Appendix F: Excluded studies

F.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?

Study	Reason for exclusion
Tan C S. H. (2011). A structured program to improve patient satisfaction and reduce fear during cataract surgery-a randomided controlled study on the efficacy of preoperative counselling. Annals of the Academy of Medicine Singapore, 40(11 suppl. 1), pp.S181.	RCT and no evidence on information needs
Constantinou M, Jhanji V, Chiang P P, Lamoureux E L, Rees G, and Vajpayee R B. (2012). Determinants of informed consent in a cataract surgery clinical trial: why patients participate. Canadian Journal of Ophthalmology, 47(2), pp.118-23.	No evidence on information needs
Tipotsch-Maca S M, Varsits R M, Ginzel C, and Vecsei-Marlovits P V. (2016). Effect of a multimedia-assisted informed consent procedure on the information gain, satisfaction, and anxiety of cataract surgery patients. Journal of Cataract & Refractive Surgery, 42(1), pp.110-6.	No evidence on information needs
Haripriya A, Tan C S, Venkatesh R, Aravind S, Dev A, Au Eong, and K G. (2011). Effect of preoperative counseling on fear from visual sensations during phacoemulsification under topical anesthesia. Journal of Cataract & Refractive Surgery, 37(5), pp.814-8.	No evidence on information needs
Tan C S, Haripriya A, Rengaraj V, Tham A C, Aravind S, Dev A, Au Eong, and K G. (2007). Effect of Prior Counseling on Fear Caused by Visual Sensations During Phacoemulsification: A Randomized Controlled Trial. American Academy of Ophthalmology, pp.206.	RCT and no evidence on information needs
Kekecs Z, Jakubovits E, Varga K, and Gombos K. (2014). Effects of patient education and therapeutic suggestions on cataract surgery patients: a randomized controlled clinical trial. Patient Education & Counseling, 94(1), pp.116-22.	RCT and no evidence on information needs
Cinaroglu S, Hearld K R, and Igici S O. (2016). Explanatory Factors of Quality of Care from Cataract Patients' Perspectives. Seminars in Ophthalmology, pp.00.	No evidence on information needs
Pager C K, and McCluskey P J. (2003). Great Expectations: Randomized Controlled Trial of Preoperative Information to Improve Postoperative Patient Satisfaction in Day-stay Cataract Surgery. Iovs, pp.ARVO E-abstract 782.	RCT and no evidence on information needs
Shukla A N, Daly M K, and Legutko P. (2012). Informed consent for cataract surgery: patient understanding of verbal, written, and videotaped information. Journal of Cataract & Refractive Surgery, 38(1), pp.80-4.	No evidence on information needs

Study	Reason for exclusion
Scanlan D, Siddiqui F, Perry G, and Hutnik C M. (2003). Informed consent for cataract surgery: what patients do and do not understand. Journal of Cataract & Refractive Surgery, 29(10), pp.1904-12.	No evidence on information needs
Pager C K. (2005). Randomised controlled trial of preoperative information to improve satisfaction with cataract surgery. British Journal of Ophthalmology, 89(1), pp.10-3.	RCT and no evidence on information needs
Pesudovs K, Luscombe C K, and Coster D J. (2006). Recall from informed consent counselling for cataract surgery. Journal of Law & Medicine, 13(4), pp.496-504.	No evidence on information needs
Cheung D, and Sandramouli S. (2005). The consent and counselling of patients for cataract surgery: a prospective audit. Eye, 19(9), pp.963-71.	No evidence on information needs
Lockey J. (2009). The provision of information for patients prior to cataract surgery. British Journal of Nursing, 18(19), pp.1207-11.	No evidence on information needs
Tan J F, Tay L K, and Ng L H. (2005). Video compact discs for patient education: reducing anxiety prior to cataract surgery. Insight (American Society of Ophthalmic Registered Nurses), 30(4), pp.16-21.	No evidence on information needs

F.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?

Study	Reason for exclusion
Alio J, Artola A et al. Accuracy of the potential acuity meter in predicting the visual outcome in cases of cataract associated with macular degeneration. European journal of ophthalmology 1993;4:189-192	Study of the potential acuity meter for predicting post-operative outcomes
Amesbury E et al. Functional visual outcomes of cataract surgery with 20/20 or better preoperative visual acuity. Journal of cataract refract surg. 2009;35:1505-1508	Comparison of people with unilateral or bilateral cataracts
Armbrecht A, Findlay C et al. Is cataract surgery justified in patients with age related macular degeneration? A visual function and quality of life assessment. British Journal of Ophthalmology 2000;84:1343-1348	Comparison of outcomes for people with/without age-related macular degeneration
Armbrecht A, Findlay C et al. Cataract surgery in patients with age-related macular degeneration. j cataract refract surg. 2003;29:686-693	Comparison of surgery with no surgery
Barnato A, Garber A. Performance of the RAND Appropriateness Criteria. MEDICAL DECISION MAKING/MAR–APR 2003	Editorial
Bassett K et al. RESIO revisited: visual function assessment and cataract surgery in British Columbia. Can J Ophthalmol 2005;40:27-33	Looking at a tool – no intervention
Bueno G, Hurst M. Displacement Threshold Hyperacuity as a Predictor of Postsurgical Visual Performance in Patients With Cataract. Investigative Journal of investigative science 1995;36:686-691	No comparison of differing VA
Castells X et al. Factors associated with second eye cataract surgery. British Journal of Ophthalmology 2000;84:9-12	Comparing 1st to 2nd eye surgery
Celebi A. The relationship between age and the intraoperative complication rate during phocoemulsification surgery. Aging Clin Exp Res 2014;26:177-181	Looking at complication rates
Charalampidou S et al. Prognostic Indicators and Outcome Measures for Surgical Removal of Symptomatic Non advanced Cataract. Arch Ophthalmol. 2011;129(9):1155-1161	Testing of a RASCH scale
Chatziralli I et al. Frequency of fundus pathology related to patients' dissatisfaction after phacoemulsification cataract surgery. Bull.Soc.Belge Ophtalmol 2011;317:21-24	Looking at different eye disease states
Choi et al. Appropriateness ratings in cataract surgery. Yonsei medical journal 2004;45(3):396-405	Methods paper
Comas M et al. Impact of differences between eyes on binocular measures of vision in patients with cataracts. Eye. 2007;21:702-707	Comparing 1st to 2nd eye surgery
Comas M et al. Unmet needs for cataract surgery in Spain according to indication criteria. Evaluation through a simulation model. British Journal of Ophthalmology 2008;92:888-892	Modelling paper

Study	Reason for exclusion
Combey de lambert A et al. Baseline factors predictive of visual prognosis in acute postoperative bacterial endophthalamitis in patients undergoing cataract surgery. Clinical sciences. September 2013	Looking at Infection rates
Conner-Spady et al. The prioritization of patients on waiting lists for cataract surgery: Validation of the Western Canada Waiting List Project cataract priority criteria tool. 2005;12:81-90	Validation of a measurement tool
Conner-Spady et al. A systematic literature review of the evidence on benchmarks for cataract surgery waiting time. Canadian journal of ophthalmology 2007;42:543-551	Looking at surgical waiting times
Cowan J et al. Cataract surgery; reducing risk through better practice. Clinical governance: an international journal 2005;10(1):84-90	No intervention
Davis J et al. Focussing both eyes on health outcomes: revisiting cataract surgery. BMC Geriatrics 2012,12:50	Comparing unilateral to bilateral surgery
Day A et al. The Royal College of Ophthalmologists' National Ophthalmology Database study of cataract surgery: report 1, visual outcomes and complications. 2015; Eye 29:552-560	Looking at general outcomes not preoperative versus postoperative
Derrett S et al. Prioritising patients for elective surgery. A Prospective Study of Clinical Priority Assessment Criteria in New Zealand. International journal of technology assessment in health care. 2003;19(1):91-105	No intervention
Desai P et al. Profile of patients presenting for cataract surgery in the UK: national data collection. British Journal of Ophthalmology 1999;83:893-896	Patient profile – no intervention
Do et al. Investigating cataract referral practices used by Australian optometrists. Clin Exp Optom 2012;97:356-363	Evaluation of current practice
Elliot D. Assessment of patients with age-related cataract. Opthal. Physiol. Opt. 1998;18(2):S51-S61	No intervention
Elliot D. Managemnet of patients with age-related cataract. Opthal. Physiol. Opt. 1999;19(1001):S10-S15	No intervention
Feek C. Rationing healthcare in New Zealand: the use of clinical guidelines. MJA 2000;173:423-426	Survey
Fraser et al. Vision, quality of life and depressive symptoms after first eye surgery. Psychogeriatrics 2013;13:237-243	Before and after – no group differentiation
Frost N et al. Use of vision tests in clinical decision making about cataract surgery: results of a national survey. British Journal of Ophthalmology 2000;84:432-434	Survey
Gothwal et al. Cataract Symptom Score Questionnaire: Rasch Revalidation. Ophthalmic Epidemiology 2009;16:296-303	No intervention
Gray et al. Recovery of visual and functional disability following cataract surgery in older people: Sunderland Cataract Study. Journal of cataract refract surg. 2006;32:60-66	No comparison of population groups
Grimfors et al. Ocular comorbidity and self-assessed visual function after cataract surgery. Journal of cataract refract surg. 2014;40:1163-1169	Analysing Comorbidities

Study	Reason for exclusion
Hanning M et al. Waiting for cataract surgery – effects of a maximum waiting-time guarantee. J Health Serv Res Policy 2007;12(1) 5-10	Comparing policy to outcomes
Hearwood R et al. Falls and health status in elderly women following first eye Cataract surgery: a randomised controlled trial. British Journal of Ophthalmology 2005;89:53-59	Comparing fast track to normal waiting list time
Hiratsuka et al. Assessment of vision-related quality of life among patients with cataract and the outcomes of cataract surgery using a newly developed visual function questionnaire: the VFQ-J11.Jpn J Ophthalmol 2014;58:415-422	No comparison of population groups
Hwang J et al. Relative afferent pupillary defect in patients with asymmetric cataracts. Journal of cataract refract surg. 2004;30:132-136	Not population of interest
Javed U et al. Cataract extraction and patient vision-related quality of life: a cohort study. 2015 Eye;7:921-925	Validating tool
Jeanbat V et al. Cataract surgery guidelines in Europe: A literature review and document search in 15 countries. 13th Euro abstracts	Abstract
Jing A et al. Effects of visual acuity of cataract patients on the mfERG. Doc Ophthalmol 2013;127:3-42	Non OECD country
Kirwan et al. Determinants of patient satisfaction and function related to vision following cataract surgery in eyes with no visually consequential ocular co-morbidity. Graefes Arch Clin Exp Ophthalmol 2015;253:1735-1744	Comparing comorbidities with none
Kobelt et al. Cost-effectiveness of cataract surgery. Method to assess cost effectiveness using registry data. Journal of cataract refract surg. 2008;28:1742-1749	Health economics
Konstantopoulos A et al. Prognostic factors that determine visual outcome following cataract surgery complicated by vitreous loss. European Journal of Ophthalmology 2009;19(2):247-253	Looking at complications
Khadka J et al. The Importance of Rating Scale Design in the Measurement of Patient-Reported Outcomes Using Questionnaires or Item Banks. IOVS 2012;Vol 53(7):4042-4054	Modelling study
Kwapiszeski B et al. Improved stereo acuity: An indication for unilateral cataract surgery. Journal of cataract refract surg. 1996;22:441-445	Looking at the effectiveness of a test
Las Hayas et al. Can an appropriateness evaluation tool be used to prioritize patients on a waiting list for cataract extraction? Health Policy 95 2010;194-203	Study type
Lash S. Referrals for cataract and Action on cataracts, evidence-based guidelines. British journal of general practice. December 2005;965-966	Letter
Lundqvist et al. Longitudinal changes in subjective and objective visual function 5 years after cataract surgery – prospective population-based study. Journal of cataract refract surg. 2006;32:1944-1950	Study type
Lundstrom et al. Cataract surgery in the very elderly. Journal of cataract refract surg. 2000;26:408-414	No intervention comparison

Study	Reason for exclusion
Martin et al. Cataract and high-pass resolution perimetry. Acta. Ophtalmology Scandanavia 1997;75:174-177	No intervention comparison
McAlinden et al. Establishing levels of indications for cataract surgery: Combining clinical and questionnaire data into measure of impact. IOVS March 2012 Vol 53 (3):1095-1101	Modelling study
Mildon et al. Cataract surgery at the Vancouver eye centre: do patient indications meet provincial clinical practice guidelines. Canadian journal of Ophthalmology 2003;38(3)199-206	No intervention comparison
Mordue et al. Thresholds for treatment in cataract surgery. Journal of public health medicine 1994;16 (4)393-398	Study type
Norregaard et al. Variation in indications for cataract surgery in the United States, Denmark, Canada and Spain: results from the international cataract surgery outcomes study. British Journal of Ophthalmology 1998;82:1107-1111	Comparing surgery in different countries
Norregaard et al. Visual impairment and general health among Danish cataract patients. Acta Ophthalmol. Scand. 1996;74:598-603	Study type
Noseworthy et al. Waiting for scheduled services in Canada: development of priority-setting scoring systems. Journal of evaluation in clinical practice 2003;9(1):23-31	Study type
Obara Y. Timing of cataract surgery. JMAJ 2005;129(11):1763-1767	No intervention
Ostri et al. Phacoemulsification cataract surgery in a large cohort of diabetes patients: visual acuity outcomes and prognostic factors. Journal of cataract refract surgery 2011;37:2006-2012	Population
Owsley et al. Impact of cataract surgery on motor vehicle crash involvement by older adults. JAMA 2002;288:841-849	Comparison of surgery to no surgery
Panchapakesan et al. Five-year change in visual acuity following cataract surgery in an older community: the Blue Mountains Eye Study. Eye 2004;18:278-282	No intervention comparison
Pratap et al. An audit of compliance with national and local guidelines for day case cataract surgery at Aberdeen Royal Infirmary, Aberdeen. Ambulatory Surgery 2008;14 (1)	Paper unavailable
Romanchuk et al. Developing cataract surgery priority criteria: results from the Western Canada waiting List Project. Canadian Journal of Ophthalmology 2002;37:145-54	Study type
Setty et al. Changing thresholds for cataract surgery. British Journal of Ophthalmology 2000;84:1439-1441	Letter
Superstein et al. Functional complaints, visual acuity, spatial contrast sensitivity, and glare disability in preoperative and postoperative cataract patients. Journal of cataract refract surgery 1997;25:575-581	Comparing VA with and without glare conditions

Study	Reason for exclusion
Superstein et al. Glare disability and contrast sensitivity before and after cataract surgery. Journal of cataract refract surgery 1997;23:248-253	No intervention comparison
Tattersall et al. Audit of referrals for cataract extraction: are they appropriate? British Journal of nursing 2008;17(15):74-77	Clinical audit
Westcott et al. Effect of age on visual outcomes following cataract extraction. British Journal of Ophthalmology 2000;84:1380-1382	Outcomes based on age
Write et al. Evaluation of indications for and outcomes of elective surgery. CMAJ 2002;167(5):461-466	Study type

F.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?

F.3.1 Biometry

Study	Reason for exclusion
Optical biometry using partial coherence interferometry prior to cataract surgery (Structured abstract), Health Technology Assessment Database, 87, 2003	Guideline/HTA report
Abulafia, A., Barrett, G.D., Kleinmann, G., Ofir, S., Levy, A., Marcovich, A.L., Michaeli, A., Koch, D.D., Wang, L., Assia, E.I. Prediction of refractive outcomes with toric intraocular lens implantation. Journal of Cataract & Refractive Surgery, 41, 936-944, 2015	Wrong population (people with astigmatism, not prior corneal refractive surgery)
Akduman,E.I., Nacke,R.E., Leiva,P.M., Akduman,L., Accuracy of ocular axial length measurement with MRI, Ophthalmologica, 222, 397-399, 2008	Wrong comparator (MRI)
Aktas, S., Aktas, H., Tetikoglu, M., Sagdik, H.M., Ozcura, F. Refractive results using a new optical biometry device. Medicine, 94, 2015	Wrong study design (for question on biometry devices); no data provided for comparison groups
Allewaert,R., Goes,F., How to prevent undercorrection in posterior chamber lenses, Bulletin de la Societe Belge d Ophtalmologie, 218, 133-144, 1986	Narrative review
Allison,K.L., Price,J., Odin,L., Asteroid hyalosis and axial length measurement using automated biometry, Journal of Cataract & Refractive Surgery, 17, 181-186, 1991	Wrong outcomes (axial length measurements)
Alpins,N., Ong,J.K., Stamatelatos,G., Corneal topographic astigmatism (CorT) to quantify total corneal astigmatism, Journal of Refractive Surgery, 31, 182-186, 2015	Wrong population (laser refractive surgery); no comparator; wrong outcomes (ocular residual astigmatism)
Amano,S., Honda,N., Amano,Y., Yamagami,S., Miyai,T., Samejima,T., Ogata,M., Miyata,K., Comparison of central corneal thickness measurements by rotating Scheimpflug camera, ultrasonic pachymetry, and scanning-slit corneal topography, Ophthalmology, 113, 937-941, 2006	Wrong population (people with cataracts; surgery not specified); wrong comparison (Pentacam vs Orbscan vs pachymetry), wrong outcomes (accuracy measurements)
Ang,M., Chong,W., Huang,H., Tay,W.T., Wong,T.Y., He,M.G., Aung,T., Mehta,J.S., Comparison of anterior segment optical tomography parameters measured using a semi-	Wrong population (healthy eyes); wrong outcomes (agreement of biometric and keratometric measurements)

Study	Reason for exclusion
automatic software to standard clinical instruments, PLoS ONE, 8, e65559, 2013	
Aristodemou,P., Cartwright,N.K., Sparrow,J.M., Johnston,R., Intraocular lens calculations, Ophthalmology,118, 1221, 2011	Letter
Aristodemou,P., Knox Cartwright,N.E., Sparrow,J.M., Johnston,R.L., Biometry formula choice and cataract refractive outcomes, Clinical & Experimental Ophthalmology, 38, 536-537, 2010	Letter
Auffarth,G.U., Tetz,M.R., Biazid,Y., Volcker,H.E., Measuring anterior chamber depth with Orbscan Topography System, Journal of Cataract & Refractive Surgery, 23, 1351-1355, 1997	Wrong outcomes (agreement of biometric and keratometric measurements)
Awwad,S.T., Kelley,P.S., Bowman,R.W., Cavanagh,H.D., McCulley,J.P. Corneal refractive power estimation and intraocular lens calculation after hyperopic LASIK, Ophthalmology, 116, 393-400, 2009	Duplicate data (already in Awwad 2013 Eye & Contact Lens 39:200-7)
Awwad, S.T., Kilby, A., Bowman, R.W., Verity, S.M., Cavanagh, H.D., Pessach, Y., McCulley, J.P. The accuracy of the double-K adjustment for third-generation intraocular lens calculation formulas in previous keratorefractive surgery eyes. Eye & Contact Lens: Science & Clinical Practice, 39, 220-227, 2013	Wrong outcomes (IOL prediction error)
Awwad,S.T., Manasseh,C., Bowman,R.W., Cavanagh,H.D., Verity,S., Mootha,V., McCulley,J.P. Intraocular lens power calculation after myopic laser in situ keratomileusis: Estimating the corneal refractive power, Journal of Cataract & Refractive Surgery, 34, 1070-1076, 2008	Duplicate data (already in Awwad 2013 Eye & Contact Lens 39:200-7)
Badoza,D., Iglesias,A., Ganly,M., Geria,M., Marengo,J., Zunino,M.J., Argento,C., Axial length scanning: Laser interferometry versus ultrasound biometry, Annals of Ophthalmology.36 (1) (pp 17-20), 2004.Date of Publication: Spring 2004., 17-20, 2004	Wrong outcomes (biometric measurements)
Bagan,S.M., Brubaker,R.F., Prediction of artificial anterior chamber depth, Ophthalmic Surgery, 11, 768-770, 1980	Wrong population (included intra/extracapsular extractions); wrong comparator (anterior chamber depth measurements using equation and slit lamp); wrong outcomes (error of anterior chamber depth measurements)
Bai,Q.-H., Wang,J.-L., Wang,Q.-Q., Yan,Q.-C., Zhang,J.-S., The measurement of anterior chamber depth and axial length with the IOLMaster compared with contact ultrasonic axial scan, International Journal of Ophthalmology.7 (4) (pp 921-924), 2007.Date of Publication: August 2007., 921-924, 2007	Wrong outcomes (reliability of biometric measurements)
Baikoff,G., Jitsuo,Jodai H., Bourgeon,G., Measurement of the internal diameter and depth of the anterior chamber: IOLMaster versus anterior chamber optical coherence tomographer, Journal of Cataract & Refractive Surgery, 31, 1722-1728, 2005	Wrong population (healthy eyes); wrong outcomes (correlation of biometric measurements)

Study	Reason for exclusion
Banfiel,R.A., Pallin,S.L., Walman,G.B., A-scan/keratometry post-op refraction, Journal - American Intra-Ocular Implant Society, 7, 272-, 1981	Wrong population (does not specify cataract surgery); wrong intervention (calculated vs. measured post-operative assessment of refraction); wrong outcomes (refraction only)
Bansal,S., Quah,S.A., Turpin,T., Batterbury,M., Biometric calculation of intraocular lens power for cataract surgery following pupil dilatation, Clinical & Experimental Ophthalmology, 36, 156-158, 2008	Not relevant (dilated vs undilated pupils)
Barrett,G.D., An improved universal theoretical formula for intraocular lens power prediction, Journal of Cataract & Refractive Surgery, 19, 713-720, 1993	Wrong population (extracapsular cataract extraction)
Barrett,G.D., Intraocular lens calculation formulas for new intraocular lens implants, Journal of Cataract & Refractive Surgery, 13, 389-396, 1987	Wrong population (extracapsular cataract extraction)
Baumeister,M., Terzi,E., Ekici,Y., Kohnen,T., Comparison of manual and automated methods to determine horizontal corneal diameter, Journal of Cataract & Refractive Surgery, 30, 374-380, 2004	Wrong population (healthy eyes); wrong outcomes (agreement of corneal measurements)
Behndig,A., Montan,P., Lundstrom,M., Zetterstrom,C., Kugelberg,M., Gender differences in biometry prediction error and intra-ocular lens power calculation formula, Acta Opthalmologica, 92, 759-763, 2014	Wrong population (does not specify phacoemulsification cataract surgery)
Bencic,G., Vatavuk,Z., Marotti,M., Loncar,V.L., Petric,I., Andrijevic-Derk,B., Skunca,J., Mandic,Z., Comparison of A-scan and MRI for the measurement of axial length in silicone oil-filled eyes, British Journal of Ophthalmology, 93, 502-505, 2009	Wrong comparator (MRI)
Berges,O., Puech,M., Assouline,M., Letenneur,L., Gastellu-Etchegorry,M., B-mode-guided vector-A-mode versus A-mode biometry to determine axial length and intraocular lens power, Journal of Cataract & Refractive Surgery, 24, 529-535, 1998	Wrong study design (comparative case series for biometry comparison), wrong population (phacoemulsification in 66/72 patients), wrong comparison (different types of ultrasound biometry)
Bhatt,A.B., Schefler,A.C., Feuer,W.J., Yoo,S.H., Murray,T.G., Comparison of predictions made by the intraocular lens master and ultrasound biometry, Archives of Ophthalmology.126 (7) (pp 929-933), 2008.Date of Publication: July 2008., 929-933, 2008	Wrong study design (retrospective comparative case series for biometry comparison)
Bialer,O.Y., Kaiserman,I., Bahar,I., Accuracy of Scheimpflug Holladay equivalent keratometry readings after corneal refractive surgery in the absence of clinical history, Ophthalmic Research, 52, 217-223, 2014	Wrong population (mixed group of people with history of myopic and hyperopic corneal refractive surgery with no subgroup data provided)
Bilak,S., Simsek,A., Capkin,M., Guler,M., Bilgin,B., Biometric and intraocular pressure change after cataract surgery, Optometry & Vision Science, 92, 464-470, 2015	No comparator; wrong outcomes (correlation between biometric measurements)
Bjelos,Roncevic M., Busic,M., Cima,I., Kuzmanovic,Elabjer B., Bosnar,D., Miletic,D., Comparison of optical low-coherence reflectometry	Wrong outcomes (measurement accuracy)

Study	Reason for exclusion
and applanation ultrasound biometry on intraocular lens power calculation, Graefe's Archive for Clinical and Experimental Ophthalmology, 249, 69-75, 2011	
Borasio,E., Stevens,J., Smith,G.T. Estimation of true corneal power after keratorefractive surgery in eyes requiring cataract surgery: BESSt formula, Journal of Cataract & Refractive Surgery, 32, 2004-2014, 2006	Wrong population (for RQ6 on IOL formulas, mixed population of people with history of myopic and hyperopic keratorefractive surgery, with no subgroup data provided)
Browne,A.W., Osher,R.H., Optimizing precision in toric lens selection by combining keratometry techniques, Journal of Refractive Surgery, 30, 67-72, 2014	Wrong comparison (manual vs automated keratometers); wrong outcomes (measurement accuracy)
Buckhurst,P.J., Wolffsohn,J.S., Shah,S., Naroo,S.A., Davies,L.N., Berrow,E.J., A new optical low coherence reflectometry device for ocular biometry in cataract patients, British Journal of Ophthalmology, 93, 949-953, 2009	Wrong outcomes (reliability of biometric measurements)
Bullimore,M.A., Buehren,T., Bissmann,W., Agreement between a partial coherence interferometer and 2 manual keratometers, Journal of Cataract & Refractive Surgery, 39, 1550-1560, 2013	Wrong population (unclear); wrong outcomes (measurement accuracy)
Butcher,J.M., O'Brien,C., The reproducibility of biometry and keratometry measurements, Eye, 5, 708-711, 1991	Wrong population (unclear type of cataract surgery); no comparator; wrong outcomes (reliability of biometric and keratometric measurements)
Camellin,M., Calossi,A., A new formula for intraocular lens power calculation after refractive corneal surgery, Journal of Refractive Surgery, 22, 187-199, 2006	Wrong population (mixed group of phacoemulsification and extracapsular cataract extraction with no subgroup data provided)
Canovas, C., van der Mooren, M., Rosen, R., Piers, P.A., Wang, L., Koch, D.D., Artal, P. Effect of the equivalent refractive index on intraocular lens power prediction with ray tracing after myopic laser in situ keratomileusis. Journal of Cataract & Refractive Surgery, 41, 1030-1037, 2015	Wrong outcomes (IOL prediction error)
Carifi,G., Pitsas,C., Zygoura,V., Kopsachilis,N., Intraocular lens power selection and optic capture.[Erratum appears in J Cataract Refract Surg. 2014 May;40(5):855 Note: Kopsakilis, Nikolaos [corrected to Kopsachilis, Nikolaos]], Journal of Cataract & Refractive Surgery, 39, 1624-, 2013	Letter
Chae,J.B., Park,H.R., Yoon,Y.H., Axial length measurement in silicone oil-filled eyes using laser Doppler interferometry, Retina, 24, 655-657, 2004	Wrong population (1 out of 12 people had phacoemulsification); wrong outcomes (biometric measurements)
Chan, C.C., Hodge, C., Lawless, M. Calculation of intraocular lens power after corneal refractive surgery. Clinical & Experimental Ophthalmology, 34, 640-644, 2006	Wrong outcomes
Chang,M., Kang,S.Y., Kim,H.M., Which keratometer is most reliable for correcting astigmatism with toric intraocular lenses?, Korean Journal of Ophthalmology, 26, 10-14, 2012	Wrong study design (comparative case series for phacoemulsification cataract surgery only for keratometry comparison)

