39)	0.19 (0.00, 6.86)	0.17 (0.00, 6.28)	0.80 (0.06, 9.94)	1.26 (0.10, 15.77)	2.97 (0.05, 124.20)		-
SRKT TNP	4.50 (0.11, 187.50)	1.17 (0.08, 19.22)	0.14 (0.01, 1.87)	0.26 (0.02, 3.98)	2.01 (0.09, 107.30)	0.29 (0.04, 2.33)	1.21 (0.03, 49.20)	0.76 (0.05, 9.75)	1.77 (0.11, 28.02)	0.76 (0.02, 30.60)	0.26 (0.02, 3.90)	0.17 (0.01, 2.59)	0.34 (0.03, 3.39)	0.14 (0.01, 1.76)	0.13 (0.01, 1.74)	0.61 (0.04, 8.43)	0.96 (0.03, 38.36)	2.19 (0.22, 18.56)	0.75 (0.02, 29.15)	

502



503 **Figure 68: Myopic corneal refractive surgery: within 0.5D – relative effect of all options versus common comparator**
504

505 **Table 115: Myopic corneal refractive surgery: within 0.5D – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT Clinical history	0.001	19 (8, 20)
BESSt	0.002	14 (5, 20)
Camellin-Calossi	0.199	3 (1, 14)
Double-K	0.069	6 (1, 17)
Feiz-Mannis	0.002	16 (5, 20)
Haigis-L	0.017	7 (2, 15)
HofferQ DK	0.011	14 (3, 20)
HofferQ K	0.028	12 (1, 19)
HofferQ TNP	0.008	16 (3, 20)
Holladay2 DK	0.024	12 (2, 19)
Masket	0.070	6 (1, 17)
Modified Masket	0.142	5 (1, 15)
Shammas-PL	0.013	8 (2, 16)
SRKT A-P	0.171	4 (1, 13)
SRKT C-P	0.199	3 (1, 13)
SRKT DK	0.002	11 (4, 17)
SRKT Feiz-Mannis	0.018	13 (2, 19)
SRKT K	0.001	17 (7, 20)
SRKT Ladas-Stark	0.024	12 (2, 19)
SRKT TNP	0.001	13 (5, 19)

506

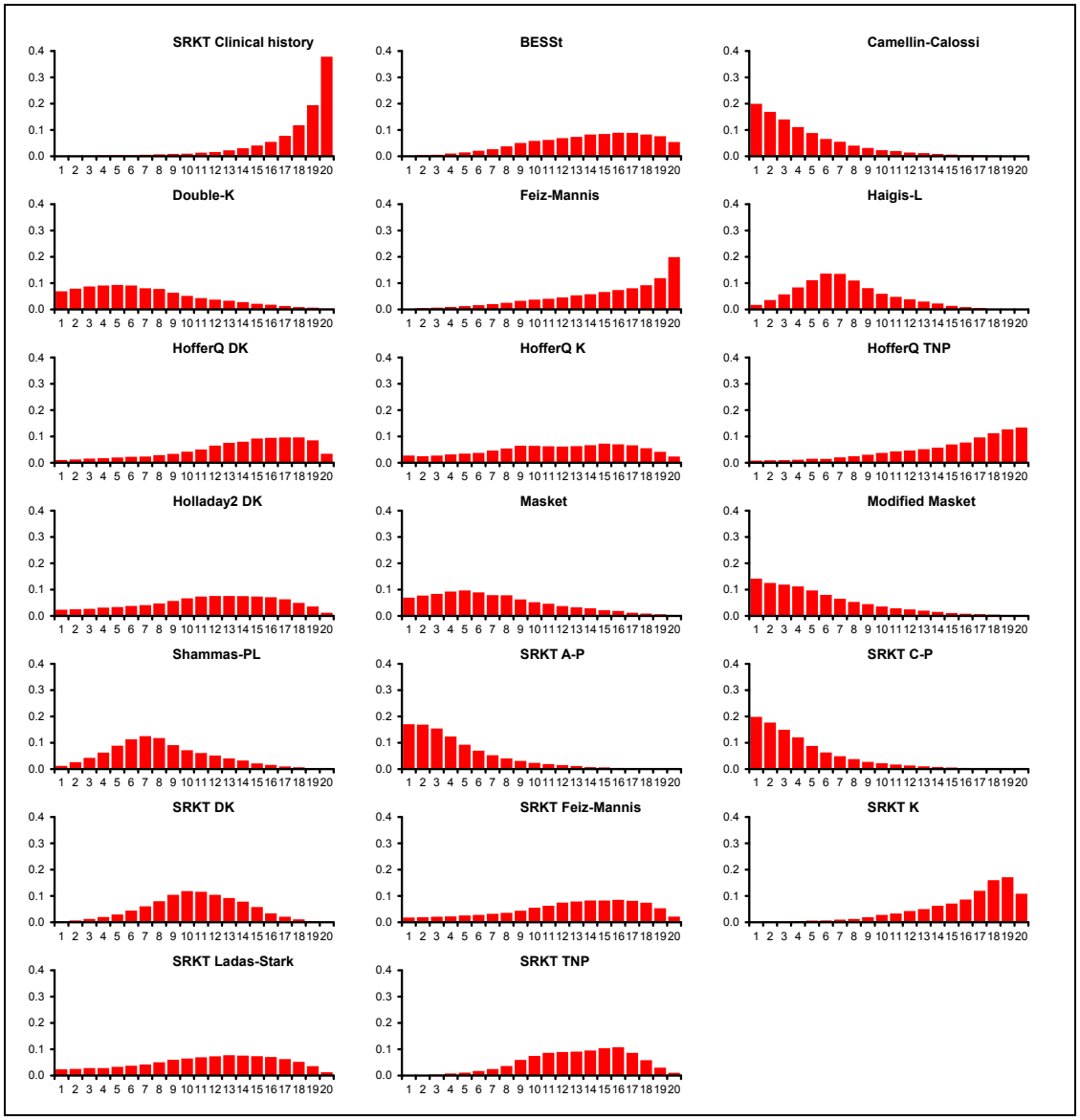

SRKT Clinical history
BESSt
Camellin-Calossi
Double-K
Feiz-Mannis
Haigis-L
HofferQ DK
HofferQ K
HofferQ TNP
Holladay2 DK
Masket
Modified Masket
Shammas-PL
SRKT A-P
SRKT C-P
SRKT DK
SRKT Feiz-Mannis
SRKT K
SRKT Ladas-Stark
SRKT TNP

Figure 69: Myopic corneal refractive surgery: within 0.5D – rank probability histograms

Table 116: Myopic corneal refractive surgery: within 0.5D – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau
27.42 (compared to 26 datapoints)	117.472	91.607	25.865	143.337	0.955 (95%CI: 0.065, 1.925)

Table 117: Myopic corneal refractive surgery: within 0.5D – notes

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

PROPORTION WITHIN 1.0 DIOPTRE – random effects model

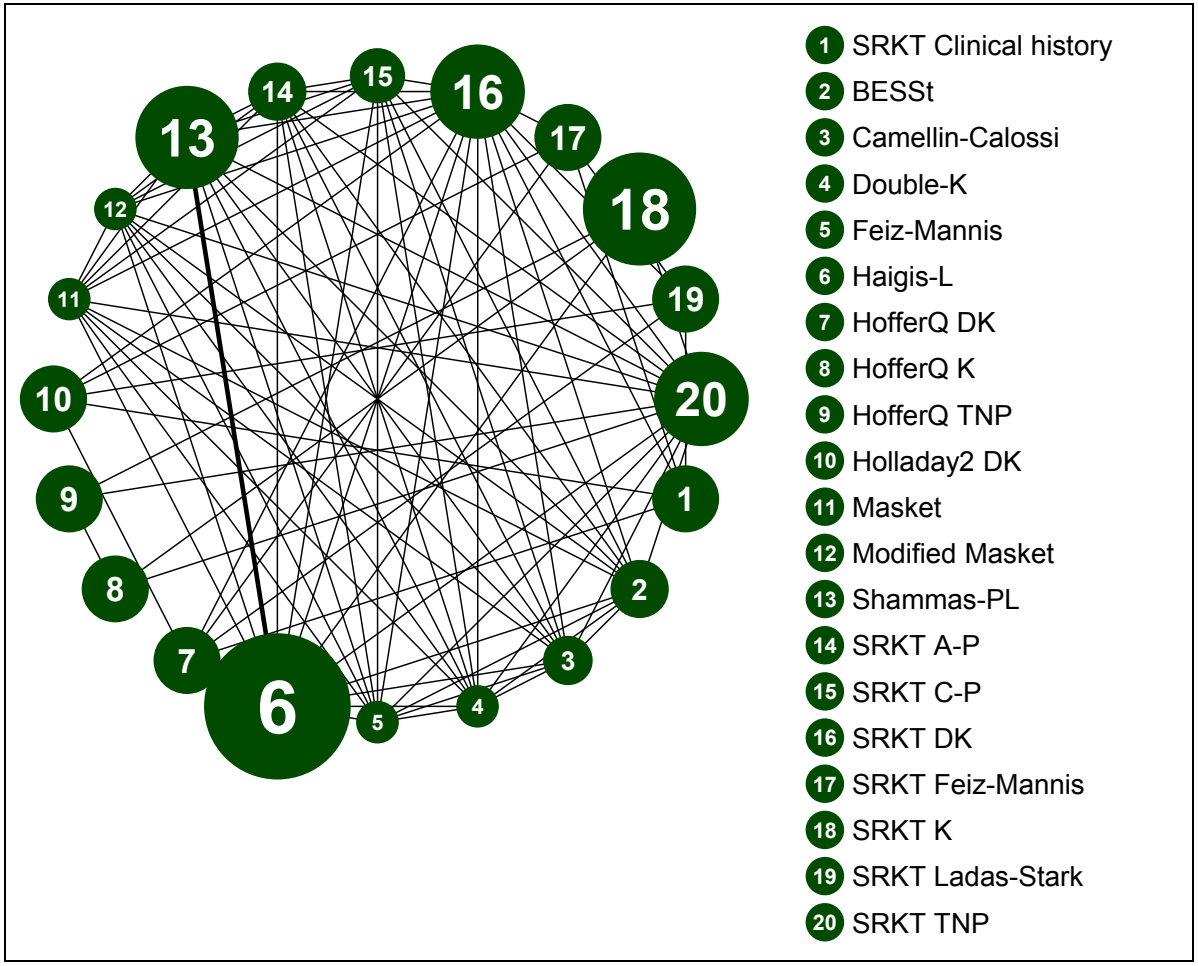


Figure 70: Myopic corneal refractive surgery: within 1.0D – evidence network

513 **Table 118: Myopic corneal refractive surgery: within 1.0D – input data**

	SRKT Clinical history	BESSt	Camellin-Calossi	Double-K	Feiz-Mannis	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Masket	Modified Masket	Shammas-PL	SRKT A-P	SRKT C-P	SRKT DK	SRKT Feiz-Mannis	SRKT K	SRKT Ladas-Stark	SRKT TNP
Xu et al. (2014)								14/37	3/37									8/37		5/37
Huang et al. (2013)						36/46							39/46							
Kim et al. (2013)						38/47												16/47		
Saiki et al. (2013)		12/28	14/19	8/12	6/12	13/25					10/12	9/12	20/28	21/28	17/25	14/28				17/28
Fam & (2008)	11/37						28/37			30/37						25/37	23/37		23/37	

514 **Table 119: Myopic corneal refractive surgery: within 1.0D – relative effectiveness of all pairwise combinations (RR and 95%**
515 **credible interval)**

	SRKT Clinical history	BESSt	Camellin-Calossi	Double-K	Feiz-Mannis	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Masket	Modified Masket	Shammas-PL	SRKT A-P	SRKT C-P	SRKT DK	SRKT Feiz-Mannis	SRKT K	SRKT Ladas-Stark	SRKT TNP
SRKT Clinical history		-	-	-	-	-	7.35 (2.63, 20.60)	-	-	10.13 (3.43, 29.93)	-	-	-	-	-	4.92 (1.84, 13.19)	3.88 (1.47, 10.23)	-	3.88 (1.47, 10.23)	-
BESSt	3.81 (0.06, 227.60)		3.73 (1.05, 13.24)	2.67 (0.65, 10.97)	1.33 (0.34, 5.18)	1.44 (0.49, 4.27)	-	-	-	-	6.67 (1.23, 36.23)	4.00 (0.89, 18.03)	3.33 (1.10, 10.12)	4.00 (1.28, 12.46)	2.83 (0.92, 8.73)	1.33 (0.47, 3.82)	-	-	-	2.06 (0.71, 5.98)
Camellin-Calossi	15.54 (0.26, 888.10)	4.05 (0.21, 78.19)		0.71 (0.15, 3.45)	0.36 (0.08, 1.64)	0.39 (0.11, 1.40)	-	-	-	-	1.79 (0.29, 11.13)	1.07 (0.20, 5.63)	0.89 (0.24, 3.31)	1.07 (0.28, 4.06)	0.76 (0.20, 2.85)	0.36 (0.10, 1.26)	-	-	-	0.55 (0.15, 1.97)

	SRKT Clinical history	BESSt	Camellin-Calossi	Double-K	Feiz-Mannis	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Masket	Modified Masket	Shammas-PL	SRKT A-P	SRKT C-P	SRKT DK	SRKT Feiz-Mannis	SRKT K	SRKT Ladas-Stark	SRKT TNP
Double-K	10.98 (0.17, 731.40)	2.87 (0.15, 59.91)	0.70 (0.03, 15.96)		0.50 (0.10, 2.60)	0.54 (0.13, 2.27)	-	-	-	-	2.50 (0.36, 17.32)	1.50 (0.25, 8.84)	1.25 (0.29, 5.35)	1.50 (0.34, 6.55)	1.06 (0.25, 4.60)	0.50 (0.12, 2.05)	-	-	-	0.77 (0.19, 3.20)
Feiz-Mannis	5.22 (0.08, 311.00)	1.37 (0.07, 27.48)	0.34 (0.02, 7.02)	0.48 (0.02, 10.31)		1.08 (0.27, 4.29)	-	-	-	-	5.00 (0.75, 33.21)	3.00 (0.53, 16.90)	2.50 (0.62, 10.11)	3.00 (0.73, 12.39)	2.13 (0.52, 8.70)	1.00 (0.26, 3.87)	-	-	-	1.55 (0.40, 6.03)
Haigis-L	9.30 (0.19, 449.10)	2.43 (0.18, 33.65)	0.60 (0.04, 8.86)	0.85 (0.05, 12.83)	1.79 (0.12, 26.69)		-	-	-	-	4.62 (0.84, 25.49)	2.77 (0.60, 12.71)	1.87 (0.86, 4.06)	2.77 (0.87, 8.84)	1.96 (0.62, 6.19)	0.92 (0.31, 2.72)	-	0.12 (0.05, 0.31)	-	1.43 (0.48, 4.25)
HofferQ DK	7.79 (0.44, 134.90)	2.06 (0.03, 120.40)	0.51 (0.01, 30.84)	0.71 (0.01, 45.22)	1.50 (0.02, 99.39)	0.84 (0.02, 42.06)		-	-	1.38 (0.45, 4.20)	-	-	-	-	-	0.67 (0.24, 1.85)	0.53 (0.19, 1.44)	-	0.53 (0.19, 1.44)	-
HofferQ K	11.10 (0.11, 1221.00)	2.94 (0.08, 119.80)	0.73 (0.02, 30.60)	1.02 (0.02, 42.35)	2.15 (0.05, 94.42)	1.20 (0.05, 27.15)	1.44 (0.01, 159.70)		0.14 (0.04, 0.56)	-	-	-	-	-	-	-	-	0.45 (0.16, 1.27)	-	0.26 (0.08, 0.81)
HofferQ TNP	1.41 (0.01, 169.20)	0.36 (0.01, 17.53)	0.09 (0.00, 4.53)	0.13 (0.00, 6.43)	0.27 (0.01, 13.24)	0.15 (0.01, 4.11)	0.18 (0.00, 21.37)	0.13 (0.01, 2.40)		-	-	-	-	-	-	-	-	3.13 (0.76, 12.89)	-	1.77 (0.39, 8.02)
Holladay2 DK	10.95 (0.63, 198.80)	2.91 (0.05, 163.90)	0.70 (0.01, 43.02)	1.00 (0.01, 66.08)	2.09 (0.03, 126.40)	1.18 (0.02, 56.26)	1.41 (0.08, 24.39)	0.98 (0.01, 101.70)	7.78 (0.06, 909.80)		-	-	-	-	-	0.49 (0.17, 1.42)	0.38 (0.13, 1.10)	-	0.38 (0.13, 1.10)	-
Masket	32.02 (0.46, 2442.00)	8.29 (0.35, 219.80)	2.03 (0.08, 61.95)	2.90 (0.11, 84.96)	6.01 (0.23, 186.40)	3.37 (0.19, 75.67)	4.05 (0.06, 306.10)	2.82 (0.06, 150.30)	22.62 (0.40, 1487.00)	2.95 (0.04, 216.80)		0.60 (0.08, 4.45)	0.50 (0.09, 2.81)	0.60 (0.11, 3.43)	0.43 (0.07, 2.41)	0.20 (0.04, 1.08)	-	-	-	0.31 (0.06, 1.69)
Modified Masket	17.37 (0.27, 1161.00)	4.50 (0.22, 100.40)	1.12 (0.05, 27.63)	1.59 (0.06, 40.92)	3.31 (0.15, 87.14)	1.85 (0.11, 34.73)	2.21 (0.03, 143.70)	1.56 (0.03, 76.63)	12.41 (0.23, 690.50)	1.57 (0.02, 106.70)	0.55 (0.02, 15.91)		0.83 (0.18, 3.90)	1.00 (0.21, 4.77)	0.71 (0.15, 3.35)	0.33 (0.07, 1.50)	-	-	-	0.52 (0.11, 2.33)
Shammas-PL	13.84 (0.28, 686.00)	3.59 (0.25, 53.09)	0.89 (0.05, 14.03)	1.26 (0.07, 21.07)	2.63 (0.16, 44.96)	1.47 (0.20, 11.10)	1.76 (0.03, 85.45)	1.24 (0.04, 37.72)	9.73 (0.28, 351.80)	1.27 (0.03, 61.34)	0.44 (0.02, 8.57)	0.80 (0.04, 13.41)		1.20 (0.37, 3.92)	0.85 (0.26, 2.75)	0.40 (0.13, 1.21)	-	-	-	0.62 (0.20, 1.89)
SRKT A-P	16.35 (0.28, 935.50)	4.26 (0.24, 78.67)	1.06 (0.05, 20.89)	1.51 (0.07, 29.39)	3.10 (0.16, 65.42)	1.74 (0.13, 24.64)	2.08 (0.04, 119.80)	1.46 (0.04, 56.51)	11.52 (0.26, 512.40)	1.49 (0.03, 86.26)	0.52 (0.02, 11.81)	0.95 (0.04, 19.81)	1.18 (0.08, 17.37)		0.71 (0.21, 2.35)	0.33 (0.11, 1.03)	-	-	-	0.52 (0.16, 1.62)

	SRKT Clinical history	BESSt	Camellin-Calossi	Double-K	Feiz-Mannis	Haigis-L	HofferQ DK	HofferQ K	HofferQ TNP	Holladay2 DK	Masket	Modified Masket	Shammas-PL	SRKT A-P	SRKT C-P	SRKT DK	SRKT Feiz-Mannis	SRKT K	SRKT Ladas-Stark	SRKT TNP
SRKT C-P	11.16 (0.20, 666.50)	2.99 (0.16, 52.55)	0.73 (0.04, 14.10)	1.03 (0.05, 21.10)	2.18 (0.11, 44.03)	1.23 (0.09, 16.46)	1.45 (0.02, 83.72)	1.02 (0.03, 39.19)	8.14 (0.17, 371.30)	1.03 (0.02, 57.93)	0.36 (0.01, 8.30)	0.66 (0.03, 13.48)	0.82 (0.05, 12.32)	0.70 (0.04, 12.77)		0.47 (0.15, 1.44)	-	-	-	0.73 (0.23, 2.26)
SRKT DK	5.13 (0.30, 90.12)	1.35 (0.08, 23.55)	0.33 (0.02, 6.31)	0.47 (0.02, 9.54)	0.99 (0.05, 19.41)	0.55 (0.04, 7.31)	0.66 (0.04, 11.39)	0.46 (0.01, 17.53)	3.68 (0.08, 168.00)	0.47 (0.03, 8.18)	0.16 (0.01, 3.82)	0.30 (0.01, 5.98)	0.37 (0.03, 5.39)	0.31 (0.02, 5.78)	0.46 (0.03, 7.87)		0.79 (0.30, 2.05)	-	0.79 (0.30, 2.05)	1.55 (0.54, 4.46)
SRKT Feiz-Mannis	4.01 (0.23, 68.91)	1.06 (0.02, 61.32)	0.26 (0.00, 15.85)	0.37 (0.01, 23.36)	0.78 (0.01, 46.62)	0.43 (0.01, 20.86)	0.52 (0.03, 8.69)	0.36 (0.00, 35.39)	2.88 (0.02, 332.60)	0.37 (0.02, 6.33)	0.13 (0.00, 8.85)	0.23 (0.00, 15.16)	0.29 (0.01, 14.21)	0.25 (0.00, 14.64)	0.36 (0.01, 19.83)	0.78 (0.05, 12.83)		-	1.00 (0.39, 2.56)	-
SRKT K	2.80 (0.04, 216.40)	0.74 (0.03, 19.53)	0.18 (0.01, 4.91)	0.26 (0.01, 7.12)	0.54 (0.02, 14.87)	0.30 (0.03, 3.14)	0.36 (0.01, 28.41)	0.25 (0.02, 3.79)	2.02 (0.11, 38.82)	0.26 (0.00, 20.06)	0.09 (0.00, 2.91)	0.16 (0.01, 4.87)	0.20 (0.01, 3.39)	0.17 (0.01, 4.29)	0.25 (0.01, 6.02)	0.54 (0.02, 12.99)	0.70 (0.01, 53.95)		-	0.57 (0.17, 1.93)
SRKT Ladas-Stark	4.06 (0.24, 70.52)	1.07 (0.02, 62.02)	0.26 (0.00, 15.31)	0.37 (0.01, 22.91)	0.77 (0.01, 48.40)	0.44 (0.01, 21.22)	0.52 (0.03, 8.77)	0.36 (0.00, 35.32)	2.91 (0.03, 336.20)	0.37 (0.02, 6.26)	0.13 (0.00, 8.54)	0.23 (0.00, 14.58)	0.29 (0.01, 14.89)	0.25 (0.00, 14.05)	0.36 (0.01, 20.29)	0.79 (0.05, 13.65)	1.00 (0.06, 16.65)	1.45 (0.02, 96.99)		-
SRKT TNP	4.85 (0.09, 239.20)	1.27 (0.08, 19.62)	0.31 (0.02, 5.20)	0.44 (0.02, 7.52)	0.92 (0.05, 16.07)	0.52 (0.05, 4.81)	0.62 (0.01, 32.52)	0.44 (0.03, 6.58)	3.46 (0.18, 61.45)	0.44 (0.01, 22.90)	0.15 (0.01, 3.15)	0.28 (0.01, 5.18)	0.35 (0.03, 4.09)	0.30 (0.02, 4.59)	0.43 (0.03, 6.30)	0.93 (0.06, 13.63)	1.22 (0.02, 60.79)	1.72 (0.16, 16.40)	1.20 (0.02, 58.13)	

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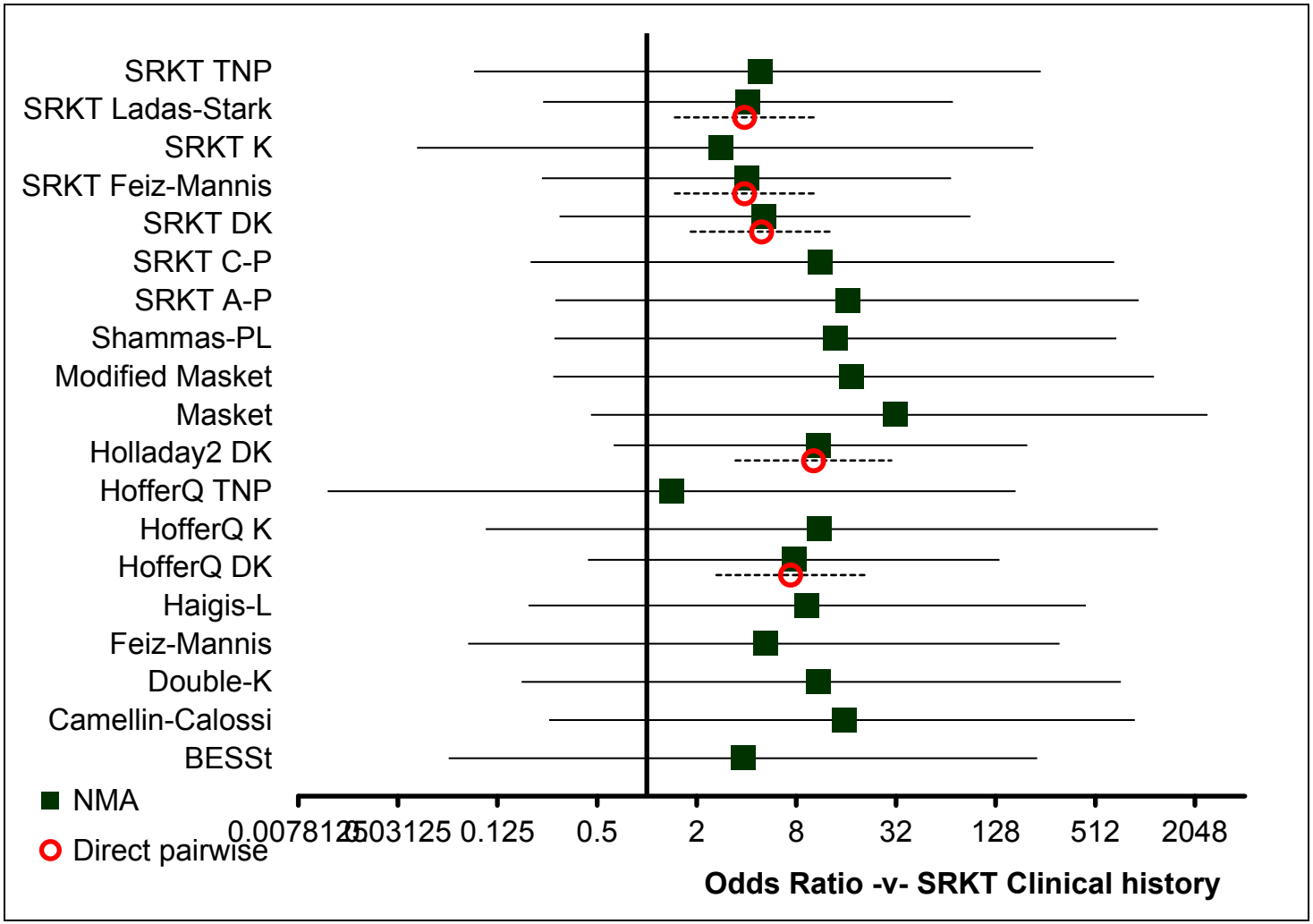

Figure 71: Myopic corneal refractive surgery: within 1.0D – relative effect of all options versus common comparator

519 **Table 120: Myopic corneal refractive surgery: within 1.0D – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT Clinical history	0.001	19 (6, 20)
BESSt	0.003	14 (4, 20)
Camellin-Calossi	0.080	6 (1, 18)
Double-K	0.053	8 (1, 19)
Feiz-Mannis	0.010	13 (2, 20)
Haigis-L	0.008	9 (2, 17)
HofferQ DK	0.052	10 (1, 19)
HofferQ K	0.091	8 (1, 19)
HofferQ TNP	0.004	18 (4, 20)
Holladay2 DK	0.095	8 (1, 19)
Masket	0.290	3 (1, 16)
Modified Masket	0.119	6 (1, 18)
Shammas-PL	0.038	7 (1, 17)
SRKT A-P	0.080	6 (1, 17)
SRKT C-P	0.039	8 (1, 18)
SRKT DK	0.001	13 (4, 18)
SRKT Feiz-Mannis	0.016	14 (2, 20)
SRKT K	0.002	16 (4, 20)
SRKT Ladas-Stark	0.015	14 (2, 20)
SRKT TNP	0.002	13 (4, 19)

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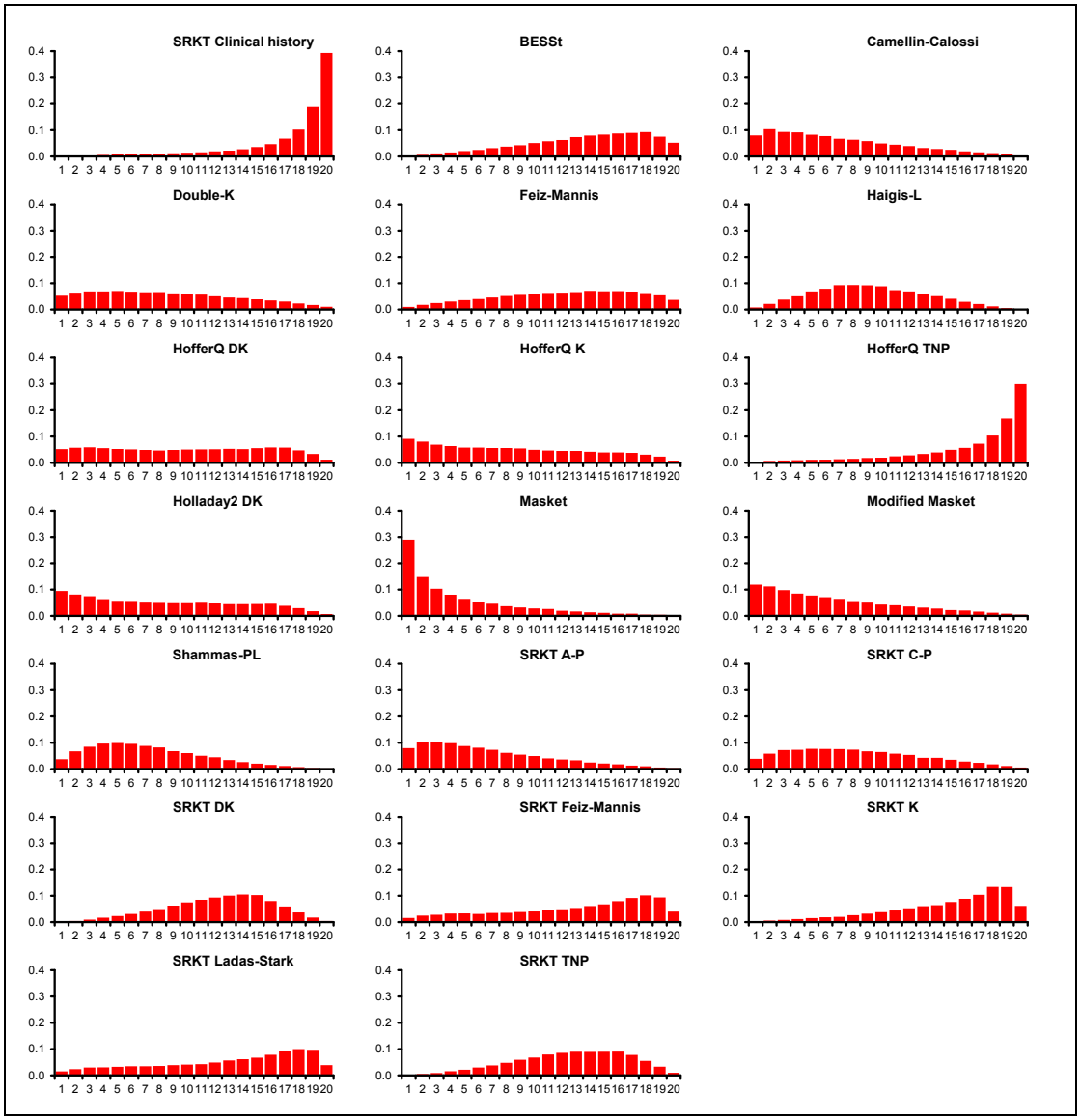


Figure 72: Myopic corneal refractive surgery: within 1.0D – rank probability histograms

Table 121: Myopic corneal refractive surgery: within 1.0D – model fit statistics

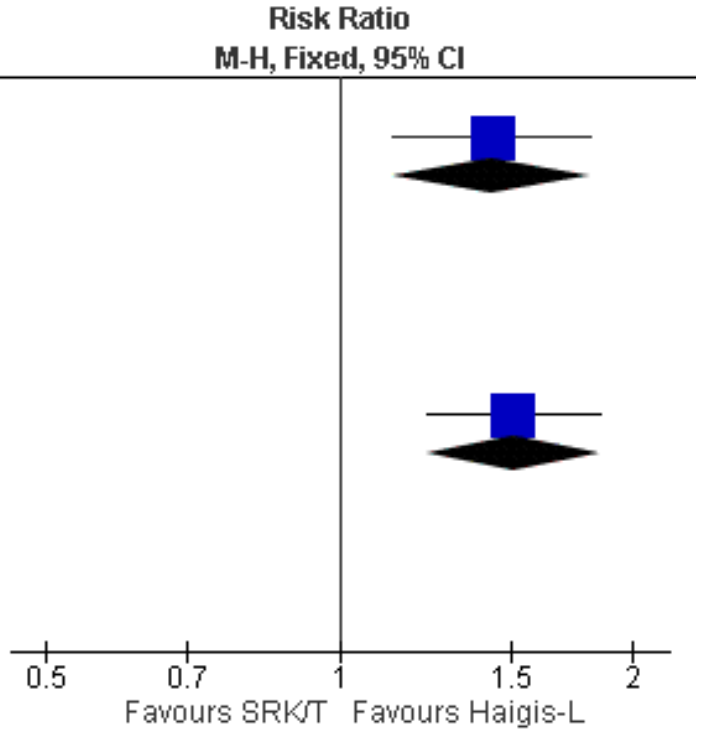
Residual deviance	Dbar	Dhat	pD	DIC	tau
27.01 (compared to 26 datapoints)	119.699	93.504	26.195	145.894	1.213 (95%CI: 0.294, 1.954)

Table 122: Myopic corneal refractive surgery: within 1.0D – notes

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

PAIRWISE COMPARISONS: PROPORTION WITHIN 1.5 DIOPTRES AND 2.0 DIOPTRES

	Haigis-L		SRK/T			Risk Ratio
Study or Subgroup	**Events**	**Total**	**Events**	**Total**	**Weight**	**M-H, Fixed, 95% CI**
1.1.1 Within 1.5D						
Kim 2013	43	47	30	47	100.0%	1.43 [1.14, 1.81]
Subtotal (95% CI)		**47**		**47**	**100.0%**	**1.43 [1.14, 1.81]**
Total events	43		30			
Heterogeneity: Not applicable						
Test for overall effect: Z = 3.04 (P = 0.002)						
1.1.2 Within 2.0D						
Kim 2013	47	47	31	47	100.0%	1.51 [1.23, 1.85]
Subtotal (95% CI)		**47**		**47**	**100.0%**	**1.51 [1.23, 1.85]**
Total events	47		31			
Heterogeneity: Not applicable						
Test for overall effect: Z = 3.89 (P < 0.0001)						



PROPORTION WITHIN 2.0 DIOPTRE – fixed effects model

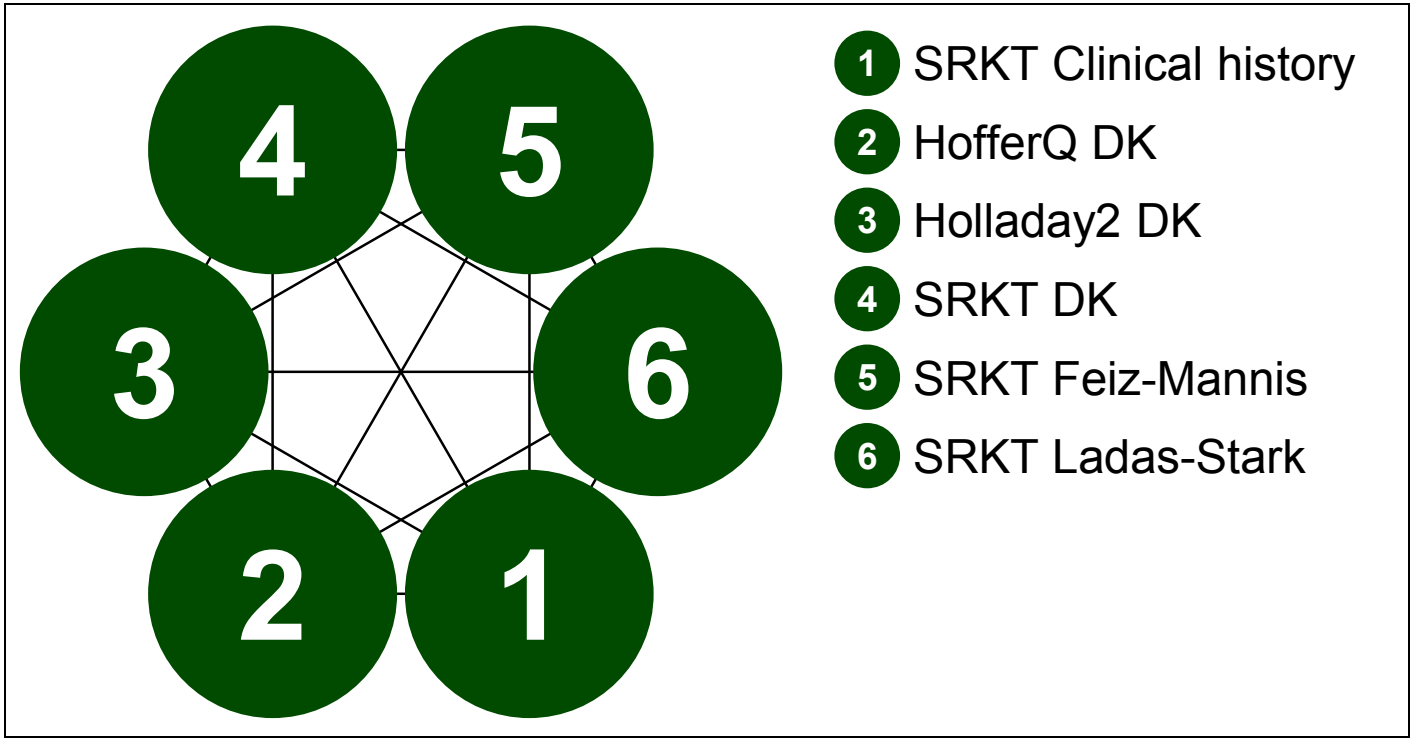


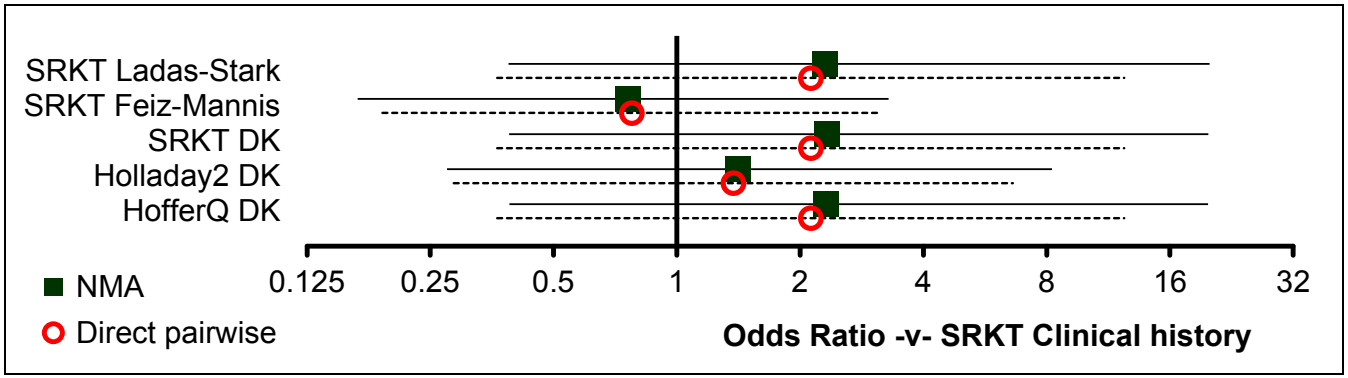
Figure 73: Myopic corneal refractive surgery: within 2.0D – evidence network

Table 123: Myopic corneal refractive surgery: within 2.0D – input data

	SRKT Clinical history	HofferQ DK	Holladay2 DK	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
Fam & (2008)	33/37	35/37	34/37	35/37	32/37	35/37

Table 124: Myopic corneal refractive surgery: within 2.0D – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT Clinical history	HofferQ DK	Holladay2 DK	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
SRKT Clinical history		2.12 (0.36, 12.36)	1.37 (0.29, 6.61)	2.12 (0.36, 12.36)	0.78 (0.19, 3.15)	2.12 (0.36, 12.36)
HofferQ DK	2.32 (0.39, 19.84)		0.65 (0.10, 4.12)	1.00 (0.13, 7.50)	0.37 (0.07, 2.02)	1.00 (0.13, 7.50)
Holladay2 DK	1.42 (0.27, 8.24)	0.61 (0.07, 4.32)		1.54 (0.24, 9.82)	0.56 (0.12, 2.56)	1.54 (0.24, 9.82)
SRKT DK	2.33 (0.39, 19.87)	1.00 (0.10, 9.99)	1.63 (0.23, 15.74)		0.37 (0.07, 2.02)	1.00 (0.13, 7.50)
SRKT Feiz-Mannis	0.76 (0.17, 3.29)	0.33 (0.04, 1.74)	0.53 (0.10, 2.50)	0.33 (0.04, 1.81)		2.73 (0.50, 15.09)
SRKT Ladas-Stark	2.30 (0.39, 19.99)	0.99 (0.10, 9.99)	1.62 (0.23, 14.79)	0.99 (0.10, 10.03)	3.02 (0.56, 26.29)	



535 **Figure 74: Myopic corneal refractive surgery: within 2.0D – relative effect of all options versus common comparator**

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537 **Table 125: Myopic corneal refractive surgery: within 2.0D – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT Clinical history	0.029	5 (1, 6)
HofferQ DK	0.292	2 (1, 6)
Holladay2 DK	0.093	4 (1, 6)
SRKT DK	0.294	2 (1, 6)
SRKT Feiz-Mannis	0.008	6 (2, 6)
SRKT Ladas-Stark	0.284	2 (1, 6)

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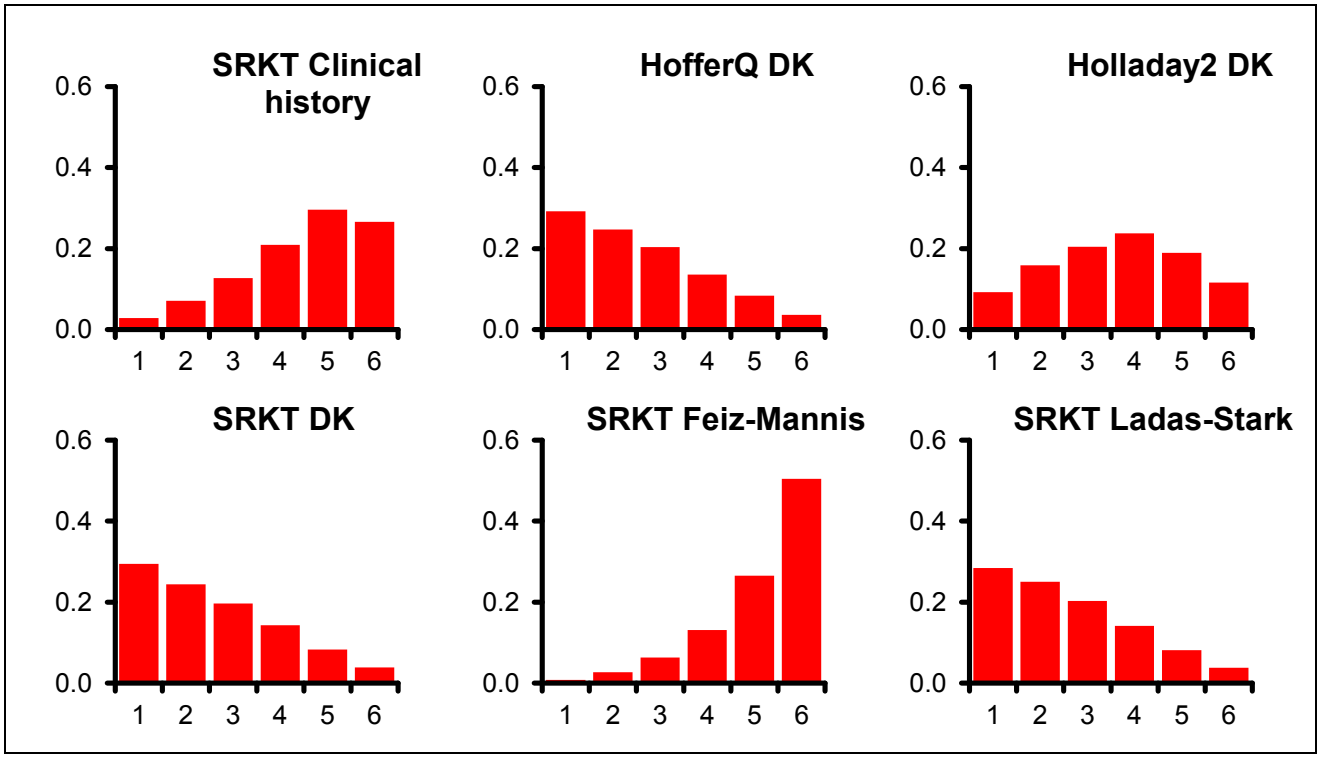

Figure 75: Myopic corneal refractive surgery: within 2.0D – rank probability histograms

Table 126: Myopic corneal refractive surgery: within 2.0D – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
6.394 (compared to 6 datapoints)	23.465	17.567	5.898	29.364	

Table 127: Myopic corneal refractive surgery: within 2.0D – notes

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

H.3.3.3 Sensitivity analyses: no historical data methods only

Proportion within 0.5D – random effects model

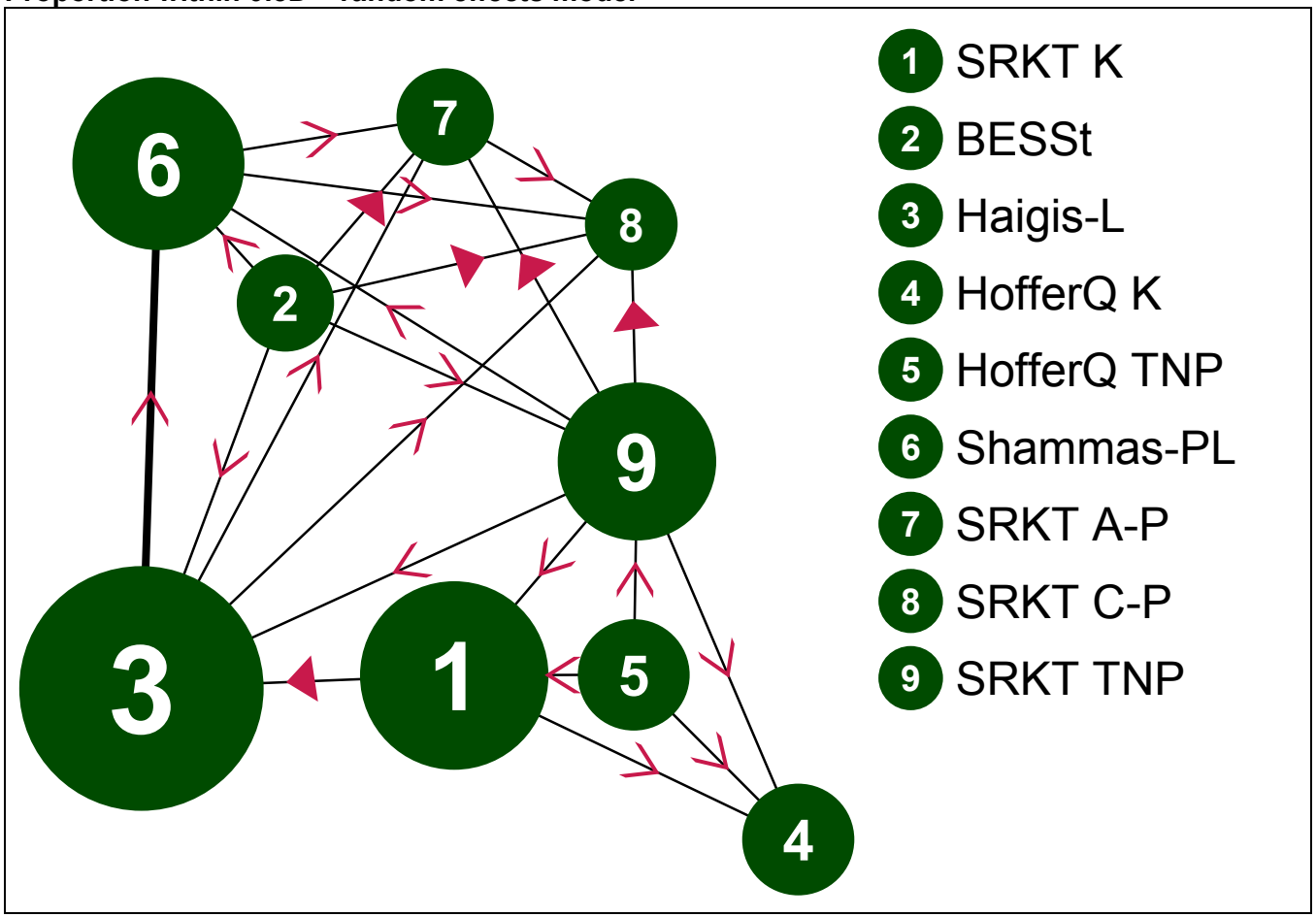

Figure 76: Myopic CRS No historical data methods: within 0.5D – evidence network

Table 128: Myopic CRS No historical data methods: within 0.5D – input data

	SRKT K	BESSt	Haigis-L	HofferQ K	HofferQ TNP	Shammas-PL	SRKT A-P	SRKT C-P	SRKT TNP
Xu et al. (2014)	4/37			6/37	3/37				3/37
Huang et al. (2013)			21/46			21/46			
Kim et al. (2013)	5/47		30/47						
Saiki et al. (2013)		3/28	6/25			7/28	13/28	12/25	5/28

Table 129: Myopic CRS No historical data methods: within 0.5D – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT K	BESSt	Haigis-L	HofferQ K	HofferQ TNP	Shammas-PL	SRKT A-P	SRKT C-P	SRKT TNP
SRKT K		-	14.82 (4.93, 44.61)	1.60 (0.41, 6.20)	0.73 (0.15, 3.50)	-	-	-	0.73 (0.15, 3.50)
BESSt	1.91 (0.08, 36.38)		2.63 (0.58, 11.90)	-	-	2.78 (0.64, 12.10)	7.22 (1.76, 29.56)	7.69 (1.84, 32.20)	1.81 (0.39, 8.44)
Haigis-L	7.71 (0.83, 59.26)	3.99 (0.33, 55.38)		-	-	1.02 (0.51, 2.02)	2.74 (0.84, 8.94)	2.92 (0.87, 9.78)	0.69 (0.18, 2.61)
HofferQ K	2.94 (0.20, 38.58)	1.54 (0.05, 61.70)	0.38 (0.02, 8.18)		0.46 (0.10, 1.98)	-	-	-	0.46 (0.10, 1.98)
HofferQ TNP	1.25 (0.07, 17.11)	0.66 (0.02, 24.84)	0.16 (0.01, 3.45)	0.42 (0.02, 6.30)		-	-	-	1.00 (0.19, 5.31)
Shammas-PL	6.54 (0.44, 72.95)	3.38 (0.27, 48.07)	0.86 (0.14, 4.80)	2.21 (0.08, 50.70)	5.22 (0.21, 135.60)		2.60 (0.84, 8.07)	2.77 (0.87, 8.84)	0.65 (0.18, 2.37)
SRKT A-P	15.89 (0.76, 273.70)	8.16 (0.55, 144.60)	2.06 (0.19, 21.26)	5.34 (0.16, 156.30)	12.65 (0.36, 447.50)	2.43 (0.22, 26.60)		1.07 (0.36, 3.14)	0.25 (0.07, 0.85)
SRKT C-P	16.96 (0.78, 285.30)	8.84 (0.60, 153.10)	2.23 (0.20, 24.06)	5.74 (0.17, 166.20)	13.68 (0.40, 460.80)	2.58 (0.23, 29.24)	1.08 (0.08, 14.84)		0.24 (0.07, 0.82)

	SRKT K	BESSt	Haigis-L	HofferQ K	HofferQ TNP	Shammas-PL	SRKT A-P	SRKT C-P	SRKT TNP
SRKT TNP	2.20 (0.21, 18.06)	1.16 (0.08, 19.14)	0.29 (0.04, 2.33)	0.75 (0.05, 9.28)	1.78 (0.12, 27.68)	0.34 (0.04, 3.41)	0.14 (0.01, 1.77)	0.13 (0.01, 1.72)	

