

Supplementary Online Content

Golozar A, Chen Y, Linksley K, et al. Identification and description of reliable evidence for 2016 American Academy of Ophthalmology Preferred Practice Pattern guidelines for cataract in the adult eye. *JAMA Ophthalmol*. Published online April 12, 2018. doi:10.1001/jamaophthalmol.2018.0786

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

eMethods. Search strategies for identifying systematic reviews in eyes and vision research

1. PubMed search strategies

(ABNORMAL ACCOMMODATION[tiab] OR Abnormal color vision[tiab] OR ABNORMAL LACRIMATION[tiab] OR Abnormal vision[tiab] OR accommodative disorders[tiab] OR Amblyopia[tiab] OR Ametropia[tiab] OR ANISOCORIA[tiab] OR ANOPHTHALMIA[tiab] OR Anterior CHAMBER hemorrhage[tiab] OR Aphakia[tiab] OR aqueous outflow obstruction[tiab] OR Asthenopia[tiab] OR Balint's syndrome[tiab] OR Bilateral visual field constriction[tiab] OR Binocular Vision Disorder[tiab] OR BLEPHARITIS[tiab] OR BLEPHAROSPASM[tiab] OR BLINDNESS[tiab] OR blurred vision[tiab] OR CATARACT[tiab] OR Cataracts[tiab] OR Chorioretinal disorder[tiab] OR Chorioretinitis[tiab] OR Choroid Diseases[tiab] OR Choroidal[tiab] OR Choroiditis[tiab] OR CHROMATOPSIA[tiab] OR Color Blindness[tiab] OR Color Vision Defects[tiab] OR Color vision deficiency[tiab] OR Colour blindness[tiab] OR Conjunctival Diseases[tiab] OR CONJUNCTIVAL HAEMORRHAGE[tiab] OR Conjunctival Injury[tiab] OR CONJUNCTIVAL ULCERATION[tiab] OR CONJUNCTIVITIS[tiab] OR CORNEAL DEPOSITS[tiab] OR Corneal Diseases[tiab] OR Corneal Disorder[tiab] OR Corneal injuries[tiab] OR Corneal Injury[tiab] OR CORNEAL OEDEMA[tiab] OR CORNEAL OPACITY[tiab] OR CORNEAL ULCERATION[tiab] OR decreased Lacrimation[tiab] OR Decreased vision[tiab] OR defective vision[tiab] OR Delayed visual maturation[tiab] OR Difficulty seeing[tiab] OR difficulty with vision[tiab] OR Dim vision[tiab] OR Diminished Vision[tiab] OR DIPLOPIA[tiab] OR disturbed vision[tiab] OR ENDOPHTHALMITIS[tiab] OR EPIPHORA[tiab] OR Episcleritis[tiab] OR Equatorial staphyloma[tiab] OR EXOPHTHALMOS[tiab] OR Eye Abnormalities[tiab] OR EYE ABNORMALITY[tiab] OR Eye Burns[tiab] OR Eye disease[tiab] OR Eye Diseases[tiab] OR Eye disorder[tiab] OR Eye disorders[tiab] OR Eye edema[tiab] OR Eye Foreign Bodies[tiab] OR Eye Hemorrhage[tiab] OR EYE INFECTION[tiab] OR Eye Infections[tiab] OR Eye Injuries[tiab] OR EYE MALFORMATION[tiab] OR Eye Manifestations[tiab] OR EYE MUSCLE PARALYSIS[tiab] OR Eye Neoplasm[tiab] OR Eye Neoplasms[tiab] OR EYE PAIN[tiab] OR Eye swelling[tiab] OR Eyelid Disease[tiab] OR Eyelid Diseases[tiab] OR Eyelid Disorder[tiab] OR Eyelid Disorders[tiab] OR Eyelid pain[tiab] OR EYELID RETRACTION[tiab] OR FIXED PUPILS[tiab] OR GLAUCOMA[tiab] OR Glaucomas[tiab] OR Hazy vision[tiab] OR HEMIANOPIA[tiab] OR Hemianopsia[tiab] OR Hepatolenticular Degeneration[tiab] OR Horner's syndrome[tiab] OR HYPOPYON[tiab] OR Impaired vision[tiab] OR impaired visual acuity[tiab] OR Interference with vision[tiab] OR IRITIS[tiab] OR KERATITIS[tiab] OR KERATOCONJUNCTIVITIS[tiab] OR Keratoconus[tiab] OR Lacrimal Apparatus Diseases[tiab] OR lacrimal disorder[tiab] OR LACRIMAL DUCT OBSTRUCTION[tiab] OR legally blind[tiab] OR Lens Diseases[tiab] OR Lens Disorder[tiab] OR Lens Opacities[tiab] OR Lens Subluxation[tiab] OR Localized anterior staphyloma[tiab] OR Low vision[tiab] OR MACULAR DEGENERATION[tiab] OR MEIBOMIANITIS[tiab] OR Metastases to eye[tiab] OR MIOSIS[tiab] OR MYDRIASIS[tiab] OR MYOPIA[tiab] OR Night Blindness[tiab] OR Nystagmus[tiab] OR Ocular degeneration[tiab] OR Ocular discomfort[tiab] OR Ocular disease[tiab] OR OCULAR HAEMORRHAGE[tiab] OR OCULAR HEMORRHAGE[tiab] OR OCULAR HERPES[tiab] OR Ocular Hypertension[tiab] OR Ocular Hypotension[tiab] OR Ocular infections[tiab] OR Ocular inflammations[tiab] OR Ocular injuries[tiab] OR Ocular Injury[tiab] OR Ocular Motility Disorders[tiab] OR Ocular neoplasms[tiab] OR oculopathy[tiab] OR Open wound of ocular adnexa[tiab] OR OPHTHALMIC DISORDERS[tiab] OR Ophthalmological disorder[tiab] OR Ophthalmopathy[tiab] OR OPTIC ATROPHY[tiab] OR Optic Nerve Diseases[tiab] OR optic nerve disorder[tiab] OR Optic nerve injury[tiab] OR OPTIC NEURITIS[tiab] OR Orbital Diseases[tiab] OR PAPILLOEDEMA[tiab] OR Partial sight[tiab] OR Partial vision loss[tiab] OR Partially Sighted[tiab] OR Penetrating Eye Injuries[tiab] OR Periorbital fat herniation[tiab] OR Photalgia[tiab] OR PHOTOPHOBIA[tiab] OR PHOTOPSIA[tiab] OR PIGMENT PRECIPITATION[tiab] OR Poor vision[tiab] OR Posterior dislocation of lens[tiab] OR Posterior synechiae[tiab] OR Problem seeing[tiab] OR Proliferative Vitreoretinopathy[tiab] OR Pupil Disorders[tiab] OR Redness[All Fields] OR discharge of eye[tiab] OR Reduced ability to see[tiab] OR Reduced Vision[tiab] OR Refraction Errors[tiab] OR Refractive disorders[tiab] OR Refractive Errors[tiab] OR Retinal defects[tiab] OR RETINAL DEPOSITS[tiab] OR RETINAL DETACHMENT[tiab] OR Retinal detachments[tiab] OR Retinal Disease[tiab] OR Retinal Diseases[tiab] OR RETINAL DISORDER[tiab] OR RETINAL EDEMA[tiab] OR RETINAL HAEMORRHAGE[tiab] OR RETINAL HEMORRHAGE[tiab] OR

