Appendix D: Review search strategies

D.1 Scoping search strategies

D.1.1 Scoping searches

Scoping searches were undertaken on the following websites and databases (listed in alphabetical order) in November 2014 to provide information for scope development and project planning. Browsing or simple search strategies were employed.

<table>
<thead>
<tr>
<th>Guidelines/website</th>
<th>Systematic review/economic evaluations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action for Blind People</td>
<td>Cochrane Database of Systematic Reviews (CDSR)</td>
</tr>
<tr>
<td>American Academy of Ophthalmology</td>
<td>Database of Abstracts of Reviews of Effects (DARE)</td>
</tr>
<tr>
<td>American Optometric Association</td>
<td>DUETS</td>
</tr>
<tr>
<td>Canadian Ophthalmological Society</td>
<td>Health Economic Evaluations Database (HEED)</td>
</tr>
<tr>
<td>Core Outcome Measures in Effectiveness Trials (COMET)</td>
<td>Health Technology Assessment (HTA) Database</td>
</tr>
<tr>
<td>Department of Health</td>
<td>NHS Economic Evaluation Database (NHS EED)</td>
</tr>
<tr>
<td>European Society of Cataract &amp; Refractive Surgeons</td>
<td>NIHR Health Technology Assessment Programme</td>
</tr>
<tr>
<td>Eyecare Trust</td>
<td>NIHR Health Services and Delivery Research (HS&amp;DR) Programme</td>
</tr>
<tr>
<td>Gov.UK</td>
<td>PROSPERO</td>
</tr>
<tr>
<td>Guidelines &amp; Audit Implementation Network (GAIN)</td>
<td>TRIP Database</td>
</tr>
<tr>
<td>Guidelines International Network (GIN)</td>
<td></td>
</tr>
<tr>
<td>Healthtalk Online</td>
<td></td>
</tr>
<tr>
<td>Infobase – Canadian Medical Association</td>
<td></td>
</tr>
<tr>
<td>Map of Medicine</td>
<td></td>
</tr>
<tr>
<td>Ministry of Health – New Zealand</td>
<td></td>
</tr>
<tr>
<td>National Health and Medical Research Council - Australia</td>
<td></td>
</tr>
<tr>
<td>National Institute for Health and Care Excellence (NICE) - published &amp; in development guidelines</td>
<td></td>
</tr>
<tr>
<td>National Institute for Health and Care Excellence (NICE) - Topic Selection</td>
<td></td>
</tr>
<tr>
<td>National Prescribing Centre (NPC)</td>
<td></td>
</tr>
<tr>
<td>NHS Choices</td>
<td></td>
</tr>
<tr>
<td>NHS England</td>
<td></td>
</tr>
<tr>
<td>NICE Clinical Knowledge Summaries (CKS)</td>
<td></td>
</tr>
<tr>
<td>NICE Evidence Search</td>
<td></td>
</tr>
<tr>
<td>Patient UK</td>
<td></td>
</tr>
<tr>
<td>Public Health England</td>
<td></td>
</tr>
<tr>
<td>Royal Australian and New Zealand College of Ophthalmologists</td>
<td></td>
</tr>
<tr>
<td>Royal College of Ophthalmologists</td>
<td></td>
</tr>
<tr>
<td>Royal National Institute of Blind People (RNIB)</td>
<td></td>
</tr>
<tr>
<td>Scottish Intercollegiate Guidelines Network (SIGN)</td>
<td></td>
</tr>
<tr>
<td>UK Vision Strategy</td>
<td></td>
</tr>
<tr>
<td>US National Guideline Clearinghouse</td>
<td></td>
</tr>
</tbody>
</table>
8 D.1.2 Main searches

Sources searched for the guideline
- Cochrane Database of Systematic Reviews – CDSR (Wiley)
- Cochrane Central Register of Controlled Trials – CENTRAL (Wiley)
- Database of Abstracts of Reviews of Effects – DARE (Wiley)
- Health Technology Assessment Database – HTA (Wiley)
- EMBASE (Ovid)
- MEDLINE (Ovid)
- MEDLINE In-Process (Ovid)
- PsychINFO (Ovid)

18 D.1.3 Identification of evidence for clinical questions

The searches were conducted between July 2015 and November 2016. The re-run searches took place in January 2017.

The MEDLINE search strategies conducted by NICE are presented below in section D2. These were translated for use in all of the other databases.

In collaboration with Cochrane, the evidence for several review questions was identified by an update of an existing Cochrane review. Review questions in this category are presented in section D3.

In house study design filters were appended to some strategies. The type of study design filter used is indicated by each relevant review question. Details of the study design filters used can be found in section D4.

29 D.2 Review question search strategies

30 D.2.1 Search strategy review questions 1 and 2

RQ1: 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?

RQ2: 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?

Table 1: search strategy RQ1 and RQ2

<table>
<thead>
<tr>
<th>Medline Strategy, searched</th>
<th>10th November 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database: Ovid MEDLINE(R) 1946 to November Week 1 2016</td>
<td></td>
</tr>
<tr>
<td>Search Strategy:</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>exp Cataract/</td>
</tr>
<tr>
<td>2</td>
<td>exp Cataract Extraction/</td>
</tr>
<tr>
<td>3</td>
<td>cataract*.tw.</td>
</tr>
</tbody>
</table>
**Review Search Strategies**

**Medline Strategy, searched 10th November 2016**

**Database:** Ovid MEDLINE(R) 1946 to November Week 1 2016

**Search Strategy:**

4  (pha?oemulsif* or phaco or phako).tw.
5  ((lens* or capsul*) adj4 (opaci* or cloud*)).tw.
6  (lensectom* or capsulorhexis or capsulorrhexis).tw.
7  (lens* adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.
8  Lenses, Intraocular/
9  Lens Implantation, Intraocular/
10  ((lens* adj4 (intraocul* or implant*)) or IOL*).tw.
11  or/1-10

*Note: in-house patient issues filter appended to strategy.*

**D.2.2 Search strategy review questions 3 and 4**

**RQ3:** What are the indicators for referral for cataract surgery?

**RQ4:** What are the optimal clinical thresholds in terms of severity and impairment for referral for cataract surgery?

**Table 2: search strategy RQ3 and RQ4**

**Medline Strategy, searched 16th December 2015**

**Database:** Ovid MEDLINE(R) 1946 to November Week 3 2015

**Search Strategy:**

1  exp cataract extraction/
2  (pha?oemulsif* or phaco or phako).tw.
3  (lensectom* or capsulorhexis or capsulorrhexis).tw.
4  ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.
5  Lens Implantation, Intraocular/
6  ((lens* or IOL* or intraocul*) adj4 implant*).tw.
7  or/1-6
8  exp "Referral and Consultation"/
9  (referr* or consult* or gatekeep* or listing or listed).tw.
10  (second* adj4 opinion*).tw.
11  (indicator* or indication* or barometer* or manifest*).tw.
12  (threshold* or benchmark*).tw.
13  ((assess* or indicat* or priorit* or apprais* or appropriateness or suitabl*) adj4 (criteri* or framework* or method*)).tw.
14  ((surg* or operat* or extract* or implant*) adj4 (rate* or ratio*)).tw.
15  or/8-14
16  7 and 15
17  incidence.sh.
18  exp mortality/
19  follow-up studies.sh.
20  prognos:.tw.
21  predict:.tw.
22  course:.tw.
23  or/17-22
24  7 and 23
**Medline Strategy, searched 16th December 2015**
**Database: Ovid MEDLINE(R) 1946 to November Week 3 2015**
**Search Strategy:**