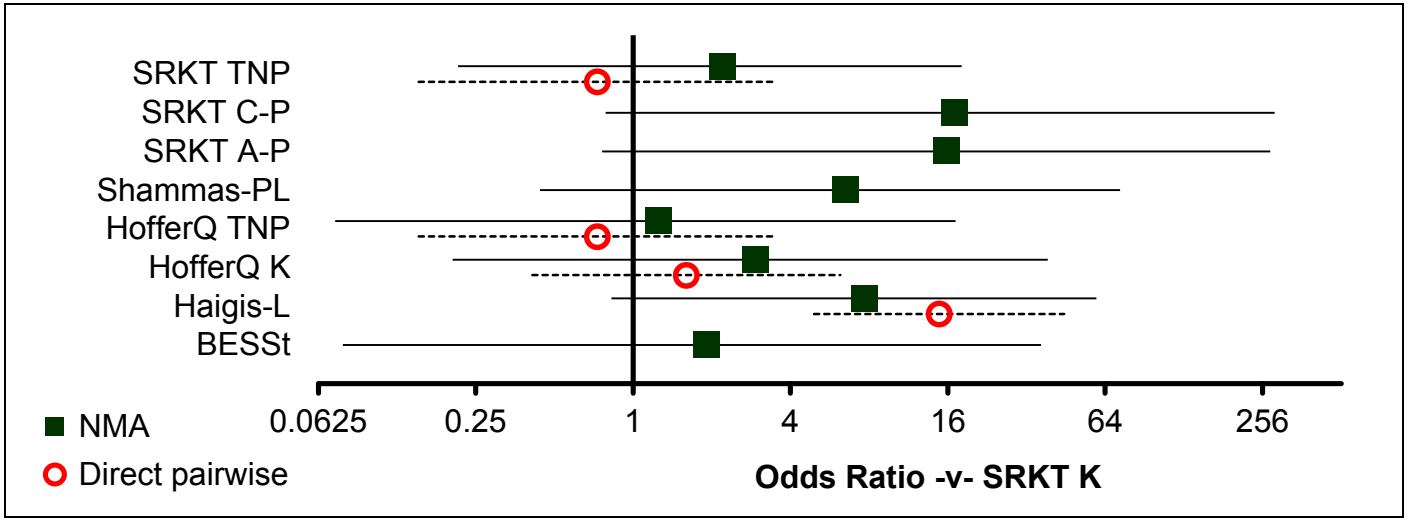

Figure 77: Myopic CRS No historical data methods: within 0.5D – relative effect of all options versus common comparator

Table 130: Myopic CRS No historical data methods: within 0.5D – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT K	0.002	8 (4, 9)
BESSt	0.008	7 (2, 9)
Haigis-L	0.061	3 (1, 7)
HofferQ K	0.057	6 (1, 9)
HofferQ TNP	0.015	8 (2, 9)

	Probability best	Median rank (95%CI)
Shammas-PL	0.043	4 (1, 8)
SRKT A-P	0.379	2 (1, 7)
SRKT C-P	0.430	2 (1, 7)
SRKT TNP	0.004	6 (3, 9)

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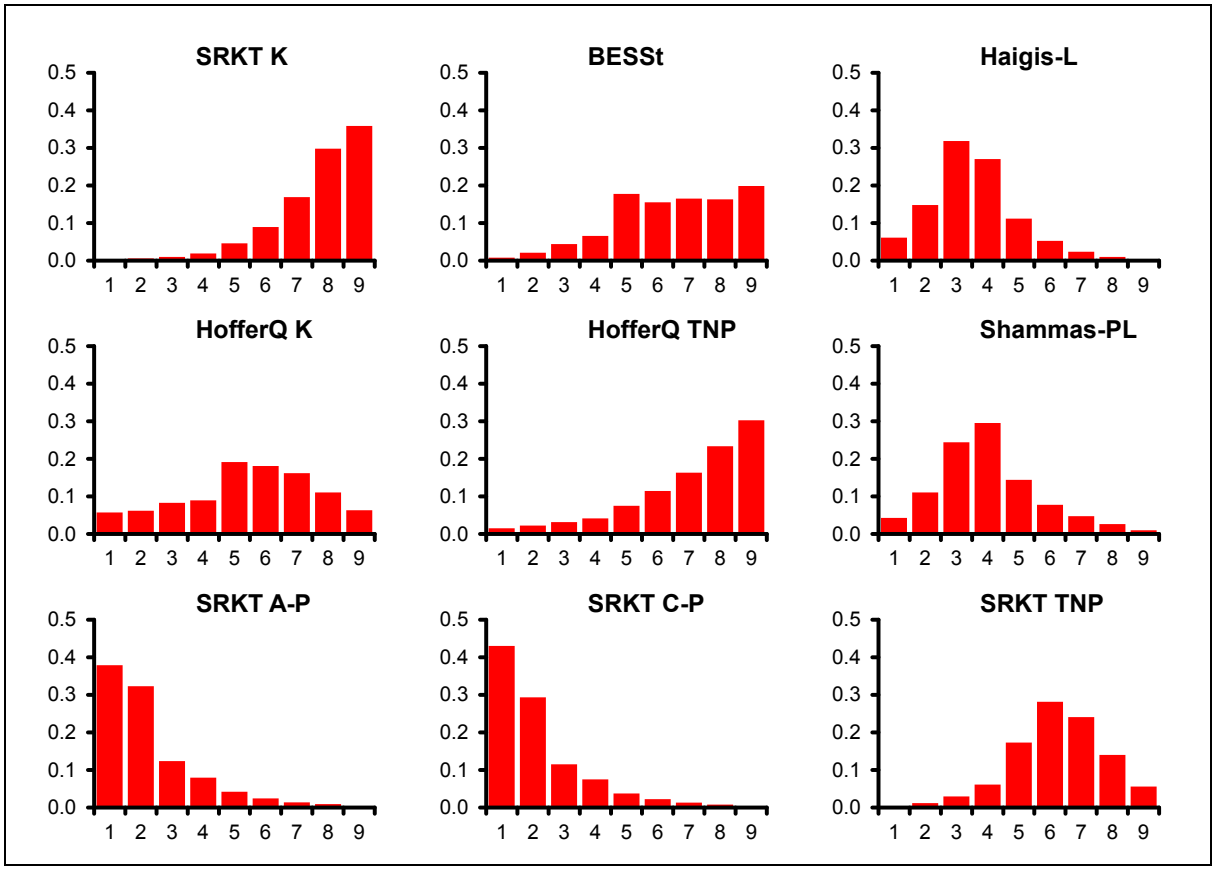

Figure 78: Myopic CRS No historical data methods: within 0.5D – rank probability histograms

Table 131: Myopic CRS No historical data methods: within 0.5D – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau
14.86 (compared to 14 datapoints)	64.031	50.43	13.601	77.632	0.942 (95%CI: 0.066, 1.925)

Table 132: Myopic CRS No historical data methods: within 0.5D – notes

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

Proportion within 1.0D – random effects model

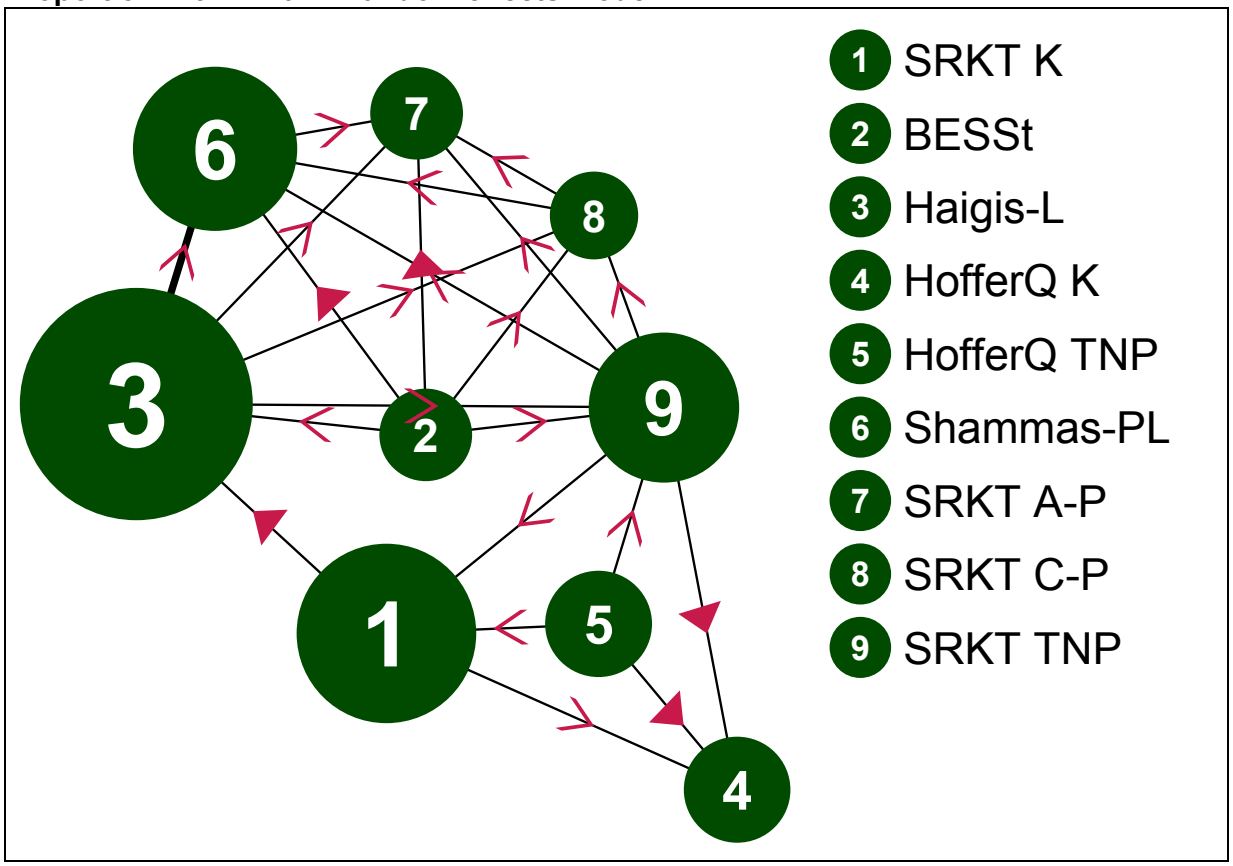

Figure 79: Myopic CRS No historical data methods: within 1.0D – evidence network

561 **Table 133: Myopic CRS No historical data methods: within 1.0D – input data**

	SRKT K	BESSt	Haigis-L	HofferQ K	HofferQ TNP	Shammas-PL	SRKT A-P	SRKT C-P	SRKT TNP
Xu et al. (2014)	8/37			14/37	3/37				5/37
Huang et al. (2013)			36/46			39/46			
Kim et al. (2013)	16/47		38/47						
Saiki et al. (2013)		12/28	13/25			20/28	21/28	17/25	17/28

562 **Table 134: Myopic CRS No historical data methods: within 1.0D – relative effectiveness of all pairwise combinations (RR and 95%**
563 **credible interval)**

	SRKT K	BESSt	Haigis-L	HofferQ K	HofferQ TNP	Shammas-PL	SRKT A-P	SRKT C-P	SRKT TNP
SRKT K		-	8.18 (3.18, 21.03)	2.21 (0.79, 6.16)	0.32 (0.08, 1.32)	-	-	-	0.57 (0.17, 1.93)
BESSt	1.36 (0.06, 29.93)		1.44 (0.49, 4.27)	-	-	3.33 (1.10, 10.12)	4.00 (1.28, 12.46)	2.83 (0.92, 8.73)	2.06 (0.71, 5.98)
Haigis-L	3.30 (0.32, 30.30)	2.40 (0.18, 32.35)		-	-	1.87 (0.86, 4.06)	2.77 (0.87, 8.84)	1.96 (0.62, 6.19)	1.43 (0.48, 4.25)
HofferQ K	3.93 (0.26, 60.17)	2.89 (0.07, 114.80)	1.20 (0.06, 28.92)		0.14 (0.04, 0.56)	-	-	-	0.26 (0.08, 0.81)
HofferQ TNP	0.50 (0.03, 8.27)	0.37 (0.01, 16.64)	0.15 (0.01, 4.08)	0.13 (0.01, 2.49)		-	-	-	1.77 (0.39, 8.02)
Shammas-PL	4.89 (0.29, 73.62)	3.59 (0.25, 51.59)	1.49 (0.20, 10.83)	1.23 (0.04, 37.75)	9.68 (0.28, 348.20)		1.20 (0.37, 3.92)	0.85 (0.26, 2.75)	0.62 (0.20, 1.89)
SRKT A-P	5.77 (0.23, 130.60)	4.24 (0.24, 76.73)	1.76 (0.13, 23.75)	1.46 (0.04, 56.18)	11.34 (0.26, 561.10)	1.19 (0.08, 16.70)		0.71 (0.21, 2.35)	0.52 (0.16, 1.62)
SRKT C-P	4.00 (0.16, 91.84)	2.94 (0.16, 53.66)	1.22 (0.09, 16.85)	1.00 (0.02, 39.47)	7.88 (0.18, 378.80)	0.82 (0.05, 12.06)	0.69 (0.04, 12.78)		0.73 (0.23, 2.26)

	SRKT K	BESSt	Haigis-L	HofferQ K	HofferQ TNP	Shammas-PL	SRKT A-P	SRKT C-P	SRKT TNP
SRKT TNP	1.72 (0.16, 16.54)	1.27 (0.08, 19.13)	0.52 (0.06, 4.77)	0.43 (0.03, 6.28)	3.37 (0.19, 61.78)	0.35 (0.03, 4.05)	0.30 (0.02, 4.49)	0.43 (0.03, 6.83)	

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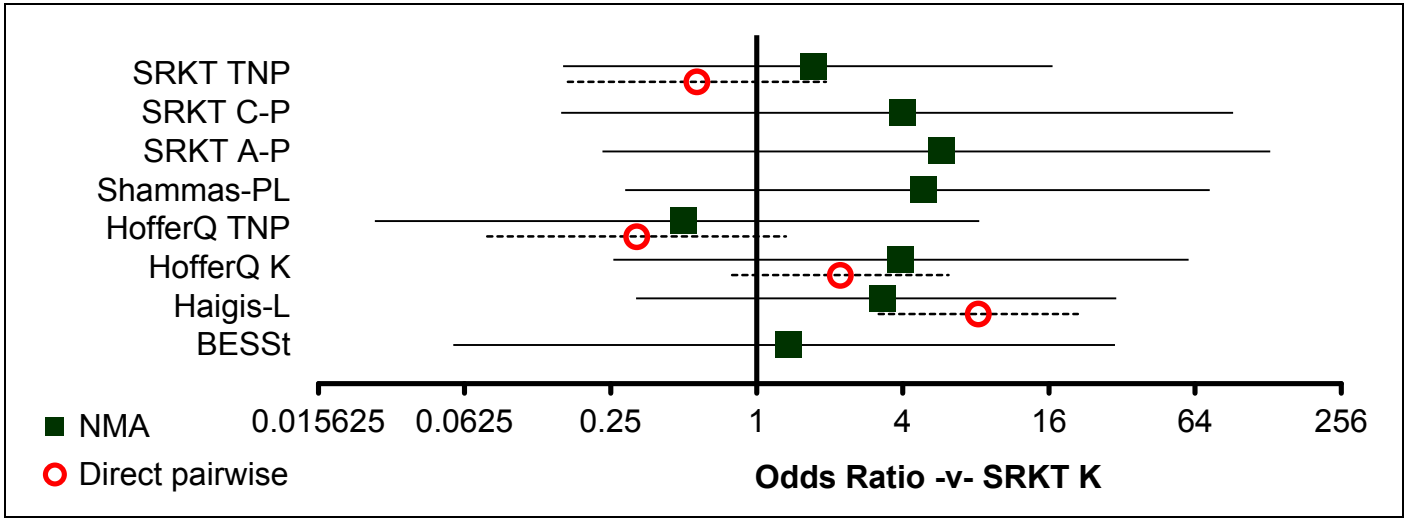

565 **Figure 80: Myopic CRS No historical data methods: within 1.0D – relative effect of all options versus common comparator**

566 **Table 135: Myopic CRS No historical data methods: within 1.0D – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT K	0.008	7 (2, 9)
BESSt	0.022	7 (2, 9)
Haigis-L	0.053	4 (1, 8)
HofferQ K	0.233	4 (1, 8)
HofferQ TNP	0.010	9 (2, 9)

	Probability best	Median rank (95%CI)
Shammas-PL	0.190	3 (1, 8)
SRKT A-P	0.303	2 (1, 8)
SRKT C-P	0.169	4 (1, 9)
SRKT TNP	0.012	6 (2, 9)

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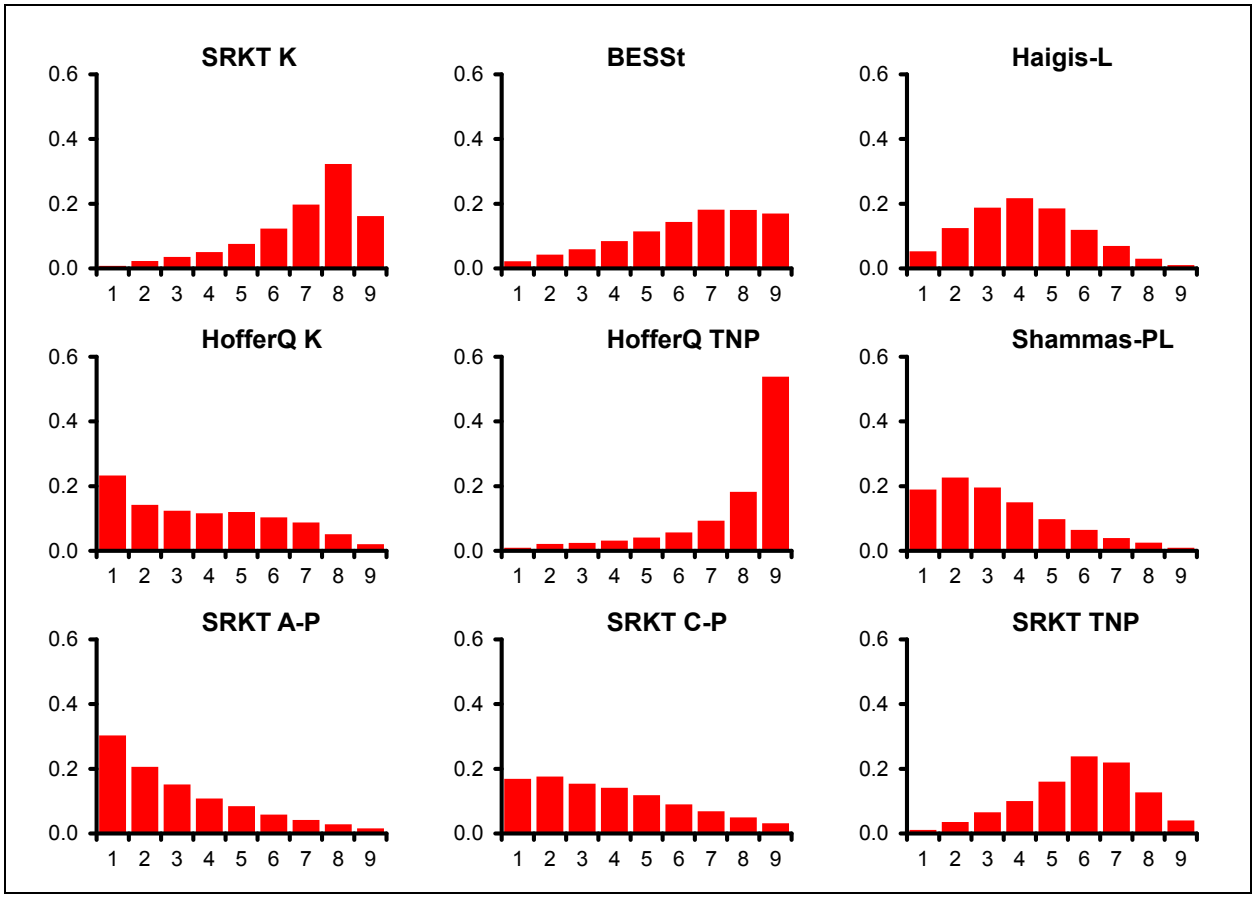

Figure 81: Myopic CRS No historical data methods: within 1.0D – rank probability histograms

Table 136: Myopic CRS No historical data methods: within 1.0D – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau
14.54 (compared to 14 datapoints)	66.007	52.117	13.89	79.897	1.204 (95%CI: 0.298, 1.951)

571 **Table 137: Myopic CRS No historical data methods: within 1.0D – notes**

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

H.3.3.4 Sensitivity analysis: historical data methods only

Mean absolute error – random effects model

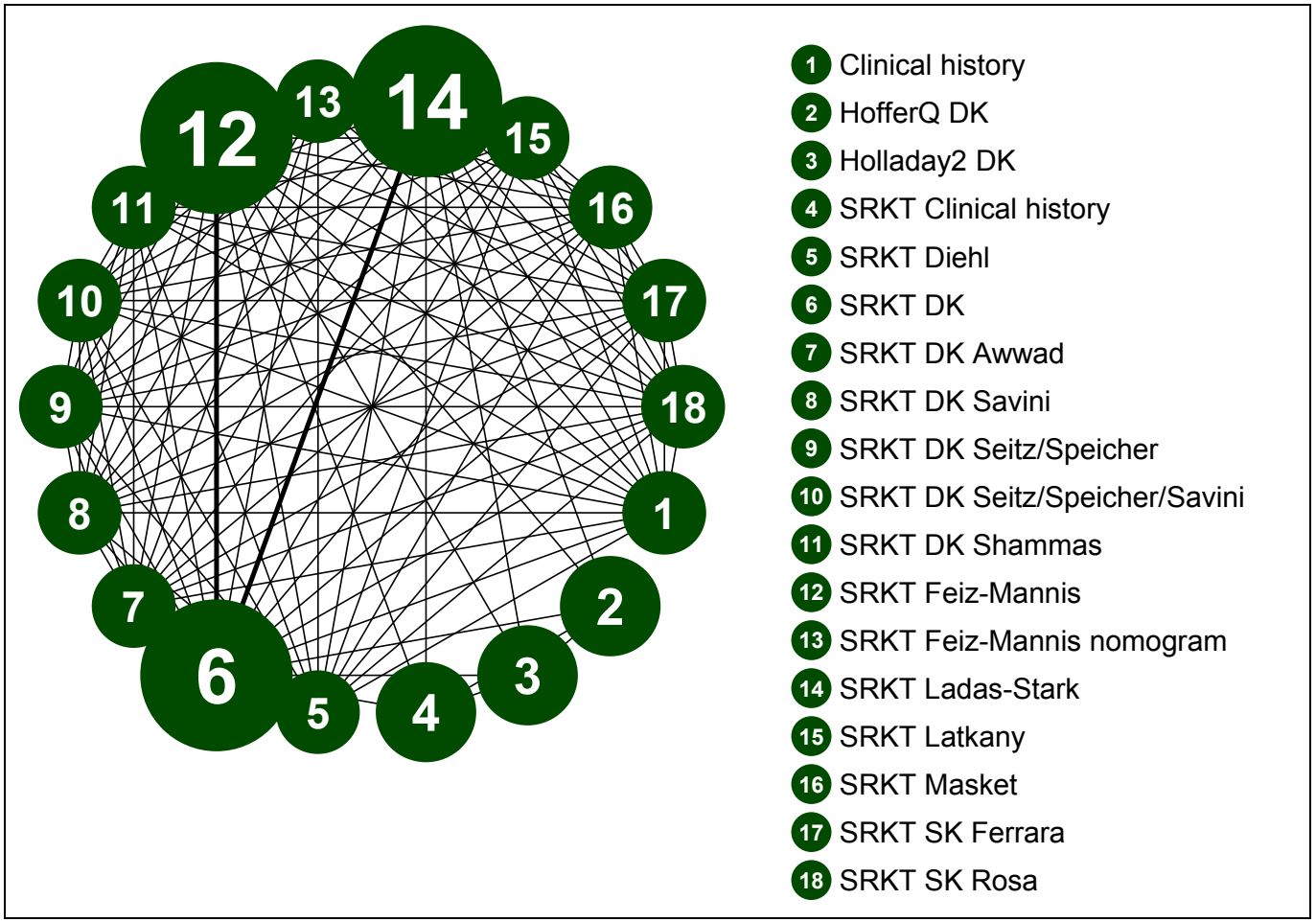

Figure 82: Myopic CRS Historical data methods: mean absolute error – evidence network

576 **Table 138: Myopic CRS Historical data methods: mean absolute error – input data**

	Clinical history	HofferQ DK	Holladay2 DK	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Savini	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa
Savini et al. (2010)	1.62 (1.25)				1.33 (1.03)	1.00 (0.57)	1.79 (1.13)	0.62 (0.52)	0.56 (0.45)	0.53 (0.46)	1.60 (0.98)	1.87 (1.44)	2.04 (1.48)	2.18 (1.52)	1.08 (0.86)	0.76 (0.49)	3.64 (1.45)	1.94 (1.01)
Fam & (2008)		0.75 (0.52)	0.75 (0.62)	1.32 (0.73)		0.76 (0.60)						0.93 (0.83)		0.80 (0.63)				

577 **Table 139: Myopic CRS Historical data methods: mean absolute error – relative effectiveness of all pairwise combinations (MD and**
578 **95% credible interval)**

	Clinical history	HofferQ DK	Holladay2 DK	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Savini	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa
Clinical history		-	-	-	-0.29 (-0.89, 0.31)	-0.62 (-1.13, -0.11)	0.17 (-0.45, 0.79)	-1.00 (-1.50, -0.50)	-1.06 (-1.55, -0.57)	-1.09 (-1.58, -0.60)	-0.02 (-0.61, 0.57)	0.25 (-0.46, 0.96)	0.42 (-0.30, 1.14)	0.56 (-0.17, 1.29)	-0.54 (-1.10, 0.02)	-0.86 (-1.36, -0.36)	2.02 (1.31, 2.73)	0.32 (-0.28, 0.92)
HofferQ DK	-0.07 (-2.66, 2.54)		0.00 (-0.26, 0.26)	0.57 (0.28, 0.86)	-	0.01 (-0.25, 0.27)	-	-	-	-	-	0.18 (-0.14, 0.50)	-	0.05 (-0.21, 0.31)	-	-	-	-
Holladay2 DK	-0.08 (-2.63, 2.50)	0.00 (-2.16, 2.16)		0.57 (0.26, 0.88)	-	0.01 (-0.27, 0.29)	-	-	-	-	-	0.18 (-0.15, 0.51)	-	0.05 (-0.23, 0.33)	-	-	-	-
SRKT Clinical history	0.50 (-2.04, 3.08)	0.57 (-1.59, 2.72)	0.57 (-1.63, 2.74)		-	-0.56 (-0.86, -0.26)	-	-	-	-	-	-0.39 (-0.75, -0.03)	-	-0.52 (-0.83, -0.21)	-	-	-	-
SRKT Diehl	-0.30 (-2.52, 1.93)	-0.22 (-2.80, 2.29)	-0.22 (-2.77, 2.27)	-0.79 (-3.38, 1.74)		-0.33 (-0.77, 0.11)	0.46 (-0.11, 1.03)	-0.71 (-1.14, -0.28)	-0.77 (-1.19, -0.35)	-0.80 (-1.22, -0.38)	0.27 (-0.26, 0.80)	0.54 (-0.12, 1.20)	0.71 (0.04, 1.38)	0.85 (0.17, 1.53)	-0.25 (-0.75, 0.25)	-0.57 (-0.99, -0.15)	2.31 (1.65, 2.97)	0.61 (0.08, 1.14)

	Clinical history	HofferQ DK	Holladay2 DK	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Savini	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa
SRKT DK	-0.35 (-2.38, 1.74)	-0.27 (-2.26, 1.69)	-0.27 (-2.22, 1.68)	-0.84 (-2.84, 1.14)	-0.05 (-2.08, 2.02)		0.79 (0.32, 1.26)	-0.38 (-0.67, -0.09)	-0.44 (-0.71, -0.17)	-0.47 (-0.74, -0.20)	0.60 (0.18, 1.02)	0.48 (-0.20, 1.16)	1.04 (0.45, 1.63)	0.58 (-0.54, 1.69)	0.08 (-0.30, 0.46)	-0.24 (-0.52, 0.04)	2.64 (2.06, 3.22)	0.94 (0.51, 1.37)
SRKT DK Awwad	0.16 (-2.08, 2.37)	0.24 (-2.40, 2.74)	0.24 (-2.29, 2.75)	-0.34 (-2.92, 2.19)	0.45 (-1.80, 2.68)	0.51 (-1.57, 2.47)		-1.17 (-1.63, -0.71)	-1.23 (-1.68, -0.78)	-1.26 (-1.71, -0.81)	-0.19 (-0.74, 0.36)	0.08 (-0.60, 0.76)	0.25 (-0.44, 0.94)	0.39 (-0.31, 1.09)	-0.71 (-1.24, -0.18)	-1.03 (-1.49, -0.57)	1.85 (1.17, 2.53)	0.15 (-0.41, 0.71)
SRKT DK Savini	-1.00 (-3.26, 1.18)	-0.93 (-3.48, 1.53)	-0.92 (-3.44, 1.56)	-1.50 (-4.07, 0.97)	-0.71 (-2.90, 1.49)	-0.66 (-2.70, 1.34)	-1.17 (-3.33, 1.05)		-0.06 (-0.31, 0.19)	-0.09 (-0.35, 0.17)	0.98 (0.57, 1.39)	1.25 (0.68, 1.82)	1.42 (0.84, 2.00)	1.56 (0.96, 2.16)	0.46 (0.09, 0.83)	0.14 (-0.12, 0.40)	3.02 (2.45, 3.59)	1.32 (0.90, 1.74)
SRKT DK Seitz/Speicher	-1.07 (-3.31, 1.13)	-0.99 (-3.57, 1.51)	-0.98 (-3.56, 1.47)	-1.57 (-4.14, 0.94)	-0.77 (-2.97, 1.44)	-0.72 (-2.79, 1.25)	-1.23 (-3.44, 0.99)	-0.06 (-2.27, 2.15)		-0.03 (-0.27, 0.21)	1.04 (0.64, 1.44)	1.31 (0.75, 1.87)	1.48 (0.91, 2.05)	1.62 (1.03, 2.21)	0.52 (0.16, 0.88)	0.20 (-0.05, 0.45)	3.08 (2.52, 3.64)	1.38 (0.97, 1.79)
SRKT DK Seitz/Speicher/Savini	-1.10 (-3.32, 1.12)	-1.02 (-3.59, 1.46)	-1.02 (-3.56, 1.49)	-1.59 (-4.16, 0.92)	-0.80 (-3.03, 1.41)	-0.75 (-2.77, 1.23)	-1.26 (-3.44, 0.96)	-0.09 (-2.29, 2.10)	-0.03 (-2.24, 2.19)		1.07 (0.67, 1.47)	1.34 (0.78, 1.90)	1.51 (0.94, 2.08)	1.65 (1.06, 2.24)	0.55 (0.19, 0.91)	0.23 (-0.02, 0.48)	3.11 (2.55, 3.67)	1.41 (1.00, 1.82)
SRKT DK Shammas	-0.03 (-2.26, 2.22)	0.05 (-2.57, 2.55)	0.05 (-2.51, 2.56)	-0.52 (-3.16, 2.01)	0.26 (-1.94, 2.45)	0.32 (-1.74, 2.33)	-0.19 (-2.44, 2.08)	0.97 (-1.25, 3.22)	1.04 (-1.18, 3.25)	1.07 (-1.14, 3.29)		0.27 (-0.38, 0.92)	0.44 (-0.22, 1.10)	0.58 (-0.09, 1.25)	-0.52 (-1.00, -0.04)	-0.84 (-1.25, -0.43)	2.04 (1.39, 2.69)	0.34 (-0.18, 0.86)
SRKT Feiz-Mannis	0.17 (-1.88, 2.25)	0.24 (-1.79, 2.24)	0.24 (-1.76, 2.21)	-0.34 (-2.37, 1.66)	0.46 (-1.57, 2.55)	0.51 (-1.02, 2.10)	0.00 (-2.01, 2.11)	1.17 (-0.81, 3.24)	1.24 (-0.77, 3.30)	1.26 (-0.74, 3.32)	0.20 (-1.81, 2.24)		0.17 (-0.59, 0.93)	-0.05 (-0.38, 0.27)	-0.79 (-1.41, -0.17)	-1.11 (-1.67, -0.55)	1.77 (1.01, 2.53)	0.07 (-0.58, 0.72)
SRKT Feiz-Mannis nomogram	0.41 (-1.85, 2.68)	0.49 (-2.16, 3.01)	0.49 (-2.12, 3.02)	-0.09 (-2.72, 2.46)	0.71 (-1.55, 2.93)	0.76 (-1.32, 2.78)	0.25 (-1.98, 2.51)	1.42 (-0.78, 3.64)	1.48 (-0.73, 3.72)	1.51 (-0.72, 3.77)	0.44 (-1.83, 2.73)	0.25 (-1.84, 2.31)		0.14 (-0.65, 0.93)	-0.96 (-1.59, -0.33)	-1.28 (-1.86, -0.70)	1.60 (0.83, 2.37)	-0.10 (-0.76, 0.56)
SRKT Ladas-Stark	0.20 (-1.77, 2.31)	0.27 (-1.70, 2.30)	0.28 (-1.63, 2.28)	-0.29 (-2.28, 1.73)	0.50 (-1.47, 2.59)	0.55 (-0.98, 2.12)	0.05 (-1.91, 2.15)	1.21 (-0.73, 3.30)	1.27 (-0.68, 3.41)	1.30 (-0.66, 3.42)	0.23 (-1.75, 2.35)	0.04 (-1.49, 1.65)	-0.20 (-2.23, 1.91)		-1.10 (-1.75, -0.45)	-1.42 (-2.01, -0.83)	1.46 (0.68, 2.24)	-0.24 (-0.92, 0.44)

	Clinical history	HofferQ DK	Holladay2 DK	SRKT Clinical history	SRKT Diehl	SRKT DK	SRKT DK Awwad	SRKT DK Savini	SRKT DK Seitz/Speicher	SRKT DK Seitz/Speicher/Savini	SRKT DK Shammas	SRKT Feiz-Mannis	SRKT Feiz-Mannis nomogram	SRKT Ladas-Stark	SRKT Latkany	SRKT Masket	SRKT SK Ferrara	SRKT SK Rosa
SRKT Latkany	-0.55 (-2.77, 1.63)	-0.47 (-3.02, 2.01)	-0.47 (-3.02, 2.03)	-1.05 (-3.60, 1.46)	-0.25 (-2.47, 1.94)	-0.20 (-2.26, 1.80)	-0.70 (-2.92, 1.54)	0.46 (-1.71, 2.65)	0.53 (-1.67, 2.71)	0.56 (-1.62, 2.76)	-0.51 (-2.71, 1.69)	-0.71 (-2.74, 1.30)	-0.96 (-3.18, 1.25)	-0.75 (-2.82, 1.21)		-0.32 (-0.69, 0.05)	2.56 (1.94, 3.18)	0.86 (0.37, 1.35)
SRKT Masket	-0.87 (-3.06, 1.34)	-0.79 (-3.34, 1.71)	-0.78 (-3.36, 1.71)	-1.36 (-3.93, 1.13)	-0.57 (-2.78, 1.61)	-0.52 (-2.56, 1.44)	-1.03 (-3.22, 1.20)	0.14 (-2.03, 2.29)	0.20 (-1.97, 2.40)	0.23 (-1.95, 2.43)	-0.84 (-3.03, 1.33)	-1.03 (-3.08, 0.94)	-1.28 (-3.52, 0.97)	-1.07 (-3.15, 0.87)	-0.32 (-2.50, 1.83)		2.88 (2.31, 3.45)	1.18 (0.76, 1.60)
SRKT SK Ferrara	2.01 (-0.24, 4.26)	2.08 (-0.53, 4.62)	2.09 (-0.49, 4.66)	1.52 (-1.09, 4.09)	2.31 (0.09, 4.55)	2.36 (0.29, 4.42)	1.86 (-0.36, 4.13)	3.02 (0.85, 5.24)	3.08 (0.88, 5.31)	3.11 (0.92, 5.36)	2.04 (-0.20, 4.28)	1.85 (-0.26, 3.93)	1.61 (-0.66, 3.86)	1.80 (-0.33, 3.83)	2.55 (0.35, 4.80)	2.87 (0.71, 5.11)		-1.70 (-2.35, -1.05)
SRKT SK Rosa	0.31 (-1.94, 2.54)	0.39 (-2.21, 2.92)	0.39 (-2.20, 2.89)	-0.18 (-2.73, 2.34)	0.61 (-1.56, 2.83)	0.66 (-1.41, 2.69)	0.15 (-2.02, 2.38)	1.32 (-0.86, 3.51)	1.39 (-0.81, 3.56)	1.41 (-0.79, 3.63)	0.35 (-1.84, 2.57)	0.16 (-1.92, 2.17)	-0.10 (-2.35, 2.14)	0.12 (-2.00, 2.07)	0.86 (-1.34, 3.06)	1.18 (-1.01, 3.40)	-1.69 (-3.96, 0.53)	

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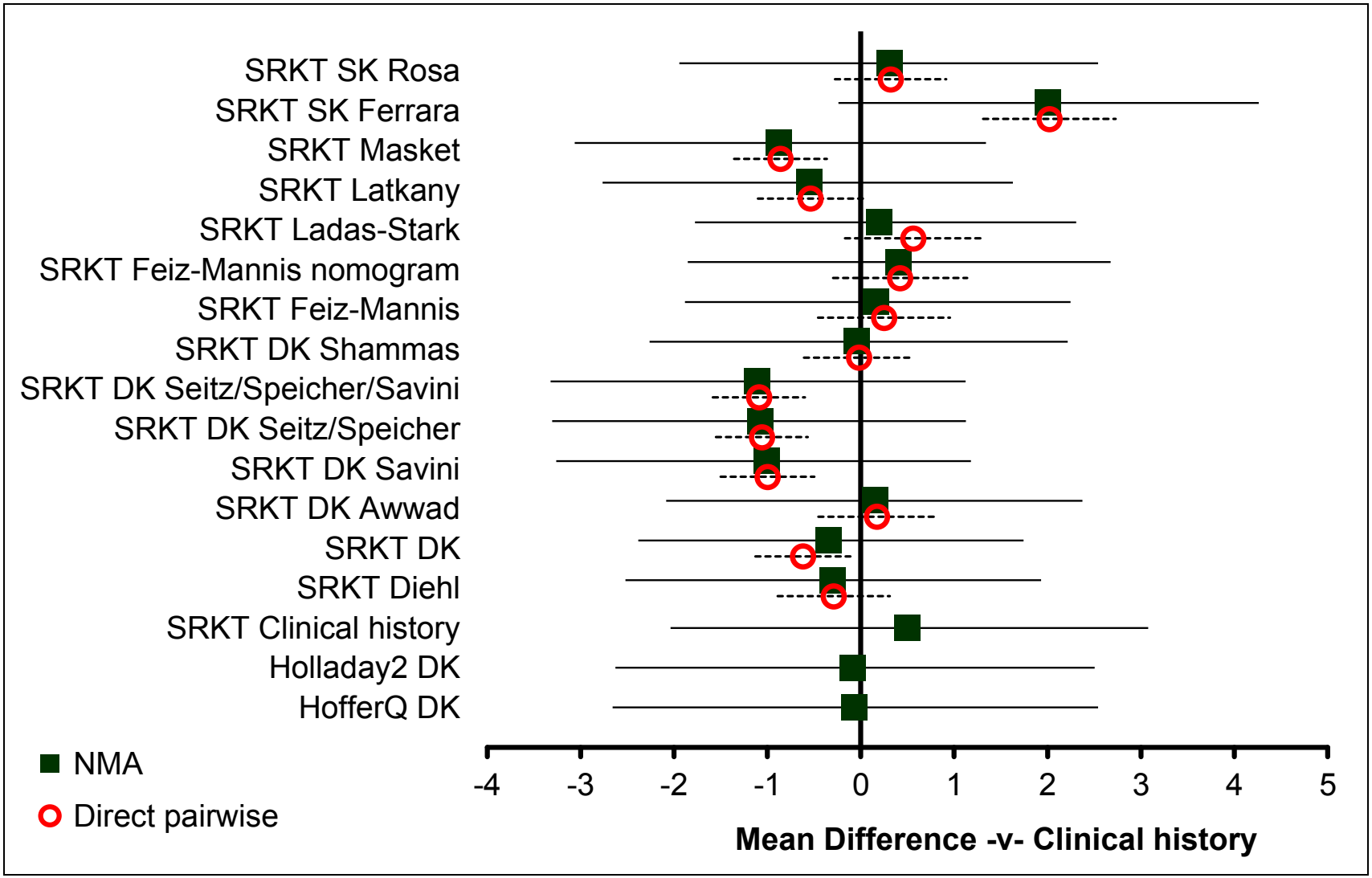

580 **Figure 83: Myopic CRS Historical data methods: mean absolute error – relative effect of all options versus common comparator**

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582 **Table 140: Myopic CRS Historical data methods: mean absolute error – rankings for each comparator**

	Probability best	Median rank (95%CI)
Clinical history	0.013	11 (2, 17)
HofferQ DK	0.027	10 (1, 17)
Holladay2 DK	0.027	10 (1, 17)
SRKT Clinical history	0.008	15 (3, 18)
SRKT Diehl	0.027	8 (1, 17)
SRKT DK	0.011	7 (2, 15)
SRKT DK Awwad	0.007	12 (3, 17)
SRKT DK Savini	0.191	3 (1, 14)
SRKT DK Seitz/Speicher	0.231	3 (1, 13)
SRKT DK Seitz/Speicher/Savini	0.257	3 (1, 13)
SRKT DK Shammas	0.013	10 (2, 17)
SRKT Feiz-Mannis	0.002	12 (4, 17)
SRKT Feiz-Mannis nomogram	0.005	14 (4, 18)
SRKT Ladas-Stark	0.001	12 (5, 17)
SRKT Latkany	0.050	6 (1, 16)
SRKT Masket	0.125	4 (1, 14)
SRKT SK Ferrara	0.000	18 (12, 18)
SRKT SK Rosa	0.005	13 (3, 17)

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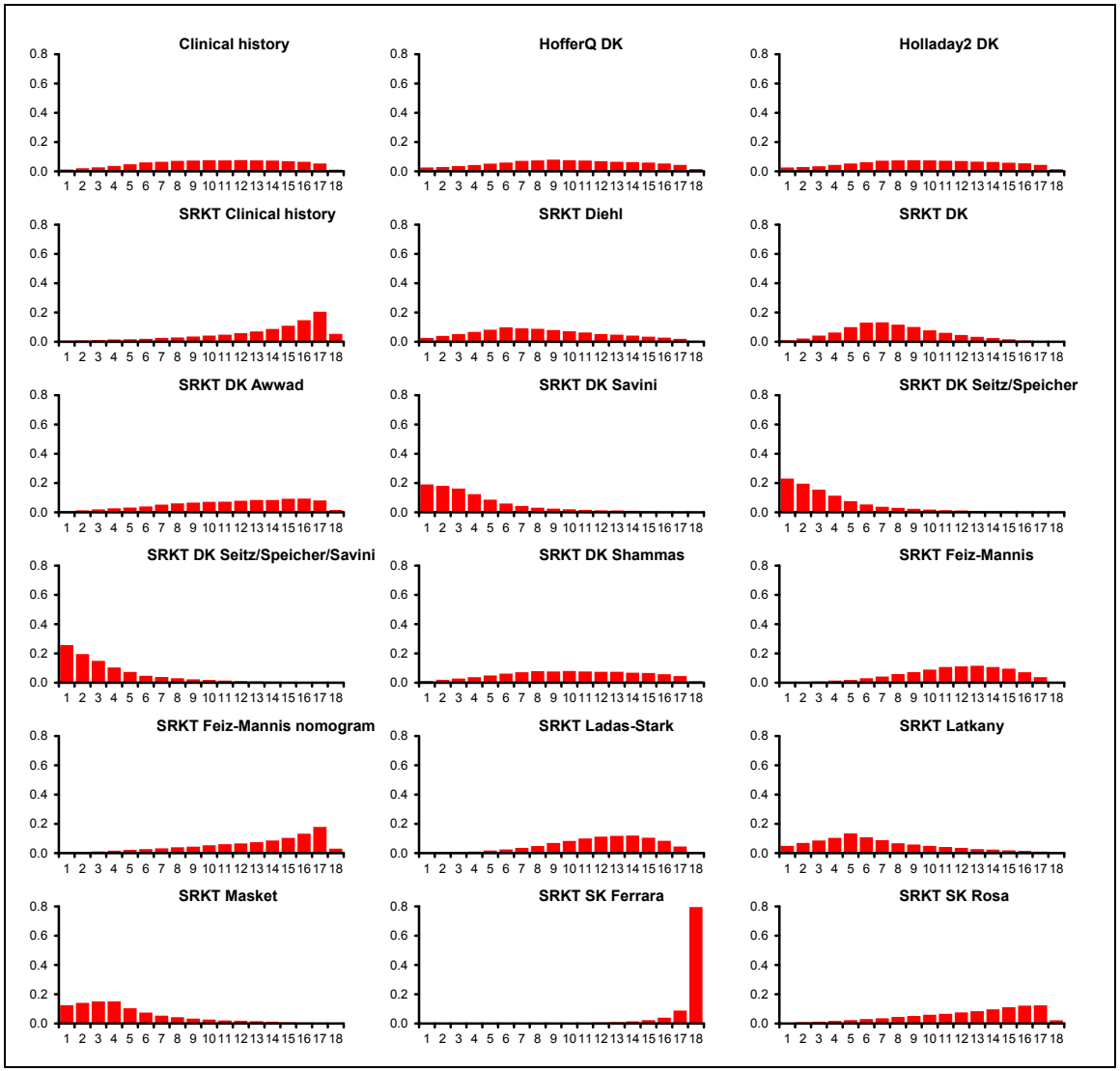

584 **Figure 84: Myopic CRS Historical data methods: mean absolute error – rank probability histograms**

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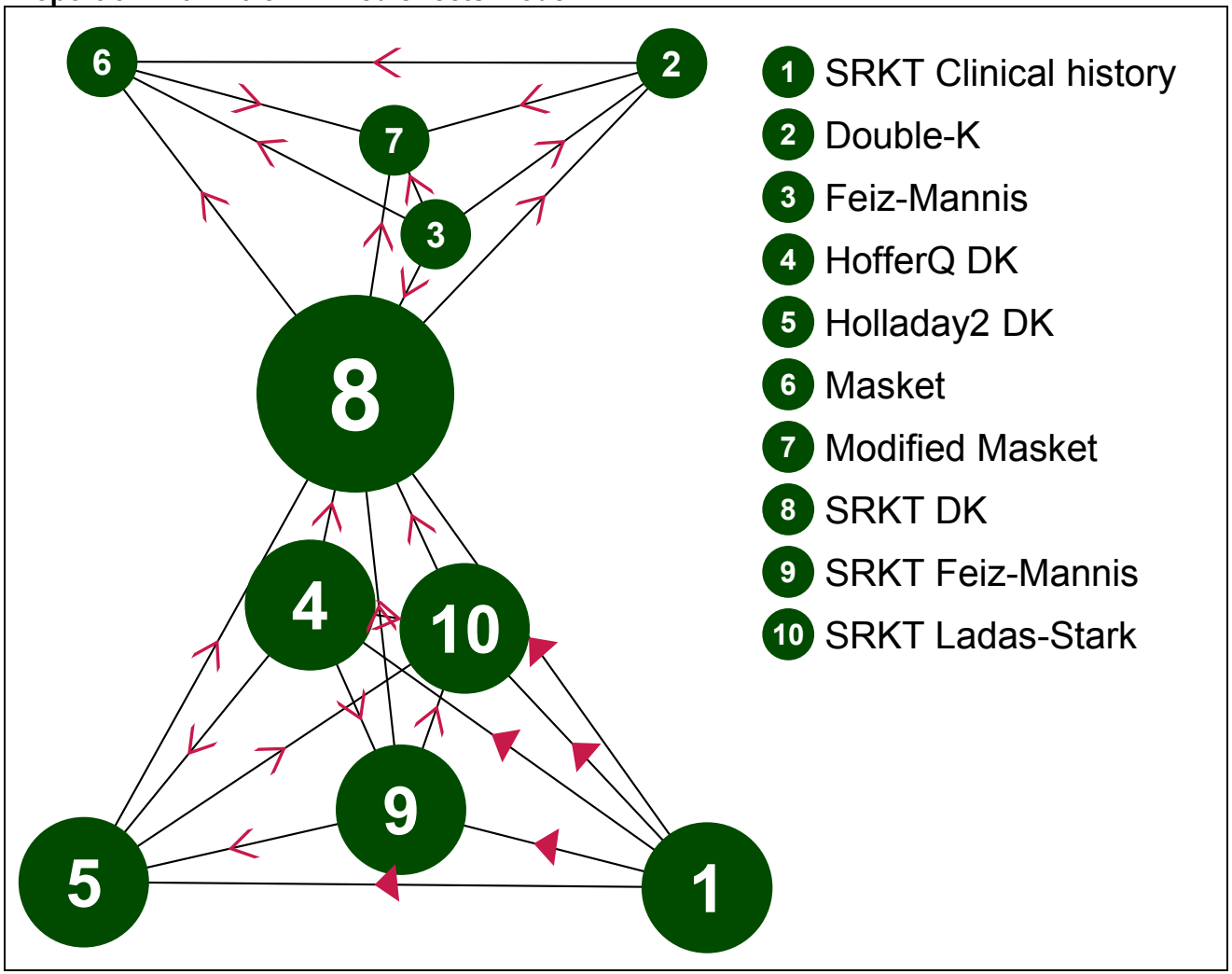
586 **Table 141: Myopic CRS Historical data methods: mean absolute error – model fit statistics**

Residual deviance	Dbar	Dhat	pD	DIC	tau
21.08 (compared to 21 datapoints)	-20.673	-41.582	20.909	0.237	0.816 (95%CI: 0.246, 1.896)

587 **Table 142: Myopic CRS Historical data methods: mean absolute error – notes**

- Continuous (normal; identity link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

588 **Proportion within 0.5D – fixed effects model**



589 **Figure 85: Myopic CRS Historical data methods: within 0.5D – evidence network**

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591 **Table 143: Myopic CRS Historical data methods: within 0.5D – input data**

	SRKT Clinical history	Double-K	Feiz-Mannis	HofferQ DK	Holladay2 DK	Masket	Modified Masket	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
Saiki et al. (2013)		4/12	1/12			4/12	5/12	5/28		
Fam & (2008)	5/37			13/37	17/37			19/37	15/37	17/37

592 593 **Table 144: Myopic CRS Historical data methods: within 0.5D – relative effectiveness of all pairwise combinations (RR and 95% credible interval)**

	SRKT Clinical history	Double-K	Feiz-Mannis	HofferQ DK	Holladay2 DK	Masket	Modified Masket	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
SRKT Clinical history		-	-	3.47 (1.09, 11.05)	5.44 (1.73, 17.06)	-	-	6.76 (2.16, 21.16)	4.36 (1.38, 13.76)	5.44 (1.73, 17.06)
Double-K	17.01 (2.37, 129.10)		0.18 (0.02, 1.95)	-	-	1.00 (0.18, 5.46)	1.43 (0.27, 7.52)	0.43 (0.09, 2.03)	-	-
Feiz-Mannis	2.25 (0.06, 27.09)	0.14 (0.00, 1.31)		-	-	5.50 (0.51, 59.01)	7.86 (0.75, 82.13)	2.39 (0.25, 23.01)	-	-
HofferQ DK	3.64 (1.18, 13.11)	0.22 (0.03, 1.40)	1.63 (0.15, 54.84)		1.57 (0.62, 4.00)	-	-	1.95 (0.77, 4.96)	1.26 (0.49, 3.23)	1.57 (0.62, 4.00)
Holladay2 DK	5.79 (1.90, 20.76)	0.35 (0.05, 2.21)	2.59 (0.24, 86.40)	1.59 (0.62, 4.16)		-	-	1.24 (0.50, 3.09)	0.80 (0.32, 2.02)	1.00 (0.40, 2.50)
Masket	17.16 (2.30, 133.70)	1.01 (0.17, 5.95)	7.55 (0.74, 251.90)	4.69 (0.70, 31.09)	2.93 (0.43, 19.25)		1.43 (0.27, 7.52)	0.43 (0.09, 2.03)	-	-
Modified Masket	24.98 (3.69, 185.20)	1.47 (0.27, 8.50)	11.05 (1.18, 359.00)	6.82 (1.10, 44.26)	4.31 (0.70, 27.60)	1.47 (0.26, 8.61)		0.30 (0.07, 1.37)	-	-
SRKT DK	7.18 (2.39, 25.50)	0.43 (0.09, 2.14)	3.19 (0.38, 96.87)	1.97 (0.78, 5.25)	1.24 (0.50, 3.19)	0.43 (0.09, 2.21)	0.29 (0.06, 1.39)		0.65 (0.26, 1.62)	0.81 (0.32, 2.01)
SRKT Feiz-Mannis	4.61 (1.50, 16.22)	0.28 (0.04, 1.75)	2.04 (0.19, 70.47)	1.26 (0.49, 3.31)	0.80 (0.31, 2.03)	0.27 (0.04, 1.80)	0.18 (0.03, 1.16)	0.64 (0.25, 1.62)		1.25 (0.50, 3.13)