Study	Reason for exclusion
Chang,S.W., Yu,C.Y., Chen,D.P., Comparison of intraocular lens power calculation by the IOLMaster in phakic and eyes with hydrophobic acrylic lenses, Ophthalmology, 116, 1336-1342, 2009	Does not provide subgroup analysis of different axial lengths for different IOL formulas
Charalampidou,S., Dooley,I., Molloy,L., Beatty,S., Value of dual biometry in the detection and investigation of error in the pre-operative prediction of refractive status following cataract surgery, Clinical & Experimental Ophthalmology, 38, 255-265, 2010	No comparators; wrong outcomes (measurement accuracy)
Chen,C., Lin,Z., Feng,B., Li,Y., Comparison of the accuracy of Canon KU-1 IOL measurer and VPLUS A/B scanner in axial length measurement, Yen Ko Hsueh Pao [Eye Science], 19, 150-152, 2003	Wrong population (children and adults undergoing unspecified cataract surgery); wrong comparator (immersion vs contact ultrasound)
Chen,L., Mannis,M.J., Salz,J.J., Garcia-Ferrer,F.J., Ge,J., Analysis of intraocular lens power calculation in post-radial keratotomy eyes, Journal of Cataract & Refractive Surgery, 29, 65-70, 2003	Wrong study design (case series with 9 people)
Chen,M., An evaluation of the accuracy of the ORange (Gen II) by comparing it to the IOLMaster in the prediction of postoperative refraction, Clinical ophthalmology (Auckland, N.Z.), 6, 397-401, 2012	Wrong comparator (optical vs optical biometry)
Chen,Y.A., Hirnschall,N., Findl,O., Evaluation of 2 new optical biometry devices and comparison with the current gold standard biometer, Journal of Cataract & Refractive Surgery, 37, 513-517, 2011	Wrong comparator (optical vs optical biometry); wrong outcomes (measurement accuracy)
Chokshi, A.R., Latkany, R.A., Speaker, M.G., Yu, G. Intraocular lens calculations after hyperopic refractive surgery. Ophthalmology, 114, 2044-2049, 2007	Wrong outcomes
Clarke,G.P., Burmeister,J., Comparison of intraocular lens computations using a neural network versus the Holladay formula, Journal of Cataract & Refractive Surgery, 23, 1585-1589, 1997	Wrong intervention/comparison
Cleary,G., Spalton,D.J., Marshall,J., Anterior chamber depth measurements in eyes with an accommodating intraocular lens: agreement between partial coherence interferometry and optical coherence tomography, Journal of Cataract & Refractive Surgery, 36, 790-798, 2010	Wrong population (unspecified cataract surgery); wrong comparator (optical vs optical biometry); wrong outcomes (measurement accuracy)
Coburn,R.M., Grandon,S.C., Grandon,G.M., Intraocular lens implant power calculations: investigations controlling for lens type, Journal of Cataract & Refractive Surgery, 16, 457-464, 1990	Wrong intervention (only 1 relevant IOL formula available with, therefore no relevant comparisons)
Colliac,J.P., Matrix formula for intraocular lens power calculation, Investigative Ophthalmology & Visual Science, 31, 374-381, 1990	Wrong study design (simulation study with 10 theoretical eyes)
Connors,III R., Boseman,III P., Olson,R.J., Accuracy and reproducibility of biometry using partial coherence interferometry, Journal of Cataract and Refractive Surgery.28 (2) (pp 235-238), 2002.Date of Publication: 2002., 235-238, 2002	Wrong study design (comparative case series for biometry comparison)

Study	Reason for exclusion
Conrad-Hengerer, I., Dick, H.B., Hutz, W.W., Haigis, W., Hengerer, F.H. Optimized constants for an ultraviolet light-adjustable intraocular lens. Journal of Cataract & Refractive Surgery, 37, 2101-2104, 2011	Non-standard IOL
Cooke, D.L., Cooke, T.L. Prediction accuracy of preinstalled formulas on 2 optical biometers. J Cataract Refract Surg, 42, 358-62, 2016	Data duplicated in included study (Cooke 2016 J Cataract Refract Surg 42:1157-64)
Correa-Perez,M.E., Olmo,N., Lopez-Miguel,A., Fernandez,I., Coco-Martin,M.B., Maldonado,M.J., Dependability of posterior-segment spectral domain optical coherence tomography for measuring central corneal thickness, Cornea.33 (11) (pp 1219-1224), 2014.Date of Publication: 2014., 1219-1224, 2014	Wrong population (healthy eyes); wrong outcomes (measurement accuracy)
Cruysberg,L.P., Doors,M., Verbakel,F., Berendschot,T.T., de,Brabander J., Nuijts,R.M., Evaluation of the Lenstar LS 900 non-contact biometer, British Journal of Ophthalmology, 94, 106-110, 2010	Wrong population (healthy eyes); wrong comparator (optical vs optical biometry); wrong outcomes (measurement accuracy)
Cuaycong,M.J., Gay,C.A., Emery,J., Haft,E.A., Koch,D.D., Comparison of the accuracy of computerized videokeratography and keratometry for use in intraocular lens calculations, Journal of Cataract & Refractive Surgery, 19, Suppl-81, 1993	Wrong intervention (only 1 relevant IOL formula available with, therefore no relevant comparisons)
Cvetkovic, A., Sreckovic, S., Petrovic, M. Comparison of biometric values and intraocular lens power calculations obtained by ultrasound and optical biometry. Serbian Journal of Experimental and Clinical Research, 17, 321-326, 2016	Wrong outcomes
De,Bernardo M., Capasso,L., Caliendo,L., Paolercio,F., Rosa,N., IOL power calculation after corneal refractive surgery. [Review], BioMed Research International, 2014, 658350-, 2014	Narrative review
Dehnavi,Z., Khabazkhoob,M., Mirzajani,A., Jabbarvand,M., Yekta,A., Jafarzadehpur,E., Comparison of the Corneal Power Measurements with the TMS4-Topographer, Pentacam HR, IOL Master, and Javal Keratometer, Middle East African journal of ophthalmology, 22, 233-237, 2015	Wrong population (photorefractive keratectomy); wrong outcomes (measurement accuracy of keratometric measurements)
DeMill, D.L., Moshirfar, M., Neuffer, M.C., Hsu, M., Sikder, S. A comparison of the American Society of Cataract and Refractive Surgery post-myopic LASIK/PRK intraocular lens (IOL) calculator and the Ocular MD IOL calculator. Clinical Ophthalmology, 5, 1409-1414, 2011	Wrong outcomes (IOL prediction error)
DeMill, D.L., Hsu, M., Moshirfar, M. Evaluation of the American Society of Cataract and Refractive Surgery intraocular lens calculator for eyes with prior radial keratotomy. Clinical Ophthalmology, 5, 1243-1247, 2011	Wrong outcomes (IOL prediction error)
Donzis,P.B., Kastl,P.R., Gordon,R.A., An intraocular lens formula for short, normal and long eyes, CLAO Journal.11 (2) (pp 95-98), 1985.Date of Publication: 1985., 95-98, 1985	Wrong study design (case series of 4 adult eyes), wrong population (not stated as cataract surgery)

Study	Reason for exclusion
Doors,M., Cruysberg,L.P., Berendschot,T.T., de,Brabander J., Verbakel,F., Webers,C.A., Nuijts,R.M., Comparison of central corneal thickness and anterior chamber depth measurements using three imaging technologies in normal eyes and after phakic intraocular lens implantation, Graefes Archive for Clinical & Experimental Ophthalmology, 247, 1139-1146, 2009	Wrong population (cataracts not specified); wrong comparator (optical vs optical biometry); wrong outcomes (measurement accuracy)
Drews,R.C., Reliability of lens implant power formulas in hyperopes and myopes, Ophthalmic Surgery, 19, 11-15, 1988	Wrong population (not specified as cataract surgery)
Drexler,W., Findl,O., Menapace,R., Rainer,G., Vass,C., Hitzenberger,C.K., Fercher,A.F., Partial coherence interferometry: a novel approach to biometry in cataract surgery, American Journal of Ophthalmology, 126, 524-534, 1998	Wrong study design (comparative case series for biometry comparison)
Dulku,S., Smith,H.B., Antcliff,R.J., Keratometry obtained by corneal mapping versus the IOLMaster in the prediction of postoperative refraction in routine cataract surgery, Clinical & Experimental Ophthalmology, 41, 12-18, 2013	Wrong study design (comparative case series for phacoemulsification cataract surgery only for keratometry comparison)
El-Baha,S.M., Hemeida,T.S., Comparison of refractive outcome using intraoperative biometry and partial coherence interferometry in silicone oil-filled eyes, Retina, 29, 64-68, 2009	Wrong study design (comparative case series for biometry comparison), wrong comparison (intraoperative A-scan biometry)
Elbaz,U., Barkana,Y., Gerber,Y., Avni,I., Zadok,D., Comparison of different techniques of anterior chamber depth and keratometric measurements, American Journal of Ophthalmology, 143, 48-53, 2007	Wrong population (healthy individuals); wrong outcomes (measurement accuracy)
Elder,M.J., Predicting the refractive outcome after cataract surgery: the comparison of different IOLs and SRK-II v SRK-T, British Journal of Ophthalmology, 86, 620-622, 2002	Wrong intervention (only 1 relevant IOL formula available with, therefore no relevant comparisons)
Eleftheriadis,H., IOLMaster biometry: refractive results of 100 consecutive cases, British Journal of Ophthalmology, 87, 960-963, 2003	Wrong study design (comparative case series for biometry comparison), does not provide subgroup analysis of different axial lengths for different IOL formulas
Engren,A.L., Behndig,A., Anterior chamber depth, intraocular lens position, and refractive outcomes after cataract surgery, Journal of Cataract & Refractive Surgery, 39, 572-577, 2013	Wrong study design (comparative case series for phacoemulsification cataract surgery only for keratometry comparison)
Fea,A.M., Annetta,F., Cirillo,S., Campanella,D., De,Giuseppe M., Regge,D., Grignolo,F.M., Magnetic resonance imaging and Orbscan assessment of the anterior chamber, Journal of Cataract and Refractive Surgery.31 (9) (pp 1713-1718), 2005.Date of Publication: September 2005., 1713-1718, 2005	Wrong population (unclear eye pathology if any); wrong comparator (MRI); wrong outcomes (measurement accuracy)
Feiz,V., Intraocular lens power calculation after corneal refractive surgery, Middle East African journal of ophthalmology, 17, 63-68, 2010	Commentary
Feiz,V., Mannis,M.J., IOL calculations, Ophthalmology, 114, 1028-1029, 2007	Letter

Study	Reason for exclusion
Feiz,V., Moshirfar,M., Intraocular lens power calculation after combination laser in situ keratomileusis and noncontact holmium:YAG laser thermal keratoplasty using Orbscan videokeratography, Journal of Cataract & Refractive Surgery, 34, 1809-, 2008	Letter
Feiz, V., Moshirfar, M., Mannis, M.J., Reilly, C.D., Garcia-Ferrer, F., Caspar, J.J., Lim, M.C. Nomogram-based intraocular lens power adjustment after myopic photorefractive keratectomy and LASIK: a new approach. Ophthalmology, 112, 1381-1387, 2005	Wrong outcomes (IOL prediction error)
Fenzl,R.E., Gills,J.P., Cherchio,M., Refractive and visual outcome of hyperopic cataract cases operated on before and after implementation of the Holladay II formula, Ophthalmology, 105, 1759-1764, 1998	Wrong population (does not specify phacoemulsification cataract surgery)
Findl,O., Drexler,W., Menapace,R., Heinzl,H., Hitzenberger,C.K., Fercher,A.F. Improved prediction of intraocular lens power using partial coherence interferometry, Journal of Cataract & Refractive Surgery, 27, 861-867, 2001	Wrong study design (comparative case series for biometry comparison), wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Findl,O., Drexler,W., Menapace,R., Hitzenberger,C.K., Fercher,A.F., High precision biometry of pseudophakic eyes using partial coherence interferometry, Journal of Cataract & Refractive Surgery, 24, 1087-1093, 1998	Wrong outcomes (measurement accuracy)
Findl,O., Kriechbaum,K., Sacu,S., Kiss,B., Polak,K., Nepp,J., Schild,G., Rainer,G., Maca,S., Petternel,V., Lackner,B., Drexler,W., Influence of operator experience on the performance of ultrasound biometry compared to optical biometry before cataract surgery, Journal of Cataract & Refractive Surgery, 29, 1950-1955, 2003	Wrong population (individuals not undergoing cataract surgery); wrong outcomes (measurement accuracy)
Fontes,B.M., Fontes,B.M., Castro,E., Intraocular Lens Power Calculation: Prediction of Refractive Outcomes With Partial Optical Coherence Interferometry or Ultrasonic Biometry, IOVS, ARVO-abstract, 2008	Wrong study design (comparative case series for biometry comparison)
Fram,N.R., Masket,S., Wang,L., Comparison of Intraoperative Aberrometry, OCT-Based IOL Formula, Haigis-L, and Masket Formulae for IOL Power Calculation after Laser Vision Correction, Ophthalmology, 122, 1096-1101, 2015	Wrong study design (retrospective comparative case series for biometry comparison), wrong population (mixed group of people with history of myopic and hyperopic corneal refractive surgery with no subgroup data provided), wrong comparison (different types of optical biometry)
Freeman,G., Pesudovs,K., The impact of cataract severity on measurement acquisition with the IOLMaster, Acta Ophthalmologica Scandinavica, 83, 439-442, 2005	Wrong outcomes (measurement failure)
Frisch,I.B., Rabsilber,T.M., Becker,K.A., Reuland,A.J., Auffarth,G.U., Comparison of anterior chamber depth measurements using Orbscan II and IOLMaster, European Journal of Ophthalmology, 17, 327-331, 2007	Wrong population (mixture of cataracts and other eye pathologies); wrong outcomes (measurement accuracy)

Study	Reason for exclusion
Galvis,V., Tello,A., Nino,C., Camacho,P.A., Intraocular lens power calculation after photorefractive surgery: modified double-K method, Journal of Cataract & Refractive Surgery, 39, 1450-1451, 2013	Letter
Galvis,V., Tello,A., Portorreal,J., Impact of constant optimization of formulae, Graefes Archive for Clinical & Experimental Ophthalmology, 251, 2477-2478, 2013	Letter
Garcia,J.P.,Jr., de la Cruz,J., Rosen,R.B., Buxton,D.F., Imaging implanted keratoprostheses with anterior-segment optical coherence tomography and ultrasound biomicroscopy, Cornea, 27, 180-188, 2008	Wrong population (corneal transplantation); wrong outcomes (qualitative analysis); wrong study design (case study)
Garcia,J.P.,Jr., Rosen,R.B., Anterior segment imaging: optical coherence tomography versus ultrasound biomicroscopy, Ophthalmic Surgery, Lasers & Imaging, 39, 476-484, 2008	Wrong population (cataracts not specified); wrong outcomes (qualitative analysis of imaging capability)
Gavin,E.A., Hammond,C.J. Intraocular lens power calculation in short eyes, Eye, ;22, 935-938, 2008	Wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries and included people with lens exchange)
Geggel,H.S., Intraocular Lens Power Selection after Radial Keratotomy: Topography, Manual, and IOLMaster Keratometry Results Using Haigis Formulas, Ophthalmology, 122, 897-902, 2015	Wrong outcomes (final spherical equivalent within different ranges; not prediction errors)
Ghanem,A.A., El-Sayed,H.M. Accuracy of intraocular lens power calculation in high myopia, Oman Journal of Ophthalmology, 3, 126-130, 2010	Wrong outcomes
Gobin,L., Reproducibility of the IOLMaster, Journal of Cataract & Refractive Surgery, 28, 1087-1088, 2002	Comment of an article
Goebels,S.C., Seitz,B., Langenbucher,A., Comparison of the new biometer OA-1000 with IOLMaster and Tomey AL-3000, Current Eye Research, 38, 910-916, 2013	Wrong outcomes (measurement accuracy)
Goggin,M., Zamora-Alejo,K., Esterman,A., van,Zyl L., Adjustment of anterior corneal astigmatism values to incorporate the likely effect of posterior corneal curvature for toric intraocular lens calculation, Journal of Refractive Surgery, 31, 98-102, 2015	Wrong population (mixed population of cataract surgery or refractive lens exchange)
Gorodezky,L., Mazinani,B.A., Plange,N., Walter,P., Wenzel,M., Roessler,G., Influence of the prediction error of the first eye undergoing cataract surgery on the refractive outcome of the fellow eye, Clinical Ophthalmology, 8, 2177-2181, 2014	Not relevant (does not provide any information on how the second eye predicted refraction was theoretically manipulated), wrong outcomes (descriptive data of first and second eye prediction errors)
Goyal,R., North,R.V., Morgan,J.E., Comparison of laser interferometry and ultrasound A-scan in the measurement of axial length, Acta Ophthalmologica Scandinavica, 81, 331-335, 2003	Wrong outcomes (measurement accuracy)
Haigis,W., Matrix-optical representation of currently used intraocular lens power formulas, Journal of Refractive Surgery, 25, 229-234, 2009	Wrong study design (simulation study with 1 theoretical example)

Study	Reason for exclusion
Haigis,W., Influence of axial length on IOL constants, Acta Clinica Croatica, 51, Suppl-64, 2012	Unavailable - unable to source article
Haigis,W., Lege,B., Miller,N., Schneider,B., Comparison of immersion ultrasound biometry and partial coherence interferometry for intraocular lens calculation according to Haigis, Graefes Archive for Clinical & Experimental Ophthalmology, 238, 765-773, 2000	Wrong population (mixture of extracapsular cataract extraction and phacoemulsification without separate results reported)
Hasemeyer,S., Hugger,P., Jonas,J.B., Pre-operative biometry of cataractous eyes using partial coherence laser interferometry, Graefes Archive for Clinical & Experimental Ophthalmology, 241, 251-252, 2003	No comparator
Hennessy,M.P., Franzco, Chan,D.G., Contact versus immersion biometry of axial length before cataract surgery, Journal of Cataract & Refractive Surgery, 29, 2195-2198, 2003	Wrong comparator (contact vs immersion ultrasound); wrong outcomes (measurement accuracy)
Hil,W., Intraocular lens power calculations: Are we stuck in the past?, Clinical and Experimental Ophthalmology.37 (8) (pp 761-762), 2009.Date of Publication: 2009., 761-762, 2009	Editorial
Hill,W., Osher,R., Cooke,D., Solomon,K., Sandoval,H., Salas-Cervantes,R., Potvin,R., Simulation of toric intraocular lens results: manual keratometry versus dual-zone automated keratometry from an integrated biometer, Journal of Cataract & Refractive Surgery, 37, 2181-2187, 2011	Wrong population (toric IOL implantation, unclear eye pathology); wrong outcomes (simulated computations)
Hill,W.E., Intraocular lens power calculations: are we stuck in the past?, Clinical & Experimental Ophthalmology, 37, 761-762, 2009	Editorial
Ho,J.D., Liou,S.W., Tsai,R.J., Tsai,C.Y., Estimation of the effective lens position using a rotating Scheimpflug camera, Journal of Cataract & Refractive Surgery, 34, 2119-2127, 2008	Wrong study design (case series with 8 people)
Hoffer,K.J. The Hoffer Q formula: a comparison of theoretic and regression formulas, Journal of Cataract & Refractive Surgery, 19, 700-712, 1993	Wrong population (does not specify phacoemulsification cataract surgery, for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Hoffer,K.J. Clinical results using the Holladay 2 intraocular lens power formula, Journal of Cataract & Refractive Surgery, 26, 1233-1237, 2000	Wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Hoffer,K.J., Comparison of the Hoffer-Q With Other Third Generation Formulas in 450 Eyes, American Academy of Ophthalmology, 120-, 1992	Unavailable - unable to source article
Hoffer,K.J., Shammas,H.J., Savini,G., Comparison of 2 laser instruments for measuring axial length.[Erratum appears in J Cataract Refract Surg. 2010 Jun;36(6):1066], Journal of Cataract & Refractive Surgery, 36, 644-648, 2010	Wrong comparator (optical vs optical biometry)
Hoffmann,P.C., Abraham,M., Hirnschall,N., Findl,O., Prediction of residual astigmatism after cataract surgery using swept source fourier domain	No comparator (pre-operatively optical vs optical biometry; post-operatively different keratometers)

Study	Reason for exclusion
optical coherence tomography, Current Eye Research, 39, 1178-1186, 2014	
Hoffmann,P.C., Lindemann,C.R., Intraocular lens calculation for aspheric intraocular lenses, Journal of Cataract & Refractive Surgery, 39, 867-872, 2013	Does not provide subgroup analysis of different axial lengths for different IOL formulas
Hoffmann,P.C., Wahl,J., Hutz,W.W., Preusner,P.R. A ray tracing approach to calculate toric intraocular lenses, Journal of Refractive Surgery, 29, 402-408, 2013	Wrong population (for RQ5 keratometry comparison, no history of corneal refractive surgery)
Holladay,J.T., Effect of corneal asphericity and spherical aberration on intraocular lens power calculations, Journal of Cataract & Refractive Surgery, 41, 1553-1554, 2015	Letter
Holladay,J.T., Hill,W.E., Steinmueller,A. Corneal power measurements using scheimpflug imaging in eyes with prior corneal refractive surgery.[Erratum appears in J Refract Surg. 2010 Jun;26(6):387], Journal of Refractive Surgery, 25, 862-868, 2009	Wrong outcomes
Holzer,M.P., Mamusa,M., Auffarth,G.U., Accuracy of a new partial coherence interferometry analyser for biometric measurements, British Journal of Ophthalmology, 93, 807-810, 2009	Wrong outcomes (correlation of biometric measurements)
Hsieh,Y.T., Wang,I.J., Intraocular lens power measured by partial coherence interferometry, Optometry & Vision Science, 89, 1697-1701, 2012	Wrong comparator (automated vs manual keratometry)
Huang,J., Liao,N., Savini,G., Bao,F., Yu,Y., Lu,W., Hu,Q., Wang,Q., Comparison of Anterior Segment Measurements with Scheimpflug/Placido Photography-Based Topography System and IOLMaster Partial Coherence Interferometry in Patients with Cataracts, Journal of ophthalmology, 2014, 540760-, 2014	Wrong outcomes (measurement accuracy)
Huang,J., McAlinden,C., Su,B., Pesudovs,K., Feng,Y., Hua,Y., Yang,F., Pan,C., Zhou,H., Wang,Q., The effect of cycloplegia on the lenstar and the IOLMaster biometry, Optometry & Vision Science, 89, 1691-1696, 2012	Wrong population (healthy eyes); wrong comparator (optical vs optical biometry); wrong outcomes (measurement accuracy)
Huang,J., Savini,G., Chen,H., Bao,F., Li,Y., Chen,H., Lu,W., Yu,Y., Wang,Q., Precision and agreement of corneal power measurements obtained using a new corneal topographer OphthaTOP, PLoS ONE [Electronic Resource], 10, e109414-, 2015	Wrong population (healthy eyes); wrong outcomes (reliability)
Hui,S., Yi,L., Comparison of two optical biometers in intraocular lens power calculation, Indian Journal of Ophthalmology, 62, 931-934, 2014	Wrong comparator (optical vs optical biometry); wrong outcomes (measurement accuracy)
Hussain,S.A., Ahmed,N.I., Hashmi,S., Yawar,M.I., Efficacy of SRKT biometry formula, Medical Forum Monthly.20 (8) (pp 39-42), 2009.Date of Publication: August 2009., 39-42, 2009	Unavailable - unable to source article
Jarade,E.F., Tabbara,K.F., New formula for calculating intraocular lens power after laser in situ keratomileusis, Journal of Cataract & Refractive Surgery, 30, 1711-1715, 2004	Wrong population (LASIK, not cataracts/phacoemulsification cataract surgery)

Study	Reason for exclusion
Jin, G.J., Crandall, A.S., Jin, Y. Analysis of intraocular lens power calculation for eyes with previous myopic LASIK. Journal of Refractive Surgery, 22, 387-395, 2006	Wrong outcomes
Joo,J., Whang,W.J., Oh,T.H., Kang,K.D., Kim,H.S., Moon,J.I., Accuracy of intraocular lens power calculation formulas in primary angle closure glaucoma, Korean Journal of Ophthalmology, 25, 375-379, 2011	Does not provide subgroup analysis of different axial lengths for different IOL formulas
Jung,S.H., Han,K.E., Sgrignoli,B., Kim,T.I., Lee,H.K., Kim,E.K., Intraocular lens power calculations for cataract surgery after phototherapeutic keratectomy in granular corneal dystrophy type 2, Journal of Refractive Surgery, 28, 714-724, 2012	Wrong population (does not specify phacoemulsification cataract surgery)
Kane, J.X., Van H, A., Petsoglou, C. 2. Comparison of 10 methods for IOL power calculation: Results from over 3000 eyes. Clinical and Experimental Ophthalmology, 44, 67, 2016	Conference abstract
Karunaratne,N., Comparison of the Pentacam equivalent keratometry reading and IOL Master keratometry measurement in intraocular lens power calculations, Clinical & Experimental Ophthalmology, 41, 825-834, 2013	Does not provide subgroup analysis of different axial lengths for different IOL formulas
Kaswin,G., Rousseau,A., Mgarrech,M., Barreau,E., Labetoulle,M., Biometry and intraocular lens power calculation results with a new optical biometry device: comparison with the gold standard, Journal of Cataract & Refractive Surgery, 40, 593-600, 2014	Wrong study design (comparative case series for biometry comparison), wrong population (does not specify phacoemulsification cataract surgery), wrong comparison (different types of optical biometry)
Khalil, M., Chokshi, A., Latkany, R., Speaker, M.G., Yu, G. Prospective evaluation of intraocular lens calculation after myopic refractive surgery. Journal of Refractive Surgery, 24, 33-38, 2008	Wrong outcomes (IOL prediction error)
Khambhiphant,B., Chatbunchachai,N., Pongpirul,K., The effect of pupillary dilatation on IOL power measurement by using the IOLMaster, Int Ophthalmol., -, 2015	Wrong population (healthy eyes); no comparator; wrong outcomes (measurement accuracy)
Kielhorn,I., Rajan,M.S., Tesha,P.M., Subryan,V.R., Bell,J.A., Clinical assessment of the Zeiss IOLMaster, Journal of Cataract & Refractive Surgery, 29, 518-522, 2003	Wrong population (unspecified); wrong outcomes (measurement accuracy)
Kim,J.H., Lee,Do, Joo,C.K. Measuring corneal power for intraocular lens power calculation after refractive surgery. Comparison of methods, Journal of Cataract & Refractive Surgery, 28, 1932-1938, 2002	Wrong study design (case report), wrong comparisons
Kiss,B., Findl,O., Menapace,R., Wirtitsch,M., Drexler,W., Hitzenberger,C.K., Fercher,A.F., Biometry of cataractous eyes using partial coherence interferometry: clinical feasibility study of a commercial prototype I, Journal of Cataract & Refractive Surgery, 28, 224-229, 2002	Wrong outcomes (measurement accuracy)
Kiss,B., Findl,O., Menapace,R., Wirtitsch,M., Petternel,V., Drexler,W., Rainer,G., Georgopoulos,M., Hitzenberger,C.K., Fercher,A.F.,	Wrong population (cataract surgery unspecified)

Study	Reason for exclusion
Refractive outcome of cataract surgery using partial coherence interferometry and ultrasound biometry: clinical feasibility study of a commercial prototype II, Journal of Cataract & Refractive Surgery, 28, 230-234, 2002	
Kitthaweesin,K., Mungsing,W., Agreement and reproducibility of contact and immersion techniques for axial length measurement and intraocular lens power calculation, Journal of the Medical Association of Thailand, 92, 1046-1049, 2009	Wrong population (people with cataracts, cataract surgery not specified); wrong outcomes (measurement accuracy)
Koch,D.D., Wang,L., Calculating IOL power in eyes that have had refractive surgery, Journal of Cataract & Refractive Surgery, 29, 2039-2042, 2003	Editorial
Kolodziejczyk,W., Galecki,T., Lazicka-Galecka,M., Szaflik,J., Comparison of the biometric measurements obtained using noncontact optical biometers LenStar LS 900 and IOL Master V.5, Klinika Oczna, 113, 47-51, 2011	Wrong population (unclear cataract surgery); wrong outcomes (intraocular lens power calculations)
Kora,Y., Ochi,T., Suzuki,Y., Inatomi,M., Fukado,Y., A new intraocular lens formula for high myopia, Ophthalmic Surgery, 20, 860-863, 1989	Wrong population (mixture of phacoemulsification and extracapsular cataract extraction not reported separately)
Kora,Y., Totsuka,N., Fukado,Y., Marumori,M., Yaguchi,S., Modified SRK formula for axial myopia (24.5 mm < or = axial length < 27.0 mm), Ophthalmic Surgery, 23, 603-607, 1992	Wrong population (does not specify phacoemulsification cataract surgery)
Kraff,M.C., Sanders,D.R., Lieberman,H.L., Determination of intraocular lens power: a comparison with and without ultrasound, Ophthalmic Surgery, 9, 81-84, 1978	Wrong population (cataract surgery not specified)
Krag,S., Olsen,T., Secondary IOL power calculation. A comparison of an optical and a biometric method, Acta Ophthalmologica, 69, 625-629, 1991	Wrong population (cataracts not specified); wrong comparator (automated keratometer vs theoretical computer assisted method)
Kugelberg,M., Lundstrom,M., Factors related to the degree of success in achieving target refraction in cataract surgery: Swedish National Cataract Register study, Journal of Cataract & Refractive Surgery, 34, 1935-1939, 2008	Not relevant (registry data looking at risk factors for achieving target refraction such as age, gender, ocular comorbidities e.g. glaucoma)
Kwitko,S., Marinho,D.R., Rymer,S., Severo,N., Arce,C.G., Orbscan II and double-K method for IOL calculation after refractive surgery, Graefes Archive for Clinical & Experimental Ophthalmology, 250, 1029-1034, 2012	Wrong outcomes (post-operative mean spherical equivalent, no prediction errors)
Lam,S., Comparing optical low coherence reflectometry and immersion ultrasound in refractive outcome after cataract surgery, Journal of Cataract & Refractive Surgery, 39, 297-298, 2013	Wrong study design (non-randomised controlled study for biometry comparison)
Lam,S., Gupta,B.K., Hahn,J.M., Manastersky,N.A., Refractive outcomes after cataract surgery: Scheimpflug keratometry versus standard automated keratometry in virgin corneas, Journal	Wrong study design (comparative case series for phacoemulsification cataract surgery only for keratometry comparison)