25  16 or 24
26  Animals/ not Humans/
27  25 not 26
28  limit 27 to english language

---

**D.2.3 Search strategy review question 5**

**RQ5:** What is the effectiveness of different techniques for undertaking biometry?

**Table 3: search strategy RQ5**

**Medline Strategy, searched 14th July 2015**
**Database: Ovid MEDLINE(R) 1946 to July Week 1 2015**
**Search Strategy:**

1  exp Cataract/  
2  exp Cataract Extraction/  
3  cataract*.tw.  
4  (pha?omulsif* or phaco or phako).tw.  
5  ((lens* or capsul*) adj4 (opaci* or cloud*)).tw.  
6  (lensectom* or capsulorhexis or capsulorrhexis).tw.  
7  (lens* adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or implant* or emulsif*)).tw.  
8  or/1-7  
9  Lenses, Intraocular/  
10  Lens Implantation, Intraocular/  
11  ((lens* adj4 intraocul*) or IOL*).tw.  
12  or/9-11  
13  8 or 12  
14  Biometry/  
15  biometr*.tw.  
16  exp Ultrasonography/  
17  Eye/us [Ultrasonography]  
18  (ultrasonograph* or echograph* or echotomograph*).tw.  
19  (ultras* adj4 (imag* or tomograph* or diagnos* or scan* or detect* or exam*)).tw.  
20  (medic* adj4 (imag* or tomograph* or ultrasound*)).tw.  
21  (immersion adj4 (ultras* or method* or technique* or shell*)).tw.  
22  (A scan* or B scan* or B guided or AL scan* or IOL measurer*).tw.  
23  ((A or B) adj scan*).tw.  
24  ((contact or applanation) adj4 (ultras* or technique* or method*)).tw.  
25  (tonometer* or tonometr*).tw.  
26  (A mode adj4 (contact or applanation or ultras*)).tw.  
27  exp Interferometry/  
28  (interferometr* or interferometer*).tw.  
29  ((optical or ocular) adj4 coherence reflectometry).tw.  
30  (IOLMaster or IOL Master or LENSTAR or OLCR or scheimpflug).tw.  
31  (laser adj4 interference).tw.  
32  (KR-7100 or Orbscan or Pentacam or Haag-Streit Lotmar or Tono-Pen or AccuPen or Aladdin).tw.
Medline Strategy, searched 14th July 2015
Database: Ovid MEDLINE(R) 1946 to July Week 1 2015
Search Strategy:

33 or/14-32
34 Axial Length, Eye/
35 ((axial or eye*) adj4 (length* or axis)).tw.
36 Corneal Topography/
37 Cornea/us [Ultrasonography]
38 ((cornea* or scanning-slit) adj4 topograph*).tw.
39 (cornea* adj4 (curv* or power or map* or diameter*)).tw.
40 (videokeratograph* or photokeratoscop*).tw.
41 (keratometr* or keratoscop*).tw.
42 (keratometer* or ophthalmometer* or biometer* or visometer*).tw.
43 Anterior Chamber/us [Ultrasonography]
44 ((anterior chamber adj4 depth*) or ACD).tw.
45 Corneal Pachymetry/
46 ((lens or cornea*) adj4 (thick* or pachymet*)).tw.
47 (white or white to white or horizontal limbal distance).tw.
48 or/34-47
49 33 or 48
50 13 and 49
51 Animals/ not Humans/
52 50 not 51
53 limit 52 to english language

Note: In house RCT and systematic review filters appended to strategy.

D.2.4 Search strategy review questions 6, 7 and 8

RQ6. What are the most appropriate formulae to optimise intraocular lens biometry calculation?

RQ7. What is the effectiveness of strategies used to select intraocular lens constants in order to optimise biometry calculation?

RQ8. What other factors should be considered such as, who should undertake biometry and when should preoperative biometry be assessed?

Table 4: search strategy RQ6, RQ7 and RQ8

Medline Strategy, searched 25th September 2015
Database: Ovid MEDLINE(R) 1946 to September Week 3 2015
Search Strategy:

1 exp Cataract
2 exp Cataract Extraction/
3 cataract*.tw.
4 (pha?omulsif* or phaco or phako).tw.
5 ((lens* or capsul*) adj4 (opaci* or cloud*)).tw.
6 (lensectom* or capsulorhexis or capsulorrhexis).tw.
7 (lens* adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or implant* or emulsif*)).tw.
8 or/1-7
9 Lenses, Intraocular/
### Medline Strategy, searched 25th September 2015

**Database:** Ovid MEDLINE(R) 1946 to September Week 3 2015

**Search Strategy:**

10  Lens Implantation, Intraocular/
11  ((lens* adj4 intraocul*) or IOL*).tw.
12  Biometry/
13  biometr*.tw.
14  or/9-13
15  8 or 14
16  exp "Optics and Photonics"/
17  ((power or sensitiv*) adj4 (calculat* or statistic* or analy* or predict* or forecast* or computat* or estimat* or select* or total* or corneal)).tw.
18  (significan* adj4 test*).tw.
19  Algorithms/
20  (algorithm* or formula or formulas or formulae).tw.
21  (predict* adj4 (refract* or vision or visual or accur* or sight)).tw.
22  (Hoffer or Olsen or Colebrander or Haigis or Masket or Shammas).tw.
23  (Binkhorst or SRK or SRKT or Sanders Retzlaff Kraff or Holladay or T2).tw.
24  or/16-23
25  Individualized Medicine/
26  (personalis* or personaliz* or individualis* or individualiz* or customis* or customiz* or tailor*).tw.
27  (optimis* or optimiz*).tw.
28  ((optimal or max* or peak) adj4 (calculat* or computat* or estimat* or predict* or effect* or perform* or function* or indicat*)).tw.
29  (constant* or ray tracing or paraxial approximation).tw.
30  ((surgeon or axial length or AL or keratometr*) adj4 (specific or factor* or influence* or effect* or index or indices)).tw.
31  or/25-30
32  exp Professional Competence/
33  ((profess* or technical or clinical or general* or staff) adj4 (competen* or experienc* or skill* or appropriat* or suitabl* or proficien* or expert* or qualif* or proper*)).tw.
34  or/32-33
35  Ophthalmology/
36  Optometry/
37  exp Nurses/
38  exp Personnel, Hospital/
39  (ophthal* or optomet* or nurs* or surgeon*).tw.
40  (hospital* adj4 (person* or staff* or practit*)).tw.
41  or/35-40
42  Biometry/
43  biometr*.tw.
44  or/42-43
45  41 and 44
46  Preoperative Period/
47  Preoperative Care/
48  (preop* or pre-op*).tw.
49  ((before* or ahead* or precede* or precedi* or in advance) adj4 (surg* or operat* or procedure*)).tw.
50  or/46-49
51  44 and 50
52  (second adj4 eye).tw.
Medline Strategy, searched 25th September 2015
Database: Ovid MEDLINE(R) 1946 to September Week 3 2015
Search Strategy:
53 Refractive Error/
54 ((refract* or predict*) adj4 (error* or refine* or inaccur* or deviat* or flaw* or clarif* or rectif* or mistake*)).tw.
55 ametropia*.tw.
56 ((fellow eye* or other eye) adj4 (data or measure* or information)).tw.
57 or/52-56
58 Refraction, Ocular/
59 (error* or refine* or inaccur* or deviat* or flaw* or clarif* or rectif* or mistake*).tw.
60 58 and 59
61 34 or 45 or 51 or 57 or 60
62 24 or 31 or 61
63 15 and 62
64 Animals/ not Humans/
65 63 not 64
66 limit 65 to english language

