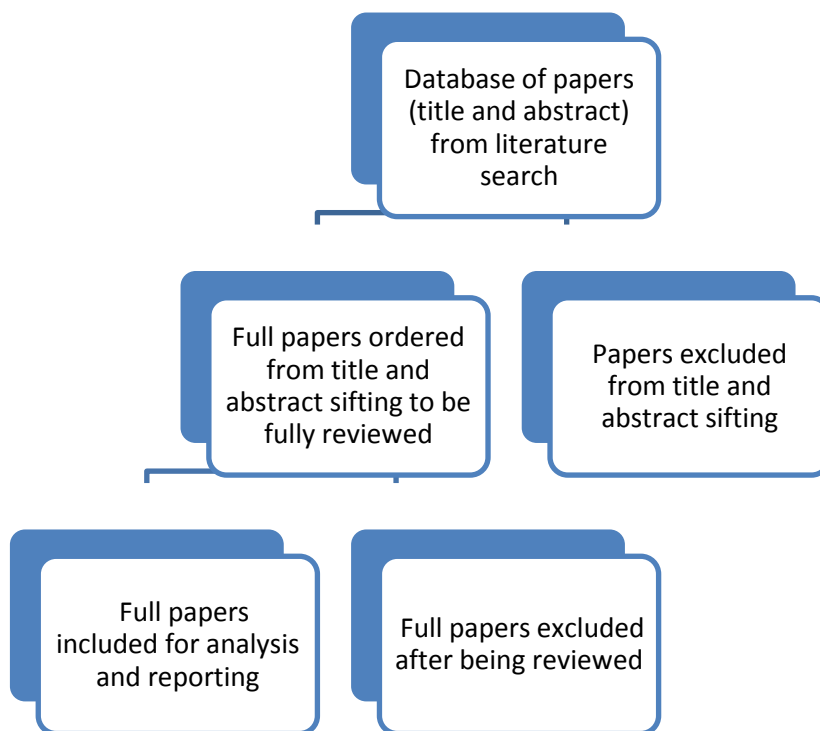


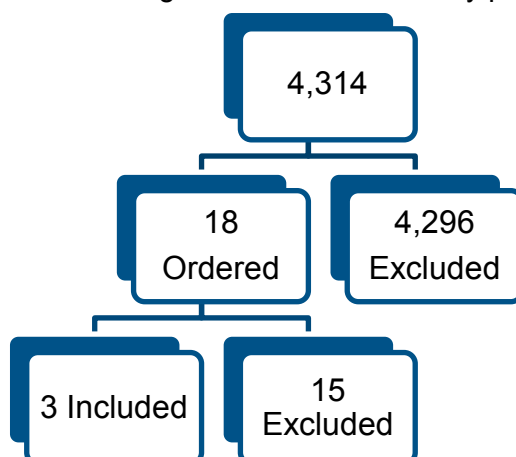
Appendix K: Evidence Review Flow Charts

The flow charts for individual questions are presented using the format below. Flow charts are not presented for reviews undertaken by the Cochrane Eyes and Vision Group, but full details of the searches can be found in the published Cochrane reviews.



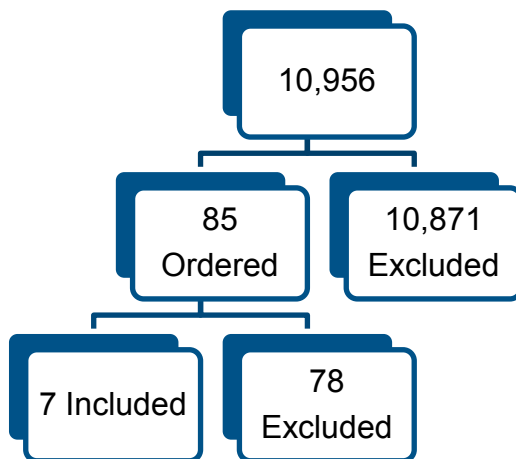
K.1 Patient information

- What information do people with cataracts and their carers find useful, and what format 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 do they prefer it to be provided in?