Study	Reason for exclusion
of Cataract & Refractive Surgery, 37, 1984-1987, 2011	
Landers,J., Goggin,M., Comparison of refractive outcomes using immersion ultrasound biometry and IOLMaster biometry, Clinical & Experimental Ophthalmology, 37, 566-569, 2009	Wrong study design (retrospective comparative case series for biometry comparison)
Langenbucher,A., Viestenz,A., Szentmary,N., Behrens-Baumann,W., Viestenz,A., Toric intraocular lenses--theory, matrix calculations, and clinical practice. [Review] [84 refs], Journal of Refractive Surgery, 25, 611-622, 2009	Narrative review
Latkany, R.A., Chokshi, A.R., Speaker, M.G., Abramson, J., Soloway, B.D., Yu, G. Intraocular lens calculations after refractive surgery. Journal of Cataract & Refractive Surgery, 31, 562-570, 2005	Wrong outcomes
Lee,H., Kim,T.I., Kim,E.K., Corneal astigmatism analysis for toric intraocular lens implantation: precise measurements for perfect correction. [Review], Current Opinion in Ophthalmology, 26, 34-38, 2015	Narrative review
Lin,J.T., Correcting the cornea power measurements for intraocular lens power calculations after myopic laser in situ keratomileusis, American Journal of Ophthalmology, 137, 786-787, 2004	Letter
Luck,J., A-constant and intraocular lenses, Journal of Cataract & Refractive Surgery, 30, 2034-, 2004	Letter
Lusby,Jr, Franke,J.W., McCaffery,J.M., Clinical comparison of manual and automated keratometry in a geriatric population, CLAO Journal.13 (2) (pp 119-121), 1987.Date of Publication: 1987., 119-121, 1987	Wrong population (extracapsular cataract extraction); wrong outcomes (measurements of curvature)
Lyle,W.A., Jin,G.J., Intraocular lens power prediction in patients who undergo cataract surgery following previous radial keratotomy, Archives of Ophthalmology, 115, 457-461, 1997	Wrong study design (case series with 8 people)
Mackool,R.J., The cataract extraction-refraction-implantation technique for IOL power calculation in difficult cases, Journal of Cataract & Refractive Surgery, 24, 434-435, 1998	Letter
MacLaren,R.E., Natkunarajah,M., Riaz,Y., Bourne,R.R., Restori,M., Allan,B.D., Biometry and formula accuracy with intraocular lenses used for cataract surgery in extreme hyperopia, American Journal of Ophthalmology, 143, 920-931, 2007	Wrong population (mixed group of phacoemulsification and extracapsular cataract extraction with no subgroup data provided)
Madge,S.N., Khong,C.H., Lamont,M., Bansal,A., Antcliff,R.J., Optimization of biometry for intraocular lens implantation using the Zeiss IOLMaster.[Erratum appears in Acta Ophthalmol Scand. 2005 Oct;83(5):637], [Republished in Acta Ophthalmol Scand. 2005 Oct;83(5):436-8; PMID: 16187984], Acta Ophthalmologica Scandinavica, 83, 436-438, 2005	Wrong outcomes
Mandal,P., Berrow,E.J., Naroo,S.A., Wolffsohn,J.S., Uthoff,D., Holland,D., Shah,S., Validity and repeatability of the Aladdin ocular	Wrong outcomes (measurement accuracy)

Study	Reason for exclusion
biometer, British Journal of Ophthalmology, 98, 256-258, 2014	
Manning,C.A., Kloess,P.M., Comparison of portable automated keratometry and manual keratometry for IOL calculation, Journal of Cataract & Refractive Surgery, 23, 1213-1216, 1997	Wrong comparator (automated vs manual keratometry)
McAlinden,C., Wang,Q., Pesudovs,K., Yang,X., Bao,F., Yu,A., Lin,S., Feng,Y., Huang,J., Axial Length Measurement Failure Rates with the IOLMaster and Lenstar LS 900 in Eyes with Cataract, PLoS ONE [Electronic Resource], 10, e0128929-, 2015	Wrong comparator (optical vs optical biometry); wrong outcomes (measurement failure)
McEwan,J.R., Algorithm for determining equivalent A-constants and surgeon factors, Journal of Cataract & Refractive Surgery, 22, 123-134, 1996	Wrong study design (development study)
Mehdizadeh,M., Nowroozzadeh,M.H., Diurnal fluctuation of IOL power calculation in glaucomatous eyes, Journal of Cataract & Refractive Surgery, 35, 1481-1482, 2009	Letter
Menezo,J.L., Chaques,V., Harto,M., The SRK regression formula in calculating the dioptric power of intraocular lenses, British Journal of Ophthalmology, 68, 235-237, 1984	Wrong study design (simulation study with no real cases)
Minami,K., Kataoka,Y., Matsunaga,J., Ohtani,S., Honbou,M., Miyata,K., Ray-tracing intraocular lens power calculation using anterior segment optical coherence tomography measurements, Journal of Cataract & Refractive Surgery, 38, 1758-1763, 2012	Wrong intervention (only 1 relevant IOL formula available with, therefore no relevant comparisons)
Miraftab,M., Hashemi,H., Fotouhi,A., Khabazkhoob,M., Rezvan,F., Asgari,S. Effect of anterior chamber depth on the choice of intraocular lens calculation formula in patients with normal axial length, Middle East African Journal of Ophthalmology, 21, 307-311, 2014	Wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Miyata,K., Otani,S., Honbou,N., Minami,K., Use of Scheimpflug corneal anterior-posterior imaging in ray-tracing intraocular lens power calculation, Acta Opthalmologica, 91, e546-e549, 2013	Wrong comparison (ray-tracing readings)
Modorati,G., Pierro,L., Brancato,R., Pre-operative astigmatic influence on the predictability of intraocular lens power calculation, Journal of Cataract & Refractive Surgery, 16, 591-593, 1990	Wrong population (extracapsular cataract extraction)
Moeini,H., Eslami,F., Rismanchian,A., Akhlaghi,M., Najafianjazi,A., Comparison of ultrasound and optic biometry with respect to eye refractive errors after phacoemulsification, Journal of Research in Medical Sciences.13 (2) (pp 43-47), 2008.Date of Publication: March/April 2008., 43-47, 2008	Wrong study design (non-randomised controlled study for biometry comparison)
Moon,S.W., Lim,S.H., Lee,H.Y., Accuracy of biometry for intraocular lens implantation using the new partial coherence interferometer, AL-scan, Korean Journal of Ophthalmology, 28, 444-450, 2014	Wrong study design (retrospective comparative case series for biometry comparison)
Muallem,M.S., Nelson,G.A., Osmanovic,S., Quinones,R., Viana,M., Edward,D.P., Predicted	Wrong population (combination surgery)

Study	Reason for exclusion
refraction versus refraction outcome in cataract surgery after trabeculectomy, Journal of Glaucoma, 18, 284-287, 2009	
Mylonas,G., Sacu,S., Buehl,W., Ritter,M., Georgopoulos,M., Schmidt-Erfurth,U., Performance of three biometry devices in patients with different grades of age-related cataract, Acta Opthalmologica, 89, e237-e241, 2011	Wrong comparator (optical vs optical biometry); wrong outcomes (biometric measurements)
Naeser,K., The vergence-based, empirically modified intraocular lens equation, European Journal of Implant and Refractive Surgery.3 (3) (pp 201-206), 1991.Date of Publication: 1991., 201-206, 1991	Wrong population (extracapsular cataract extraction)
Narvaez,J., Cherwek,D.H., Stulting,R.D., Waldron,R., Zimmerman,G.J., Wessels,I.F., Waring,G.O.,III, Comparing immersion ultrasound with partial coherence interferometry for intraocular lens power calculation, Ophthalmic Surgery, Lasers & Imaging, 39, 30-34, 2008	Wrong comparator (automated vs manual keratometry)
Narvaez,J., Zimmerman,G., Stulting,R.D., Chang,D.H. Accuracy of intraocular lens power prediction using the Hoffer Q, Holladay 1, Holladay 2, and SRK/T formulas, Journal of Cataract & Refractive Surgery, 32, 2050-2053, 2006	Wrong population (does not specify phacoemulsification; for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Nemeth,G., Nagy,A., Berta,A., Modis,L.,Jr., Comparison of intraocular lens power prediction using immersion ultrasound and optical biometry with and without formula optimization, Graefes Archive for Clinical & Experimental Ophthalmology, 250, 1321-1325, 2012	Wrong outcomes
Nepp,J., Krepler,K., Jandrasits,K., Hauff,W., Hanselmayer,G., Velikay-Parel,M., Ossoinig,K.C., Wedrich,A., Biometry and refractive outcome of eyes filled with silicone oil by standardized echography and partial coherence interferometry, Graefes Archive for Clinical & Experimental Ophthalmology, 243, 967-972, 2005	Wrong study design (comparative case series for biometry comparison
Norrby,N.E., IOL registry and errors in A-scan, Journal of Cataract & Refractive Surgery, 26, 159-161, 2000	Letter
Norrby,S., Lydahl,E., Koranyi,G., Taube,M., Reduction of trend errors in power calculation by linear transformation of measured axial lengths, Journal of Cataract & Refractive Surgery, 29, 100-105, 2003	Wrong study design (comparative case series for biometry comparison), wrong comparison (different types of ultrasound biometry), does not provide subgroup analysis of different axial lengths for different IOL formulas
Norrby,S., Lydahl,E., Koranyi,G., Taube,M., Comparison of 2 A-scans, Journal of Cataract & Refractive Surgery, 29, 95-99, 2003	Wrong outcomes (measurement accuracy)
Odenthal,M.T., Eggink,C.A., Melles,G., Pameyer,J.H., Geerards,A.J., Beekhuis,W.H., Intraocular lens power calculation for cataract surgery after photorefractive keratectomy, Archives of Ophthalmology, 121, 1071-, 2003	Letter

Study	Reason for exclusion
Olsen,T., Intraocular lens power calculation, Journal of Cataract & Refractive Surgery, 35, 2176-2177, 2009	Letter
Olsen,T., Improved accuracy of intraocular lens power calculation with the Zeiss IOLMaster, Acta Ophthalmologica Scandinavica, 85, 84-87, 2007	Wrong study design (comparative case series for biometry comparison), does not provide subgroup analysis of different axial lengths for different IOL formulas
Olsen,T., Use of fellow eye data in the calculation of intraocular lens power for the second eye, Ophthalmology, 118, 1710-1715, 2011	Wrong population (mixed cataract and refractive lens surgery with no separate results reported)
Olsen,T., Intraocular lens power calculation errors in long eyes, Journal of Cataract & Refractive Surgery, 38, 733-734, 2012	Letter
Olsen,T., Corydon,L., Gimbel,H., Intraocular lens power calculation with an improved anterior chamber depth prediction algorithm, Journal of Cataract & Refractive Surgery, 21, 313-319, 1995	Wrong population (mixed group of phacoemulsification and extracapsular cataract extraction with no subgroup data provided)
Olsen,T., Gimbel,H. Phacoemulsification, capsulorhexis, and intraocular lens power prediction accuracy, Journal of Cataract & Refractive Surgery, 19, 695-699, 1993	Wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Olsen,T., Hoffmann,P., C constant: new concept for ray tracing-assisted intraocular lens power calculation, Journal of Cataract & Refractive Surgery, 40, 764-773, 2014	Wrong population (mixed group of phacoemulsification and refractive lens exchange with no subgroup data provided)
Olsen,T., Olesen,H., Thim,K., Corydon,L., Prediction of pseudophakic anterior chamber depth with the newer IOL calculation formulas, Journal of Cataract & Refractive Surgery, 18, 280-285, 1992	Wrong population (mixed group of phacoemulsification and extracapsular cataract extraction with no subgroup data provided)
Olson,R.J., Intraocular lens power calculations. An extra edge or expensive waste?, Archives of Ophthalmology, 105, 1035-1036, 1987	Editorial
Osman,L., Chung,A.K., UK national survey on personalized customization of A-constant in cataract surgery, Eye, 24, 938-940, 2010	Letter
Packer,M., Fine,I.H., Hoffman,R.S., Coffman,P.G., Brown,L.K., Immersion A-scan compared with partial coherence interferometry: outcomes analysis, Journal of Cataract & Refractive Surgery, 28, 239-242, 2002	Wrong study design (comparative case series for biometry comparison)
Pinero,D.P., Camps,V.J., Ramon,M.L., Mateo,V., Perez-Cambrodi,R.J., Positional accommodative intraocular lens power error induced by the estimation of the corneal power and the effective lens position, Indian Journal of Ophthalmology, 63, 438-444, 2015	Wrong population (mixed group of phacoemulsification and refractive lens exchange with no subgroup data provided)
Potvin,R., Hill,W. New algorithm for post-radial keratotomy intraocular lens power calculations based on rotating Scheimpflug camera data, Journal of Cataract & Refractive Surgery, 39, 358-365, 2013	Wrong comparisons
Potvin, R., Hill, W. New algorithm for intraocular lens power calculations after myopic laser in situ keratomileusis based on rotating Scheimpflug	Wrong outcomes (IOL prediction error)

Study	Reason for exclusion
camera data. Journal of Cataract & Refractive Surgery 41, 339-347, 2015	
Preussner,P.R., Hoffmann,P., Wahl,J., Impact of Posterior Corneal Surface on Toric Intraocular Lens (IOL) Calculation, Curr Eye Res., 40, 809-814, 2015	Wrong population (cataract surgery not specified), wrong outcomes (astigmatism measurements)
Prior,C., Ramsay,R.J., O'Day,J., Stephens,R., IOL prediction: an evaluation of pre-operatively determined intraocular lens power accuracy, Australian and New Zealand journal of ophthalmologyAust N Z J Ophthalmol, 16, 111-117, 1988	Wrong population (cataract surgery not specified); wrong focus (variation of mean errors between 2 surgeons)
Qazi,M.A., Cua,I.Y., Roberts,C.J., Pepose,J.S., Determining corneal power using Orbscan II videokeratography for intraocular lens calculation after excimer laser surgery for myopia, Journal of Cataract & Refractive Surgery, 33, 21-30, 2007	Wrong outcomes (mean corneal power)
Rabsilber,T.M., Jepsen,C., Auffarth,G.U., Holzer,M.P., Intraocular lens power calculation: clinical comparison of 2 optical biometry devices, Journal of Cataract & Refractive Surgery, 36, 230-234, 2010	Wrong population (individuals undergoing biometry; unclear cataract surgery); wrong outcomes (intraocular lens power calculations)
Raj,P.S., Ilango,B., Watson,A., Measurement of axial length in the calculation of intraocular lens power, Eye, 12, 227-229, 1998	Wrong population (extracapsular cataract extraction); wrong comparator (1 vs 3 readings)
Rajan,M., Bell,J.A., Partial Coherence Laser Interferometry Versus Conventional Ultrasound Biometry in 10L Power Calculations - A Comparative Study, American Academy of Ophthalmology, 113-, 2000	Unavailable - unable to source article
Reitblat,O., Assia,E.I., Kleinmann,G., Levy,A., Barrett,G.D., Abulafia,A., Accuracy of predicted refraction with multifocal intraocular lenses using two biometry measurement devices and multiple intraocular lens power calculation formulas, Clinical & Experimental Ophthalmology, 43, 328-334, 2015	Wrong study design (comparative case series for biometry comparison), wrong comparison (different types of optical biometry), does not provide subgroup analysis of different axial lengths for different IOL formulas
Reitblat, O., Levy, A., Kleinmann, G., Abulafia, A., Assia, E.I. Effect of posterior corneal astigmatism on power calculation and alignment of toric intraocular lenses: Comparison of methodologies. Journal of Cataract & Refractive Surgery, 42, 217-225, 2016	Wrong intervention
Retzlaff,J.A., Sanders,D.R., Kraff,M.C., Development of the SRK/T intraocular lens implant power calculation formula.[Erratum appears in J Cataract Refract Surg 1990 Jul;16(4):528], Journal of Cataract & Refractive Surgery, 16, 333-340, 1990	Wrong population (does not specify phacoemulsification cataract surgery)
Rhiu,S., Lee,E.S., Kim,T.I., Lee,H.S., Kim,C.Y., Power prediction for one-piece and three-piece intraocular lens implantation after cataract surgery in patients with chronic angle-closure glaucoma: a prospective, randomized clinical trial, Acta Opthalmologica, 90, e580-e585, 2012	Does not provide subgroup analysis of different axial lengths for different IOL formulas
Richards,S.C., Olson,R.J., Richards,W.L., Factors associated with poor predictability by intraocular	Wrong population (extracapsular cataract extraction)

Study	Reason for exclusion
lens calculation formulas, Archives of Ophthalmology, 103, 515-518, 1985	
Richards,S.C., Olson,R.J., Richards,W.L., Brodstein,R.S., Hale,P.N., Clinical evaluation of six intraocular lens calculation formulas, Journal - American Intra-Ocular Implant Society, 11, 153-158, 1985	Wrong population (extracapsular cataract extraction)
Richards,S.C., Steen,D.W., Clinical evaluation of the Holladay and SRK II formulas, Journal of Cataract & Refractive Surgery, 16, 71-74, 1990	Wrong population (mixture of extracapsular and intracapsular cataract extraction with results not separately reported)
Rodriguez-Raton,A., Jimenez-Alvarez,M., Arteche-Limousin,L., Mediavilla-Pena,E., Larrucea-Martinez,I., Effect of pupil dilation on biometry measurements with partial coherence interferometry and its effect on IOL power formula calculation, European Journal of Ophthalmology, 25, 309-314, 2015	Wrong population (people with cataracts, surgery not specified); wrong outcomes (intraocular lens power calculations)
Roessler,G.F., Dietlein,T.S., Plange,N., Roepke,A.K., Dinslage,S., Walter,P., Mazinani,B.A. Accuracy of intraocular lens power calculation using partial coherence interferometry in patients with high myopia, Ophthalmic Physiol Opt. 32, 228-233, 2012	Wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Roh,H.C., Chuck,R.S., Lee,J.K., Park,C.Y. The effect of corneal irregularity on astigmatism measurement by automated versus ray tracing keratometry, Medicine, 94, e677, 2015	Wrong population (for RQ5 keratometry comparison, no history of corneal refractive surgery)
Roh,Y.R., Lee,S.M., Han,Y.K., Kim,M.K., Wee,W.R., Lee,J.H. Intraocular lens power calculation using IOLMaster and various formulas in short eyes, Korean Journal of Ophthalmology, 25, 151-155, 2011	Wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Rohrer,K., Frueh,B.E., Walti,R., Clemetson,I.A., Tappeiner,C., Goldblum,D., Comparison and evaluation of ocular biometry using a new noncontact optical low-coherence reflectometer, Ophthalmology, 116, 2087-2092, 2009	Wrong comparator (optical vs optical biometry); wrong outcomes (measurement accuracy)
Rosa,N., Capasso,L., Intraocular lens power calculation after photorefractive keratectomy for myopia, Archives of Ophthalmology, 121, 584-, 2003	Letter
Rosa, N., Lanza, M., Capasso, L. Intraocular lens power calculation for eyes with previous myopic LASIK. Journal of Refractive Surgery, 22, 847-848, 2006	Letter
Rosa,N., Capasso,L., De,Bernardo M., Lanza,M., IOL power calculation after refractive surgery, Ophthalmology, 118, 2309-, 2011	Letter
Rosa,N., Capasso,L., Lanza,M., New formula for calculating intraocular lens power after LASIK, Journal of Cataract & Refractive Surgery, 31, 1854-1855, 2005	Letter
Rosa,N., Capasso,L., Lanza,M., Double-K method to calculate IOL power after refractive surgery,	Letter

Study	Reason for exclusion
Journal of Cataract & Refractive Surgery, 31, 254-255, 2005	
Rosa,N., Capasso,L., Lanza,M., Power calculation after laser refractive surgery, Journal of Cataract & Refractive Surgery, 35, 1653-, 2009	Letter
Rosa,N., Capasso,L., Lanza,M., Borrelli,M., Clinical results of a corneal radius correcting factor in calculating intraocular lens power after corneal refractive surgery, Journal of Refractive Surgery, 25, 599-603, 2009	Wrong population (mixed group of people with history of myopic corneal refractive surgery with no subgroup data provided)
Rosa,N., Capasso,L., Lanza,M., Furgiuele,D., Romano,A. Reliability of the IOLMaster in measuring corneal power changes after photorefractive keratectomy, Journal of Refractive Surgery, 27, 293-298, 2011	No comparison
Rosa,N., Capasso,L., Lanza,M., Iaccarino,G., Romano,A., Reliability of a new correcting factor in calculating intraocular lens power after refractive corneal surgery, Journal of Cataract & Refractive Surgery, 31, 1020-1024, 2005	Wrong population (theoretical sample of cases derived from literature with no details provided)
Rosa,N., Lanza,M., Capasso,L., Intraocular lens power calculation for eyes with previous myopic LASIK, Journal of Refractive Surgery, 22, 847-848, 2006	Letter
Rose,L.T., Moshegov,C.N., Comparison of the Zeiss IOLMaster and applanation A-scan ultrasound: biometry for intraocular lens calculation, Clinical & Experimental Ophthalmology, 31, 121-124, 2003	Wrong study design (comparative case series for biometry comparison)
Roy,A., Das,S., Sahu,S.K., Rath,S., Ultrasound biometry vs. IOL Master, Ophthalmology, 119, 1937-2, 2012	Wrong study design (comparative, randomised case series for biometry comparison)
Rozema,J.J., Wouters,K., Mathysen,D.G., Tassignon,M.J., Overview of the repeatability, reproducibility, and agreement of the biometry values provided by various ophthalmic devices, American Journal of Ophthalmology, 158, 1111-1120, 2014	Wrong outcomes (measurement accuracy)
Saad,E., Shammas,M.C., Shammas,H.J., Scheimpflug corneal power measurements for intraocular lens power calculation in cataract surgery, American Journal of Ophthalmology, 156, 460-467, 2013	Wrong study design (comparative case series for phacoemulsification cataract surgery only for keratometry comparison)
Saiki,M., Negishi,K., Kato,N., Torii,H., Dogru,M., Tsubota,K. Ray tracing software for intraocular lens power calculation after corneal excimer laser surgery, Japanese Journal of Ophthalmology, 58, 276-281, 2014	Duplicate data (already reported in Saiki 2013 J Cataract Refract Surg 39:556-62)
Salouti,R., Nowroozzadeh,M.H., Zamani,M., Ghoreyshi,M., Salouti,R., Comparison of the ultrasonographic method with 2 partial coherence interferometry methods for intraocular lens power calculation, Optometry (St, Louis,, 140-147, 2011	Wrong outcomes (measurement accuracy)
Sambare,C., Naroo,S., Shah,S., Sharma,A., The AS biometry technique--a novel technique to aid accurate intraocular lens power calculation after	Wrong population (corneal surgery); wrong comparison (clinical history method)

Study	Reason for exclusion
corneal laser refractive surgery, Contact Lens & Anterior Eye, 29, 81-83, 2006	
Sanders,D., Retzlaff,J., Kraff,M., Kratz,R., Gills,J., Levine,R., Colvard,M., Weisel,J., Loyd,T., Comparison of the accuracy of the Binkhorst, Colenbrander, and SRK implant power prediction formulas, Journal - American Intra-Ocular Implant Society, 7, 337-340, 1981	Wrong population (does not specify phacoemulsification cataract surgery)
Sanders,D.R., Kraff,M.C., Improvement of intraocular lens power calculation using empirical data, Journal - American Intra-Ocular Implant Society, 6, 263-267, 1980	Wrong population (does not specify phacoemulsification cataract surgery)
Sanders,D.R., Retzlaff,J., Kraff,M.C., Comparison of the SRK II formula and other second generation formulas, Journal of Cataract & Refractive Surgery, 14, 136-141, 1988	Wrong population (does not specify phacoemulsification cataract surgery)
Sanders,D.R., Retzlaff,J.A., Kraff,M.C., Gimbel,H.V., Raanan,M.G., Comparison of the SRK/T formula and other theoretical and regression formulas, Journal of Cataract & Refractive Surgery, 16, 341-346, 1990	Wrong population (does not specify phacoemulsification cataract surgery)
Savini,G., Accuracy of the Refractive Prediction Determined by Multiple Currently Available Intraocular Lens Power Calculation Formulas in Small Eyes, American Journal of Ophthalmology, 160, 202-203, 2015	Letter
Savini,G., Barboni,P., Carbonelli,M., Hoffer,K.J., Accuracy of Scheimpflug corneal power measurements for intraocular lens power calculation.[Erratum appears in J Cataract Refract Surg. 2009 Aug;35(8):1483], Journal of Cataract & Refractive Surgery, 35, 1193-1197, 2009	Wrong study design (comparative case series for phacoemulsification cataract surgery only for keratometry comparison)
Savini,G., Barboni,P., Carbonelli,M., Hoffer,K.J., Accuracy of a dual Scheimpflug analyzer and a corneal topography system for intraocular lens power calculation in unoperated eyes, Journal of Cataract & Refractive Surgery, 37, 72-76, 2011	Duplicate data (already reported in J Cataract Refract Surg 2004; 40:1473-8)
Savini,G., Barboni,P., Carbonelli,M., Hoffer,K.J., Accuracy of corneal power measurements by a new Scheimpflug camera combined with Placido-disk corneal topography for intraocular lens power calculation in unoperated eyes, Journal of Cataract & Refractive Surgery, 38, 787-792, 2012	Duplicate data (already reported in J Cataract Refract Surg 2004; 40:1473-8)
Savini,G., Barboni,P., Carbonelli,M., Hoffer,K.J., Comparison of methods to measure corneal power for intraocular lens power calculation using a rotating Scheimpflug camera, Journal of Cataract & Refractive Surgery, 39, 598-604, 2013	Duplicate data (already reported in J Cataract Refract Surg 2004; 40:1473-8)
Savini,G., Barboni,P., Ducoli,P., Borrelli,E., Hoffer,K.J., Influence of intraocular lens haptic design on refractive error, Journal of Cataract & Refractive Surgery, 40, 1473-1478, 2014	Does not provide subgroup analysis of different axial lengths for different IOL formulas
Savini,G., Ducoli,P., Hoffer,K.J. Intraocular lens power calculation with the Scheimpflug camera after refractive surgery, Journal of Cataract & Refractive Surgery, 39, 1280, 2013	Comment on article (Saiki 2013 J Cataract Refract Surg 39:556-62)

Study	Reason for exclusion
Savini,G., Hoffer,K.J., Barboni,P., Influence of corneal asphericity on the refractive outcome of intraocular lens implantation in cataract surgery, Journal of Cataract & Refractive Surgery, 41, 785-789, 2015	Duplicate data (already reported in J Cataract Refract Surg 2004; 40:1473-8)
Schelenz,J., Kammann,J., Comparison of contact and immersion techniques for axial length measurement and implant power calculation, Journal of Cataract & Refractive Surgery, 15, 425-428, 1989	Wrong population (not specified); wrong comparator (immersion vs contact ultrasound)
Seitz,B., Langenbucher,A., Intraocular lens calculations status after corneal refractive surgery. [Review] [61 refs], Current Opinion in Ophthalmology, 11, 35-46, 2000	Narrative review
Seitz,B., Langenbucher,A., Nguyen,N.X., Kus,M.M., Kuchle,M., Underestimation of intraocular lens power for cataract surgery after myopic photorefractive keratectomy, Ophthalmology, 106, 693-702, 1999	Wrong population (unclear whether patients had cataract surgery)
Shammas,H.J., Hoffer,K.J., Shammas,M.C., Scheimpflug photography keratometry readings for routine intraocular lens power calculation, Journal of Cataract & Refractive Surgery, 35, 330-334, 2009	Wrong study design (comparative case series for phacoemulsification cataract surgery only for keratometry comparison)
Shammas, H.J., Shammas, M.C. No-history method of intraocular lens power calculation for cataract surgery after myopic laser in situ keratomileusis. Journal of Cataract & Refractive Surgery, 33, 31-36, 2007	Wrong outcomes (IOL prediction error)
Sheard,R., Optimising biometry for best outcomes in cataract surgery. [Review], Eye, 28, 118-125, 2014	Commentary
Sheard,R.M., Smith,G.T., Cooke,D.L., Improving the prediction accuracy of the SRK/T formula: the T2 formula, Journal of Cataract & Refractive Surgery, 36, 1829-1834, 2010	Wrong population (does not specify phacoemulsification cataract surgery)
Sheppard,A.L., Dunne,M.C., Wolffsohn,J.S., Davies,L.N., Theoretical evaluation of the cataract extraction-refraction-implantation techniques for intraocular lens power calculation, Ophthalmic & Physiological Optics, 28, 568-576, 2008	Wrong study design (theoretical calculations); wrong population (unclear population)
Shirayama,M., Wang,L., Koch,D.D., Weikert,M.P., Comparison of accuracy of intraocular lens calculations using automated keratometry, a Placido-based corneal topographer, and a combined Placido-based and dual Scheimpflug corneal topographer, Cornea, 29, 1136-1138, 2010	Wrong study design (comparative case series for phacoemulsification cataract surgery only for keratometry comparison)
Smith,S.D., Smith,R.A., Comparison of Theoretical and Regression Formulas for IOL Power Calculation for Beginning Cataract Surgeons, American Academy of Ophthalmology, 122-, 1994	Unavailable - unable to source article
Spokes,D.M., Norris,J.H., Ball,J.L., Refinement of lens power selection for sulcus placement of intraocular lens, Journal of Cataract & Refractive Surgery, 36, 1436-1437, 2010	Not relevant (sulcus intraocular lens implantation following posterior capsule rupture)