Note: In house RCT and systematic review filters appended to strategy

D.2.5 Search strategy review questions 9 and 10
RQ9: What are the procedural causes of wrong lens implant errors?
RQ10: What strategies should be adopted to reduce the risk of wrong lens implant errors?

Table 5: search strategy RQ9 and RQ10
Medline Strategy, searched 11th December 2015
Database: Ovid MEDLINE(R) 1946 to May Week 4 2016
Search Strategy:
1 exp Cataract/
2 exp Cataract Extraction/
3 cataract*.tw.
4 (pha?oemulsif* or phaco or phako).tw.
5 ((lens* or capsul*) adj4 (opaci* or cloud*)).tw.
6 (lensectom* or capsulorhexis or capsulorrhexis).tw.
7 (lens* adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.
8 Lenses, Intraocular/
9 Lens Implantation, Intraocular/
10 ((lens* adj4 (intraocul* or implant*)) or IOL*).tw.
11 or/1-10
12 Ophthalmologic Surgical Procedures/ae [Adverse Effects]
13 Artificial Lens Implant Migration/
14 ((wrong* or incorrect* or erroneous or imprec* or inaccura* or unsuitabl* or inappropriat* or incompatibl* or ill fit*) adj4 (lens* or IOL* or implant* or eye or site* or power or patient or transcri*)).tw.
15 ((implant* or lens* or power or transcri*) adj4 (error* or migrat* or fail* or fault* or mistak* or defect*)).tw.
16 or/12-15
17 Medical Errors/
18 exp Medication Errors/
19 exp Diagnostic Errors/
**Medline Strategy, searched 11th December 2015**

**Database: Ovid MEDLINE(R) 1946 to May Week 4 2016**

**Search Strategy:**

<table>
<thead>
<tr>
<th>Line</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>((medic* or surg* or operat* or diagnos* or healthcare or health care or treatment* or therap*) adj4 (error* or fail* or false or mistak* or fault* or defect* or inappropriat* or accident*)).tw.</td>
</tr>
<tr>
<td>21</td>
<td>missdiagos*.tw.</td>
</tr>
<tr>
<td>22</td>
<td>exp Professional Competence/</td>
</tr>
<tr>
<td>23</td>
<td>((profess* or technical or clinical or general* or staff) adj4 (competen* or experienc* or skill* or appropriaat* or suitabl* or proficien* or expert* or qualif* or proper*)).tw.</td>
</tr>
<tr>
<td>24</td>
<td>exp Malpractice/</td>
</tr>
<tr>
<td>25</td>
<td>(malpractice or neglig*).tw.</td>
</tr>
<tr>
<td>26</td>
<td>(confus* or disorganiz* or disorganis* or distract*).tw.</td>
</tr>
<tr>
<td>27</td>
<td>(never adj4 event*).tw.</td>
</tr>
<tr>
<td>28</td>
<td>Patient Safety/</td>
</tr>
<tr>
<td>29</td>
<td>Patient Harm/</td>
</tr>
<tr>
<td>30</td>
<td>((patient* or client*) adj4 (safe* or wellbeing or well being or protect* or harm* or damag* or hurt* or mistreat* or maltreat* or ill treat*)).tw.</td>
</tr>
<tr>
<td>31</td>
<td>exp Safety Management/</td>
</tr>
<tr>
<td>32</td>
<td>((safety or hazard*) adj4 (manag* or administ* or report* or record* or control* or assess*)).tw.</td>
</tr>
<tr>
<td>33</td>
<td>Risk Management/</td>
</tr>
<tr>
<td>34</td>
<td>exp Risk Assessment/</td>
</tr>
<tr>
<td>35</td>
<td>((risk* or incident*) adj4 (manag* or administ* or report* or record* or reduc* or contract* or abate* or minimiz* or minimis* or lower* or diminish* or assess* or estimat* or apprais* or adjust*)).tw.</td>
</tr>
<tr>
<td>36</td>
<td>((near or close or narrow) adj4 (miss* or call* or escape*)).tw.</td>
</tr>
<tr>
<td>37</td>
<td>exp &quot;Quality of Health Care&quot;/st [Standards]</td>
</tr>
<tr>
<td>38</td>
<td>exp Quality Assurance, Healthcare/</td>
</tr>
<tr>
<td>39</td>
<td>(quality adj4 (assur* or assess* or control*)).tw.</td>
</tr>
<tr>
<td>40</td>
<td>Checklist/</td>
</tr>
<tr>
<td>41</td>
<td>(checklist* or check list*).tw.</td>
</tr>
<tr>
<td>42</td>
<td>(world health organi?ation adj4 (surg* or safe* or tool*)).tw.</td>
</tr>
<tr>
<td>43</td>
<td>exp Ophthalmologic Surgical Procedures/st [Standards]</td>
</tr>
<tr>
<td>44</td>
<td>Clinical Protocols/</td>
</tr>
<tr>
<td>45</td>
<td>((clinic* or treat* or car*) adj4 protocol*).tw.</td>
</tr>
<tr>
<td>46</td>
<td>Practice Guidelines as Topic/</td>
</tr>
<tr>
<td>47</td>
<td>(practic* adj4 (best or guid*)).tw.</td>
</tr>
<tr>
<td>48</td>
<td>exp Patient Care Planning/</td>
</tr>
<tr>
<td>49</td>
<td>((patient* or care*) adj4 (plan* or goal* or procedure*)).tw.</td>
</tr>
<tr>
<td>50</td>
<td>((critical or clinical or care) adj4 path*).tw.</td>
</tr>
<tr>
<td>51</td>
<td>(standard operating procedure* or SOP*).tw.</td>
</tr>
<tr>
<td>52</td>
<td>((strateg* or procedur* or process* or protocol* or scenario*) adj4 (manag* or administ* or report* or record* or reduc* or contract* or abate* or minimiz* or minimis* or lower* or diminish* or assess* or estimat* or apprais*)).tw.</td>
</tr>
<tr>
<td>53</td>
<td>((strateg* or procedur* or process* or protocol* or scenario*) adj4 (risk* or incident*)).tw.</td>
</tr>
<tr>
<td>54</td>
<td>or/17-53</td>
</tr>
<tr>
<td>55</td>
<td>or/8-10</td>
</tr>
<tr>
<td>56</td>
<td>54 and 55</td>
</tr>
<tr>
<td>57</td>
<td>16 or 56</td>
</tr>
<tr>
<td>58</td>
<td>11 and 57</td>
</tr>
<tr>
<td>59</td>
<td>Animals/ not Humans/</td>
</tr>
<tr>
<td>60</td>
<td>58 not 59</td>
</tr>
<tr>
<td>61</td>
<td>limit 60 to english language</td>
</tr>
</tbody>
</table>
D.2.6 Search strategy review questions 11 and 12