RETINAL OEDEMA[tiab] OR RETINITIS[tiab] OR RETINOBLASTOMA[tiab] OR retinopathy[tiab] OR RETROBULBAR NEURITIS[tiab] OR Scleral Diseases[tiab] OR Scleral staphyloma[tiab] OR SCLERITIS[tiab] OR SCOTOMA[tiab] OR Sight impaired[tiab] OR Staphyloma posticum[tiab] OR STRABISMUS[tiab] OR Subnormal Vision[tiab] OR SUNKEN EYES[tiab] OR SYMBLEPHARON[tiab] OR THROMBOSIS RETINAL VEIN[tiab] OR Tunnel Vision[tiab] OR Uveal Diseases[tiab] OR Uveal Disorder[tiab] OR UVEITIS[tiab] OR vision defects[tiab] OR vision disorder[tiab] OR Vision Disorders[tiab] OR vision disturbance[tiab] OR vision impaired[tiab] OR VISION IMPAIRMENT[tiab] OR Vision problem[tiab] OR Visual Agnosia[tiab] OR visual defect[tiab] OR Visual difficulty[tiab] OR Visual disorders[tiab] OR Visual disturbance[tiab] OR VISUAL FIELD DEFECT[tiab] OR Visual Field Disorder[tiab] OR Visual field disorders[tiab] OR Visual impairment[tiab] OR Visual loss[tiab] OR Visual Pathway Disorder[tiab] OR Visual pathway disorders[tiab] OR Visual system disorder[tiab] OR VITREOUS DETACHMENT[tiab] OR VITREOUS HAEMORRHAGE[tiab] OR Vitreous Hemorrhage[tiab] OR Vitreous membranes and strands[tiab] OR Vitreous prolapse[tiab] OR Vitreous syneresis[tiab] OR Wavefront aberration[tiab] OR Weak vision[tiab] OR Wilson's Disease[tiab] OR XEROPHTHALMIA[tiab]

OR

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AND

("disease"[MeSH Terms] OR Disease[Text Word]) OR (("disease"[TIAB] NOT Medline[SB]) OR "disease"[MeSH Terms] OR Diseases[Text Word]) OR (("disease"[TIAB] NOT Medline[SB]) OR "disease"[MeSH Terms] OR Disorder[Text Word]) OR (("disease"[TIAB] NOT Medline[SB]) OR "disease"[MeSH Terms] OR Disorders[Text Word]) OR (("contusions"[TIAB] NOT Medline[SB]) OR "contusions"[MeSH Terms] OR Contusion[Text Word]) OR ("contusions"[MeSH Terms] OR Contusions[Text Word]) OR ("syndrome"[MeSH Terms] OR Syndrome[Text Word]) OR (("syndrome"[TIAB] NOT Medline[SB]) OR "syndrome"[MeSH Terms] OR Syndromes[Text Word]) OR ("dislocations"[MeSH Terms] OR Dislocations[Text Word]) OR (("dislocations"[TIAB] NOT Medline[SB]) OR "dislocations"[MeSH Terms] OR Dislocation[Text Word]) OR (((("blood vessels"[TIAB] NOT Medline[SB]) OR "blood vessels"[MeSH Terms] OR Vascular[Text Word]) AND Occlusion[All Fields]) OR (((("blood vessels"[TIAB] NOT Medline[SB]) OR "blood vessels"[MeSH Terms] OR Vascular[Text Word]) AND Occlusions[All Fields]) OR (("wounds and injuries"[TIAB] NOT Medline[SB]) OR "wounds and injuries"[MeSH Terms] OR Injury[Text Word]) OR ("injuries"[Subheading] OR "wounds and injuries"[TIAB] NOT Medline[SB]) OR "wounds and injuries"[MeSH Terms] OR Injuries[Text Word]) OR ("coloboma"[MeSH Terms] OR Coloboma[Text Word]))

OR

"amaurosis fugax"[MeSH Terms] OR "amblyopia"[MeSH Terms] OR "asthenopia"[MeSH Terms] OR "blindness"[MeSH Terms] OR "blindness, cortical"[MeSH Terms] OR "color vision defects"[MeSH Terms] OR "conjunctival diseases"[MeSH Terms] OR "corneal diseases"[MeSH Terms] OR "diplopia"[MeSH Terms] OR "eye abnormalities"[MeSH Terms] OR "eye burns"[MeSH Terms] OR "eye diseases"[MeSH Terms] OR "eye diseases, hereditary"[MeSH Terms] OR "eye foreign bodies"[MeSH Terms] OR "eye hemorrhage"[MeSH Terms] OR "eye infections"[MeSH Terms] OR "eye injuries"[MeSH Terms] OR "eye injuries, penetrating"[MeSH Terms] OR "eye manifestations"[MeSH Terms] OR "eye neoplasms"[MeSH Terms] OR "eyelid diseases"[MeSH Terms] OR "hemianopsia"[MeSH Terms] OR "lacrimal apparatus diseases"[MeSH Terms] OR "lens diseases"[MeSH Terms] OR "night blindness"[MeSH Terms] OR "ocular hypertension"[MeSH Terms] OR "ocular hypotension"[MeSH Terms] OR "ocular motility disorders"[MeSH Terms] OR "optic nerve diseases"[MeSH Terms] OR "orbital diseases"[MeSH Terms] OR "photophobia"[MeSH Terms] OR "pupil disorders"[MeSH Terms] OR "refractive errors"[MeSH Terms]

OR "retinal diseases"[MeSH Terms] OR "scleral diseases"[MeSH Terms] OR "scotoma"[MeSH Terms]
OR "uveal diseases"[MeSH Terms] OR "vision disorders"[MeSH Terms] OR "vision disorders"[MeSH
Terms] OR "vitreoretinopathy, proliferative"[MeSH Terms] OR "vitreous detachment"[MeSH Terms])

AND

("therapy"[Subheading] OR ("therapeutics"[TIAB] NOT Medline[SB]) OR "therapeutics"[MeSH Terms] OR
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Word]) OR intervention[All Fields] OR interventions[All Fields] OR ("prevention and control"[Subheading]
OR prevention[Text Word])

AND

(Humans[MeSH] OR (Humans[Mesh] NOT Animals[Mesh]))

AND

cochrane database syst rev[ta] OR search[tiab] OR meta-analysis[pt] OR MEDLINE[tiab] OR
(systematic[tiab] AND review[tiab])