Study	Reason for exclusion
Stakheev,A.A., Intraocular lens calculation for cataract after previous radial keratotomy, Ophthalmic & Physiological Optics, 22, 289-295, 2002	Wrong population (mixture of phacoemulsification and extracapsular cataract extraction without separated results reported)
Stakheev,A.A., Balashevich,L.J., Corneal power determination after previous corneal refractive surgery for intraocular lens calculation, Cornea, 22, 214-220, 2003	Wrong population (corneal refractive surgery)
Stopyra,W., The accuracy of IOL power calculation formulas for eyes of axial length exceeding 24.5 mm, Klinika Oczna, 115, 93-95, 2013	Wrong outcomes (visual acuity)
Suk,K.K., Smiddy,W.E., Shi,W., Refractive outcomes after silicone oil removal and intraocular lens implantation, Retina, 33, 634-641, 2013	Wrong study design (retrospective, comparative case series for biometry comparison), wrong population (no reference to phacoemulsification cataract surgery)
Sunderraj,P., Clinical comparison of automated and manual keratometry in pre-operative ocular biometry, Eye, 6, 60-62, 1992	Wrong population (extracapsular cataract extraction); wrong outcomes (measurements of corneal refractive power)
Sunderraj,P., Villada,J.R., The newer generation intraocular lens power calculation formulae in anterior chamber implants, Eye, 6, 499-501, 1992	Wrong population (extracapsular cataract extraction)
Suto,C., Hori,S., Fukuyama,E., Akura,J., Adjusting intraocular lens power for sulcus fixation, Journal of Cataract & Refractive Surgery, 29, 1913-1917, 2003	Not relevant (sulcus intraocular lens implantation following posterior capsule rupture)
Symes,R.J., Say,M.J., Ursell,P.G., Scheimpflug keratometry versus conventional automated keratometry in routine cataract surgery.[Erratum appears in J Cataract Refract Surg. 2011 May;37(5):980], Journal of Cataract & Refractive Surgery, 36, 1107-1114, 2010	Wrong outcomes (measurement accuracy)
Symes,R.J., Ursell,P.G., Automated keratometry in routine cataract surgery: comparison of Scheimpflug and conventional values, Journal of Cataract & Refractive Surgery, 37, 295-301, 2011	Wrong outcomes (differences in intraocular lens power calculations)
Tang,M., Li,Y., Huang,D., An intraocular lens power calculation formula based on optical coherence tomography: a pilot study, Journal of Refractive Surgery, 26, 430-437, 2010	Does not provide subgroup analysis of different axial lengths for different IOL formulas
Tang,M., Wang,L., Koch,D.D., Li,Y., Huang,D., Intraocular lens power calculation after previous myopic laser vision correction based on corneal power measured by Fourier-domain optical coherence tomography, Journal of Cataract & Refractive Surgery, 38, 589-594, 2012	Wrong intervention (only 1 relevant IOL formula available with, therefore no relevant comparisons)
Tang,M., Wang,L., Koch,D.D., Li,Y., Huang,D., Intraocular lens power calculation after myopic and hyperopic laser vision correction using optical coherence tomography, Saudi Journal of Ophthalmology, 26, 19-24, 2012	Wrong population (mixed group of people with history of myopic and hyperopic corneal refractive surgery with no subgroup data provided)
Tang,Q., Hoffer,K.J., Olson,M.D., Miller,K.M., Accuracy of Scheimpflug Holladay equivalent keratometry readings after corneal refractive	Wrong population (mixed group of people with history of corneal refractive surgery with no subgroup data provided)

Study	Reason for exclusion
surgery, Journal of Cataract & Refractive Surgery, 35, 1198-1203, 2009	
Tappeiner,C., Rohrer,K., Frueh,B.E., Waelti,R., Goldblum,D., Clinical comparison of biometry using the non-contact optical low coherence reflectometer (Lenstar LS 900) and contact ultrasound biometer (Tomey AL-3000) in cataract eyes, British Journal of Ophthalmology, 94, 666-667, 2010	Wrong population (people with cataracts; surgery not specified); wrong outcomes (accuracy measurements)
Terzi,E., Wang,L., Kohnen,T., Accuracy of modern intraocular lens power calculation formulas in refractive lens exchange for high myopia and high hyperopia, Journal of Cataract & Refractive Surgery, 35, 1181-1189, 2009	Wrong population (refractive lens exchange)
Turhan,S.A., Toker,E. Predictive Accuracy of Intraocular Lens Power Calculation: Comparison of Optical Low-Coherence Reflectometry and Immersion Ultrasound Biometry, Eye Contact Lens, 41, 245-251, 2015	Wrong study design (comparative case series for biometry comparison), wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Ueda,T., Taketani,F., Ota,T., Hara,Y., Impact of nuclear cataract density on postoperative refractive outcome: IOL Master versus ultrasound, Ophthalmologica, 221, 384-387, 2007	Wrong study design (comparative case series for biometry comparison)
Verhulst,E., Vrijghem,J.C., Accuracy of intraocular lens power calculations using the Zeiss IOL master. A prospective study, Bulletin de la Societe Belge d Ophtalmologie, 61-65, 2001	Wrong outcomes (no predicted refraction)
Visser,N., Bauer,N.J.C., Nuijts,R.M.M.A., Toric intraocular lenses: Historical overview, patient selection, IOL calculation, surgical techniques, clinical outcomes, and complications, Journal of Cataract and Refractive Surgery.39 (4) (pp 624-627), 2013.Date of Publication: April 2013., 624-627, 2013	Narrative review
Wang,J.K., Hu,C.Y., Chang,S.W. Intraocular lens power calculation using the IOLMaster and various formulas in eyes with long axial length, Journal of Cataract & Refractive Surgery, 34, 262-267, 2008	Wrong study design (non-randomised controlled study for biometry comparison), wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Wang, L., Tang, M., Huang, D., Weikert, M.P., Koch, D.D. Comparison of Newer Intraocular Lens Power Calculation Methods for Eyes after Corneal Refractive Surgery. Ophthalmology, 122, 2443-2449, 2015	Wrong outcomes (IOL prediction error)
Whang,W.J., Byun,Y.S., Joo,C.K., Comparison of refractive outcomes using five devices for the assessment of pre-operative corneal power, Clinical & Experimental Ophthalmology, 40, 425-432, 2012	Wrong study design (comparative case series for phacoemulsification cataract surgery only for keratometry comparison)
Yang,Q.H., Chen,B., Peng,G.H., Li,Z.H., Huang,Y.F., Accuracy of axial length measurements from immersion B-scan ultrasonography in highly myopic eyes, International Journal of Ophthalmology, 7, 441-445, 2014	Wrong study design (comparative case series for biometry comparison)

Study	Reason for exclusion
Yang, R., Yeh, A., George, M.R., Rahman, M., Boerman, H., Wang, M. Comparison of intraocular lens power calculation methods after myopic laser refractive surgery without previous refractive surgery data. Journal of Cataract & Refractive Surgery, 39, 1327-1335, 2013	Wrong outcomes (IOL prediction error)
Zaldivar,R., Shultz,M.C., Davidorf,J.M., Holladay,J.T. Intraocular lens power calculations in patients with extreme myopia, Journal of Cataract & Refractive Surgery, 26, 668-674, 2000	Wrong population (for question on IOL formulas, no details provided of history of ocular comorbidities/surgeries)
Zudans,J.V., Desai,N.R., Trattler,W.B., Comparison of prediction error: labeled versus unlabeled intraocular lens manufacturing tolerance, Journal of Cataract & Refractive Surgery, 38, 394-402, 2012	Wrong population (does not specify phacoemulsification cataract surgery)
Zuidervaart,W., Luyten,G.P., A retrospective analysis of five intra-ocular lenses and the predictive value of six different intra-ocular lens power calculation formulas, Ophthalmologica, 219, 390-393, 2005	Wrong population (extracapsular cataract extraction)

F.3.2 Risk stratification and factors for increased cataract surgical complications

Study	Reason for exclusion
Asencio et al. A case-control study of post-operative endophthalmitis diagnosed at a Spanish hospital over a 13 year period. Epidemiology & Infection. 2009;35(10):1688-1693	Not intraoperative complications
Belair et al. Incidence of Cystoid Macular Edema after cataract surgery in patients with and without Uveitis using optical coherence tomography. 2009;148(1):128-135	Not intraoperative complications
Bjerrum et al. Quality assessment of cataract surgery in Denmark – risk of retinal detachment and postoperative endophthalmitis. Acta Opthalmologica. 2015;93(15)	Not intraoperative complications
Bellucci et al. Phacoemulsification: Risk factor analysis after the learning curve. Eur J Implant Ref Surg. 1995;7(6):331-334	Naming complications not risk factors
Boberg-Ans et al. Retinal detachment after phacoemulsification cataract extraction. Journal of cataract and refractive surgery. 2003;29(7):1333-1338	Not intraoperative complications
Boberg-Ans et al. Long term incidence of rhegmatogenous retinal detachment and survival in a defined population undergoing standardized phacoemulsification surgery. Acta ophthalmol scand. 2006;84(5):613-618	Not intraoperative complications
Chan et al. Complications of cataract surgery. Clinical and Experimental Optometry. 2010;93(6):379-389	Not reporting risk factors
Chang et al. ASCRS White paper: Clinical review of intraoperative floppy-iris syndrome. Journal of cataract and refractive surgery. 2008;34:2153-2162	Review of clinical management
Chen et al. Complication rate of posterior capsule rupture with vitreous loss during phacoemulsification at a Hawaiian cataract surgical centre. Clinical ophthalmology. 2014;8:375-378	Audit

Study	Reason for exclusion
Cho et al. Risk Factors for Endothelial Cell Loss after Phacoemulsification: Comparison in Different Anterior Chamber Depth Groups. Korean J Ophthalmol 2010;24(1):10-15	Not intraoperative complications
Chu et al. Suprachoroidal Hemorrhage – an experimental study. Surv Ophthalmol 1999;43(6):471-486	Surgical management techniques
Clark et al. Risk for retinal detachment after phacoemulsification: A whole-population study of cataract surgery outcomes. Arch Ophthalmology. 2012;130(7):882-888	Not intraoperative complications
Clark et al. Long-term trends and outcomes of anterior vitrectomy in Western Australia. Acta Ophthalmologica. 2015;93(1):27-32	Not looking at risk factors
Clayman et al. Intraocular lenses, axial length and retinal detachment. American journal of ophthalmology. 1981;92:778-780	Not the intervention reviewing
Daien et al. Incidence, risk factors and impact of age on retinal detachment after cataract surgery in France. Ophthalmology. 2015;122(11):2179-2185	Not intraoperative complications
Day et al. The Royal College of Ophthalmologists National Ophthalmology Database study of cataract surgery: report 1, visual outcomes and complications. Eye. 2015;29(4):552-560	Not looking at risk factors
Do et al. Transient Corneal Edema is a Predictive Factor for Pseudophakic Cystoid Macular Edema after Uncomplicated Cataract Surgery. Korean J Ophthalmol 2015;29(1):14-22	Not intraoperative complications
Dunn et al. Cataract surgery in patients with uveitic cataract. Techniques in ophthalmology. 2009;1:3-7	Study type
Emery et al. Complications of phacoemulsification. Ophthalmology. 1978;85(2):141-150	Not looking at risk factors
Erie et al. Risk of retinal detachment after cataract extraction, 1980-2004: a population-based study. Transactions of the American Ophthalmological Society. 2006;104:167-175	Not intraoperative complications
ESCRS. Prophylaxis of postoperative endopthalmitis following cataract surgery: Results of the ESCRS multicentre study and identification of risk. Journal of cataract and refractive surgery. 2007;33(6):978-988	Looking at risk from surgical procedures
Flesner et al. Cataract surgery on diabetic patients. A prospective evaluation of risk factors and complications. Acta ophthalmologica Scandinavica. 2002;80:1395-3907	Not intraoperative complications
Freeman et al. rate of Endophthalmitis after cataract surgery in Quebec, Canada 1996-2005. Archives of Ophthalmology. 2010;128(2):230-234	Not intraoperative complications
Greenberg et al. Prevalence and predictors of ocular complications associated with cataract surgery in United States veterans. Ophthalmology. 2011;118(3):507-514	Audit of complications
Gulkilik et al. Cystoid macular edema after phacoemulsification: risk factors and effect on visual acuity. Canadian journal of ophthalmology. 2006;41:699-703	Not intraoperative complications

Study	Reason for exclusion
Habib et al. The role of case mix in the relation of volume and outcome in phacoemulsification. British journal of ophthalmology. 2005;89:1143-1146	Not looking at risk factors in protocol
Haridas et al. Intraoperative floppy iris syndrome in patients receiving tamsulosin or doxazosin. Graefes Arch Clin Exp Ophthalmol. 2013;251:1541-1545	Not looking at risk factors
Hatch et al. Risk factors for acute endophthalmitis after cataract surgery. Ophthalmology. 2009;116(3):425-430	Not intraoperative complications
Haug et al. Risk factors for retinal detachment following cataract surgery. Current opinions in ophthalmology. 2012;23:7-11	Not intraoperative complications
Henderson et al. Clinical pseudophakic cystoid macular edema: Risk factors for development and duration after treatment. Journal of cataract and refractive surgery. 2007;33:1550-1558	Not intraoperative complications
Ho et al. Retinal complications of cataract surgery. Comp Ophthalmol Update. 2006;7:1-10	Clinical management of complications
Jakobsson et al. Capsule complication during cataract surgery. Journal of cataract and refractive surgery. 2009;35(10):1699-1705	Not intraoperative complications
Langwinska et al. The complications during phacoemulsification in patients with posterior polar cataract.	Not looking at risk factors
Law et al. Clinical cystoid macular edema after cataract surgery in glaucoma patients. Journal of glaucoma. 2010;19:100-104	Not intraoperative complications
Li et al. Significant nonsurgical risk factors for endophthalmitis after cataract surgery. IOVS 2004;45:1321-1328	Not intraoperative complications
Majka et al. Risk factors for interoperative floppy iris syndrome: A meta-analysis. Evidence based ophthalmology. 2011;12:200-201	Commentary
Menikoff et al. A case-control study of risk factors for postoperative endophthalmitis. Ophthyalmology. 1991;98:1761-1768	Not intraoperative complications
McGuinness et al. The Prince of wales hospital prospective aphakic macular oedema study. Australian journal of ophthalmology. 1980;8:247-251	Not the intervention reviewing
Montan et al. Endophthalmitis after cataract surgery: risk factors relating to technique and events of the operation and patient history: A retrospective case-control. Ophthalmology. 1998;105:2171-2177	Surgical technique, Not intraoperative complications.
Moses et al. Cystoid macular edema and retinal detachment following cataract surgery. American intra-ocular implant society. 1979;5(4):326-329	Not intraoperative complications
Ninn-Pederson et al. Cataract patients in a defined Swedish population, 1986-1990. Archives of ophthalmology. 1996;114:382-386	Not intraoperative complications
Obuchowska et al. Risk factors of massive suprachoroidal haemorrhage during extracapsular cataract extraction surgery. European journal of ophthalmology. 2005;15:712-717	Intervention
Osborne et al. The use of a pre-operative scoring system for the prediction of phacoemulsification case	Not reporting risk of complications

Study	Reason for exclusion
difficulty and the selection of appropriate cases to be performed by trainees. BMC Ophthalmology. 2006;6:38	
Recchia et al. Acute endophthalmitis following cataract surgery: A systematic review of the literature. Evidence based ophthalmology. 2005;4:201-202	Not intraoperative complications
Sheu et al. Risk factors for retinal detachment after cataract surgery in Southern Taiwan. Journal of Chinese Medical Association. 2005;68:321-326	Not intraoperative complications
Solborg et al. Quality assessment of cataract surgery in Denmark – risk of retinal detachment and posterior enophthalmitis. Acta ophthalmol. 2015;93:391-392	Study type
Taban et al. Acute endophthalmitis following cataract surgery: A systematic review of the literature. Archives of ophthalmology. 2005;123:613-620	Not intraoperative complications
Tuft et al. Risk factors for retinal detachment after cataract surgery. Ophthalmology. 2006;113:650-656	Not intraoperative complications
Walkow et al. Endothelial cell loss after phacoemulsification: relation to preoperative and intraoperative parameters. Journal of cataract and refractive surgery. 2000;26:727-732	Surgical approach not risk factors
Wejde et al. Risk factors for endophthalmitis following cataract surgery: a retrospective case-control study. The journal of hospital infection. 2005;61:251-256	Surgical approach not risk factors
Woodfield et al. Complication rates of second and third year ophthalmology residents: A 5 year comparison. Ophthalmology. 2011;118:954-958	Study type

F.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?

F.4.1 Lens design

Short Title	Title	Reason for exclusion
Abela-Formanek (2002)	Uveal and capsular biocompatibility of hydrophilic acrylic, hydrophobic acrylic, and silicone intraocular lenses	No relevant outcomes reported
Abhilakh (2003)	Posterior capsule opacification: silicone plate-haptic versus AcrySof intraocular lenses	Not a relevant lens comparison
Ahn (2008)	Wavefront and Visual Function Analysis After Aspherical and Spherical Intraocular Lenses Implantation	Not in English
Alio (2000)	Comparative Performance of Intraocular Lenses in Uveitic Eyes with Cataract	Conference abstract
Alio (2002)	Comparative performance of intraocular lenses in eyes with cataract and uveitis	Case series
Anderson (1994)	Visual disturbances associated with oval-optic poly(methyl methacrylate) and round-optic silicone intraocular lenses	Not a relevant lens comparison
Assaf (2010)	Ocular aberrations and visual performance with an aspheric single-piece intraocular lens: contralateral comparative study	Not a relevant lens comparison
Awwad (2006)	Comparison of Contrast Sensitivity and Ocular Aberrations in Eyes With AcrySof IQ SN60WF and SN6OAT IOLs	Conference abstract
Bellucci (2005)	Visual acuity and contrast sensitivity comparison between Tecnis and AcrySof SA60AT intraocular lenses: A multicenter randomized study.[Erratum appears in J Cataract Refract Surg. 2005 Oct;31(10):1857]	Not a relevant lens comparison
Bender (2004)	Effect of 1-piece and 3-piece AcrySof intraocular lenses on the development of posterior capsule opacification after cataract surgery	Already included as part of included Cochrane review
Bottos (2007)	Wavefront Analysis, Contrast Sensitivity and Depth of Focus in Eyes Implanted With Aberration Free IOL (SofPort AO) and Spheric IOL (Soflex SE): A Multicentric Randomized Prospective Study	Conference abstract

Short Title	Title	Reason for exclusion
Bournas (2007)	Dysphotopsia after cataract surgery: comparison of four different intraocular lenses	Not a relevant lens comparison
Braga-Mele (2000)	Foldable silicone versus poly(methyl methacrylate) intraocular lenses in combined phacoemulsification and trabeculectomy	Not a relevant population
Buehl (2002)	Effect of an acrylic intraocular lens with a sharp posterior optic edge on posterior capsule opacification	Already included as part of included Cochrane review
Buehl (2004)	Effect of a silicone intraocular lens with a sharp posterior optic edge on posterior capsule opacification	Already included as part of included Cochrane review
Buehl (2005)	Long-term effect of optic edge design in an acrylic intraocular lens on posterior capsule opacification	Already included as part of included Cochrane review
Buehl (2007)	Long-term effect of optic edge design in a silicone intraocular lens on posterior capsule opacification	Already included as part of included Cochrane review
Busin (1997)	Foldable Intraocular Lenses vs. 5.5 mm PmmA Lenses Implanted through a Sutureless Temporal Clear Cornea Tunnel	Conference abstract
Caporossi (2009)	Contrast sensitivity evaluation of aspheric and spherical intraocular lenses 2 years after implantation	Secondary publication containing no additional data
Casprini (2005)	Glare disability and spherical aberration with five foldable intraocular lenses: a prospective randomized study	Not a relevant lens comparison
Cleary (2009)	Randomized intraindividual comparison of posterior capsule opacification between a microincision intraocular lens and a conventional intraocular lens	Already included as part of included Cochrane review
Constantinou (2013)	A randomized, single-center study of equivalence of 2 intraocular lenses used in cataract surgery	Not a relevant lens comparison
Crnej (2011)	Impact of intraocular lens haptic design and orientation on decentration and tilt	Not a relevant lens comparison
Cuthbertson (2009)	Objective and subjective outcomes in comparing three different aspheric intraocular lens implants with their spherical counterparts	No measures on uncertainty reported
Denoyer (2009)	Comparative study of aspheric intraocular lenses with negative spherical aberration or no aberration	Not a relevant lens comparison
Dick (1997)	Long-term results after implantation of different intraocular lenses through a clear-corneal tunnel incision.	Already included as part of included Cochrane review
Ding (2009)	Quantification of posterior capsular opacification after cataract surgery	Not in English

Short Title	Title	Reason for exclusion
Dunfield (2009)	Sharp and round optic edges of intraocular lenses: a review of the clinical and cost-effectiveness (Structured abstract)	Non-systematic literature review
Elgohary (2006)	Hydrophobic acrylic and plate-haptic silicone intraocular lens implantation in diabetic patients: pilot randomized clinical trial	Not a relevant lens comparison
Ernest (2003)	Posterior capsule opacification and neodymium: YAG capsulotomy rates with AcrySof acrylic and PhacoFlex II silicone intraocular lenses	Not a relevant lens comparison
Espindola (2014)	Influence of aspheric intraocular lens on frequency doubling technology and contrast sensitivity: a fellow eye study	Secondary publication containing no additional data
Findl (2005)	Effect of optic material on posterior capsule opacification in intraocular lenses with sharp-edge optics: randomized clinical trial	Already included as part of included Cochrane review
Findl (2005)	Long-term effect of sharp optic edges of a polymethyl methacrylate intraocular lens on posterior capsule opacification: a randomized trial	Already included as part of included Cochrane review
Fujino (2007)	Posterior Capsule Opacification After Implantation of a Hydrophilic Acrylic Intraocular Lens (IOL) With Double Square Edge and a Hydropholic Acrylic IOL With Posterior Square Edge	Conference abstract
Fung (2004)	Improved Contrast Sensitivity Obtained with Prolate Intraocular Lenses vs. Standard Spherical IOLs in Cataract Surgery	Conference abstract
Gangwani (2011)	Posterior capsule opacification and capsular bag performance of a microincision intraocular lens	Not a relevant lens comparison
Georgopoulos (2001)	Posterior continuous curvilinear capsulorhexis with hydrogel and silicone intraocular lens implantation: development of capsulorhexis size and capsule opacification	No relevant outcomes reported
Habibollahi (2010)	Contralateral comparison of visual outcome of AcrySof IQ and SA60AT intraocular lenses	Not a randomised study
Hayashi (1998)	Quantitative comparison of posterior capsule opacification after polymethylmethacrylate, silicone, and soft acrylic intraocular lens implantation	Already included as part of included Cochrane review
Hayashi (2001)	Changes in posterior capsule opacification after poly(methyl methacrylate), silicone, and acrylic intraocular lens implantation	Already included as part of included Cochrane review
Hayashi (2004)	Posterior capsule opacification after implantation of a hydrogel intraocular lens	Already included as part of included Cochrane review
Hayashi (2005)	Posterior capsule opacification in the presence of an intraocular lens with a sharp versus rounded optic edge	Already included as part of included Cochrane review
Hayashi (2005)	Intraocular lens factors that may affect anterior capsule contraction	No relevant outcomes reported
Hayashi (2007)	Influence on posterior capsule opacification and visual function of intraocular lens optic material	Already included as part of included Cochrane review

Short Title	Title	Reason for exclusion
Heatley (2005)	Comparison of posterior capsule opacification rates between hydrophilic and hydrophobic single-piece acrylic intraocular lenses	Already included as part of included Cochrane review
Heinz (2007)	Uveal and Capsular Biocompatibility of Two Acrylic Intraocular Lenses in Patients With Non-infectious Uveitis	Conference abstract
Hirnschall (2013)	Capsular bag stability and posterior capsule opacification of a plate-haptic design microincision cataract surgery intraocular lens: 3-year results of a randomised trial	Not a relevant lens comparison
Hollick (1998)	Lens epithelial cell regression on the posterior capsule with different intraocular lens materials	Already included as part of included Cochrane review
Hollick (1999)	The effect of polymethylmethacrylate, silicone, and polyacrylic intraocular lenses on posterior capsular opacification 3 years after cataract surgery	Already included as part of included Cochrane review
Hollick (1999)	Surface cytologic features on intraocular lenses: can increased biocompatibility have disadvantages?	No relevant outcomes reported
Hollick (2000)	Posterior capsular opacification with hydrogel, polymethylmethacrylate, and silicone intraocular lenses: two-year results of a randomized prospective trial	Already included as part of included Cochrane review
Hutz (2012)	Comparison of visual performance of silicone and acrylic multifocal IOLs utilizing the same diffractive design	Not a relevant lens comparison
Hyunseok (2007)	Comparison of an Aspherical IOL With a Spherical IOU Wavefront Analysis and Visual Quality	Conference abstract
Iwase (2008)	Postoperative refraction changes in phacoemulsification cataract surgery with implantation of different types of intraocular lens	No relevant outcomes reported
Johansen (1997)	Contrast sensitivity with silicone and poly(methyl methacrylate) intraocular lenses	No relevant outcomes reported
Kahraman (2014)	Anterior and posterior capsular opacification with the Tecnis ZCB00 and AcrySof SA60AT IOLs: a randomised intraindividual comparison	Not a relevant lens comparison
Kamlesh (2001)	Contrast sensitivity and depth of focus with aspheric multifocal versus conventional monofocal intraocular lens	Not a relevant lens comparison
Kang (2008)	Comparison of clinical results between heparin surface modified hydrophilic acrylic and hydrophobic acrylic intraocular lens	Not a relevant lens comparison
Kato (1998)	Comparison of postoperative inflammation with two types of intraocular lense and anti-inflammatory agents	Not a relevant lens comparison
Kaya (2007)	ThinOptX vs AcrySof: comparison of visual and refractive results, contrast sensitivity, and the incidence of posterior capsule opacification	Not a relevant lens comparison
Kershner (2003)	Retinal image contrast and functional visual performance with aspheric, silicone, and acrylic intraocular lenses. Prospective evaluation	Not a relevant lens comparison

