Supplementary Online Content

Bicket AK, Le JT, Azuara-Blanco A, et al. Minimally invasive glaucoma surgical techniques for open-angle glaucoma: an overview of Cochrane systematic reviews and network meta-analysis. *JAMA Ophthalmol*. Published online July 15, 2021. doi:10.1001/jamaophthalmol.2021.2351

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Description of included Cochrane reviews

Cochrane review*	Interventions				Comparison interventions	Outcomes (with data)	Number of RCTs included	Number and baseline description of participants (Intervention, Comparison)	Types of participants included	Methodological quality assessed using AMSTAR 2†
	Device	Manufacturer	Description of implanted device	Description of procedure						
Hu 2020 (MIGS01)	Trabectome	NeoMedix, Tustin, California, USA	None	Ab interno trabeculotomy (AIT) using electrocautery, irrigation, and aspiration	Cataract surgery with Trabectome compared to cataract surgery with trabeculectomy	Proportion of participants medication-free (not using eye drops) Mean change in unmedicated IOP (after washout) Mean change in number of IOP-lowering drops per day Proportion of participants who required additional glaucoma procedures Proportion of participants experiencing intra- or post-operative complications	1 published [Ting 2018[1]] 1 ongoing [NCT03894631[2]]	19 IOP** 20.0±5.3, 23.1±6.4 Drops 1.8±1.3, 1.4±1.1 Severity Mild 30%,44% Mod 60%, 33% Sev 10%,22%	Persons aged 40-85 years with OAG (POAG or PXG) uncontrolled on maximal tolerated medical therapy, plus visually significant cataract	High
Otarola 2020 (MIGS02)	Hydrus® MicroStent	Ivantis Inc., Irvine, California, USA	Flexible crescent-shaped scaffold composed of nickel-titanium alloy (nitinol)	Ab interno insertion into Schlemm's canal	Cataract surgery with Hydrus compared to cataract surgery alone	Proportion of participants medication-free (not using eye drops) Mean change in unmedicated IOP (after washout) Mean change in number of IOP-lowering drops per day Proportion of participants who required additional glaucoma procedures Proportion of participants experiencing intra- or post-operative complications	2 published [HORIZON 2018[3,4], Pfeiffer 2015[5]]	619 IOP 25.5±3.0 (Hydrus), 25.4±2.9; 26.3±4.4, 26.6±4.2 Drops 1.7±0.9, 1.7±0.9; 2.0±1.0, 2.0±1.1 MD -3.61±2.49, -3.61±2.60; -5.6±5.4, -8.4±7.8	Persons with cataract and mild to moderate OAG (POAG, PXG, or PG) controlled with medication, plus visually significant cataract	High
					Hydrus compared to iStent trabecular	Proportion of participants medication-free (not using eye drops) Mean change in unmedicated IOP (after washout)	1 published [COMPARE 2019[6]]	148 IOP 27.5±4.4 (Hydrus), 27.3±4.2	Persons with cataract and mild to moderate OAG (POAG,	