	SRKT Clinical history	Double-K	Feiz-Mannis	HofferQ DK	Holladay2 DK	Masket	Modified Masket	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
SRKT Ladas-Stark	5.77 (1.90, 20.17)	0.35 (0.05, 2.18)	2.59 (0.24, 86.28)	1.59 (0.62, 4.11)	1.00 (0.40, 2.51)	0.34 (0.05, 2.27)	0.23 (0.04, 1.45)	0.80 (0.32, 2.02)	1.25 (0.50, 3.17)	

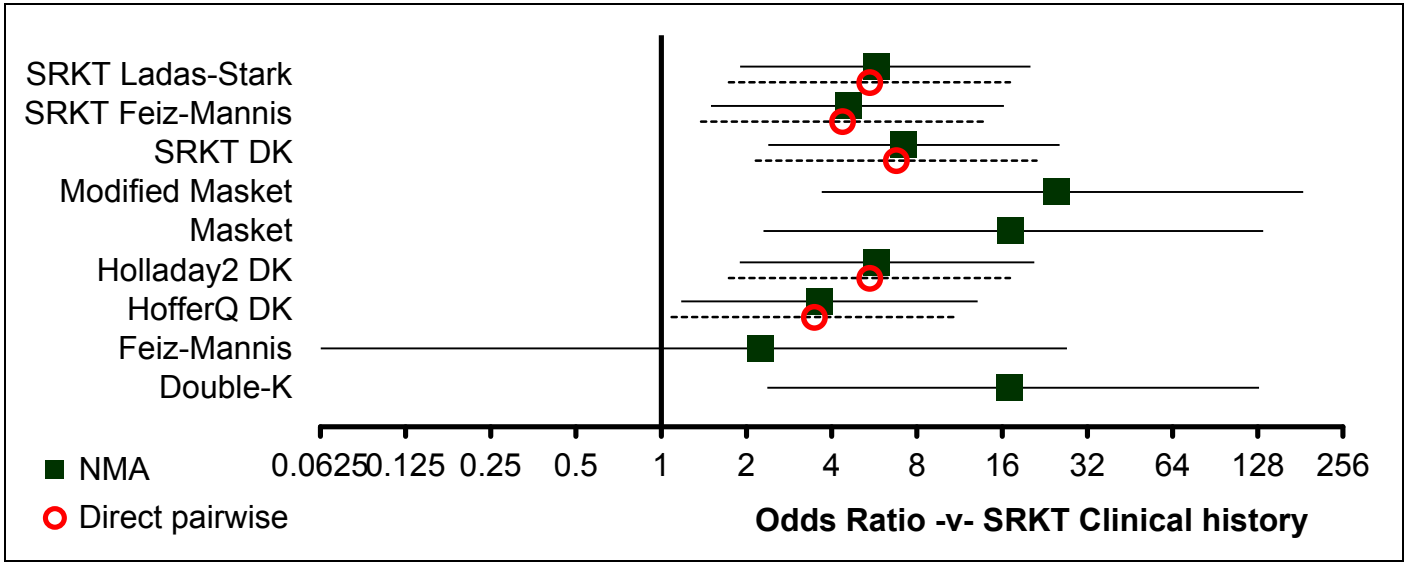


Figure 86: Myopic CRS Historical data methods: within 0.5D – relative effect of all options versus common comparator

Table 145: Myopic CRS Historical data methods: within 0.5D – rankings for each comparator

	Probability best	Median rank (95%CI)
SRKT Clinical history	0.000	10 (9, 10)
Double-K	0.230	2 (1, 8)
Feiz-Mannis	0.003	9 (3, 10)
HofferQ DK	0.001	8 (4, 9)

	Probability best	Median rank (95%CI)
Holladay2 DK	0.011	6 (2, 9)
Masket	0.234	2 (1, 8)
Modified Masket	0.503	1 (1, 6)
SRKT DK	0.005	4 (2, 8)
SRKT Feiz-Mannis	0.003	7 (3, 9)
SRKT Ladas-Stark	0.010	6 (2, 9)

597

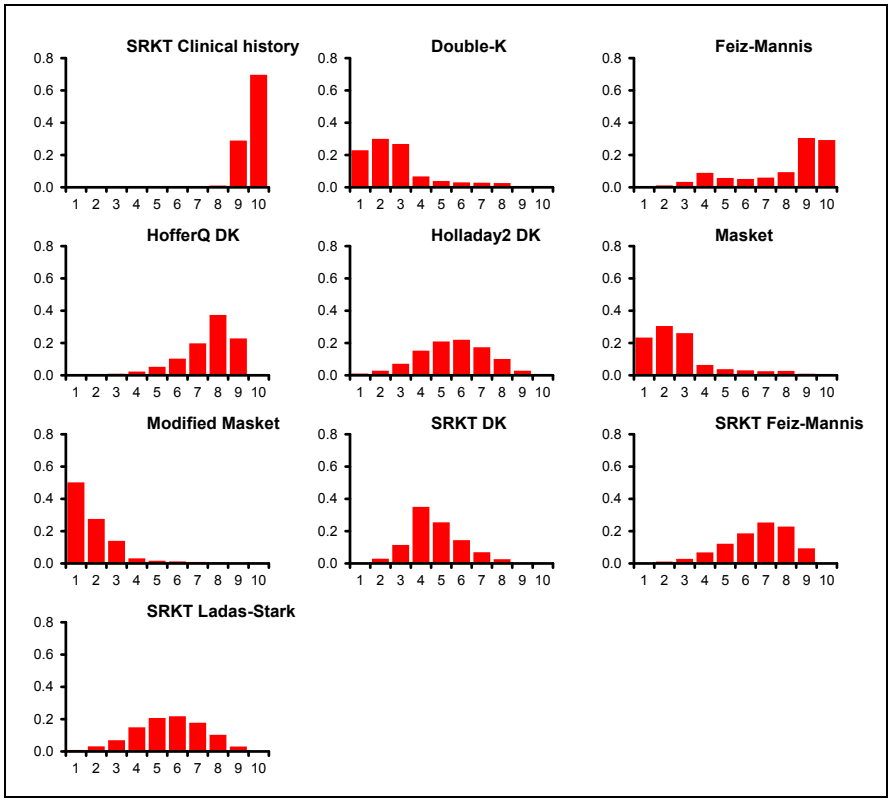


Figure 87: Myopic CRS Historical data methods: within 0.5D – rank probability histograms

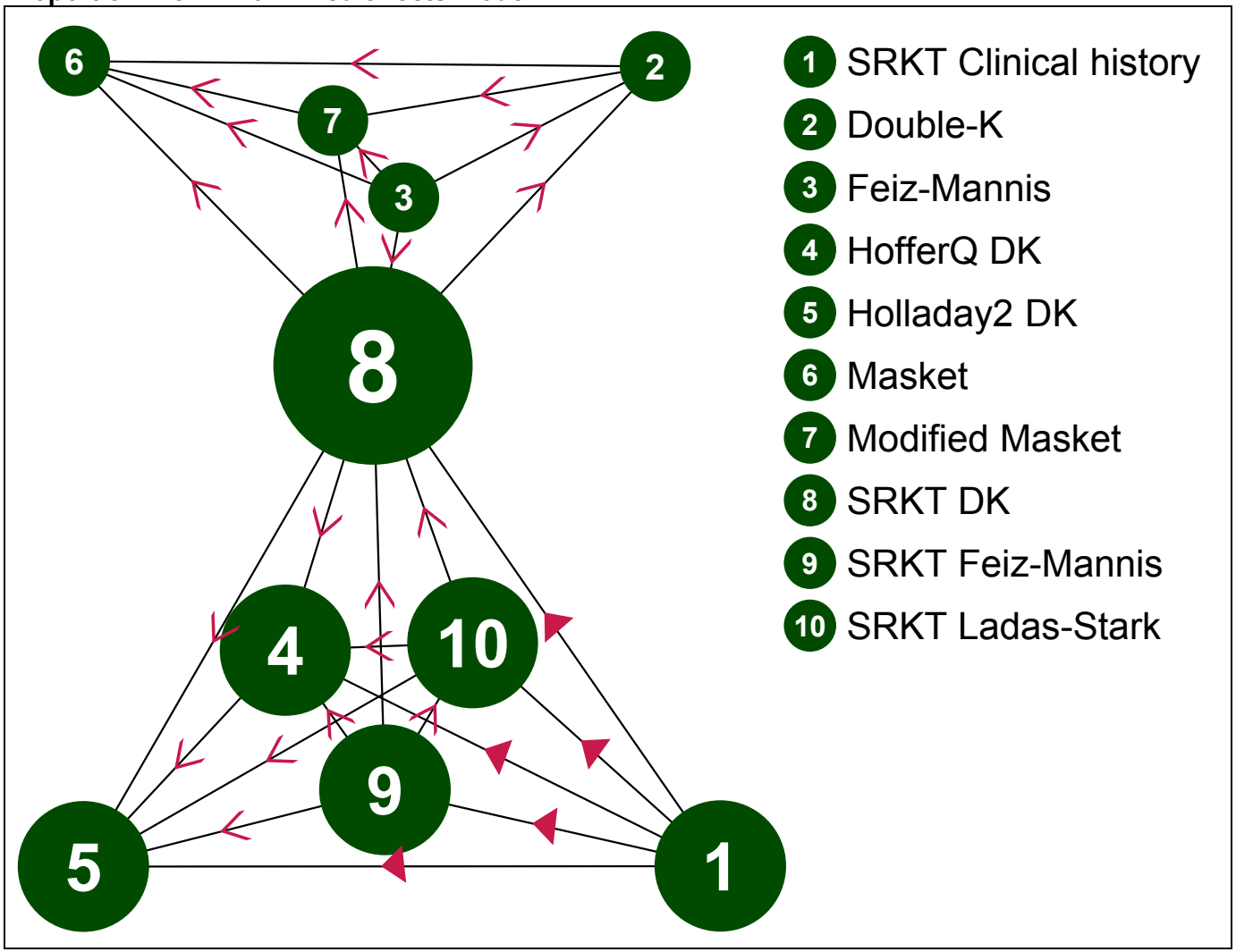
Table 146: Myopic CRS Historical data methods: within 0.5D – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	
11.44 (compared to 11 datapoints)	48.9	37.768	11.132	60.032	

601 **Table 147: Myopic CRS Historical data methods: within 0.5D – notes**

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

602 **Proportion within 1.0 – fixed effects model**



603 **Figure 88: Myopic CRS Historical data methods: within 1.0D – evidence network**

604

605 **Table 148: Myopic CRS Historical data methods: within 1.0D – input data**

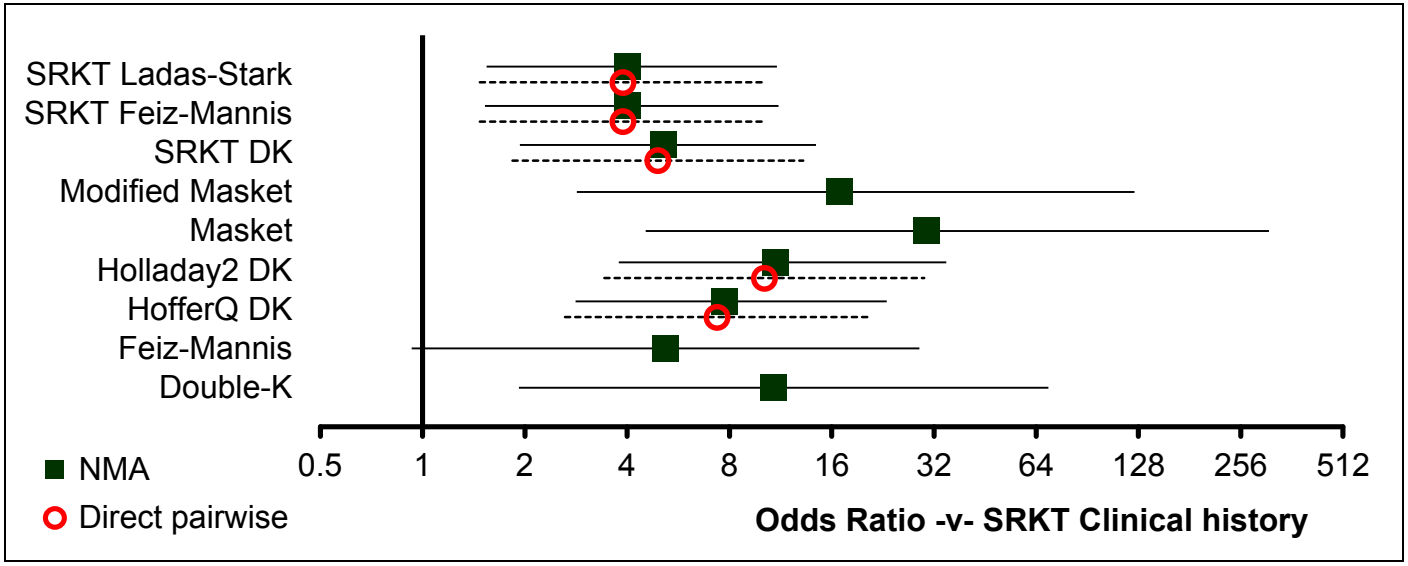
	SRKT Clinical history	Double-K	Feiz-Mannis	HofferQ DK	Holladay2 DK	Masket	Modified Masket	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
Saiki et al. (2013)		8/12	6/12			10/12	9/12	14/28		
Fam & (2008)	11/37			28/37	30/37			25/37	23/37	23/37

606 **Table 149: Myopic CRS Historical data methods: within 1.0D – relative effectiveness of all pairwise combinations (RR and 95%**
607 **credible interval)**

	SRKT Clinical history	Double-K	Feiz-Mannis	HofferQ DK	Holladay2 DK	Masket	Modified Masket	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
SRKT Clinical history		-	-	7.35 (2.63, 20.60)	10.13 (3.43, 29.93)	-	-	4.92 (1.84, 13.19)	3.88 (1.47, 10.23)	3.88 (1.47, 10.23)
Double-K	10.80 (1.92, 69.43)		0.50 (0.10, 2.60)	-	-	2.50 (0.36, 17.32)	1.50 (0.25, 8.84)	0.50 (0.12, 2.05)	-	-
Feiz-Mannis	5.20 (0.93, 28.97)	0.48 (0.08, 2.57)		-	-	5.00 (0.75, 33.21)	3.00 (0.53, 16.90)	1.00 (0.26, 3.87)	-	-
HofferQ DK	7.76 (2.82, 23.22)	0.72 (0.11, 4.27)	1.51 (0.27, 8.84)		1.38 (0.45, 4.20)	-	-	0.67 (0.24, 1.85)	0.53 (0.19, 1.44)	0.53 (0.19, 1.44)
Holladay2 DK	10.94 (3.78, 34.76)	1.02 (0.15, 6.16)	2.14 (0.36, 12.56)	1.41 (0.45, 4.37)		-	-	0.49 (0.17, 1.42)	0.38 (0.13, 1.10)	0.38 (0.13, 1.10)
Masket	30.55 (4.54, 309.80)	2.80 (0.40, 27.85)	5.91 (0.92, 57.06)	3.89 (0.56, 40.10)	2.77 (0.38, 29.29)		0.60 (0.08, 4.45)	0.20 (0.04, 1.08)	-	-
Modified Masket	16.88 (2.84, 124.70)	1.56 (0.25, 11.03)	3.27 (0.58, 22.60)	2.19 (0.34, 15.67)	1.55 (0.24, 11.70)	0.55 (0.06, 4.51)		0.33 (0.07, 1.50)	-	-
SRKT DK	5.12 (1.93, 14.38)	0.48 (0.10, 1.98)	1.00 (0.25, 4.05)	0.66 (0.23, 1.83)	0.47 (0.15, 1.37)	0.17 (0.02, 0.86)	0.31 (0.05, 1.31)		0.79 (0.30, 2.05)	0.79 (0.30, 2.05)
SRKT Feiz-Mannis	4.02 (1.53, 11.17)	0.37 (0.06, 2.07)	0.78 (0.14, 4.30)	0.52 (0.18, 1.41)	0.37 (0.12, 1.05)	0.13 (0.01, 0.89)	0.24 (0.03, 1.38)	0.79 (0.30, 2.05)		1.00 (0.39, 2.56)

	SRKT Clinical history	Double-K	Feiz-Mannis	HofferQ DK	Holladay2 DK	Masket	Modified Masket	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
SRKT Ladas-Stark	4.02 (1.54, 11.05)	0.38 (0.06, 2.06)	0.78 (0.14, 4.32)	0.52 (0.18, 1.42)	0.37 (0.12, 1.04)	0.13 (0.01, 0.89)	0.24 (0.03, 1.39)	0.78 (0.29, 2.08)	1.00 (0.39, 2.58)	

608



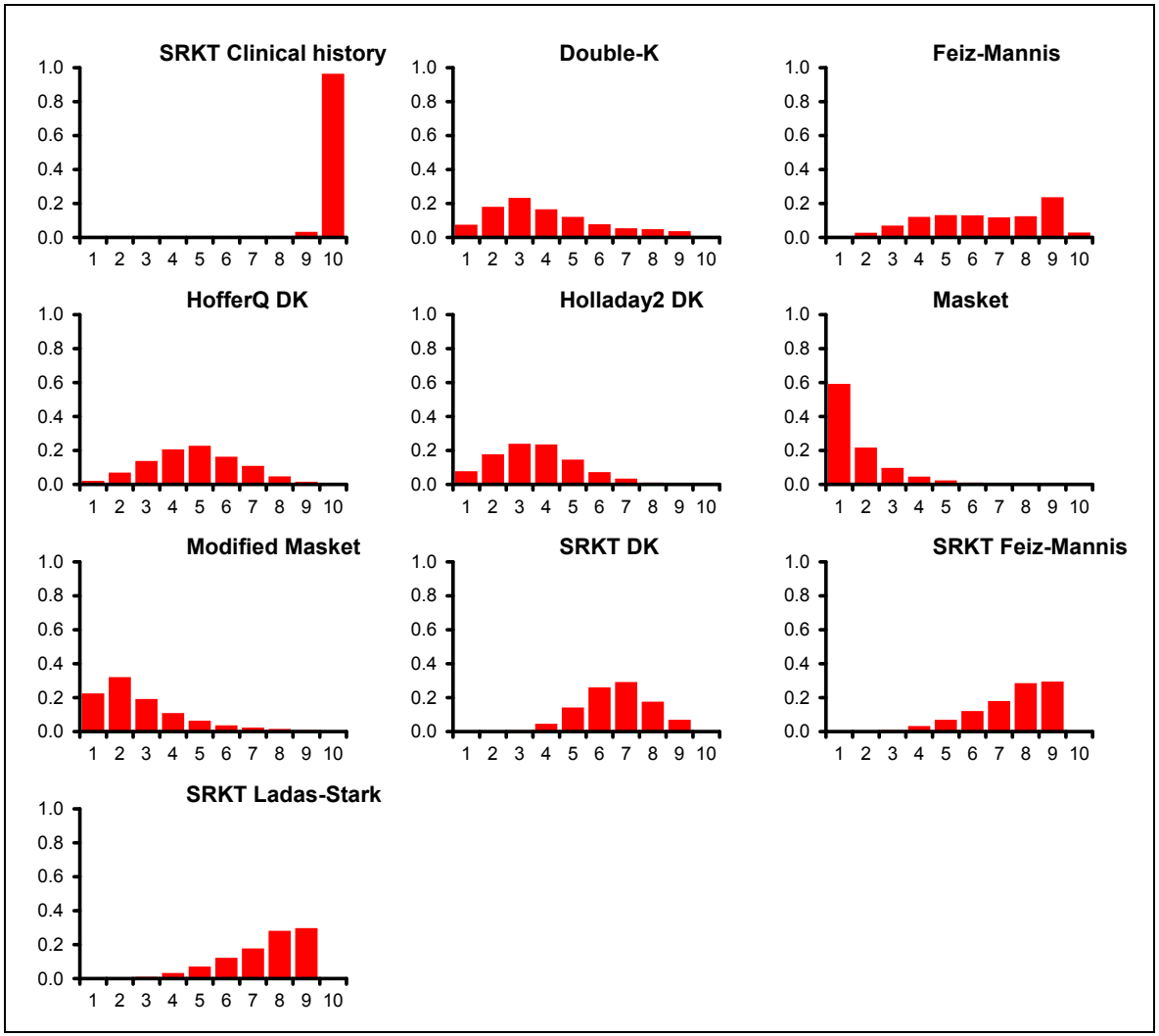
609 **Figure 89: Myopic CRS Historical data methods: within 1.0D – relative effect of all options versus common comparator**

610 **Table 150: Myopic CRS Historical data methods: within 1.0D – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT Clinical history	0.000	10 (9, 10)
Double-K	0.076	4 (1, 9)
Feiz-Mannis	0.007	7 (2, 10)
HofferQ DK	0.021	5 (2, 8)

	Probability best	Median rank (95%CI)
Holladay2 DK	0.078	4 (1, 7)
Masket	0.592	1 (1, 5)
Modified Masket	0.225	2 (1, 8)
SRKT DK	0.000	7 (4, 9)
SRKT Feiz-Mannis	0.000	8 (4, 9)
SRKT Ladas-Stark	0.000	8 (4, 9)

611



612 **Figure 90: Myopic CRS Historical data methods: within 1.0D – rank probability histograms**

613

614 **Table 151: Myopic CRS Historical data methods: within 1.0D – model fit statistics**

Residual deviance	Dbar	Dhat	pD	DIC	
11.31 (compared to 11 datapoints)	49.357	38.204	11.152	60.509	

615 **Table 152: Myopic CRS Historical data methods: within 1.0D – notes**

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

616

Proportion within 2.0 – fixed effects model

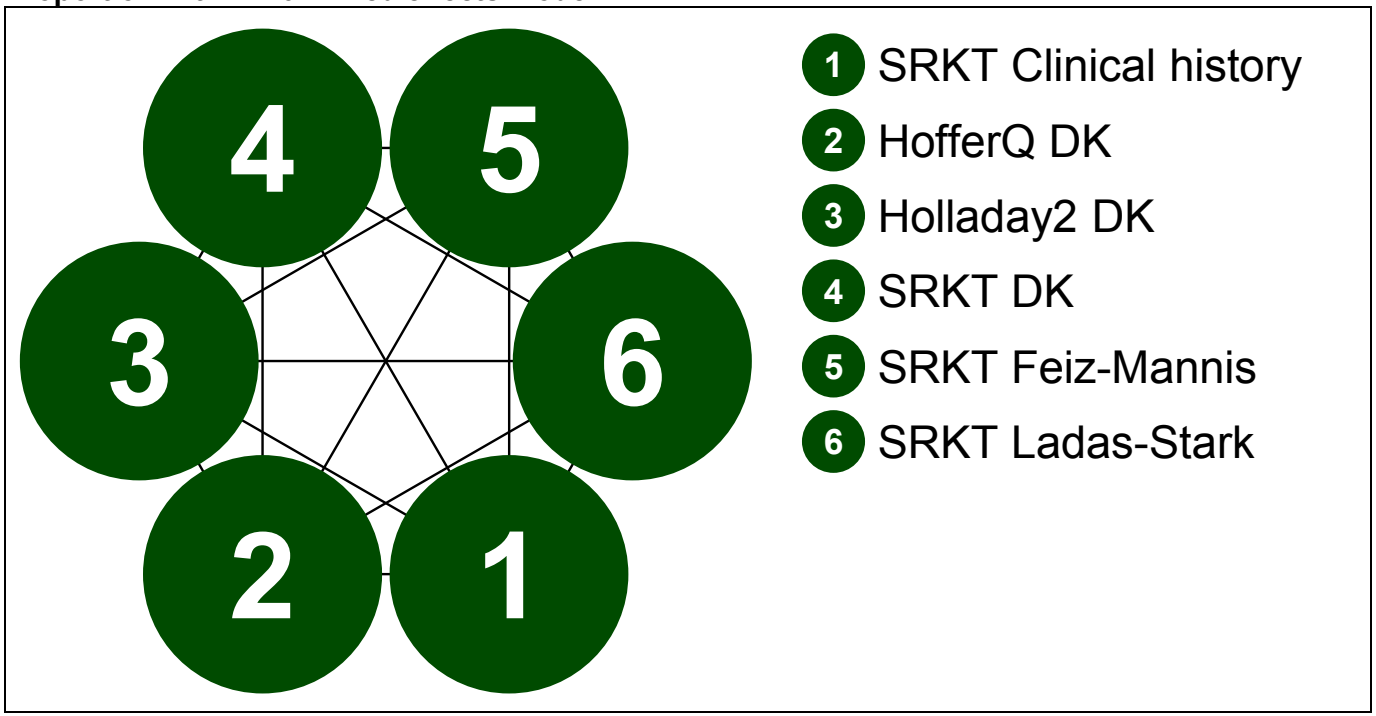


Figure 91: Myopic CRS Historical data methods: within 2.0D – evidence network

Table 153: Myopic CRS Historical data methods: within 2.0D – input data

	SRKT Clinical history	HofferQ DK	Holladay2 DK	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
Fam & (2008)	33/37	35/37	34/37	35/37	32/37	35/37

Table 154: Myopic CRS Historical data methods: within 2.0D – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	SRKT Clinical history	HofferQ DK	Holladay2 DK	SRKT DK	SRKT Feiz-Mannis	SRKT Ladas-Stark
SRKT Clinical history		2.12 (0.36, 12.36)	1.37 (0.29, 6.61)	2.12 (0.36, 12.36)	0.78 (0.19, 3.15)	2.12 (0.36, 12.36)
HofferQ DK	2.32 (0.39, 19.84)		0.65 (0.10, 4.12)	1.00 (0.13, 7.50)	0.37 (0.07, 2.02)	1.00 (0.13, 7.50)
Holladay2 DK	1.42 (0.27, 8.24)	0.61 (0.07, 4.32)		1.54 (0.24, 9.82)	0.56 (0.12, 2.56)	1.54 (0.24, 9.82)
SRKT DK	2.33 (0.39, 19.87)	1.00 (0.10, 9.99)	1.63 (0.23, 15.74)		0.37 (0.07, 2.02)	1.00 (0.13, 7.50)
SRKT Feiz-Mannis	0.76 (0.17, 3.29)	0.33 (0.04, 1.74)	0.53 (0.10, 2.50)	0.33 (0.04, 1.81)		2.73 (0.50, 15.09)
SRKT Ladas-Stark	2.30 (0.39, 19.99)	0.99 (0.10, 9.99)	1.62 (0.23, 14.79)	0.99 (0.10, 10.03)	3.02 (0.56, 26.29)	

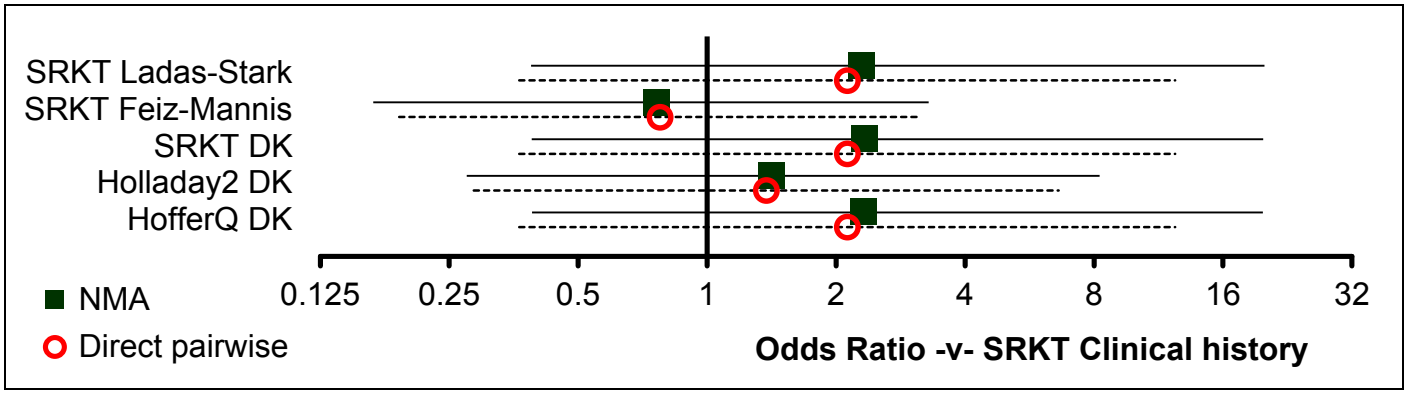
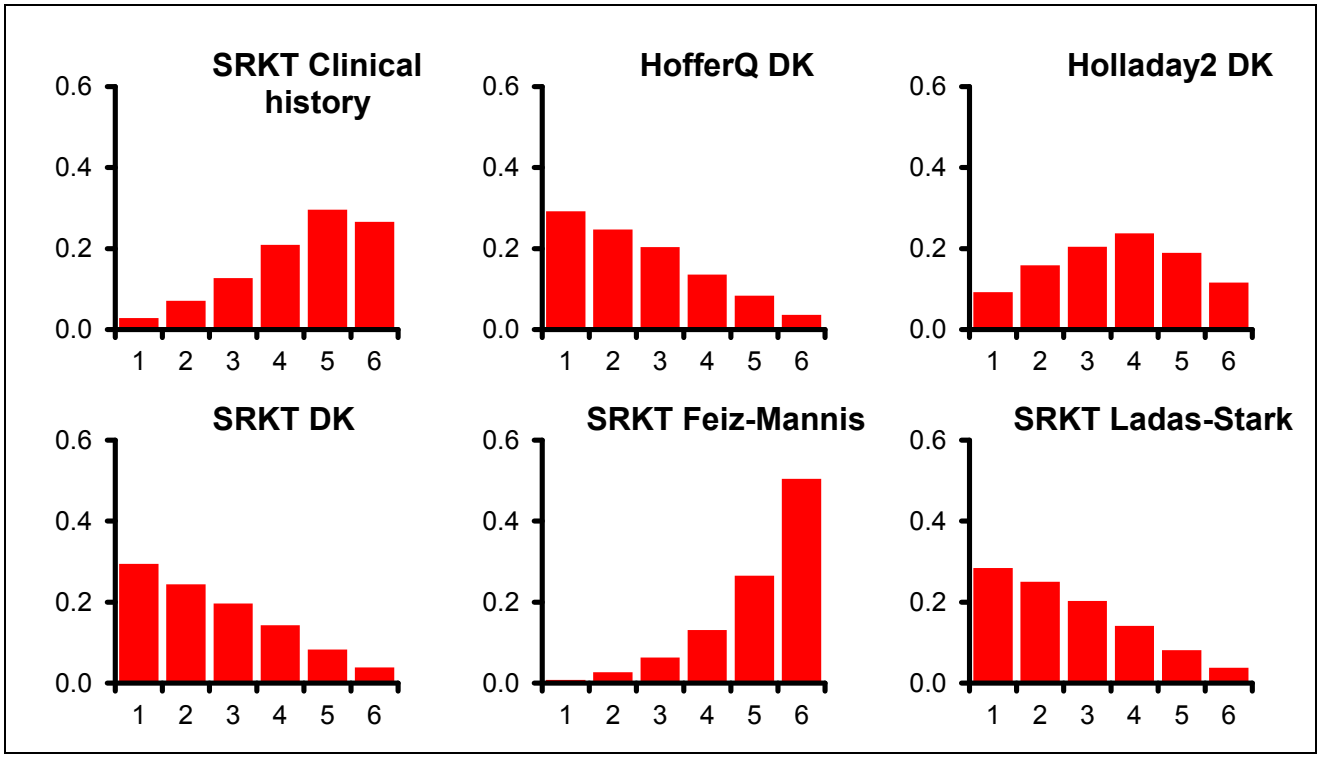


Figure 92: Myopic CRS Historical data methods: within 2.0D – relative effect of all options versus common comparator

626 **Table 155: Myopic CRS Historical data methods: within 2.0D – rankings for each comparator**

	Probability best	Median rank (95%CI)
SRKT Clinical history	0.029	5 (1, 6)
HofferQ DK	0.292	2 (1, 6)
Holladay2 DK	0.093	4 (1, 6)
SRKT DK	0.294	2 (1, 6)
SRKT Feiz-Mannis	0.008	6 (2, 6)
SRKT Ladas-Stark	0.284	2 (1, 6)

627



628 **Figure 93: Myopic CRS Historical data methods: within 2.0D – rank probability histograms**

629

630 **Table 156: Myopic CRS Historical data methods: within 2.0D – model fit statistics**

Residual deviance	Dbar	Dhat	pD	DIC	
6.394 (compared to 6 datapoints)	23.465	17.567	5.898	29.364	

631 **Table 157: Myopic CRS Historical data methods: within 2.0D – notes**

- Dichotomous synchronic (binomial; logit link); fixed effects
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

H.3.4 Intraocular lens constant optimisation – Network meta-analysis results

H.3.4.1 Model fit statistics for all outcomes

Table 158: Model fit statistics used to select fixed or random effect models for all comparisons and outcomes

Studies	Outcome	Model	Total model DIC	Total model DIC (FE – RE)	Total residual deviance	No. of data-points	Between-study SD (95% CrI)	Preferred model
4 (Charalampidou, Day, Lee, Sharma)	Mean absolute error	FE	-21.74	2.116	17.87	14	-	FE
		RE	-23.856		13.56		0.216 (0.028, 1.093)	
3 (Aristodemou, Day, Eom)	Within 0.25D	FE	537.2	426.3	446.4	16	-	RE
		RE	110.9		15.3		1.05 (0.59, 1.87)	
6 (Aristodemou, Charalampidou, Day, Eom, Fam, Lee)	Within 0.5D	FE	254.756	112.652	137.4	20	-	RE
		RE	142.104		19.72		0.900 (0.473, 1.776)	
7 (Aristodemou, Charalampidou, Day, Eom, Fam, Lee, Sharma)	Within 1.0D	FE	204.06	54.239	80.73	24	-	RE
		RE	149.821		22.77		0.611 (0.284, 1.489)	
1 (Lee – pairwise comparison)	Within 1.5D	FE	-	-	-	-	-	FE

H.3.4.2 Full dataset

MEAN ABSOLUTE ERROR – random effects model

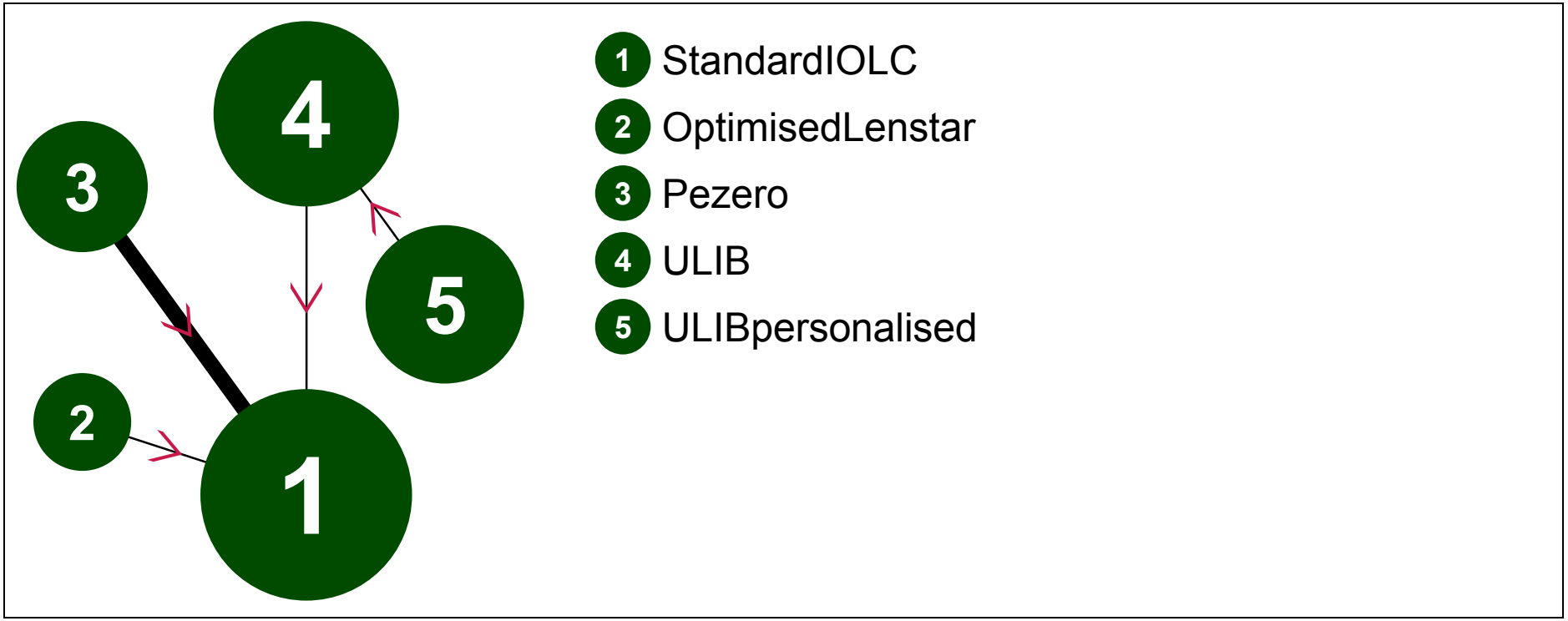


Figure 94: Mean absolute error (RE) – evidence network

639 **Table 159: Mean absolute error (RE) – input data**

	StandardIOLC	OptimisedLenstar	Pezero	ULIB	ULIBpersonalised
Sharma et al. (2014)	0.56 (0.40)			0.49 (0.50)	
Day et al. (2012)	0.47 (0.39)		0.46 (0.39)		
Day et al. (2012)	0.84 (0.53)		0.50 (0.37)		
Day et al. (2012)	0.89 (0.80)		0.74 (0.58)		
Day et al. (2012)	0.88 (0.53)		0.83 (0.61)		
Charalampidou et al. (2010)				0.38 (0.31)	0.36 (0.30)
Lee et al. (2015)	0.67 (0.52)	0.55 (0.49)			

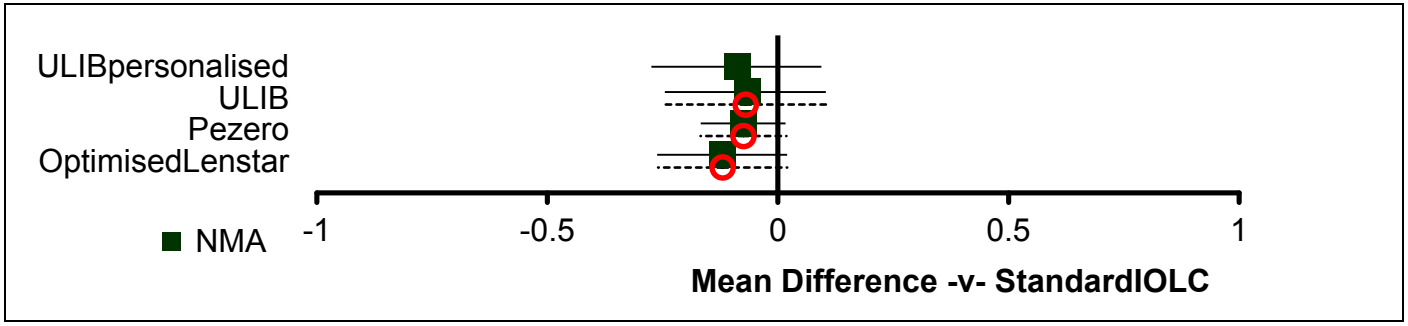
640

641 **Table 160: Mean absolute error (RE) – relative effectiveness of all pairwise combinations (MD and 95% credible interval)**

	StandardIOLC	OptimisedLenstar	Pezero	ULIB	ULIBpersonalised
StandardIOLC		-0.12 (-0.26, 0.02)	-0.13 (-0.33, 0.06)	-0.07 (-0.25, 0.11)	-
OptimisedLenstar	-0.12 (-0.26, 0.02)		-	-	-
Pezero	-0.08 (-0.17, 0.02)	0.05 (-0.12, 0.21)		-	-

	StandardIOLC	OptimisedLenstar	Pezero	ULIB	ULIBpersonalised
ULIB	-0.07 (-0.25, 0.10)	0.05 (-0.17, 0.27)	0.01 (-0.19, 0.20)		-0.02 (-0.08, 0.04)
ULIBpersonalised	-0.09 (-0.27, 0.09)	0.03 (-0.20, 0.26)	-0.01 (-0.22, 0.19)	-0.02 (-0.08, 0.04)	

642



643 **Figure 95: Mean absolute error (RE) – relative effect of all options versus common comparator**

644

645 **Table 161: Mean absolute error (RE) – rankings for each comparator**

	Probability best	Median rank (95%CI)
StandardIOLC	0.001	5 (3, 5)
OptimisedLenstar	0.494	2 (1, 5)
Pezero	0.167	3 (1, 5)
ULIB	0.063	3 (1, 5)
ULIBpersonalised	0.275	2 (1, 5)

646

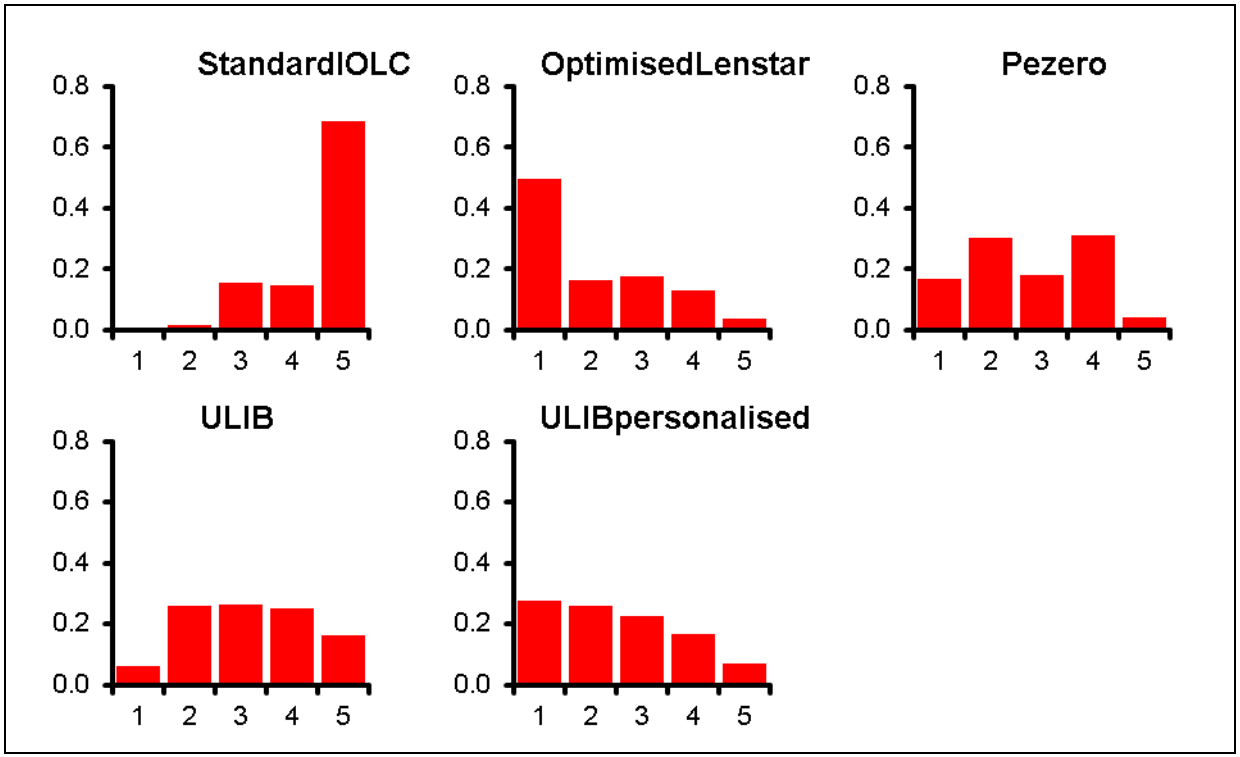


Figure 96: Mean absolute error (RE) – rank probability histograms

Table 162: Mean absolute error (RE) – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC
17.87 (compared to 14 datapoints)	-32.725	-43.709	10.948	-21.740

Table 163: Mean absolute error (FE) – notes

- Continuous (normal; identity link); fixed effects
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 0.25 DIOPTRES – random effects model

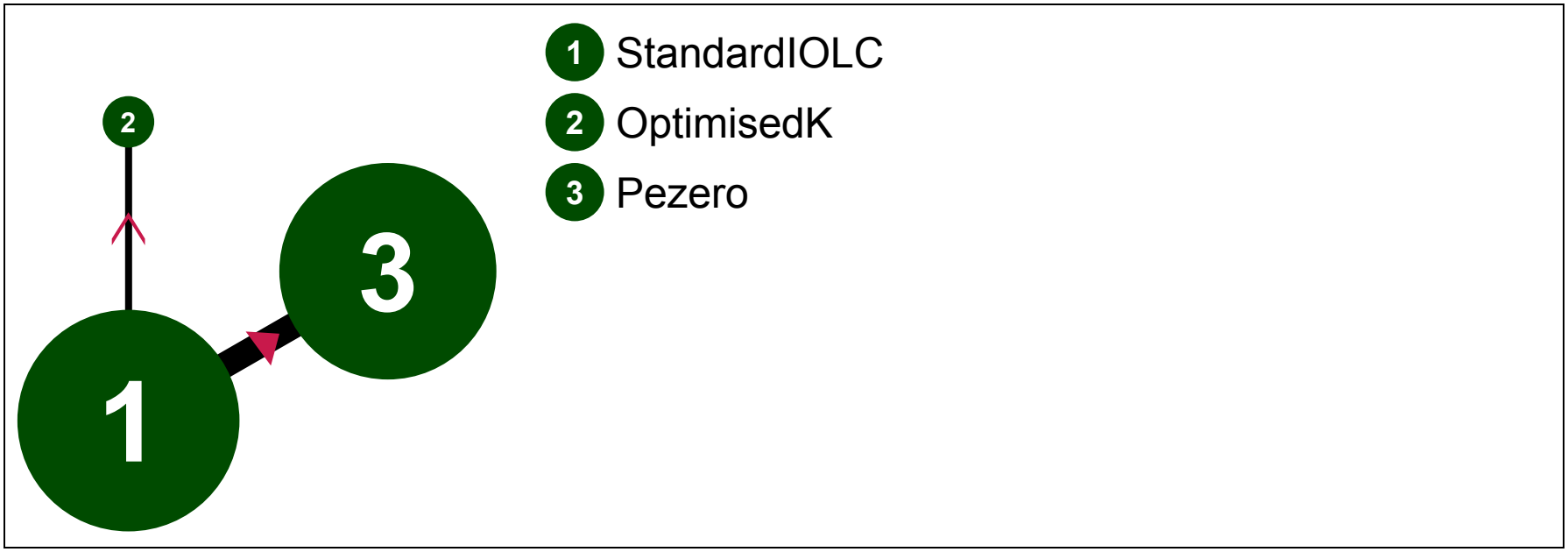


Figure 97: Within 0.25 dioptres (RE) – evidence network

Table 164: Within 0.25 dioptres (RE) – input data

	StandardIOLC	OptimisedK	Pezero
Eom et al. (2013)	34/123	38/123	
Eom et al. (2013)	49/114	62/114	
Day et al. (2012)	4/32		10/32
Day et al. (2012)	33/100		39/100
Day et al. (2012)	2/19		3/19
Day et al. (2012)	2/12		4/12
Aristodemou et al. (2011)	1170/6159		2525/6159
Aristodemou et al. (2011)	585/1949		1735/1949

Table 165: Within 0.25 dioptres (RE) – relative effectiveness of all pairwise combinations (RR and 95% credible interval)

	StandardIOLC	OptimisedK	Pezero
StandardIOLC		1.37 (0.94, 2.00)	**3.36** **(1.11, 10.14)**
OptimisedK	1.37 (0.25, 7.44)		-
Pezero	**3.66** **(1.21, 10.00)**	2.66 (0.35, 19.12)	

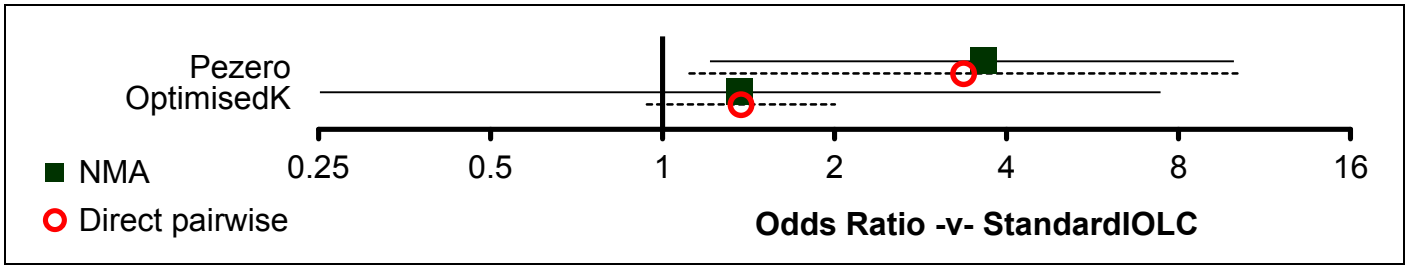


Figure 98: Within 0.25 dioptres (RE) – relative effect of all options versus common comparator

Table 166: Within 0.25 dioptres (RE) – rankings for each comparator

	Probability best	Median rank (95%CI)
StandardIOLC	0.005	3 (2, 3)
OptimisedK	0.147	2 (1, 3)
Pezero	0.848	1 (1, 2)

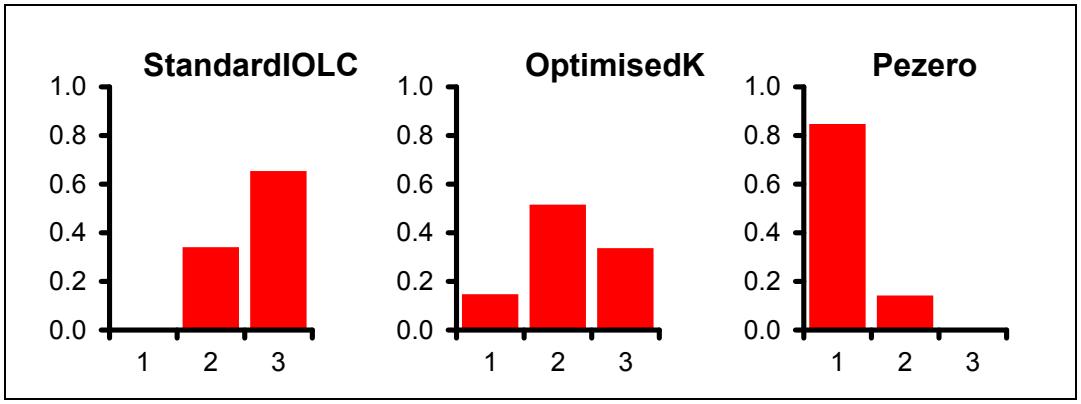


Figure 99: Within 0.25 dioptres (RE) – rank probability histograms

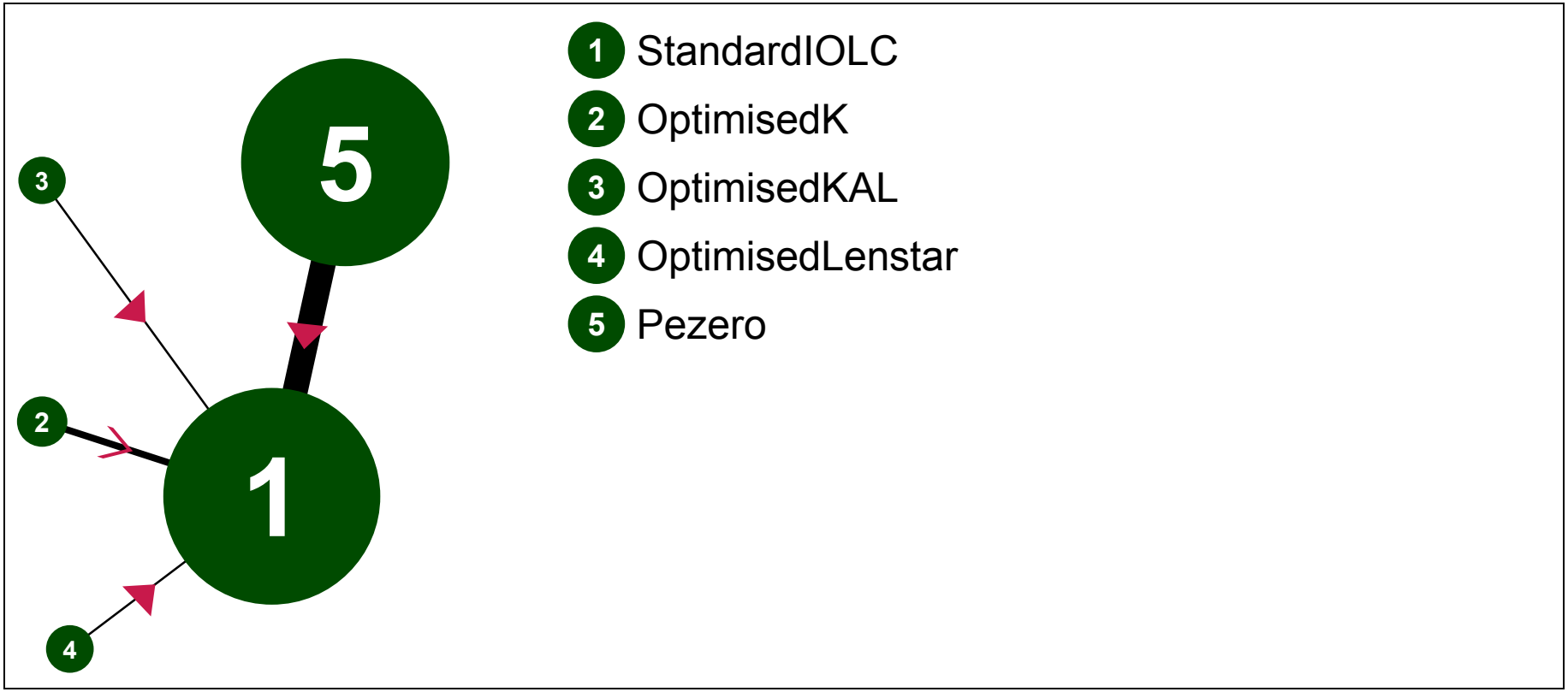
665 **Table 167: Within 0.25 dioptres (RE) – model fit statistics**