Short Title	Title	Reason for exclusion
Khan (1999)	12 year results of a prospective trial comparing poly(methyl methacrylate) and poly(hydroxyethyl methacrylate) intraocular lenses	Not a relevant population
Khanzada (2008)	Comparative incidence of posterior capsular opacification in AcrySof and PMMA intraocular lenses	Already included as part of included Cochrane review
Kohnen (2004)	Optic Edge Design as Long-Term Factor for Posterior Capsular Opacification Rates	Conference abstract
Kohnen (2008)	Intraindividual Comparison of Higher-Order Aberrations and Contrast Sensitivity Following Implantation of Spherical (SN6OAT) or Aspherical (SN60IQ) Blue Light Filter	Conference abstract
Kohnen (2008)	Optic edge design as long-term factor for posterior capsular opacification rates	Already included as part of included Cochrane review
Kroll (2006)	Comparison of Pseudoaccomodation, Reading Speed, and Contrast Sensitivity between the Aspheric SN60WF Intraocular Lens (IOL) and a Similar Conventional IOL, the SA60AT	Conference abstract
Kruger (2000)	Two year results: sharp versus rounded optic edges on silicone lenses	No relevant outcomes reported
Kugelberg (2006)	Posterior capsule opacification after implantation of a hydrophilic or a hydrophobic acrylic intraocular lens: one-year follow-up	Already included as part of included Cochrane review
Kurosaka (2001)	Membranous proliferation of lens epithelial cells on acrylic, silicone, and poly(methyl methacrylate) lenses	No relevant outcomes reported
Lemon (1997)	Comparative study of silicone versus acrylic foldable lens implantation in primary glaucoma triple procedure	Not a relevant population
Leydolt (2007)	Long-term effect of 1-piece and 3-piece hydrophobic acrylic intraocular lens on posterior capsule opacification: a randomized trial	Already included as part of included Cochrane review
Lowe (1992)	A comparison of 141 polymacon (Iogel) and 140 poly(methyl methacrylate) intraocular lens implants	Not a relevant lens comparison
Marchini (2004)	Accomodative amplitude in eyes implanted with Crystalens AT45 and 1 Cu IOLs. Prospective, randomized, controlled, 12-month clinical trial	Conference abstract
Martin (1992)	Visual, astigmatic, and inflammatory results with the Staar AA-4203 single-piece foldable IOL: A randomized, prospective study	Not a relevant lens comparison
Martin (1992)	Visual, astigmatic, and inflammatory results with the Staar AA-4203 single-piece foldable IOL: A randomized, prospective study	Duplicate reference
Martino (2007)	Ocular Wavefront Analysis and Visual Performance Spherical and Aspherical IOLs: A Randomized Prospective Study	Conference abstract
Matsuo (2003)	The Postoperative Rotation of Implanted Intraocular Lenses	Conference abstract

Short Title	Title	Reason for exclusion
Maxwell (2007)	Quality of Vision Achieved With the Aspheric AcrySof SN60WF IOL and the Spherical AcrySof SA60AT IOL	Conference abstract
Mester (2004)	Posterior capsule opacification after implantation of CeeOn Edge 911A, PhacoFlex SI-40NB, and AcrySof MA60BM lenses: one-year results of an intraindividual comparison multicenter study	Already included as part of included Cochrane review
Mester (2008)	Comparison of the AcrySof IQ aspheric blue light filter and the AcrySof SA60AT intraocular lenses	Not a relevant lens comparison
Mortimer (1991)	Efficacy of polyacrylamide vs. sodium hyaluronate in cataract surgery	Not a relevant lens comparison
Muller-Jensen (2000)	Corneal refractive changes after acrysof lens versus PMMA lens implantation	No relevant outcomes reported
Munoz (2006)	Spherical aberration and contrast sensitivity after cataract surgery with the Tecnis Z9000 intraocular lens	Not a relevant lens comparison
Munoz (2011)	Lack of effect of intraocular lens asphericity on visual performance with acrylic intraocular lenses	Not a relevant lens comparison
Mylonas (2014)	Influence of a variable overall diameter hydrophilic acrylic sharp-edged single-piece intra-ocular lens on capsule opacification one year after surgery	Not a relevant lens comparison
Nanavaty (2012)	Fellow-eye comparison of 2 aspheric microincision intraocular lenses and effect of asphericity on visual performance	Not a relevant lens comparison
Nanavaty (2013)	Fellow-eye comparison of posterior capsule opacification between 2 aspheric microincision intraocular lenses	Not a relevant lens comparison
Nejima (2004)	A prospective, randomised comparison of single and three piece acrylic foldable intraocular lenses	Already included as part of included Cochrane review
Nejima (2006)	Prospective intrapatient comparison of 6.0-millimeter optic single-piece and 3-piece hydrophobic acrylic foldable intraocular lenses	Already included as part of included Cochrane review
Nochez (2010)	Measurement of corneal aberrations for customisation of intraocular lens asphericity: impact on quality of vision after micro-incision cataract surgery	Not a relevant lens comparison
Ohtani (2009)	One-year prospective intrapatient comparison of aspherical and spherical intraocular lenses in patients with bilateral cataract	No measures on uncertainty reported
Olson (1998)	Silicone versus polymethylmethacrylate intraocular lenses with regard to capsular opacification	Already included as part of included Cochrane review
Oshika (1993)	Comparative Study of Intraocular Lens Implantation Through 3.2mm and 5.5mm Incisions	Conference abstract
Oshika (1994)	Comparative study of intraocular lens implantation through 3.2- and 5.5-mm incisions	No relevant outcomes reported
Oshika (1998)	Three year prospective, randomized evaluation of intraocular lens implantation through 3.2 and 5.5 mm incisions	No relevant outcomes reported

Short Title	Title	Reason for exclusion
Packer (2002)	Prospective randomized trial of an anterior surface modified prolate intraocular lens	Not a relevant lens comparison
Packer (2004)	Improved functional vision with a modified prolate intraocular lens	Not a relevant lens comparison
Pande (1995)	Posterior capsular opacification with pmma, silicone and acrysof intraocular lenses: a prospective randomized clinical trial	Conference abstract
Pandita (2007)	Contrast sensitivity and glare disability after implantation of AcrySof IQ Natural aspherical intraocular lens: prospective randomized masked clinical trial	Not a relevant lens comparison
Papconstantinou (2001)	Anterior capsule opacification after clear cornea phacoemulsification comparing acrylic versus silicone foldable intraocular lenses	Conference abstract
Patel (1999)	Postoperative intraocular lens rotation: a randomized comparison of plate and loop haptic implants	Not a relevant lens comparison
Pepose (2009)	Comparison of contrast sensitivity, depth of field and ocular wavefront aberrations in eyes with an IOL with zero versus positive spherical aberration	Not a relevant lens comparison
Plaka (2013)	Efficacy of two silicone-hydrogel contact lenses for bandage use after photorefractive keratectomy	Not a relevant lens comparison
Pohjalainen (2002)	Posterior capsular opacification in pseudophakic eyes with a silicone or acrylic intraocular lens	Already included as part of included Cochrane review
Prosdocimo (2003)	Posterior capsule opacification after phacoemulsification: silicone CeeOn Edge versus acrylate AcrySof intraocular lens	Already included as part of included Cochrane review
Radford (2007)	Comparison of pseudophakic dysphotopsia with Akreos Adapt and SN60-AT intraocular lenses	Not a relevant lens comparison
Ricci (2004)	Low contrast visual acuity in pseudophakic patients implanted with an anterior surface modified prolate intraocular lens	Not a relevant lens comparison
Robert (2012)	Intraocular lens position following in-the-bag implantation of single-piece versus three-piece acrylic intraocular lenses	No relevant outcomes reported
Rocha (2007)	Spherical aberration and depth of focus in eyes implanted with aspheric and spherical intraocular lenses: a prospective randomized study	Secondary publication containing no additional data
Ronbeck (2014)	Posterior capsule opacification with 3 intraocular lenses: 12-year prospective study	Not a relevant lens comparison
Roshdy (2013)	Effect of a single-piece aspheric hydrophobic acrylic intraocular lens design on centration and rotation	Not a relevant lens comparison
Sacu (2004)	Comparison of posterior capsule opacification between the 1-piece and 3-piece Acrysof intraocular lenses: two-year results of a randomized trial	Already included as part of included Cochrane review

Short Title	Title	Reason for exclusion
Sacu (2004)	Effect of intraocular lens optic edge design and material on fibrotic capsule opacification and capsulorhexis contraction	Already included as part of included Cochrane review
Sacu (2004)	Influence of optic edge design and anterior capsule polishing on posterior capsule fibrosis	Already included as part of included Cochrane review
Sacu (2005)	Long-term efficacy of adding a sharp posterior optic edge to a three-piece silicone intraocular lens on capsule opacification: five-year results of a randomized study	Already included as part of included Cochrane review
Salvatore (2011)	New insight into visual function with aspherical intraocular lenses (IOLs): Tecnis ZCB00 and Acrysof SN60WF	Not a relevant lens comparison
Santhiago (2011)	Optical quality in eyes implanted with aspheric and spherical intraocular lenses assessed by NIDEK OPD-Scan: a randomized, bilateral, clinical trial	Secondary publication containing no additional data
Sauder (2005)	Potential of the 1 CU accommodative intraocular lens	Not a relevant lens comparison
Schauersberger (1999)	Course of postoperative inflammation after implantation of 4 types of foldable intraocular lenses	No relevant outcomes reported
Schauersberger (2001)	Comparison of the biocompatibility of 2 foldable intraocular lenses with sharp optic edges	Not a randomised study
Schrecker (2014)	Silicone-diffractive versus acrylic-refractive supplementary iols: visual performance and manual handling	Not a relevant lens comparison
Schriefl (2015)	Posterior capsular opacification and Nd:YAG capsulotomy rates with the iMics Y-60H and Micro AY intra-ocular lenses: 3-year results of a randomized clinical trial	Not a relevant lens comparison
Shah (2007)	Effect of intraocular lens edge profile on posterior capsule opacification after extracapsular cataract surgery in a developing country	Already included as part of included Cochrane review
Soriano (2006)	Correlation Between Near Vision and Pupil Size in Aspheric and Spherical IOLs	Conference abstract
Ssemanda (2008)	Comparison of intraocular lens types for cataract surgery in eyes with uveitis	Review protocol
Steinert (1990)	The Effect of 4.0 mm vs. 6.5 mm Incisions on Visual Acuity and Astigmatism: A Prospective, Randomized Trial	Conference abstract
Su (2009)	Intraindividual comparison of functional vision and higher order aberrations after implantation of aspheric and spherical intraocular lenses	Not a relevant lens comparison
Subrayan (2007)	Improving quality of vision with an anterior surface modified prolate intraocular lens: A prospective clinical trial	No measures on uncertainty reported
Sundelin (2005)	Three-year follow-up of posterior capsule opacification with two different silicone intraocular lenses	Already included as part of included Cochrane review
Sveinsson (1990)	A randomized prospective clinical comparison of HEMA (IOGEL (R)) and PMMA intraocular lenses	No relevant outcomes reported

Short Title	Title	Reason for exclusion
Tao (2013)	High resolution OCT quantitative analysis of the space between the IOL and the posterior capsule during the early cataract postoperative period	Not a relevant lens comparison
Tassinari (2006)	Quality of Vision of Eyes Implanted With Aspheric and Spherical IOLs	Conference abstract
Thiagarajan (2011)	Comparison of visual performance with an aspheric intraocular lens and a spherical intraocular lens	Not a relevant lens comparison
Utrata (1994)	Small incision surgery with the STAAR Elastimide three-piece posterior chamber intraocular lens	Not a relevant lens comparison
Vock (2007)	Effect of the hydrophilicity of acrylic intraocular lens material and haptic angulation on anterior capsule opacification	No relevant outcomes reported
Wei (2012)	The influence of corneal wound size on surgically induced corneal astigmatism after phacoemulsification	No relevant outcomes reported
Wejde (2003)	Posterior capsule opacification: comparison of 3 intraocular lenses of different materials and design	Already included as part of included Cochrane review
Wejde (2004)	Position of anterior capsulorhexis and posterior capsule opacification	Already included as part of included Cochrane review
Yagci (2014)	Comparison of visual quality between aspheric and spherical IOLs	Results reported as medians rather than means
Yoshida (2002)	Clinical evaluation of posterior capsule opacification in eyes with different small-incision intraocular lenses	Already included as part of included Cochrane review
Yu (2009)	Spherical aberration after implantation of an aspheric versus a spherical intraocular lens in high myopia	Not a relevant population
Zemaitiene (2004)	Prevention of posterior capsule opacification using different intraocular lenses (results of one-year clinical study)	Already included as part of included Cochrane review
Zemaitiene (2007)	Influence of three-piece and single-piece designs of two sharp-edge optic hydrophobic acrylic intraocular lenses on the prevention of posterior capsule opacification: a prospective, randomised, long-term clinical trial	Already included as part of included Cochrane review

F.4.2 Tinted vs colourless lenses

Study	Reason for exclusion
Algvere et al. Age-related maculopathy and the impact of blue light hazard. Acta Ophthalmologica Scandinavica. 2006;84:4-15	Not an RCT
Augustin. The physiology of scotopic vision, contrast vision, color vision and circadian rhythmicity. Retina. 2008;28:1179-1187	Not an RCT
Barisic et al. Blue light filtering intraocular lenses in phacoemulsification cataract surgery. Collegium Antropologicum. 2007;31:57-60	No measures of uncertainty included with the published data
Bhattacharjee et al. Visual performance: comparison of foldable intraocular lenses. Journal of Cataract & Refractive Surgery. 2006;32:451-455	No measures of uncertainty included with the published data

Study	Reason for exclusion
Braunstein et al. A blue-blocking intraocular lens should be used in cataract surgery. Arch ophthalmology. 2005;123:547-549	Not an RCT
Chong et al. Progression of age-related macular degeneration after cataract surgery in patients with a blue blocking intraocular lens in one eye and a clear intraocular lens in the fellow eye. Clinical and experimental ophthalmology. 2011;39:23-41	Not an RCT
Davison et al. Recent studies provide an updated clinical perspective on blue light-filtering IOLs. Graefes Archive for Clinical & Experimental Ophthalmology 2011;249:957-968	Not an RCT
Downie et al. Blue-light filtering intraocular lenses (IOLs) for protecting macular health. Cochrane Database of Systematic Reviews 2015	Protocol – review ongoing
Erichsen et al. Effect of cataract surgery on regulation of circadian rhythms. Journal of Cataract & Refractive Surgery. 2015;41:1997-2009	Not an RCT
Faulkner et al. UV-filter IOL versus Yellow Blue light-filter IOL in combined cataract surgery with vitrectomy. ARVO E-abstract. 2006;47:1484	Conference abstract
Glazer-Hockstein et al. Could blue light-blocking lenses decrease the risk of age-related macular degeneration? Retina. 2006;26:1-4	Not an RCT
Gotoh et al. Evaluation of visual performance with spherical, aspherical, and yellow tinted acrylic IOL's. ARVO E-abstract. 2007;48:5427	Conference abstract
Hayashi K, Hayashi H. Visual function in patients with yellow tinted intraocular lenses compared with vision in patients with non-tinted intraocular lenses. Br J Ophthalmology. 2006;90:1019-23	No measures of uncertainty included with the published data
Henderson et al. Blue-blocking IOL's a complete review of the literature. Survey of Ophthalmology. 2010;55:284-9	Not an RCT
Ichikawa et al. Changes in blood pressure and sleep duration in patients with blue light-blocking/yellow-tinted intraocular lens. Hypertension research. 2014;37:659-664	Not an RCT
Lai et al. Ultraviolet-blocking intraocular lenses. Current opinion in ophthalmology. 2014;25:35-39	Not an RCT
Landers et al. Comparison of visual function following implantation of Acrysof natural intraocular lenses with conventional intraocular lenses. Clinical and experimental ophthalmology. 2007;35:152-159	Not an RCT
Leruez et al. Blue light-filtering intraocular lenses and post-operative mood: a pilot clinical study. International Ophthalmology. 2015;35:249-56	Not an RCT
Mainster et al. Violet and blue light blocking intraocular lenses: photoprotection versus photoreception. Br J Ophthalmology. 2006;90:784-792	Not an appropriate population (cataract surgery)
Nakamura et al. Improving contrast sensitivity with the Acryl-Foldable yellow intraocular lens. ARVO E-abstract. 2006;47:302	Conference abstract
Nilforushan et al. Effect of yellow-tinted intraocular lens on standard automated perimetry and short wavelength	Not an RCT

Study	Reason for exclusion
automated perimetry in patients with glaucoma. Middle East African journal of ophthalmology. 2014;21:216-219	
Nishi et al. The effect of blue-blocking intraocular lenses on circadian biological rhythm: protocol for a randomised controlled trial (CLOCK-IOL colour study). BMJ Open 2015;5:1-7	Protocol – study ongoing
Olson et al. New intraocular lens technology. American journal of ophthalmology. 2005;140:709-16	Not an RCT
Rodriguez-Galietero et al. Comparison of contrast sensitivity and color discrimination after clear and yellow intraocular lens implantation. Journal of Cataract & Refractive Surgery. 2005;3:1736-40	Not an RCT
Rodriguez-Galietero et al. Blue-light filtering intraocular lens in patients with diabetes: contrast sensitivity and chromatic discrimination. Journal of Cataract & Refractive Surgery. 2005;31:2088-92	Not an RCT
Schmack et al. Visual quality assessment in patients with orange-tinted blue light-filtering and clear ultraviolet light-filtering intraocular lenses. Journal of Cataract & Refractive Surgery. 2012;38:823-32	Not an RCT
Wirtitsch et al. Influence of blue-light filtering intraocular lenses on color perception and contrast acuity. Ophthalmology. 2009;116:39-45	No relevant outcome data reported in an extractable format
Ueda et al. Frequency doubling technology perimetry after clear and yellow lens implantation. American journal of ophthalmology. 2006;142:856-8	Testing frequency doubling technology – not an intervention/outcome in protocol
Wissiak et al. Influence of light filters in intraocular lenses on color perception and contrast acuity. Journal of Cataract & Refractive Surgery. 2015;41:1217-23	Not an RCT
Wolffsohn et al. Violet vs Blue-blocking intraocular lenses: A tint matched spectacle lens based study. ARVO E-abstract. 2007;48:3117	Conference abstract
Yang et al. The yellow intraocular lens and the natural ageing lens. Current opinions in ophthalmology. 2014;25:40-43	Not an RCT
Yokoyama et al. Blue light-filtering foldable acrylic intraocular lens. Journal of artificial organs. 2006;9:71-76	Not an RCT
Yuan et al. Contrast sensitivity and colour vision with a yellow intraocular lens. American Journal of Ophthalmology. 2004;138:138-40	Not phacoemulsification surgery

F.4.3 Multifocal vs monofocal intraocular lenses

Study	Reason for exclusion
Alio JL, Pinero DP, Plaza-Puche AB, Chan MJ. Visual outcomes and optical performance of a monofocal intraocular lens and a new-generation multifocal intraocular lens. Journal of Cataract and Refractive Surgery 2011a;37(2):241-50.	Participants not randomly allocated to intervention
Alio JL, Pinero DP, Plaza-Puche AB, Amparo F, Jimenez R, Rodriguez-Prats JL, et al. Visual and optical performance with two different diffractive multifocal intraocular lenses compared to a monofocal lens. Journal of Refractive Surgery 2011b;27(8):570-81.	Participants not randomly allocated to intervention

Study	Reason for exclusion
Allen R, Ho-Yen GO, Beckingsale AB, Fitzke FW, Sciscio AG, Saleh GM. Post-capsulotomy dysphotopsia in monofocal versus multifocal lenses. Clinical and Experimental Optometry 2009;92(2):104-9.	Participants not randomly allocated to intervention
Cionni RJ, Chang D, Donnenfeld ED, Lane SS, McCulley JP, Solomon KD. Clinical outcomes and functional visual performance: comparison of the ReSTOR apodised diffractive intraocular lens to a monofocal control. British Journal of Ophthalmology 2009;93(9):1215-9.	Participants not randomly allocated to intervention
Hayashi K, Manabe S, Hayashi H. Visual acuity from far to near and contrast sensitivity in eyes with a diffractive multifocal intraocular lens with a low addition power. Journal of Cataract and Refractive Surgery 2009a;35(12):2070-6.	Participants not randomly allocated to intervention
Hayashi K, Masumoto M, Hayashi H. All-distance visual acuity in eyes with a nontinted or a yellow-tinted diffractive multifocal intraocular lens. Japanese Journal of Ophthalmology 2009b;53(2):100-6.	Participants not randomly allocated to intervention
Hayashi K, Yoshida M, Hayashi H. All-distance visual acuity and contrast visual acuity in eyes with a refractive multifocal intraocular lens with minimal added power. Ophthalmology 2009c;116(3):401-8.	Participants not randomly allocated to intervention
Hayashi K, Manabe S, Yoshida M, Hayashi H. Effect of astigmatism on visual acuity in eyes with a diffractive multifocal intraocular lens. Journal of Cataract and Refractive Surgery 2010;36(8):1323-9.	Participants not randomly allocated to intervention
Hida WT, Motta AF, Kara-Jose Junior N, Alves E, Tadeu M, Cordeiro LN, et al. Comparison between OPD-Scan results and visual outcomes of monofocal and multifocal intraocular lenses. Arquivos Brasileiros De Oftalmologia 2009;72(4):526-32.	Participants not randomly allocated to intervention
Huang BY, Tan SJ, Liang H, Li X. Distant, near and intermediate vision of the apodized diffractive Acrysof ReSTOR multifocal intraocular lens. International Journal of Ophthalmology 2010;10(5):856-8.	Chinese speaking Cochrane author spoke to trialists and confirmed that participants were not randomly allocated to the interventions
Ji J, Luo M, Fan XQ, Lu JF. Clinical observations of monofocal intraocular lens and multifocal intraocular lens implantation in cataract surgery. Journal of Shanghai Jiaotong University (Medical Science) 2011;31(8):1073-7.	Chinese speaking Cochrane author spoke to trialists and confirmed that participants were not randomly allocated to the interventions
Liang XJ, Yu JH, He JX, Lin YJ. Comparison of pseudoaccommodation and visual quality between monofocal and multifocal intraocular lens implantation. International Journal of Ophthalmology 2005;5(4):672-4.	Chinese speaking Cochrane author spoke to trialists and confirmed that participants were not randomly allocated to the interventions
Maxwell WA, Waycaster CR, D'Souza AO, Meissner BL, Hileman K. A United States cost-benefit comparison of an apodized, diffractive, presbyopia-correcting, multifocal intraocular lens and a conventional monofocal lens. Journal of Cataract and Refractive Surgery 2008;34(11):1855-61	Participants not randomly allocated to intervention
Ortiz D, Alio JL, Bernabeu G, Pongo V. Optical performance of monofocal and multifocal intraocular	Participants not randomly allocated to intervention

Study	Reason for exclusion
lenses in the human eye. Journal of Cataract and Refractive Surgery 2008;34(5):755-62.	
Richter-Mueksch S, Weghaupt H, Skorpik C, Velikay-Parel M, Radner W. Reading performance with a refractive multifocal and a diffractive bifocal intraocular lens. Journal of Cataract and Refractive Surgery 2002;28(11):1957-63.	Not randomised, case-control study
Rocha KM, Chalita MR, Souza CE, Soriano ES, Freitas LL, Muccioli C, et al. Postoperative wavefront analysis and contrast sensitivity of a multifocal apodized diffractive IOL (ReSTOR) and three monofocal IOLs. Journal of Refractive Surgery 2005;21(6):S808-12.	Participants not randomly allocated to intervention
Shah VC, Russo C, Cannon R, Davidson R, Taravella MJ. Incidence of Nd:YAG capsulotomy after implantation of AcrySof multifocal and monofocal intraocular lenses: a case controlled study. Journal of Refractive Surgery 2010;26(8):565-8.	Retrospective study
Souza CE, Muccioli C, Soriano ES, Chalita MR, Oliveira F, Freitas LL, et al. Visual performance of AcrySof ReSTOR apodized diffractive IOL: a prospective comparative trial. American Journal of Ophthalmology 2006;141(5):827-32.	Participants not randomly allocated to intervention
Walkow T, Liekfeld A, Anders N, Pham DT, Hartmann C, Wollensak J. A prospective evaluation of a diffractive versus a refractive designed multifocal intraocular lens. Ophthalmology 1997;104(9):1380-6.	Randomised trial comparing diffractive with refractive design multifocal IOLs. Excluded because of the lack of a monofocal control group.
Xu M, Li WS, Zhao YE, Wang QM. The clinical efficacy of accommodative intraocular lens and multifocal intraocular lens in pseudophakic after phacoemulsification. Chinese Journal of Ophthalmology 2007;43(2):104-7.	Chinese speaking Cochrane author spoke to trialists and confirmed that participants were not randomly allocated to the interventions
Zhang F, Sugar A, Jacobsen G, Collins M. Visual function and spectacle independence after cataract surgery: bilateral diffractive multifocal intraocular lenses versus monovision pseudophakia. Journal of Cataract and Refractive Surgery 2011;37(5):853-8.	Participants not randomly allocated to intervention

From additional search

Short Title	Title	Reason for exclusion
Alio (2011)	Visual and optical performance with two different diffractive multifocal intraocular lenses compared to a monofocal lens	Not RCT
Alio (2012)	Comparison of the visual and intraocular optical performance of a refractive multifocal IOL with rotational asymmetry and an apodized diffractive multifocal IOL	Not RCT
Alio (2015)	Clinical outcomes with a new microincisional diffractive multifocal IOL	Not reporting outcomes of interest
Allen (1996)	Comparison of a diffractive bifocal and a monofocal intraocular lens	Excluded from Cochrane review
Berdeaux (2009)	Comparison of outcomes for multifocal intra-ocular lenses (MIOLS): A meta-analysis	Have more up to date meta-analysis paper

Short Title	Title	Reason for exclusion
Bijaoui (2007)	Comparison of Visual Results and Quality of Vision Between Two Multifocal Intra Ocular Lenses : Rezoom versus Restor	Abstract
Chen (2007)	A comparison of a monofocal Acrysoft IOL using the "blended monovision" formula with the multifocal array IOL for glasses independence after cataract surgery	Not RCT
Chen (2011)	Reading ability and stereoacuity with combined implantation of refractive and diffractive multifocal intraocular lenses	Not RCT
Chuprov (2013)	[Stereoscopic vision evaluation in patients after binocular implantation of different intraocular lens models]	Not in English
Cillino (2014)	Working-age cataract patients: visual results, reading performance, and quality of life with three diffractive multifocal intraocular lenses	Hybrid lenses
Cochener (2011)	Comparison of outcomes with multifocal intraocular lenses: A meta-analysis	More modern meta-analysis used for review
Cochener (2016)	Prospective clinical comparison of patient outcomes following implantation of trifocal or bifocal intraocular lenses	Both lenses diffractive
Ehmer (2011)	[Influence of different multifocal intraocular lens concepts on retinal stray light parameters]	Not in English
Gil (2012)	Visual acuity, contrast sensitivity, subjective quality of vision, and quality of life with 4 different multifocal IOLs	Same lens type
Gil (2014)	Comparison of far and near contrast sensitivity in patients symmetrically implanted with multifocal and monofocal IOLs	In Xu meta-analysis
Goes (2008)	Visual results following implantation of a refractive multifocal IOL in one eye and a diffractive multifocal IOL in the contralateral eye	Does not report different lens outcomes
Gundersen (2014)	Diffractive multifocal IOL's. A comparative study of Finevision vs ReSTOR 2.5 & 3.0D	Both trifocal lenses
Gundersen (2016)	Comparison of visual outcomes and subjective visual quality after bilateral implantation of a diffractive trifocal intraocular lens and blended implantation of apodized diffractive bifocal intraocular lenses	Blended lenses
Gunenc (2008)	Long-term experience with mixing and matching refractive array and diffractive CeeOn multifocal intraocular lenses	Not RCT
Hohn (2015)	Functional Results One Year after Implantation of a Bitoric, Trifocal Intraocular Lens. [German]	Not in English
Kim (2015)	Comparison of conventional versus crossed monovision in pseudophakia	Both monofocal lenses

Short Title	Title	Reason for exclusion
Kretz (2014)	Evaluation of an aberration corrected, diffractive and pupil independent, toric multifocal IOL (tMIOL)	Abstract
Kretz (2015)	Binocular function to increase visual outcome in patients implanted with a diffractive trifocal intraocular lens	No comparator
Kretz (2015)	Clinical Outcomes After Implantation of a Trifocal Toric Intraocular Lens	All lenses trifocal
Liekfeld (1998)	[Prospective comparison of 2 multi-focal lens models]	Not in English
Lleo (2003)	[Comparative clinical study of visual results between two different types of bifocal intraocular lenses]	Both bifocal
Lubinski (2013)	Conventional pseudophakic monovision--visual function, patient satisfaction and complications	Not RCT
Martínez (2008)	Visual function with bilateral implantation of monofocal and multifocal intraocular lenses: a prospective, randomized, controlled clinical trial	In Xu meta-analysis
Maurino (2015)	Quality of vision after bilateral multifocal intraocular lens implantation: a randomized trial--AT LISA 809M versus AcrySof ReSTOR SN6AD1	Both diffractive lenses
Maxwell (2009)	Functional outcomes after bilateral implantation of apodized diffractive aspheric acrylic intraocular lenses with a +3.0 or +4.0 diopter addition power Randomized multicenter clinical study	Both diffractive lenses
Mesci (2010)	Visual acuity and contrast sensitivity function after accommodative and multifocal intraocular lens implantation	Not RCT
Mester (2007)	Functional outcomes after implantation of Tecnis ZM900 and Array SA40 multifocal intraocular lenses	In Xu meta-analysis
Mojzis (2013)	Analysis of internal astigmatism and higher order aberrations in eyes implanted with a new diffractive multifocal toric intraocular lens	Not RCT
Mojzis (2014)	Comparative analysis of the visual performance after cataract surgery with implantation of a bifocal or trifocal diffractive IOL	Both lenses diffractive
Ortiz (2008)	Optical performance of monofocal and multifocal intraocular lenses in the human eye	Not RCT
Pieh (1998)	Contrast sensitivity and glare disability with diffractive and refractive multifocal intraocular lenses	Not RCT
Piovella (2007)	Mix-and-Match Cataract Surgery With Refractive (ReZoom) and Diffractive (Tecnis) Multifocal 1OL Implantation	Not RCT
Postolache (2015)	Comparation of Refractive Results with Bifocal Implants at Lisa 809 and Trifocal at Lisa Tri839	Not RCT