2. EMBASE search strategies

((*'asthenopia'*/de OR *'asthenopia'*) OR (*'cerebral blindness'*/de OR *'cerebral blindness'*) OR
(*'diplopia'*/de OR *'diplopia'*) OR (*'eye malformation'*/de OR *'eye malformation'*) OR (*'eye burn'*/de
OR *'eye burn'*) OR (*'eye injury'*/de OR *'eye injury'*) OR (*'perforating eye injury'*/de OR *'perforating
eye injury'*) OR (*'hemianopia'*/de OR *'hemianopia'*) OR (*'lacrimal gland disease'*/de OR *'lacrimal
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OR *'photophobia'*) OR (*'pupil disease'*/de OR *'pupil disease'*) OR (*'sclera disease'*/de OR *'sclera
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(*'vitreous body detachment'*/de OR *'vitreous body detachment'*) OR (*'transitional blindness'*/de OR
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OR (*'color vision defect'*/de OR *'color vision defect'*) OR (*'conjunctiva disease'*/de OR *'conjunctiva
disease'*) OR (*'cornea disease'*/de OR *'cornea disease'*) OR (*'eye disease'*/de OR *'eye disease'*)
OR (*'intraocular foreign body'*/de OR *'intraocular foreign body'*) OR (*'intraocular hemorrhage'*/de OR
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tumor'*) OR (*'eyelid disease'*/de OR *'eyelid disease'*) OR (*'lens disease'*/de OR *'lens disease'*) OR
(*'night blindness'*/de OR *'night blindness'*) OR (*'intraocular hypertension'*/de OR *'intraocular
hypertension'*) OR (*'eye movement disorder'*/de OR *'eye movement disorder'*) OR (*'optic nerve
disease'*/de OR *'optic nerve disease'*) OR (*'orbit disease'*/de OR *'orbit disease'*) OR (*'refraction
error'*/de OR *'refraction error'*) OR (*'retina disease'*/de OR *'retina disease'*) OR (*'uvea disease'*/de
OR *'uvea disease'*) OR (*'visual disorder'*/de OR *'visual disorder'*) AND ((*search*) OR (*'meta
analysis' OR *'systematic review'*)

eTable 1. 2011 Academy for Ophthalmology (AAO) Preferred Practice Patterns (PPP) Table of Content for Cataract in the Adult Eye



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eTable 2. Characteristics of 46 reliable systematic reviews on the management of cataract in the adult eye

| Study ID | Participants | Intervention | Conclusion | # Studies | Direction of main finding | Defined eligibility criteria | Performed comprehensive literature search | Assessed methodologic quality of included studies | Used appropriate methods for meta-analysis | Conclusion based on review findings |
|--------------------|--|---|---|-----------|---------------------------|------------------------------|---|---|--|-------------------------------------|
| Alhassan, 2015 | Cataract (age-related cataract) | Anaesthesia | "There is little to choose between peribulbar and retrobulbar block in terms of anaesthesia and akinesia during surgery measuring acceptability to patients, need for additional injections and development of severe complications. Severe local or systemic complications were rare for both types of block." | 6 | Inconclusive | Yes | Yes | Yes | Yes | Yes |
| Allen, 2011 | Cataract (age-related cataract); Coexisting cataract and glaucoma; Cataract with diabetic retinopathy; Cataract with chronic uveitis | Intracapsular cataract extraction (ICCE); Extracapsular cataract extraction (ECCE); Manual small incision cataract surgery (MSICS); Combined cataract and glaucoma surgery; Manual large incision extracapsular extraction; Adding diabetic retinopathy treatment to cataract surgery; Medical control of uveitis at the time of cataract surgery | <ul style="list-style-type: none"> * There is contradictory evidence about the effect of cataract surgery on the development or progression of age-related macular degeneration (ARMD). • Expedited phaco extracapsular extraction may be more effective at improving visual acuity compared with waiting list control in people with cataract without ocular comorbidities. • Manual large-incision extracapsular extraction has also been shown to be successful in treating cataracts. • Intracapsular extraction is likely to be better at improving vision compared with no extraction, although it is not as beneficial as manual (large or small) incision extracapsular extraction. <p>The rate of complications is also higher with this technique compared with extracapsular extraction.</p> <ul style="list-style-type: none"> • In people with glaucoma and cataract, concomitant cataract surgery (phaco or manual large-incision extracapsular extraction) and glaucoma surgery seems more beneficial than cataract surgery alone, in that they both improve vision to a similar extent, but the glaucoma surgery additionally improves intraocular pressure. <p>Performing procedures in the order of cataract surgery first followed by pan retinal photocoagulation may be more effective than the opposite order at improving visual acuity and reducing the progression of diabetic macular oedema in people with cataract and diabetic retinopathy secondary to type 2 diabetes. However, these results come from one small RCT.</p> <ul style="list-style-type: none"> • One of the possible harms of cataract surgery is cystoid macular | 20 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Ang, 2014 | Cataract (age-related cataract) | ECCE; MSICS | "There are no other studies from other countries other than India and Nepal and there are insufficient data on cost-effectiveness of each procedure. Better evidence is needed before any change may be implemented." | 3 | Inconclusive | Yes | Yes | Yes | Not applicable | Yes |
| Buehl, 2008 | Cataract (age-related cataract) | Intraocular (IOL) implantation | "Because of the significant difference in the PCO score, sharp-edged IOL optics should be preferred to round-edged IOL optics." | 26 | Effective | Yes | Yes | Yes | Yes | Yes |
| Calladine, 2012 | Cataract (age-related cataract) | IOL implantation | "Multifocal IOLs are effective at improving near vision relative to monofocal IOLs. Whether that improvement outweighs the adverse effects of multifocal IOLs will vary between patients. Motivation to achieve spectacle independence is likely to be the deciding factor." | 16 | Effective | Yes | Yes | Yes | Yes | Yes |
| Casparis, 2012 | Adults with both cataract and AMD | Cataract surgery | "At this time, it is not possible to draw reliable conclusions from the available data to determine whether cataract surgery is beneficial or harmful in people with AMD. Physicians will have to make practice decisions based on best clinical judgment until controlled trials are conducted and their findings published." | 1 | Inconclusive | Yes | Yes | Yes | Not applicable | Yes |
| Conner-Spady, 2007 | Cataract (age-related cataract) | Any type of cataract surgery | "In conclusion, although the evidence does not indicate a precise benchmark for cataract surgery, it does provide a measure of guidance. As visual impairment is one of many risk factors for falls, fractures, and MVCs in the elderly, and as VA is shown to deteriorate over time, the results support timely access to surgery for individuals with visual impairment due to cataract." | 17 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| de Silva, 2014 | Cataract (age-related cataract) | ECCE; Phacoemulsification | "Removing cataract by phacoemulsification may result in a better visual acuity compared to ECCE, with a lower complication rate." | 11 | Effective | Yes | Yes | Yes | Yes | Yes |
| Do Diana, 2008 | Adults with cataract post | Any type of cataract | "There is no evidence from randomized or quasi-randomized | 0 | Ineffective | Yes | Yes | Yes | Yes | Yes |