Residual deviance	Dbar	Dhat	pD	DIC	tau
15.33 (compared to 16 datapoints)	96.113	81.324	14.789	110.903	1.049 (95%CI: 0.585, 1.870)

666 **Table 168: Within 0.25 dioptres (RE) – notes**

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations (thinned from 500000)

667 **PROPORTION WITHIN 0.5 DIOPTRES – random effects model**



668 **Figure 100: Within 0.5 dioptres (RE) – evidence network**

669

670 **Table 169: Within 0.5 dioptres (RE) – input data**

	StandardIOLC	OptimisedK	OptimisedKAL	OptimisedLenstar	Pezero
Eom et al. (2013)	68/123	78/123			
Eom et al. (2013)	84/114	90/114			
Day et al. (2012)	10/32				18/32
Day et al. (2012)	62/100				60/100
Day et al. (2012)	8/19				9/19
Day et al. (2012)	4/12				4/12
Aristodemou et al. (2011)	2587/6159				4373/6159
Aristodemou et al. (2011)	1111/1949				1793/1949
Fam & (2009)	43/90		57/90		
Lee et al. (2015)	46/100			62/100	

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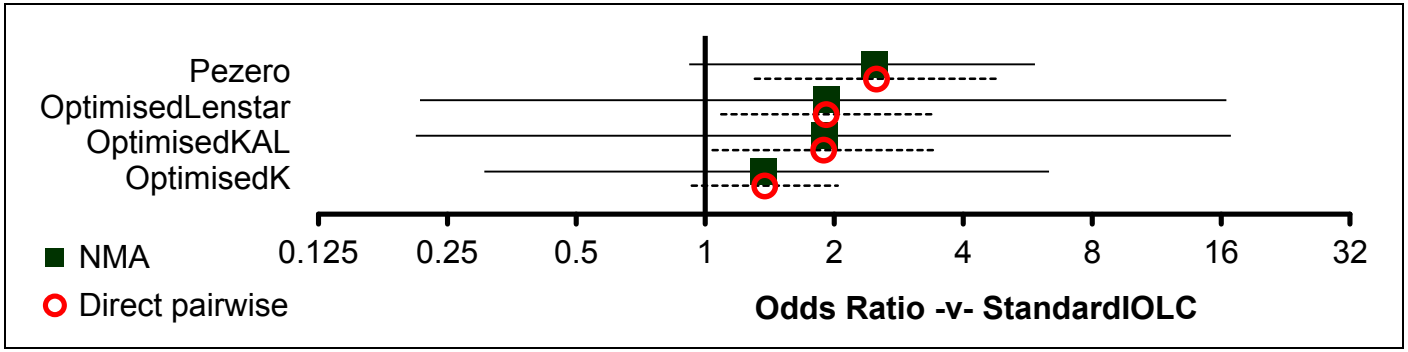
672

673 **Table 170: Within 0.5 dioptres (RE) – relative effectiveness of all pairwise combinations (RR and 95% credible interval)**

	StandardIOLC	OptimisedK	OptimisedKAL	OptimisedLen star	Pezero
StandardIOLC		1.38 (0.93, 2.04)	1.89 (1.04, 3.43)	1.92 (1.09, 3.37)	2.51 (1.31, 4.81)
OptimisedK	1.37 (0.31, 6.35)		-	-	-
OptimisedKAL	1.91 (0.21, 16.86)	1.38 (0.10, 18.75)		-	-
OptimisedLenstar	1.92 (0.22, 16.46)	1.40 (0.10, 19.34)	1.01 (0.05, 21.58)		-
Pezero	2.49 (0.92, 5.88)	1.81 (0.28, 9.91)	1.30 (0.12, 13.16)	1.30 (0.12, 12.99)	

674



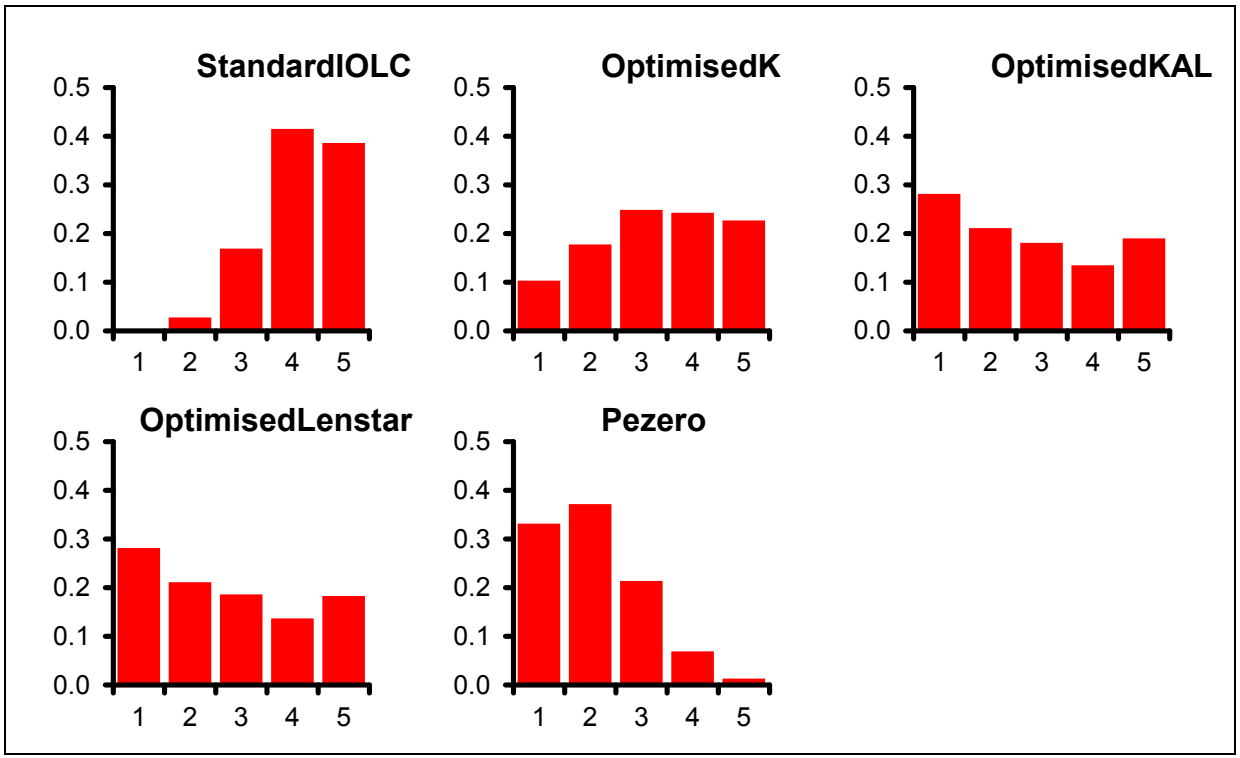
675 **Figure 101: Within 0.5 dioptres (RE) – relative effect of all options versus common comparator**

676

677 **Table 171: SENSITIVITY ANALYSIS: Within 0.5 dioptres (RE) – rankings for each comparator**

	Probability best	Median rank (95%CI)
StandardIOLC	0.001	4 (2, 5)
OptimisedK	0.103	3 (1, 5)
OptimisedKAL	0.282	3 (1, 5)
OptimisedLenstar	0.282	3 (1, 5)
Pezero	0.332	2 (1, 4)

678



679 **Figure 102: SENSITIVITY ANALYSIS: Within 0.5 dioptres (RE) – rank probability histograms**

680

Table 172: SENSITIVITY ANALYSIS: Within 0.5 dioptres (RE) – model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau
19.72 (compared to 20 datapoints)	123.021	103.938	19.083	142.104	0.900 (95%CI: 0.473, 1.776)

Table 173: SENSITIVITY ANALYSIS: Within 0.5 dioptres (RE) – notes

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 1.0 DIOPTRE – random effects model

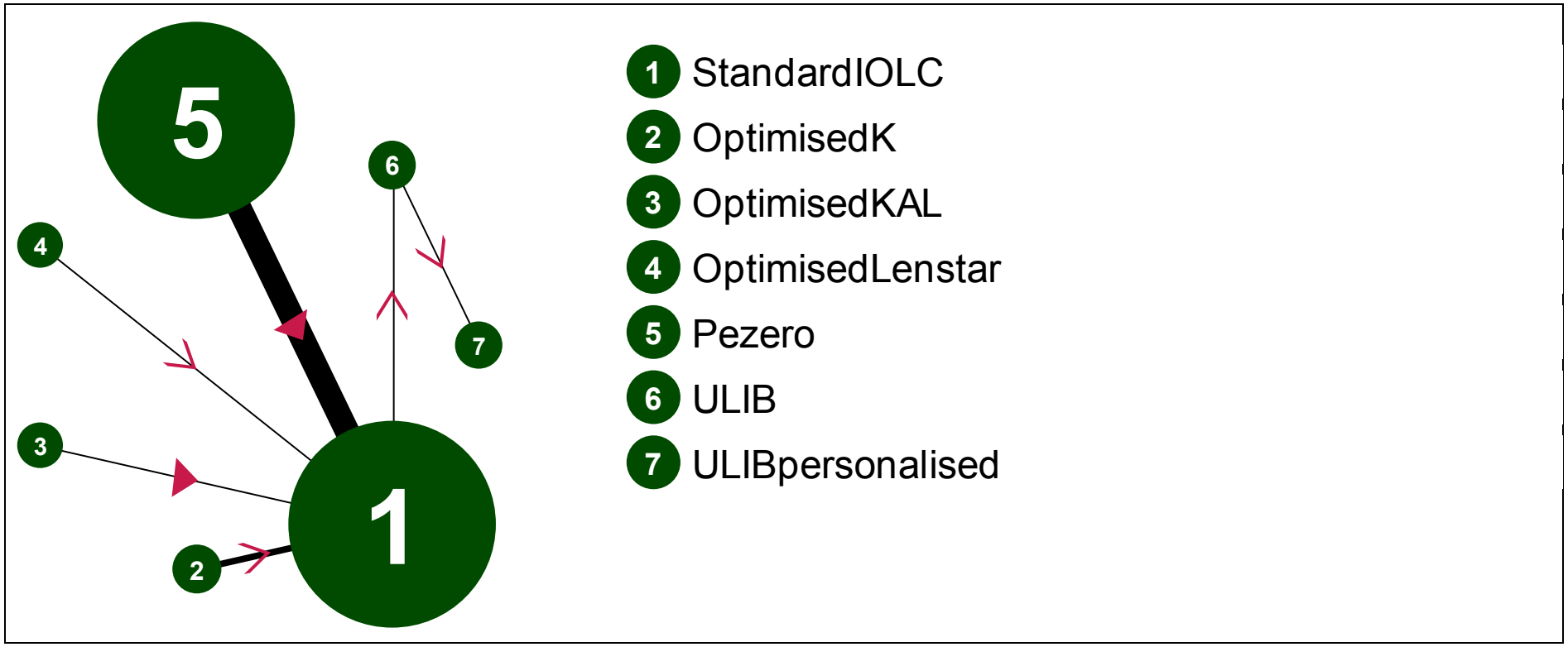


Figure 103: Within 1.0 dioptre (RE) – evidence network

688 **Table 174: Within 1.0 dioptre (RE) – input data**

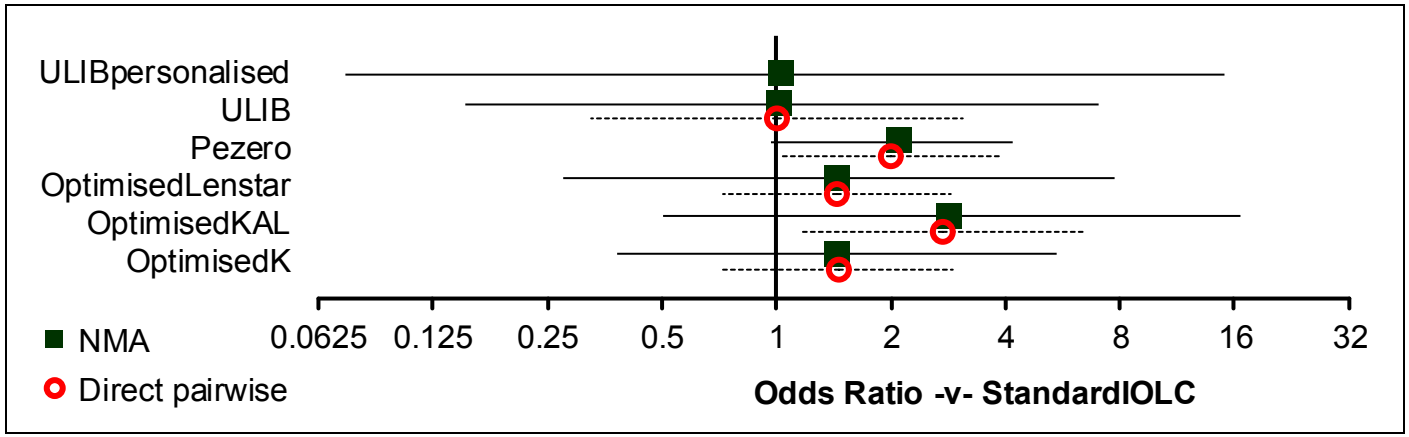
	StandardIOLC	OptimisedK	OptimisedKAL	OptimisedLenstar	Pezero	ULIB	ULIBpersonalised
Sharma et al. (2014)	44/51					44/51	
Eom et al. (2013)	106/123	111/123					
Eom et al. (2013)	110/114	111/114					
Day et al. (2012)	23/32				28/32		
Day et al. (2012)	91/100				92/100		
Day et al. (2012)	12/19				14/19		
Day et al. (2012)	6/12				6/12		
Aristodemou et al. (2011)	4989/6159				5851/6159		
Aristodemou et al. (2011)	1735/1949				1813/1949		
Charalampidou et al. (2010)						205/214	205/214
Fam & (2009)	69/90		81/90				
Lee et al. (2015)	76/100			82/100			

689

690 **Table 175: Within 1.0 dioptre (RE) – relative effectiveness of all pairwise combinations (RR and 95% credible interval)**

	StandardIOLC	OptimisedK	OptimisedKAL	OptimisedLenstar	Pezero	ULIB	ULIBpersonalised
StandardIOLC		1.45 (0.72, 2.92)	2.74 (1.18, 6.37)	1.44 (0.72, 2.86)	2.01 (1.03, 3.91)	1.00 (0.32, 3.09)	-
OptimisedK	1.45 (0.38, 5.49)		-	-	-	-	-
OptimisedKAL	2.86 (0.50, 16.69)	1.96 (0.22, 18.33)		-	-	-	-
OptimisedLenstar	1.45 (0.28, 7.79)	1.01 (0.12, 8.56)	0.51 (0.04, 5.71)		-	-	-
Pezero	2.12 (0.97, 4.17)	1.46 (0.30, 6.42)	0.74 (0.11, 4.55)	1.47 (0.22, 8.37)		-	-
ULIB	1.02 (0.15, 7.02)	0.69 (0.07, 7.62)	0.36 (0.03, 4.93)	0.70 (0.06, 9.19)	0.48 (0.06, 4.03)		1.00 (0.39, 2.57)
ULIBpersonalised	1.03 (0.07, 15.11)	0.71 (0.04, 15.08)	0.37 (0.01, 8.83)	0.72 (0.03, 17.42)	0.49 (0.03, 8.03)	1.02 (0.17, 6.18)	

691



692 **Figure 104: Within 1.0 dioptre (RE) – relative effect of all options versus common comparator**

693

694 **Table 176: Within 1.0 dioptre (RE) – rankings for each comparator**

	Probability best	Median rank (95%CI)
StandardIOLC	0.000	5 (3, 7)
OptimisedK	0.089	4 (1, 7)
OptimisedKAL	0.452	2 (1, 7)
OptimisedLenstar	0.121	4 (1, 7)
Pezero	0.155	3 (1, 6)
ULIB	0.046	5 (1, 7)
ULIBpersonalised	0.137	5 (1, 7)

695

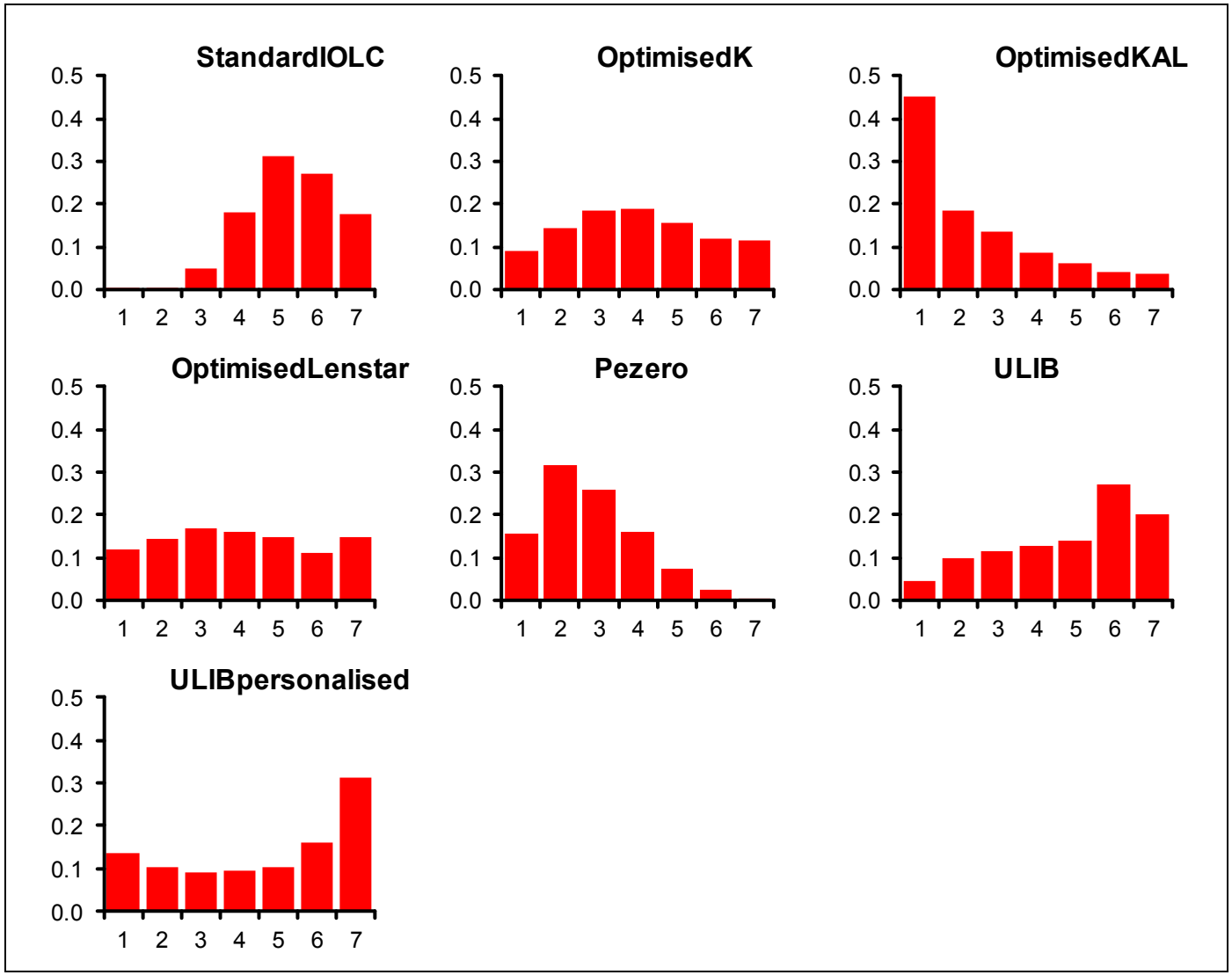


Figure 105: Within 1.0 dioptre (RE) – rank probability histograms

Table 177: Within 1.0 dioptre (RE) – model fit statistics

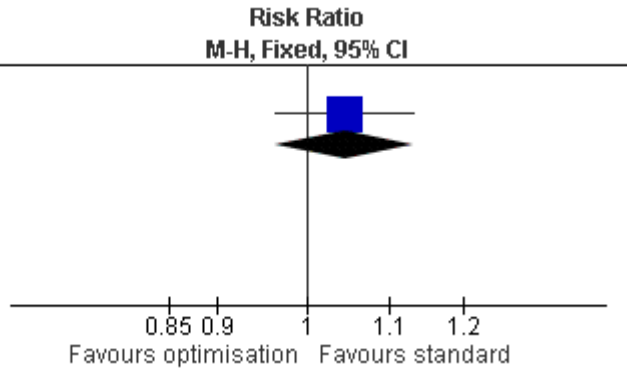
Residual deviance	Dbar	Dhat	pD	DIC	tau
22.77 (compared to 24 datapoints)	128.075	106.33	21.746	149.821	0.611 (95%CI: 0.284, 1.489)

Table 178: Within 1.0 dioptre (RE) – notes

- Dichotomous synchronic (binomial; logit link); random effects
- Prior distribution for between-study heterogeneity: uniform (Min=0; Max=2)
- 50000 burn-ins; 10000 recorded iterations

PROPORTION WITHIN 1.5D – pairwise comparison

	IOLC optimisation		Standard IOLC			Risk Ratio
Study or Subgroup	**Events**	**Total**	**Events**	**Total**	**Weight**	**M-H, Fixed, 95% CI**
1.1.4 Less than 1.5D						
Lee 2015 - SN60WF	94	100	90	100	100.0%	1.04 [0.96, 1.13]
Subtotal (95% CI)		**100**		**100**	**100.0%**	**1.04 [0.96, 1.13]**
Total events	94		90			
Heterogeneity: Not applicable						
Test for overall effect: Z = 1.04 (P = 0.30)						

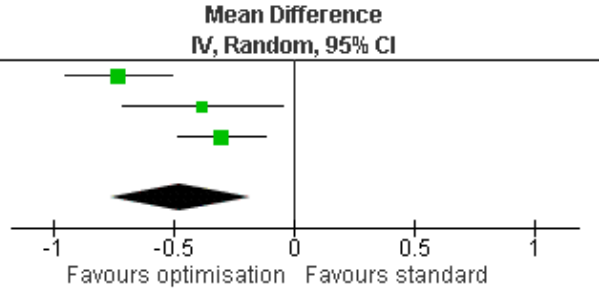


H.3.4.3 Wang 2011 (people with axial lengths >25mm): unconnected to networks

Prediction error

Study or Subgroup	IOLC optimisation Mean	SD	Total	Standard IOLC Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Wang 2011 - MA60MA and MA60AC	-0.31	0.38	23	0.42	0.39	23	34.8%	-0.73 [-0.95, -0.51]
Wang 2011 - SA60AT SN60AT and SN60T	-0.03	0.67	28	0.35	0.61	28	27.6%	-0.38 [-0.72, -0.04]
Wang 2011 - SN60WF	-0.08	0.5	55	0.22	0.46	55	37.5%	-0.30 [-0.48, -0.12]
Total (95% CI)			**106**			**106**	**100.0%**	**-0.47 [-0.76, -0.18]**

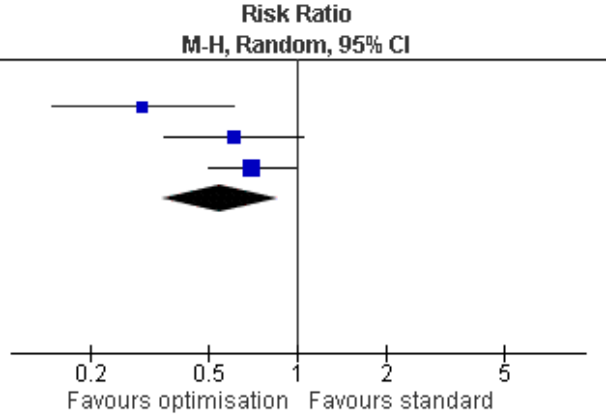
Heterogeneity: Tau² = 0.05; Chi² = 8.92, df = 2 (P = 0.01); I² = 78%
Test for overall effect: Z = 3.19 (P = 0.001)



Proportion of eyes with a hyperopic refractive outcome

Study or Subgroup	IOLC optimisation Events	Total	Standard IOLC Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
1.6.4 Proportion of eyes with a hyperopic refractive outcome						
Wang 2011 - MA60MA and MA60AC	6	23	20	23	24.0%	0.30 [0.15, 0.61]
Wang 2011 - SA60AT SN60AT and SN60T	11	28	18	28	31.9%	0.61 [0.36, 1.05]
Wang 2011 - SN60WF	26	55	37	55	44.1%	0.70 [0.50, 0.98]
Subtotal (95% CI)		**106**		**106**	**100.0%**	**0.55 [0.35, 0.86]**
Total events	43		75			

Heterogeneity: Tau² = 0.09; Chi² = 4.71, df = 2 (P = 0.09); I² = 58%
Test for overall effect: Z = 2.61 (P = 0.009)

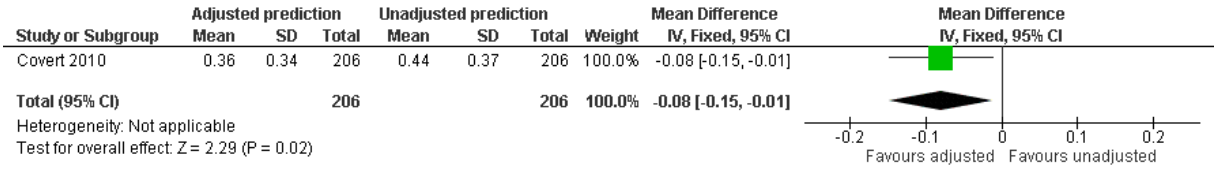


H.3.5 Other considerations in biometry: Forest plots of outcomes

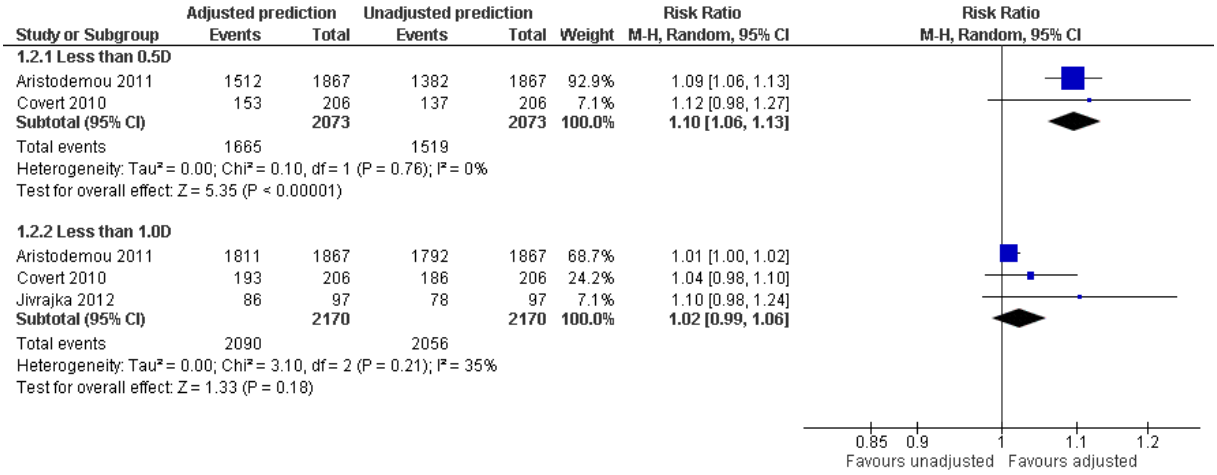
H.3.5.1 Second eye prediction refinement

50% adjusted of first eye prediction error vs unadjusted prediction

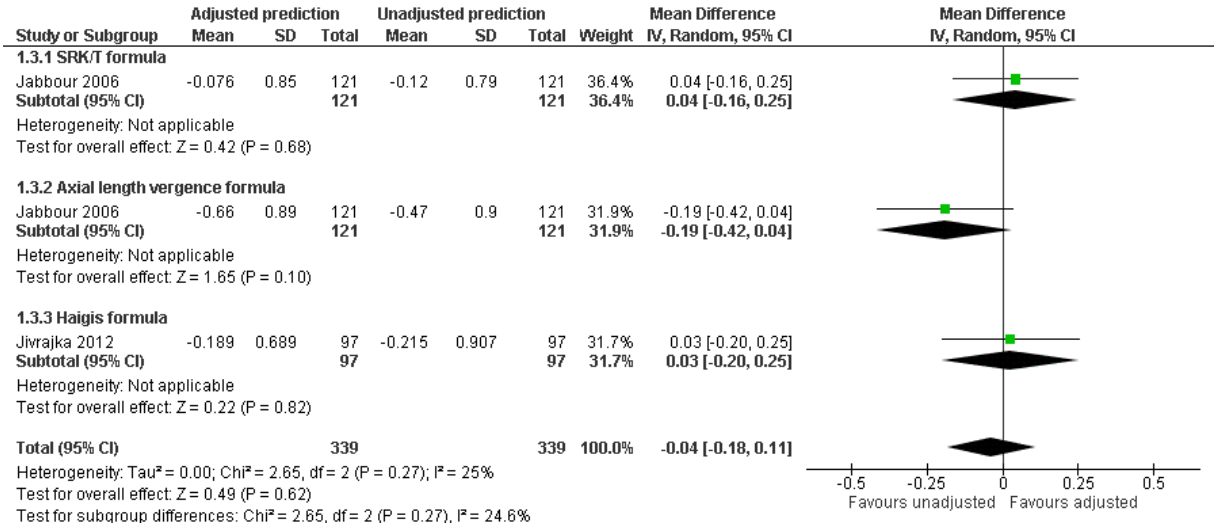
Mean absolute prediction errors



Cumulative proportion of eyes within various ranges of absolute prediction errors

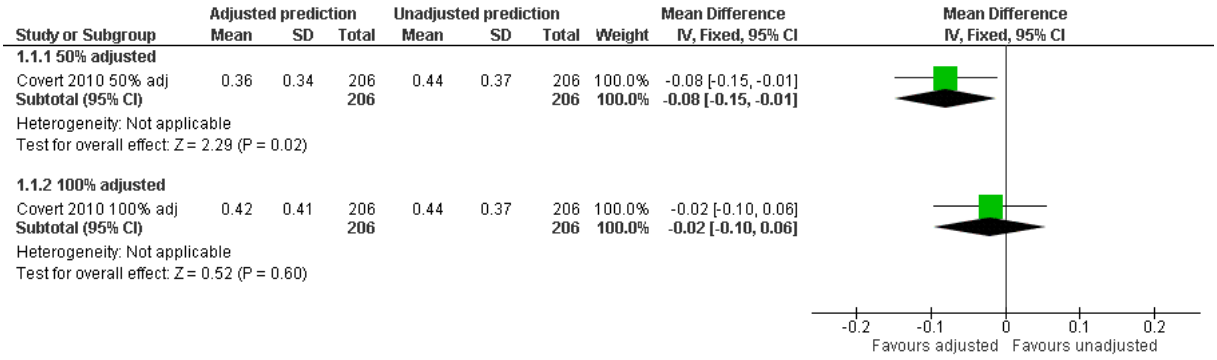


Mean prediction errors

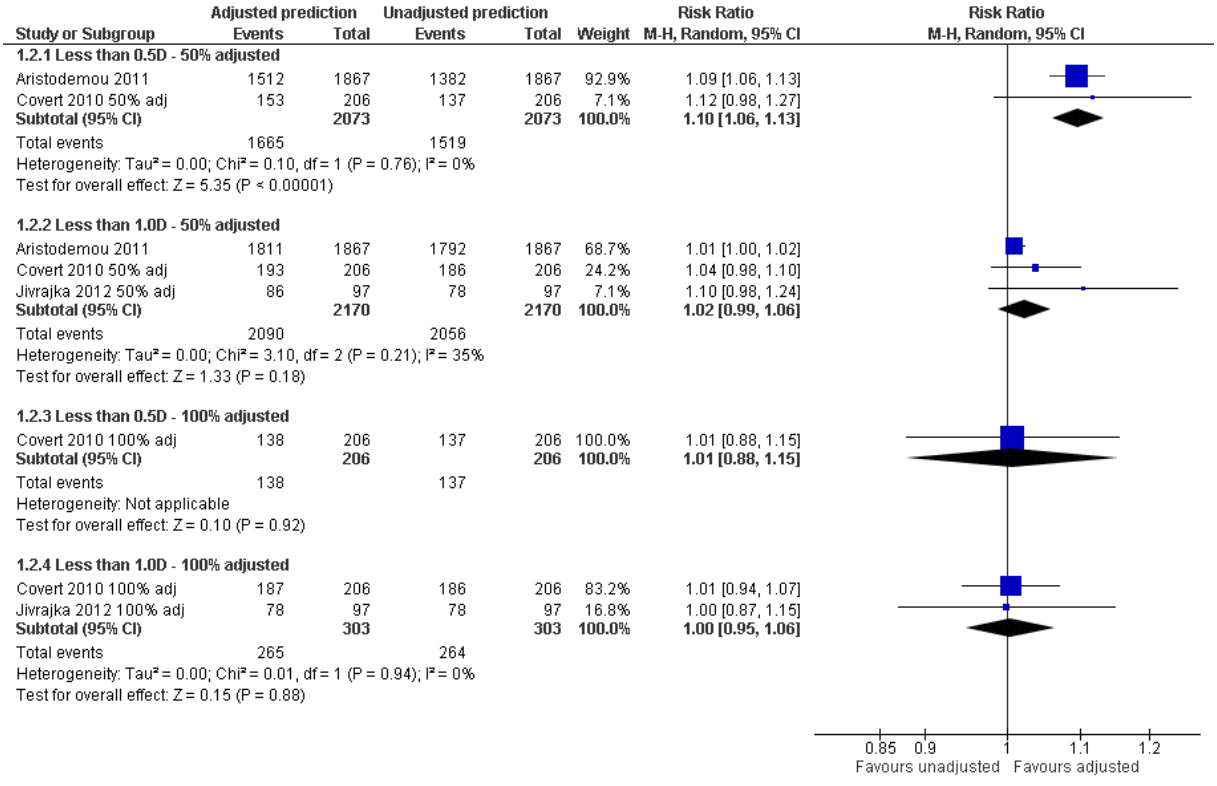


H.3.5.2 Comparison of results from using 100% adjusted and 50% adjusted first eye prediction error

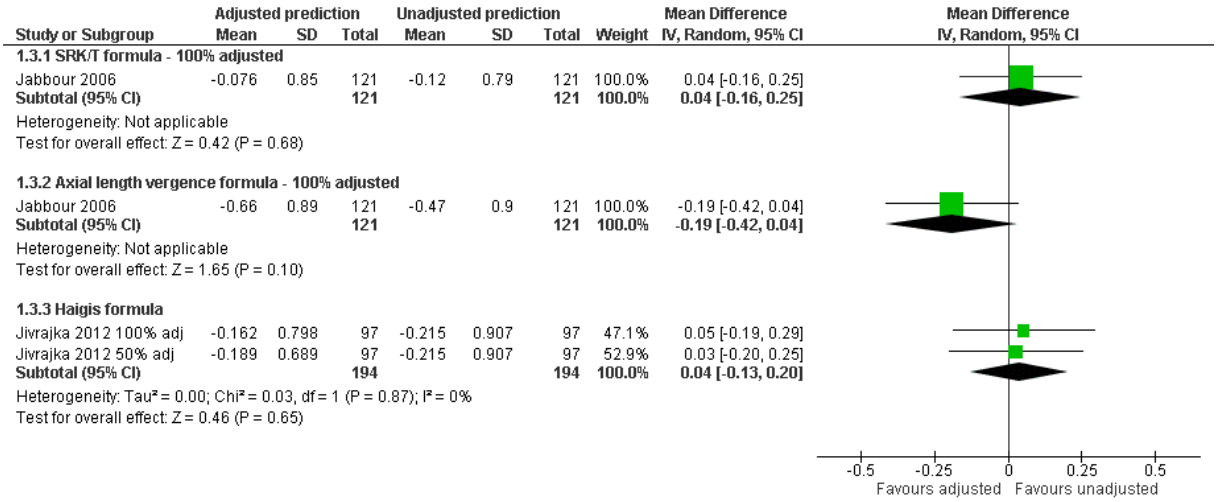
Mean absolute prediction errors



Cumulative proportion of eyes within various ranges of absolute prediction errors



Mean prediction errors



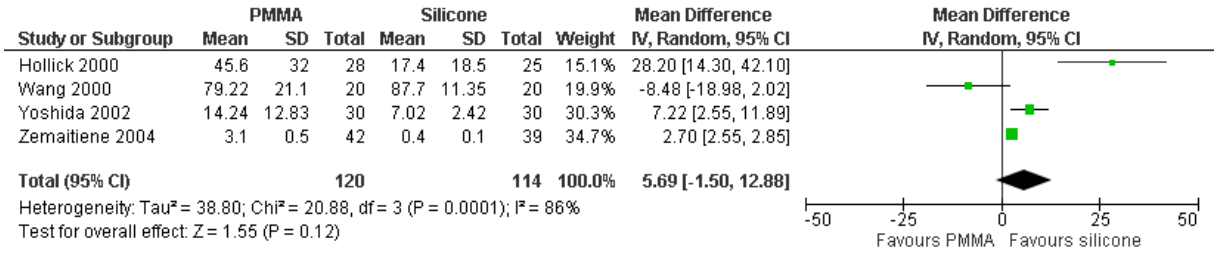
H.4 Intraocular lens selection

- Are different lens design (aspheric vs. spheric, plate vs. loop) effective in improving postoperative vision (refractive outcomes, optical aberrations) in cataract surgery?
- Are different lens design (square-edged vs. round-edge, plate vs. loop) and material (hydrophilic acrylic, hydrophobic acrylic, collagen, hydroxyethyl methacrylate-based vs. silicone-based) effective in preventing posterior capsule opacification in cataract surgery?
- Are tinted lenses effective in preventing the progression of age-related macular degeneration compared with colourless lenses in cataract surgery?
- What is the optimal strategy to facilitate simultaneous distance and near vision following cataract surgery?
- What is the optimal strategy to address pre-existing astigmatism in people undergoing cataract surgery?

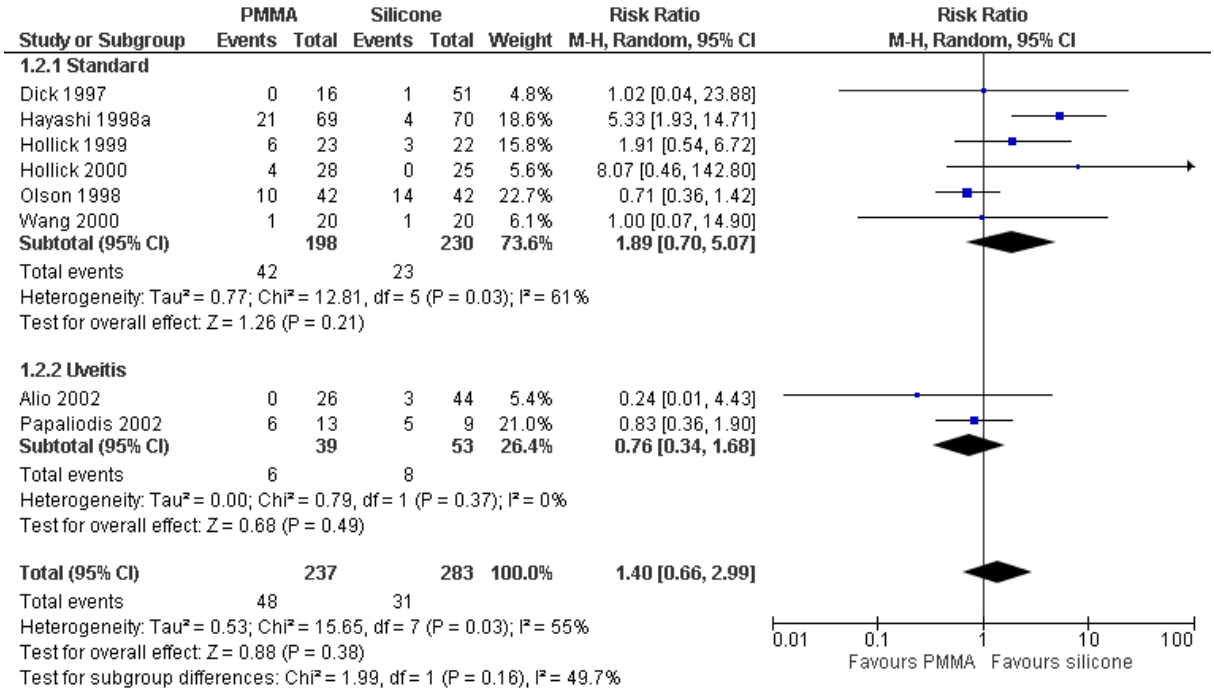
H.4.1 Lens design

H.4.1.1 PMMA versus silicone

PCO score

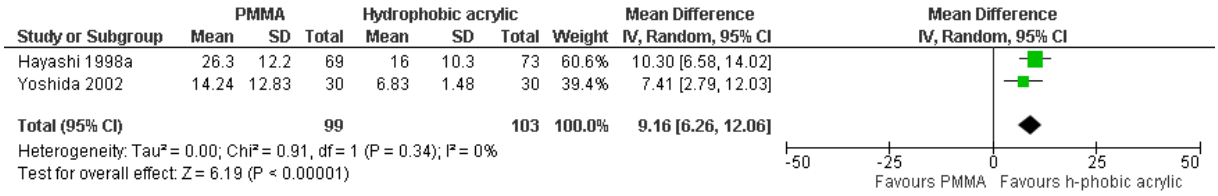


Nd:YAG capsulotomy rate

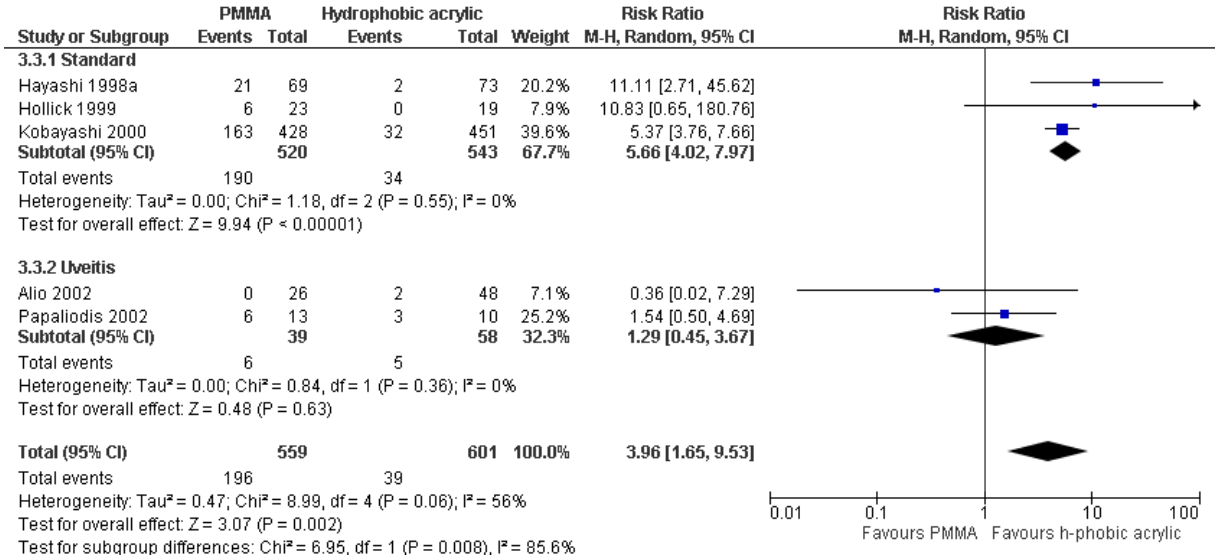


H.4.1.2 PMMA versus hydrophobic acrylic

PCO score

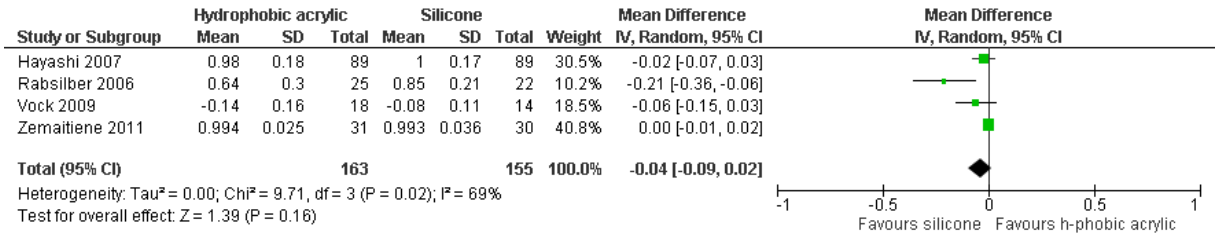


Nd:YAG capsulotomy rate

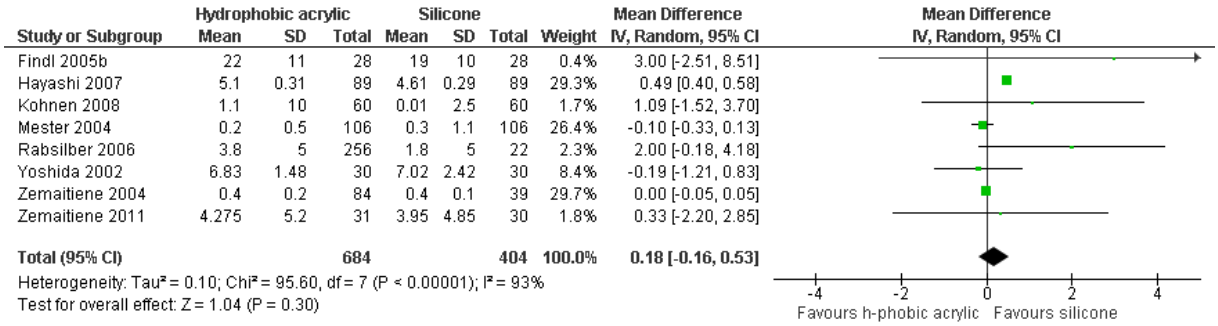


H.4.1.3 Hydrophobic acrylic versus silicone

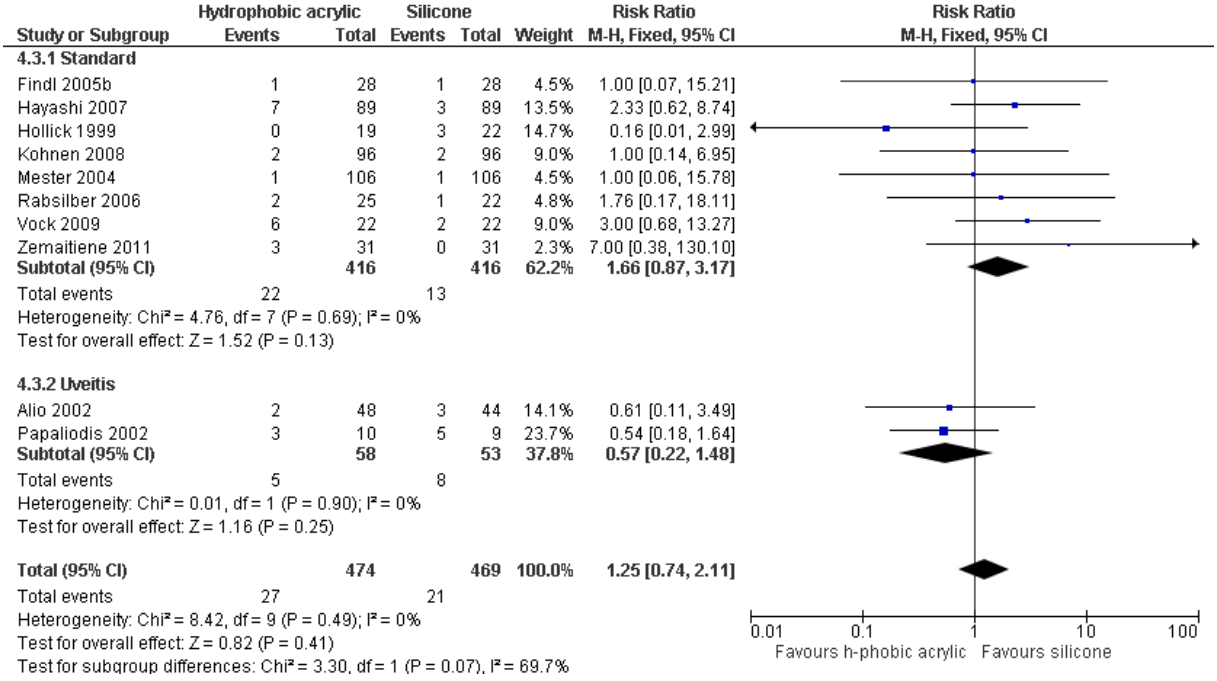
BCDVA (decimal acuity)



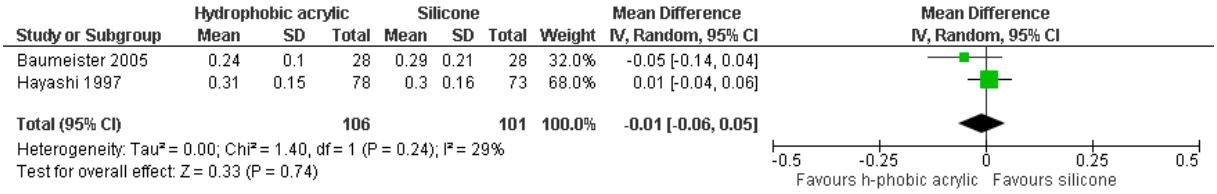
PCO score



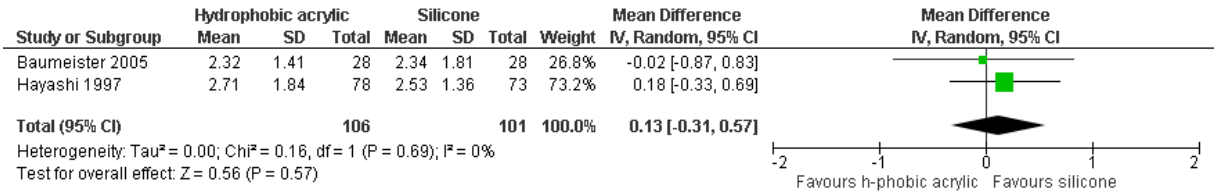
Nd:YAG capsulotomy rate



Lens decentration (mm)