RQ11: What is the effectiveness of risk stratification techniques to reduce surgical complications and errors?

RQ12: What are the risk factors associated with increased surgical complications and errors in cataract surgery?

Table 6: search strategy RQ11 and RQ12

<table>
<thead>
<tr>
<th>Search Strategy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>exp cataract extraction/</td>
</tr>
<tr>
<td>(pha?oemulsif* or phaco or phako).tw.</td>
</tr>
<tr>
<td>(lensectom* or capsulorhexis or capsulorrhesis).tw.</td>
</tr>
<tr>
<td>((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.</td>
</tr>
<tr>
<td>Lens Implantation, Intraocular/</td>
</tr>
<tr>
<td>((lens* or IOL* or intraocul*) adj4 implant*).tw.</td>
</tr>
<tr>
<td>or/1-6</td>
</tr>
<tr>
<td>risk assessment/</td>
</tr>
<tr>
<td>(Najjar adj1 Awwad).tw.</td>
</tr>
<tr>
<td>(risk* adj4 (assess* or score* or scoring or stratif* or predict*)).tw.</td>
</tr>
<tr>
<td>(scor* adj4 (system* or stratif* or complex* or assess* or calculat* or predict*)).tw.</td>
</tr>
<tr>
<td>((surgery or surgical) adj4 (complex* or difficult* or grade* or grading or stratif* or score* or scoring or predict*)).tw.</td>
</tr>
<tr>
<td>risk factors/</td>
</tr>
<tr>
<td>(risk adj4 (factor* or complicat*)).tw.</td>
</tr>
<tr>
<td>predictor*.tw.</td>
</tr>
<tr>
<td>(predict* adj4 (model* or analy* or calculat* or rule*)).tw.</td>
</tr>
<tr>
<td>exp blood pressure/</td>
</tr>
<tr>
<td>((blood or systolic or diastolic or pulse or intravasc* or vasc*) adj4 (pressure* or tension)).tw.</td>
</tr>
<tr>
<td>normotension*.tw.</td>
</tr>
<tr>
<td>International Normalized Ratio/</td>
</tr>
<tr>
<td>(international normali?ed ratio or INR).tw.</td>
</tr>
<tr>
<td>Blood Glucose/an [Analysis]</td>
</tr>
<tr>
<td>Glucose Tolerance Test/</td>
</tr>
<tr>
<td>((blood or plasma or serum) adj4 (glucose or sugar*) adj4 (test* or analy* or investigat* or exam* or confirm*)).tw.</td>
</tr>
<tr>
<td>((glucose?emia or glyc?emia or normoglyc?emia*) adj4 (test* or analy* or investigat* or exam* or confirm*)).tw.</td>
</tr>
<tr>
<td>(glucose adj4 (tolera* or load*) adj4 (test* or curve or factor*)).tw.</td>
</tr>
<tr>
<td>(OGTT or GTT or &quot;g.t.t.&quot; or glucogram*).tw.</td>
</tr>
<tr>
<td>(Tamsulosin or Bazetham or Contiflo or Cositam or Diffundox or Flomax* or Galebson or Stronazon or Tabpyn or Tamfrex).tw.</td>
</tr>
<tr>
<td>(Losinate or Pinexel or Prosurin or Amsulosin or Alna or Hernal or Josir or Mecir or Omic or Omix or Omnic or Pradif or Secotex or Urolosin).tw.</td>
</tr>
<tr>
<td>warfarin/</td>
</tr>
<tr>
<td>(Warfarin or Marevan or Coumadin* or Jantoven or Panwarfin or Sofarin).tw.</td>
</tr>
<tr>
<td>(Circuvit or Warfilone or Lawarin or Waran or Marfarin or Uniwarfin or Simarc-2 or Warfant).tw.</td>
</tr>
<tr>
<td>(Arefarin or Warlin or Orfarin or Romesa or Warik or Zyfarin or Varfine or Aldocumar or Tedicumar or Befarin or Cogulax).tw.</td>
</tr>
</tbody>
</table>
D.2.7 Search strategy review questions 14, 15 and 16

RQ14: What is the optimal type and administration of anaesthesia for cataract surgery?

RQ15: What is the effectiveness of sedation as an adjunct to local anaesthesia during cataract surgery?

RQ16: What is the effectiveness of hyaluronidase as an adjunct to local anaesthesia during cataract surgery?

Table 7: search strategy RQ14, RQ15 and RQ16

Medline Strategy, searched 4th August 2016
Database: Ovid MEDLINE(R) <1946 to July Week 4 2016>

Search Strategy:

1 exp Cataract Extraction/
2 (pha?oemulsif* or phaco or phako).tw.
3 (lensectom* or capsulorhexis or capsulorrhexis).tw.
4 ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.
5 Lens Implantation, Intraocular/
6 ((lens* or IOL* or intraocul*) adj4 implant*).tw.
7 or/1-6
<table>
<thead>
<tr>
<th>Medline Strategy, searched 4th August 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database: Ovid MEDLINE(R) &lt;1946 to July Week 4 2016&gt;</td>
</tr>
<tr>
<td>Search Strategy:</td>
</tr>
<tr>
<td>8 exp &quot;Anesthesia and Analgesia&quot;/</td>
</tr>
<tr>
<td>9 exp Anesthetics/</td>
</tr>
<tr>
<td>10 Anesthesiology/</td>
</tr>
<tr>
<td>11 Nurse Anesthetists/</td>
</tr>
<tr>
<td>12 exp Analgesics/</td>
</tr>
<tr>
<td>13 (an?esth* or analges*).tw.</td>
</tr>
<tr>
<td>14 Nerve Block/</td>
</tr>
<tr>
<td>15 exp Autonomic Nerve Block/</td>
</tr>
<tr>
<td>16 (nerve* adj4 block*).tw.</td>
</tr>
<tr>
<td>17 (peribulbar* or pericorporal* or retrobulbar* or intraconal*).tw.</td>
</tr>
<tr>
<td>18 (sub-tenon* or 'sub tenon*' or subtenon*).tw.</td>
</tr>
<tr>
<td>19 Pain Management/</td>
</tr>
<tr>
<td>20 ((pain* or discomfort*) adj4 (manag* or relief* or medic* or control* or contain* or limit* or regulat* or repress* or alleviat* or respite* or abat*)).tw.</td>
</tr>
<tr>
<td>21 Administration, Topical/</td>
</tr>
<tr>
<td>22 Administration, Ophthalmic/</td>
</tr>
<tr>
<td>23 exp Ophthalmic Solutions/</td>
</tr>
<tr>
<td>24 ((topical* or ophthal* or ocular or intraocular or conjunctiva* or eye*) adj4 (administ* or drop* or solution* or applicat*)).tw.</td>
</tr>
<tr>
<td>25 (eyedrop* or intracameral* or intra-cameral* or intra cameral*).tw.</td>
</tr>
<tr>
<td>26 Lidocaine/</td>
</tr>
<tr>
<td>27 (Lidocaine or Lignocaine or Xylocaine or Octocaine).tw.</td>
</tr>
<tr>
<td>28 Bupivacaine/</td>
</tr>
<tr>
<td>29 (Bupivacaine or Marcain*).tw.</td>
</tr>
<tr>
<td>30 Adjuvants, Anesthesia/</td>
</tr>
<tr>
<td>31 &quot;Hypnotics and Sedatives&quot;/</td>
</tr>
<tr>
<td>32 (sedat* or neurosedat* or hypnotic* or soporofic* or tranquillis*).tw.</td>
</tr>
<tr>
<td>33 Midazolam/</td>
</tr>
<tr>
<td>34 (Midazolam or Buccolam or Versed or Dormicum).tw.</td>
</tr>
<tr>
<td>35 exp Fentanyl/</td>
</tr>
<tr>
<td>36 (Fentan* or Alfentan* or Sufentan*).tw.</td>
</tr>
<tr>
<td>37 (Phentanyl or Sublimaze or Duragesic or Durogesic or Fentora).tw.</td>
</tr>
<tr>
<td>38 (Alfenta or Rapifen).tw.</td>
</tr>
<tr>
<td>39 (Zalviso or Sufenta).tw.</td>
</tr>
<tr>
<td>40 Propofol/</td>
</tr>
<tr>
<td>41 (Propofol or Diprivan or Propoven).tw.</td>
</tr>
<tr>
<td>42 Hyaluronoglucosaminidase/</td>
</tr>
<tr>
<td>43 (Hyaluronidas* or Hyaluronoglucosaminidas* or Hyalase).tw.</td>
</tr>
<tr>
<td>44 (Amphadase or Hydase or Hylenex or Vitrase or Wydase).tw.</td>
</tr>
<tr>
<td>45 Hyaluronic Acid/</td>
</tr>
<tr>
<td>46 (Hyaluronic adj4 acid).tw.</td>
</tr>
<tr>
<td>47 (Ocusan or Ophthalin or Oxyal or Provisc).tw.</td>
</tr>
<tr>
<td>48 (Hyaluronan or Healon or Hylase).tw.</td>
</tr>
<tr>
<td>49 (Sodium adj4 Hyaluronate).tw.</td>
</tr>
<tr>
<td>50 or/8-49</td>
</tr>
<tr>
<td>51 7 and 50</td>
</tr>
<tr>
<td>52 Animals/ not Humans/</td>
</tr>
<tr>
<td>53 51 not 52</td>
</tr>
</tbody>
</table>
Review Search Strategies

D.2.8 Search strategy review question 17

RQ17: In what circumstances should general anaesthesia be considered in phacoemulsification cataract surgery?

Table 8: search strategy RQ17

<table>
<thead>
<tr>
<th>Search Strategy</th>
<th>1 exp Cataract Extraction/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 (pha?oemulsif* or phaco or phako).tw.</td>
</tr>
<tr>
<td></td>
<td>3 (lensectom* or capsulorhexis or capsulorrhexis).tw.</td>
</tr>
<tr>
<td></td>
<td>4 ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.</td>
</tr>
<tr>
<td></td>
<td>5 Lens Implantation, Intraocular/</td>
</tr>
<tr>
<td></td>
<td>6 ((lens* or IOL* or intraocul*) adj4 implant*).tw.</td>
</tr>
<tr>
<td></td>
<td>7 or/1-6</td>
</tr>
<tr>
<td></td>
<td>8 exp Anesthesia, General/</td>
</tr>
<tr>
<td></td>
<td>9 exp Anesthetics, General/</td>
</tr>
<tr>
<td></td>
<td>10 ((general* or inhal* or gas* or intravenous* or drip* or endovenous* or dissociative or closed or rebreathe* or balanced or rectal or rectum) adj4 an?esth*).tw.</td>
</tr>
<tr>
<td></td>
<td>11 or/8-10</td>
</tr>
<tr>
<td></td>
<td>12 7 and 11</td>
</tr>
<tr>
<td></td>
<td>13 Animals/ not Humans/</td>
</tr>
<tr>
<td></td>
<td>14 12 not 13</td>
</tr>
<tr>
<td></td>
<td>15 limit 14 to english language</td>
</tr>
</tbody>
</table>

D.2.9 Search strategy review questions 18 and 19

RQ18: Are different lens design (aspheric vs. spheric, plate vs. loop) effective in improving postoperative vision (refractive outcomes, optical aberrations) in cataract surgery?

RQ19: 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?