					micro-bypass stent (2 stents)	Mean change in number of IOP-lowering drops per day Proportion of participants who required additional glaucoma procedures Proportion of participants experiencing intra- or post-operative complications		(2 iStents) Drops 2.5±0.7, 2.7±0.8 MD -6.2±5.4, -6.2±6.5	PXG, or PG) controlled with medication	
Toth 2019 (MIGS03)	Endoscopic cyclophotocoagulation (ECP)	BVI, Waltham, Massachusetts, USA	None	Ab interno destruction of ciliary epithelium using 810nm diode laser under direct visualization with a microendoscope	Cataract surgery with ECP compared to cataract surgery alone	Mean IOP (not otherwise specified) Number of IOP-lowering drops (not otherwise specified)	1 ongoing [ChiCTR-TRC-14004233]	50	Persons with primary angle closure glaucoma (PACG)	High
King 2018 (MIGS04)	XEN® Gel Stent	Allergan, Dublin, Ireland	Tissue-conforming tube implant composed of gelatin cross-linked with glutaraldehyde	Ab interno insertion from anterior chamber through sclera and into subconjunctival space to create a bleb	n/a	n/a	0	n/a	n/a	High
	PreserFlo® MicroShunt (formerly: InnFocus MicroShunt)	Santen, Osaka, Japan	Flexible microshunt composed of poly(styrene-block-isobutylene-block-styrene) (SIBS)	Ab-externo radial insertion through subconjunctival scleral needle tract into anterior chamber to create a bleb	InnFocus (now PreserFlo) compared to standard trabeculectomy	Proportion of participants achieving >20% decrease in diurnal IOP Change in diurnal IOP	1 ongoing [NCT01881425]	889	Persons aged 40-85 years with POAG with IOP 15-40 mmHg on maximal tolerated medical therapy	
Le 2019 (MIGS05)	iStent or iStent inject trabecular micro-bypass stent	Glaukos Corporation, Laguna Hills, California, USA	Heparin-coated, non-ferromagnetic titanium stent	Ab interno insertion into Schlemm's canal	Cataract surgery with iStent (1 stent in Fea 2010, Samuelson 2011; 2 stents in Fernandez-Barrientos 2010) compared to cataract surgery alone	Proportion of participants medication-free (not using eye drops) Mean change in unmedicated IOP (after washout) – *Note: Washout note performed in Fea 2010.* Mean change in number of IOP-lowering drops per day Proportion of participants who required additional glaucoma procedures	4 published [Fea 2010[7–10], NCT00721968[11], Samuelson 2011[12–14], Fernandez-	334 IOP 17.9±2.6, 17.3±3.0**; 25.4±3.6, 25.2±3.6; 24.2±1.8, 23.6±1.5 Drops 1.9±0.9, 1.8±0.7; 1.6±0.8,	Persons aged 48-89 with OHT or OAG (POAG, PXG, or PG), plus visually significant cataract	High

						Proportion of participants experiencing intra- or post-operative complications	Barrientos 2010[15,16]]	1.5±0.6; 1.1±0.5, 1.2±0.7 MD -3.77±3.03, -3.94±3.60 [Samuelson 2011 only]		
					iStent (2 stents, Vold 2016) or iStent inject (2 stents, Fea 2014) compared to medical therapy	Proportion of participants medication-free (not using eye drops) Mean change in IOP or mean IOP (washout not applicable) Proportion of participants who required additional glaucoma procedures Proportion of participants experiencing intra- or post-operative complications	2 published [Vold 2016[17–19], Fea 2014[20,21]]	286 IOP 25.5±2.5, 25.1±4.6**; 25.2±1.4, 24.8±1.7 Drops 0, 0; 1, 1 MD -7.5±8.8, -5.8±7.7 [Vold 2016 only]	Persons with OHT or OAG (POAG, PXG, or PG) – *Note: Vold 2016 required participants to be phakic*	
					Comparison of one vs. two vs. three iStents	Proportion of participants medication-free (not using eye drops) Mean change in unmedicated IOP (after washout) Number of IOP-lowering drops per day Proportion of participants experiencing intraoperative complications	1 published [Katz 2015[22–24]]	119 IOP 25.0±1.1, 25.0±1.7, 25.1±1.9 Drops 1.71±0.61, 1.76±0.54, 1.51±0.69 MD -4.72±4.42, -5.20±5.65, -4.81±4.22	Persons with OAG (POAG, PXG, or PG) and phakic	
Sandhu 2020 (MIGS06)	Cypass® Micro-Stent	Alcon Laboratories, Basel, Switzerland	Fenestrated supraciliary micro-stent, composed of biocompatible polyimide	Ab interno radial insertion into suprachoroidal space	Cataract surgery with Cypass compared to cataract surgery alone	Proportion of participants medication-free (not using eye drops) Mean change in unmedicated IOP (after washout) Mean change in number of IOP-lowering drops per day Proportion of participants who required additional glaucoma procedures	1 published [Compass Trial[25–27]] 1 ongoing [NCT0146 1278]	505 IOP 24.4±2.8, 24.5±3.0 Drops 1.4±0.9, 1.3±1.0 MD	Persons aged 45 with POAG and phakic	High

						Proportion of participants experiencing intra- or post-operative complications		-3.37±2.9, -3.77±3.07		
	iStent Supra	Glaukos Corporation, Laguna Hills, California, USA	Heparin-coated stent composed of polyethersulfone (PES) with a titanium sleeve	Ab interno radial insertion into suprachoroidal space	n/a	n/a	0	n/a	n/a	

* When multiple versions of a review were available, we included the most recent.