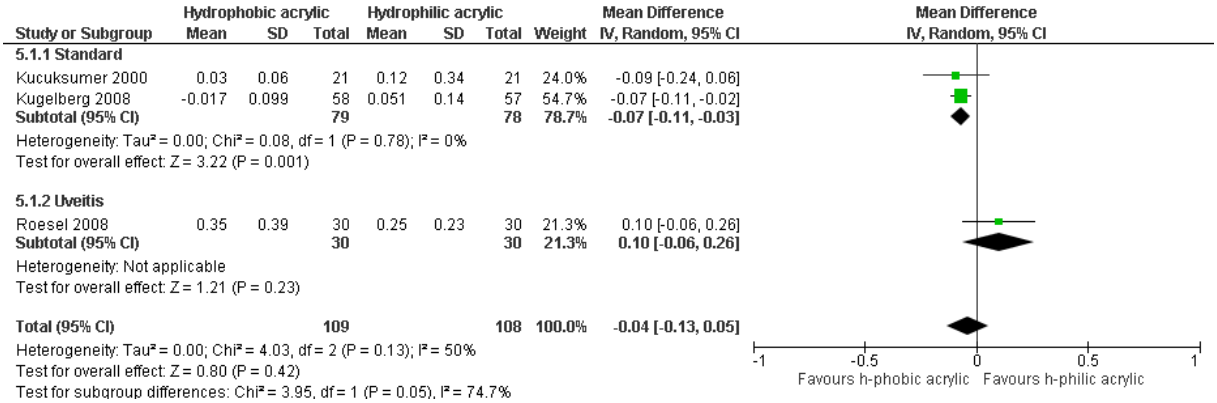


Lens tilt (degrees)

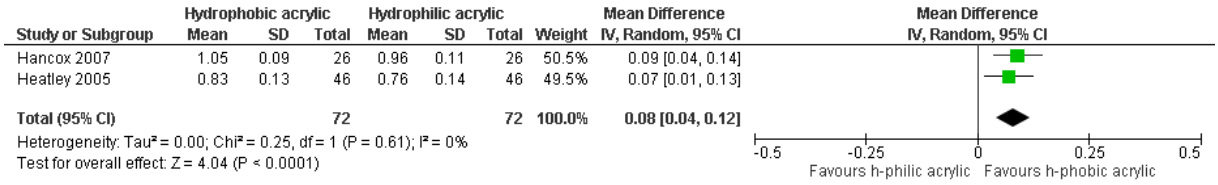


H.4.1.4 Hydrophobic acrylic versus hydrophilic acrylic

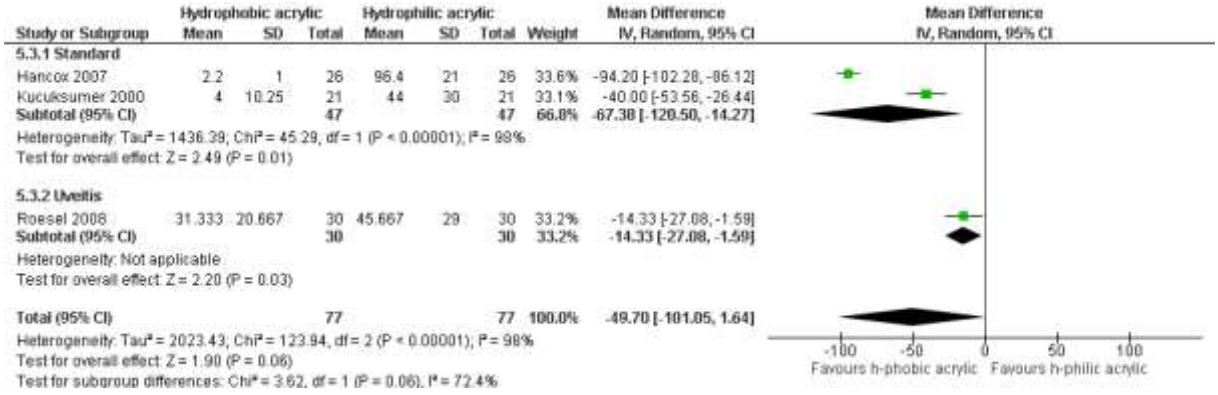
BCDVA (logMAR)



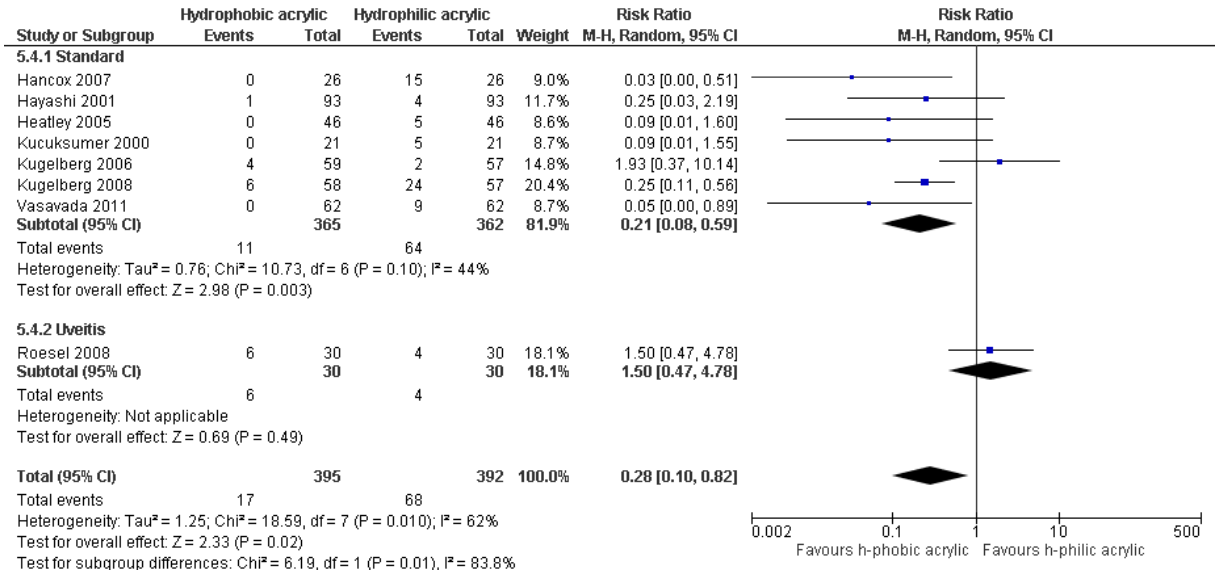
BCDVA (decimal acuity)



PCO score

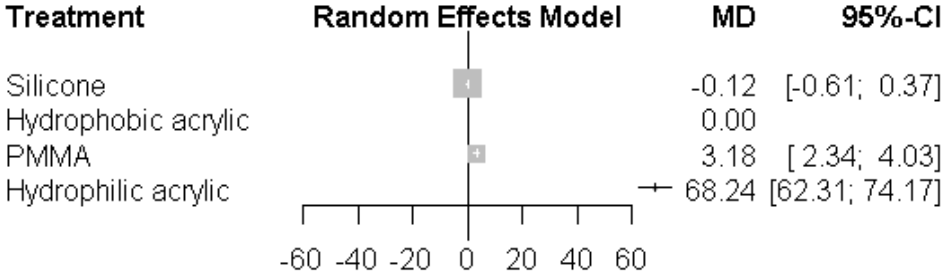


Nd:YAG capsulotomy rate



H.4.1.5 Network meta-analyses (lens material)

PCO score (hydrophobic acrylic as reference category)



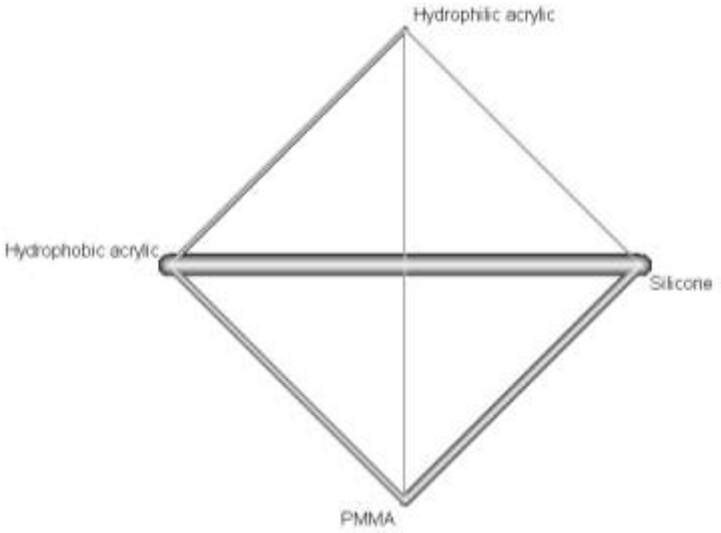
Pairwise mean differences from NMA

	Silicone	Hydrophobic acrylic	PMMA	Hydrophilic acrylic
Silicone	N/A			
Hydrophobic acrylic	0.12 (-0.37, 0.61)	N/A		
PMMA	3.30 (2.45, 4.15)	3.18 (2.34, 4.03)	N/A	
Hydrophilic acrylic	68.36 (62.42, 74.30)	68.24 (62.31, 74.17)	65.06 (59.08, 71.03)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.2410; I^2 = 93.9%

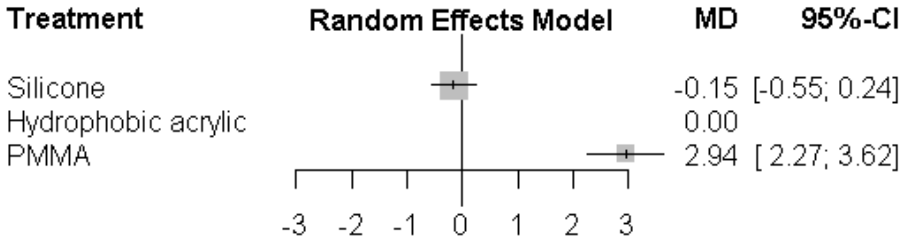
Network graph



Comparison of direct and indirect evidence

```
Random effects model:

                                comparison prop      nma   direct   indir.     Diff     z  p-value
 Hydrophilic acrylic:Hydrophobic acrylic 0.72 -68.2394 -79.8989 -38.2131 -41.6858 -6.19 < 0.0001
                Hydrophilic acrylic:PMMA 0.16 -65.0572 -17.0000 -73.9871  56.9871  6.80 < 0.0001
            Hydrophilic acrylic:Silicone 0.25 -68.3601 -45.2000 -76.1627  30.9627  4.44 < 0.0001
                Hydrophobic acrylic:PMMA 0.83   3.1822   3.3227   2.4981   0.8246  0.72   0.4716
            Hydrophobic acrylic:Silicone 0.99  -0.1207  -0.2310  18.4725 -18.7035 -5.74 < 0.0001
                           PMMA:Silicone 0.80  -3.3029  -2.9066  -4.9190   2.0124  1.84   0.0651

Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (MD) in network meta-analysis
 direct     - Estimated treatment effect (MD) derived from direct evidence
 indir.     - Estimated treatment effect (MD) derived from indirect evidence
 Diff       - Difference between direct and indirect treatment estimates
 z          - z-value of test for disagreement (direct versus indirect)
 p-value    - p-value of test for disagreement (direct versus indirect)
```

PCO score (without hydrophilic acrylic - hydrophobic acrylic as reference category)



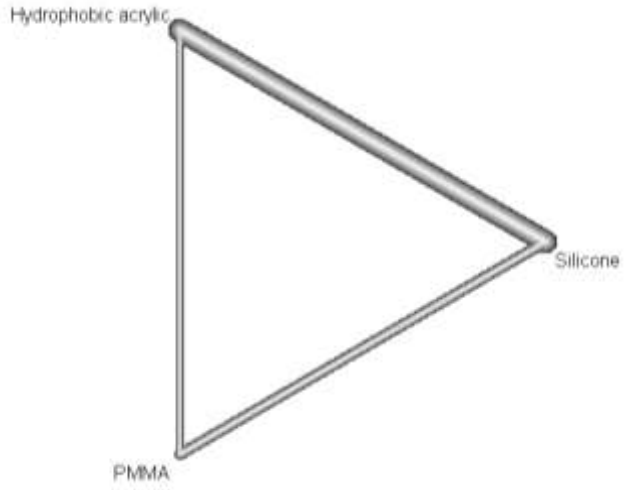
Pairwise mean differences from NMA

	Silicone	Hydrophobic acrylic	PMMA
Silicone	N/A		
Hydrophobic acrylic	0.15 (-0.24, 0.55)	N/A	
PMMA	3.10 (2.42, 3.78)	2.95 (2.27, 3.62)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.1441; I^2 = 91.7%

Network graph

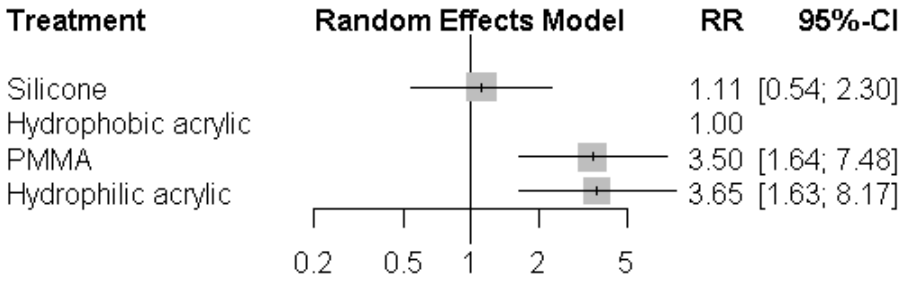


Comparison of direct and indirect evidence

```
Random effects model:

                    comparison prop     nma  direct  indir.     Diff     z  p-value
     Hydrophobic acrylic:PMMA 0.83  2.9449  3.1022  2.1545   0.9477  1.03   0.3040
 Hydrophobic acrylic:Silicone 1.00 -0.1549 -0.1978 12.4062 -12.6040 -3.63   0.0003
                PMMA:Silicone 0.82 -3.0998 -2.8300 -4.3079   1.4780  1.66   0.0976

Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (MD) in network meta-analysis
 direct     - Estimated treatment effect (MD) derived from direct evidence
 indir.     - Estimated treatment effect (MD) derived from indirect evidence
 Diff       - Difference between direct and indirect treatment estimates
```

```
z          - z-value of test for disagreement (direct versus indirect)
p-value    - p-value of test for disagreement (direct versus indirect)
```

Nd:YAG capsulotomy rate (hydrophobic acrylic as reference category)



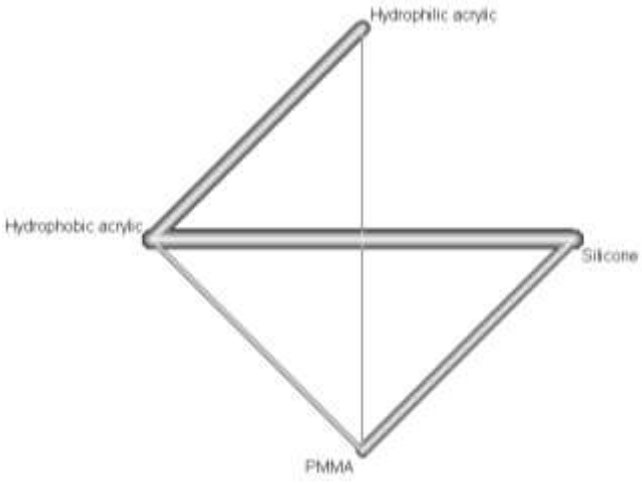
Pairwise relative risks from NMA

	Silicone	Hydrophobic acrylic	PMMA	Hydrophilic acrylic
Silicone	N/A			
Hydrophobic acrylic	0.90 (0.43, 1.87)	N/A		
PMMA	3.15 (1.51, 6.58)	3.50 (1.64, 7.48)	N/A	
Hydrophilic acrylic	3.29 (1.20, 8.97)	3.65 (1.63, 8.17)	1.04 (0.41, 2.65)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.4919; I^2 = 52.3%

Network graph



Comparison of direct and indirect evidence

```
Random effects model:

                                comparison prop    nma direct indir.    RoR     z  p-value
 Hydrophilic acrylic:Hydrophobic acrylic 0.76 0.2746 0.2216 0.5327 0.4160 -0.92   0.3587
               Hydrophilic acrylic:PMMA 0.45 0.9558 1.5472 0.6437 2.4035  0.92   0.3587
          Hydrophilic acrylic:Silicone 0.00 0.3030      . 0.3030      .     .        .
              Hydrophobic acrylic:PMMA 0.49 3.4810 7.1831 1.7205 4.1749  1.85   0.0647
          Hydrophobic acrylic:Silicone 0.77 1.1034 0.7331 4.4474 0.1648 -2.03   0.0425
                        PMMA:Silicone 0.73 0.3170 0.5413 0.0754 7.1818  2.34   0.0194
```

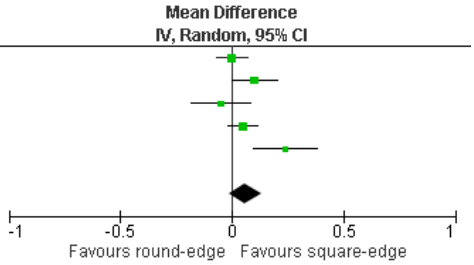
```
Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (RR) in network meta-analysis
 direct     - Estimated treatment effect (RR) derived from direct evidence
 indir.     - Estimated treatment effect (RR) derived from indirect evidence
 RoR        - Ratio of Ratios (direct versus indirect)
 z          - z-value of test for disagreement (direct versus indirect)
 p-value    - p-value of test for disagreement (direct versus indirect)
```

H.4.1.6 Square-edge versus round-edge

BCDVA (decimal acuity)

Study or Subgroup	Square-edge Mean	SD	Total	Round-edge Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Buehl 2004	1	0.13	40	1	0.19	40	24.6%	0.00 [-0.07, 0.07]
Buehl 2005	0.95	0.15	31	0.85	0.25	31	19.8%	0.10 [-0.00, 0.20]
Findl 2005a	0.76	0.27	32	0.81	0.28	32	15.5%	-0.05 [-0.18, 0.08]
Hayashi 2005a	0.97	0.2	69	0.92	0.2	69	25.3%	0.05 [-0.02, 0.12]
Sundelin 2005	0.83	0.32	57	0.59	0.45	59	14.7%	0.24 [0.10, 0.38]
Total (95% CI)			**229**			**231**	**100.0%**	**0.06 [-0.01, 0.13]**

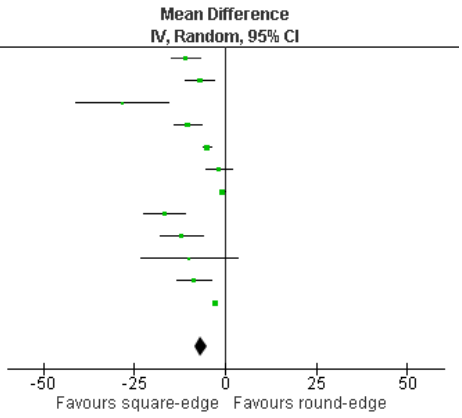
Heterogeneity: Tau² = 0.00; Chi² = 11.81, df = 4 (P = 0.02); I² = 66%
Test for overall effect: Z = 1.59 (P = 0.11)



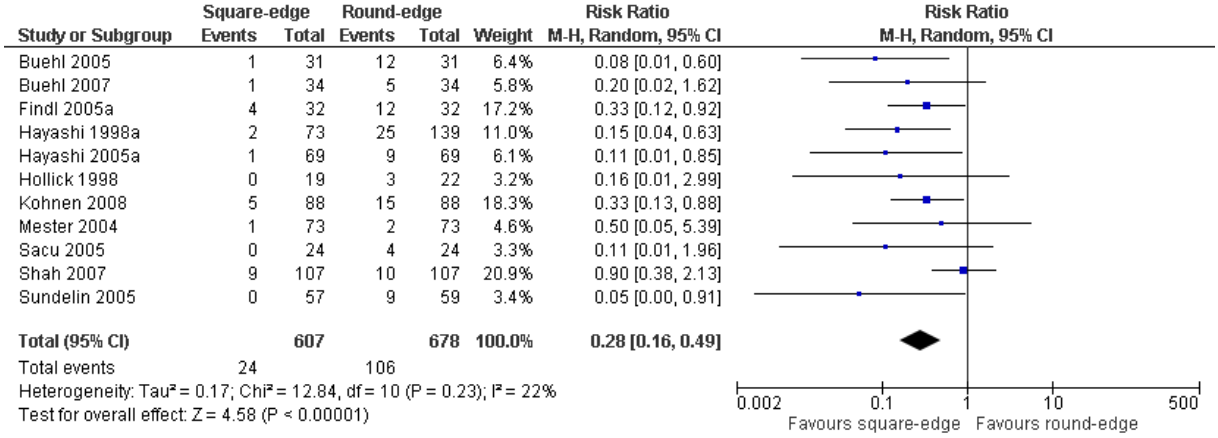
PCO score

Study or Subgroup	Square-edge Mean	SD	Total	Round-edge Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Buehl 2002	11	7.5	45	21.9	12.7	54	8.5%	-10.90 [-14.93, -6.87]
Buehl 2004	7.1	6.5	40	14	11.3	40	8.5%	-6.90 [-10.94, -2.86]
Findl 2005a	22.9	32	32	51.2	17.6	32	1.8%	-28.30 [-40.95, -15.65]
Hayashi 1998a	16	10.3	73	26.3	12.2	69	9.0%	-10.30 [-14.02, -6.58]
Hayashi 2005a	10.2	3	69	15.3	4	69	13.9%	-5.10 [-6.28, -3.92]
Kohnen 2008	0	2	57	1.75	14	57	9.1%	-1.75 [-5.42, 1.92]
Mester 2004	0.2	1.2	73	1.1	3.1	73	14.4%	-0.90 [-1.66, -0.14]
Sacu 2004	6.5	10.5	53	23.3	18.8	53	5.8%	-16.80 [-22.60, -11.00]
Sacu 2005	12	6	24	24	14	24	5.5%	-12.00 [-18.09, -5.91]
Shah 2007	35	50	107	45	50	107	1.6%	-10.00 [-23.40, 3.40]
Sundelin 2005	0.75	5.54	57	9.44	17.98	59	7.2%	-8.69 [-13.50, -3.88]
Zemaitiene 2004	0.4	0.2	84	3.1	0.5	42	14.8%	-2.70 [-2.86, -2.54]
Total (95% CI)			**714**			**679**	**100.0%**	**-6.75 [-8.55, -4.96]**

Heterogeneity: Tau² = 5.67; Chi² = 127.99, df = 11 (P < 0.00001); I² = 91%
Test for overall effect: Z = 7.37 (P < 0.00001)

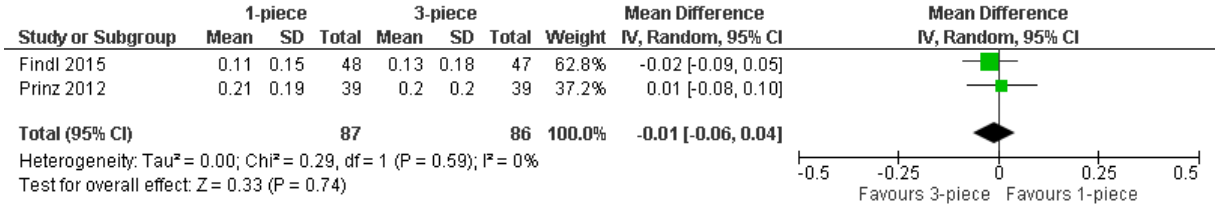


Nd:YAG capsulotomy rate

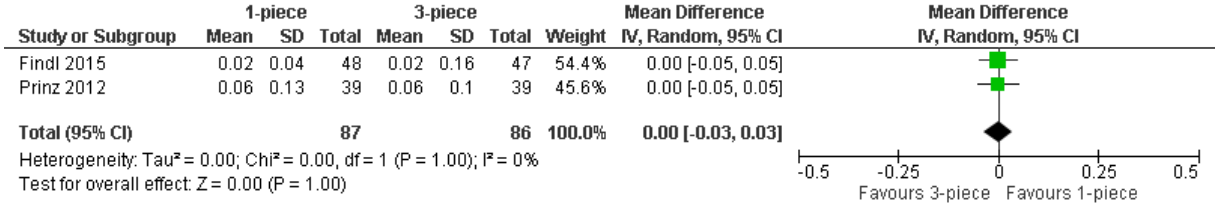


H.4.1.7 Loop versus 3-piece

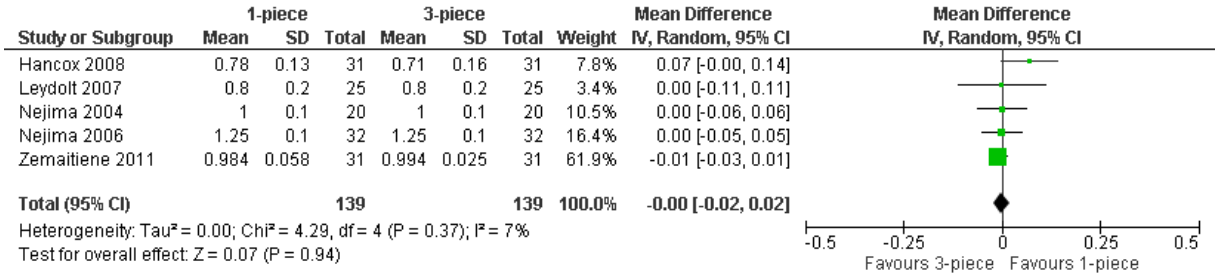
UCDVA (logMAR)



BCDVA (logMAR)



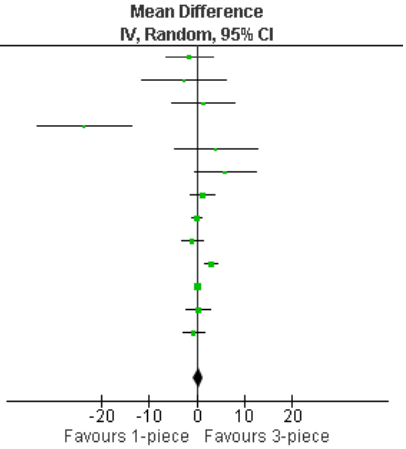
BCDVA (decimal acuity)



PCO score

Study or Subgroup	1-piece Mean	1-piece SD	1-piece Total	3-piece Mean	3-piece SD	3-piece Total	Weight	Mean Difference IV, Random, 95% CI
Bender 2004	9.9	12.2	38	11.4	14.9	94	4.1%	-1.50 [-6.41, 3.41]
Chang 2013	13.8	16.933	29	16.5	16.933	27	1.5%	-2.70 [-11.58, 6.18]
Findl 2015	23.31	15.12	35	21.93	13.58	35	2.5%	1.38 [-5.35, 8.11]
Hancox 2008	8.83	10.89	32	32.44	26.84	32	1.2%	-23.61 [-33.65, -13.57]
Leydolt 2007	17	17	25	13	14	25	1.6%	4.00 [-4.63, 12.63]
Mylonas 2013	15	15	28	9	12	58	2.7%	6.00 [-0.36, 12.36]
Nejima 2004	12.5	3.9	20	11.3	3.9	20	9.8%	1.20 [-1.22, 3.62]
Nejima 2006	10.94	2.34	32	10.94	2.34	32	14.9%	0.00 [-1.15, 1.15]
Prinz 2012	2	5	39	3	5	39	10.6%	-1.00 [-3.22, 1.22]
Sacu 2004	15	3.3	52	12	4	52	13.8%	3.00 [1.59, 4.41]
Zemaitiene 2004	0.6	0.2	38	0.3	0.1	46	17.5%	0.30 [0.23, 0.37]
Zemaitiene 2007	3.75	4.75	32	3.4	5.58	34	9.6%	0.35 [-2.15, 2.85]
Zemaitiene 2011	3.625	3.975	31	4.275	5.2	31	10.2%	-0.65 [-2.95, 1.65]
Total (95% CI)			**431**			**525**	**100.0%**	**0.32 [-0.83, 1.46]**

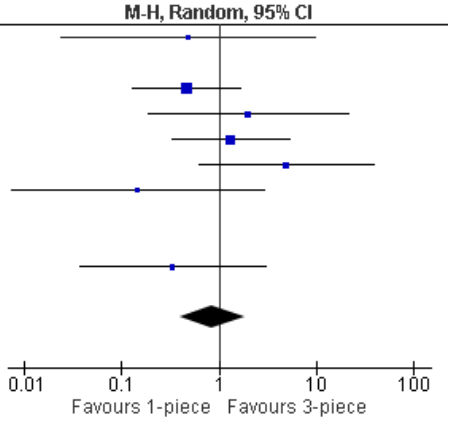
Heterogeneity: Tau² = 1.95; Chi² = 43.51, df = 12 (P < 0.0001); I² = 72%
Test for overall effect: Z = 0.55 (P = 0.58)



Nd:YAG capsulotomy rate

Study or Subgroup	1-piece Events	1-piece Total	3-piece Events	3-piece Total	Weight	Risk Ratio M-H, Random, 95% CI
Bender 2004	0	38	2	94	6.3%	0.49 [0.02, 9.92]
Bilge 2004	0	252	0	267		Not estimable
Chang 2013	3	29	6	27	28.6%	0.47 [0.13, 1.68]
Findl 2015	2	50	1	50	9.9%	2.00 [0.19, 21.36]
Leydolt 2007	4	25	3	25	25.1%	1.33 [0.33, 5.36]
Mylonas 2013	5	28	1	28	12.5%	5.00 [0.62, 40.11]
Prinz 2012	0	39	2	28	6.3%	0.14 [0.01, 2.91]
Sacu 2004	0	52	0	52		Not estimable
Zemaitiene 2007	0	32	0	34		Not estimable
Zemaitiene 2011	1	31	3	31	11.2%	0.33 [0.04, 3.03]
Total (95% CI)		**576**		**636**	**100.0%**	**0.85 [0.39, 1.83]**
Total events	15		18			

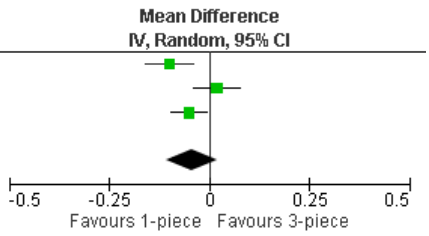
Heterogeneity: Tau² = 0.12; Chi² = 6.69, df = 6 (P = 0.35); I² = 10%
Test for overall effect: Z = 0.42 (P = 0.67)



Lens decentration (mm)

Study or Subgroup	1-piece Mean	1-piece SD	1-piece Total	3-piece Mean	3-piece SD	3-piece Total	Weight	Mean Difference IV, Random, 95% CI
Hayashi 1998b	0.27	0.16	91	0.37	0.25	91	31.4%	-0.10 [-0.16, -0.04]
Hayashi 2005b	0.24	0.18	56	0.22	0.13	56	32.3%	0.02 [-0.04, 0.08]
Mutlu 2005	0.34	0.08	43	0.39	0.13	45	36.3%	-0.05 [-0.09, -0.01]
Total (95% CI)			**190**			**192**	**100.0%**	**-0.04 [-0.11, 0.02]**

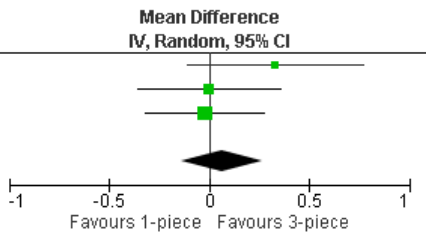
Heterogeneity: Tau² = 0.00; Chi² = 7.96, df = 2 (P = 0.02); I² = 75%
Test for overall effect: Z = 1.35 (P = 0.18)



Lens tilt (degrees)

Study or Subgroup	1-piece Mean	1-piece SD	1-piece Total	3-piece Mean	3-piece SD	3-piece Total	Weight	Mean Difference IV, Random, 95% CI
Hayashi 1998b	3.11	1.62	91	2.78	1.41	91	21.3%	0.33 [-0.11, 0.77]
Hayashi 2005b	1.64	1	56	1.64	0.94	56	32.1%	0.00 [-0.36, 0.36]
Mutlu 2005	2.7	0.84	43	2.72	0.55	45	46.6%	-0.02 [-0.32, 0.28]
Total (95% CI)			**190**			**192**	**100.0%**	**0.06 [-0.14, 0.26]**

Heterogeneity: Tau² = 0.00; Chi² = 1.82, df = 2 (P = 0.40); I² = 0%
Test for overall effect: Z = 0.59 (P = 0.56)

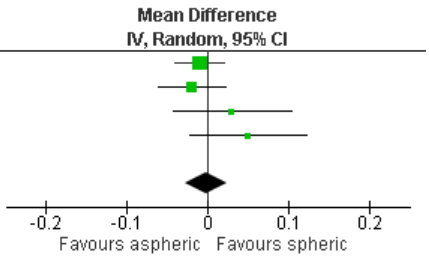


H.4.1.8 Aspheric versus spheric

UCDVA (logMAR)

Study or Subgroup	Aspheric Mean	Aspheric SD	Aspheric Total	Spheric Mean	Spheric SD	Spheric Total	Weight	Mean Difference IV, Random, 95% CI
Crnej 2014	0.08	0.05	25	0.09	0.06	25	46.3%	-0.01 [-0.04, 0.02]
Santhiago 2010	0.07	0.07	25	0.09	0.08	25	30.1%	-0.02 [-0.06, 0.02]
Tzelikis 2007	-0.16	0.14	28	-0.19	0.14	28	11.6%	0.03 [-0.04, 0.10]
Tzelikis 2008	-0.12	0.13	25	-0.17	0.13	25	12.0%	0.05 [-0.02, 0.12]
Total (95% CI)			**103**			**103**	**100.0%**	**-0.00 [-0.03, 0.03]**

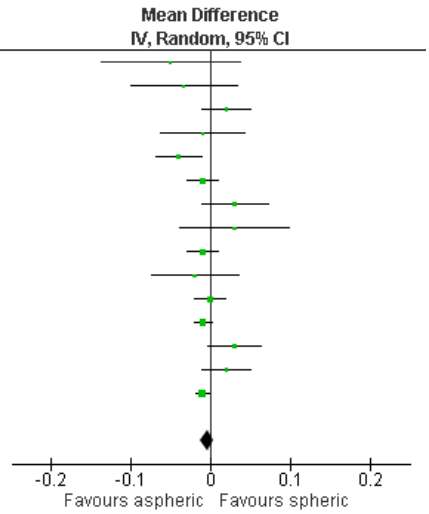
Heterogeneity: Tau² = 0.00; Chi² = 3.69, df = 3 (P = 0.30); I² = 19%
Test for overall effect: Z = 0.09 (P = 0.93)



BCDVA (logMAR)

Study or Subgroup	Aspheric Mean	Aspheric SD	Aspheric Total	Spheric Mean	Spheric SD	Spheric Total	Weight	Mean Difference IV, Random, 95% CI
Caporossi 2007	-0.02	0.1	25	0.03	0.2	25	0.9%	-0.05 [-0.14, 0.04]
Crnej 2014	-0.034	0.104	20	0	0.11	19	1.5%	-0.03 [-0.10, 0.03]
Denoyer 2007	0.03	0.05	20	0.01	0.05	20	5.6%	0.02 [-0.01, 0.05]
Espindola 2012	0.01	0.1	25	0.02	0.09	25	2.3%	-0.01 [-0.06, 0.04]
Moorfields 2007	-0.62	0.1	79	-0.58	0.1	100	6.0%	-0.04 [-0.07, -0.01]
Morales 2011	0.02	0.05	39	0.03	0.04	39	10.0%	-0.01 [-0.03, 0.01]
Nanavaty 2009	0.01	0.1	44	-0.02	0.1	44	3.5%	0.03 [-0.01, 0.07]
Nanavaty 2012	0.07	0.2	41	0.04	0.1	41	1.4%	0.03 [-0.04, 0.10]
Rocha 2006	0.02	0.05	40	0.03	0.04	40	10.1%	-0.01 [-0.03, 0.01]
Santhiago 2010	0	0.12	25	0.02	0.07	25	2.2%	-0.02 [-0.07, 0.03]
Shentu 2008	0.035	0.069	131	0.036	0.06	65	10.8%	-0.00 [-0.02, 0.02]
Trueb 2009	0.05	0.07	262	0.06	0.06	262	16.4%	-0.01 [-0.02, 0.00]
Tzelikis 2007	-0.01	0.06	25	-0.04	0.06	25	5.0%	0.03 [-0.00, 0.06]
Tzelikis 2008	0	0.05	25	-0.02	0.06	25	5.7%	0.02 [-0.01, 0.05]
Zeng 2007	0	0.02	40	0.01	0.02	45	18.6%	-0.01 [-0.02, -0.00]
Total (95% CI)			**841**			**800**	**100.0%**	**-0.00 [-0.01, 0.00]**

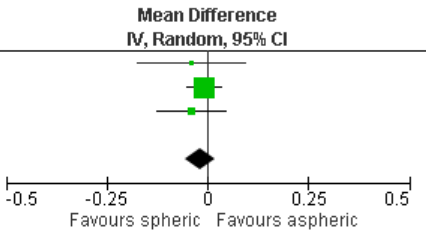
Heterogeneity: Tau² = 0.00; Chi² = 22.69, df = 14 (P = 0.07); I² = 38%
Test for overall effect: Z = 1.02 (P = 0.31)



BCDVA (decimal acuity)

Study or Subgroup	Aspheric Mean	Aspheric SD	Aspheric Total	Spheric Mean	Spheric SD	Spheric Total	Weight	Mean Difference IV, Random, 95% CI
Chen 2006	0.97	0.23	20	1.01	0.2	20	7.5%	-0.04 [-0.17, 0.09]
Luo 2010	0.74	0.17	124	0.75	0.18	136	74.3%	-0.01 [-0.05, 0.03]
van Gallen 2010	1.07	0.17	30	1.11	0.17	30	18.2%	-0.04 [-0.13, 0.05]
Total (95% CI)			**174**			**186**	**100.0%**	**-0.02 [-0.05, 0.02]**

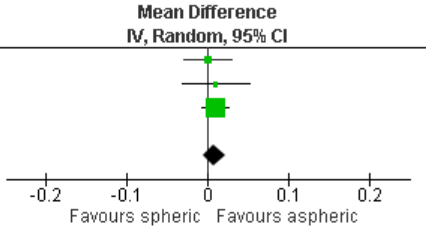
Heterogeneity: Tau² = 0.00; Chi² = 0.49, df = 2 (P = 0.78); I² = 0%
Test for overall effect: Z = 0.95 (P = 0.34)



Contrast sensitivity (Pelli-Robson test)

Study or Subgroup	Aspheric Mean	Aspheric SD	Aspheric Total	Spheric Mean	Spheric SD	Spheric Total	Weight	Mean Difference IV, Random, 95% CI
Moorfields 2007	1.75	0.1	79	1.75	0.1	100	21.5%	0.00 [-0.03, 0.03]
Rocha 2006	1.61	0.09	40	1.6	0.1	40	10.8%	0.01 [-0.03, 0.05]
Santhiago 2010	1.57	0.03	25	1.56	0.03	25	67.7%	0.01 [-0.01, 0.03]
Total (95% CI)			**144**			**165**	**100.0%**	**0.01 [-0.01, 0.02]**

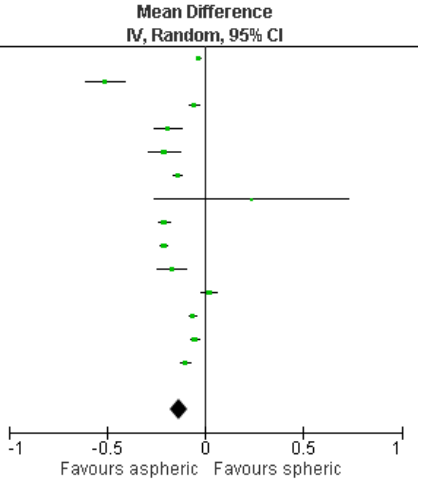
Heterogeneity: Tau² = 0.00; Chi² = 0.35, df = 2 (P = 0.84); I² = 0%
Test for overall effect: Z = 1.12 (P = 0.26)



Spherical aberrations

Study or Subgroup	Aspheric Mean	Aspheric SD	Aspheric Total	Spheric Mean	Spheric SD	Spheric Total	Weight	Mean Difference IV, Random, 95% CI
Baumeister 2009	0.011	0.017	21	0.045	0.016	21	8.3%	-0.03 [-0.04, -0.02]
Caporossi 2007	0.11	0.1	25	0.62	0.24	25	5.8%	-0.51 [-0.61, -0.41]
Cui 2009	0.065	0.035	41	0.12	0.06	20	8.1%	-0.05 [-0.08, -0.03]
Espindola 2012	0.26	0.08	25	0.45	0.17	25	6.8%	-0.19 [-0.26, -0.12]
Jafarinasab 2010	0.14	0.1	17	0.35	0.14	17	6.5%	-0.21 [-0.29, -0.13]
Moorfields 2007	0	0.06	79	0.14	0.09	100	8.2%	-0.14 [-0.16, -0.12]
Morales 2011	0.2364	1.114	39	0	1.114	39	0.8%	0.24 [-0.26, 0.73]
Nanavaty 2009	0.04	0.05	44	0.25	0.09	44	8.0%	-0.21 [-0.24, -0.18]
Rocha 2006	0.03	0.05	40	0.24	0.04	40	8.2%	-0.21 [-0.23, -0.19]
Santhiago 2010	0.2	0.07	25	0.37	0.17	25	6.9%	-0.17 [-0.24, -0.10]
Takmaz 2009	0.294	0.086	30	0.273	0.074	30	7.8%	0.02 [-0.02, 0.06]
Tzelikis 2007	0.014	0.02	25	0.078	0.049	25	8.2%	-0.06 [-0.08, -0.04]
Tzelikis 2008	0.012	0.02	25	0.066	0.05	25	8.2%	-0.05 [-0.08, -0.03]
van Gallen 2010	-0.036	0.047	30	0.064	0.052	30	8.1%	-0.10 [-0.13, -0.07]
Total (95% CI)			**466**			**466**	**100.0%**	**-0.14 [-0.18, -0.09]**

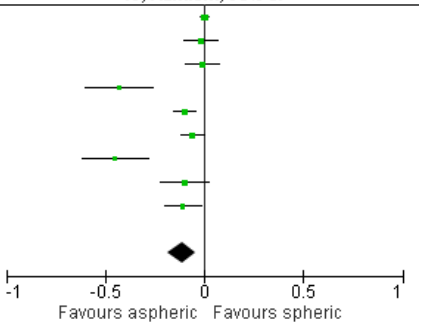
Heterogeneity: Tau² = 0.01; Chi² = 475.67, df = 13 (P < 0.00001); I² = 97%
Test for overall effect: Z = 5.90 (P < 0.00001)



Higher-order aberrations

Study or Subgroup	Aspheric Mean	Aspheric SD	Aspheric Total	Spheric Mean	Spheric SD	Spheric Total	Weight	Mean Difference IV, Random, 95% CI
Baumeister 2009	0.123	0.043	21	0.121	0.033	21	14.1%	0.00 [-0.02, 0.03]
Cui 2009	0.404	0.165	41	0.42	0.16	20	11.7%	-0.02 [-0.10, 0.07]
Denoyer 2007	0.32	0.08	20	0.33	0.18	20	11.7%	-0.01 [-0.10, 0.08]
Espindola 2012	0.96	0.19	25	1.39	0.39	25	7.6%	-0.43 [-0.60, -0.26]
Nanavaty 2009	0.4	0.15	44	0.5	0.13	44	13.0%	-0.10 [-0.16, -0.04]
Rocha 2006	0.35	0.18	40	0.41	0.09	40	12.8%	-0.06 [-0.12, 0.00]
Santhiago 2010	0.79	0.18	25	1.24	0.39	25	7.7%	-0.45 [-0.62, -0.28]
Tzelikis 2007	0.41	0.24	25	0.51	0.19	25	10.0%	-0.10 [-0.22, 0.02]
Tzelikis 2008	0.35	0.18	25	0.46	0.16	25	11.3%	-0.11 [-0.20, -0.02]
Total (95% CI)			**266**			**245**	**100.0%**	**-0.11 [-0.18, -0.04]**

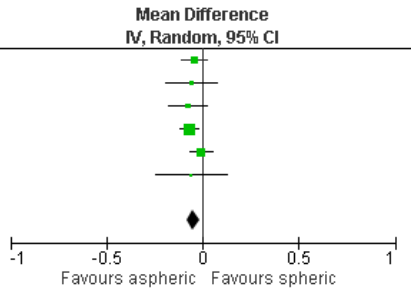
Heterogeneity: Tau² = 0.01; Chi² = 63.16, df = 8 (P < 0.00001); I² = 87%
Test for overall effect: Z = 3.23 (P = 0.001)



Comatic aberrations

Study or Subgroup	Aspheric Mean	Aspheric SD	Aspheric Total	Spheric Mean	Spheric SD	Spheric Total	Weight	Mean Difference IV, Random, 95% CI
Cui 2009	0.145	0.08	41	0.19	0.14	20	21.0%	-0.05 [-0.11, 0.02]
Espindola 2012	0.51	0.19	25	0.57	0.28	25	5.2%	-0.06 [-0.19, 0.07]
Morales 2011	-0.0767	0.2231	39	0	0.2231	39	9.4%	-0.08 [-0.18, 0.02]
Nanavaty 2009	0.21	0.1	44	0.28	0.14	44	35.5%	-0.07 [-0.12, -0.02]
Rocha 2006	0.18	0.14	40	0.19	0.13	40	26.2%	-0.01 [-0.07, 0.05]
Santhiago 2010	0.49	0.21	25	0.55	0.43	25	2.6%	-0.06 [-0.25, 0.13]
Total (95% CI)			**214**			**193**	**100.0%**	**-0.05 [-0.08, -0.02]**

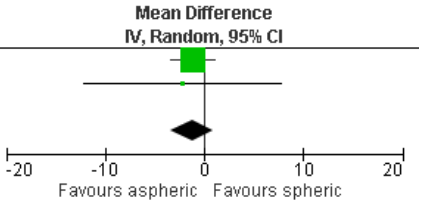
Heterogeneity: Tau² = 0.00; Chi² = 2.68, df = 5 (P = 0.75); I² = 0%
Test for overall effect: Z = 3.16 (P = 0.002)



PCO score

Study or Subgroup	Aspheric Mean	Aspheric SD	Aspheric Total	Spheric Mean	Spheric SD	Spheric Total	Weight	Mean Difference IV, Random, 95% CI
Crnej 2014	2.6	3.498	20	3.8	3.498	19	95.3%	-1.20 [-3.40, 1.00]
Nanavaty 2012	12.18	20.1	41	14.39	25.42	41	4.7%	-2.21 [-12.13, 7.71]
Total (95% CI)			**61**			**60**	**100.0%**	**-1.25 [-3.39, 0.90]**

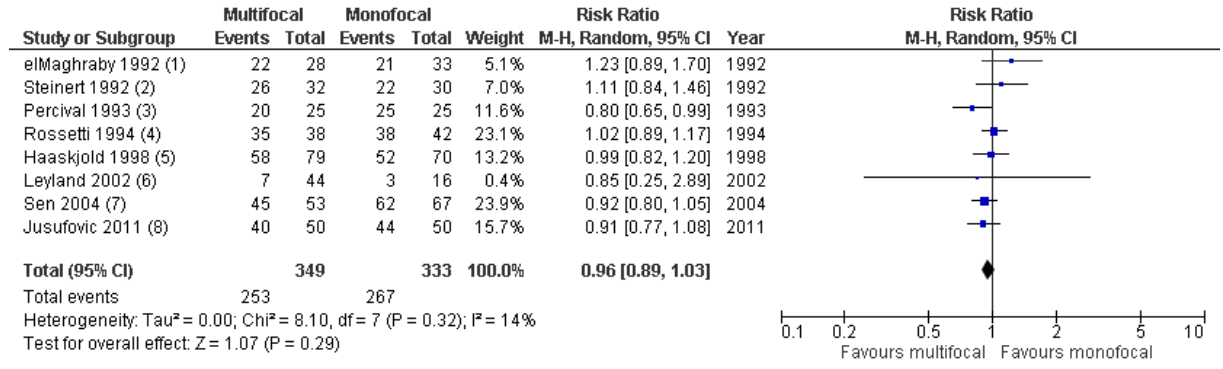
Heterogeneity: Tau² = 0.00; Chi² = 0.04, df = 1 (P = 0.85); I² = 0%
Test for overall effect: Z = 1.14 (P = 0.25)



H.4.2 Multifocal vs monofocal intraocular lenses

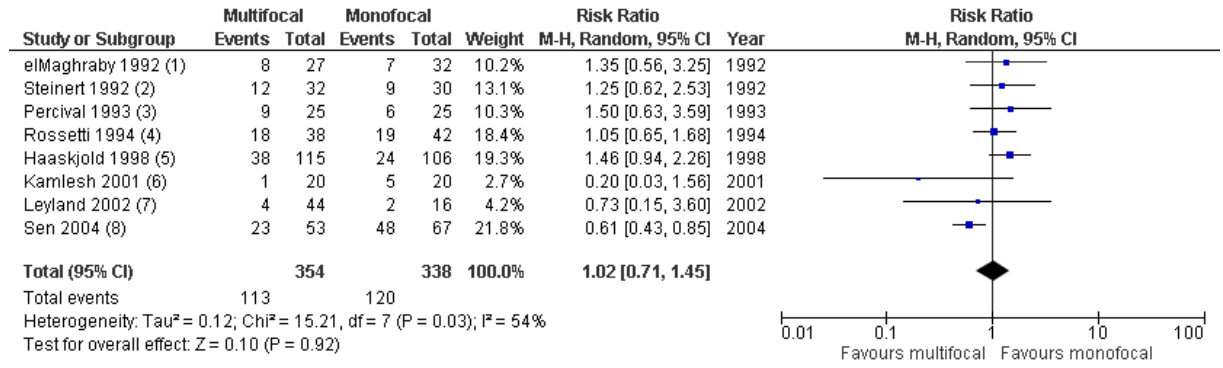
H.4.2.1 Multifocal versus monofocal

Uncorrected distance visual acuity worse than 6/6



Footnotes
(1) 2 to 4 months, study eye
(2) 3 to 6 months, study eye
(3) 4 to 6 months, study eye
(4) 12 months, study eye
(5) 5 months, study eye
(6) 3 month, binocular
(7) 1 month, by eye (35 people in multifocal and 40 people in monofocal group, not adjusted for within-person correlation)
(8) 6 weeks, binocular

Corrected distance visual acuity worse than 6/6

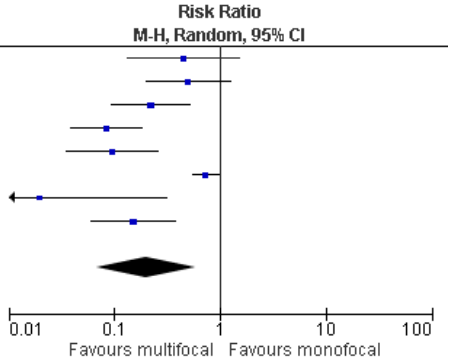


Footnotes
(1) 2 to 4 months, study eye
(2) 3 to 6 months, study eye
(3) 4 to 6 months, study eye
(4) 12 months, study eye
(5) 5 months, study eye
(6) 3 months, unclear whether eyes/people reported
(7) 3 months, binocular
(8) 1 month, by eye (35 people in multifocal and 40 people in monofocal group, not adjusted for within-person correlation)

Uncorrected near visual acuity worse than J3/J4 or equivalent

Study or Subgroup	Multifocal Events	Multifocal Total	Monofocal Events	Monofocal Total	Weight	Risk Ratio M-H, Random, 95% CI	Year
elMaghraby 1992 (1)	3	23	7	24	12.2%	0.45 [0.13, 1.52]	1992
Percival 1993 (2)	5	25	10	25	13.1%	0.50 [0.20, 1.25]	1993
Rossetti 1994 (3)	5	38	25	42	13.3%	0.22 [0.09, 0.52]	1994
Haaskjold 1998 (4)	6	79	64	70	13.5%	0.08 [0.04, 0.18]	1998
Javitt 2000 (5)	4	123	37	109	12.9%	0.10 [0.04, 0.26]	2000
Leyland 2002 (6)	28	44	14	16	14.4%	0.73 [0.54, 0.97]	2002
Jusufovic 2011 (7)	0	50	25	50	7.4%	0.02 [0.00, 0.31]	2011
Ji 2013 (8)	4	30	30	34	13.1%	0.15 [0.06, 0.38]	2013
Total (95% CI)		**412**		**370**	**100.0%**	**0.20 [0.07, 0.58]**	
Total events	55		212				

Heterogeneity: Tau² = 2.08; Chi² = 96.83, df = 7 (P < 0.00001); I² = 93%
Test for overall effect: Z = 2.94 (P = 0.003)