Table 9: search strategy RQ18 and RQ19

<table>
<thead>
<tr>
<th>Search Strategy</th>
<th>1 exp Cataract Extraction/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 (pha?oemulsif* or phaco or phako).tw.</td>
</tr>
<tr>
<td></td>
<td>3 (lensectom* or capsulorhexis or capsulorrhexis).tw.</td>
</tr>
</tbody>
</table>
Medline Strategy, searched 20th April 2016
Database: Ovid MEDLINE(R) 1946 to April Week 1 2016

Search Strategy:

4 ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif* or implant*)).tw.
5  Lenses, Intraocular/
6  Lens Implantation, Intraocular/
7  ((lens* adj4 intraocul*) or IOL*).tw.
8  or/1-7
9  Prosthesis Design/
10 Prosthesis Failure/
11  ((lens* or IOL* or intraocul*) adj4 (design* or compos* or construct* or assembl*)).tw.
12  ((spheric* or aspheric* or aberration free or aberration-free) adj4 (lens* or IOL* or intraocul* or design*)).tw.
13  ((plate or loop or 3 piece or 3-piece or three piece or three-piece or haptic) adj4 (lens* or IOL* or intraocul* or design*)).tw.
14  ((injectable or foldable) adj4 (lens* or IOL* or intraocul* or design*)).tw.
15  ((square* or round* or optic* or sharp* or anterior* or curv* or cylind* or oval or ellip* or ocular* or point*) adj4 (edge* or corner* or margin* or tip*)).tw.
16  (edge* adj4 (profil* or design* or structur*)).tw.
17  ((lens* or IOL* or intraocul*) adj4 (material* or substance* or component*)).tw.
18  exp Acrylic Resins/
19  exp Acrylates/
20  exp "Hydrophobic and Hydrophilic Interactions"/
21  exp Collagen/
22  exp Silicones/
23  ((acryl* or polyacryl* or methacryl* or superacryl* or polymethylmethacryl* or PMMA*) adj4 (lens* or IOL* or intraocul* or design* or material*)).tw.
24  ((hydrophil* or hydrophob*) adj4 (lens* or IOL* or intraocul* or design* or material*)).tw.
25  ((collagen* or copolymer* or collamer*) adj4 (lens* or IOL* or intraocul* or design* or material*)).tw.
26  ((hydroxyethylmethacryl* or "(Hydroxyethyl)methacryl*" or glycolmethacryl* or HEMA*) adj4 (lens* or IOL* or intraocul* or design* or material*)).tw.
27  (silicone* adj4 (lens* or IOL* or intraocul* or design* or material*)).tw.
28  or/9-27
29  8 and 28
30  Animals/ not Humans/
31  29 not 30
32  limit 31 to english language

Note: In house RCT and systematic review filters appended to strategy.

D.2.10 Search strategy review question 20

RQ20: Are tinted lenses effective in preventing the progression of age-related macular degeneration compared with colourless lenses in cataract surgery?
Table 10: search strategy RQ20

Medline Strategy, searched 11th May 2016
Database: Ovid MEDLINE(R) 1946 to August Week 3 2016
Search Strategy:
1  exp Cataract Extraction/
2  (pha?oemulsif* or phaco or phako).tw.
3  (lensectom* or capsulorhexis or capsulorrhexis).tw.
4  ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif* or implant*)).tw.
5  Lenses, Intraocular/
6  Lens Implantation, Intraocular/
7  ((lens* adj4 intraocul*) or IOL*).tw.
8  or/1-7
9  Color Vision/
10  Color Perception/
11  exp Filtration/
12  Light/
13  Color/
14  Ultraviolet Rays/
15  ((blue or yellow or orange or ultraviolet or UV or violet or colo?t*) adj4 (filter* or filtrat* or block* or prevent* or tint* or stain* or absorb* or capt* or lens* or IOL* or intraoc*)).tw.
16  ((clear* or colo?rless or uncolo?r* or non-colo?r* or neutral or untint* or non-tint* or natural*) adj4 (lens* or IOL* or intraoc*)).tw.
17  ((tint* or filter* or filtrat* or block* or absorb* or stain*) adj4 (lens* or IOL* or intraoc*)).tw.
18  (light* adj4 (tint* or filter* or filtrat* or block* or absorb* or stain*)).tw.
19  or/9-18
20  8 and 19
21  Animals/ not Humans/
22  20 not 21
23  limit 22 to english language

Note: In house RCT and systematic review filters appended to strategy.

D.2.11 Search strategy review question 22

RQ22: What is the optimal strategy to address pre-existing astigmatism in people undergoing cataract surgery?

Table 11: search strategy RQ22

Medline Strategy, searched 5th April 2016
Database: Ovid MEDLINE(R) 1946 to March Week 4 2016
Search Strategy:
1  exp Cataract Extraction/
2  (pha?oemulsif* or phaco or phako).tw.
3  (lensectom* or capsulorhexis or capsulorrhexis).tw.
4  ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.
5  Lens Implantation, Intraocular/
6  ((lens* or IOL* or intraocul*) adj4 implant*).tw.
7  or/1-6
8  Astigmatism/
9  astigmat*.tw.
Review Search Strategies

Medline Strategy, searched 5th April 2016
Database: Ovid MEDLINE(R) 1946 to March Week 4 2016
Search Strategy:
10 8 or 9
11 7 and 10
12 Animals/ not Humans/
13 11 not 12
14 limit 13 to english language

Note: In house RCT and systematic review filters appended to strategy.

D.2.12 Search strategy review question 23

RQ23: What is the effectiveness of interventions (for example, prophylactic laser surgery) to prevent retinal detachment in people with myopia undergoing cataract surgery?

Table 12: search strategy RQ23

Medline Strategy, searched 8th July 2016
Database: Ovid MEDLINE(R) 1946 to June Week 5 2016
Search Strategy:
1 exp Cataract Extraction/
2 (pha?oemulsif* or phaco or phako).tw.
3 (lens* or capsulorhexis or capsulorrhexis).tw.
4 ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.
5 Lens Implantation, Intraocular/
6 ((lens* or IOL* or intraocul*) adj4 implant*).tw.
7 or/1-6
8 exp Myopia/
9 (myopi* or near-sight* or near sight* or nearsight* or short-sight* or short sight* or shortsight*).tw.
10 ((short or near) adj4 (sight* or eyesight* or vision* or visual*)).tw.
11 or/8-10
12 Retinal Detachment/
13 ((retina* or RPE) adj4 (detach* or separat* or shrink* or ablat* or sublat* or amotio)).tw.
14 (RRD or ERD or SRD or TRD).tw.
15 Retinal Perforations/
16 ((retina* or RPE or macular) adj4 (perforat* or hole* or dialys* or tear* or break* or broke* or ruptur*)).tw.
17 ((lattice or retina*) adj4 (degenerat* or deter* or atroph* or decay* or tear* or hole* or break* or broke* or perforat*)).tw.
18 or/12-17
19 Cryotherapy/
20 Cryosurgery/
21 (cryotherap* or cryosurg* or cryoablat* or cryotreat*).tw.
22 ((cryo* or cold*) adj4 (therap* or surg* or ablat* or treat* or operat* or excis*)).tw.
23 exp Laser Therapy/
24 exp Lasers/
25 laser*.tw.
26 (keratectom* or photokeratectum* or keratom* or LASEK or LASIK or PRK).tw.
27 or/19-26
D.2.13 Search strategy review questions 24 and 25

RQ24: What is the effectiveness of bilateral simultaneous (rapid sequential) cataract surgery compared with unilateral eye surgery?

RQ25: What is the appropriate timing of second eye surgery, taking into account issues such as refractive power after first eye surgery?