Short Title	Title	Reason for exclusion
Rabsilber (2008)	Functional Results of Modern Multifocal IOLs	Not RCT
Ravalico (1993)	Contrast sensitivity in multifocal intraocular lenses	Not phacoemulsification
Relser (2008)	Comparison of Bilateral Apodized Diffractive Aspheric IOL and Contralateral Apodized Diffractive and Zonal Refractive IOL	Both lenses diffractive
Renieri (2007)	ReSTOR diffractive versus Array 2 zonal-progressive multifocal intraocular lens: a contralateral comparison	Not RCT
Schmickler (2013)	Clinical evaluation of a multifocal aspheric diffractive intraocular lens	No comparator
Schmidinger (2005)	Contrast sensitivity function in eyes with diffractive bifocal intraocular lenses	Both lenses diffractive
Schmidinger (2006)	Depth of focus in eyes with diffractive bifocal and refractive multifocal intraocular lenses	No outcomes of interest
Shao (2014)	Meta-analysis of clinical randomized controlled trials comparing ReZOOM with ReSTOR multifocal intraocular lenses in cataract surgery. [Chinese]	Not in English
Shao (2014)	[Meta-analysis of clinical randomized controlled trials comparing refractive with diffractive multifocal intraocular lenses in cataract surgery]	Not in English
Stanojcic (2010)	Visual fields in patients with multifocal intraocular lens implants and monovision: an exploratory study	Not outcomes of interest
Toto (2007)	Visual performance and biocompatibility of 2 multifocal diffractive IOLs: six-month comparative study	All diffractive lenses
Tunc (2012)	Multifocal progressive refractive diffractive lens: Optic design and clinical results	Not in English
Unsal (2016)	Evaluation of Different Power of Near Addition in Two Different Multifocal Intraocular Lenses	Not RCT
Walkow (1996)	Prospective Evaluation of a Diffractive- Versus a Refractive-Designed Multifocal Intraocular Lens	Duplicate reference
Walkow (1997)	A prospective evaluation of a diffractive versus a refractive designed multifocal intraocular lens	Excluded from Cochrane review
Ye (2013)	Visual outcome and optical quality after bilateral implantation of aspheric diffractive multifocal, aspheric monofocal and spherical monofocal intraocular lenses: a prospective comparison	Not RCT
Zelichowska (2008)	Apodized diffractive versus refractive multifocal intraocular lenses: optical and visual evaluation	Not RCT

F.4.4 Optimal strategy to address pre-existing astigmatism

Study	Reason for exclusion
Agresta et al. Visual acuity improvements after implantation of toric intraocular lenses in cataract patients with astigmatism.	Observational studies, not RCT
Alfonso et al. Clinical outcomes after bilateral implantation of an apodized +3.0 D toric diffractive multifocal intraocular lens. Journal of Cataract & Refractive Surgery. 2014;40:51-59	Not RCT
Amesbury et al. Correction of astigmatism at the time of cataract surgery. Current opinion in ophthalmology. 2009;20:19-24	Not RCT
Bartels et al. The influence of incision-induced astigmatism and axial lens position on the correction of myopic astigmatism with the artisan toric phakic intraocular lens. Ophthalmology. 2006;113:1110-1117	Not RCT
Bauer et al. Astigmatism management in cataract surgery with the Acrysof toric intraocular lens. Journal of Cataract & Refractive Surgery. 2008;34:1483-1488	No comparator
Bazzazi et al. Opposite Clear Corneal Incisions versus Steep Meridian Incision Phacoemulsification for Correction of Pre-existing Astigmatism. Journal of Ophthalmic & Vision Research. 2008;3:87-90	Not OECD
Bissen-Miyajima et al. Microincision hydrophobic acrylic aspheric toric intraocular lens for astigmatism and cataract correction. Journal of regractive surgery. 2015;31(6):358-365	No comparator
Borasio et al. Astigmatism Axis Shift After Sutureless Phacoemulsification: Comparison Between Clear-Corneal Temporal and Clear-Corneal On-Axis Incision. ARVO E-abstract. 2005;46:780	Abstract
Buckhurst et al. Astigmatism management in cataract surgery with the AcrySof toric intraocular lens. Journal of Cataract & Refractive Surgery. 2008;34:1483-8	Not RCT
Dardzhikova et al. Early experience with the acrysof toric IOL for the correction of astigmatism in cataract surgery. Canadian journal of ophthalmology. 2009;44:269-73	Not RCT
Denevich et al. Outcomes of cataract patients with astigmatism: Implantation of toric versus conventional monofocal intraocular lens. Value in Health. 2009;12 (3):A77	Abstract
Gills et al. Treating astigmatism at the time of cataract surgery. Current opinions in ophthalmology. 2002;13:2-6	Not RCT
Gundersen. Lentis M+ IOL for refractive lens exchange: Quantitive and qualitative analysis of toric and non-toric multifocal IOL (6 months follow up). Acta ophthalmologica. 2012;28	Not RCT
Hashemi et al. The location of incision in cataract surgery and its impact on induced astigmatism. Current opinion in ophthalmology. 2016;27:58-64	Not RCT
Hayashi et al. Higher-order aberrations and visual function in pseudophakic eyes with a toric intraocular lens. Journal of Cataract & Refractive Surgery. 2012;38:1156-1165	Not RCT

Study	Reason for exclusion
Hayes and Inc. Limbal relaxing incisions for correcting astigmatism in patients undergoing cataract surgery. Health Technology Assessment Database. 2011	Abstract
Horn et al. Status of toric intraocular lenses. Current opinion in ophthalmology. 2007;18:58-61	Not RCT
Khokhar et al. Corneal astigmatism correction with opposite clear corneal incisions or single clear corneal incision: comparative analysis. Journal of Cataract & Refractive Surgery. 2006;32:1432-7	Not OECD
Kohnen et al. Methods to control astigmatism in cataract surgery. Current opinion in ophthalmology. 1996;7:75-80	Not RCT
Kretz et al. Clinical outcomes and surgeon assessment after implantation of a new diffractive multifocal toric intraocular lens. British Journal of Ophthalmology. 2015;99:405-11	Not RCT
Lee et al. Astigmatism considerations in cataract surgery. Tzu Chi Medical Journal. 2013;25:19-22	Not RCT
Lindstrom et al. Cataract surgery and astigmatic keratotomy. International ophthalmology clinics. 1994;34:145-164	Not RCT
Mencucci et al. Astigmatism correction with toric intraocular lenses: Wavefront aberrometry and quality of life. British journal of ophthalmology. 2013;97:578-82	Not RCT
Mertens et al. Toric phakic implantable collamer lens for correction of astigmatism: I-year outcomes. Clinical ophthalmology (Auckland, and N.Z.) 2011;5:369-75	Not RCT
Naripthaphan et al. Comparison of visual outcomes for aspheric and spherical toric intraocular lens implantation in cataract patients with pre-existing corneal astigmatism: a randomized control trial. Journal of the medical association of Thailand. Vol 97, No.11	Not OECD
Nichamin. Astigmatism management for modern phaco surgery. International ophthalmology clinics. 2003;43:53-63	Not RCT
Novis. Astigmatism and the toric intraocular lens and other vertex distance effects. Survey of ophthalmology. 1997;42:268-270	Not OECD
Novis C. Astigmatism and toric intraocular lenses. Current opinion in ophthalmology. 2000;1:47-50	Not RCT
Raviv et al. Astigmatism management. International ophthalmology clinics. 2000;40:183-198	Not RCT
Razmjoo et al. Corneal astigmatism change and wavefront aberration evaluation after cataract surgery: "Single" versus "paired opposite" clear corneal incisions. Advanced Biomedical Research. 2014;3:163	Not OECD
Reiter et al. Posterior corneal astigmatism and current strategies for optimizing outcomes with Toric IOLs. Current ophthalmology reports. 2016;4:15-24	Not RCT
Rosen. Opposite clear corneal incisions. Journal of Cataract & Refractive Surgery. 2000;26:789-790	Not RCT
Sanders et al. Comparison of the toric implantable collamer lens and custom ablation LASIK for myopic	Not RCT

Study	Reason for exclusion
astigmatism. Journal of Refractive Surgery. 2008;24:773-778	
Scialdone et al. Visual performance of 2 aspheric toric intraocular lenses: comparative study. Journal of Cataract & Refractive Surgery. 2013;39:906-914	Not suitable comparator (both arms have toric lenses)
Shimoda et al. Visual outcomes after implantation of a novel refractive toric multifocal intraocular lens. Arquivos Brasileiros de Oftalmologia. 2014;77:71-5	Not OECD
Simon et al. Correction of pre-existing astigmatism during cataract surgery: comparison between the effects of opposite clear corneal incisions and a single clear corneal incision. Graefe's Arch Clin Exp Ophthalmol. 2005;243:321-326	Not RCT
Stanwood et al. Toric intraocular lens implantation: 100 consecutive cases. Journal of Cataract & Refractive Surgery. 2002;28:295-301	Not RCT
Vale et al. Astigmatism management in cataract surgery with Precizon toric intraocular lens: a prospective study. Clinical Ophthalmology. 2016;10:151-9	Not RCT

F.5 Wrong Lens 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?

Study	Reason for exclusion
Ali,N., Little,B.C., Causes of cataract surgery malpractice claims in England 1995-2008, British Journal of Ophthalmology, 95, 490-492, 2011	No new information
Ali,Sekeroglu M., Sekeroglu,H.T., Hekimoglu,E., Prescription errors in ophthalmology, Indian Journal of Pharmacology.45 (2) (pp 206-207), 2013.Date of Publication: March-April 2013., 206-207, 2013	Letter - no relevance to wrong lens implant errors (drug prescription)
Astbury,N., Ramamurthy,B., How to avoid mistakes in biometry, Community Eye Health Journal.19 (60) (pp 70-71), 2006.Date of Publication: December 2006., 70-71, 2006	No new information
Brick,D.C., Risk management lessons from a review of 168 cataract surgery claims. [Review] [0 refs], Survey of Ophthalmology, 43, 356-360, 1999	No new information
Courtright,P., Paton,K., McCarthy,J.M., Sibley,L.M., Holland,S.P., An epidemiologic investigation of unexpected refractive errors following cataract surgery, Canadian Journal of Ophthalmology, 33, 210-215, 1998	No new information
Ghiloni,E.M., Begin,D., The power of the IOL checklist. A safety initiative for the cataract patient, Insight (American Society of Ophthalmic Registered Nurses), 38, 5-6, 2007	No new information
Jin,G.J., Crandall,A.S., Jones,J.J., Intraocular lens exchange due to incorrect lens power, Ophthalmology, 114, 417-424, 2007	No new information
Kendall C. Troubleshooting the postoperative IOL result. J Ophthalmic Nurs Technol. 1996 Mar-Apr;15(2) 68-71	No new information
Kohnen,S., Postoperative refractive error resulting from incorrectly labeled intraocular lens power, Journal of Cataract & Refractive Surgery, 26, 777-778, 2000	No new information
Koolwijk,J., Fick,M., Selles,C., Turgut,G., Noordergraaf,J.I., Tukkers,F.S., Noordergraaf,G.J., Outpatient cataract surgery: incident and procedural risk analysis do not support current clinical ophthalmology guidelines, Ophthalmology, 122, 281-287, 2015	No new information
Lau,K.Y., Chan,Z.C., Crisis management after incorrect intraocular lens insertion, Journal of Cataract & Refractive Surgery, 38, 1499-1501, 2012	No new information
Lee,B.S., Medicolegal pitfalls of cataract surgery. [Review], Current Opinion in Ophthalmology, 26, 66-71, 2015	No new information
Lee,B.S., Chen,P.P., Lessons from implementation of an intraocular lens timeout, Journal of Cataract & Refractive Surgery, 40, 1744-1746, 2014	No new information
Liu,C., Improving patient safety in cataract surgery, Eye.20 (3) (pp 273-274), 2006.Date of Publication: March 2006., 273-274, 2006	No new information
Lum,F., Schachat,A.P., The Quest to Eliminate "Never Events", Ophthalmology.116 (6) (pp 1021-1022), 2009.Date of Publication: June 2009., 1021-1022, 2009	No new information

Study	Reason for exclusion
Lundström M, Barry P, Henry Y, Rosen P, Stenevi U. Evidence-based guidelines for cataract surgery: guidelines based on data in the European Registry of Quality Outcomes for Cataract and Refractive Surgery database. J Cataract Refract Surg. 2012 Jun;38(6):1086-93	No new information
Neily,J., Mills,P.D., Paull,D.E., Mazzia,L.M., Turner,J.R., Hemphill,R.R., Gunnar,W., Sharing lessons learned to prevent incorrect surgery, American Surgeon.78 (11) (pp 1276-1280), 2012.Date of Publication: November 2012., 1276-1280, 2012	No new information
Olsen,T., Intraocular lens power calculation errors in long eyes, Journal of Cataract & Refractive Surgery, 38, 733-734, 2012	Letter - no relevance to wrong lens implant errors
Olsen, T. Olesen, H., IOL power mislabelling. Acta Ophthalmologica, 71: 99–102.1993	No new information
Oshika,T., Kiuchi,T., Kawana,K., Okamoto,F., Kaji,Y., Inadvertent insertion of an opposite-power intraocular lens, Journal of Cataract & Refractive Surgery, 32, 166-167, 2006	No new information
Paull,D.E., Mazzia,L.M., Neily,J., Mills,P.D., Turner,J.R., Gunnar,W., Hemphill,R., Errors upstream and downstream to the Universal Protocol associated with wrong surgery events in the Veterans Health Administration, American Journal of Surgery, 210, 6-13, 2015	No new information
Pikkel,D., Sharabi-Nov,A., Pikkel,J., The importance of side marking in preventing surgical site errors, International Journal of Risk & Safety in Medicine, 26, 133-138, 2014	No new information
Pikkel,D., Sharabi-Nov,A., Pikkel,J., "It is the left eye, right?", Risk Management and Healthcare Policy.7 (pp 77-80), 2014.Date of Publication: 08 Apr 2014., -80, 2014	No new information
Rait,J., Martin,H., Risk management strategies for cataract surgery, Clinical and Experimental Ophthalmology.Conference: 42nd Annual Scientific Congress of The Royal Australian and New Zealand College of Ophthalmologists Adelaide, SA Australia.Conference Start: 20101120 Conference End: 20101124.Conference Publication: (, 25-, 2010	No new information
Ravi,K., Senthil,S., Pesala,V., Refractive surprise following implantation of correct powered intraocular lens--a real surprise!, International Ophthalmology, 32, 603-605, 2012	No new information
Rosen,E.S., Safety first, Journal of Cataract & Refractive Surgery, 33, 1669-1671, 2007	Editorial - no relevance to wrong lens implant errors (endophthalmitis prevention)
Simon,J.W., Ngo,Y., Khan,S., Strogatz,D., Surgical confusions in ophthalmology, Archives of Ophthalmology, 125, 1515-1522, 2007	No new information
Simon,J.W. Preventing surgical confusions in ophthalmology (an American Ophthalmological Society thesis). Transactions of the American Ophthalmological Society 2007 105 p.513-529	Not available

Study	Reason for exclusion
Smith,L.F., Stevens,J.D., Larkin,F., Restori,M., Errors leading to unexpected pseudophakic ametropia, Eye, 15, 6-32, 2001	No new information
Solebo,L.A., Eades Walker,R.J., Dabbagh,A., Intraocular lens exchange for pseudophakic refractive surprise due to incorrectly labeled intraocular lens, Journal of Cataract & Refractive Surgery, 38, 2197-2198, 2012	No new information
Zudans,J.V., Desai,N.R., Trattler,W.B., Comparison of prediction error: labeled versus unlabeled intraocular lens manufacturing tolerance, Journal of Cataract & Refractive Surgery, 38, 394-402, 2012	Does not specify phacoemulsification cataract surgery

F.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?

F.6.1 Laser-assisted cataract surgery

Study	Reason for exclusion
Conrad-Hengerer I, Hengerer FH, Schultz T, Dick HB. Effect of femtosecond laser fragmentation on effective phacoemulsification time in cataract surgery. Journal of Refractive Surgery. 2012; 28(12):879-83.	Intervention of interest, but no description of method of treatment allocation.
Conrad-Hengerer I, Hengerer FH, Schultz T, Dick HB. Femtosecond laser–assisted cataract surgeryin eyes with a small pupil. Journal of Cataract and Refractive Surgery 2013; 39(9):1314-20.	Intervention of interest, but no description of method of treatment allocation.
Conrad-Hengerer I, Schultz T, Jones JJ, Hengerer FH, Dick B. Cortex removal after laser cataract surgery and standard phacoemulsification: a critical analysis of 800consecutive cases. Journal of Refractive Surgery 2014; 30(8):516-20.	Not an RCT.
Ecsedy M, Mihaltz K, Kovacs I, Takacs A, Filkorn T, Nagy ZZ. Effect of femtosecond laser cataract surgery on the macula. Journal of Refractive Surgery 2011; 27(10):717-22.	Intervention of interest, but no description of method of treatment allocation.
Kerr NM, Abell RG, Vote BJ, Toh T. Intraocular pressure during femtosecond laser pretreatment of cataract. Journal of Cataract and Refractive Surgery 2013; 39(3):339-42.	Not an RCT.
Kranitz K, Takacs A, Mihaltz K, Kovacs I, Knorz MC, Nagy ZZ. Femtosecond laser capsulotomy and manual continuous curvilinear capsulorrhexis parameters and their effects on intraocular lens centration. Journal of Refractive Surgery 2011; 27(8):558-63.	Intervention of interest, but no description of method of treatment allocation.
Krarup T, Holm LM, la Cour M, Kjaerbo H. Endothelial cell loss and refractive predictability in femtosecond laser-assisted cataract surgery compared with conventional cataract surgery. Acta Ophthalmologica 2014; 92(7):617-622.	Although this is a within-person paired-eye study, eyes were not randomised to the intervention ("To evaluate whether FLACS was superior to CPS regarding ECL, the eye with most dense cataract was operated with femtosecond laser assisted cataract surgery and the eye with less cataract with conventional cataract surgery.")
Nagy Z. Results of femtosecond laser assisted cataract surgery, indication and patient selection. Acta Ophthalmologica 2012; 90:20.	Insufficient information to confirm eligibility (conference abstract only).
Szigeti A, Krantiz K, Takacs AI, Mihaltz K, Knorz MC, Nagy ZZ. Comparison of long-term visual outcome and IOL position with a single-optic accommodating IOL After 5.5- or 6.0-mm Femtosecond laser capsulotomy. Journal of Refractive Surgery 2012; 28(9):609-13.	Both arms involved laser assisted cataract surgery, no phacoemulsification control arm.
Toto L, Mastropasqua R, Mattei PA, Agnifili L, Mastropasqua A, Falconio G, et al. Postoperative IOL	Methodology is not that of an RCT:

Study	Reason for exclusion
axial movements and refractive changes after femtosecond laser-assisted cataract surgery versus conventional phacoemulsification. Journal of Refractive Surgery 2015; 31(8):524-30.	"Eighty eyes of 80 patients (age range: 65 to 75 years) who were candidates for cataract surgery were included in the study. Consecutive patients were enrolled into two groups: the femtosecond laser group (40 eyes) and manual group (40 eyes). The enrolment was sequential. The manual group consisted of patients who underwent conventional surgery prior to the availability of the LensX laser system (Alcon LensX Inc., Fort Worth, TX). The femtosecond laser group included consecutive patients who underwent surgery after an adequate period of training (2 weeks) on the new system."
Wang XL, Zhang R, Li Q, Ding Q. Preliminary observation of refractive cataract surgery assisted by femtosecond laser. International Eye Science 2015; 15(12):2149-51.	Unable to source a copy of the paper from either the journal web-site or the contact author.

F.6.2 Bilateral surgery

Study	Reason for exclusion
Chung J K; Park S H; Lee W J et al. Bilateral cataract surgery: a controlled clinical trial, Japanese Journal of Ophthalmology, 53, 107-13, 2009	Non-randomised study
Cooper K; Shepherd J; Frampton G et al. The cost-effectiveness of second-eye cataract surgery in the UK, Age & Ageing, 44, 1026-31, 2015	Economic evaluation
Javitt JC; Steinberg EP; Sharkey P et al. Cataract surgery in one eye or both. A billion dollar per year issue, Ophthalmology, 102, 1583-92, 1995	Non-randomised study
Katz J; Schein OD; Tielsch JM et al. Effects of randomizing second eyes in a trial to evaluate preoperative medical testing for cataract surgery, Ophthalmic Epidemiology, 4, 101-5, 1997	No interventions of interest considered
Kelly J; Emengo H. Is it clinically and cost effective to perform second-eye cataract surgery in the absence of other ocular co-morbidities in patients who have already had first-eye surgery? Healthcare Improvement Scotland, 2012	Government report
Kivela T; Sarikkola AU; Ess S L et al. Helsinki Simultaneous Bilateral Cataract Surgery Study: Prospective, Randomized Comparison of Patient-Rated Outcomes of Same Day vs. Separate Day Cataract Surgery, ARVO E-abstract 660, 47, 2006	Conference abstract
Laidlaw D; Whitaker A; Hopper C et al. Results of a multi disciplinary randomised controlled trial of the benefits of second eye cataract surgery: changes in visual symptoms and function, ARVO Abstract 868, 37, 1996	Conference abstract
Lansingh VC; Eckert KA; Strauss G et al. Benefits and risks of immediately sequential bilateral cataract surgery: a literature review, Clinical & Experimental Ophthalmology, 43, 666-72, 2015	Non-systematic review

Study	Reason for exclusion
Leivo T; Sarikkola AU; Uusitalo RJ et al. Simultaneous bilateral cataract surgery: economic analysis; Helsinki Simultaneous Bilateral Cataract Surgery Study Report 2, Journal of Cataract & Refractive Surgery, 37, 1003-8, 2011	Economic evaluation
Liekfeld A; Pham TD; Wollensak JF et al. Bilateral Versus Unilateral Implantation of a Foldable Refractive Multifocal Intra Occular Lense, American Academy of Ophthalmology, 1995	Observational study
Malvankar-Mehta MS; Filek R; Iqbal M et al. Immediately sequential bilateral cataract surgery: a cost-effective procedure, Canadian Journal of Ophthalmology, 48, 482-8, 2013	Economic evaluation
Mozaffarieh M; Heinzl H; Sacu S et al. Second eye cataract surgery in the diabetes patient? Quality of life gains and speed of visual and functional rehabilitation, Ophthalmic Research, 41, 2-8, 2009	Observational study
Nassiri N; Nassiri N; Sadeghi Yarandi SH et al. Immediate vs delayed sequential cataract surgery: a comparative study, Eye, 23, 89-95, 2009	Non-randomised study
Ramallo Farina Y ; Serrano-Aguilar P; Perez-Silguero MA et al. Safety of simultaneous bilateral (SBCS) compared to unilateral cataract surgery (UCS), IV Annual Meeting of Health Technology Assessment International, 2007	Conference abstract
Rush SW; Gerald AE; Smith JC et al. Prospective analysis of outcomes and economic factors of same-day bilateral cataract surgery in the United States, Journal of Cataract & Refractive Surgery, 41, 732-9, 2015	Non-randomised study
Sach TH; Foss AJ; Gregson RM et al. Second-eye cataract surgery in elderly women: a cost-utility analysis conducted alongside a randomized controlled trial, Eye, 24, 276-83, 2010	Economic evaluation
Whitaker A; Laidlaw D; Hopper C et al. Improvement in stereoacuity after second eye cataract extraction: subjective and objective assessment in a randomised controlled trial, ARVO Abstract 869, 37, 1996	Conference abstract

F.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?

F.7.1 Type and administration of anaesthesia

Short Title	Title	Reason for exclusion
Abadi (1993)	Peribulbar anesthesia versus retrobulbar anesthesia for cataract surgery	Not in English
Adams (2008)	Comparison of Anaesthetic Methods for Phacoemulsification Using the McGill Pain Questionnaire	Abstract
Agrawal (1993)	Local anesthesia by peribulbar block for cataract extraction in an eye relief camp. A double-masked, randomized controlled trial	Paper unavailable
Alhassan (2008)	Peribulbar versus retrobulbar anaesthesia for cataract surgery	Commentary - not full study
Allen (2008)	The effect of warming local anaesthetic on the pain of injection during sub-Tenon's anaesthesia for cataract surgery	Median values reported
Anders (1999)	Clinical and electrophysiologic results after intracameral lidocaine 1% anesthesia: a prospective randomized study	Only reporting postoperative pain
Asensio (1994)	Comparison of retrobulbar and peribulbar anesthesia for cataract surgery	Not in English
Ashraf (2003)	Comparison of retrobulbar anesthesia and intracameral anesthesia using preservative free bupivacaine hydrochloride 0.5% in phacoemulsification with posterior chamber intraocular lens implantation	Not reporting results of interest
Bell (1995)	Warming lignocaine reduces the pain of injection during peribulbar local anaesthesia for cataract surgery	Not phacoemulsification
Blanco (2002)	Intracamerular Anesthesia In Cataract Surgery	Abstract
Briggs (1997)	Sub-Tenon's versus peribulbar anaesthesia for cataract surgery	Not RCT
Budd (2009)	A comparison of sub-Tenon's with peribulbar anaesthesia in patients undergoing sequential bilateral cataract surgery.[Erratum appears in Anaesthesia. 2009 Feb;64(2):231 Note: Budd, M [corrected to Budd, J M]]	Outcomes not reported as required
Castillo (2000)	Fentanyl 0.05% in sub-tenon's anesthesia for phacoemulsification	Abstract
Chan (2002)	Nausea and vomiting after phacoemulsification using topical or retrobulbar anesthesia	Not reporting outcomes of interest
Claoue (1997)	A randomised trial of topical versus sub-Tenon's local anaesthesia for small incision cataract surgery	Letter
Coelho (2005)	Pain induced by phacoemulsification without sedation using topical or peribulbar anesthesia	No comparable intervention

Short Title	Title	Reason for exclusion
Cupo (2012)	Changes in vital signs during cataract phacoemulsification by using peribulbar or topical anesthesia	Not in English
Dole (2014)	Comparison of clinical outcomes, patient, and surgeon satisfaction following topical versus peribulbar anesthesia for phacoemulsification and intraocular lens implantation: a randomized, controlled trial	Results could not be retrieved or reported
El Ghaouch (2011)	Peribulbar anaesthesia provided more effective and safer post-surgical analgesia than retrobulbar block and general anaesthesia in cataract surgery	Poster
Ezra (2008)	Supplementary intracameral lidocaine for phacoemulsification under topical anesthesia. A meta-analysis of randomized controlled trials	Commentary
Gogate (2015)	Comparison of clinical outcomes, patient and surgeon satisfaction following topical versus peribulbar anesthesia for phacoemulsification: A randomized controlled trial	Letter
Gouws (2004)	Comparison of articaine and bupivacaine/lidocaine for sub-Tenon's anaesthesia in cataract extraction	Outcomes of interest not reported
Haddadi (2015)	Comparing the effect of topical anesthesia and retrobulbar block with intravenous sedation on hemodynamic changes and satisfaction in patients undergoing cataract surgery (phaco method)	Concomitant sedation given
Iganga (2016)	Comparison of Peribulbar with Posterior Sub-Tenon's Anesthesia in Cataract Surgery Among Nigerians	Not phacoemulsification
Khoo (1996)	Sub-Tenons versus retrobulbar anesthesia for cataract surgery	Does not state whether used phacoemulsification
Lee (1999)	Topical versus Retrobulbar Anesthesia in Clear Corneal Cataract Surgery	Not in English
Louis (2012)	A multi-centre, placebo-controlled, double-blinded, randomised study on the effects of intracameral lignocaine on pain and fear during cataract surgery	Could not retrieve article
Maclean (1997)	Patient comfort during cataract surgery with modified topical and peribulbar anesthesia	Median values reported
Manners (1996)	Randomised trial of topical versus sub-Tenon's local anaesthesia for small-incision cataract surgery	Median values reported
Mudassir (2000)	A comparison of peribulbar and retrobulbar anaesthesia for cataract surgery	Paper unavailable
Nghiem-Buffet (2005)	Topical versus Sub-Tenon's Anesthesia Without Sedation in Clear Corneal Cataract Surgery	Abstract
Nielsen (1995)	A prospective evaluation of anxiety and pain with topical analgesia or retrobulbar anaesthesia for small incision cataract surgery	Not RCT
Parkar (2005)	Comparison of subtenon anaesthesia with peribulbar anaesthesia for manual small incision cataract surgery	Not phacoemulsification
Rashmi (2014)	Comparison of Topical Versus Sub-Tenon's Anesthesia in Phacoemulsification at a Tertiary Care Eye Hospital	Not reporting outcomes required

