Cataracts in adults: management

Review questions:

1 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?

2 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?

3 What are the indicators for referral for cataract surgery?

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

5 What is the effectiveness of different techniques for undertaking biometry?

6 What are the most appropriate formulae to optimise intraocular lens biometry calculation?

7 What is the effectiveness of strategies used to select intraocular lens constants in order to optimise biometry calculation?

8 What other factors should be considered such as, who should undertake biometry and when should preoperative biometry be assessed? (includes second eye prediction refinement)

9 What are the procedural causes of wrong lens implant errors?

10 What strategies should be adopted to reduce the risk of wrong lens implant errors?

11 What is the effectiveness of risk stratification techniques to reduce surgical complications?

12 What are the risk factors associated with increased surgical complications in cataract surgery?

13 What is the effectiveness of laser-assisted phacoemulsification cataract surgery compared with standard ultrasound phacoemulsification cataract surgery?

14 What is the optimal type and administration of anaesthesia for cataract surgery?

15 What is the effectiveness of sedation as an adjunct to local anaesthesia during cataract surgery?

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16 What is the effectiveness of hyaluronidase as an adjunct to local anaesthesia during cataract surgery?

17 In what circumstances should general anaesthesia be considered in phacoemulsification cataract surgery?

18 Are different lens design (aspheric vs. spheric, plate vs. loop) effective in improving postoperative vision (refractive outcomes, optical aberrations) in cataract surgery?

19 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?

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

21 What is the optimal strategy to facilitate simultaneous distance and near vision following cataract surgery?

22 What is the optimal strategy to address pre-existing astigmatism in people undergoing cataract surgery?

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

24 What is the effectiveness of bilateral simultaneous (rapid sequential) cataract surgery compared with unilateral eye surgery?

25 What is the appropriate timing of second eye surgery, taking into account issues such as refractive power after first eye surgery?

26 What is the effectiveness of capsular tension rings applied during phacoemulsification cataract surgery?

27 What is the effectiveness of interventions to increase pupil size to improve visual outcomes and reduce complications during phacoemulsification cataract surgery?

28 What is the effectiveness of postoperative eye shields to prevent complications after cataract extraction?

29 What is the effectiveness of prophylactic antiseptics (for example, topical iodine) and antibiotics to prevent endophthalmitis after cataract surgery?

30 What is the effectiveness of prophylactic topical corticosteroids and/or NSAIDs to prevent inflammation and cystoid macular oedema after phacoemulsification cataract surgery?

31 What is the effectiveness of interventions to reduce the impact of perioperative posterior capsule rupture?

32 What is the effectiveness of interventions used to manage cystoid macular oedema following cataract surgery?

33 What are the early and late complications of cataract surgery?

34 What should the postoperative assessment include?

35 Who and in what setting should carry out the postoperative assessment?

36 What issues should be considered when organising postoperative care?

37 What is the appropriate time to assess outcomes in the postoperative period?

38 If the postoperative assessment and care are undertaken outside of the hospital, how should outcomes between surgical units and these providers be effectively communicated?