Table 13: search strategy RQ24 and RQ25

Medline Strategy, searched 18th February 2016
Database: Ovid MEDLINE(R) 1946 to February Week 2 2016

Search Strategy:

1 exp cataract extraction/
2 (pha?emulsif* or phaco or phako).tw.
3 (lensectom* or capsulorhexis or capsulorrhhexis).tw.
4 (((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*))).tw.
5 Lens Implantation, Intraocular/
6 ((lens* or IOL* or intraocul*) adj4 implant*).tw.
7 or/1-6
8 (simultaneous* or concurrent* or same time or same day or coincid* or synchron* or concurring or in sync).tw.
9 (((rapid* or immediat* or accelerat* or very quick* or urgent* or direct*) adj4 (sequential* or consecutiv* or subsequent* or chronologic* or follow*)).tw.
10 (ISBCS or ISCS).tw.
11 ((delay* or postpon* or suspens* or wait* or defer* or prolong* or slow*) adj4 (sequential* or consecutiv* or subsequent* or chronologic* or follow*)).tw.
### Medline Strategy, searched 18th February 2016

**Database:** Ovid MEDLINE(R) 1946 to February Week 2 2016

**Search Strategy:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Search Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>(DSBCS or DSCS).tw.</td>
</tr>
<tr>
<td>13</td>
<td>exp Functional Laterality/</td>
</tr>
<tr>
<td>14</td>
<td>((function* or behavio?r* or motor control* or brain or cerebral) adj4 lateral*).tw.</td>
</tr>
<tr>
<td>15</td>
<td>((ocular or eye* or hemisphere* or cerebral) adj4 (domina* or preeminen* or pre-eminen* or suprem* or superior* or prefer* or inclinat* or predilect* or priorit*)).tw.</td>
</tr>
<tr>
<td>16</td>
<td>((second* or succeeding) adj4 eye*).tw.</td>
</tr>
<tr>
<td>17</td>
<td>Time Factors/</td>
</tr>
<tr>
<td>18</td>
<td>Operative Time/</td>
</tr>
<tr>
<td>19</td>
<td>((surg* or operat*) adj4 (tim* or duration)).tw.</td>
</tr>
<tr>
<td>20</td>
<td>Anisometropia/</td>
</tr>
<tr>
<td>21</td>
<td>anisometr*.tw.</td>
</tr>
<tr>
<td>22</td>
<td>(refract* adj4 (inequal* or differ* or disparit* or discrepance* or diverg* or variation or uneven or unevenn*)).tw.</td>
</tr>
<tr>
<td>23</td>
<td>Aniseikonia/</td>
</tr>
<tr>
<td>24</td>
<td>aniseikonia*.tw.</td>
</tr>
<tr>
<td>25</td>
<td>(imag* adj4 (siz* or length* or proport* or width* or dimension*)).tw.</td>
</tr>
<tr>
<td>26</td>
<td>Vision, Binocular/</td>
</tr>
<tr>
<td>27</td>
<td>(binocular adj4 (vision* or sight* or eye* or visual* or fusion* or percept* or view*)).tw.</td>
</tr>
<tr>
<td>28</td>
<td>(reable* or re-able*).tw.</td>
</tr>
<tr>
<td>29</td>
<td>((support* or encourag* or aid* or assist* or help* or bolster* or boost* or promot*) adj4 (skills* or abilit* or competen* or expert* or proficien* or prowess or capab* or capacit*)).tw.</td>
</tr>
<tr>
<td>30</td>
<td>exp Activities of Daily Living/</td>
</tr>
<tr>
<td>31</td>
<td>(activ* adj4 (dail* or day-to-day or everyday or every day)).tw.</td>
</tr>
<tr>
<td>32</td>
<td>(ADLs or ADL).tw.</td>
</tr>
<tr>
<td>33</td>
<td>exp Self Care/</td>
</tr>
<tr>
<td>34</td>
<td>(self* adj4 (car* or manag*)).tw.</td>
</tr>
<tr>
<td>35</td>
<td>or/8-34</td>
</tr>
<tr>
<td>36</td>
<td>7 and 35</td>
</tr>
<tr>
<td>37</td>
<td>Animals/ not Humans/</td>
</tr>
<tr>
<td>38</td>
<td>36 not 37</td>
</tr>
<tr>
<td>39</td>
<td>limit 38 to english language</td>
</tr>
</tbody>
</table>

*Note: In house RCT and systematic review filters appended to strategy.*

### D.2.14 Search strategy review questions 26, 27 and 28

- **RQ26:** What is the effectiveness of capsular tension rings applied during phacoemulsification cataract surgery?
- **RQ27:** What is the effectiveness of interventions to increase pupil size to improve visual outcomes and reduce complications during phacoemulsification cataract surgery?
- **RQ28:** What is the effectiveness of postoperative eye shields to prevent complications after cataract extraction?
### Table 14: search strategy RQ26, RQ27 and RQ28

**Medline Strategy, searched 7th November 2016**  
**Database: Ovid MEDLINE(R) 1946 to October Week 4 2016**

**Search Strategy:**

1. exp Cataract Extraction/
2. (pha?oemulsif* or phaco or phako).tw.
3. (lensectom* or capsulorhexis or capsulorrhexis).tw.
4. ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.
5. Lens Implantation, Intraocular/
6. ((lens* or IOL* or intraocular) adj4 implant*).tw.
7. or/1-6
8. ((Capsular* or tension*) adj4 (ring* or segment* or anchor*)).tw.
9. CTR.tw.
10. (cionni adj4 ring*).tw.
11. (PMMA adj4 ring*).tw.
12. (StabilEye* or Ringject or stableye*).tw.
14. Mydriatics/
15. (Intracameral* adj4 mydriatic*).tw.
16. ICM.tw.
17. Tropicamide/
18. (Tropicamide* or Mydral* or Mydriacyl* or Ocu-Tropic* or Tropicacyl*).tw.
19. Phenylephrine/
20. (Phenylephrine* or Prefrin* or AK-Dilate* or Altafrin* or "Murocoll 2" or Mydfrin* or Neofrin* or Ocu-Phrin*).tw.
21. Viscoelastic Substances/
23. Viscosupplements/
24. Viscosupplementation/
25. viscosupplement*.tw.
26. (ophthalmic* adj4 (viscosurgical* or viscoelastic*)).tw.
27. OVD.tw.
28. Hyaluronic Acid/
29. (sodium adj4 hyaluronate*).tw.
30. Hypomellose Derivatives/
31. (hydroxypropylmethylcellulose or (hydroxypropyl adj4 methylcellulose*)).tw.
32. Chondroitin Sulfate/
33. (chondroitin adj4 sulfate*).tw.
34. NaHa.tw.
35. HPMC.tw.
36. VISTHESIA.tw.
37. TWINVISc.tw.
38. COMBIVISC.tw.
41. Z-CELCOAT.tw.
42. Synechiolys*.tw.
43. (Pupillar* adj4 (membranectom* or (membran* adj4 (excis* or ablat* or cut*))).tw.
44. Dilatation/
45. ((Pupil* or iris*) adj4 (stretch* or expand* or expansion* or dilat*)).tw.
D.2.15 Search strategy review question 31

RQ31: What is the effectiveness of interventions to reduce the impact of perioperative posterior capsule rupture?