15 **K.2 Indicators and thresholds for referral for cataract surgery**

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

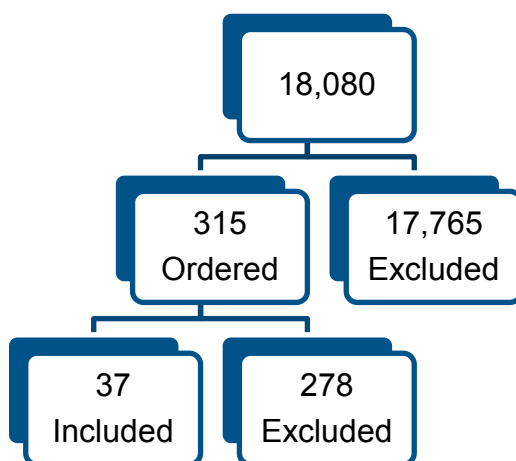


19

20 **K.3 Pre-operative assessment and biometry**

21 **K.3.1 Biometry techniques**

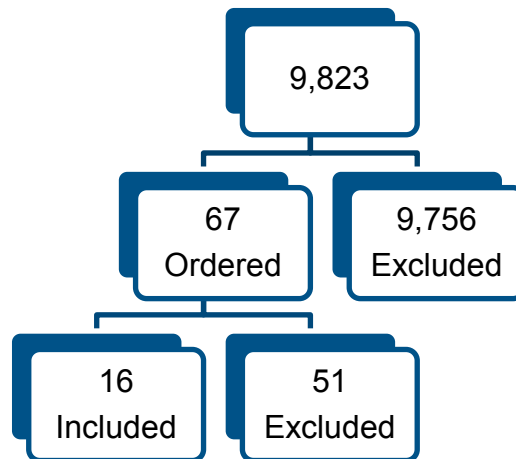
- 22 • What is the effectiveness of different techniques for undertaking biometry?
- 23 • What are the most appropriate formulas to optimise intraocular lens biometry calculation?
- 24 • What is the effectiveness of strategies used to select intraocular lens constants in order to
- 25 optimise biometry calculation?
- 26 • What other factors should be considered such as, who should undertake biometry and
- 27 when should pre-operative biometry be assessed?



28

29 **K.3.2 Risk stratification and risk factors for increased cataract surgical complications**

- 30
- 31 • What is the effectiveness of risk stratification techniques to reduce surgical
- 32 complications?
- 33 • What are the risk factors associated with increased surgical complications in cataract
- 34 surgery?



35

36 K.4 Intraocular lens selection

37 K.4.1 Lens design

38

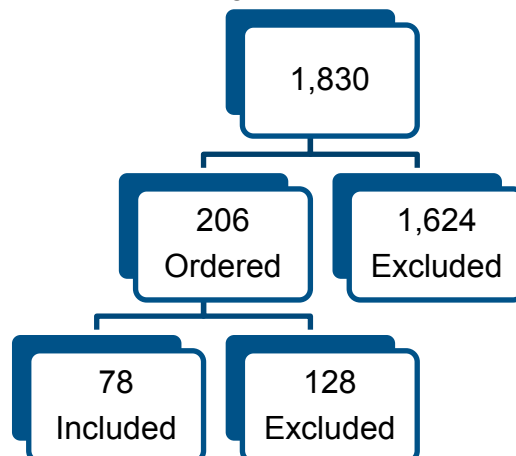
39

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41

42

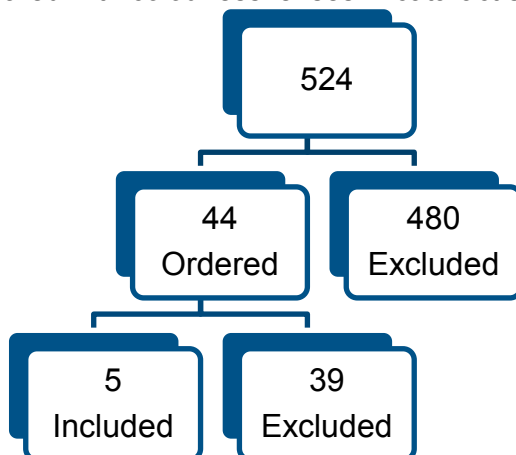
- Are different lens designs (aspheric vs. spheric, plate vs. loop) effective in improving postoperative vision (refractive outcomes, optical aberrations) in cataract surgery?
- Are different lens designs (square-edged vs. round-edge, plate vs. loop) and materials (hydrophilic acrylic, hydrophobic acrylic, collagen, hydroxyethyl methacrylate-based vs. silicone-based) effective in preventing posterior capsule opacification in cataract surgery?