† Review results were assigned one of four AMSTAR 2 confidence levels: High, Moderate, Low, or Critically Low. A High level of confidence in the results of a review indicated no more than one non-critical weakness, while any critical weakness reduced the confidence level to Low.

** Washout not performed

eTable 2. Overview of Reviews

MIGS 01: Ab interno trabecular bypass surgery with Trabectome for open angle glaucoma						
Participants: Persons aged 40-85 years with OAG (POAG or PXG) uncontrolled on maximal tolerated medical therapy, plus visually significant cataract Intervention: Cataract surgery with Trabectome Comparison: Cataract surgery with trabeculectomy with mitomycin-C						
Outcomes	**Anticipated absolute effect**		**Relative effect (95% CI)** Intervention vs. Control	**Number of participants (studies)**	**Certainty of the evidence (GRADE)**	**Comments**
	Risk with trabeculectomy combined with cataract surgery	Risk with Trabectome combined with cataract surgery				
Proportion of participants medication-free (not using eye drops) Follow-up: 6 months, MT	6 months: 750 per 1000 MT: 500 per 1000	6 months: 667 per 1000 MT: 700 per 1000	6 months: RR 0.89 (0.48 to 1.64) RR 1.40 (0.63 to 3.13)	19 (1) 18 (1)	Very low[1,2]	1 participant was lost to follow-up after 3 months
Mean change in medicated IOP (no washout performed)† Follow-up: MT	-6.4 ± 5.7 mmHg	-2.7 ± 5.3 mmHg	3.7 (-1.44 to 8.84)	18 (1)	Very low[1,2]	
Mean change in number of IOP-lowering drops per day Follow-up: MT	-0.51 ± 0.81	-0.92 ± 0.94	-0.41 (-1.22 to 0.40)	18 (1)	Very low[1,2]	
Proportion of participants who required additional glaucoma procedures Follow-up: MT	0/9	1/10	RR 2.73 (0.12 to 59.57)	19 (1)	Very low[1,2]	
Proportion of participants experiencing intra- or post-operative complications Follow-up: ST, MT	ST: 8/9 (2 severe) MT: 8/8 (0 severe)	ST: 8/10 (0 severe) MT: 8/10 (0 severe)	ST: OR 0.50 (0.04, 6.68) → RR 0.90 (0.61, 1.32) MT: OR 0.20 (0.01, 4.82) → RR 0.80 (0.59, 1.09)	19 (1) 18 (1)	Very low[1,2]	Mild or moderate complications: Peripheral anterior synechiae, day 1 IOP spike, hyphema, chronic-recurrent uveitis, steroid response, hypotony, bleb leak, choroidal effusion, encapsulated bleb. Severe complications: Hypotony maculopathy
MIGS 02: Ab interno trabecular bypass surgery with Schlemm´s canal microstent (Hydrus) for open angle glaucoma						
Participants: Persons with mild to moderate OAG (POAG, PXG, or PG) controlled with medication, plus visually significant cataract Intervention: Cataract surgery with Hydrus						