Short Title	Title	Reason for exclusion
Rengaraj (2004)	Visual experience during phacoemulsification under topical versus retrobulbar anesthesia: results of a prospective, randomized, controlled trial	Not reporting outcomes of interest
Rizk (2014)	Peribulbar versus sub-Tenon block in cardiac patients undergoing cataract surgery during warfarin therapy	Concomitant sedation given
Rodrigues (2008)	Topical anesthesia versus sub-Tenon block for cataract surgery: surgical conditions and patient satisfaction	Given concomitant sedation
Roman (1996)	Topical versus peribulbar anesthesia in cataract surgery	Not RCT
Ruschen (2005)	Randomised controlled trial of sub-Tenon's block versus topical anaesthesia for cataract surgery: a comparison of patient satisfaction	Results reported as median values
Sanford (1998)	Response of intraocular pressure to retrobulbar and peribulbar anesthesia	Not reporting outcomes of interest
Tyson (2008)	Supplementary intracameral lidocaine for phacoemulsification under topical anesthesia: A meta-analysis of randomized controlled trials - Commentary	Commentary
van den Berg (2001)	Comparison of lignocaine 2% with adrenaline, bupivacaine 0.5% with or without hyaluronidase and a mixture of bupivacaine, lignocaine and hyaluronidase for peribulbar block analgesia	Does not report outcomes of interest
Voudouri (1999)	Which is better anaesthesia for clear corneal phacoemulsification cataract surgery, without sedation? Topical or sub-tenons?	Paper unavailable
Wang (2012)	Systematic Review of Peribulbar Anesthesia Versus Sub-Tenon Anesthesia for Cataract Surgery	Not in English
Whitsett (1990)	Comparison of one-injection-site peribulbar anesthesia and retrobulbar anesthesia	Not phacoemulsification

F.7.2 Sedation as an adjunct to local anaesthesia

Short Title	Title	Reason for exclusion
Akgul (2007)	Usage of remifentanil and fentanyl in intravenous patient-controlled sedo-analgesia	No relevant outcomes reported in an extractable format
Carter (1999)	A randomized trial of the effect of midazolam on intraocular pressure	Study population children
Inan (2002)	The Effects of Fentanyl on Pain and Hemodynamic Response Developed during Retrobulbar Block	Abstract
Ramírez-Sánchez (1993)	Propofol and retrobulbar anesthesia for cataract removal	Study not in English
Sivaci (2005)	Fentanyl reduces cortisol and blood glucose changes during cataract surgery under retrobulbar anaesthesia	No outcomes of interest
Soltani (2013)	Effects of adding subconjunctival block to intravenous sedation and topical anaesthesia for phacoemulsification surgery on intraoperative pain, patient	Intervention not identified in protocol

Short Title	Title	Reason for exclusion
	cooperation, and patient and surgeon satisfaction	
Tay (2005)	Effect of intravenous sedation on patient satisfaction in cataract surgery	Paper unavailable
Weindler (1996)	Perioperative cognitive and physiological function after oral premedication with 3.75 mg midazolam	Not in English

F.7.3 Hyaluronidase as an adjunct to local anaesthesia

Short Title	Title	Reason for exclusion
Abelson (1989)	The effect of hyaluronidase on akinesia during cataract surgery	Not outcomes of interest
Ahluwalia (2003)	Delayed allergic reaction to hyaluronidase: a rare sequel to cataract surgery	Letter
Al-Ali (2014)	Randomized controlled trial to evaluate intraocular pressure following sub-Tenon's local anesthesia for cataract surgery: With and without hyaluronidase added to anesthetic solution	Not outcomes of interest
Alwitry (2002)	Effect of hyaluronidase on ocular motility in sub-Tenon's anesthesia: randomized controlled trial	Not outcomes of interest
Aslam (2006)	Effect of hyaluronidase on ocular motility and eyelid function in sub-Tenon's anaesthesia: randomised controlled trial	Not outcomes of interest
Chatziralli (2010)	Lidocaine 2% jelly versus lidocaine 2%-sodium hyaluronate 0.3% drops in phacoemulsification surgery	Letter
Kallio (2000)	Hyaluronidase as an adjuvant in bupivacaine-lidocaine mixture for retrobulbar/peribulbar block	Not outcomes of interest
Prosser (1996)	Re-evaluation of hyaluronidase in peribulbar anaesthesia	Not reporting outcomes of interest
Ramanathan (1999)	A study of the effect of Hyaluronidase on sub-tenons anaesthesia	Not outcomes of interest
Remy (2008)	Efficacy and safety of hyaluronidase 75 IU as an adjuvant to mepivacaine for retrobulbar anesthesia in cataract surgery	Not outcomes of interest
Sarvela (1992)	Hyaluronidase improves regional ophthalmic anaesthesia with etidocaine	Not in English
Sarvela (1993)	Orbicular muscle akinesia in regional ophthalmic anaesthesia with pH-adjusted bupivacaine: effects of hyaluronidase and epinephrine	Not outcomes of interest
Sedghipour (2012)	Hyaluronidase in sub-Tenon's anesthesia for phacoemulsification, a double-blind randomized clinical trial	Copy
Serzedo (2001)	Peribulbar block with ropivacaine: Effects of hyaluronidase on blockade quality and intraocular pressure. [Portuguese, English]	Not in English
Srinivasan (2000)	Sodium bicarbonate--an alternative to hyaluronidase in ocular anaesthesia for cataract surgery	Not outcomes of interest

F.7.4 General anaesthesia

Short Title	Title	Reason for exclusion
Abdelaziz (2000)	Laryngeal mask airway in ophthalmic surgery: A comparison study	Not phacoemulsification
Ahmad (2006)	Sedation Techniques in Ophthalmic Anesthesia	Not study on cataracts
Alexandrakis (2001)	Simultaneous bilateral extracapsular cataract extraction	Not phacoemulsification
Alipour (2014)	Effects of propofol, etomidate, and thiopental on intraocular pressure and hemodynamic responses in phacoemulsification by insertion of laryngeal mask airway	Not outcomes of interest
Arezo (2013)	Clinical trial to compare the efficacy Tamsulosin and placebo in prevention of urinary retention after general anesthesia in cataract surgery	Not outcomes of interest
Bameshki (2009)	Abdominal pain after cataract surgery with remifentanil based anesthesia	Not outcomes of interest
Barker (1995)	Metabolic control of non-insulin-dependent diabetic patients undergoing cataract surgery: comparison of local and general anaesthesia	Not outcomes of interest
Barker (1996)	Postoperative morbidity following cataract surgery. A comparison of local and general anaesthesia	Not outcomes of interest
Bazzazi (2014)	Prophylactic tamsulosin in cataract surgery under general anesthesia for preventing urinary retention: a randomized clinical trial	Not phacoemulsification
Bellucci (1999)	Anesthesia for cataract surgery	Not research study (review - no data)
Bilotta (2013)	Postoperative delirium: Risk factors, diagnosis and perioperative care	Not cataracts
Birinci (2008)	Surgical results of triamcinolone assisted pars plana vitrectomy combined with phacoemulsification in diabetic patients	Not outcomes of interest
Boroojeny (2012)	Effect of oral clonidine on acute intraocular pressure rise after cataract extraction under general anaesthesia	Not outcomes of interest
Chen (2010)	A survey on the use of general anesthesia for cataract surgery	Letter
Croston (1995)	Local anesthesia versus general in patients programmed for cataract surgery	Not in English
Davis (1994)	Anesthesia for cataract extraction	Not research study
Denha (1996)	Local or general anaesthesia for cataract surgery	Letter
Denny (1993)	Complications following general anaesthesia for cataract surgery: a comparison of the laryngeal mask airway with tracheal intubation	Not outcomes of interest
El Ghaouch (2011)	Peribulbar anaesthesia provided more effective and safer post-surgical analgesia than retrobulbar block and general anaesthesia in cataract surgery	Poster

Short Title	Title	Reason for exclusion
El-Hindy (2009)	The Cataract National Dataset electronic multi-centre audit of 55 567 operations: Anaesthetic techniques and complications	Audit data
Entezariasl (2012)	The comparison of Alfentanil and Remifentanil infusion during anesthesia on post-anesthesia recovery	Not outcomes of interest
Fazeli (2009)	The evaluation of use of International Prostatic Symptom Score (IPSS) in postgeneral anesthesia urinary retention in cataract surgery in men over 50 years old	Poster
Ghaffaripour (2011)	A comparative study of depth of anesthesia monitored by BIS values in two anesthesia techniques and their cost-effectiveness	Not outcomes of interest
Glantz (2000)	Perioperative myocardial ischemia in cataract surgery patients: general versus local anesthesia	Not outcomes of interest
Goto (1995)	Intraocular lens implantation in severely mentally and physically handicapped patients	Study on children
Goto (2000)	General versus regional anaesthesia for cataract surgery: effects on neutrophil apoptosis and the postoperative pro-inflammatory state	Not outcomes of interest
Heinze (1992)	Cataract surgery: General anaesthesia vs. retrobulbar block. A randomised trial of high-risk patients.	Not in English
Injarie (2013)	Prevalence, surgical management, and complication rate in patients unable to lie flat for cataract surgery	Not outcomes of interest
Jackson (1993)	In support of general anaesthesia for cataract surgery	Not phacoemulsification
Katz (2001)	Adverse intraoperative medical events and their association with anesthesia management strategies in cataract surgery	Not general anaesthesia
Kostopanagiotou (2007)	Endocrine response to cataract surgery under total intravenous anaesthesia, local anaesthesia under sedation or local anaesthesia alone: a comparative study	Editorial
Lavin (1994)	Anaesthetic techniques in cataract surgery: General anaesthesia, local infiltrative anaesthesia, or topical anaesthesia?	Not outcomes of interest
Navaleza (2006)	Choosing anesthesia for cataract surgery	Opinion piece
Norregaard (1999)	Intraoperative clinical practice and risk of early complications after cataract extraction in the United States, Canada, Denmark, and Spain	Audit data
Poterack (1993)	General anesthesia for cataract surgery: Experience at King Fahd Hospital of the University	Letter
Rabizadeh (2015)	Trends in the provision of anesthesia for cataract surgery in the united states ambulatory setting	Abstract

Short Title	Title	Reason for exclusion
Sethi (2014)	A preoperative assessment system for cataract surgery patients	Abstract
Soltani (2002)	The effect of different lidocaine application methods on postoperative cough and sore throat	Not in English
Taregh (2009)	Comparison of intraocular pressure and hemodynamic response subsequent to tracheal tube versus laryngeal tube insertion during general anesthesia	Not outcomes of interest
Thornton (1993)	Anesthesia for cataract surgery and its complications	Not general anaesthesia
Umeh (1992)	General anesthesia for cataract surgery: Experience at King Fahd Hospital of the University, Al-Khobar	Not phacoemulsification
Whitehead (1995)	General anaesthesia for day-case cataract surgery	Letter

F.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?

F.8.1 Interventions to prevent retinal detachment in people with myopia

Study	Reason for exclusion
Alfonso et al. Visual quality after diffractive intraocular lens implantation in eyes with previous myopic laser in situ keratomileusis. Journal of Cataract & Refractive Surgery 2008;34:1848-1854	Not an RCT – not cataract surgery
Awwad et al. Intraocular lens power calculation after myopic laser in situ keratomileusis: Estimating the corneal refractive power. Journal of Cataract & Refractive Surgery. 2008;34:1070-1076	Not an RCT
Awwad et al. The accuracy of the double-K adjustment for third-generation intraocular lens calculation formulas in previous keratorefractive surgery eyes. Eye & Contact Lens: Science & Clinical Practice. 2013;39:220-227	Not an RCT
Buratto L. Cataract surgery in high myopia. European Journal of Implant and Refractive Surgery. 1991;3:271-278	Not an RCT
Fam et al. A comparative analysis of intraocular lens power calculation methods after myopic excimer laser surgery. Journal of Refractive Surgery. 2008;24:355-360	Not an RCT – retinal detachment not an outcome
Iijima et al. Demographics of patients having cataract surgery after laser in situ keratomileusis. Journal of Cataract & Refractive Surgery. 2015;41:334-338	Not an RCT – no measure of retinal detachment
Jin et al. Analysis of intraocular lens power calculation for eyes with previous myopic LASIK. Journal of Refractive Surgery. 2006;22:387-395	Not an RCT - retinal detachment not an outcome
Kalski et al. Intraocular lens power calculation for cataract surgery after photorefractive keratectomy for high myopia. Journal of Refractive Surgery. 1997;13:362-366	Not an RCT – no measure of retinal detachment

Study	Reason for exclusion
Khalil et al. Prospective evaluation of intraocular lens calculation after myopic refractive surgery. Journal of Refractive Surgery. 2008;24:33-38	Not an RCT - retinal detachment not an outcome
Kim et al. Estimation of intraocular lens power calculation after myopic corneal refractive surgery: using corneal height in anterior segment optical coherence tomography. Korean Journal of Ophthalmology. 2015;29:195-202	Not an RCT - retinal detachment not an outcome
Mackool et al. Intraocular lens power calculation after laser in situ keratomileusis: Aphakic refraction technique. Journal of Cataract & Refractive Surgery. 2006;32:435-437	Not an RCT - retinal detachment not reported
Odenthal et al. Clinical and theoretical results of intraocular lens power calculation for cataract surgery after photorefractive keratectomy for myopia. Archives of Ophthalmology. 2002;120:431-438	Not an RCT
Tay et al. Estimation of corneal power after myopic laser refractive surgery: comparison of methods against back-calculated corneal power. Journal of Cataract & Refractive Surgery. 2011;37:1945-1950	Not an RCT
Toro et al. Comparative analysis of intraocular lens power calculation methods after excimer laser surgery. Acta Clinica Croatica, and Supplement. 2012;51:107-111	Not an RCT
Wang et al. Comparison of intraocular lens power calculation methods in eyes that have undergone laser-assisted in-situ keratomileusis. Transactions of the American Ophthalmological Society. 2004;102:189-197	Not an RCT – no measure of retinal detachment
Wang et al. Comparison of intraocular lens power calculation methods in eyes that have undergone LASIK. Ophthalmology. 2004;111:1825-1831	Not an RCT - retinal detachment not an outcome

F.8.2 Intra-operative pupil size management

Study	Reason for exclusion
Arshinoff S and Hofmann I. Prospective, randomised trial of Microvisc and Healon in routine phacoemulsification. Journal of Cataract & Refractive Surgery 1997;23:761-765	Unable to interpret results
Arshinoff S and Hofmann I. Prospective, randomised trial comparing MicroVisc Plus and Healon GV in routine phacoemulsification. Journal of Cataract & Refractive Surgery 1998;24:814-820	Unable to interpret results
Bacskulin A, Kundt G, and Guthoff R Efficiency of pupillary stretching in cataract surgery. European Journal of Ophthalmology 1998 VOL 8 PT 4 PP 230-3	Paper not available
Behndig A, and Korobelnik J F. Mydriatic insert and intracameral injections compared with mydriatic eyedrops in cataract surgery: controlled studies Journal of Cataract & Refractive Surgery 2015 VOL 41 PT 7 PP 1503-19	Not reporting outcomes of interest
Caporossi A, Baiocchi S, Sforzi C, and Frezzotti R	Not reporting outcomes of interest

Study	Reason for exclusion
Healon GV versus Healon in demanding cataract surgery. Journal of Cataract & Refractive Surgery 1995 VOL 21 PT 6 PP 710-3	
Cavallini G M, Campi L, Delvecchio G, Lazzerini A, and Longanesi L. Comparison of the clinical performance of Healon 5 and Healon in phacoemulsification. European Journal of Ophthalmology 2002 VOL 12 PT 3 PP 205-11	Not reporting outcomes of interest
Chang D F, Osher R H, Wang L, and Koch D D Prospective multicenter evaluation of cataract surgery in patients taking tamsulosin (Flomax) Ophthalmology 2007 VOL 114 PT 5 PP 957-64	Not reporting outcomes of interest
Davis E A, and Lindstrom R L. Corneal thickness and visual acuity after phacoemulsification with 3 viscoelastic materials. Journal of Cataract & Refractive Surgery 2000 VOL 26 PT 10 PP 1505-9	Unable to interpret results
Huetz W W, Eckhardt H B, and Kohnen T Comparison of viscoelastic substances used in phacoemulsification. Journal of Cataract & Refractive Surgery 1996 VOL 22 PT 7 PP 955-9	Not reporting outcomes of interest
Kim H, and Joo C K. Efficacy of the soft-shell technique using Viscoat and Hyal-2000 Journal of Cataract & Refractive Surgery 2004 VOL 30 PT 11 PP 2366-70	Not reporting outcomes of interest
Lundberg B, and Behndig A. Intracameral mydriatics in phacoemulsification cataract surgery Journal of Cataract & Refractive Surgery 2003 VOL 29 PT 12 PP 2366-71	No suitable comparator
Moser C L, Martin-Baranera M, Garat M, de Miguel, P V, and Rubio M. Corneal edema and intraocular pressure after cataract surgery: randomized comparison of Healon5 and Amvisc Plus. Journal of Cataract & Refractive Surgery 2004 VOL 30 PT 11 PP 2359-65	Not reporting outcomes of interest
Symons R C, Walland M J, and Kaufman D V A comparative study of the efficacy of 2.5% phenylephrine and 10% phenylephrine in pre-operative mydriasis for routine cataract surgery Eye 1997 VOL 11 PT Pt 6 PP 946-8	Letter
Tanner V, and Casswell A G. A comparative study of the efficacy of 2.5% phenylephrine and 10% phenylephrine in pre-operative mydriasis for routine cataract surgery Eye 1996 VOL 10 PT Pt 1 PP 95-8	Not reporting outcomes of interest
Wang K, and Xia X. Comparative study on application of DisCoVisc ophthalmic viscosurgical device and sodium hyaluronate in phacoemulsification. Zhonghua Shiyan Yanke Zazhi/Chinese Journal of Experimental Ophthalmology 2015 VOL 33 PT 4 PP 367-72	Not in English language

F.8.3 Interventions to reduce the impact of perioperative posterior capsule rupture

Study	Reason for exclusion
Sakamoto et al. Visualizing vitreous in vitrectomy by triamcinolone. Graefes Archive for Clinical & Experimental Ophthalmology 2009:1153-1163	Patient population was patients undergoing cataract surgery. Therefore, this study was looking at prevention rather than management.

F.8.4 Capsular tension rings

Study	Reason for exclusion
Alio J L, Elkady B, Ortiz D, and Bernabeu G Microincision multifocal intraocular lens with and without a capsular tension ring: optical quality and clinical outcomes. Journal of Cataract & Refractive Surgery 2008 VOL 34 PT 9 PP 1468-75	Not RCT
Alio J L, Plaza-Puche A B, Javaloy J, Ayala M J, and Vega-Estrada A. Clinical and optical intraocular performance of rotationally asymmetric multifocal IOL plate-haptic design versus C-loop haptic design Journal of Refractive Surgery 2013 VOL 29 PT 4 PP 252-9	Data repeated from Alio et al 2012 (included within this review)
Cheon H J, Lee S Y, Baek T M, and Lee K H Comparison of Anterior Capsule Opening after Silicone Intraocular Lens Implantation with and without Capsular Tension Ring. Journal of the Korean Ophthalmological Society 2000 VOL 41 PT 11 PP 2349-56	Not in English language
D'Eliseo D, Pastena B, Longanesi L, Grisanti F, and Negrini V. Prevention of posterior capsule opacification using capsular tension ring for zonular defects in cataract surgery. European Journal of Ophthalmology 2003 VOL 13 PT 2 PP 151-4	Not RCT
Halili I, Mutlu F M, Erdurman F C, Gundogan F C, and Kilic S. Influence of capsular tension ring on posterior capsule opacification in myopic eyes Indian Journal of Ophthalmology 2014 VOL 62 PT 3 PP 311-5	Not RCT
Harada Y, Sohma R, and Tawara A. Inhibitory Effect of Capsular Tension Ring on Anterior Capsule Shrinkage in Exfoliation Syndrome After Cataract Surgery. 2007 VOL 48	Abstract
Jacob S, Agarwal A, Agarwal A, Agarwal S, Patel N, and Lal V. Journal of Cataract & Refractive Surgery Efficacy of a capsular tension ring for phacoemulsification in eyes with zonular dialysis 2003 VOL 29 PT 2 PP 315-21	Not population of interest
Kurz S, Krummenauer F, Hacker P, Pfeiffer N, and Dick H B. Capsular bag shrinkage after implantation of a capsular bending or capsular tension n ring. Journal of Cataract & Refractive Surgery. 2005 VOL 31 PT 10 PP 1915-20	Outcome of interest not reported
Kurz S, Krummenauer F, Dumbach C, Pfeiffer N, and Dick H B. Effect of a closed foldable equator ring on capsular bag shrinkage in cataract surgery Journal of Cataract & Refractive Surgery 2006 VOL 32 PT 10 PP 1615-20	Outcome of interest not reported
Yu X Y, Zhao Q, Wang X, and Lin Y. Surgical treatment of subluxated lens by intraocular lens implantation shift to an earlier time replacing capsular tension ring during phacoemulsification. International Journal of Ophthalmology. 2009 VOL 9 PT 7 PP 1276-8	Not in English language

F.8.5 Interventions to prevent endophthalmitis – antiseptics

Study	Reason for exclusion
Ahmed M S, Moly K N, and Aziz M A. 2010. "Use of povidone-iodine drop instead of sub-conjunctival injection of dexamethasone and gentamicin combination at the end of phacoemulsification cataract surgery". Mymensingh medical journal: MMJ 19(2):232-5.	Antiseptics vs. steroids plus antibiotics
Apt L, Isenberg S J, Yoshimori R, Chang A, Lam G C, Wachler B, and Neumann D. 1995. "The effect of povidone-iodine solution applied at the conclusion of ophthalmic surgery". American Journal of Ophthalmology 119(6):701-705.	Not an RCT
Ciulla T A, Starr M B, and Masket S. 2002. "Bacterial endophthalmitis prophylaxis for cataract surgery: An evidence-based update". Ophthalmology 109(1):13-24.	Not a systematic review of RCTs
Panahibazaz M, Moosavian M, Khataminia G, Feghhi M, Yazdi F, Abbasi Montazeri, and E . 2014. "Sub-Conjunctival Injection of Antibiotics vs. Povidone-Iodine Drop on Bacterial Colonies in Phacoemulsification Cataract Surgery". Jundishapur Journal of Microbiology 7(9):e13108.	No relevant outcomes
Park Y I, Lee W G, and Choi K Y. 1995. "Comparison of Culture Results after Preoperative Chemical Preparation of The Eye in Cataract Surgery". Journal of the Korean Ophthalmological Society 36(8):1351-6.	No relevant outcomes
Simaroj P, Kompreyarat S, Santanirand P, and Lekhanont K. 2012. "Anterior chamber contamination during phacoemulsification after povidone-iodine application". Journal of the Medical Association of Thailand 95(5):689-692.	Not an RCT

F.8.6 Interventions to prevent endophthalmitis - antibiotics

Study	Reason for exclusion
Camesasca FI, Bianchi C, Beltrame G, Caporossi A, Piovella M, Rapisarda A, et al. Control of inflammation and prophylaxis of endophthalmitis after cataract surgery: a multicenter study. European Journal of Ophthalmology 2007;17(5):733-42. [CRSREF: 2779307]	Endophthalmitis was not an outcome of the study: two different post-cataract surgery antibiotic/steroid therapeutic combinations were compared in an intra-individual randomized controlled trial; 142 participants (284 eyes) completed the 15-day study; the study outcomes were efficacy of treatment, frequency of complications, and participant satisfaction.
Carron A, Samudio M, Laspina F, Fariña N, Sanabria RR, Cibils D, et al. Efficacy of topical 0.3% ciprofloxacin application in reducing the conjunctival biota of patients undergoing cataract extraction. Archivos de la Sociedad Espanola de Oftalmologia 2013;88(9):345-51.	Endophthalmitis was not an outcome of the study: topical 0.3% ciprofloxacin prior to cataract surgery was compared with no antibiotics in a randomized controlled trial; 46 participants completed the 1-day study; the study outcomes were the presence of bacteria in cultures taken the day prior to surgery, the morning of surgery, immediately before surgery, and at the end of surgery.
Cetinkaya S, Cetinkaya YF, Acir NO, Dadaci Z. Application of intracameral moxifloxacin to prevent	Not a randomized controlled trial: intracameral moxifloxacin was administered following standard

Study	Reason for exclusion
endophthalmitis in cataract surgery. International Eye Science 2015;15(10):1680-3.	cataract surgery in some eyes, but not others; all participants received topical moxifloxacin for one week after surgery; data were reviewed retrospectively and participants with intraoperative complications were excluded from analyses; the study outcomes were postoperative best-corrected visual acuity, anterior chamber cell and flare, intraocular pressure, and corneal edema.
Christy NE, Lall P. A randomized, controlled comparison of anterior and posterior periocular injection of antibiotic in the prevention of postoperative endophthalmitis. Ophthalmic Surgery 1986;17(11):715-8. [CRSREF: 2779297]	Non-OECD country
Christy NE, Sommer A. Antibiotic prophylaxis of postoperative endophthalmitis. Annals of Ophthalmology 1979;11(8):1261-5. [CRSREF: 2779295]	Non-OECD country
Cunha PA, Shinzato FA, Tecchio GT, Weber SP, Brasil A, Avakian A. Efficacy and tolerability of a gatifloxacin/prednisolone acetate fixed combination for topical prophylaxis and control of inflammation in phacoemulsification: a 20-day-double-blind comparison to its individual components. Clinics 2013;68(6):834-9.	Non-OECD country
Kolker AE, Freeman MI, Pettit TH. Prophylactic antibiotics and postoperative endophthalmitis. American Journal of Ophthalmology 1967;63(3):434-9. [CRSREF: 2779309]	Not a randomized controlled trial: subconjunctival injections of antibiotics were administered following intraocular surgical procedures (including cataract, glaucoma, corneal transplant, pupillary membrane needling, etc) to alternate participants during the first phase of the study and to all participants subsequently; rates for postoperative endophthalmitis were not reported separately for cataract patients who did not receive antibiotics in the first phase of the study.
Li B, Miño de Kaspar H, Haritoglou C, Kook D, Kampik A, Sheng M, et al. Comparison of 1-day versus 1-hour application of topical neomycin/polymyxin-B before cataract surgery. Journal of Cataract and Refractive Surgery 2015;41(4):724-31.	Not a randomized controlled trial: topical neomycin/polymyxin-B was administered either one day or one hour prior to cataract surgery; the authors reported the study as a prospective comparative case series; the study outcomes were the presence of bacteria in cultures taken prior to the application of povidone–iodine before surgery, after the application of povidone–iodine before surgery, and at the end of surgery.
Maloof A, Saw V. Prophylactic intracameral vancomycin. Journal of Cataract and Refractive Surgery 2004;30(8):1610-1. [CRSREF: 2779311]	Not a randomized controlled trial: letter reporting changes made by a hospital following an increased rate of endophthalmitis; changes included reorganizing the layout of the operating theater and administering postoperative intracameral vancomycin.

Study	Reason for exclusion
Paganelli F, Cardillo JA, Melo LAS, Lucena DR, Silva AA, Oliveira AG, et al. A single intraoperative sub-Tenon's capsule injection of triamcinolone and ciprofloxacin in a controlled-release system for cataract surgery. Investigative Ophthalmology and Visual Science 2009;50(7):3041-7. [CRSREF: 2779313]	Endophthalmitis was not an outcome of the study: an intraoperative injection of triamcinolone and ciprofloxacin in a controlled-release system (DuoCat) was compared with prednisolone and ciprofloxacin eye drops after cataract surgery in a randomized controlled trial; 135 participants completed the four-week study; the study outcomes were postoperative anterior chamber cell and flare, intraocular pressure, lack of anti-inflammatory response, and presence of infection.
Peyman GA, Sathar ML, May DR. Intraocular gentamicin as intraoperative prophylaxis in South India eye camps. British Journal of Ophthalmology 1977;61(4):260-2. [CRSREF: 2779315]	Not a randomized controlled trial: South Indian eye camps were sequentially divided into three groups of treatment regimens: 1) no prophylactic intracameral gentamicin was used, but oral and topical chloramphenicol was given to all participants; 2) female participants received prophylactic intracameral gentamicin, but no chloramphenicol and male participants received oral and topical chloramphenicol, but no prophylactic intracameral gentamicin; 3) all participants received prophylactic intracameral gentamicin, but no chloramphenicol or any other antibiotic was given.
Pérez-Canales JL, Pérez-Santonja JJ, Campos-Mollo E. Corneal endothelial changes after intracameral vancomycin injection in cataract surgery. Journal of Cataract and Refractive Surgery 2015;41(1):126-34.	Not a randomized controlled trial: intracameral injections of vancomycin versus cefuroxime were administered at the end of cataract surgery; the authors reported the study as a prospective comparative case series; the study outcomes were postoperative uncorrected and corrected distance visual acuity, refraction, anterior chamber cell and flare, intraocular pressure, endothelial specular microscopy, and corneal edema and thickness.