eTable 2. Characteristics of 46 reliable systematic reviews on the management of cataract in the adult eye

| Study ID | Participants | Intervention | Conclusion | # Studies | Direction of main finding | Defined eligibility criteria | Performed comprehensive literature search | Assessed methodologic quality of included studies | Used appropriate methods for meta-analysis | Conclusion based on review findings |
|----------------|----------------------------------|--|--|-----------|---------------------------|------------------------------|---|---|--|-------------------------------------|
| | vitrectomy | surgery | controlled trials on which to base clinical recommendations for surgery for post-vitrectomy cataract." | | | | | | | |
| Ezra, 2007 | Cataract (age-related cataract) | Anaesthesia | "The use of intracameral unpreserved 1% lidocaine is an effective and safe adjunct to topical anaesthesia for phacoemulsification cataract surgery." | 8 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Findl, 2010 | Cataract (age-related cataract) | ECCE; IOL implantation | "Due to the highly significant difference between round and sharp edged IOL optics, IOLs with sharp (posterior) optic edges should be preferred. There is no clear difference between optic materials. The choice of postoperative anti-inflammatory treatment does not seem to influence PCO development." | 66 | Effective | Yes | Yes | Yes | Yes | Yes |
| Frampton, 2014 | Cataract (age-related cataract) | Cataract surgery for the second eye (any surgical technique) | "Second-eye cataract surgery is generally cost-effective based on the best available data and under most assumptions. However, more up-to-date data are needed." | 3 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Friedman, 2001 | Cataract (age-related cataract) | Anaesthesia | "This synthesis of the literature demonstrates that currently used approaches to anesthesia management provide adequate pain control for successful cataract surgery, but there is some variation in the effectiveness of the most commonly used techniques." | 82 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Friedman, 2002 | Coexisting cataract and glaucoma | ECCE; Phacoemulsification | "There is strong evidence for better long-term control of IOP with combined glaucoma and cataract operations compared with cataract surgery alone. For other issues regarding surgical treatment strategies for cataract and glaucoma, the available evidence is limited or conflicting." | 39 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Gower, 2013 | Cataract (age-related cataract) | Prophylactic intervention | "Multiple measures for preventing endophthalmitis following cataract surgery have been studied. One of the included studies, the ESCRS (European Society of Cataract and Refractive Surgeons) study, was performed using contemporary surgical technique and employed cefuroxime, an antibiotic commonly used in many parts of the world. Clinical trials with rare outcomes require very large sample sizes and are quite costly to conduct; thus, it is unlikely that additional clinical trials will be conducted to evaluate currently available prophylaxis. Practitioners should rely on current evidence to make informed decisions regarding prophylaxis choices." | 4 | Inconclusive | Yes | Yes | Yes | Not applicable | Yes |
| Guay, 2015 | Cataract (age-related cataract) | Anaesthesia | "Both topical anaesthesia and sub-Tenon's anaesthesia are accepted and safe methods of providing anaesthesia for cataract surgery. An acceptable degree of intraoperative discomfort has to be expected with either of these techniques. Randomized controlled trials on the effects of various strategies to prevent intraoperative pain during cataract surgery could prove useful." | 8 | Inconclusive | Yes | Yes | Yes | Yes | Yes |
| Hodge, 2005 | Cataract (age-related cataract) | Nutritional supplement | "It is therefore our view that much more research will need to be conducted before anything conclusive can be asserted with respect to the effects of omega-3 fatty acids on eye health. It is also our understanding that sorting out the possible benefits of the intake of omega-3 fatty acids in eye health might profit from taking into consideration the impact of the concurrent intake of omega-6 fatty acids and, by definition, the omega-6/omega-3 fatty acid intake ratio." | 16 | Inconclusive | Yes | Yes | Yes | Not applicable | Yes |
| Hodge, 2007 | Cataract (age-related cataract) | Wait time for cataract surgery | "Patients who wait more than 6 months for cataract surgery may experience negative outcomes during the wait period, including vision loss, a reduced quality of life and an increased rate of falls." | 27 | Ineffective | Yes | Yes | Yes | Not applicable | Yes |
| Jampel, 2002 | Coexisting cataract and glaucoma | MMC; 5-FU; Single-vs. two-site; Nuclear expression vs. phacoemulsification; Staged vs. simultaneous surgery; Other glaucoma operations | "In the literature on surgical techniques and adjuvants used in the management of coexisting cataract and glaucoma, the strongest evidence of efficacy exists for using MMC, separating the incisions for cataract and glaucoma surgery, and removing the nucleus by phacoemulsification." | 33 | Ineffective | Yes | Yes | Yes | Not applicable | Yes |
| Keay, 2012 | Cataract (age-related cataract) | Preoperative testing | "This review has shown that routine pre-operative testing does not increase the safety of cataract surgery. Alternatives to routine preoperative medical testing have been proposed, including self-administered health questionnaires, which could substitute for health provider histories and physical examinations. Such avenues | 3 | Effective | Yes | Yes | Yes | Yes | Yes |

eTable 2. Characteristics of 46 reliable systematic reviews on the management of cataract in the adult eye