43

44 **K.4.2 Tinted vs colourless lenses**

- 45 • Are tinted lenses effective in preventing the progression of age-related macular
 46 degeneration compared with colourless lenses in cataract surgery?

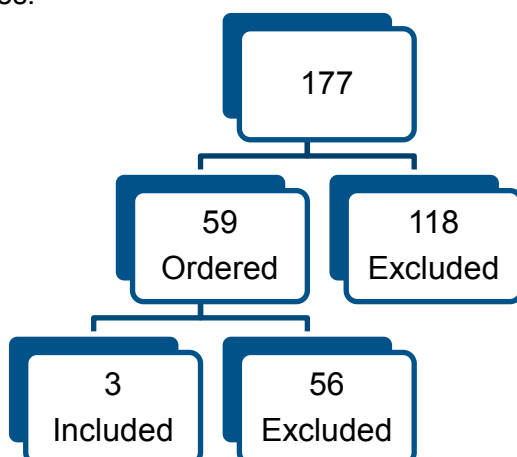


47

48 **K.4.3 Multifocal vs monofocal intraocular lenses**

- 49 • What is the optimal strategy to facilitate simultaneous distance and near vision following
 50 cataract surgery?

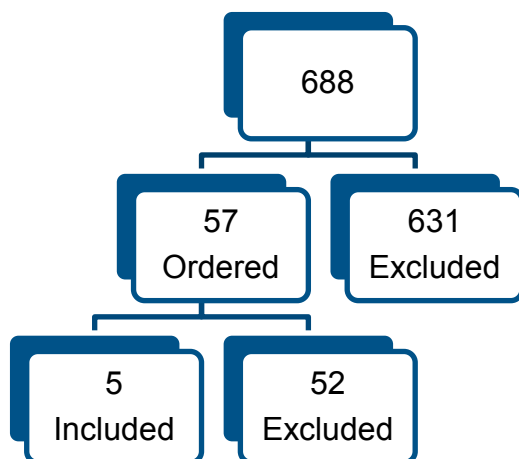
51 The flow chart below only corresponds to the additional searches undertaken by the NICE
 52 Internal Clinical Guidelines Team on bifocal versus trifocal, and refractive versus diffractive
 53 multifocal lenses.



54

55 **K.4.4 Optimal strategy to address pre-existing astigmatism**

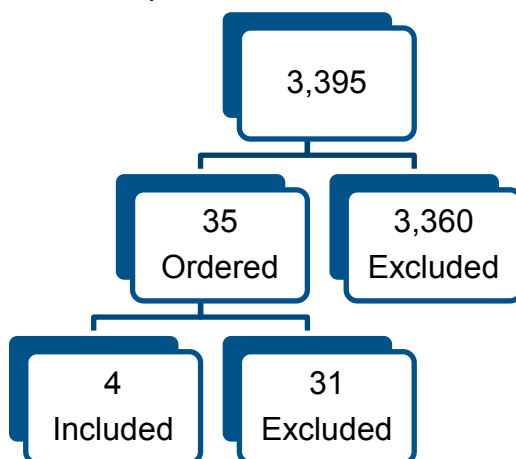
- 56 • What is the optimal strategy to address pre-existing regular astigmatism in people
 57 undergoing cataract surgery?