Comparison: Cataract surgery alone						
Outcomes	**Anticipated absolute effect**		**Relative effect (95% CI)**	**Number of participants (studies)**	**Certainty of the evidence (GRADE)**	**Comments**
	Risk with cataract surgery alone	Risk with Hydrus combined with cataract surgery				
Proportion of participants medication-free (not using eye drops) Follow-up: MT, LT	MT: 502 per 1000 LT: 480 per 1000	MT: 804 per 1000 LT: 782 per 1000	MT: RR 1.59 (1.39 to 1.83) LT: RR 1.63 (1.40 to 1.88)	639 (2) 619 (2)	Moderate[3]	
Mean change in unmedicated IOP (after washout)† Follow-up: LT	LT: -5.95 ± 4.2 mmHg	LT: -7.95 ± 4.2	LT: -2.0 (-2.69 to -1.31) mmHg	619 (2)	Moderate[3]	
Mean change in number of IOP-lowering drops per day Follow-up: LT	LT: -0.76	LT: -1.17	LT: -0.41 (-0.56 to -0.27)	619 (2)	Low[3,4]	
Proportion of participants who required additional glaucoma procedures Follow-up: LT	LT: 25 per 1000	LT: 4 per 1000	LT: RR 0.17 (0.03 to 0.86)	619 (2)	Low[3,5]	
Proportion of participants experiencing intra- or post-operative complications Follow-up: LT	Intraoperative: 0/236 Postoperative Loss of 2+ VA lines: 7/236 IOP spike >10 mmHg: 7/236 Bleeding: 1/187	Intraoperative:7/417 Postoperative Loss of 2+ VA lines: 5/417 IOP spike >10 mmHg: 4/417 Bleeding: 2/369	Intraoperative: Not analyzed Postoperative Loss of 2+ VA lines: 0.46 (0.14 to 1.50) IOP spike >10 mmHg: 0.39 (0.12 to 1.24) Bleeding: 1.01 (0.09 to 11.11)	619 (2)	Low[3,5]	<u>Mild or moderate complications:</u> Hyphema, IOP spike >10 mmHg <u>Severe complications:</u> Loss of 2+ lines of vision Co-occurrence of complications not specified
Participants: Persons with mild to moderate OAG (POAG, PXG, or PG) controlled with medication, phakic or pseudophakic Intervention: Hydrus Comparison: iStent (2 stents)						
Outcomes	**Anticipated absolute effect (95% CI)**		**Relative effect (95% CI)**	**Number of participants (studies)**	**Certainty of the evidence (GRADE)**	**Comments**
	Risk with iStent	Risk with Hydrus				
Proportion of participants medication-free (not using eye drops) Follow-up: MT	240 per 1000	466 per 1000	RR 1.94 (1.21 to 3.11)	148 (1)	Low[1]	Large confidence intervals
Mean change in unmedicated IOP (after washout)†	-5.1 ± 2.9 mmHg	-8.2 ± 3.7 mmHg	-3.1 (-4.17 to -2.03) mmHg	148 (1)	Moderate[1]	

Follow-up: MT						
Mean change in number of IOP-lowering drops per day Follow-up: MT	-1.0 ± 1.2	-1.6 ± 1.2	-0.6 (-0.99 to -0.21)	148 (1)	Low[1]	Large confidence intervals
Proportion of participants who required additional glaucoma procedures Follow-up: MT	0/74	2/76	Not analyzed	148 (1)	Very low[1,2]	
Proportion of participants experiencing intra- or post-operative complications Follow-up: MT	MT: 4/76 (1 severe)	MT: 3/74 (2 severe)	Not analyzed	148 (1)	Low[1,5]	Mild or moderate complications: IOP spike >10 mmHg Severe complications: Loss of 2+ lines of vision

MIGS 03: Endoscopic cyclophotocoagulation (ECP) for open angle glaucoma and primary angle closure

No completed RCTs met inclusion criteria for this review.

MIGS 04: Subconjunctival draining minimally-invasive glaucoma devices for medically uncontrolled glaucoma

No completed RCTs met inclusion criteria for this review; one RCT is ongoing.

MIGS 05: Ab interno trabecular bypass surgery with iStent for open-angle glaucoma

Participants: Persons aged 48-89 with OHT or OAG (POAG, PXG, or PG), plus visually significant cataract
Intervention: Cataract surgery with iStent (1 stent in Fea 2010, Samuelson 2011; 2 stents in Fernandez-Barrientos 2010)
Comparison: Cataract surgery alone

Outcomes	**Anticipated absolute effect (95% CI)**		**Relative effect (95% CI)**	**Number of participants (studies)**	**Certainty of the evidence (GRADE)**	**Comments**
	Risk with cataract surgery alone	Risk with iStent(s) combined with cataract surgery				
Proportion of participants medication-free (not using eye drops) Follow-up: MT	583 per 1000	804 per 1000	RR 1.38 (1.18 to 1.63)	239 (2)	Very low[3,5,6]	
Mean change in unmedicated IOP (after washout)† Follow-up: ST, MT	ST: -4.3 ± 3.1 mmHg MT*: -1.6 ± 3.2 mmHg[a]; -3.9 ± 2.7 mmHg[b]; -8.5 ± 4.3 mmHg[c]	ST: -9.3 ± 4.1 mmHg MT*: -3.2 ± 3.0 mmHg[a]; -6.6 ± 3.0 mmHg[b]; -8.4 ± 3.6 mmHg[c]	ST: -5.0 (-7.47 to -2.53) mmHg MT*: -1.6 (-3.78 to 0.58) mmHg[a]; -2.7 (-4.65 to -0.75) mmHg[b]; 0.10 (-0.95 to 1.15) mmHg[c]	284 (3)	Very low[3,5,6,7]	Study-specific estimates [a] Fea 2010; [b] Fernandez-Barrientos 2010; [c] Samuelson 2011
Mean change in number of IOP-lowering drops per day	ST: 0.1±0.5	ST: 0.5±0.7	ST: -0.4 (-0.82 to 0.02)	315 (3)	Very low[3,5,6]	