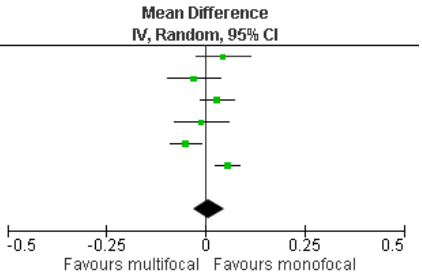


Footnotes
(1) 2 to 4 months, study eye
(2) 4 to 6 months, study eye
(3) 12 months, study eye
(4) 5 months, study eye
(5) 3 ot 6 months, binocular
(6) 3 months, binocular, could not read N5 size print
(7) 6 weeks, binocular
(8) 3 months, unclear whether eyes/people reported

Mean uncorrected distance visual acuity (logMAR)

Study or Subgroup	Multifocal Mean	Multifocal SD	Multifocal Total	Monofocal Mean	Monofocal SD	Monofocal Total	Weight	Mean Difference IV, Random, 95% CI	Year
Leyland 2002 (1)	0.0736	0.1201	44	0.03	0.12	16	13.9%	0.04 [-0.03, 0.11]	2002
Nijkamp 2004 (2)	0.13	0.2	68	0.16	0.2	69	14.1%	-0.03 [-0.10, 0.04]	2004
Palmer 2008 (3)	0.1587	0.1145	90	0.13	0.09	24	18.5%	0.03 [-0.01, 0.07]	2008
Harman 2008 (4)	0.07	0.13	24	0.08	0.1	19	13.9%	-0.01 [-0.08, 0.06]	2008
Peng 2012 (5)	0.03	0.14	100	0.08	0.15	102	19.1%	-0.05 [-0.09, -0.01]	2012
Rasp 2012 (6)	0.1347	0.1106	234	0.08	0.11	58	20.6%	0.05 [0.02, 0.09]	2012
Total (95% CI)			**560**			**288**	**100.0%**	**0.01 [-0.03, 0.05]**	

Heterogeneity: Tau² = 0.00; Chi² = 19.47, df = 5 (P = 0.002); I² = 74%
Test for overall effect: Z = 0.37 (P = 0.71)

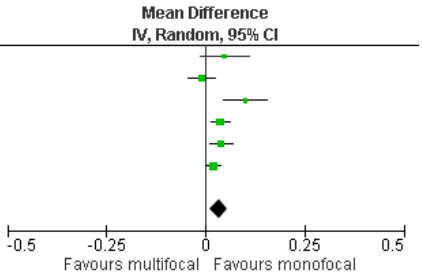


Footnotes
(1) 3 months, binocular
(2) 3 months, unclear whether eyes/people reported
(3) 3 months, binocular
(4) 18 months, binocular
(5) 6 months, binocular
(6) 12 months, unclear whether eyes/people reported

Mean corrected distance visual acuity

Study or Subgroup	Multifocal Mean	Multifocal SD	Multifocal Total	Monofocal Mean	Monofocal SD	Monofocal Total	Weight	Mean Difference IV, Random, 95% CI	Year
Leyland 2002 (1)	0.0373	0.1056	44	-0.01	0.11	16	8.8%	0.05 [-0.01, 0.11]	2002
Nijkamp 2004 (2)	0.02	0.1	68	0.03	0.1	69	17.4%	-0.01 [-0.04, 0.02]	2004
Harman 2008 (3)	0	0.09	24	-0.1	0.09	19	10.6%	0.10 [0.05, 0.15]	2008
Palmer 2008 (4)	0.0871	0.0703	90	0.05	0.05	24	21.2%	0.04 [0.01, 0.06]	2008
Rasp 2012 (5)	0.0695	0.0917	234	0.03	0.11	58	18.6%	0.04 [0.01, 0.07]	2012
Peng 2012 (6)	-0.02	0.06	100	-0.04	0.08	102	23.5%	0.02 [0.00, 0.04]	2012
Total (95% CI)			**560**			**288**	**100.0%**	**0.03 [0.01, 0.06]**	

Heterogeneity: Tau² = 0.00; Chi² = 13.81, df = 5 (P = 0.02); I² = 64%
Test for overall effect: Z = 2.90 (P = 0.004)

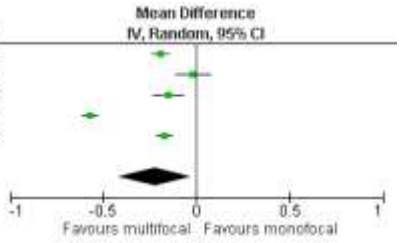


Footnotes
(1) 3 months, binocular
(2) 3 months, unclear whether eyes/people reported
(3) 18 months, binocular
(4) 3 months, binocular
(5) 12 months, unclear whether eyes/people reported
(6) 6 months, binocular

Mean uncorrected near visual acuity

Study or Subgroup	Multifocal Mean	Multifocal SD	Multifocal Total	Monofocal Mean	Monofocal SD	Monofocal Total	Weight	Mean Difference IV, Random, 95% CI	Year
Javitt 2000 (1)	0.11	0.14	123	0.3	0.22	109	20.2%	-0.19 [-0.24, -0.14]	2000
Leyland 2002 (2)	0.443	0.1816	44	0.46	0.16	16	19.5%	-0.02 [-0.11, 0.08]	2002
Harman 2008 (3)	0.49	0.15	24	0.64	0.12	19	19.8%	-0.15 [-0.23, -0.07]	2008
Peng 2012 (4)	0.07	0.07	100	0.64	0.21	102	20.3%	-0.57 [-0.61, -0.53]	2012
Rasp 2012 (5)	0.29786325	0.15013487	234	0.47	0.15	58	20.3%	-0.17 [-0.22, -0.13]	2012
Total (95% CI)			**525**			**304**	**100.0%**	**-0.22 [-0.42, -0.03]**	

Heterogeneity: Tau² = 0.05; Chi² = 251.32, df = 4 (P < 0.00001); I² = 98%
Test for overall effect: Z = 2.22 (P = 0.03)

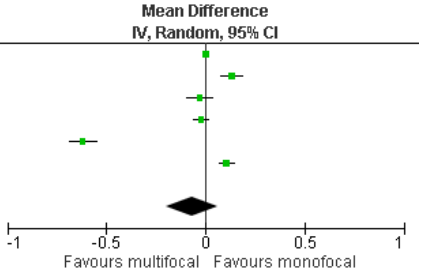


Footnotes
(1) 3 months, binocular
(2) 3 months, binocular
(3) 18 months, binocular
(4) 6 months, binocular
(5) 12 months, unclear whether eyes/people reported

Mean corrected near visual acuity

Study or Subgroup	Multifocal Mean	Multifocal SD	Multifocal Total	Monofocal Mean	Monofocal SD	Monofocal Total	Weight	Mean Difference IV, Random, 95% CI	Year
Javitt 2000 (1)	0	0.06	123	0	0.05	109	17.1%	0.00 [-0.01, 0.01]	2000
Leyland 2002 (2)	0.3307	0.1751	88	0.2	0.13	32	16.5%	0.13 [0.07, 0.19]	2002
Harman 2008 (3)	0.36	0.1	24	0.39	0.11	19	16.4%	-0.03 [-0.09, 0.03]	2008
Palmer 2008 (4)	0.0171	0.0486	90	0.04	0.09	24	16.9%	-0.02 [-0.06, 0.01]	2008
Peng 2012 (5)	0.03	0.11	100	0.65	0.34	102	16.3%	-0.62 [-0.69, -0.55]	2012
Rasp 2012 (6)	0.234	0.1507	234	0.13	0.13	58	16.8%	0.10 [0.07, 0.14]	2012
Total (95% CI)			**659**			**344**	**100.0%**	**-0.07 [-0.20, 0.06]**	

Heterogeneity: Tau² = 0.03; Chi² = 355.05, df = 5 (P < 0.00001); I² = 99%
Test for overall effect: Z = 1.06 (P = 0.29)

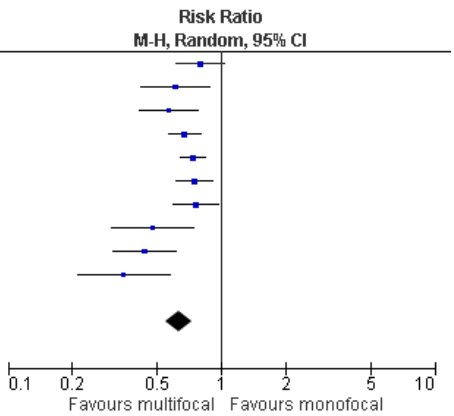


Footnotes
(1) 3 months, binocular
(2) 3 months, binocular
(3) 18 months, binocular
(4) 3 months, binocular
(5) 6 months, binocular
(6) 12 months, unclear whether eyes/people reported

Spectacle dependence (any)

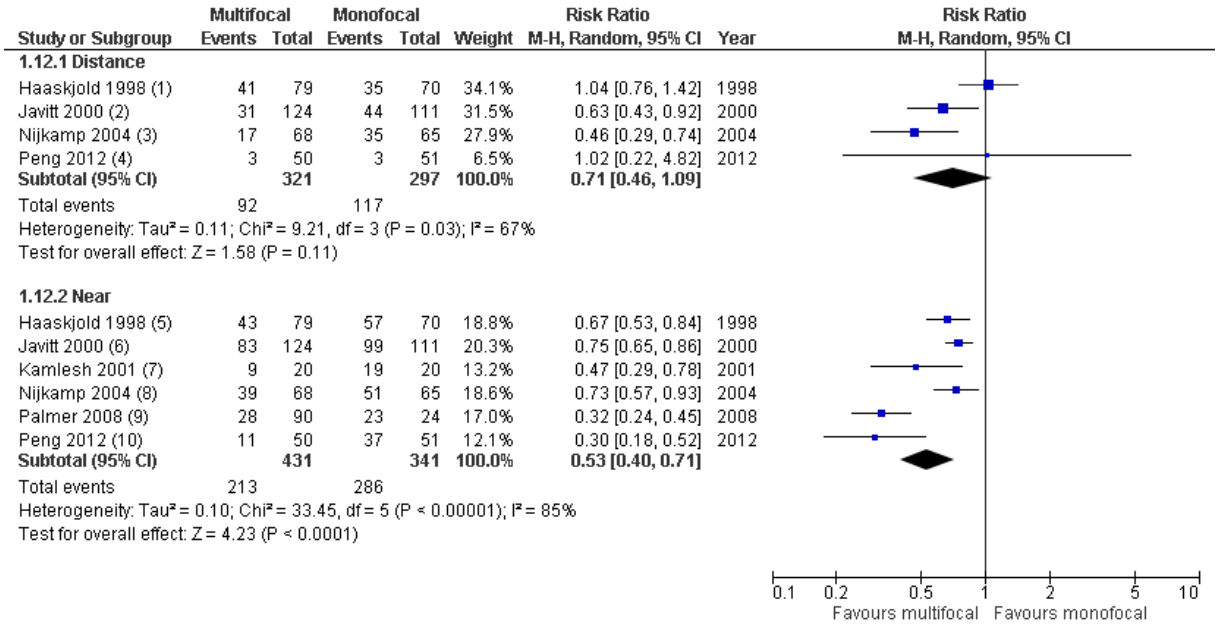
Study or Subgroup	Multifocal Events	Multifocal Total	Monofocal Events	Monofocal Total	Weight	Risk Ratio M-H, Random, 95% CI	Year
Steinert 1992 (1)	22	31	25	28	10.8%	0.79 [0.61, 1.03]	1992
Percival 1993	14	25	23	25	7.9%	0.61 [0.42, 0.88]	1993
Rossetti 1994 (2)	20	38	39	42	9.3%	0.57 [0.41, 0.78]	1994
Haaskjold 1998 (3)	50	79	66	70	13.3%	0.67 [0.56, 0.80]	1998
Javitt 2000 (4)	84	124	102	111	14.6%	0.74 [0.65, 0.84]	2000
Leyland 2002 (5)	32	44	16	16	12.6%	0.74 [0.61, 0.91]	2002
Harman 2008 (6)	18	24	19	19	11.3%	0.76 [0.60, 0.97]	2008
Cillino 2008 (7)	18	47	12	15	6.4%	0.48 [0.31, 0.75]	2008
Zhao 2010 (8)	24	72	68	89	8.4%	0.44 [0.31, 0.62]	2010
Peng 2012 (9)	13	50	38	51	5.6%	0.35 [0.21, 0.57]	2012
Total (95% CI)		**534**		**466**	**100.0%**	**0.63 [0.55, 0.73]**	
Total events	295		408				

Heterogeneity: Tau² = 0.03; Chi² = 27.16, df = 9 (P = 0.001); I² = 67%
Test for overall effect: Z = 6.29 (P < 0.00001)



Footnotes
(1) "What visual aid do you use to improve vision?" "None" (event swapped in figure) at 3 to 6 months
(2) "Required no spectacles" (event swapped for figure) at 12 months
(3) "Reported never using spectacles for distance or near" (event swapped in this figure) 5 months
(4) "Reported never wearing glasses" (event swapped in figure) at 3 to 6 months
(5) "Complete freedom from glasses" (event swapped in figure) at 12 months
(6) "Completely spectacle independent" (event swapped in figure) at 18 months
(7) "Complete spectacle independence" (event swapped in this figure) at 12 months
(8) "Reported being spectacle independent" (event swapped in figure) at 6 months
(9) "Reported overall spectacle independence" (event swapped for figure) at 6 months

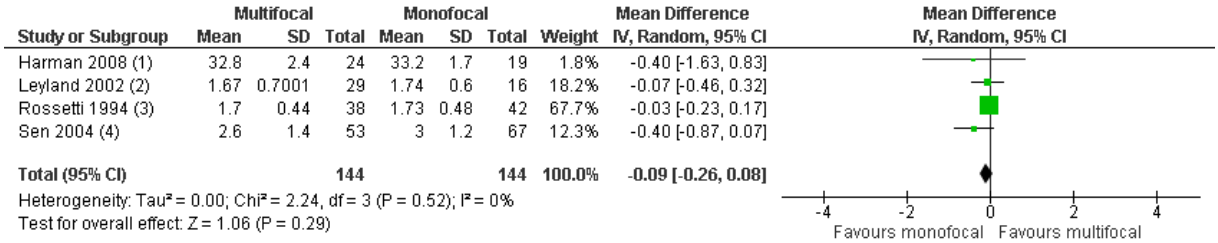
Spectacle dependence (distance or near)



Footnotes

(1) "Never used spectacles for distance" (event swapped in the figure) at 5 months
(2) "Reported wore glasses none of the time for distance vision" (event swapped in figure) at 3 to 6 months
(3) "Reported using spectacles for distance vision always/most of the time/quite often" at 3 months
(4) "Reported spectacle independence for distance vision" (event swapped in figure) at 6 months
(5) "Never used spectacles for near tasks" (event swapped in the figure) at 5 months
(6) "Reported wore glasses none of the time for near vision" (event swapped in figure) at 3 to 6 months
(7) "Do you need additional glasses for near work?" at 3 months
(8) "Reported using spectacles for near vision always/most of the time/quite often" at 3 months
(9) "Dependence on near correction" at 3 months
(10) "Reported spectacle independence for near vision" (event swapped in figure) at 6 months

Contrast sensitivity



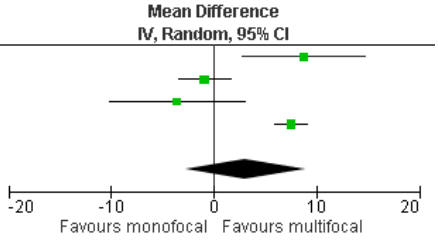
Footnotes

(1) Pelli-Robson chart, 18 months
(2) Binocular, Pelli-Robson chart at 1 metre, follow-up 6 weeks, recalc SD
(3) Pelli-Robson test, 0.05 to 2.25 logunits, 12 months
(4) Vision Contrast Test System at 6 cycles per degree, 1 month

Visual function

Study or Subgroup	Multifocal Mean	Multifocal SD	Multifocal Total	Monofocal Mean	Monofocal SD	Monofocal Total	Weight	Mean Difference IV, Random, 95% CI
Cillino 2008 (1)	95.8596	7.0014	47	87.1	11.1	15	22.4%	8.76 [2.80, 14.72]
Nijkamp 2004 (2)	95.1	9	68	96	6	69	27.6%	-0.90 [-3.47, 1.67]
Sen 2004 (3)	19.4	17.6	53	23	19.1	67	21.3%	-3.60 [-10.19, 2.99]
Zhao 2010 (4)	97.3	3.6	72	89.8	6.3	89	28.6%	7.50 [5.95, 9.05]
Total (95% CI)			**240**			**240**	**100.0%**	**3.09 [-2.77, 8.96]**

Heterogeneity: Tau² = 30.67; Chi² = 38.37, df = 3 (P < 0.00001); I² = 92%
Test for overall effect: Z = 1.03 (P = 0.30)

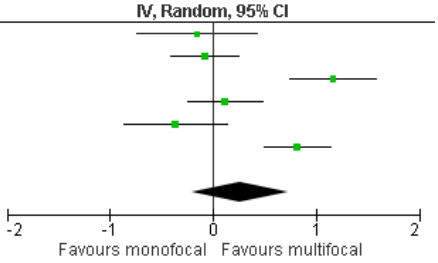


Footnotes
(1) Modified VF-7 score at 12 months
(2) VF-14 at 3 months
(3) Change in VF-7 score at 1 month
(4) VF-7 score at 6 months

Patient satisfaction

Study or Subgroup	Multifocal Mean	Multifocal SD	Multifocal Total	Monofocal Mean	Monofocal SD	Monofocal Total	Weight	Std. Mean Difference IV, Random, 95% CI
Cillino 2008 (1)	4.534	0.4456	47	4.6	0.3	15	14.9%	-0.16 [-0.74, 0.43]
Nijkamp 2004 (2)	-0.4	1.2	68	-0.3	1.2	69	17.6%	-0.08 [-0.42, 0.25]
Peng 2012 (3)	8.14	1.2	50	6.23	1.96	51	16.7%	1.16 [0.74, 1.59]
Sen 2004 (4)	-1.3	0.8	53	-1.4	0.9	67	17.3%	0.12 [-0.24, 0.48]
Steinert 1992 (5)	-1.77	1.36	32	-1.35	0.8	30	15.8%	-0.37 [-0.87, 0.13]
Zhao 2010 (6)	4.7	0.3	72	4.3	0.6	89	17.7%	0.81 [0.49, 1.14]
Total (95% CI)			**322**			**321**	**100.0%**	**0.26 [-0.21, 0.73]**

Heterogeneity: Tau² = 0.30; Chi² = 40.80, df = 5 (P < 0.00001); I² = 88%
Test for overall effect: Z = 1.09 (P = 0.27)

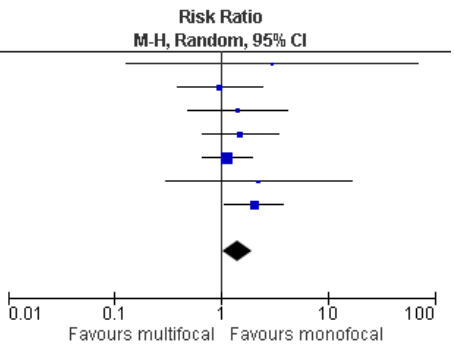


Footnotes
(1) 5-point scale at 12 months, 1=very dissatisfied, 5=very satisfied
(2) 5 point scale (satisfaction minus expectations) at 3 months
(3) 10 point scale at 6 months (1=incapacitating, 10=excellent)
(4) 4 point scale (multiplied by -1 as higher scores worse) at 1 month
(5) 7 point scale (multiplied by -1 as higher scores worse) at 3 to 6 months,
(6) 5 point scale at 6 months,

Glare

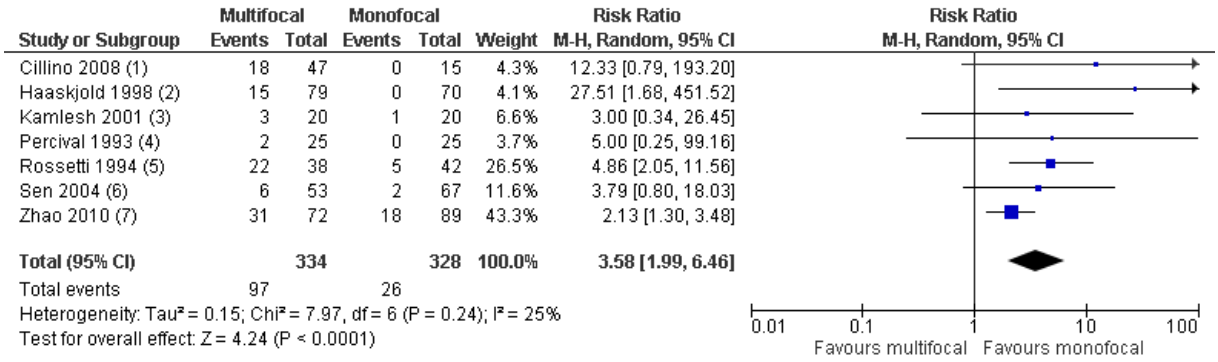
Study or Subgroup	Multifocal Events	Multifocal Total	Monofocal Events	Monofocal Total	Weight	Risk Ratio M-H, Random, 95% CI	Year
Percival 1993 (1)	1	25	0	25	1.0%	3.00 [0.13, 70.30]	1993
Rossetti 1994 (2)	7	38	8	42	11.9%	0.97 [0.39, 2.41]	1994
Haaskjold 1998 (3)	8	79	5	70	8.7%	1.42 [0.49, 4.13]	1998
Kamlesh 2001 (4)	9	20	6	20	14.6%	1.50 [0.66, 3.43]	2001
Sen 2004 (5)	18	53	20	67	36.2%	1.14 [0.67, 1.92]	2004
Cillino 2008 (6)	7	47	1	15	2.5%	2.23 [0.30, 16.72]	2008
Harman 2008 (7)	18	24	7	19	25.0%	2.04 [1.08, 3.83]	2008
Total (95% CI)		**286**		**258**	**100.0%**	**1.41 [1.03, 1.93]**	
Total events	68		47				

Heterogeneity: Tau² = 0.00; Chi² = 3.03, df = 6 (P = 0.80); I² = 0%
Test for overall effect: Z = 2.11 (P = 0.03)



Footnotes
(1) 4 to 6 months
(2) 12 months
(3) 5 months
(4) 3 months
(5) 1 month
(6) 12 months
(7) 18 months

Halos



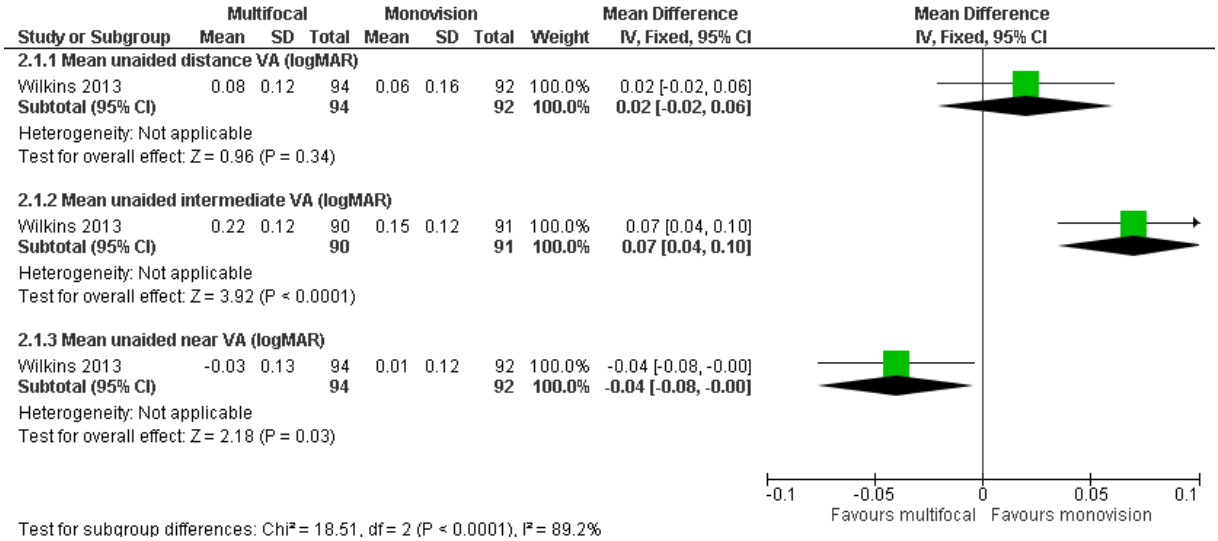
Study or Subgroup	Multifocal Events	Multifocal Total	Monofocal Events	Monofocal Total	Weight	Risk Ratio M-H, Random, 95% CI
Cillino 2008 (1)	18	47	0	15	4.3%	12.33 [0.79, 193.20]
Haaskjold 1998 (2)	15	79	0	70	4.1%	27.51 [1.68, 451.52]
Kamlesh 2001 (3)	3	20	1	20	6.6%	3.00 [0.34, 26.45]
Percival 1993 (4)	2	25	0	25	3.7%	5.00 [0.25, 99.16]
Rossetti 1994 (5)	22	38	5	42	26.5%	4.86 [2.05, 11.56]
Sen 2004 (6)	6	53	2	67	11.6%	3.79 [0.80, 18.03]
Zhao 2010 (7)	31	72	18	89	43.3%	2.13 [1.30, 3.48]
Total (95% CI)		**334**		**328**	**100.0%**	**3.58 [1.99, 6.46]**
Total events	97		26			

Heterogeneity: Tau² = 0.15; Chi² = 7.97, df = 6 (P = 0.24); I² = 25%
Test for overall effect: Z = 4.24 (P < 0.0001)

Footnotes
(1) 12 months
(2) 5 months
(3) 3 months
(4) 4 to 6 months
(5) 12 months
(6) 1 month
(7) 6 months

H.4.2.2 Multifocal versus monovision

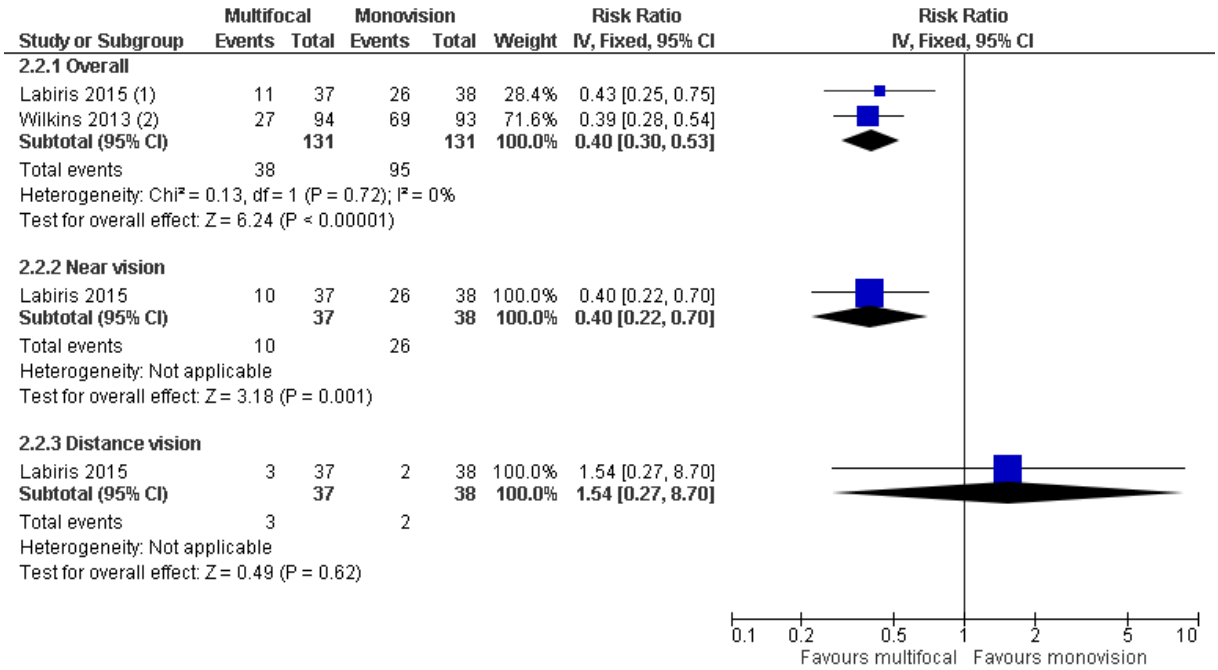
Visual acuity



Study or Subgroup	Multifocal Mean	Multifocal SD	Multifocal Total	Monovision Mean	Monovision SD	Monovision Total	Weight	Mean Difference IV, Fixed, 95% CI
2.1.1 Mean unaided distance VA (logMAR)								
Wilkins 2013	0.08	0.12	94	0.06	0.16	92	100.0%	0.02 [-0.02, 0.06]
Subtotal (95% CI)			**94**			**92**	**100.0%**	**0.02 [-0.02, 0.06]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.96 (P = 0.34)								
2.1.2 Mean unaided intermediate VA (logMAR)								
Wilkins 2013	0.22	0.12	90	0.15	0.12	91	100.0%	0.07 [0.04, 0.10]
Subtotal (95% CI)			**90**			**91**	**100.0%**	**0.07 [0.04, 0.10]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 3.92 (P < 0.0001)								
2.1.3 Mean unaided near VA (logMAR)								
Wilkins 2013	-0.03	0.13	94	0.01	0.12	92	100.0%	-0.04 [-0.08, -0.00]
Subtotal (95% CI)			**94**			**92**	**100.0%**	**-0.04 [-0.08, -0.00]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 2.18 (P = 0.03)								

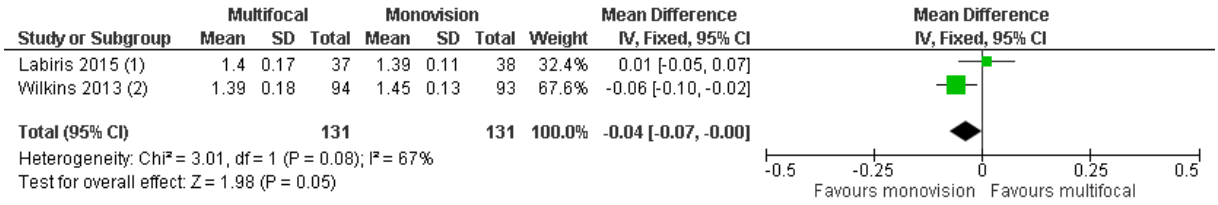
Test for subgroup differences: Chi² = 18.51, df = 2 (P < 0.0001), I² = 89.2%

Spectacle dependence



Footnotes
(1) Follow-up 6 months: outcome was "spectacle-free patients" (event swapped in the figure)
(2) Follow-up: 4 months. Outcome was "reported never wearing glasses" (event swapped in figure)

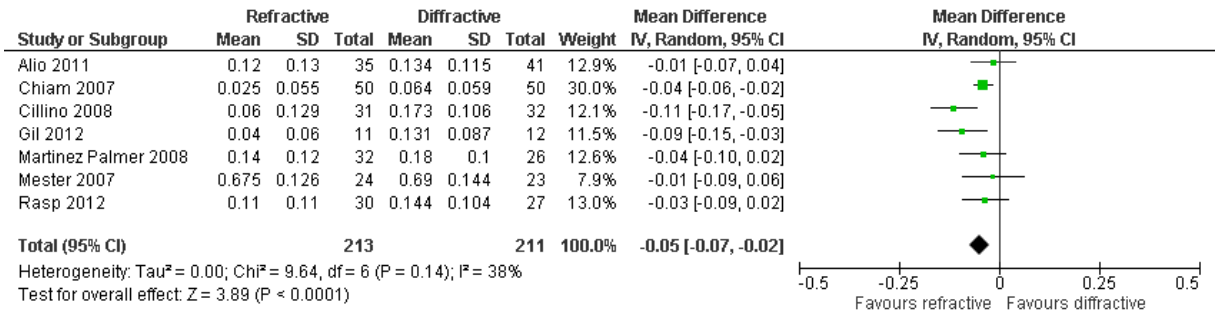
Contrast sensitivity



Footnotes
(1) Follow-up: 6 months
(2) Follow-up: 4 months

H.4.2.3 Refractive vs diffractive multifocal lenses

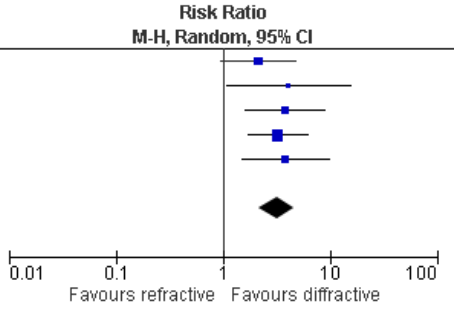
Uncorrected distance visual acuity



928 **Spectacle dependence**

Study or Subgroup	Refractive Events	Refractive Total	Diffractive Events	Diffractive Total	Weight	Risk Ratio M-H, Random, 95% CI
Chiam 2007	15	50	7	50	21.8%	2.14 [0.96, 4.80]
Cillino 2008	16	31	2	16	7.9%	4.13 [1.08, 15.78]
Gil 2012	7	11	6	36	19.4%	3.82 [1.62, 8.99]
Martinez Palmer 2008	18	32	10	58	34.6%	3.26 [1.72, 6.20]
Mester 2007	16	24	4	23	16.3%	3.83 [1.51, 9.76]
Total (95% CI)		**148**		**183**	**100.0%**	**3.21 [2.20, 4.68]**
Total events	72		29			

Heterogeneity: Tau² = 0.00; Chi² = 1.40, df = 4 (P = 0.84); I² = 0%
Test for overall effect: Z = 6.06 (P < 0.00001)

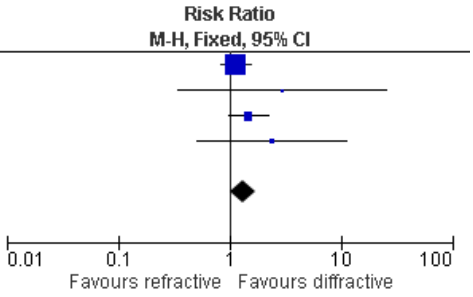


929

930 **Glare**

Study or Subgroup	Refractive Events	Refractive Total	Diffractive Events	Diffractive Total	Weight	Risk Ratio M-H, Fixed, 95% CI
Chiam 2007	33	50	29	50	70.0%	1.14 [0.84, 1.55]
Cillino 2008	3	16	1	16	2.4%	3.00 [0.35, 25.87]
Gil 2012	9	11	20	36	22.6%	1.47 [0.98, 2.21]
Mester 2007	5	24	2	23	4.9%	2.40 [0.52, 11.14]
Total (95% CI)		**101**		**125**	**100.0%**	**1.32 [1.02, 1.71]**
Total events	50		52			

Heterogeneity: Chi² = 2.31, df = 3 (P = 0.51); I² = 0%
Test for overall effect: Z = 2.12 (P = 0.03)

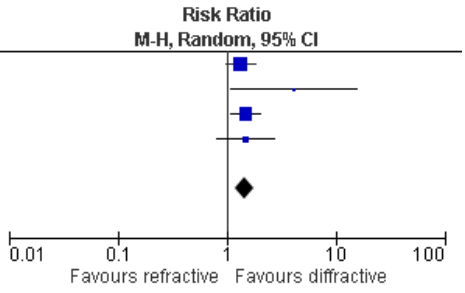


931

932 **Halo**

Study or Subgroup	Refractive Events	Refractive Total	Diffractive Events	Diffractive Total	Weight	Risk Ratio M-H, Random, 95% CI
Chiam 2007	36	50	27	50	44.7%	1.33 [0.98, 1.82]
Cillino 2008	16	31	2	16	2.4%	4.13 [1.08, 15.78]
Gil 2012	10	11	22	36	41.5%	1.49 [1.08, 2.05]
Mester 2007	14	24	9	23	11.4%	1.49 [0.81, 2.75]
Total (95% CI)		**116**		**125**	**100.0%**	**1.45 [1.18, 1.79]**
Total events	76		60			

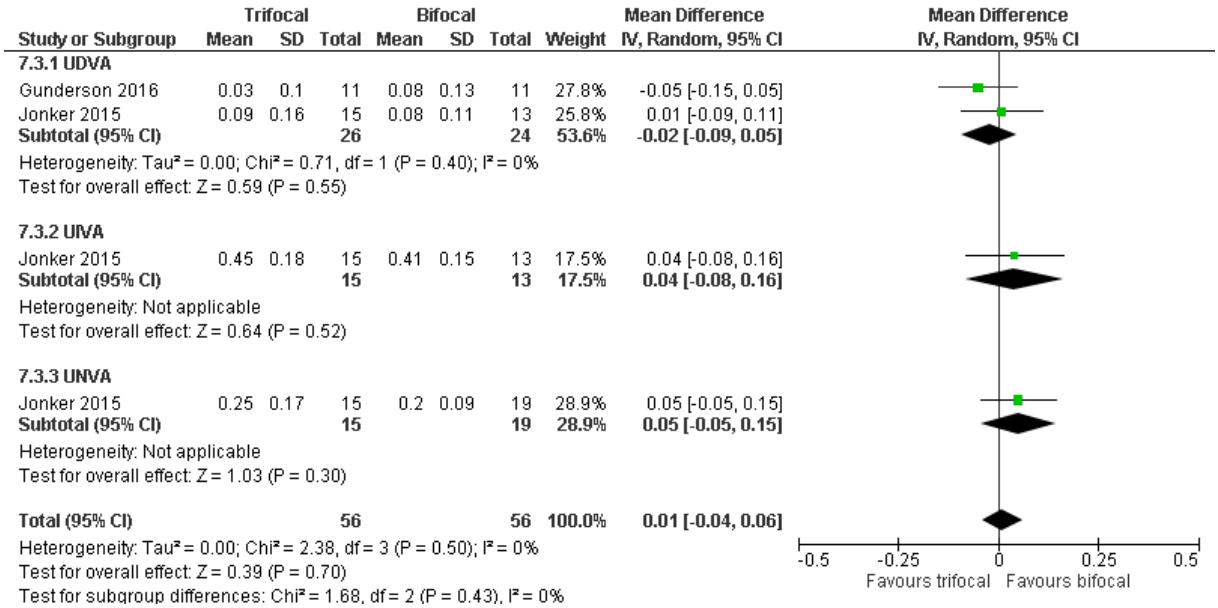
Heterogeneity: Tau² = 0.00; Chi² = 3.01, df = 3 (P = 0.39); I² = 0%
Test for overall effect: Z = 3.53 (P = 0.0004)



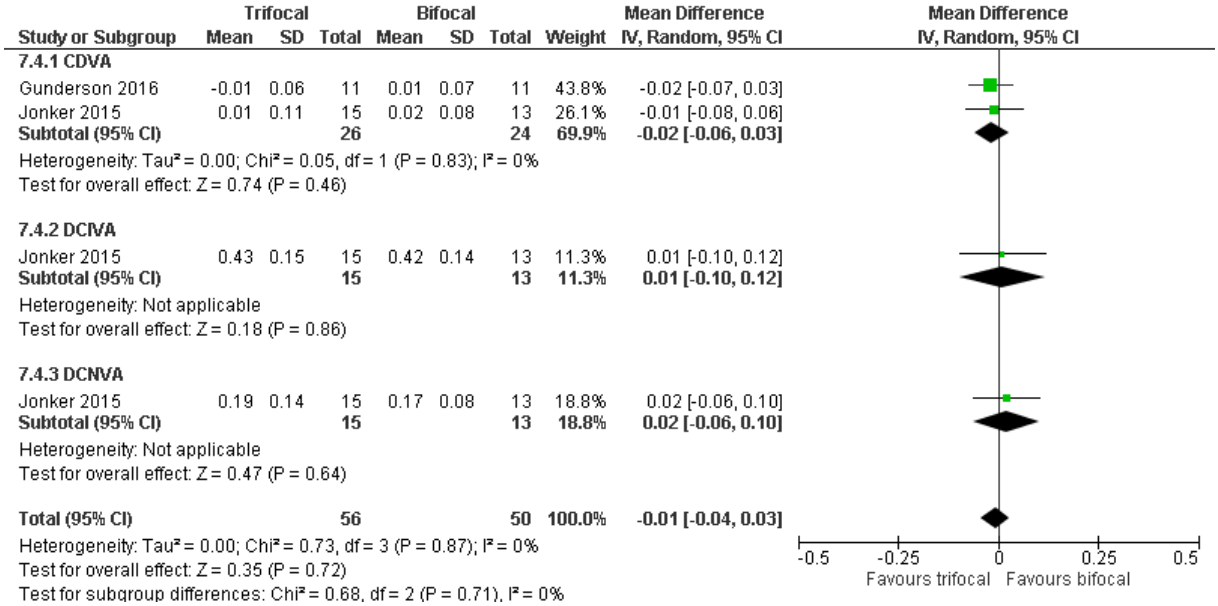
933

H.4.2.4 Bifocal versus trifocal intraocular lenses

Uncorrected visual acuity



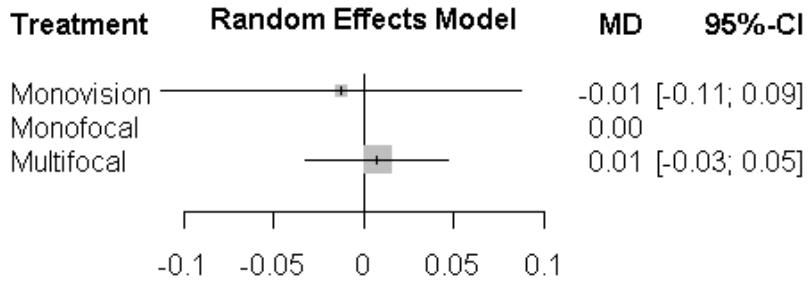
Corrected visual acuity



H.4.3 Multifocal vs monofocal intraocular lenses: network meta-analyses (monofocal lenses used as reference category)

H.4.3.1 Uncorrected distance visual acuity

Class-level analysis



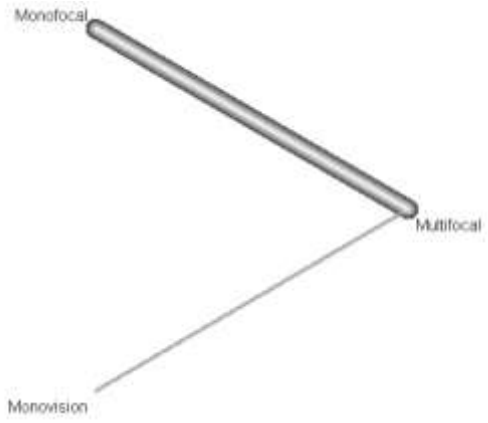
Pairwise mean differences from NMA (higher number favour column)

	Monovision	Monofocal	Multifocal
Monovision	N/A		
Monofocal	0.01 (-0.09, 0.11)	N/A	
Multifocal	0.02 (-0.07, 0.11)	0.01(-0.03, 0.05)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.0017; I^2 = 74.3%

Network graph

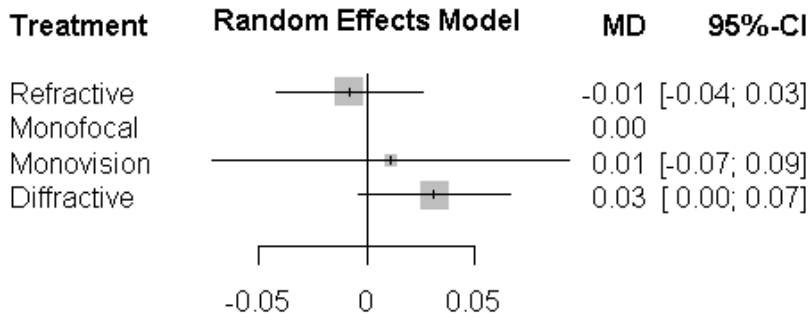


Comparison of direct and indirect evidence

```
Random effects model:

            comparison prop     nma direct  indir. Diff z p-value
  Monofocal:Monovision    0 -0.0126      . -0.0126    . .       .
  Monofocal:Multifocal    1  0.0074 0.0074       .    . .       .
 Monovision:Multifocal    1  0.0200 0.0200       .    . .       .
Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (MD) in network meta-analysis
```

```
direct     - Estimated treatment effect (MD) derived from direct evidence
indir.     - Estimated treatment effect (MD) derived from indirect evidence
Diff       - Difference between direct and indirect treatment estimates
z          - z-value of test for disagreement (direct versus indirect)
p-value    - p-value of test for disagreement (direct versus indirect)
```

Subdivided analysis



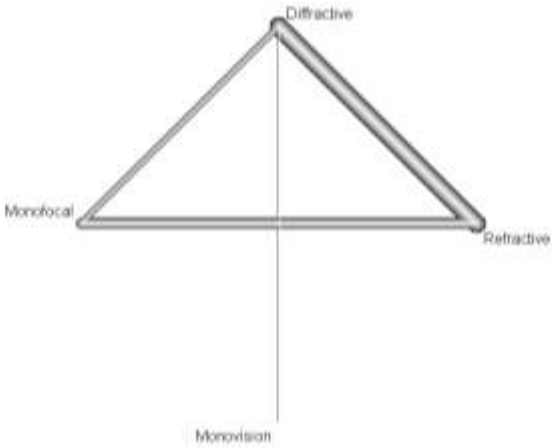
Pairwise mean differences from NMA (higher numbers favour column)

	Refractive	**Monofocal**	**Monovision**	**Diffractive**
Refractive	N/A			
Monofocal	0.01 (-0.03, 0.04)	N/A		
Monovision	0.02 (-0.06, 0.10)	0.01 (-0.07, 0.09)	N/A	
Diffractive	0.04 (0.01, 0.07)	0.03 (-0.00, 0.07)	0.02 (-0.05, 0.09)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.0010; I^2 = 64.3%

Network graph



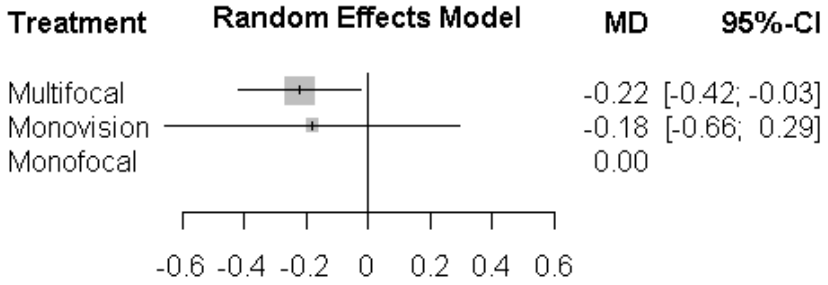
Comparison of direct and indirect evidence

```
Random effects model:

                comparison prop     nma  direct  indir.    Diff     z  p-value
  Diffractive:Monofocal 0.68 -0.0311 -0.0190 -0.0567  0.0377  0.98   0.3255
 Diffractive:Monovision 1.00 -0.0200 -0.0200       .       .     .        .
 Diffractive:Refractive 0.90 -0.0393 -0.0460  0.0241 -0.0702 -1.50   0.1335
   Monofocal:Monovision 0.00  0.0111       .  0.0111       .     .        .
```

```
   Monofocal:Refractive 0.78 -0.0082  0.0107 -0.0755  0.0862  2.06   0.0394
  Monovision:Refractive 0.00 -0.0193       . -0.0193       .     .        .
Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (MD) in network meta-analysis
 direct     - Estimated treatment effect (MD) derived from direct evidence
 indir.     - Estimated treatment effect (MD) derived from indirect evidence
 Diff       - Difference between direct and indirect treatment estimates
 z          - z-value of test for disagreement (direct versus indirect)
 p-value    - p-value of test for disagreement (direct versus indirect)
```

H.4.3.2 Uncorrected near visual acuity

Class-level analysis



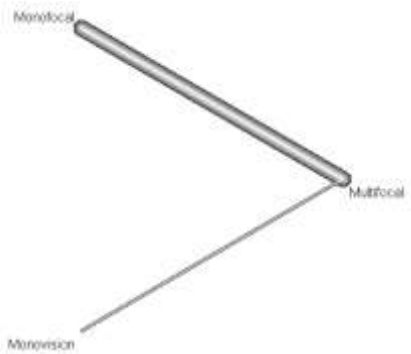
Pairwise mean differences from NMA (higher number favour column)

	Multifocal	Monovision	Monofocal
Multifocal	N/A		
Monovision	0.04 (-0.39, 0.47)	N/A	
Monofocal	0.22 (0.03, 0.42)	0.18 (-0.29, 0.66)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.0487; I^2 = 98.4%

Network graph

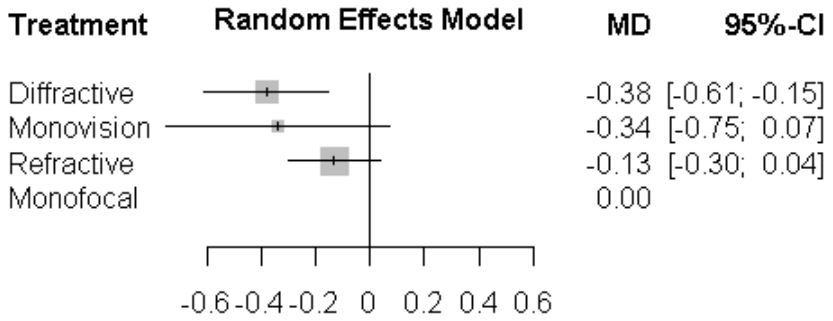


Comparison of direct and indirect evidence

```
Random effects model:
            comparison prop     nma  direct  indir. Diff z p-value
```

```
  Monofocal:Monovision    0 -0.1817       . -0.1817    . .       .
  Monofocal:Multifocal    1 -0.2217 -0.2217       .    . .       .
 Monovision:Multifocal    1 -0.0400 -0.0400       .    . .       .
Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (MD) in network meta-analysis
 direct     - Estimated treatment effect (MD) derived from direct evidence
 indir.     - Estimated treatment effect (MD) derived from indirect evidence
 Diff       - Difference between direct and indirect treatment estimates
 z          - z-value of test for disagreement (direct versus indirect)
 p-value    - p-value of test for disagreement (direct versus indirect)
```

Subdivided analysis



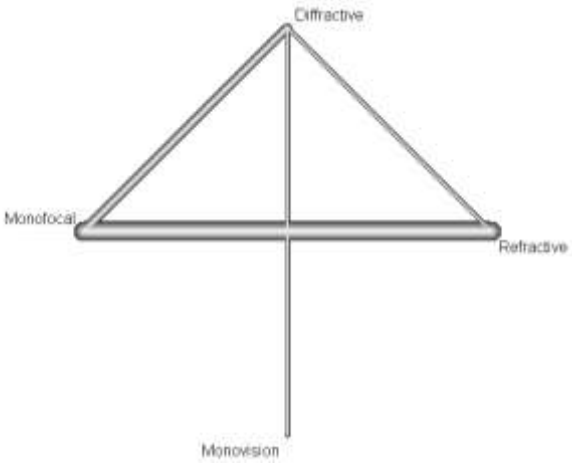
Pairwise mean differences from NMA (higher numbers favour column)

	Diffractive	**Monovision**	**Refractive**	**Monofocal**
Diffractive	N/A			
Monovision	0.04 (-0.30, 0.38)	N/A		
Refractive	0.25 (-0.01, 0.50)	0.21 (-0.22, 0.63)	N/A	
Monofocal	0.38 (0.15, 0.61)	0.34 (-0.07, 0.75)	0.13 (-0.04, 0.30)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.0300; I^2 = 97.3%

Network graph



Comparison of direct and indirect evidence

Random effects model:

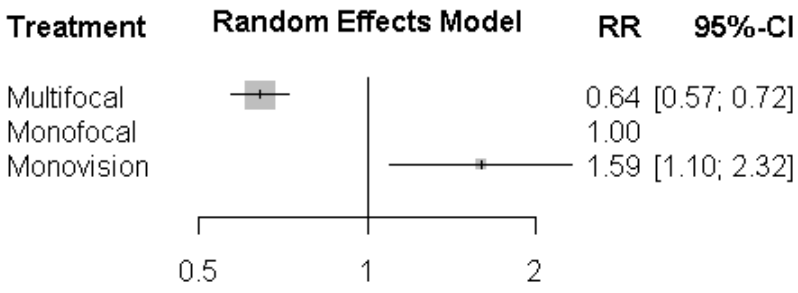
comparison	prop	nma	direct	indir.	Diff	z	p-value
Diffractive:Monofocal	0.90	0.3804	0.3888	0.3077	0.0811	0.21	0.8324
Diffractive:Monovision	1.00	0.0400	0.0400	.	.	.	.
Diffractive:Refractive	0.55	0.2484	0.1376	0.3858	-0.2482	-0.95	0.3425
Monofocal:Monovision	0.00	-0.3404	.	-0.3404	.	.	.
Monofocal:Refractive	0.96	-0.1320	-0.1077	-0.7954	0.6877	1.46	0.1439
Monovision:Refractive	0.00	0.2084	.	0.2084	.	.	.