58

59 **K.5 Wrong lens implant errors**

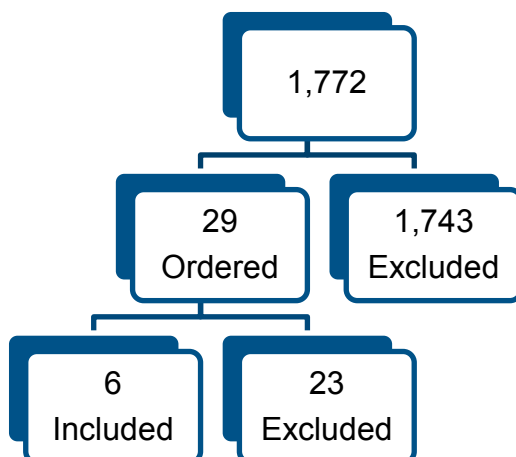
- 60
- What are the procedural causes of wrong lens implant errors?
 - What strategies should be adopted to reduce the risk of wrong lens implant errors?
- 61



62

63 **K.6 Bilateral surgery**

- 64
- 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?
- 66
- 67

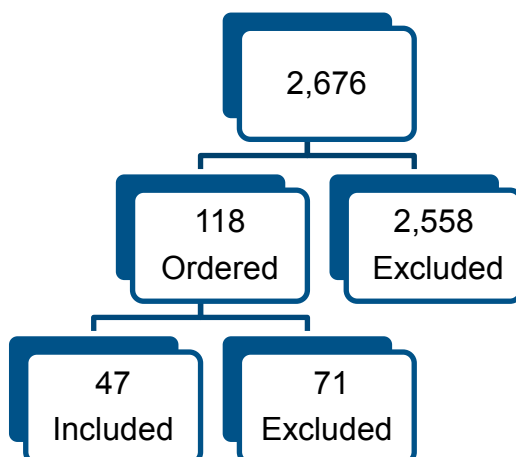


68

69 **K.7 Anaesthesia**

70 **K.7.1 Type and administration of anaesthesia, and adjuncts to anaesthesia**

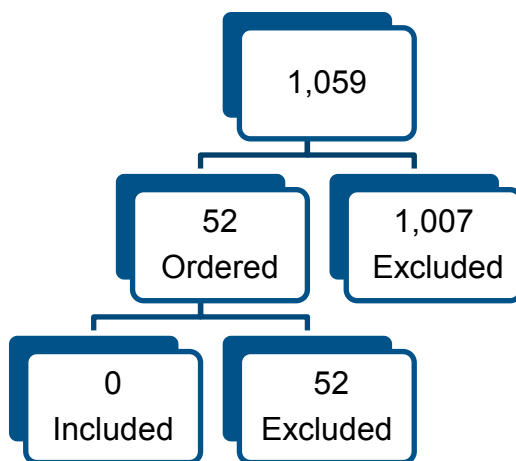
- 71 • What is the optimal type and administration of anaesthesia for cataract surgery?
 72 • What is the effectiveness of sedation as an adjunct to local anaesthesia during cataract
 73 surgery?
 74 • What is the effectiveness of hyaluronidase as an adjunct to local anaesthesia during
 75 cataract surgery?



76

77 **K.7.2 General anaesthesia**

- 78 • In what circumstances should general anaesthesia be considered in phacoemulsification
 79 cataract surgery?