| Study ID | Participants | Intervention | Conclusion | # Studies | Direction of main finding | Defined eligibility criteria | Performed comprehensive literature search | Assessed methodologic quality of included studies | Used appropriate methods for meta-analysis | Conclusions based on review findings |
|--|--|---|---|-----------|---------------------------|------------------------------|---|---|--|--------------------------------------|
| | | | may lead to cost-effective means of identifying those at increased risk of medical adverse events due to cataract surgery. However, despite the rare occurrence, adverse medical events precipitated by cataract surgery remain a concern because of the large number of elderly patients with multiple medical comorbidities who have cataract surgery in various settings." | | | | | | | |
| Lawrence, 2015 | Cataract (age-related cataract) | Day care cataract extraction and IOL implantation; Inpatient cataract extraction and IOL implantation | "This review provides evidence that there is cost saving with day care cataract surgery compared to in-patient cataract surgery. Although effects on visual acuity and quality of life appeared similar, the evidence with respect to postoperative complications was inconclusive because the effect estimates were imprecise. Given the wide-spread adoption of day care cataract surgery, future research in cataract clinical pathways should focus on evidence provided by high quality clinical databases (registers), which would enable clinicians and healthcare planners to agree clinical and social indications for in-patient care and so make better use of resources." | 2 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Leung, 2014 | Participants with uveitis for any indication | IOL implantation | "Based on the trials identified in this review, there is uncertainty as to which type of IOL provides the best visual and clinical outcomes in people with uveitis undergoing cataract surgery. The studies were small, not all lens materials were compared in all studies, and not all lens materials were available in all study sites. Evidence of a superior effect of hydrophobic acrylic lenses over silicone lenses, specifically for posterior synechiae outcomes comes from a single study at a high risk of performance and detection bias. However, due to small sample sizes and heterogeneity in outcome reporting, we found insufficient information to assess these and other types of IOL materials for cataract surgery for eyes with uveitis." | 4 | Inconclusive | Yes | Yes | Yes | Not applicable | Yes |
| Lesin, 2015 | Patients undergoing ophthalmic surgery | Factors associated with postoperative pain; Factors associated with analgesic consumption | "Multiple factors may be associated with increased postoperative pain and analgesic consumption and warrant further research." | 3 | Inconclusive | Yes | Yes | Yes | Not applicable | Yes |
| Li, 2008 | Cataract (age-related cataract) | IOL implantation | "AcrySof and sharp-edged silicone IOLs are similarly effective in inhibition of PCO after cataract surgery. In patients implanted with the AcrySof lens, significantly less PCO developed than in those who had round-edged silicone or PMMA IOLs. The results of this meta-analysis support the theory that a major factor in preventing PCO development is a sharp-edged IOL design." | 10 | Inconclusive | Yes | Yes | Yes | Yes | Yes |
| Linertova, 2014 | Cataract (age-related cataract) | Prophylactic intervention | "This review confirmed that cefuroxime can prevent endophthalmitis after cataract surgery. Further randomized controlled trials, with large sample sizes, are required to compare different antibiotic prophylaxis regimens." | 9 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Mathew Milan, 2012 | Cataract (age-related cataract) | Nutritional supplement | "There is no evidence from RCTs that supplementation with antioxidant vitamins (beta-carotene, vitamin C or vitamin E) prevents or slows the progression of age-related cataract. We do not recommend any further studies to examine the role of antioxidant vitamins beta-carotene, vitamin C and vitamin E in preventing or slowing the progression of age-related cataract. Costs and adverse effects should be weighed carefully with unproven benefits before recommending their intake above recommended daily allowances." | 9 | Ineffective | Yes | Yes | Yes | Yes | Yes |
| Medical Advisory Secretariat, Ontario Ministry of Health, 2009 | Cataract (age-related cataract) | IOL implantation | "1. Multifocal vs. monofocal: Objective outcomes: Significant improvement in Best distance corrected unaided near visual acuity (BCUNVA) (moderate GRADE quality); No significant difference in best corrected distance visual acuity (BCDVA) (moderate GRADE quality); Inconclusive evidence for contrast sensitivity (low GRADE quality); Inconclusive evidence for glare (very low GRADE quality); Subjective outcomes: Inconclusive evidence for visual satisfaction (low GRADE quality); Significant increase in glare/halos (low/moderate GRADE quality); Significant increase in freedom from spectacles (low GRADE | 12 | Effective | Yes | Yes | Yes | Yes | Yes |

eTable 2. Characteristics of 46 reliable systematic reviews on the management of cataract in the adult eye

| Study ID | Participants | Intervention | Conclusion | # Studies | Direction of main finding | Defined eligibility criteria | Performed comprehensive literature search | Assessed methodologic quality of included studies | Used appropriate methods for meta-analysis | Conclusion based on review findings |
|----------------|---------------------------------|--|--|-----------|---------------------------|------------------------------|---|---|--|-------------------------------------|
| | | | quality); 2. Accommodative vs. multifocal/monofocal: Inconclusive due to Insufficient limited evidence for any effectiveness outcome (very low GRADE quality); 3. Hydrophilic acrylic vs. other materials (hydrophobic acrylic, silicone): Significant increase in PCO score (low GRADE quality); 4. Sharp edged compared to round edged: Significant reduction in PCO score (low GRADE quality); 5. One piece compared to three piece: No significant difference in PCO score (low GRADE quality); 6. Hydrophobic acrylic compared to silicone: No significant difference in PCO score (moderate GRADE quality); 7. Aspherical modified prolate anterior surface compared to spherical: No significant difference in visual acuity (very low GRADE quality); Significant reduction in contrast sensitivity (very low GRADE quality); 8. Blue light filtering compared to non blue-light filtering: No significant difference in BCDVA (low GRADE quality); No significant difference in contrast sensitivity (low GRADE quality); No significant difference in Health related quality of life (high/moderate GRADE quality)" | | | | | | | |
| Mousavi, 2015 | Cataract (age-related cataract) | Cataract surgery with heparin; Other cataract surgery | "Heparin seems to be a safe and effective anti-inflammatory agent; although it is shown that heparin can decrease the level of inflammatory biomarkers and improves patient conditions, still more data from larger rigorously designed studies are needed to support use of heparin as an anti-inflammatory agent in clinical setting." | 5 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Ong, 2014 | Cataract (age-related cataract) | IOL implantation | "There is moderate-quality evidence that study participants who received accommodative IOLs had a small gain in near visual acuity after six months. There is some evidence that distance visual acuity with accommodative lenses may be worse after 12 months but due to low quality of evidence and heterogeneity of effect, the evidence for this is not clear-cut. People receiving accommodative lenses had more PCO which may be associated with poorer distance vision. However, the effect of the lenses on PCO was uncertain." | 4 | Effective | Yes | Yes | Yes | Yes | Yes |
| Quinones, 2013 | Cataract (age-related cataract) | Femtosecond laser surgery | "This systematic review found visual outcomes (CDVA) and EPT to be similar in FLACS and conventional surgery, while quality of life and cost-effectiveness outcomes were not reported. The evidence for the relative benefit of FLACS was limited by reliance on small to moderately sized prospective cohort studies, nearly all of which had stated financial conflicts of interest. Adverse events unique to FLACS involved difficulties in laser docking or patient suitability for the procedure. Many patients were excluded from the FSL treatment groups for orbital, corneal, cataract density, or medical co-morbidities. Comparative adverse events in FLACS and conventional surgery were found to be similar for IOL positioning, corneal thickness, macular edema and residual refractive error. A few studies reported mixed results of the effect of surgical experience on the incidence of FLACS adverse events." | 15 | Inconclusive | Yes | Yes | Yes | Not applicable | Yes |
| Riaz, 2006 | Cataract (age-related cataract) | ICCE; ECCE; Phacoemulsification; MSICS; IOL implantation | "This review provides evidence from seven RCTs that phacoemulsification gives a better outcome than ECCE with sutures. We also found evidence that ECCE with a posterior chamber lens implant provides better visual outcome than ICCE with aphakic glasses. The long term effect of posterior capsular opacification (PCO) needs to be assessed in larger populations. The data also suggests that ICCE with an anterior chamber lens implant is an effective alternative to ICCE with aphakic glasses, with similar safety. Phacoemulsification provides the best visual outcomes but will only be accessible to the poorer countries if the | 17 | Effective | Yes | Yes | Yes | Yes | Yes |

eTable 2. Characteristics of 46 reliable systematic reviews on the management of cataract in the adult eye