Follow-up: ST, MT	MT: -1.0 to 0.9*	MT: -1.4 to 0.4*	MT: -0.42 (range -0.6 to -0.23)			
Proportion of participants who required additional glaucoma procedures Follow-up: MT	1/152	1/138	Not analyzed	290 (3)	-	
Proportion of participants experiencing intra- or post-operative complications Follow-up: MT to LT	1/169	1/165	RR 0.21 (0.07 to 0.67) Not meta-analyzed	334 (4)	-	Mild or moderate complications: IOP spike >10mmHg Results from NCT00721968, reported for 12 to 48 months, not subdivided into shorter intervals
Participants: Persons with OHT or OAG (POAG, PXG, or PG) Intervention: iStent (2 stents) or iStent inject (2 stents) Comparison: Medical therapy						
Outcomes	**Anticipated absolute effect (95% CI)**		**Relative effect (95% CI)**	**Number of participants (studies)**	**Certainty of the evidence (GRADE)**	**Comments**
	Risk of medical therapy	Risk of iStent or iStent inject				
Proportion of participants medication-free (not using eye drops) Follow-up: MT. LT	MT: 0/138	MT: 141/148 LT: 48/54	Not analyzed	286 (2)	Very low[2,3,6]	LT results from Vold 2016
Mean change in IOP† Follow-up: ST, MT			ST: 0.10 (-0.72 to 0.92)* MT: -0.6 (-1.28 to 0.08)*	184 (1)	Very low[2,3,6]	Vold 2016 reported mean IOP (not change): 6 months: medical therapy 13.8, iStent 14.2 18 months: medical therapy 14.6, IStent 13.5 36 months: medical therapy 15.3, iStent 14.6
Proportion of participants who required additional glaucoma procedures Follow-up: MT	0/138	1/148	Not analyzed	286 (2)	-	Fea 2014 reported 1 participant who required post-operative laser for stent obstruction
Proportion of participants experiencing intra- or post-operative complications Follow-up: MT, LT	N/A	MT: 2/286 LT: 1/286	Not analyzed	MT: 286 (2) LT: 101 (1)	-	Mild or moderate complications: Hyphema, iridodialysis, IOP spike >10mmHg
Participants: Persons with OAG (POAG, PXG, or PG) and phakic Intervention: Two or three iStents						