Legend:

- comparison - Treatment comparison
- prop - Direct evidence proportion
- nma - Estimated treatment effect (MD) in network meta-analysis
- direct - Estimated treatment effect (MD) derived from direct evidence
- indir. - Estimated treatment effect (MD) derived from indirect evidence
- Diff - Difference between direct and indirect treatment estimates
- z - z-value of test for disagreement (direct versus indirect)
- p-value - p-value of test for disagreement (direct versus indirect)

H.4.3.3 Spectacle dependence

Class-level analysis



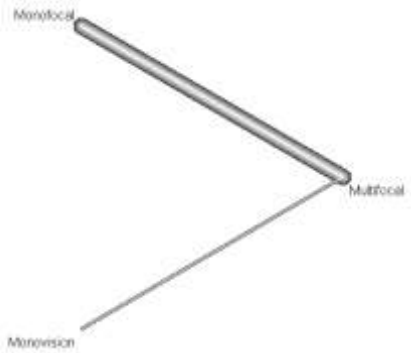
Pairwise relative risks from NMA (higher number favour column)

	Multifocal	Monofocal	Monovision
Multifocal	N/A		
Monofocal	1.56 (1.38, 1.76)	N/A	
Monovision	2.48 (1.75, 3.53)	1.60 (1.10, 2.32)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.0189; I^2 = 54.0%

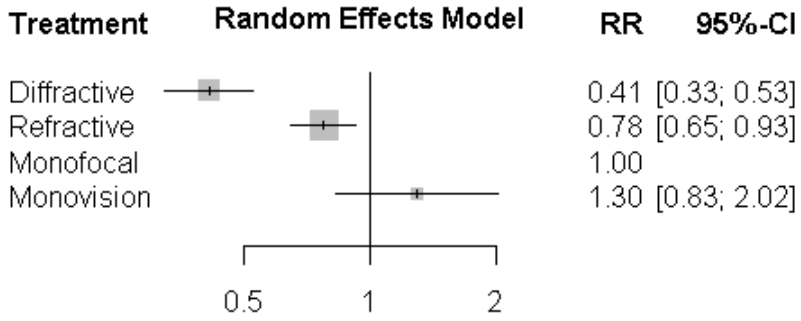
Network graph



Comparison of direct and indirect evidence

```
Random effects model:

            comparison prop    nma direct indir. RoR z p-value
  Monofocal:Monovision    0 1.5950      . 1.5950   . .       .
  Monofocal:Multifocal    1 0.6422 0.6422      .   . .       .
 Monovision:Multifocal    1 0.4027 0.4027      .   . .       .
Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (RR) in network meta-analysis
 direct     - Estimated treatment effect (RR) derived from direct evidence
 indir.     - Estimated treatment effect (RR) derived from indirect evidence
 RoR        - Ratio of Ratios (direct versus indirect)
 z          - z-value of test for disagreement (direct versus indirect)
 p-value    - p-value of test for disagreement (direct versus indirect)
```

Subdivided analysis



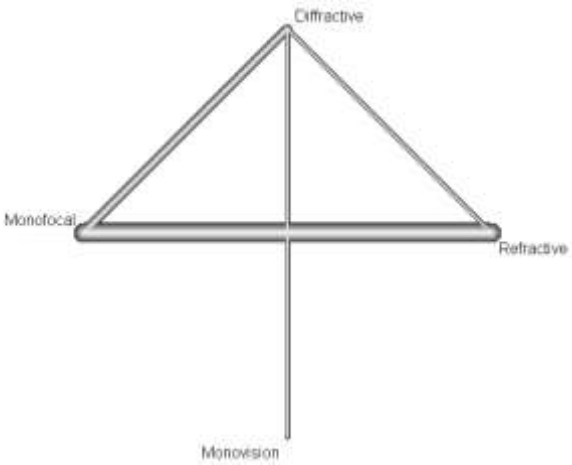
Pairwise mean differences from NMA (higher numbers favour column)

	Diffractive	Refractive	Monofocal	Monovision
Diffractive	N/A			
Refractive	1.88 (1.45, 2.42)	N/A		
Monofocal	2.41 (1.90, 3.06)	1.29 (1.08, 1.54)	N/A	
Monovision	3.13 (2.06, 4.76)	1.67 (1.08, 2.59)	1.30 (0.83, 2.02)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.0389; I^2 = 61.0%

Network graph

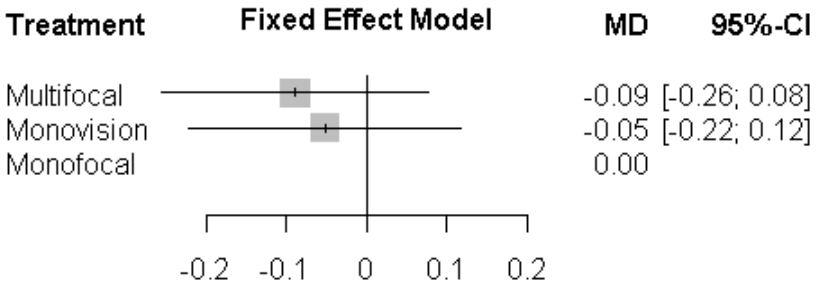


Comparison of direct and indirect evidence

```
Random effects model:

             comparison prop    nma direct indir.    RoR     z  p-value
  Diffractive:Monofocal 0.70 2.4127 2.0668 3.4717 0.5953 -1.95   0.0514
 Diffractive:Monovision 0.66 3.1320 2.5830 4.5505 0.5676 -1.26   0.2085
 Diffractive:Refractive 0.37 1.8757 3.2234 1.3605 2.3693  3.19   0.0014
   Monofocal:Monovision 0.00 1.2981      . 1.2981      .     .        .
   Monofocal:Refractive 0.87 0.7775 0.7197 1.2903 0.5578 -2.19   0.0286
  Monovision:Refractive 0.43 0.5989 0.4345 0.7655 0.5676 -1.26   0.2085

Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (RR) in network meta-analysis
 direct     - Estimated treatment effect (RR) derived from direct evidence
 indir.     - Estimated treatment effect (RR) derived from indirect evidence
 RoR        - Ratio of Ratios (direct versus indirect)
 z          - z-value of test for disagreement (direct versus indirect)
 p-value    - p-value of test for disagreement (direct versus indirect)
```

H.4.3.4 Contrast sensitivity

Class-level analysis



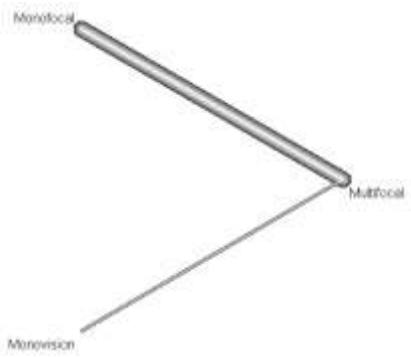
Pairwise relative risks from NMA (higher number favour row)

	Multifocal	Monovision	Monofocal
Multifocal	N/A		
Monovision	0.04 (0.00, 0.07)	N/A	
Monofocal	0.09 (-0.08, 0.26)	0.05 (-0.12, 0.22)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.0010; I^2 = 23.8%

Network graph

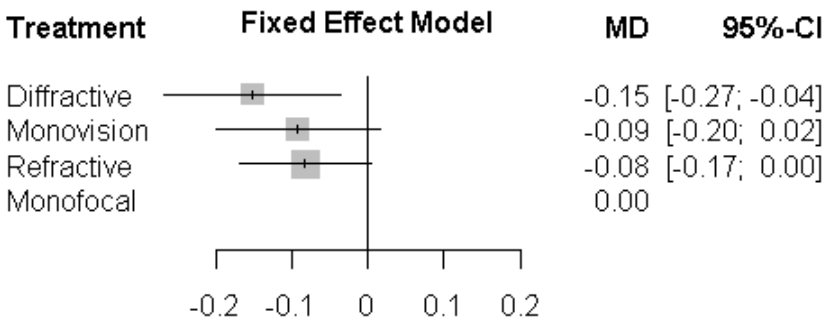


Comparison of direct and indirect evidence

```
Fixed effect model:

            comparison prop     nma  direct  indir. Diff z p-value
  Monofocal:Monovision    0 -0.0520       . -0.0520    . .       .
  Monofocal:Multifocal    1 -0.0894 -0.0894       .    . .       .
 Monovision:Multifocal    1 -0.0373 -0.0373       .    . .       .

Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (MD) in network meta-analysis
 direct     - Estimated treatment effect (MD) derived from direct evidence
 indir.     - Estimated treatment effect (MD) derived from indirect evidence
 Diff       - Difference between direct and indirect treatment estimates
 z          - z-value of test for disagreement (direct versus indirect)
```

```
p-value    - p-value of test for disagreement (direct versus indirect)
```

Subdivided analysis



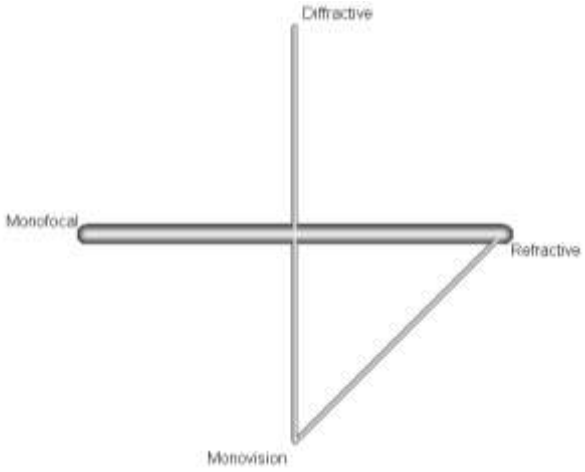
Pairwise mean differences from NMA (higher numbers favour row)

	Diffractive	**Monovision**	**Refractive**	**Monofocal**
Diffractive	N/A			
Monovision	0.06 (0.02, 0.11)	N/A		
Refractive	0.07 (-0.01, 0.15)	0.01 (-0.06, 0.08)	N/A	
Monofocal	0.15 (0.04, 0.27)	0.09 (-0.02, 0.20)	0.08 (-0.00, 0.17)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0.0016; I^2 = 2.9%

Network graph



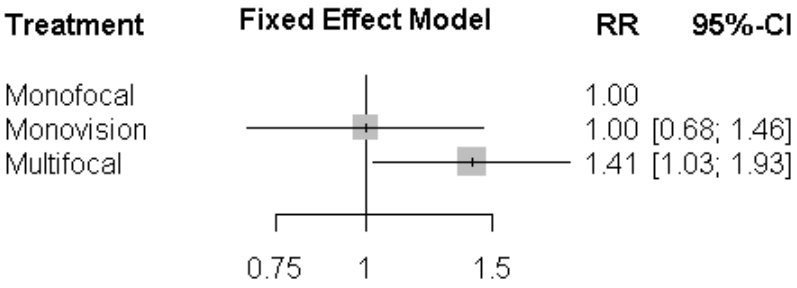
Comparison of direct and indirect evidence

```
Fixed effect model:

             comparison prop     nma  direct  indir. Diff z p-value
  Diffractive:Monofocal    0  0.1524       .  0.1524    . .       .
 Diffractive:Monovision    1  0.0600  0.0600       .    . .       .
 Diffractive:Refractive    0  0.0700       .  0.0700    . .       .
   Monofocal:Monovision    0 -0.0924       . -0.0924    . .       .
   Monofocal:Refractive    1 -0.0824 -0.0824       .    . .       .
  Monovision:Refractive    1  0.0100  0.0100       .    . .       .
Legend:
```

```
comparison - Treatment comparison
prop       - Direct evidence proportion
nma        - Estimated treatment effect (MD) in network meta-analysis
direct     - Estimated treatment effect (MD) derived from direct evidence
indir.     - Estimated treatment effect (MD) derived from indirect evidence
Diff       - Difference between direct and indirect treatment estimates
z          - z-value of test for disagreement (direct versus indirect)
p-value    - p-value of test for disagreement (direct versus indirect)
```

H.4.3.5 Glare

Class-level analysis



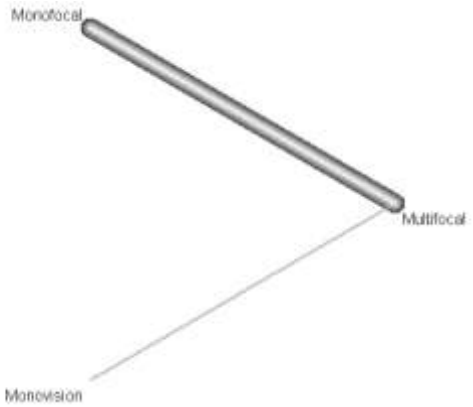
Pairwise relative risks from NMA (higher number favour column)

	Monofocal	Monovision	Multifocal
Monofocal	N/A		
Monovision	1.00 (0.68, 1.16)	N/A	
Multifocal	1.41 (1.03, 1.93)	1.41 (1.14, 1.73)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0; I^2 = 0%

Network graph

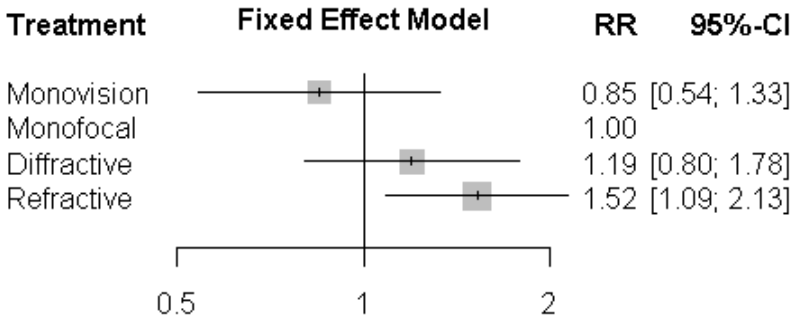


Comparison of direct and indirect evidence

```
Fixed effect model:

            comparison prop    nma direct indir. RoR z p-value
  Monofocal:Monovision    0 0.9989      . 0.9989   . .       .
  Monofocal:Multifocal    1 1.4064 1.4064      .   . .       .
```

```
 Monovision:Multifocal    1 1.4079 1.4079      .   . .       .
Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (RR) in network meta-analysis
 direct     - Estimated treatment effect (RR) derived from direct evidence
 indir.     - Estimated treatment effect (RR) derived from indirect evidence
 RoR        - Ratio of Ratios (direct versus indirect)
 z          - z-value of test for disagreement (direct versus indirect)
 p-value    - p-value of test for disagreement (direct versus indirect)
```

Subdivided analysis



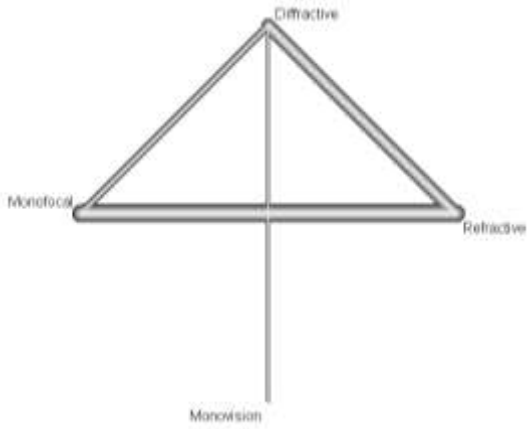
Pairwise mean differences from NMA (higher numbers favour row)

	Monovision	Monofocal	Diffractive	Refractive
Monovision	N/A			
Monofocal	1.18 (0.75, 1.85)	N/A		
Diffractive	1.41 (1.14, 1.73)	1.19 (0.80, 1.78)	N/A	
Refractive	1.80 (1.31, 2.46)	1.52 (1.09, 2.13)	1.28 (1.01, 1.61)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0; I^2 = 0%

Network graph



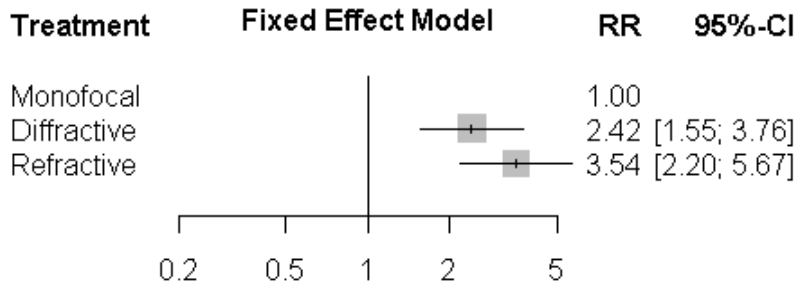
Comparison of direct and indirect evidence

```
Fixed effect model:
```

```
                comparison prop    nma direct indir.    RoR     z  p-value
  Diffractive:Monofocal 0.16 0.8379 0.7466 0.8565 0.8717 -0.25   0.8040
 Diffractive:Monovision 1.00 0.7103 0.7103      .      .     .        .
 Diffractive:Refractive 0.96 1.2754 1.2878 1.0311 1.2489  0.38   0.7058
   Monofocal:Monovision 0.00 0.8477      . 0.8477      .     .        .
   Monofocal:Refractive 0.91 1.5222 1.4984 1.7697 0.8467 -0.28   0.7772
  Monovision:Refractive 0.00 1.7957      . 1.7957      .     .        .
Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (RR) in network meta-analysis
 direct     - Estimated treatment effect (RR) derived from direct evidence
 indir.     - Estimated treatment effect (RR) derived from indirect evidence
 RoR        - Ratio of Ratios (direct versus indirect)
 z          - z-value of test for disagreement (direct versus indirect)
 p-value    - p-value of test for disagreement (direct versus indirect)
```

H.4.3.6 Halo

Subdivided analysis



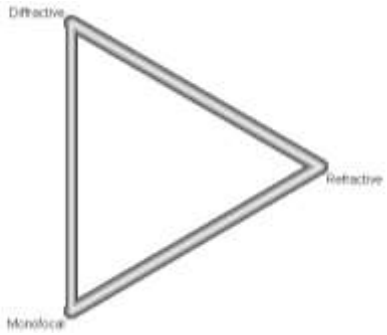
Pairwise relative risks from NMA (higher number favour column)

	Monofocal	Diffractive	Refractive
Monofocal	N/A		
Diffractive	2.42 (1.55, 3.76)	N/A	
Refractive	3.54 (2.20, 5.67)	1.46 (1.19, 1.79)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0; I^2 = 0%

Network graph



Comparison of direct and indirect evidence

Fixed effect model:

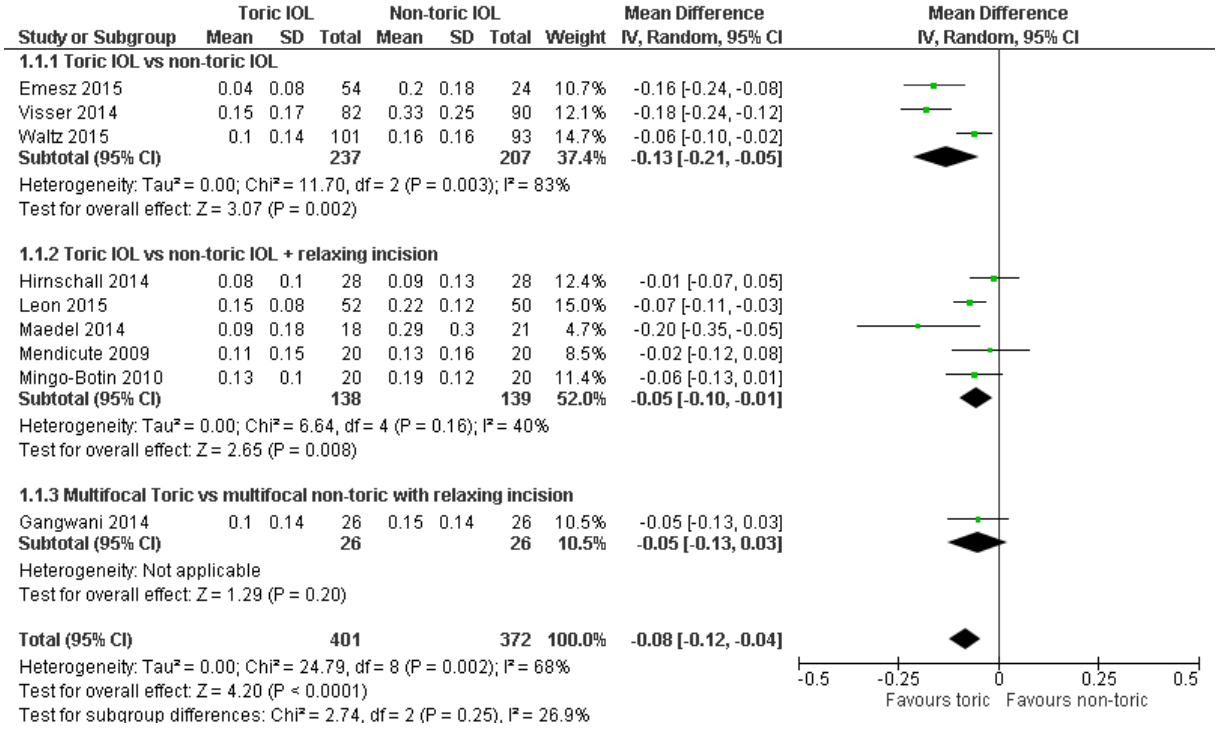
comparison	prop	nma	direct	indir.	RoR	z	p-value
Diffractive:Monofocal	0.86	0.4135	0.4299	0.3271	1.3144	0.42	0.6721
Diffractive:Refractive	0.97	1.4644	1.4516	1.9610	0.7402	-0.49	0.6251
Monofocal:Refractive	0.19	3.5413	4.6034	3.3255	1.3843	0.53	0.5940

Legend:

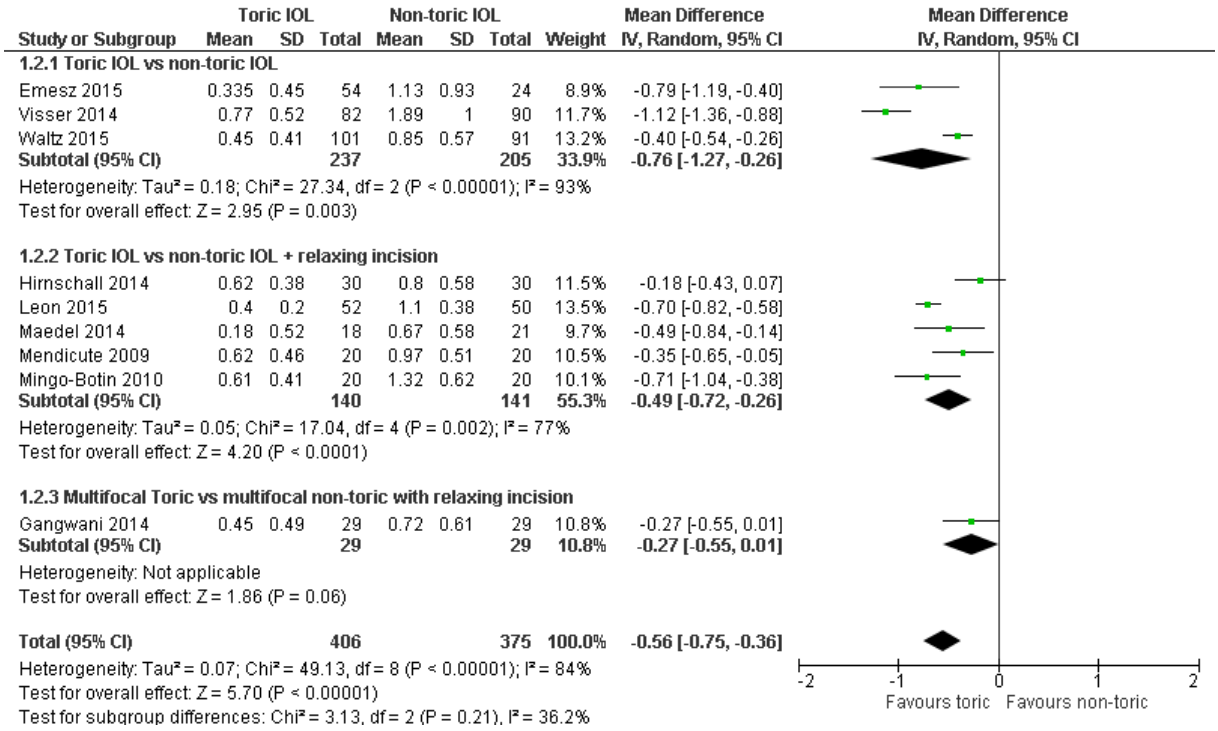
- comparison - Treatment comparison
- prop - Direct evidence proportion
- nma - Estimated treatment effect (RR) in network meta-analysis
- direct - Estimated treatment effect (RR) derived from direct evidence
- indir. - Estimated treatment effect (RR) derived from indirect evidence
- RoR - Ratio of Ratios (direct versus indirect)
- z - z-value of test for disagreement (direct versus indirect)
- p-value - p-value of test for disagreement (direct versus indirect)

H.4.4 Optimal strategy to address pre-existing astigmatism

Mean Visual Acuity – uncorrected distance (logMAR)



Residual astigmatism (Refractive cylinder dioptres)



Note: Non OECD country studies removed for meta-analysis

H.5 Wrong lens implant errors

- What are the procedural causes of wrong lens implant errors?
- What strategies should be adopted to reduce the risk of wrong lens implant errors?

There were no meta-analyses conducted for these questions.

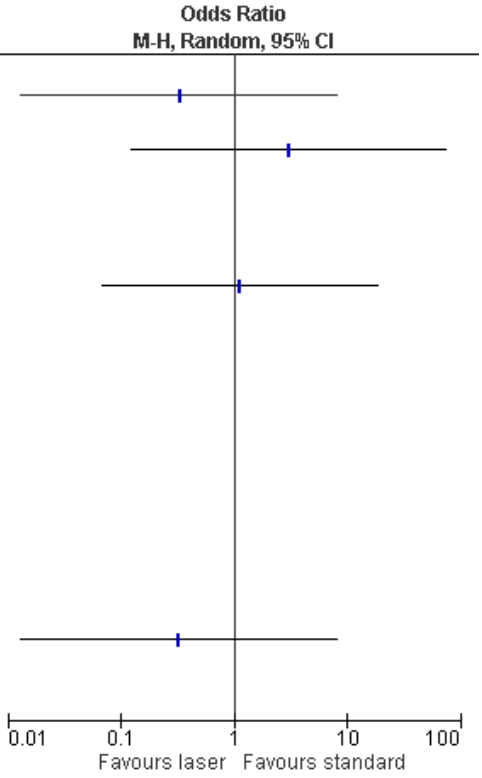
H.6 Surgical timing and technique

- What is the effectiveness of laser-assisted phacoemulsification cataract surgery compared with standard ultrasound phacoemulsification cataract surgery?
- What is the effectiveness of bilateral simultaneous (rapid sequential) cataract surgery compared with unilateral eye surgery?
- What is the appropriate timing of second eye surgery, taking into account issues such as refractive power after first eye surgery?

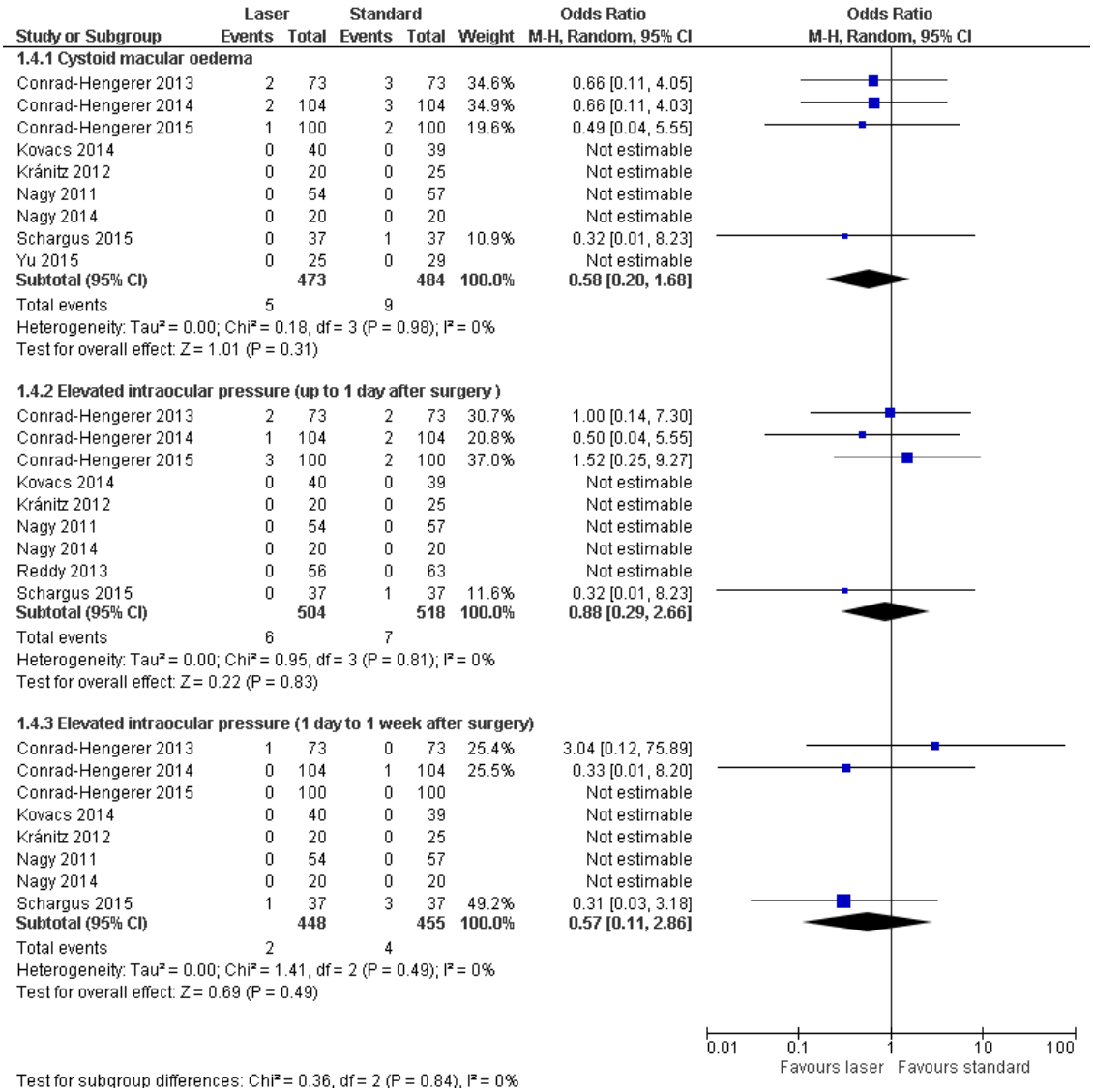
H.6.1 Laser-assisted cataract surgery

H.6.1.1 Intra-operative complications

Study or Subgroup	Laser Events	Laser Total	Standard Events	Standard Total	Odds Ratio M-H, Random, 95% CI
1.1.1 Anterior capsule tear					
Conrad-Hengerer 2013	0	73	1	73	0.33 [0.01, 8.20]
Conrad-Hengerer 2014	0	104	0	104	Not estimable
Conrad-Hengerer 2015	1	100	0	100	3.03 [0.12, 75.28]
Kovacs 2014	0	40	0	39	Not estimable
Kránitz 2012	0	20	0	25	Not estimable
Nagy 2011	0	54	0	57	Not estimable
Nagy 2014	0	20	0	20	Not estimable
Reddy 2013	1	56	1	63	1.13 [0.07, 18.45]
Schargus 2015	0	37	0	37	Not estimable
Yu 2015	0	25	0	29	Not estimable
1.1.2 Posterior capsule tear					
Conrad-Hengerer 2013	0	73	0	73	Not estimable
Conrad-Hengerer 2014	0	104	0	104	Not estimable
Conrad-Hengerer 2015	0	100	0	100	Not estimable
Kovacs 2014	0	40	0	39	Not estimable
Kránitz 2012	0	20	0	25	Not estimable
Nagy 2011	0	54	0	57	Not estimable
Nagy 2014	0	20	0	20	Not estimable
Reddy 2013	0	56	0	63	Not estimable
Schargus 2015	0	37	1	37	0.32 [0.01, 8.23]
Yu 2015	0	25	0	29	Not estimable

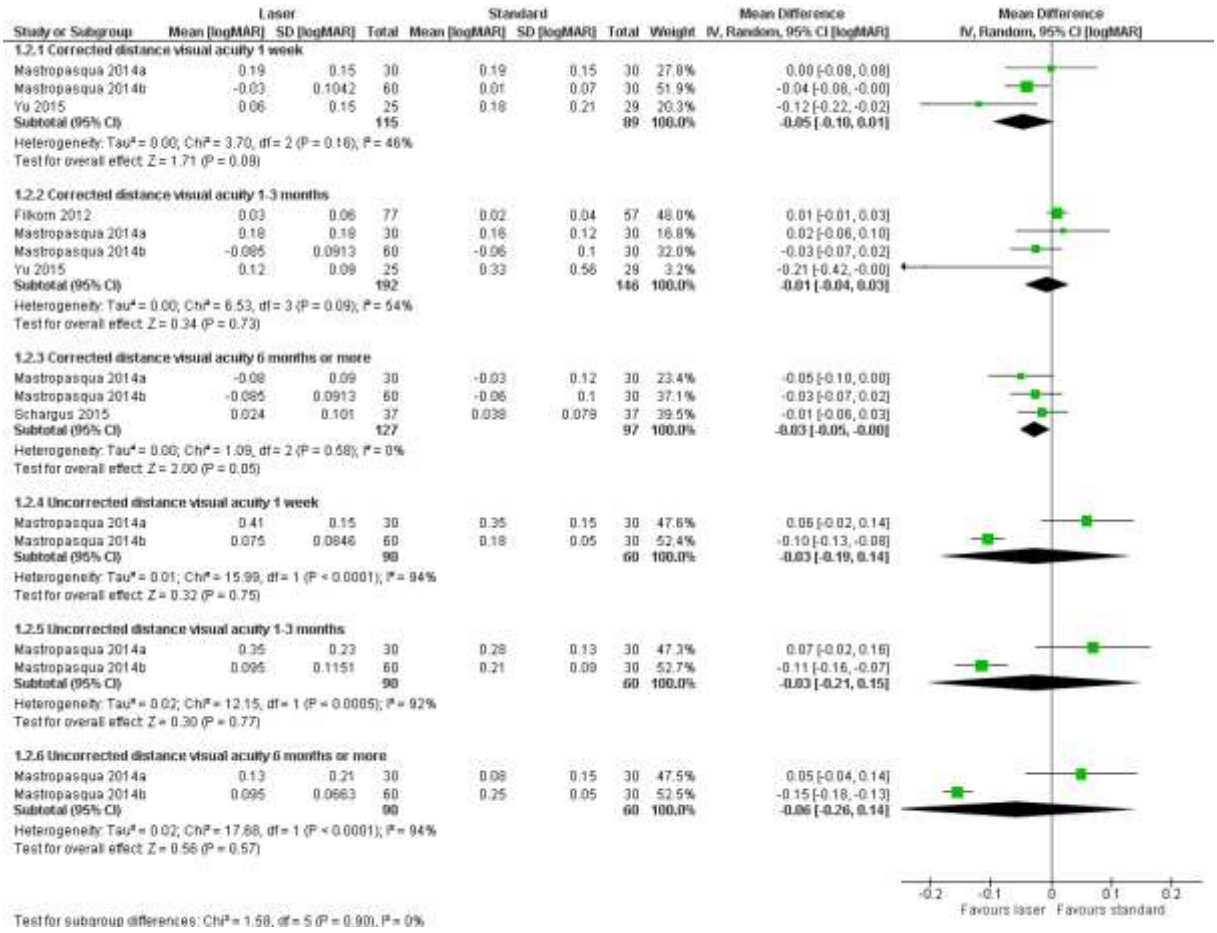


H.6.1.2 Post-operative complications



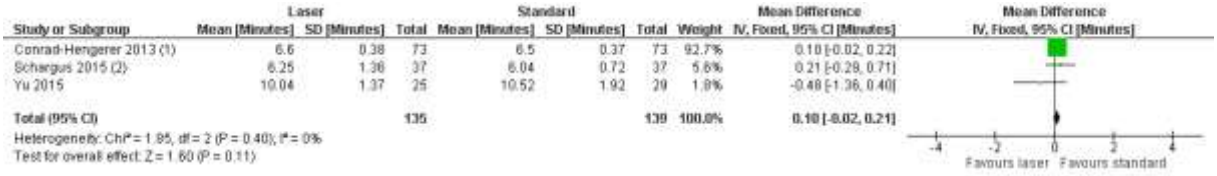
Test for subgroup differences: Chi² = 0.36, df = 2 (P = 0.84), I² = 0%

H.6.1.3 Visual acuity (logMAR)



Test for subgroup differences: Chi² = 1.58, df = 5 (P = 0.90), I² = 0%

H.6.1.4 Duration of procedure (minutes)

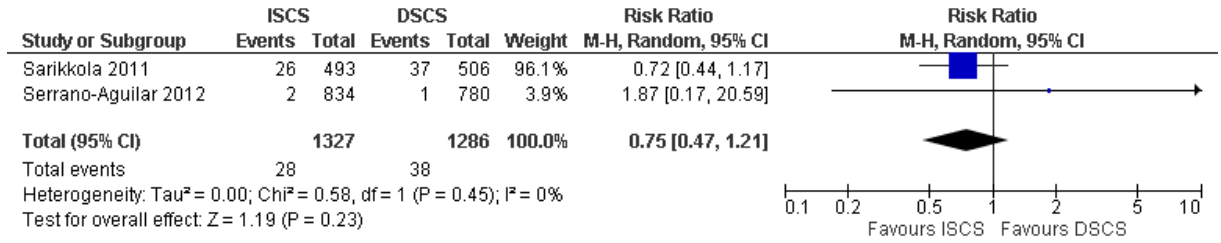


Footnotes
(1) "Mean surgical time"
(2) "Total surgery time"

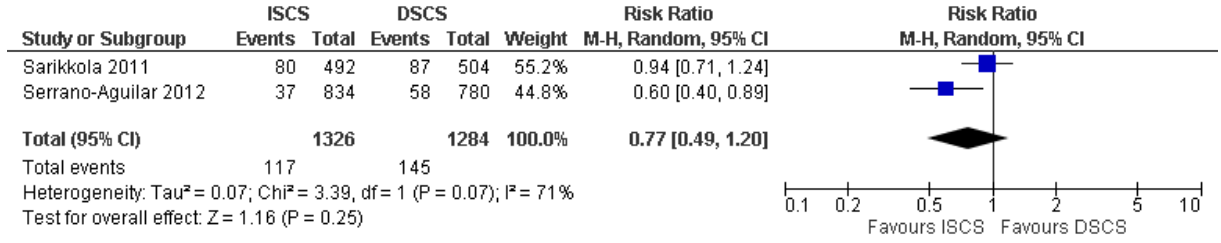
H.6.2 Bilateral surgery

H.6.2.1 Bilateral simultaneous versus unilateral cataract surgery

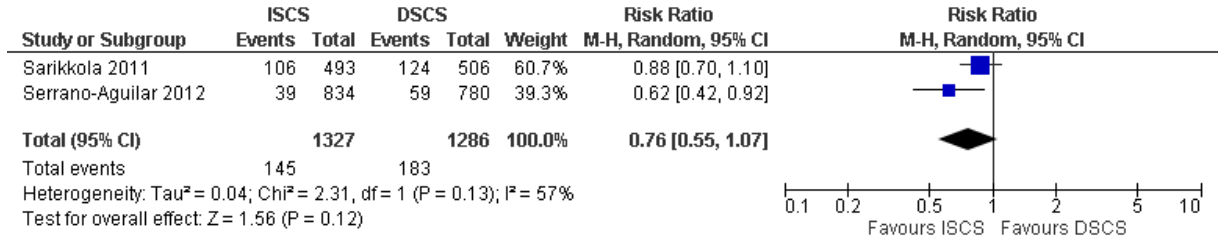
Any intraoperative complication



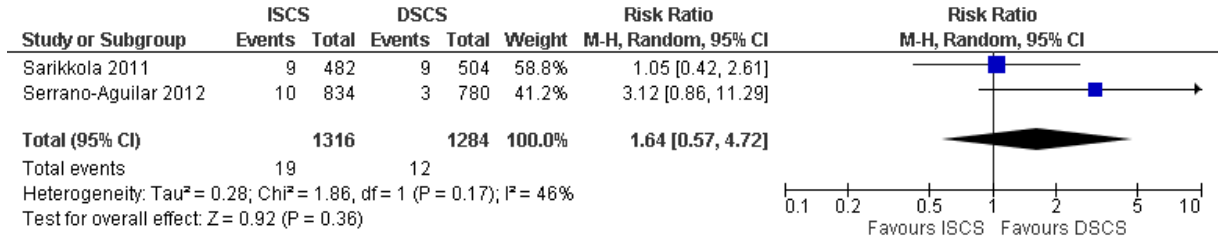
Any postoperative complication



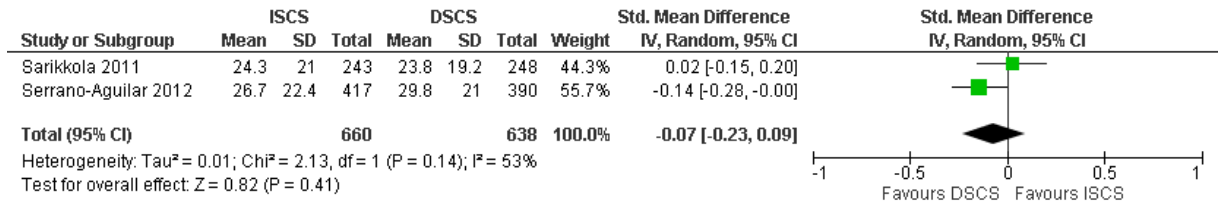
Any intra- or postoperative complication



Serious postoperative complications



Visual function

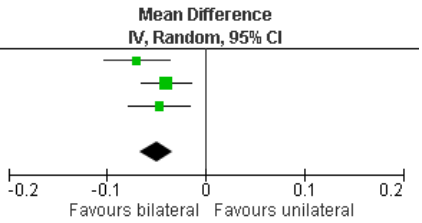


H.6.2.2 Second-eye surgery versus no second-eye surgery

Visual acuity (logMAR)

Study or Subgroup	Bilateral surgery Mean	SD	Total	Unilateral surgery Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Castells 2006	0.11	0.1	139	0.18	0.17	135	25.9%	-0.07 [-0.10, -0.04]
Foss 2006	-0.04	0.097	116	0	0.097	113	44.4%	-0.04 [-0.07, -0.01]
Laidlaw 1998	-0.047	0.106	98	0	0.106	84	29.7%	-0.05 [-0.08, -0.02]
Total (95% CI)			**353**			**332**	**100.0%**	**-0.05 [-0.07, -0.03]**

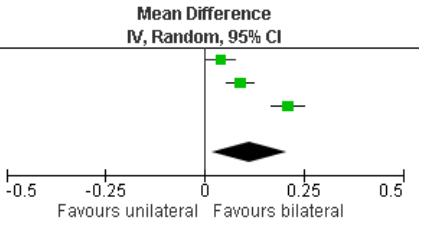
Heterogeneity: Tau² = 0.00; Chi² = 2.04, df = 2 (P = 0.36); I² = 2%
Test for overall effect: Z = 5.75 (P < 0.00001)



Contrast sensitivity

Study or Subgroup	Bilateral surgery Mean	SD	Total	Unilateral surgery Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Castells 2006	1.61	0.1	139	1.57	0.18	135	33.5%	0.04 [0.01, 0.07]
Foss 2006	0.09	0.135	116	0	0.135	113	33.5%	0.09 [0.06, 0.12]
Laidlaw 1998	0.21	0.141	98	0	0.141	84	32.9%	0.21 [0.17, 0.25]
Total (95% CI)			**353**			**332**	**100.0%**	**0.11 [0.02, 0.21]**

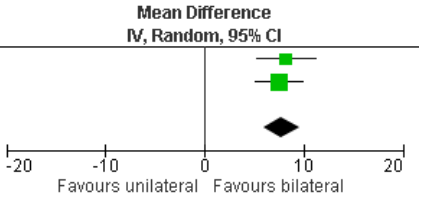
Heterogeneity: Tau² = 0.01; Chi² = 39.30, df = 2 (P < 0.00001); I² = 95%
Test for overall effect: Z = 2.35 (P = 0.02)



Visual function

Study or Subgroup	Bilateral surgery Mean	SD	Total	Unilateral surgery Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Castells 2006	97.7	7.1	139	89.5	15.9	132	39.7%	8.20 [5.24, 11.16]
Foss 2006	94.7	9.26	116	87.2	9.26	113	60.3%	7.50 [5.10, 9.90]
Total (95% CI)			**255**			**245**	**100.0%**	**7.78 [5.91, 9.64]**

Heterogeneity: Tau² = 0.00; Chi² = 0.13, df = 1 (P = 0.72); I² = 0%
Test for overall effect: Z = 8.18 (P < 0.00001)



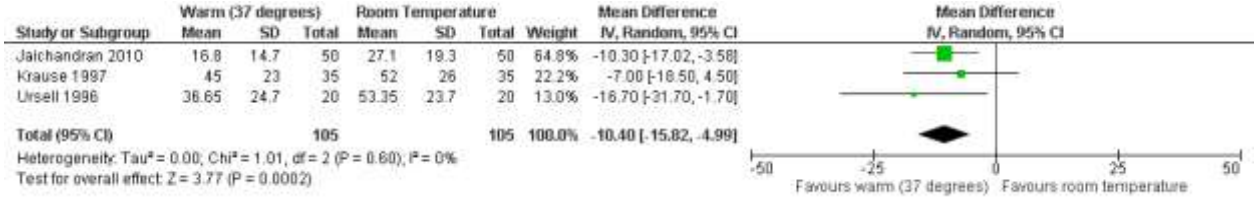
H.7 Anaesthesia

- What is the optimal type and administration of anaesthesia for cataract surgery?
- What is the effectiveness of sedation as an adjunct to local anaesthesia during cataract surgery?
- What is the effectiveness of hyaluronidase as an adjunct to local anaesthesia during cataract surgery?
- In what circumstances should general anaesthesia be considered in phacoemulsification cataract surgery?