| Study ID | Participants | Intervention | Conclusion | # Studies | Direction of main finding | Defined eligibility criteria | Performed comprehensive literature search | Assessed methodologic quality of included studies | Used appropriate methods for meta-analysis | Conclusions based on review findings |
|------------------|--|---|--|-----------|---------------------------|------------------------------|---|---|--|--------------------------------------|
| | | | cost of phacoemulsification and foldable IOLs decrease. Manual small incision cataract surgery provides early visual rehabilitation and comparable visual outcome to PHACO. It has better visual outcomes than ECCE and can be used in any clinic that is currently carrying out ECCE with IOL." | | | | | | | |
| Riaz, 2013 | Cataract (age-related cataract) | Phacoemulsification; MSICS | "On the basis of this review, removing cataract by phacoemulsification may result in better UCVA in the short term (up to three months after surgery) compared to MSICS, but similar BCVA." | 8 | Effective | Yes | Yes | Yes | Yes | Yes |
| Rossetti, 1998 | Patients with chronic aphakic and pseudophakic CME | Medical prophylactic intervention | "A combination of the results from RCTs indicates that medical prophylaxis for aphakic and pseudophakic CME and medical treatment for chronic CME are beneficial. Because most of the RCTs performed to date have problems related to quality, a well-designed RCT is needed to confirm this result, using clinical CME and vision as outcomes." | 36 | Effective | Yes | Yes | Yes | Yes | Yes |
| Schuster, 2013 | Cataract (age-related cataract) | IOL implantation | "Overall, a patient may achieve better contrast sensitivity with an aspheric IOL than with a spherical IOL, especially under dim light. There was no clinically relevant difference in BCVA between aspheric and spherical IOL implantation. The findings on the subjective perception of visual quality were heterogeneous with no clear result favoring either option." | 43 | Effective | Yes | Yes | Yes | Yes | Yes |
| Sivaprasad, 2012 | Cataract (age-related cataract) | Anti-inflammatory agents | "This review found two trials which showed that topical NSAID (0.5% ketorolac tromethamine ophthalmic solution) has a positive effect on chronic CMO and two trials which revealed no significant difference between comparative groups. As such, the effects of NSAIDs in acute and chronic CMO remain unclear and needs further investigation." | 7 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Song, 2014 | Cataract (age-related cataract) | Nuclear cataract or cortical cataract or posterior subcapsular cataract or cataract surgery | "All subtypes of age-related cataract were associated with an increased mortality with nuclear cataract having the strongest association among the 3 cataract subtypes. However, cataract surgery was not significantly related to mortality. These findings indicated that changes in lens may serve as markers for ageing and systemic health in general population" | 10 | Ineffective | Yes | Yes | Yes | Yes | Yes |
| Takakura, 2010 | Cataract (age-related cataract) | IOL implantation | "There was no clear evidence of near acuity improvement despite statistically significant pilocarpine-induced anterior lens displacement. Further randomized controlled studies with standardized methods evaluating adverse effects (eg, PCO) are needed to clarify the tradeoffs." | 12 | Ineffective | Yes | Yes | Yes | Yes | Yes |
| Thomas, 2014 | Coexisting cataract and glaucoma | Antimetabolites | "There are no RCTs of antimetabolites with cataract surgery in people with a functioning trabeculectomy. Appropriately powered RCTs are needed of antimetabolites during cataract surgery in patients with a functioning trabeculectomy." | 0 | Ineffective | Yes | Yes | Yes | Not applicable | Yes |
| Wielders, 2015 | Cataract (age-related cataract) | Interventions for prophylaxis of CME | "Topical NSAIDs significantly reduced the odds of developing CME, as compared to topical corticosteroids, in nondiabetic and mixed populations. A combination of topical NSAIDs and corticosteroids reduced the odds of developing CME in nondiabetic and diabetic patients, as compared to topical corticosteroids" | 30 | Effective | Yes | Yes | Yes | Yes | Yes |
| Xu, 2014 | Cataract (age-related cataract) | IOL implantation | "Refractive MIOLs can provide better distance vision, whereas diffractive MIOLs provide better near vision, reading ability, and equivalent intermediate vision, reduce unwanted photic phenomena, and allow greater spectacle independence." | 8 | Effective | Yes | Yes | Yes | Yes | Yes |
| Yilmaz, 2012 | Cataract (age-related cataract) | Anti-inflammatory agents | "In this systematic review of four RCTs, two of which compared ketorolac with no treatment and two of which evaluated ketorolac vs placebo drops, treatment with ketorolac significantly reduced the risk of developing CME at the end of ~4 weeks of treatment compared with controls." | 4 | Effective | Yes | Yes | Yes | Yes | Yes |
| Yu, 2012 | Cataract (age-related cataract) | Coaxial phacoemulsification; biaxial microincision cataract surgery | "In conclusion, evidence suggests that biaxial MICS is as safe as coaxial phacoemulsification in visual outcomes, endothelial cell loss, and postoperative levels of flare and cells. Micro incision cataract surgery is superior to coaxial phacoemulsification in total phacoemulsification time and percentage of power used during surgery. With biaxial MICS, there is significantly less SIA." | 11 | Effective | Yes | Yes | Yes | Yes | Yes |

eTable 2. Characteristics of 46 reliable systematic reviews on the management of cataract in the adult eye

| Study ID | Participants | Intervention | Conclusion | # Studies | Direction of main finding | Defined eligibility criteria | Performed comprehensive literature search | Assessed methodologic quality of included studies | Used appropriate methods for meta-analysis | Conclusion based on review findings |
|-------------|----------------------------------|---|---|-----------|---------------------------|------------------------------|---|---|--|-------------------------------------|
| | | | Additional investigations with a larger number of patients and longer follow-up periods are warranted." | | | | | | | |
| Zhang, 2013 | Cataract (age-related cataract) | Phacoemulsification; MSICS | "PE is superior to MSICS in UCVA and causes less SIA, but there were no significant differences in visual rehabilitation, ECC loss and complication rates between the two techniques." | 6 | Effective | Yes | Yes | Yes | Yes | Yes |
| Zhang, 2015 | Coexisting cataract and glaucoma | Glaucoma surgery + phacoemulsification; Phacoemulsification alone | "There is low quality evidence that combined cataract and glaucoma surgery may result in better IOP control at one year compared with cataract surgery alone. The evidence was uncertain in terms of complications from the surgeries. Furthermore, this Cochrane review has highlighted the lack of data regarding important measures of the patient experience, such as visual field tests, quality of life measurements, and economic outcomes after surgery, and long-term outcomes (five years or more). Additional high-quality RCTs measuring clinically meaningful and patient-important outcomes are required to provide evidence to support treatment recommendations." | 9 | Inconclusive | Yes | Yes | Yes | Yes | Yes |
| Zhao, 2014 | Cataract (age-related cataract) | Nutritional supplement | "The two RCTs demonstrated that multivitamin/mineral supplements could decrease the risk of nuclear cataracts. There is sufficient evidence to support the role of dietary multivitamin/mineral supplements for the decreasing the risk of age-related cataracts." | 14 | Effective | Yes | Yes | Yes | Yes | Yes |
| Zhu, 2012 | Cataract (age-related cataract) | IOL implantation | "This meta-analysis demonstrates that postoperative visual performance with blue light-filtering IOLs is approximately equal to that of UV light-filtering IOLs after cataract surgery, but color vision with blue light-filtering IOLs demonstrated some compromise in the blue light spectrum under mesopic light conditions." | 15 | Inconclusive | Yes | Yes | Yes | Yes | Yes |