Comparison: One iStent						
Outcomes	**Anticipated absolute effect (95% CI)**		**Relative effect (95% CI)**	**Number of participants (studies)**	**Certainty of the evidence (GRADE)**	**Comments**
	Risk of 1 iStent	Risk of 2 or 3 iStents				
Proportion of participants medication-free (not using eye drops) Follow-up: ST, MT, LT	ST: 35/38 MT: 33/37 LT: 15/33	ST: 40/41; 39/40 MT: 37/41; 35/38 LT: 34/38; 35/38	ST: RR 0.94 (0.53 to 1.05); RR 0.94 (0.53 to 1.05) MT: RR 0.99 (0.85 to 1.15); RR 0.97 (0.84 to 1.12) LT: RR 0.51 (0.34 to 0.75); RR 0.49 (0.34 to 0.73)	119 (1)	-	
Mean change in unmedicated IOP (after washout)† Follow-up: MT	MT: -3.94 mmHg	MT: -5.99 mmHg; -8.19 mmHg	MT: -1.80 mmHg (-2.43 to -1.17); -3.50 mmHg (-4.12 to -2.88)	119 (1)	-	No difference between groups reported at 6 months (ST) or >36 months (LT)
Number of IOP-lowering drops per day Follow-up: MT	MT: 1.0	MT: 1.14	Not analyzed	119 (1)	-	
Proportion of participants experiencing intra- or post-operative complications Follow-up: >36 months	LT 0	LT: 0	Not analyzed	119 (1)	-	At LT follow-up, cataract progression was noted in 12-21% of participants who received at least 1 iStent
MIGS 06: Ab interno supraciliary microstent surgery for open angle glaucoma						
Participants: Intervention: Cataract surgery with Cypass Comparison: Cataract surgery alone						
Outcomes	**Anticipated absolute effect (95% CI)**		**Relative effect (95% CI)**	**Number of participants (studies)**	**Certainty of the evidence (GRADE)**	**Comments**
	Risk with cataract surgery alone	Risk with Cypass combined with cataract surgery				
Proportion of participants medication-free (not using eye drops) Follow-up: MT	591 per 1000	848 per 1000	RR 1.27 (1.09 to 1.49)	448 (1)	Moderate[3]	
Mean change in unmedicated IOP (after washout)† Follow-up: MT	-5.4±3.9 mmHg	-7.4±4.4 mmHg	-2.30 mmHg (-3.00 to -1.60)	448 (1)	High	
Mean change in number of IOP-lowering drops per day Follow-up: MT	-0.7	-1.2	Not analyzed	448 (1)	Moderate[3]	

Proportion of participants who required additional glaucoma procedures Follow-up: MT	31 per 1000	8 per 1000	Not analyzed	505 (1)	Moderate [3]	4 participants required Cypass trimming
Proportion of participants experiencing intra- or post-operative complications Follow-up: MT, LT+ (60 months)	MT: 360 per 1000 (0 per 1000 severe) LT+: (60 per 1000 severe)	MT: 390 per 1000 (11 per 1000 severe) LT+: (112 per 1000 severe)	Not analyzed	505 (1)	High	Mild or moderate complications: Hyphema, IOP spike >10 mmHg Severe complications: Loss of 2+ lines of vision 60 month data from NCT03273907 (FDA-mandated safety study), which also showed endothelial cell density reduction >30% in 27.16%.

ST: Short-term (<6 months); MT: Medium-term (6 to 18 months); LT: Long-term (>18 to 36 months)

GRADE Working Group grades of evidence
High-certainty: we are very confident that the true effect lies close to that of the estimate of the effect.
Moderate-certainty: we are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different.
Low-certainty: our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect.
Very low-certainty: we have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect

[1] downgraded -1 level for serious limitations in study design
[2] downgraded -2 level for imprecision
[3] downgraded -1 for unclear or high risk of bias for blinding of outcome assessor
[4] downgraded -1 for indirectness
[5] downgraded -1 for imprecision
[6] downgraded -1 for publication bias due to potential for industry influences
[7] downgraded -1 for heterogeneity (e.g. I^2>70%) or inconsistency across trials

*subtotals only

† IOP measured using Goldmann applanation tonometry

eTable 3. Methodological Quality Assessed using AMSTAR 2

Cochrane review	AMSTAR 2 Elements															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15*	16
MIGS01 - Hu 2020	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A	YES	N/A	N/A	YES
MIGS02 - Otarola 2020	YES	YES	YES	YES	YES	YES	N/A	YES	YES	YES	YES	YES	YES	YES	N/A	YES
MIGS03 - Toth 2019	YES	YES	YES	YES	YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES
MIGS04 - King 2018	YES	YES	YES	YES	YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES
MIGS05 - Le 2019	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	N/A	YES
MIGS06 - Sandhu 2020	YES	YES	YES	YES	YES	YES	N/A	YES	YES	YES	N/A	N/A	YES	N/A	N/A	YES

Green = Yes; Yellow = Partial yes; Red = No; Grey = Not applicable ("N/A", e.g., no included studies, no meta-analysis, or too few studies for funnel plot)

* AMSTAR-2 question #15 was not deemed relevant to any of the reviews, as the Cochrane Handbook advises against such testing for meta-analyses of fewer than 10 studies.[28]