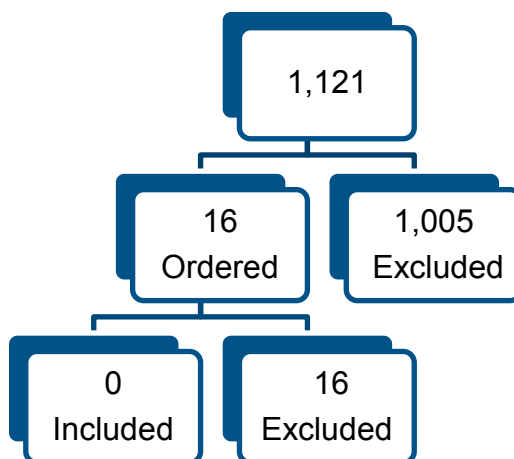


80

81 **K.8 Preventing and managing complications**

82 **K.8.1 Interventions to prevent retinal detachment in people with myopia**

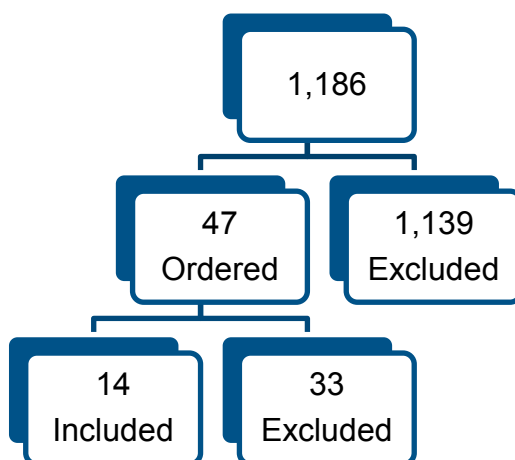
- 83 • What is the effectiveness of interventions (for example, prophylactic laser surgery) to
 84 prevent retinal detachment in people with myopia undergoing cataract surgery?



85
86

87 **K.8.2 Intra-operative pupil size management, capsular tension rings and**
88 **postoperative eye shields**

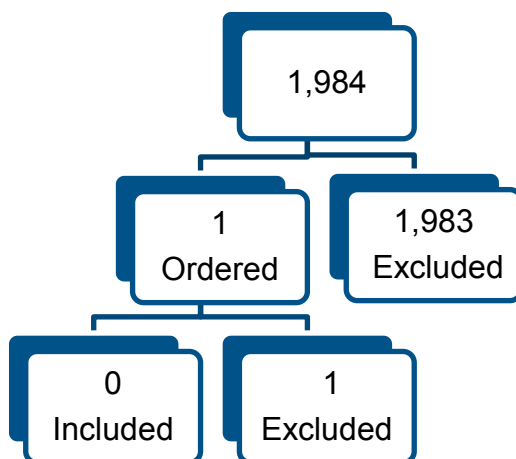
- 89 • What is the effectiveness of interventions to increase pupil size to improve visual
- 90 outcomes and reduce complications during phacoemulsification cataract surgery?
- 91 • What is the effectiveness of capsular tension rings applied during phacoemulsification
- 92 cataract surgery?
- 93 • What is the effectiveness of postoperative eye shields to prevent complications after
- 94 cataract extraction?



95

96 **K.8.3 Interventions to reduce the impact of perioperative posterior capsule rupture**

- 97 • What is the effectiveness of interventions to reduce the impact of perioperative posterior
- 98 capsule rupture?

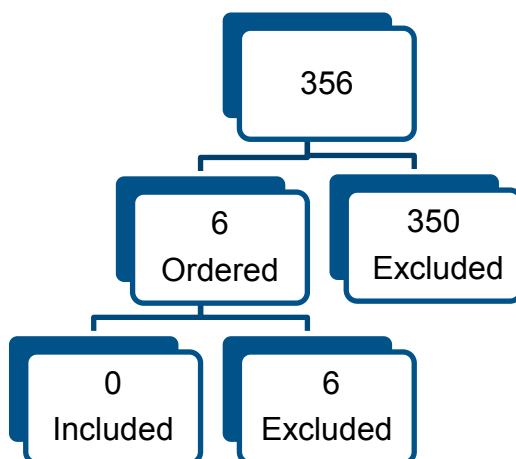


99

100 **K.8.4 Interventions to prevent endophthalmitis**

- 101 • What is the effectiveness of prophylactic antiseptics and antibiotics to prevent
- 102 endophthalmitis after cataract surgery?

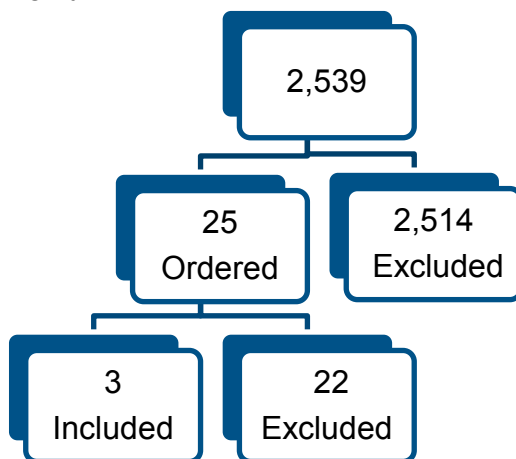
103 The flow chart below only corresponds to the additional searches undertaken by the NICE
 104 Internal Clinical Guidelines Team on prophylactic antiseptics.