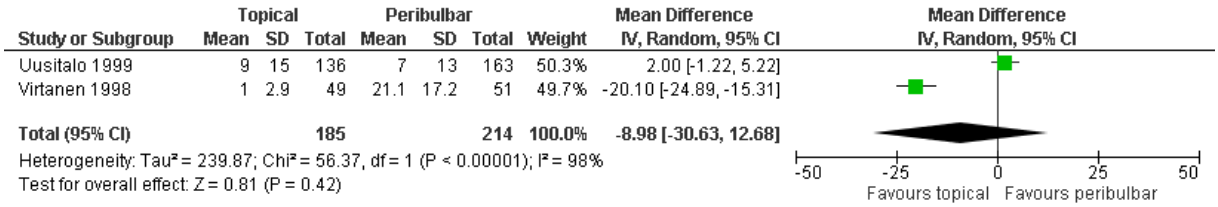
H.7.1 Type and administration of anaesthesia

H.7.1.1 Pain on application

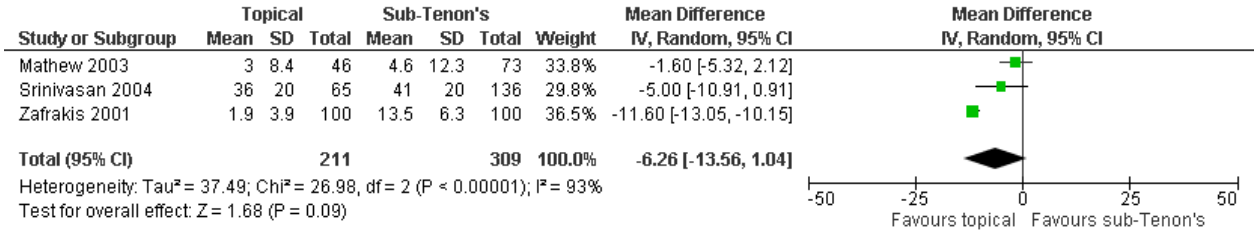
Warmed (37 degrees) vs room temperature anaesthetic



Topical vs peribulbar anaesthesia

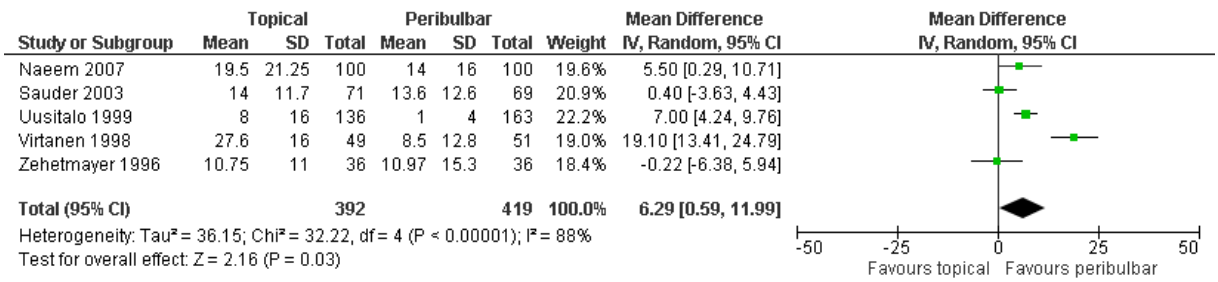


Topical vs sub-Tenon's



H.7.1.2 Pain during surgery

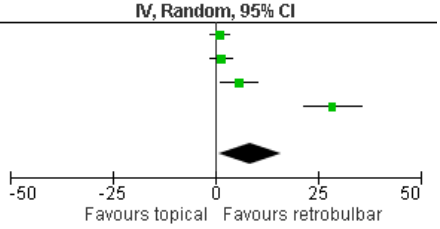
Topical versus peribulbar



Topical versus retrobulbar

Study or Subgroup	Topical Mean	Topical SD	Topical Total	Retrobulbar Mean	Retrobulbar SD	Retrobulbar Total	Weight	Mean Difference IV, Random, 95% CI
Jacobi 2000	8.4	13	238	7.3	15	238	26.5%	1.10 [-1.42, 3.62]
Patel 1996	3.5	8.9	69	2	6.9	69	26.4%	1.50 [-1.16, 4.16]
Patel 1998	7.8	13.5	45	2	6.3	45	25.1%	5.80 [1.45, 10.15]
Ryu 2009	31.7	18.3	27	3.14	5	27	22.0%	28.56 [21.40, 35.72]
Total (95% CI)			**379**			**379**	**100.0%**	**8.42 [0.84, 15.99]**

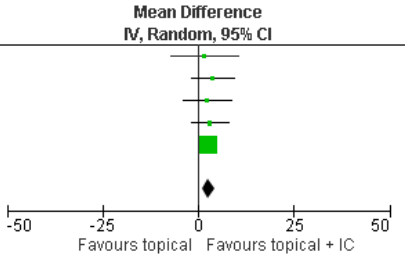
Heterogeneity: Tau² = 54.66; Chi² = 53.82, df = 3 (P < 0.00001); I² = 94%
Test for overall effect: Z = 2.18 (P = 0.03)



Topical versus topical with intracameral

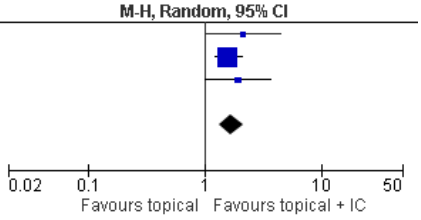
Study or Subgroup	Topical Mean	Topical SD	Topical Total	Topical with intracameral Mean	Topical with intracameral SD	Topical with intracameral Total	Weight	Mean Difference IV, Random, 95% CI
Boulton 2000	14.4	13.3	96	12.9	42.4	96	3.3%	1.50 [-7.39, 10.39]
Crandall 1999	12.4	16.9	68	8.6	15.7	68	8.8%	3.80 [-1.68, 9.28]
Gillow 1999	21	22.3	101	18.6	22.6	99	6.8%	2.40 [-3.82, 8.62]
Roberts 2002	9.5	15.5	68	6.5	13.1	67	11.3%	3.00 [-1.84, 7.84]
Tseng 1998	6.3	6.8	81	3.7	5.8	81	69.8%	2.60 [0.65, 4.55]
Total (95% CI)			**414**			**411**	**100.0%**	**2.70 [1.07, 4.33]**

Heterogeneity: Tau² = 0.00; Chi² = 0.26, df = 4 (P = 0.99); I² = 0%
Test for overall effect: Z = 3.26 (P = 0.001)



Study or Subgroup	Topical Events	Topical Total	Topical with intracameral Events	Topical with intracameral Total	Weight	Risk Ratio M-H, Random, 95% CI
Carino 1998	15	30	7	30	10.2%	2.14 [1.02, 4.49]
Gills 1997	62	120	60	183	76.7%	1.58 [1.20, 2.06]
Martin 1998	23	53	9	40	13.2%	1.93 [1.00, 3.70]
Total (95% CI)		**203**		**253**	**100.0%**	**1.67 [1.32, 2.12]**
Total events	100		76			

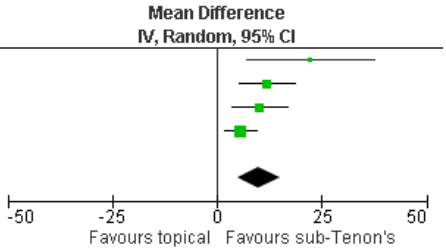
Heterogeneity: Tau² = 0.00; Chi² = 0.81, df = 2 (P = 0.67); I² = 0%
Test for overall effect: Z = 4.25 (P < 0.0001)



Topical versus sub-Tenon's

Study or Subgroup	Topical Mean	Topical SD	Topical Total	Sub-Tenon's Mean	Sub-Tenon's SD	Sub-Tenon's Total	Weight	Mean Difference IV, Random, 95% CI
Chittenden 1997	33.2	25.7	17	11	20.9	20	8.8%	22.20 [6.93, 37.47]
Mathew 2003	16.5	20.5	46	4.6	12.8	73	26.7%	11.90 [5.29, 18.51]
Srinivasan 2004	34.4	23	65	24.2	22	136	26.4%	10.20 [3.50, 16.90]
Zafrakis 2001	11.3	15.7	100	5.7	12.8	100	38.1%	5.60 [1.63, 9.57]
Total (95% CI)			**228**			**329**	**100.0%**	**9.96 [4.96, 14.97]**

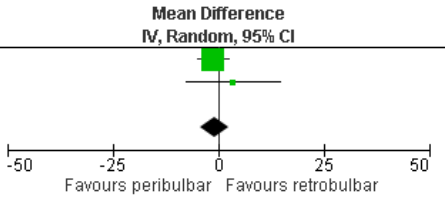
Heterogeneity: Tau² = 13.02; Chi² = 6.40, df = 3 (P = 0.09); I² = 53%
Test for overall effect: Z = 3.90 (P < 0.0001)



Peribulbar versus retrobulbar

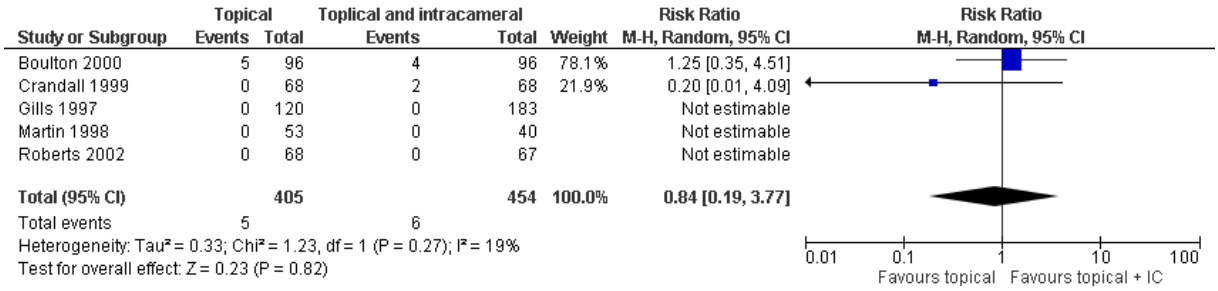
Study or Subgroup	Peribulbar Mean	Peribulbar SD	Peribulbar Total	Retrobulbar Mean	Retrobulbar SD	Retrobulbar Total	Weight	Mean Difference IV, Random, 95% CI
Athanikar 1991	92.75	11.25	71	94	10.75	71	90.5%	-1.25 [-4.87, 2.37]
Weiss 1989	81.5	26	39	78	24.5	40	9.5%	3.50 [-7.65, 14.65]
Total (95% CI)			**110**			**111**	**100.0%**	**-0.80 [-4.24, 2.65]**

Heterogeneity: Tau² = 0.00; Chi² = 0.63, df = 1 (P = 0.43); I² = 0%
Test for overall effect: Z = 0.45 (P = 0.65)

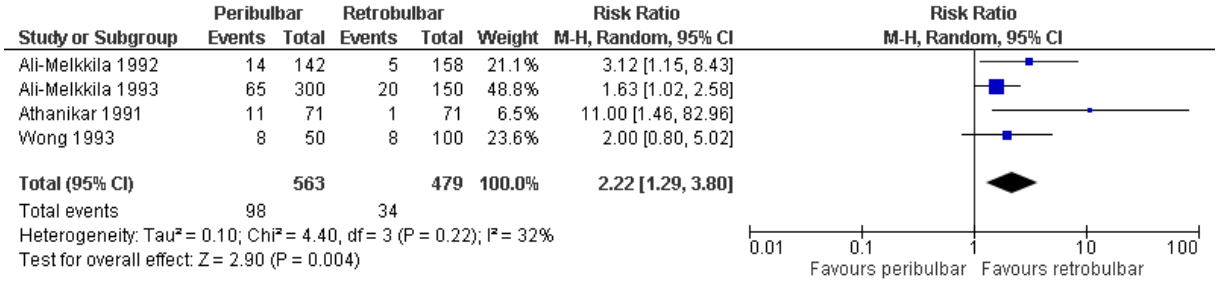


H.7.1.3 Surgical complications

Topical versus topical with intracameral (adverse surgical event)



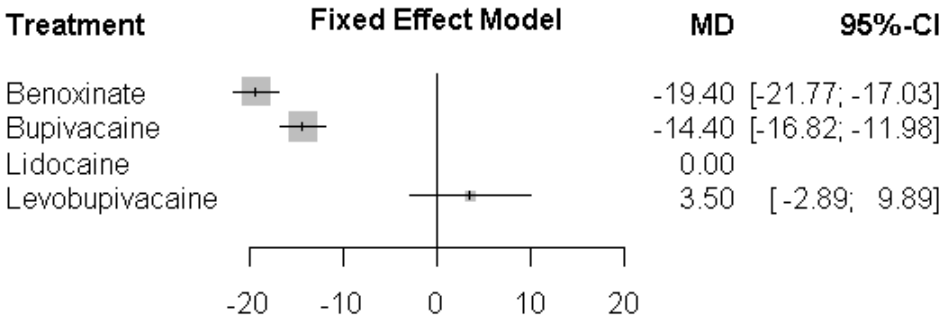
Peribulbar vs retrobulbar (conjunctival chemosis)



H.7.2 Network meta-analyses

H.7.2.1 Anaesthetic drug (lidocaine used as reference category)

Pain on application



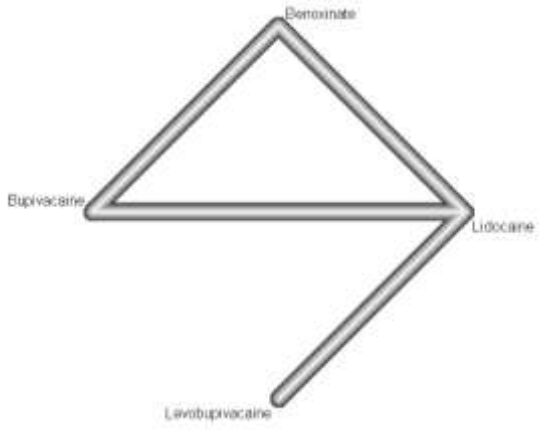
Pairwise mean differences from NMA

	Benoxinate	Bupivacaine	Lidocaine	Levobupivacaine
Benoxinate	N/A			
Bupivacaine	5.00 (3.61, 6.39)	N/A		
Lidocaine	19.40 (16.08, 29.72)	14.40 (11.98, 16.82)	N/A	
Levobupivacaine	22.90 (17.03, 21.77)	17.90 (11.06, 24.74)	3.50 (-2.89, 9.89)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0; I^2 = 0%

Network graph



Comparison of direct and indirect evidence

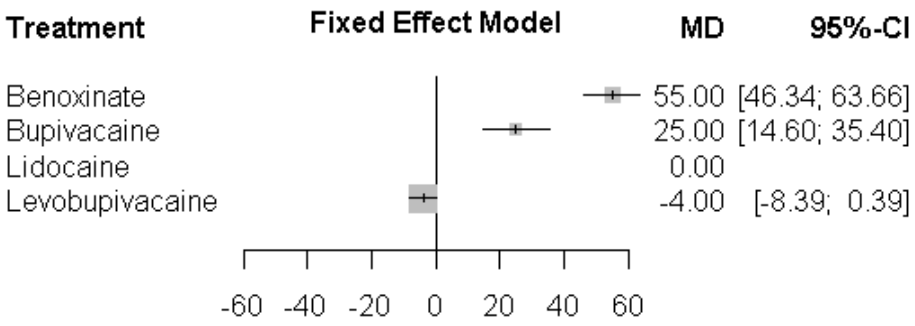
Fixed effect model:

comparison	prop	nma	direct	indir.	Diff	z	p-value
Benoxinate:Bupivacaine	1	5.0000	5.0000	.	.	.	.
Benoxinate:Levobupivacaine	0	22.9000	.	22.9000	.	.	.
Benoxinate:Lidocaine	1	19.4000	19.4000	.	.	.	.
Bupivacaine:Levobupivacaine	0	17.9000	.	17.9000	.	.	.
Bupivacaine:Lidocaine	1	14.4000	14.4000	.	.	.	.
Levobupivacaine:Lidocaine	1	-3.5000	-3.5000	.	.	.	.

Legend:

- comparison - Treatment comparison
- prop - Direct evidence proportion
- nma - Estimated treatment effect (MD) in network meta-analysis
- direct - Estimated treatment effect (MD) derived from direct evidence
- indir. - Estimated treatment effect (MD) derived from indirect evidence
- Diff - Difference between direct and indirect treatment estimates
- z - z-value of test for disagreement (direct versus indirect)
- p-value - p-value of test for disagreement (direct versus indirect)

Pain during surgery



Pairwise mean differences from NMA

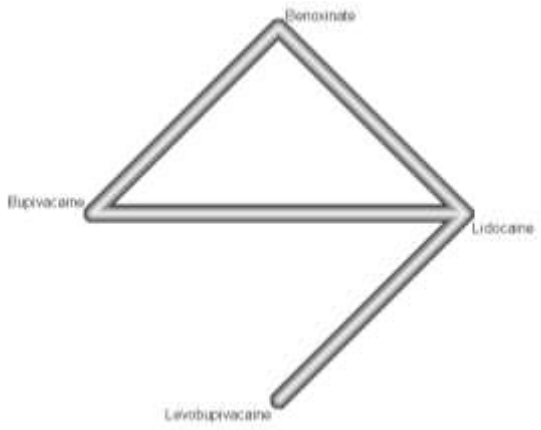
	Benoxinate	Bupivacaine	Lidocaine	Levobupivacaine
Benoxinate	N/A			

Bupivacaine	-30.00 (-39.53, -20.47)	N/A		
Lidocaine	-55.00 (-63.66, -46.34)	-25.00 (-35.40, -14.60)	N/A	
Levobupivacaine	-59.00 (-68.71, -49.29)	-29.00 (-40.29, -17.71)	-4.00 (-8.39, 0.39)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 0; I^2 = 0%

Network graph

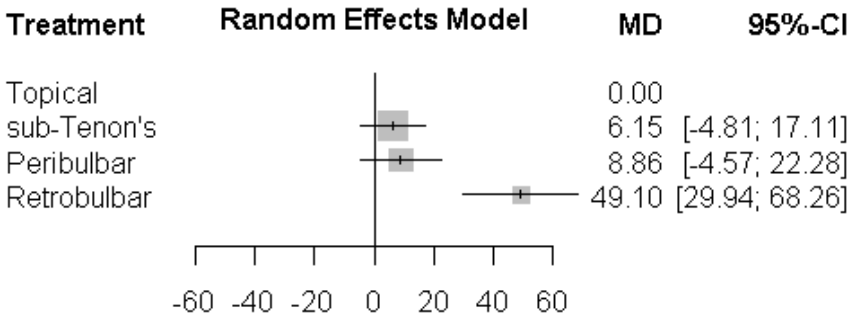


Comparison of direct and indirect evidence

```
Fixed effect model:

                  comparison prop      nma   direct   indir. Diff z p-value
      Benoxinate:Bupivacaine    1 -30.0000 -30.0000        .    . .       .
  Benoxinate:Levobupivacaine    0 -59.0000        . -59.0000    . .       .
        Benoxinate:Lidocaine    1 -55.0000 -55.0000        .    . .       .
 Bupivacaine:Levobupivacaine    0 -29.0000        . -29.0000    . .       .
       Bupivacaine:Lidocaine    1 -25.0000 -25.0000        .    . .       .
   Levobupivacaine:Lidocaine    1   4.0000   4.0000        .    . .       .

Legend:
 comparison - Treatment comparison
 prop       - Direct evidence proportion
 nma        - Estimated treatment effect (MD) in network meta-analysis
 direct     - Estimated treatment effect (MD) derived from direct evidence
 indir.     - Estimated treatment effect (MD) derived from indirect evidence
 Diff       - Difference between direct and indirect treatment estimates
 z          - z-value of test for disagreement (direct versus indirect)
 p-value    - p-value of test for disagreement (direct versus indirect)
```

H.7.2.2 Method of anaesthesia (topical used as reference category)

Pain on application



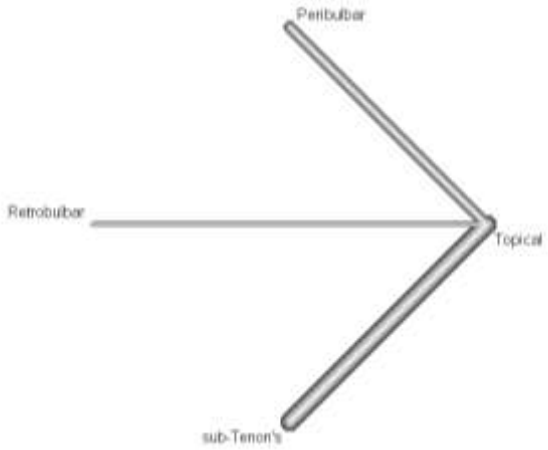
Pairwise mean differences from NMA

	Topical	sub-Tenon's	Peribulbar	Retrobulbar
Topical	N/A			
sub-Tenon's	6.15 (-4.81, 17.11)	N/A		
Peribulbar	8.86 (-4.57, 17.11)	2.71 (-14.63, 20.04)	N/A	
Retrobulbar	49.10 (29.94, 68.26)	42.95 (20.88, 65.02)	40.24 (16.85, 63.64)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 89.5629; I^2 = 96.4%

Network graph

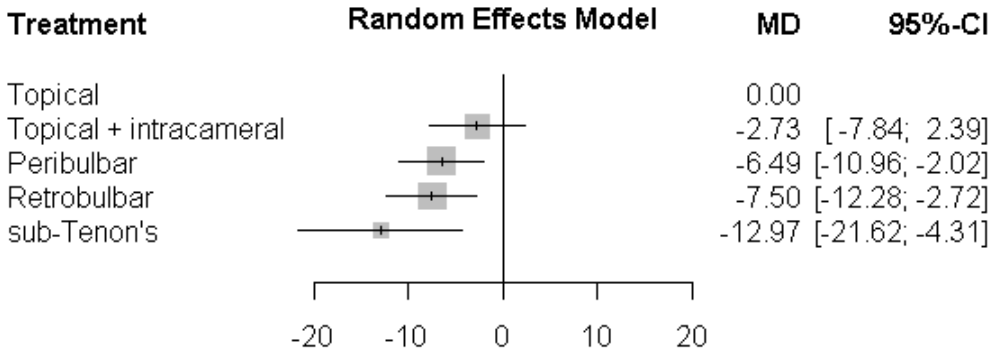


Comparison of direct and indirect evidence

```
Random effects model:

              comparison prop      nma   direct   indir. Diff z p-value
  Peribulbar:Retrobulbar    0  40.2431        .  40.2431    . .       .
  Peribulbar:sub-Tenon's    0  -2.7073        .  -2.7073    . .       .
      Peribulbar:Topical    1  -8.8569  -8.8569        .    . .       .
 Retrobulbar:sub-Tenon's    0 -42.9504        . -42.9504    . .       .
     Retrobulbar:Topical    1 -49.1000 -49.1000        .    . .       .
     sub-Tenon's:Topical    1  -6.1496  -6.1496        .    . .       .

Legend:
```

```
comparison - Treatment comparison
prop       - Direct evidence proportion
nma        - Estimated treatment effect (MD) in network meta-analysis
direct     - Estimated treatment effect (MD) derived from direct evidence
indir.     - Estimated treatment effect (MD) derived from indirect evidence
Diff       - Difference between direct and indirect treatment estimates
z          - z-value of test for disagreement (direct versus indirect)
p-value    - p-value of test for disagreement (direct versus indirect)
```

Pain during surgery



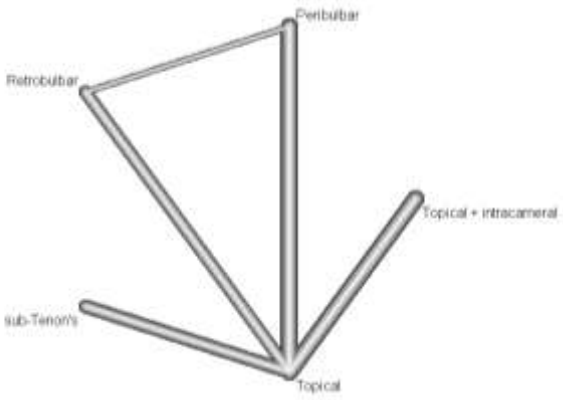
Pairwise mean differences from NMA

	Topical	**Topical + intracameral**	**Peribulbar**	**Retrobulbar**	**sub-Tenon's**
Topical	N/A				
Topical + intracameral	-2.73 (-7.84, 2.39)	N/A			
Peribulbar	-6.49 (-10.96, -2.02)	-3.76 (-10.55, 3.03)	N/A		
Retrobulbar	-7.50 (-12.28, -2.72)	-4.77 (-11.77, 2.23)	-1.01 (-6.62, 4.61)	N/A	
sub-Tenon's	-12.97 (-21.62, -4.31)	-10.24 (-20.29, -0.19)	-6.48 (-16.21, 3.26)	-5.47 (-15.35, 4.41)	N/A

Quantifying heterogeneity/inconsistency:

tau^2 = 26.0174; I^2 = 82.2%

Network graph



Comparison of direct and indirect evidence

Random effects model:

comparison	prop	nma	direct	indir.	Diff	z	p-value
Peribulbar:Retrobulbar	0.42	-1.0076	-0.3423	-1.4877	1.1454	0.20	0.8435
Peribulbar:sub-Tenon's	0.00	-6.4774	.	-6.4774	.	.	.
Peribulbar:Topical	0.81	6.4896	6.2715	7.4172	-1.1457	-0.20	0.8435
Peribulbar:Topical + intracameral	0.00	3.7619	.	3.7619	.	.	.
Retrobulbar:sub-Tenon's	0.00	-5.4699	.	-5.4699	.	.	.
Retrobulbar:Topical	0.77	7.4972	7.7593	6.6139	1.1454	0.20	0.8435
Retrobulbar:Topical + intracameral	0.00	4.7695	.	4.7695	.	.	.
sub-Tenon's:Topical	1.00	12.9671	12.9671	.	.	.	.
sub-Tenon's:Topical + intracameral	0.00	10.2393	.	10.2393	.	.	.
Topical:Topical + intracameral	1.00	-2.7277	-2.7277	.	.	.	.

Legend:

- comparison - Treatment comparison
- prop - Direct evidence proportion
- nma - Estimated treatment effect (MD) in network meta-analysis
- direct - Estimated treatment effect (MD) derived from direct evidence
- indir. - Estimated treatment effect (MD) derived from indirect evidence
- Diff - Difference between direct and indirect treatment estimates
- z - z-value of test for disagreement (direct versus indirect)
- p-value - p-value of test for disagreement (direct versus indirect)

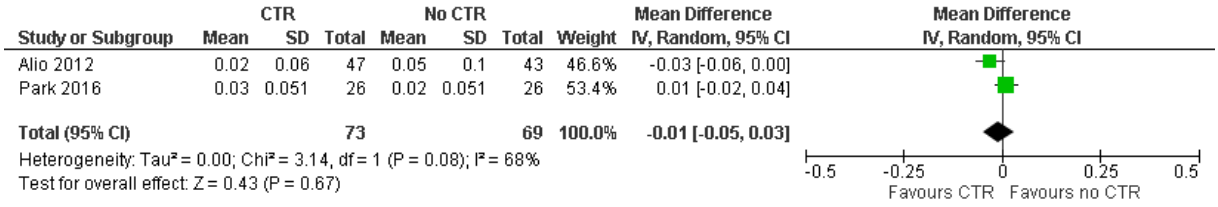
H.8 Preventing and managing complications

- What is the effectiveness of interventions (for example, prophylactic laser surgery) to prevent retinal detachment in people with myopia undergoing cataract surgery?
- What is the effectiveness of capsular tension rings applied during phacoemulsification cataract surgery?
- What is the effectiveness of interventions to increase pupil size to improve visual outcomes and reduce complications during phacoemulsification cataract surgery?
- What is the effectiveness of postoperative eye shields to prevent complications after cataract extraction?
- What is the effectiveness of prophylactic antiseptics (for example, topical iodine) and antibiotics to prevent endophthalmitis after cataract surgery?
- What is the effectiveness of prophylactic topical corticosteroids and/or NSAIDs to prevent inflammation and cystoid macular oedema after phacoemulsification cataract surgery?
- What is the effectiveness of interventions to reduce the impact of perioperative posterior capsule rupture?
- What is the effectiveness of interventions used to manage cystoid macular oedema following cataract surgery?

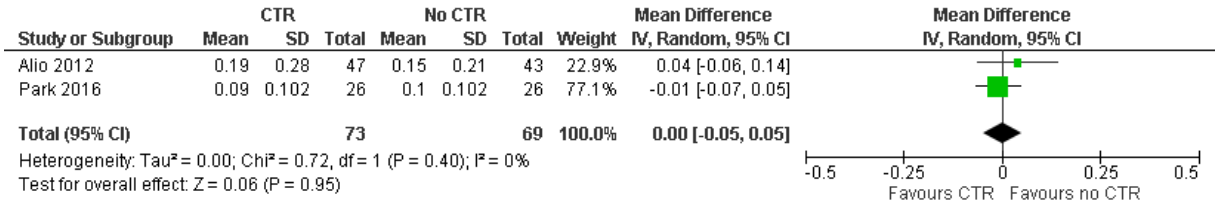
H.8.1 Capsular tension rings

H.8.1.1 Full population

CDVA (3 months postoperatively)

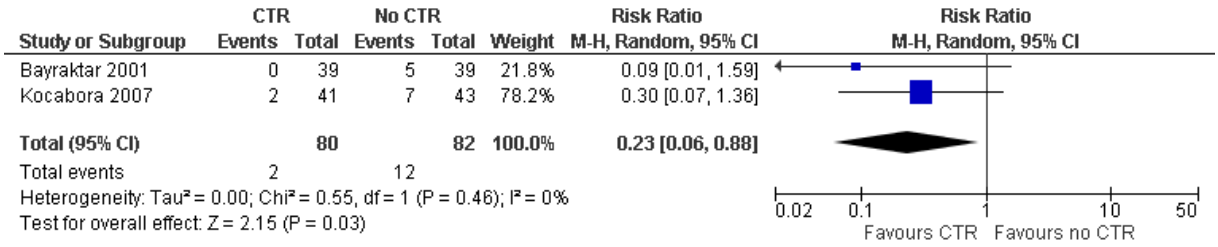


UDVA (3 months postoperatively)



H.8.1.2 People with pseudoexfoliation

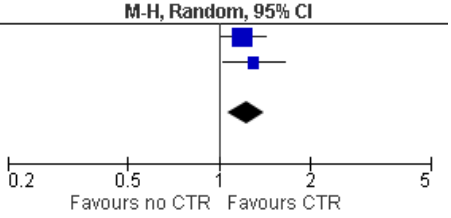
Zonular dehiscence



IOL in the bag successfully

Study or Subgroup	CTR Events	CTR Total	No CTR Events	No CTR Total	Weight	Risk Ratio M-H, Random, 95% CI
Bayraktar 2001	37	39	31	39	64.6%	1.19 [1.00, 1.42]
Kocabora 2007	36	41	29	43	35.4%	1.30 [1.03, 1.65]
Total (95% CI)		**80**		**82**	**100.0%**	**1.23 [1.07, 1.42]**
Total events	73		60			

Heterogeneity: Tau² = 0.00; Chi² = 0.36, df = 1 (P = 0.55); I² = 0%
Test for overall effect: Z = 2.89 (P = 0.004)

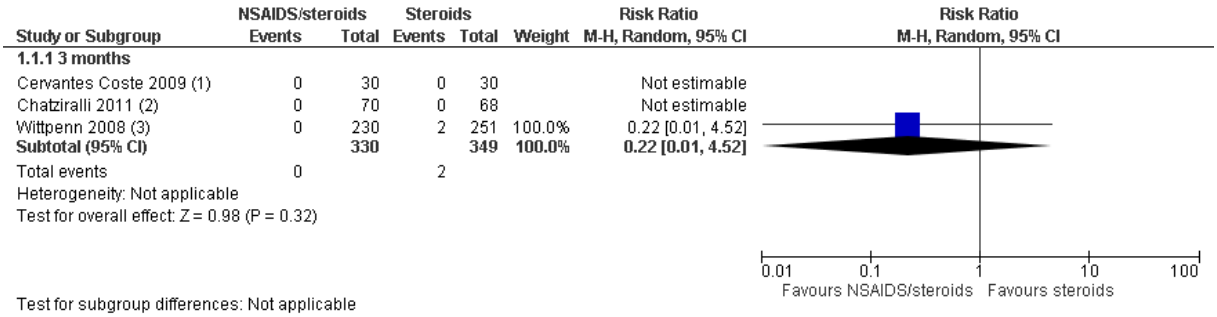


H.8.2 Intervention to prevent cystoid macular oedema

H.8.2.1 Pairwise meta-analyses

NSAIDs plus steroids vs steroids

Poor vision due to CMO

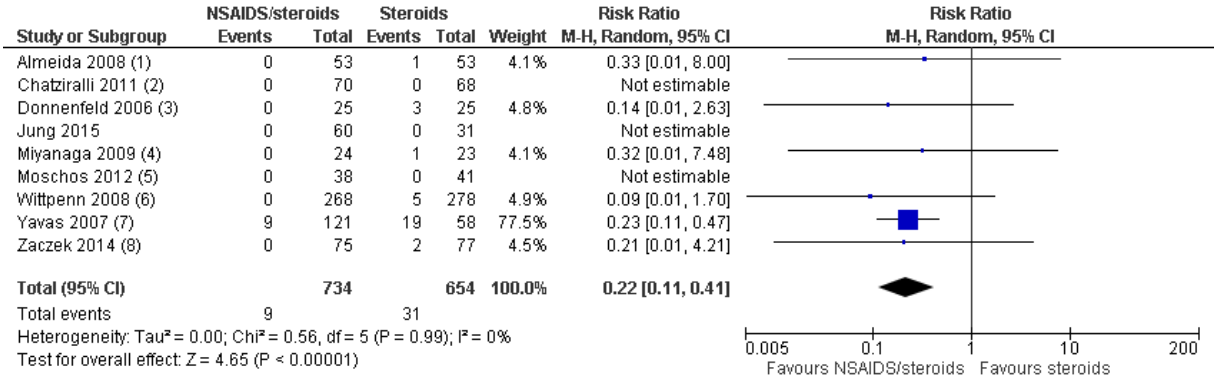


Test for subgroup differences: Not applicable

Footnotes

(1) Follow-up: 6 weeks, "clinically significant macular oedema associated with vision loss" (cutpoint not defined)
(2) Follow-up: 6 weeks, fundoscopy and Amsler grid test "no evidence of clinically significant CME"
(3) Follow-up: 4 weeks, OCT-confirmed CMO with visual acuity <6/9.

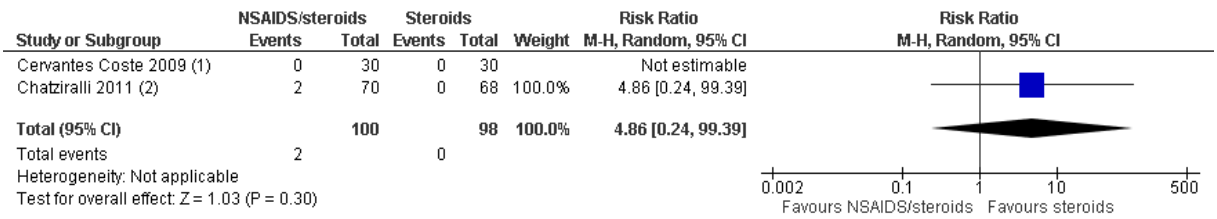
CMO



Footnotes

(1) Follow-up: 1 month. OCT used but CMO not defined.
(2) Follow-up: day 42. "Clinically significant MO" via fundoscopy and Amsler grid test.
(3) Follow-up: 2 weeks. "Clinically significant CME"
(4) Follow-up: 2 months, "obvious CMO confirmed by OCT"
(5) Follow-up: 1 month, "clinically significant CME" unclear if OCT-verified
(6) Follow-up: 4 weeks. clinical and OCT-based
(7) Follow-up: 3 months, "Slight fluorescein leakage into the cystic space without enclosing the entire centralfovea or complete fluorescein accumulation...
(8) Follow-up: 6 weeks, OCT verified but not defined

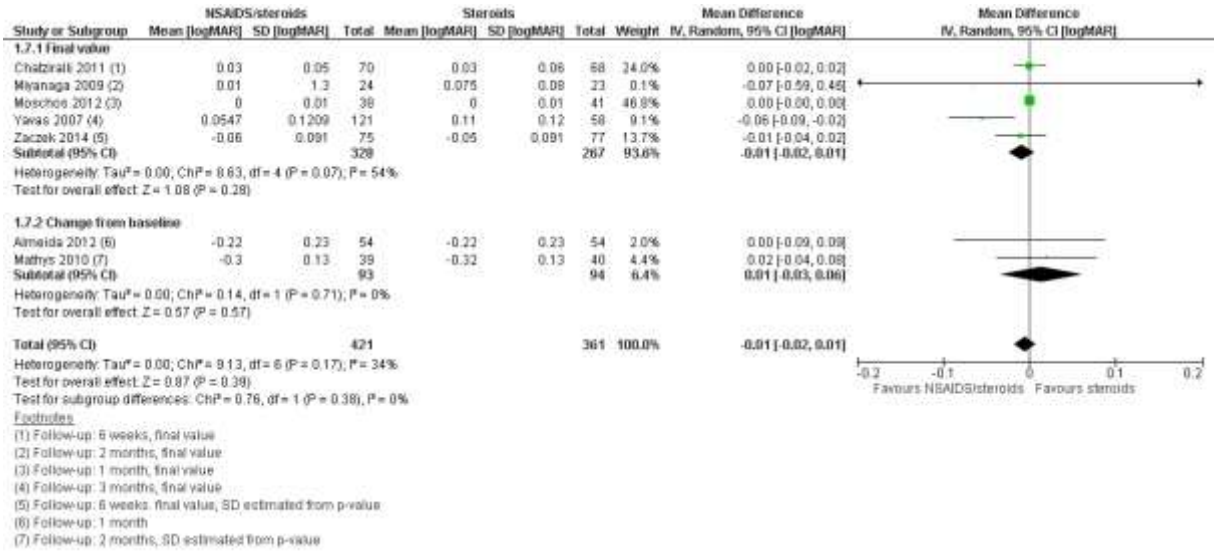
Inflammation (events)



Footnotes

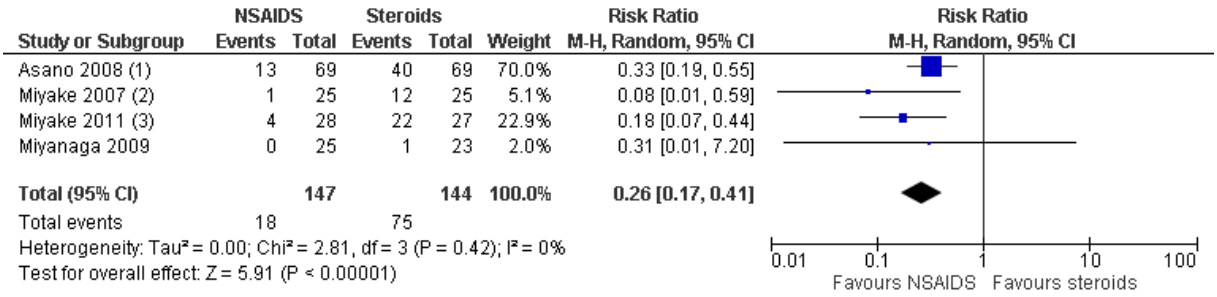
(1) Follow-up: 6 weeks, "inflammatory cells greater than 1+ during first week of postoperative visits.
(2) Follow-up: day 28, corneal oedema or Tyndall reaction or conjunctival hyperemia, by day 35 had disappeared.

BCVA [logMAR]



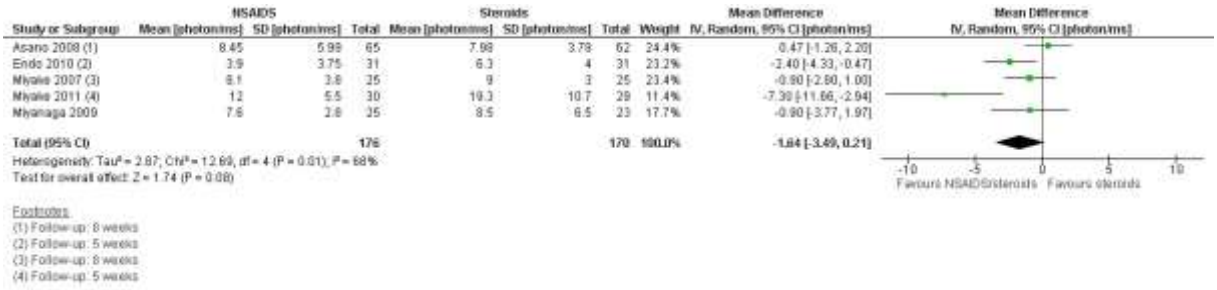
NSAIDs vs steroids

CMO

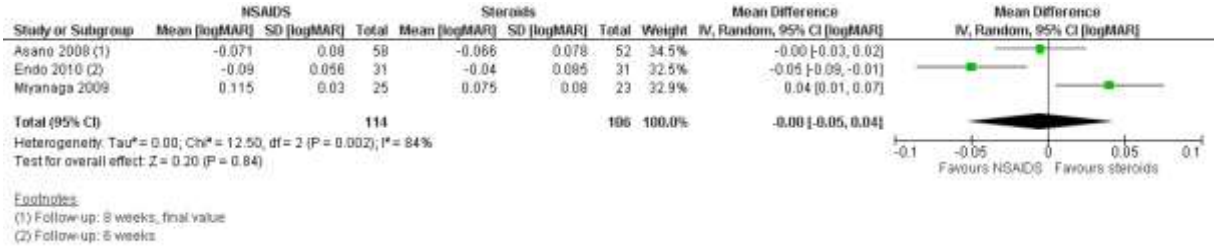


Footnotes
(1) Follow-up: 5 weeks, fluorescein angiography using Miyake 1977 classification
(2) Follow-up: 5 weeks, fluorescein angiography using Miyake 1977 classification
(3) Follow-up: 5 weeks, fluorescein angiography using Miyake 1977 classification

Inflammation (flare) [photons/ms]

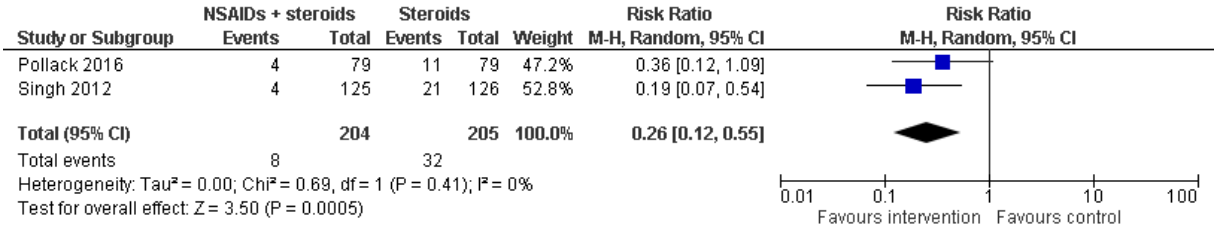


BCVA [logMAR]

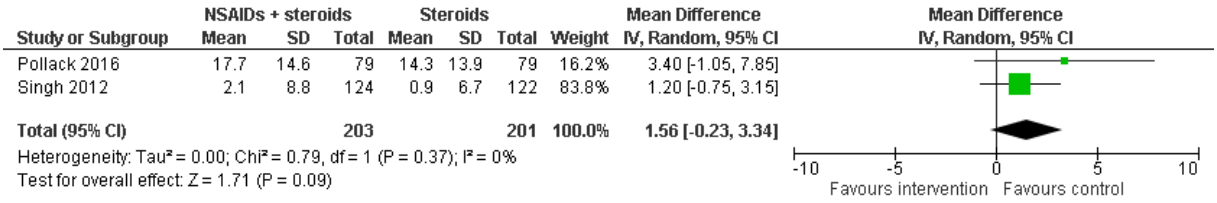


NSAIDs plus steroids vs steroids (population with diabetic retinopathy)

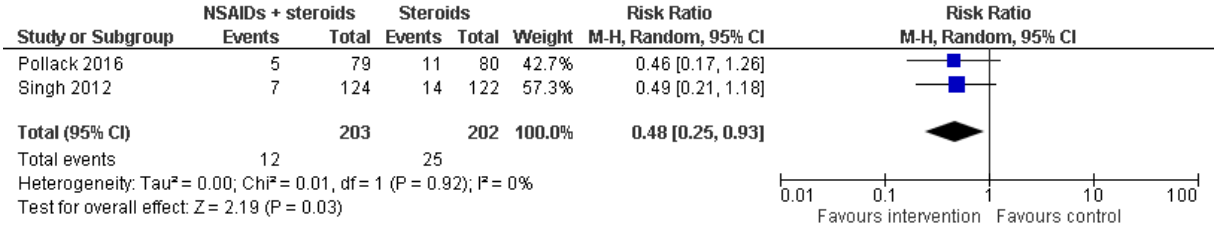
CMO



BCVA [logMAR]

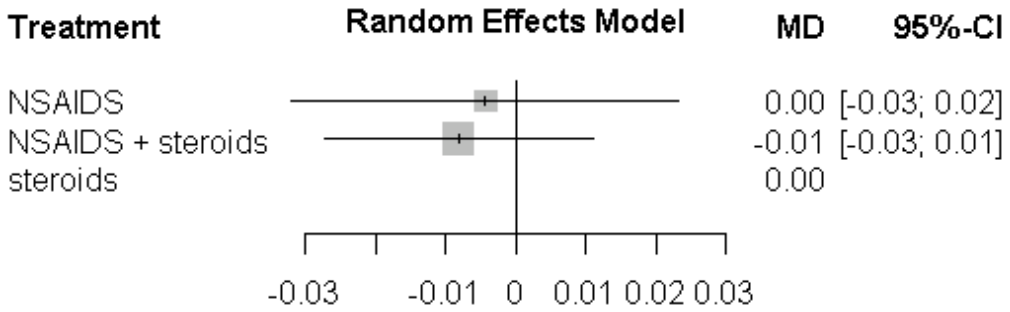


Proportion losing 5 or more letters of BCVA



H.8.2.2 Network meta-analyses (steroids used as reference category)

BCVA [logMAR]



Number of studies: k=9

Number of treatments: n=3

Number of pairwise comparisons: m=11

Differences between treatments – mean and 95% confidence interval

	NSAIDs	NSAIDs + steroids	Steroids
NSAIDs		0.0038 [-0.0298, 0.0373]	-0.0044 [-0.0319, 0.0232]
NSAIDs + Steroids	-0.0038 [-0.0373, 0.0298]		-0.0081 [-0.0273, 0.0110]
Steroids	0.0044 [-0.0232, 0.0319]	0.0081 [-0.0110, 0.0273]	

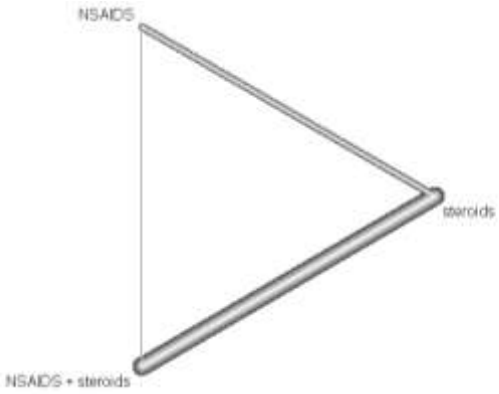
Quantifying heterogeneity/inconsistency:

tau^2 = 0.0003; I^2 = 63.2%

Test of heterogeneity/inconsistency:

Q	d.f.	p-value
21.72	8	0.005

Network graph



Comparison of direct and indirect evidence

Random effects model:

comparison	prop	nma	direct	indir.	Diff	z	p-value
NSAIDS:NSAIDS + steroids	0	-0.0038	-0.1050	-0.0033	-0.1017	-0.38	0.7029
NSAIDS:steroids	1	0.0044	0.0046	-0.1175	0.1220	0.32	0.7456
NSAIDS + steroids :steroids	1	0.0081	0.0081	.	.	.	.

Legend:

comparison - Treatment comparison

prop - Direct evidence proportion

nma - Estimated treatment effect (MD) in network meta-analysis

direct - Estimated treatment effect (MD) derived from direct evidence

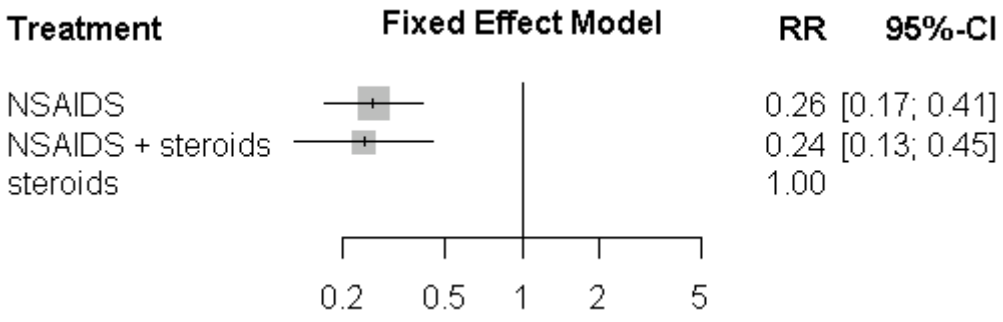
indir. - Estimated treatment effect (MD) derived from indirect evidence

Diff - Difference between direct and indirect treatment estimates

z - z-value of test for disagreement (direct versus indirect)

p-value - p-value of test for disagreement (direct versus indirect)

CMO



Number of studies: k=12

Number of treatments: n=3

Number of pairwise comparisons: m=14

Differences between treatments – mean and 95% confidence interval

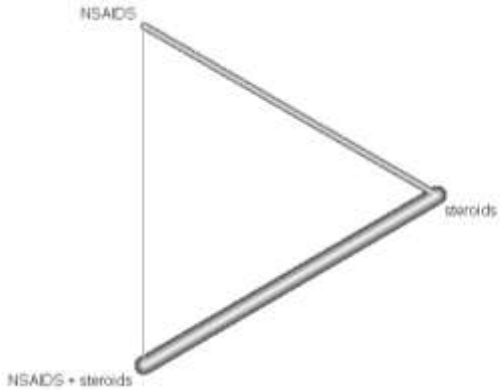
	NSAIDs	NSAIDs + steroids	Steroids
NSAIDs		1.0869 [0.5102, 2.3156]	0.2639 [0.1694, 0.4109]
NSAIDs + steroids	0.9200 [0.4319, 1.9600]		0.2428 [0.1310, 0.4500]
Steroids	3.7897 [2.4336, 5.9016]	4.1191 [2.2225, 7.6343]	

Quantifying heterogeneity/inconsistency:
tau^2 = 0; I^2 = 0%

Test of heterogeneity/inconsistency:

Q	d.f.	p-value
4.68	11	0.9455

Network graph



Comparison of direct and indirect evidence

Random effects model:

comparison	prop	nma	direct	indir.	RoR	z	p-value
NSAIDS:NSAIDS + steroids	0.04	0.9200	1.0417	0.9155	1.1378	0.06	0.9490
NSAIDS:steroids	1.00	3.7897	3.7776	18.8152	0.2008	-0.32	0.7509
NSAIDS + steroids :steroids	1.00	4.1191	4.1019	11.6442	0.3523	-0.21	0.8343

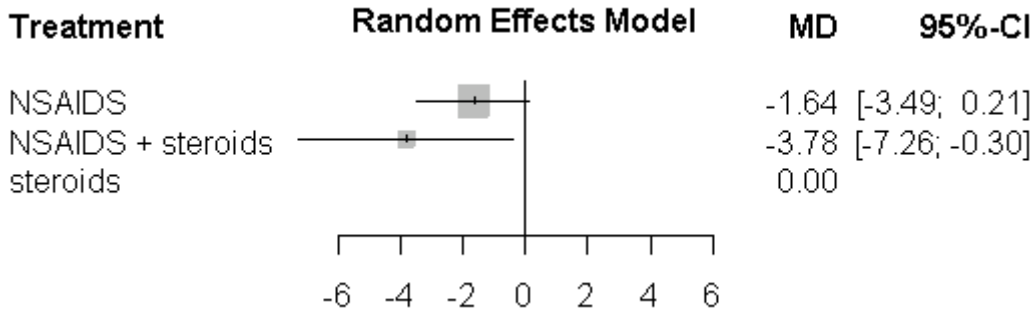
Legend:

comparison - Treatment comparison

prop - Direct evidence proportion

```
nma        - Estimated treatment effect (RR) in network meta-analysis

direct     - Estimated treatment effect (RR) derived from direct evidence

indir.     - Estimated treatment effect (RR) derived from indirect evidence

RoR        - Ratio of Ratios (direct versus indirect)

z          - z-value of test for disagreement (direct versus indirect)

p-value    - p-value of test for disagreement (direct versus indirect)
```

Inflammation (flare) [photons/ms]



Number of studies: k=5
Number of treatments: n=3
Number of pairwise comparisons: m=7

Differences between treatments – Mean and 95% confidence interval

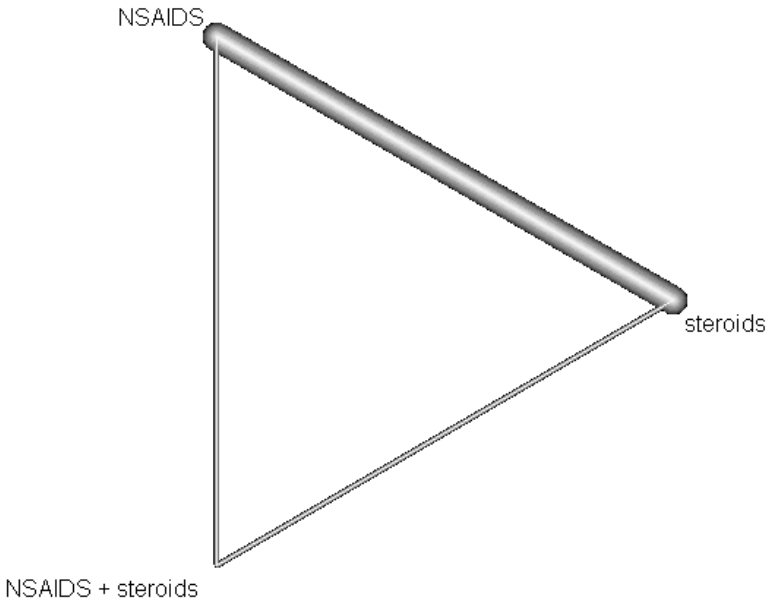
	NSAIDs	NSAIDs + steroids	Steroids
NSAIDs		2.1419 [-1.1857, 5.4694]	-1.6413 [-3.4897, 0.2070]
NSAIDs + steroids	-2.1419 [-5.4694, 1.1857]		-3.7832 [-7.2631, -0.3033]
Steroids	1.6413 [-0.2070, 3.4897]	3.7832 [0.3033, 7.2631]	

Quantifying heterogeneity/inconsistency:
tau^2 = 2.8678; I^2 = 68.5%

Test of heterogeneity/inconsistency:

Q	d.f.	p-value
12.69	4	0.0129

Network graph



Comparison of direct and indirect evidence

Random effects model:

comparison	prop	nma	direct	indir.	Diff	z	p-value
NSAIDS:NSAIDS + steroids	0.85	-2.1419	-2.4000	-0.6558	-1.7442	-0.36	0.7152
NSAIDS:steroids	1.00	1.6413	1.6413	.	.	.	.
NSAIDS + steroids :steroids	0.64	3.7832	3.3000	4.6516	-1.3516	-0.36	0.7152

Legend:

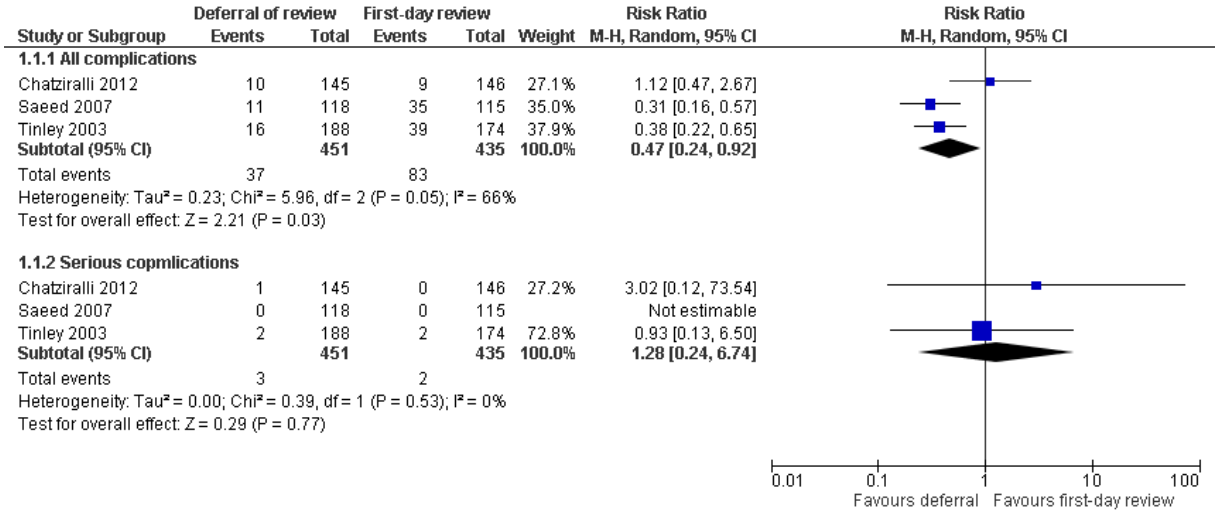
- comparison - Treatment comparison
- prop - Direct evidence proportion
- nma - Estimated treatment effect (MD) in network meta-analysis
- direct - Estimated treatment effect (MD) derived from direct evidence
- indir. - Estimated treatment effect (MD) derived from indirect evidence
- Diff - Difference between direct and indirect treatment estimates
- z - z-value of test for disagreement (direct versus indirect)
- p-value - p-value of test for disagreement (direct versus indirect)

H.9 Postoperative assessment

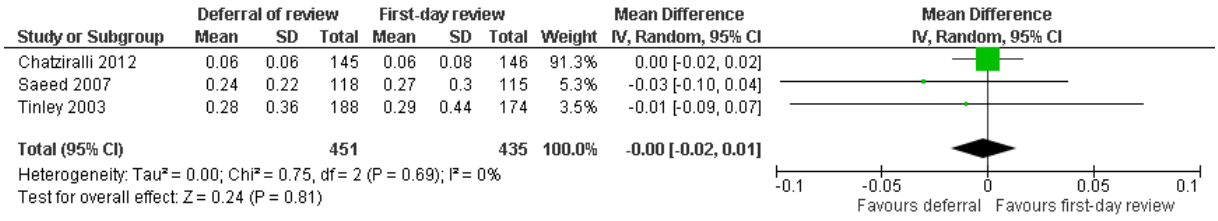
- What are the early and late complications of cataract surgery?
- What should the postoperative assessment include?
- Who and in what setting should carry out the postoperative assessment?
- What issues should be considered when organising postoperative care?
- What is the appropriate time to assess outcomes in the postoperative period?
- If the postoperative assessment and care are undertaken outside of the hospital, how should outcomes between surgical units and these providers be effectively communicated?

H.9.1 Details of postoperative assessment

H.9.1.1 Complications



H.9.1.2 CDVA



H.9.1.3 Unscheduled visits