AMSTAR Question 1: Did the research questions and inclusion criteria for the review include the components of PICO?
AMSTAR Question 2: Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?
AMSTAR Question 3: Did the review authors explain their selection of the study designs for inclusion in the review?
AMSTAR Question 4: Did the review authors use a comprehensive literature search strategy?
AMSTAR Question 5: Did the review authors perform study selection in duplicate?
AMSTAR Question 6: Did the review authors perform data extraction in duplicate?
AMSTAR Question 7: Did the review authors provide a list of excluded studies and justify the exclusions?
AMSTAR Question 8: Did the review authors describe the included studies in adequate detail?
AMSTAR Question 9: Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?
AMSTAR Question 10: Did the review authors report on the sources of funding for the studies included in the review?
AMSTAR Question 11: If meta-analysis was performed did the review authors use appropriate methods for statistical combination of results?
AMSTAR Question 12: Did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?
AMSTAR Question 13: Did the review authors account for RoB in individual studies when interpreting/ discussing the results of the review?
AMSTAR Question 14: Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?
AMSTAR Question 15: If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?
AMSTAR Question 16: Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?

eTable 4. Non-Cochrane Systematic Reviews of MIGS

PMID	Title	Year	Author
30728930	Comparing iStent versus CyPass with or without phacoemulsification in patients with glaucoma: a meta-analysis.	2019	Fard MA., Patel SP., Pourafkari L., Nader ND.
28850575	Minimally-invasive glaucoma surgeries (MIGS) for open angle glaucoma: A systematic review and meta-analysis.	2017	Lavia C., Dallorto L., Maule M., Ceccarelli M., Fea AM.
29258404	XEN Gel Implant: a new surgical approach in glaucoma	2018	Chaudhary, A.; Salinas, L.; Guidotti, J.; Mermoud, A.; Mansouri, K.
26426659	Comparison of Efficacy Between Endoscopic Cyclophotocoagulation and Alternative Surgeries in Refractory Glaucoma: A Meta-analysis	2015	Yang, Y.; Zhong, J.; Dun, Z.; Liu, X. A.; Yu, M.
28740733	When Is Evidence Enough Evidence? A Systematic Review and Meta-Analysis of the Trabectome as a Solo Procedure in Patients with Primary Open-Angle Glaucoma	2017	Chow, J. T. Y.; Hutnik, C. M. L.; Solo, K.; Malvankar-Mehta, M. S.
NA	iStent(R) for open angle glaucoma: Standard or emerging care?	2017	Asselin, G.; Drolet, R.; Toren, A.; Coulombe, M.; Rhainds, M.
NA	Glaucoma Schlemm's canal stent insertion: A systematic review	2016	Jo, S.
26018579	iStent as a Solo Procedure for Glaucoma Patients: A Systematic Review and Meta-Analysis	2015	Malvankar-Mehta, M. S.; Chen, Y. N.; Iordanous, Y.; Wang, W. W.; Costella, J.; Hutnik, C. M.
26147908	iStent with Phacoemulsification versus Phacoemulsification Alone for Patients with Glaucoma and Cataract: A Meta-Analysis	2015	Malvankar-Mehta, M. S.; Iordanous, Y.; Chen, Y. N.; Wang, W. W.; Patel, S. S.; Costella, J.; Hutnik, C. M.
27413541	iStent(R) Trabecular Microbypass Stent: An Update	2016	Resende, A. F.; Patel, N. S.; Waisbourd, M.; Katz, L. J.
30473602	Efficacy and Adverse Event Profile of the iStent and iStent Inject Trabecular Micro-bypass for Open-angle Glaucoma: A Meta-analysis	2018	Popovic, M.; Campos-Moller, X.; Saheb, H.; Ahmed, I. I. K.
30663456	Cost-effectiveness analysis of standalone trabecular micro-bypass stents in patients with mild-to-moderate open-angle glaucoma in Canada	2019	Patel, V.; Ahmed, I.; Podbielski, D.; Falvey, H.; Murray, J.; Goeree, R.
26733487	Review and meta-analysis of ab-interno trabeculectomy outcomes	2016	Kaplowitz, K.; Bussel,, II; Honkanen, R.; Schuman, J. S.; Loewen, N. A.
NA	Novel glaucoma procedures: A report by the American Academy of ophthalmology	2011	Francis, B. A.; Singh, K.; Lin, S. C.; Hodapp, E.; Jampel, H. D.; Samples, J. R.; Smith, S. D.

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