105

106 **K.8.5 Managing cystoid macular oedema**

- 107 • What is the effectiveness of interventions used to manage cystoid macular oedema
- 108 following cataract surgery?

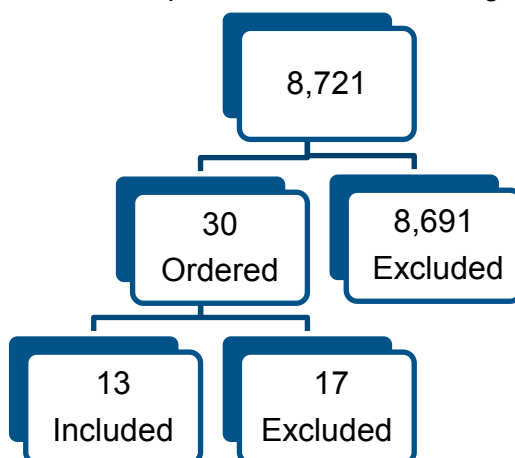


109

110 **K.9 Postoperative assessment**

111 **K.9.1 Complications of surgery**

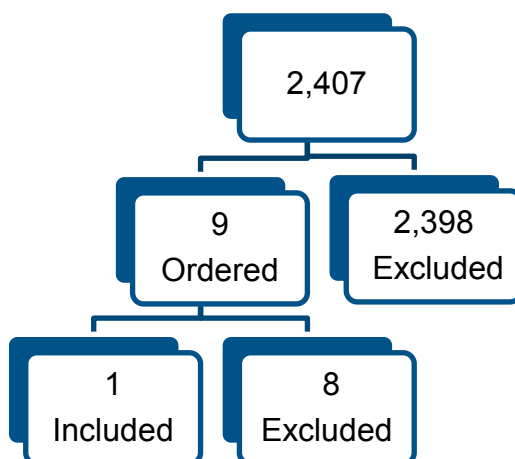
- 112 • What are the early and late complications of cataract surgery?



113

114 **K.9.2 Details of postoperative assessment**

- 115 • What should the postoperative assessment include?
- 116 • Who and in what setting should carry out the postoperative assessment?
- 117 • What issues should be considered when organising postoperative care?
- 118 • What is the appropriate time to assess outcomes in the postoperative period?
- 119 • If the postoperative assessment and care are undertaken outside of the hospital, how
- 120 should outcomes between surgical units and these providers be effectively
- 121 communicated?



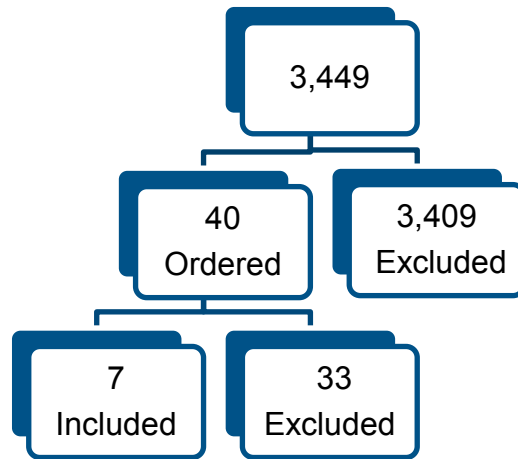
122

123 **K.10 Re-run searches**

124 Re-run searches were undertaken across all questions at the end of the guideline, to identify

125 any additional papers published since the time the individual reviews for those questions

126 were undertaken.



127
128
129
130

Of the seven studies identified, 4 fed into the questions 1 biometry, 1 into the question on wrong lens errors, 1 into the question on tinted lenses and 1 into the question on complications of cataract surgery.