Direction of main finding: 1: effective: intervention had favorable outcomes, 2: inconclusive: the available evidence was not in favor of the intervention or the comparator, 3: ineffective: the evidence was not in favor of the effectiveness of the intervention.

eTable 3. Characteristics of 53 unreliable systematic reviews on the management of cataract in the adult eye

| Study ID | Participants | Intervention | # Studies | Direction of main findings | Defined Eligibility Criteria | Performed Comprehensive Literature Search | Assessed methodologic quality of included studies | Used appropriate methods for meta-analysis | Conclusion based on review findings |
|----------------------------|---------------------------------|--|--------------|----------------------------|------------------------------|---|---|--|-------------------------------------|
| Agresta, 2012 | Astigmatic cataract | Intraocular (IOL) implantation | 11 | Effective | Yes | No | No | Not applicable | No |
| Agresta, 2012 ^a | Presbiotic cataract | IOL implantation | 29 | Effective | Yes | Yes | Yes | Not applicable | Yes |
| Akram, 2009 | Cataract (age-related cataract) | Preoperative testing | 4 | Inconclusive | Yes | No | Yes | Yes | Yes |
| Bartlett, 2005 | Cataract (age-related cataract) | Nutritional supplement | Not reported | Effective | No | No | No | Not applicable | No |
| Cadth, 2014 | Cataract (age-related cataract) | Anesthesia | 3 | Not applicable | No | No | No | Not applicable | No |
| Cadth, 2014 | Cataract (age-related cataract) | IOL implantation | 14 | Ineffective | No | No | No | Not applicable | No |
| Cao, 2013 | Cataract (age-related cataract) | Cataract surgery | 42 | Not applicable | Yes | No | Yes | No | No |
| Carter, 2012 | Cataract (age-related cataract) | Cataract surgery | 11 | Not applicable | Yes | No | No | Yes | Yes |
| Chatziralli, 2011 | Cataract (age-related cataract) | Phacoemulsification | 17 | Not applicable | No | No | No | No | No |
| Chen, 2015 | Cataract (age-related cataract) | Manual small incision cataract surgery (MSICS) | 14 | Inconclusive | Yes | Yes | Yes | No | No |
| Cheng, 2007 | Cataract (age-related cataract) | IOL implantation | 23 | Effective | Yes | Yes | Yes | No | Yes |
| Chou, 2016 | Cataract (age-related cataract) | Cataract surgery | 39 | Effective | Yes | No | Yes | Yes | Yes |
| Ciulla, 2002 | Cataract (age-related cataract) | Prophylactic intervention | Not reported | Effective | Yes | No | Yes | Not applicable | No |
| Cochener, 2011 | Cataract (age-related cataract) | IOL implantation | 20 | Effective | Yes | No | No | Yes | Yes |
| Cui, 2013 | Cataract (age-related cataract) | Nutritional supplement | 13 | Effective | Yes | Yes | Yes | No | Yes |
| Desapriya, 2010 | Cataract (age-related cataract) | Expedited cataract surgery | 3 | Effective | Yes | Yes | Yes | Yes | No |
| Dowler, 1995 | Cataract (age-related cataract) | Pre-operative retinopathy severity | 10 | Not applicable | Yes | No | No | No | Not applicable |
| Dunfield, 2009 | Cataract (age-related cataract) | IOL implantation | 5 | Effective | Yes | No | No | Not applicable | Yes |
| Gogate, 2015 | Cataract (age-related cataract) | MSICS; Phacoemulsification | 84 | Inconclusive | No | No | No | No | Not applicable |
| Grzybowski, 2015 | Cataract (age-related cataract) | Continuing vs. discontinuing of anticoagulants and/or antiplatelet therapy | 5 | Effective | Yes | Yes | No | Not applicable | No |
| Ishikawa, 2013 | Cataract (age-related cataract) | Cataract surgery for the second eye | 10 | Effective | Yes | No | Yes | Not applicable | No |
| Jaggernath, 2014 | Cataract (age-related cataract) | MSICS; Phacoemulsification | 42 | Effective | No | No | No | Not applicable | No |
| Jamula, 2009 | Cataract (age-related cataract) | Prophylactic intervention | 11 | Effective | Yes | Yes | Yes | No | No |

eTable 3. Characteristics of 53 unreliable systematic reviews on the management of cataract in the adult eye

| | | | | | | | | | |
|-----------------------|----------------------------------|--|--------------|---|-----|-----|-----|----------------|----------------|
| Jinwel, 2008 | Cataract (age-related cataract) | IOL implantation | 12 | Inconclusive | Yes | No | Yes | Yes | Yes |
| Kessel, 2014 | Cataract (age-related cataract) | Anti-inflammatory agents | 15 | Effective | Yes | No | Yes | No | Yes |
| Kessel, 2015 | Cataract (age-related cataract) | Intracameral/topic antibiotics | 18 | Intracameral: Effective Topical: Ineffective | Yes | No | Yes | No | Not applicable |
| Kostis, 2014 | Cataract (age-related cataract) | Prophylactic intervention | 13 | Effective | Yes | Yes | No | No | Yes |
| Leibovici, 2009 | Cataract (age-related cataract) | Tamsulosin | 7 | Effective | Yes | No | No | Not applicable | No |
| Liu, 2009 | Cataract (age-related cataract) | IOL implantation | 14 | Effective | Yes | No | No | Yes | No |
| Liu, 2010 | Coexisting cataract and glaucoma | Combined cataract and glaucoma surgery | 11 | Effective | Yes | Yes | No | Yes | No |
| Liu, 2013 | Cataract (age-related cataract) | IOL implantation | 7 | Effective | Yes | No | Yes | No | Yes |
| Liu, 2013 | Cataract (age-related cataract) | IOL implantation | 5 | Inconclusive | Yes | Yes | No | Yes | No |
| Liu, 2015 | Cataract (age-related cataract) | Phacoemulsification | 10 | Effective | Yes | Yes | Yes | No | No |
| Mehta, 2014 | Cataract (age-related cataract) | Cataract surgery | 89 | Effective | Yes | Yes | No | No | Yes |
| Migliore, 2011 | Cataract (age-related cataract) | IOL implantation | 4 | Ineffective | Yes | No | No | Not applicable | Yes |
| Pathengay, 2012 | Cataract (age-related cataract) | MSICS; Phacoemulsification; Extracapsular cataract extraction (ECCE) | 27 | Not applicable | Yes | No | No | Not applicable | Yes |
| Pirouzian, 2014 | Cataract (age-related cataract) | Anti-inflammatory agents | Not reported | Effective | No | No | No | Not applicable | No |
| Pleyer, 2013 | Cataract (age-related cataract) | Anti-inflammatory agents | 18 | Effective | No | No | No | Not applicable | Yes |
| Porela-Tiihonen, 2013 | Cataract (age-related cataract) | Anti-inflammatory agents | 21 | Effective | Yes | No | Yes | Not applicable | No |
| Powe, 1994 | Cataract (age-related cataract) | Phacoemulsification; ECCE; Intracapsular cataract extraction (ICCE) | 90 | Effective | Yes | No | Yes | Yes | Yes |
| Schaumberg, 1998 | Cataract (age-related cataract) | ECCE | 49 | Not applicable | Yes | No | No | No | No |
| Sheng, 2011 | Cataract (age-related cataract) | Vitreotomy for retained lens fragments after cataract surgery | 57 | Not applicable | Yes | No | No | Not applicable | Yes |
| Subzwari, 2008 | Cataract (age-related cataract) | Any type of cataract surgery | 7 | Not applicable | Yes | Yes | Yes | No | No |
| Taban, 2005 | Cataract (age-related cataract) | Cataract extraction | 215 | Not applicable | Yes | Yes | No | No | Yes |
| Van den Bruel, 2011 | Cataract (age-related cataract) | Ophthalmic viscoelastic devices | 21 | Effective | Yes | No | No | No | Yes |
| Vanner, 2011 | Cataract (age-related cataract) | Vitreotomy for retained lens fragments after cataract surgery | 53 | Effective | Yes | No | Yes | No | Yes |
| Vanner, 2014 | Cataract (age-related cataract) | Vitreotomy for retained lens fragments after cataract surgery | 21 | Inconclusive | Yes | No | Yes | No | Yes |
| Wagoner, 2003 | Cataract (age-related cataract) | IOL implantation | 43 | Effective | No | No | No | Not applicable | Yes |