F.8.7 Intervention to prevent cystoid macular oedema

Study	Reason for exclusion
Abelson, M. B.; Smith, L. M.; Ormerod, L. D.. Prospective, randomized trial of oral piroxicam in the prophylaxis of postoperative cystoid macular edema. Journal of ocular pharmacology 1989;5(2):147-53. [DOI:]	Not topical treatment
Brown, R. M.; Roberts, C. W.. Preoperative and postoperative use of nonsteroidal antiinflammatory drugs in cataract surgery. Insight (American Society of Ophthalmic Registered Nurses) 1996;21(1):13-6. [DOI:]	No relevant outcomes
Carenini, B. B.; Brancato, R.; De Molfetta, V.; Frezzotti, R.; Balestrazzi, E.; Cardia, L.; Ponte, F.; Reibaldi, A..	Not RCT

Study	Reason for exclusion
Indomethacin ophthalmic suspension in the prevention of cystoid macular oedema in cataract extraction patients. [Italian]L'indometacina, Sospensione Oftalmica, Nella Prevenzione Dell'edema Maculare Cistoide in Pazienti Sottoposti Ad Estrazione Di Cataratta. Annali di Ottalmologia e Clinica Oculistica 1993;119(9):681-687. [DOI:]	
Chen J.Wang, GQ. Clinical observation of bromfenac sodium 0.1% eye drops on cataract surgery. International Eye Science 2015;15(12):2102-4.	Study only performed follow-up for 2 weeks in total
Dehgan, J. A.; Ustuner, A.; Aras, C.; Ozdamar, A.. Prophylaxis of pseudophakic cystoid macular edema with topical indomethacin. [Turkish]. Turk Oftalmoloji Gazetesi 1992;22(2):168-173. [DOI:]	Not able to source paper
Duong, H. V.; Westfield, K. C.; Singleton, I. C.. Treatment paradigm after uncomplicated cataract surgery: a prospective evaluation. Acta ophthalmologica 2015;93(4):e314-5. [DOI: 10.1111/aos.12221]	Not RCT
Elsawy, M. F.; Badawi, N.; Khairy, H. A.. Prophylactic postoperative ketorolac improves outcomes in diabetic patients assigned for cataract surgery. Clinical Ophthalmology 2013;7:1245-9. [DOI: http://dx.doi.org/10.2147/OPTH.S39188]	Non-OECD country
Hendrikse, F.; Yamaaki, H.; Deutman, A. F.. Local administration of indomethacin to prevent postoperative cystoid macular edema. [Dutch]. Nederlands Tijdschrift voor Geneeskunde 1982;126(3):134. [DOI:]	Not able to source paper
Hollwich, F.; Jacobi, K.; Küchle, H. J.; Lerche, W.; Reim, M.; Straub, W.. [Prevention of cystoid macular edema using indomethacin eye drops]. Klinische Monatsblätter für Augenheilkunde 1983;183(6):477-8. [DOI: 10.1055/s-2008-1054987] Hollwich, F.; Jacobi, K.; Kuchle, H. J.. Prevention of cystoid macular edema with indomethacin eye drops. <ORIGINAL> ZUR PROPHYLAXE DES ZYSTOIDEN MAKULAODEMS MIT INDOMETACIN-AUGENTROPFEN. Klin Monatsbl Augenheilkd 1983;183(6):477-8. [DOI:]	Not relevant comparator
Italian Diclofenac Study Group	Not relevant intervention (ECCE rather than phacoemulsification)
Kraff, M. C.; Sanders, D. R.; Jampol, L. M.; Peyman, G. A.; Lieberman, H. L.. Prophylaxis of pseudophakic cystoid macular edema with topical indomethacin. Ophthalmology 1982;89(8):885-890. [DOI:]	Not relevant intervention (ECCE rather than phacoemulsification)
Li, M. C.; Yang, X. R.; Liu, F.; Shao, D. P.; Li, Y. B.. Effect of topical NSAIDs in preventing macular edema after phacoemulsification in diabetes. [Chinese]. International Journal of Ophthalmology 2011;11(9):1614-6. [DOI: 10.3969/j.issn.1672-5123.2011.09.039]	Non-OECD country
Nishino, M.; Eguchi, H.; Iwata, A.; Shiota, H.; Tanaka, M.; Tanaka, T.. Are topical steroids essential after an uneventful cataract surgery? Journal of Medical Investigation 2009;56(1-2):11-15. [DOI:]	Not relevant intervention
Quentin, C. D.; Behrens-Baumann, W.; Gaus, W.. [Prevention of cystoid macular edema with diclofenac eyedrops in intracapsular cataract extraction using the	Not relevant intervention (ICCE rather than phacoemulsification)

Study	Reason for exclusion
Choyce Mark IX anterior chamber lens]. Fortschritte der Ophthalmologie 1989;86(6):546-9. [DOI:]	
Riley, A. F.; Wakely, L. A.; Patel, H. Y.; Neveldsen, B.; Purdie, G. L.; Wells, A. P.. Use of a cyclo-oxygenase 2 inhibitor for prophylaxis of cystoid macular oedema following cataract surgery: a randomized placebo-controlled trial. Clinical & experimental ophthalmology 2006;34(4):299-304. [DOI: 10.1111/j.1442-9071.2006.01213.x]	Not relevant intervention
Rossetti, L.; Bujtar, E.; Castoldi, D.; Torrazza, C.; Orzalesi, N.. Effectiveness of diclofenac eyedrops in reducing inflammation and the incidence of cystoid macular edema after cataract surgery. Journal of cataract and refractive surgery 1996;22 Suppl 1:794-9. [DOI:]	Not relevant intervention (ECCE rather than phacoemulsification)
Sanders, D. R.; Kraff, M. C.; Peyman, G. A.. Effects of indomethacin on postoperative inflammation after intraocular lens surgery. Afro-Asian Journal of Ophthalmology 1982;1(4):149-152. [DOI:]	Not able to source paper
Sellares, M. T.; Maseras, M.; Roque, A.; Duch, F.. [Effect of topical indomethacin in prevention of aphakic cystoid macular edema.]. Archivos de la Sociedad Española de Oftalmología. 1992;62(6):469-76. [DOI:]	Not able to source paper
Sholiton, D. B.; Reinhart, W. J.; Frank, K. E.. Indomethacin as a means of preventing cystoid macular edema following intracapsular cataract extraction. Journal - American Intra-Ocular Implant Society 1979;5(2):137-40. [DOI:]	Not topical treatment
Singh, R.; Alpern, L.; Jaffe, G. J.; Lehmann, R. P.; Lim, J.; Reiser, H. J.; Sall, K.; Walters, T.; Sager, D.. Evaluation of nepafenac in prevention of macular edema following cataract surgery in patients with diabetic retinopathy. Clinical Ophthalmology 2012;6(1):1259-1269. [DOI: 10.2147/OPTH.S31902] Pollack, A.Narvekar, A.Adewale, A.Singh, R. A post-hoc analysis comparing nepafenac (0.1%) to vehicle treatment post-cataract surgery in patients with diabetic retinopathy. Ophthalmologica 2014;232:20-1. Pollack, A.Sager, D.Singh, R. Risk reduction of macular edema with nepafenac (0.1%) post-cataract surgery in patients with diabetic retinopathy: Efficacy and safety from 2 multicenter trials. Ophthalmologica 2014;232:20.	Not relevant intervention – oral prednisolone
Solomon, L. D.. Efficacy of topical flurbiprofen and indomethacin in preventing pseudophakic cystoid macular edema. Flurbiprofen-CME Study Group I. Journal of cataract and refractive surgery 1995;21(1):73-81. [DOI:] Solomon, L. D.; Boyaner, D.; Breslin, C. W.; Demco, T. A.; Fabian, E.; LeBlanc, R. P.; Lemire, J.; Mintsoulis, G.; Ober, M.; Ramsey, M.; Sutton, H. F.; Taylor, G. A.; Cheetham, J. K.; Barnett, P. S.; DeGryse, R.. Topical Flurbiprofen and Indomethacin Inhibit Postoperative Cystoid Macular Edema (CME) t. American Academy of Ophthalmology 1990;120. [DOI:]	Not relevant intervention - ECCE

Study	Reason for exclusion
Tang, H. Y.; Lu, M.; Hong, D. M.; Ming, G. Y.; Zeng, Z. R.; Ling, H. J.. Effect and safety of intrachamberal triamcinolone acetonide injection during cataract surgery in diabetic patients. [Chinese]. International Eye Science 2015;15(3):474-477. [DOI: http://dx.doi.org/10.3980/j.issn.1672-5123.2015.3.25]	Not relevant intervention
Tauber, S.; Gessler, J.; Scott, W.; Peterson, C.; Hamlet, P.. The Effect of Topical Ketorolac 0.4% on Cystoid Macular Edema Following Routine Cataract Surgery. IOVS 2006;47:ARVO E-abstract 683. [DOI:]	No relevant outcomes
Ticly, F. G.; Lira, R. P. C.; Zanetti, F. R.; Machado, M. C.; Rodrigues, G. B.; Arieta, C. E. L.. Prophylactic use of ketorolac tromethamine in cataract surgery: A randomized trial. Journal of ocular pharmacology and therapeutics 2014;30(6):495-501. [DOI: http://dx.doi.org/10.1089/jop.2013.0214]	Non-OECD country
Torrazza, C.; Rossetti, L.; Castoldi, D.; Bujtar, E.; Orzalesi, N.. Effectiveness of diclofenac eyedrops in reducing postoperative inflammation angiographic cme after cataract surgery. Iovs 1995;36:ARVO Abstract 3769. [DOI:]	Conference abstract with study already included
Tunc M. Saatci O.A. Ergin M.H. Ergin, S.. Cystoid macular edema early after uncomplicated cataract surgery: The efficacy of diclofenac in prophylaxis. Annals of Ophthalmology - Glaucoma 1999;31(1):27-32. [DOI:]	Non-OECD country
Patrick Frensel Tzelikis, Monike Vieira, Wilson Takashi Hida,; Antonio Francisco Motta, Celso Takashi Nakano, Eliane Mayumi Nakano,; Milton Ruiz Alves. Comparison of ketorolac 0.4% and nepafenac 0.1%for the prevention of cystoid macular oedema afterphacoemulsification: prospective placebo-controlledrandomised study. 2015;99:654-8. [DOI:]	Non-OECD country
Urner-Bloch, U.. [Prevention of cystoid macular edema following cataract extraction using local indomethacin application]. Klinische Monatsblätter für Augenheilkunde 1983;183(6):479-84. [DOI: 10.1055/s-2008-1054988]	Not relevant intervention (ICCE and ECCE rather than phacoemulsification)
Urner Bloch, U.. Should indomethacin be used topically to prevent aphakic cystoid macular edema?. [German]Indocid Lokal Zur Pravention Des Postoperativen Zystoiden Makulaodems? Klinische Monatsblätter für Augenheilkunde 1983;182(5):495-496. [DOI:]	Similar to included study
Wang, Q. W.; Yao, K.; Xu, W.; Chen, P. Q.; Shentu, X. C.; Xie, X.; Weng, Y.; Zhang, L.; Jin, C. F.; Wu, W.; Zhu, Y. N.; Yu, Y. H.. Bromfenac sodium 0.1%, fluorometholone 0.1% and dexamethasone 0.1% for control of ocular inflammation and prevention of cystoid macular edema after phacoemulsification. Ophthalmologica. Journal international d'ophtalmologie. International journal of ophthalmology. Zeitschrift für Augenheilkunde 2013;229(4):187-94. [DOI: 10.1159/000346847]	Non-OECD country
Wolf, E. J.; Braunstein, A.; Shih, C.; Braunstein, R. E.. Incidence of visually significant pseudophakic macular edema after uneventful phacoemulsification in patients treated with nepafenac. Journal of Cataract & Refractive Surgery 2007;33(9):1546-9. [DOI:]	Not RCT

Study	Reason for exclusion
Yamaaki, H.; Hendrikse, F.; Deutman, A. F.. Iris angiography after cataract extraction and the effect of indomethacin eyedrops. Ophthalmologica 1984;188(2):82-6. [DOI:]	Not RCT
Yannuzzi, L. A.; Landau, A. N.; Turtz, A. I.. Incidence of aphakic cystoid macular edema with the use of topical indomethacin. Ophthalmology 1981;88(9):947-54. [DOI:]	Not relevant intervention (ICCE rather than phacoemulsification)
Yavas, G. F.; Oztürk, F.; Küsbeci, T.. Preoperative topical indomethacin to prevent pseudophakic cystoid macular edema. Journal of cataract and refractive surgery 2007;33(5):804-7. [DOI: 10.1016/j.jcrs.2007.01.033]	Not RCT
Yilmaz, T.; Cordero-Coma, M.; Gallagher, M. J.. Ketorolac therapy for the prevention of acute pseudophakic cystoid macular edema: a systematic review. Eye 2012;26(2):252-8. [DOI: http://dx.doi.org/10.1038/eye.2011.296]	No relevant outcomes
Yung CW, Hui SL, Wang J, Gao H, Peracha MO, Pratt LM, et al.. The effect of topical ketorolac tromethamine 0.5% on macular thickness in diabetic patients after cataract surgery. American Academy of Opthalmology 2007.	No relevant outcomes
Zhang, H. Y.; Zhu, S. Q.. Clinical study of Pranoprofen eyedrops on prophylaxis of cystoids macular edema after cataract surgery. [Chinese]. International Journal of Ophthalmology 2008;8(7):1370-2. [DOI:]	Non-OECD country
McColgin, A. Z.Raizman, M. B.. Efficacy of topical voltaren in reducing the incidence of postoperative cystoid macular edema. IOVS 1999;ARVO E Abstract 1529.	Conference abstract

F.8.8 Managing cystoid macular oedema

Study	Reason for exclusion
Ahmadabadi H F, Mohammadi M, Beheshtnejad H, and Mirshahi A. Effect of intravitreal triamcinolone acetonide injection on central macular thickness in diabetic patients having phacoemulsification. Journal of Cataract & Refractive Surgery 2010 VOL 36 PT 6 PP 917-22	Not management of CMO (prophylactic)
Almeida D R, Johnson D, Hollands H, Smallman D, Baxter S, Eng K T, Kratky V, ten Hove, M W, Sharma S, and El-Defrawy S. Effect of prophylactic nonsteroidal antiinflammatory drugs on cystoid macular edema assessed using optical coherence tomography quantification of total macular volume after cataract surgery. Journal of Cataract & Refractive Surgery. 2008 VOL 34 PT 1 PP 64-9	Not management of CMO (prophylactic)
Aylward G W. The place of vitreoretinal surgery in the treatment of macular oedema. Documenta Ophthalmologica.1999 VOL 97 PT 3-4 PP 433-8	Not RCT
Curkovic T, Vukojevic N, and Bucan K. Treatment of pseudophakic cystoid macular oedema. Collegium Antropologicum 2005 VOL 29 Suppl 1 PP 103-5	Not phacoemulsification

Study	Reason for exclusion
Flach A, and Dolan B. Treatment of Acute Post-Cataract Surgery Cystoid Macular Edema 1992 VOL 33 PP ARVO Abstract 165	Poster
Flach A J. The incidence, pathogenesis and treatment of cystoid macular edema following cataract surgery. Transactions of the American Ophthalmological Society. 1998 VOL 96 PP 557-634	Not RCT
Gado A S, and Macky T A. Dexamethasone intravitreous implant versus bevacizumab for central retinal vein occlusion-related macular oedema: a prospective randomized comparison. Clinical & Experimental Ophthalmology. 2014 VOL 42 PT 7 PP 650-5	Not phacoemulsification induced CMO
Gewaily Dina, Muthuswamy Karthikeyan, Greenberg Paul. Intravitreal steroids versus observation for macular edema secondary to central retinal vein occlusion. Cochrane Database of Systematic Reviews 2015 PT 9	Not phacoemulsification induced CMO
Mathys K C, and Cohen K L. Effect of Nepafenac on Macular Thickness Following Uncomplicated Cataract Surgery. 2008 PP ARVO E	Abstract
Mathys K C, and Cohen K L. Impact of nepafenac 0.1% on macular thickness and postoperative visual acuity after cataract surgery in patients at low risk for cystoid macular oedema. Eye 2010 VOL 24 PT 1 PP 90-6	Not CMO
Reis A, Birnbaum F, Hansen L L, and Reinhard T Successful treatment of cystoid macular edema with valdecoxib. Journal of Cataract & Refractive Surgery 2007 VOL 33 PT 4 PP 682-5	Not RCT
Rho D S. Topical Dorzolamide 2% vs. Topical Prednisolone Acetate 1 % in the Treatment of Cystoid Macular Edema Following Uncomplicated Cataract Surgery. 1999 VOL 40 PP ARVO	Abstract
Rho D S. Diclofenac vs. Ketorelac Treatment of Cystoid Macular Edema Following Uncomplicated Cataract Surgery. 2000 VOL 41 PP ARVO	Abstract
Rho D S, and Soll S M. Combination Therapy for Pseudophakic Cystoid Macular Edema: Diclofenac Sodium 0.1% and Prednisolone Acetate 1% Versus Ketorolac Tromethamine 0.5% and Prednisolone Acetate 1%. 2004 VOL 45 PP ARVO	Abstract
Rho D S, Soll S M, and Markovitz B J. Bromfenac 0.09% versus Diclofenac Sodium 0.1% versus Ketorolac Tromethamine 0.5% in the Treatment of Acute Pseudophakic Cystoid Macular Edema. 2006 VOL 47 PP ARVO	Abstract
Rho D S. Tractenberg R. E, Markovitz B J, and Soll S M. Bromfenac vs. Diclofenac vs. Ketorolac for Treatment of Acute Pseudophakic Cystoid Macular Edema. American Academy of Ophthalmology 2008 PP 184	Paper unavailable
Sivaprasad S, Bunce C, and Wormald R. Non-steroidal anti-inflammatory agents for cystoid macular oedema following cataract surgery: a systematic review. British Journal of Ophthalmology 2005 VOL 89 PT 11 PP 1420-2	Not phacoemulsification

Study	Reason for exclusion
Sivaprasad S, Bunce C, and Crosby-Nwaobi R Non-steroidal anti-inflammatory agents for treating cystoid macular oedema following cataract surgery Cochrane Database of Systematic Reviews 2012 VOL 2 PP CD004239	None phacoemulsification studies analysed
Suzuki T, Hayakawa K, Nakagawa Y, Onouchi H, Ogata M, and Kawai K. Topical dorzolamide for macular edema in the early phase after vitrectomy and epiretinal membrane removal. Clinical ophthalmology (Auckland, and N.Z.) 2013 VOL 7 PP 549-53	Not population of interest
Warren K A, and Fox J E. Topical nepafenac as an alternate treatment for cystoid macular edema in steroid responsive patients. Retina 2008 VOL 28 PT 10 PP 1427-34	Not RCT
Williams G A, Blumenkranz M S, Haller J A, and Kuppermann B D. Treatment of Persistent Macular Edema (PME) Associated With Uveitis or Irvine-Gass Syndrome (IGS) With an Intravitreal Bioerodible Sustained Dexmethasone Release Implant; a Prospective Controlled Multi-Center Clinical Trial. 2003 PP ARVO	Abstract
Williams G A, Haller J A, Kuppermann B D, Blumenkranz M S, Weinberg D V, Chou C, Whitcup S M, and Dexamethasone D D. S. Phase I. I. Study Group. Dexamethasone posterior-segment drug delivery system in the treatment of macular edema resulting from uveitis or Irvine-Gass syndrome American Journal of Ophthalmology. 2009 VOL 147 PT 6 PP 1048-54, 1054.e1-2	Study in children

F.8.9 Postoperative eye shields

Study	Reason for exclusion
Bainbridge J W, Smith J M, Reddy G, and Kirwan J F. Is eye padding routinely necessary after uncomplicated phacoemulsification? Eye 1998 VOL 12 PT Pt 4 PP 637-40	Not suitable comparator
Carpel E F. The use of eye pads after cataract surgery. American Journal Ophthalmology 1990 VOL 110 PT 3 PP 318-9	Not RCT
Chuang L H, Lai C C, Song H H, Yang K J, and Ku W C. No Eye Padding After Phacoemulsification Under Topical Anesthesia 2005 VOL 46 PP 746	Not RCT - Abstract
Dell S J, Hovanesian J A, Raizman M B, Crandall A S, Doane J, Snyder M, Masket S, Lane S, and Fram N. Randomized comparison of postoperative use of hydrogel ocular bandage and collagen corneal shield for wound protection and patient tolerability after cataract surgery. Journal of Cataract and Refractive Surgery 2011 VOL 37 PT 1 PP 113-121	Not intervention of interest
Honda S, Matsuo A, Toda H, and Saito I. Effect of eye patching on postoperative inflammation after cataract surgery. Journal of Cataract & Refractive Surgery 2004 VOL 30 PT 1 PP 273-4	Not RCT - letter
Laws D E, Watts M T, Kirkby G R, and Lawson J Is padding necessary after cataract extraction?	Not phacoemulsification

Study	Reason for exclusion
British journal of ophthalmology. 1989 VOL 73 PT 9 PP 699-701	
Mayer S, Wirbelauer C, Häberle H, Altmeyer M, and Pham D T. Evaluation of eye patching after cataract surgery in topical anesthesia. Klinische Monatsblätter für Augenheilkunde. 2005 VOL 222 PT 1 PP 41-5	Not in English language
Walters T R. The effect of stromal hydration on surgical outcomes for cataract patients who received a hydrogel ocular bandage. Clinical Ophthalmology 2011 VOL 5 PT 1 PP 385-391	Does not report outcomes of interest

F.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?

F.9.1 Complications of surgery

Study	Reason for exclusion
Barry P, Seal D V, Gettinby G, Lees F, Peterson M, Revie C W. ESCRS study of prophylaxis of postoperative endophthalmitis after cataract surgery: Preliminary report of principal results from a European multicenter study. Journal of Cataract & Refractive Surgery 2006 VOL 32 PT 3 PP 407-10	Not reporting incidence data
Daien V, Le Pape, A, Heve D, Carriere I, and Villain M. Incidence, Risk Factors, and Impact of Age on Retinal Detachment after Cataract Surgery in France: A National Population Study. Ophthalmology 2015 VOL 122 PT 11 PP 2179-85	ECCE (Not all phacoemulsification data)
Daien V, Le Pape, A, Heve D, Carriere I, and Villain M. Incidence and Characteristics of Cataract Surgery in France from 2009 to 2012: A National Population Study. Ophthalmology 2015 VOL 122 PT 8 PP 1633-8	Not reporting outcomes of interest
Fernandes P, Gonzalez-Meijome J M, Madrid-Costa D, Ferrer-Blasco T, Jorge J, and Montes-Mico R Implantable collamer posterior chamber intraocular lenses: a review of potential complications. Journal of Refractive Surgery. 2011 VOL 27 PT 10 PP 765-76	Under 1000 procedures undertaken
Findl O, Buehl W, Bauer P, and Sycha T. Interventions for preventing posterior capsule opacification Cochrane Database of Systematic Reviews 2010 PT 2 PP CD003738	Incidence data not reported
Fong C S, Mitchell P, Rochtchina E, Hong T, de Loryn , T , and Wang J. Incidence and progression of epiretinal membranes in eyes after cataract surgery American Journal of Ophthalmology 2013 VOL 156 PT 2 PP 312-318.e1	Not reporting outcomes of interest
Fong C S, Mitchell P, Rochtchina E, Cugati S, Hong T, and Wang J. Three-year incidence and factors associated with posterior capsule opacification after cataract surgery: The Australian Prospective Cataract Surgery and Age-related Macular Degeneration Study American Journal of Ophthalmology. 2014 VOL 157 PT 1 PP 171-179.e1	Under 5000 eyes in study
Fong C S, Mitchell P, Rochtchina E, de Loryn , T , Tan A G, and Wang J. Visual impairment corrected via cataract surgery and 5-year survival in a prospective cohort. American Journal of Ophthalmology 2014 VOL 157 PT 1 PP 163-170.e1	Under 5000 eyes in study

Study	Reason for exclusion
Garcia-Arumi J, Fonollosa A, Sararols L, Fina F, Martinez-Castillo V, Boixadera A, Zapata M A, and Campins M. Topical anesthesia: possible risk factor for endophthalmitis after cataract extraction. Journal of Cataract & Refractive Surgery 2007 VOL 33 PT 6 PP 989-92	Not reporting outcomes of interest
Garcia-Saenz M C, Arias-Puente A, Rodriguez-Caravaca G, and Banuelos J B. Effectiveness of intracameral cefuroxime in preventing endophthalmitis after cataract surgery Ten-year comparative study Journal of Cataract & Refractive Surgery 2010 VOL 36 PT 2 PP 203-7	Not all phacoemulsification procedures (ECCE)
Gower E W, Lindsley K, Nanji A A, Leyngold I, and McDonnell P J. Perioperative antibiotics for prevention of acute endophthalmitis after cataract surgery Cochrane Database of Systematic Reviews 2013 VOL 7 PP CD006364	Incidence data not reported
Kessel L, Flesner P, Andresen J, Erngaard D, Tendal B, and Hjortdal J. Antibiotic prevention of post cataract endophthalmitis: a systematic review and meta-analysis. Acta Opthalmologica 2015 VOL 93 PT 4 PP 303-17	Incidence data not reported
Lundstrom M, Barry P, Henry Y, Rosen P, and Stenevi U. Visual outcome of cataract surgery; study from the European Registry of Quality Outcomes for Cataract and Refractive Surgery. Journal of Cataract & Refractive Surgery 2013 VOL 39 PT 5 PP 673-9	Not reporting outcomes of interest
Schaumberg D A, Dana M R, Christen W G, and Glynn R J. A systematic overview of the incidence of posterior capsule opacification. Ophthalmology 1998 VOL 105 PT 7 PP 1213-21	All studies ECCE (pre phacoemulsification)
Stein J, Grossman D, Mundy K Sugar A, Sloan F. Severe adverse events following cataract surgery among Medicare beneficiaries. Ophthalmology 2011;118:1716-1723	Not all phacoemulsification procedures (ECCE)

F.9.2 Details of postoperative assessment

Study	Reason for exclusion
Chatziralli I P, Sergentanis T N, Kanonidou E, and Papazisis L. 2012. "First postoperative day review after uneventful phacoemulsification cataract surgery: is it necessary?". BMC research notes 5:333.	Study already included in the Kessel et al., 2015 systematic review and meta-analysis
Kumar A, and Hugkulstone C E. 2005. "Uncomplicated phacoemulsification and first-day review: the patient's perspective". European Journal of Ophthalmology 15(2):221-3.	Non-qualitative study
Mandal K, Dodds S G, Hildreth A, Fraser S G, and Steel D H. 2004. "Comparative study of first-day postoperative cataract review methods". Journal of Cataract & Refractive Surgery 30(9):1966-71.	Non-qualitative study
Saeed A, Guerin M, Khan I, Keane P, Stack J, Hayes P, Tormey P, Mullhern M, and Beatty S. 2007. "Deferral of first review after uneventful phacoemulsification cataract surgery until 2 weeks. Randomized controlled study". Elsevier Inc. (360 Park Avenue South, New York NY	Study already included in the Kessel et al., 2015 systematic review and meta-analysis

Study	Reason for exclusion
10010, United States). http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=emed11&NEWS=N&AN=47284773.	
Tinley C, Frost N A, and Hakin K N. 2002. "Randomized Controlled Trial Investigating Differences in Outcome Between Elective Cataract Surgery Patients Discharged on the Day of Surgery and a Control Group Reviewed on the First Post-operative Day". Iovs 43:ARVO E-abstract 933.	Conference abstract
Tinley C G, Frost A, Hakin K N, McDermott W, and Ewings P. 2003. "Is visual outcome compromised when next day review is omitted after phacoemulsification surgery? A randomised control trial". British Journal of Ophthalmology 87(11):1350-5.	Study already included in the Kessel et al., 2015 systematic review and meta-analysis
van Vliet , E J, Reus N J, Sermeus W, Vissers J M, Sol J C, and Lemij H G. 2010. "Patients' experiences and preferences with co-managed care in a cataract pathway". British Journal of Ophthalmology 94(10):1363-8.	Non-qualitative study
Willins L R, Grant B, and Kearns P P. 1999. "Domiciliary post-operative assessment following cataract surgery carried out by specialist nurses". Eye 13(Pt 3a):336-8.	Non-qualitative study