eTable 3. Characteristics of 53 unreliable systematic reviews on the management of cataract in the adult eye

| | | | | | | | | | |
|--------------|---------------------------------|---------------------------------------|----|----------------|-----|----|-----|----------------|----|
| Wilson, 2015 | Cataract (age-related cataract) | Anti-inflammatory agents | 67 | Not applicable | Yes | No | Yes | Not applicable | No |
| Xu, 2009 | Cataract (age-related cataract) | IOL implantation; Phacoemulsification | 6 | Effective | No | No | Yes | No | No |
| Yang, 2013 | Cataract (age-related cataract) | MSICS; Phacoemulsification | 8 | Inconclusive | Yes | No | Yes | Yes | No |
| Zhao, 2012 | Cataract (age-related cataract) | Anesthesia | 15 | Inconclusive | Yes | No | Yes | No | No |
| Zhu, 2010 | Cataract (age-related cataract) | Phacoemulsification | 6 | Not applicable | Yes | No | No | Yes | No |

Direction of main finding: 1: effective: intervention had favorable outcomes, 2: inconclusive: the available evidence was not in favor of the intervention or the comparator, 3: ineffective: the evidence was not in favor of the effectiveness of the intervention.

^a Classified as unreliable because sources of monetary support for the systematic review placed the review at high risk of bias

eTable 4. Management categories in the 2011 PPP with evidence gaps

Indications for Surgery

Contraindications to Surgery

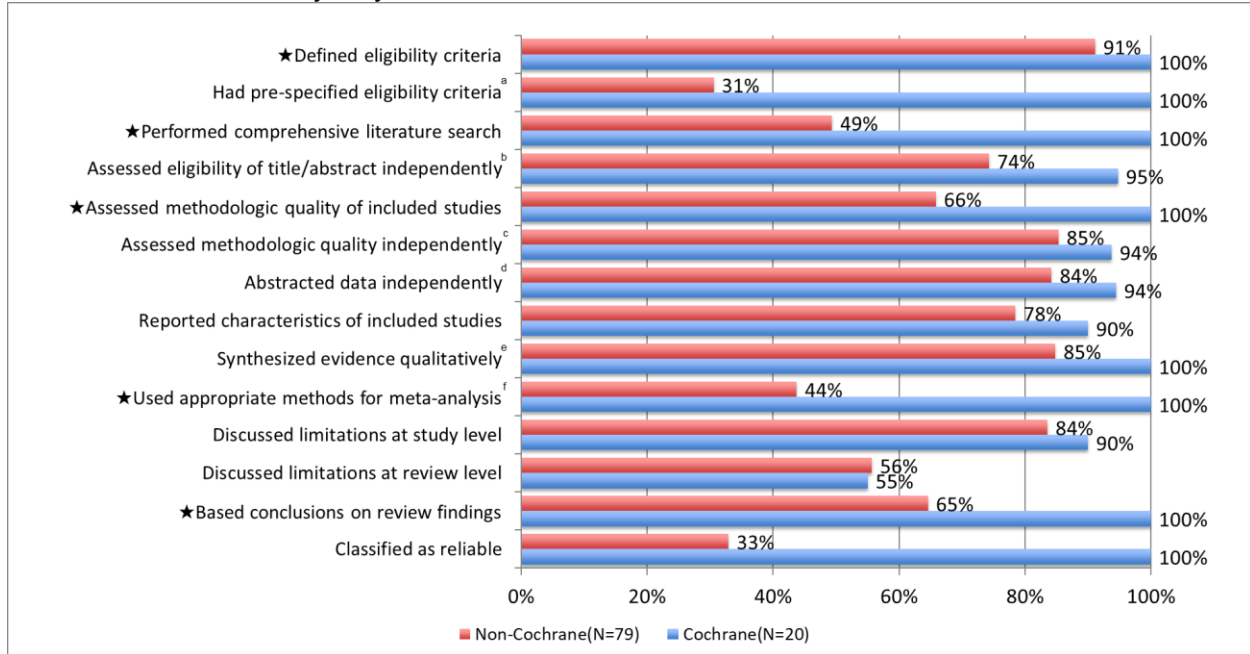
Biometry and Intraocular Lens Power Calculation

Toxic Anterior Segment Syndrome

Cataract Surgery Checklist

Discharge from Surgical Facility

eFigure 1. Assessment of reliability of 99 systematic reviews on the management of cataract in the adult eye by Cochrane affiliation



^a The denominator was 20 for Cochrane and 72 for non-Cochrane systematic reviews with defined eligibility criteria
^b The denominator was 19 for Cochrane and 35 for non-Cochrane systematic reviews reporting two or more title/abstract screeners
^c The denominator was 16 for Cochrane and 34 for non-Cochrane systematic reviews reporting two or more methodologic quality assessors
^d The denominator was 18 for Cochrane and 38 for non-Cochrane systematic reviews reporting two or more data abstractors
^e The denominator was 18 for Cochrane and 79 for non-Cochrane systematic reviews including at least one primary study
^f The denominator was 11 for Cochrane and 48 for non-Cochrane systematic reviews reporting at least one meta-analysis
★ Five criteria used for classifying reliability of systematic reviews