Table 15: search strategy RQ31

<table>
<thead>
<tr>
<th>Search Strategy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 exp Cataract Extraction/</td>
</tr>
<tr>
<td>2 (pha?oemulsif* or phaco or phako).tw.</td>
</tr>
<tr>
<td>3 (lensectom* or capsulorhexis or capsulorrhexis).tw.</td>
</tr>
<tr>
<td>4 ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.</td>
</tr>
<tr>
<td>5 Lens Implantation, Intraocular/</td>
</tr>
<tr>
<td>6 ((lens* or IOL* or intraocul*) adj4 implant*).tw.</td>
</tr>
<tr>
<td>7 or/1-6</td>
</tr>
<tr>
<td>8 Posterior Capsular Rupture, Ocular/</td>
</tr>
<tr>
<td>9 Posterior Capsule of the Lens/</td>
</tr>
<tr>
<td>10 Rupture/</td>
</tr>
<tr>
<td>11 ((posterior* or lens*) adj4 capsul* adj4 (rupture* or tear* or rent* or breach*)).tw.</td>
</tr>
<tr>
<td>12 PCR.tw.</td>
</tr>
<tr>
<td>13 Vitrectomy/</td>
</tr>
<tr>
<td>14 vitrectom*.tw.</td>
</tr>
<tr>
<td>15 Vitreous Body/su [Surgery]</td>
</tr>
<tr>
<td>16 (vitreous adj4 (resect* or remov* or extract*)).tw.</td>
</tr>
<tr>
<td>17 exp Triamcinolone/</td>
</tr>
<tr>
<td>18 (triamcinolone* or adcortyl or kenalog or ledercort or lederspan or nasacort or volon).tw.</td>
</tr>
<tr>
<td>19 (triesence or kenacort or triam or trivaris).tw.</td>
</tr>
<tr>
<td>20 (posterior* adj4 (capsulorhexis or capsulorrhexis)).tw.</td>
</tr>
<tr>
<td>21 (anterior* adj4 chamber* adj4 (lens* or IOL* or intraocular*)).tw.</td>
</tr>
</tbody>
</table>
Medline Strategy, searched 20th September 2016
Database: Ovid MEDLINE(R) 1946 to September Week 1 2016
Search Strategy:

22 (back or posterior or rear) adj4 (pol* or eye)).tw.
23 or/22
24 exp Tissue Adhesives/
25 Fibrin Tissue Adhesive/
26 (adhesive* or glue* or seal*).tw.
27 (Fibrin or Tisseel or Tissucol).tw.
28 (lens* or IOL* or intraocular*).tw.
29 or/24-28
30 Tissue Scaffolds/
31 scaffold*.tw.
32 30 or 31
33 29 and 32
34 exp "Anesthesia and Analgesia"/
35 exp Anesthetics/
36 Anesthesiology/
37 Nurse Anesthetists/
38 exp Analgesics/
39 (an?esth* or analges*).tw.
40 or/34-39
41 exp Intraoperative Complications/
42 exp Postoperative Complications/
43 ((perioperative* or peri-operative* or peroperative* or per-operative* or intraoperative* or intra-operative* or postoperative or post-operative*) adj4 (complicat* or complexit* or difficult* or problem* or injur* or harm* or undesirabl*)).tw.
44 exp Eye Injuries/
45 ((eye* or surg* or ocular* or oculus or optic*) adj4 (injur* or wound* or damag* or trauma* or lesion* or lacerat*)).tw.
46 or/41-45
47 40 and 46
48 23 or 33 or 47
49 7 and 48
50 Animals/ not Humans/
51 49 not 50
52 limit 51 to english language

Note: In house RCT and systematic review filters appended to strategy. Date limit of 1990 onwards. Any papers published before 1990 were removed in reference management software.

Search strategy review question 32
RQ32: What is the effectiveness of interventions used to manage cystoid macular oedema following cataract surgery?

Table 16: search strategy RQ32

Medline Strategy, searched 18th October 2016
Database: Ovid MEDLINE(R) 1946 to October Week 1 2016
Search Strategy:

1 exp Cataract Extraction/
2 (pha?emulsif* or phaco or phako).tw.
3 (lensectom* or capsulorhexis or capsulorrhexis).tw.
Review Search Strategies

Medline Strategy, searched 18th October 2016
Database: Ovid MEDLINE(R) 1946 to October Week 1 2016

Search Strategy:

4  ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.
5  Lens Implantation, Intraocular/
6  ((lens* or IOL* or intraocular*) adj4 implant*).tw.
7  or/1-6
8  exp Macula Lutea/
9  Macular Edema/
10 (macula* adj4 (edema* or oedema* or dystroph*)).tw.
11 (central* adj4 (retina* or fovea*) adj4 (edema* or oedema* or dystroph*)).tw.
12 (macula* adj4 (swell* or bulg* or enlarg* or expand* or fatten* or thick* or congeal*)).tw.
13 (Irvine-Gass adj4 syndrome*).tw.
14 exp Anti-Inflammatory Agents/
15 (anti-inflam* or antiinflam* or anti-rheumat* or anitrheumat* or anti-phlogist* or antiphlogist*).tw.
16 (NSAID* or SAID or SAIDs).tw.
17 (aspirin-like adj4 (agent* or drug* or medic* or analgesic*)).tw.
18 Acetazolamide/
19 (Acetazolam* or Diamox or Eytazox).tw.
20 (Ak-Zol or AkZol or AZM-Tab or Dazamide or Storzolamide).tw.
21 (Diacarb or Diuramide or Defiltran or Edemox or Glaupax or Huma-Zolamide or HumaZolamid).tw.
22 or/8-21
23 exp Steroids/
24 exp Adrenal Cortex Hormones/
25 (steroid* or cyclosteroid*).tw.
26 (corticosteroid* or corticoid* or adrenocorticosteroid* or hydroxycorticosteroid* or ketosteroid*).tw.
27 (glucocorticoid* or glucocorticoid* or glucocorticoidsteroid* or glucocorticosteroid*).tw.
28 or/23-27
29 (ocular or intraocular or periocular or topical or systemic or eye* or intravitreal* or intra vitreal*).tw.
30 28 and 29
31 exp Vascular Endothelial Growth Factors/ai [Antagonists & Inhibitors]
32 ((vascular* or endothelial* or VEGF* or vasculotropin) adj4 (anti* or block* or bar* or impede* or inhibit* or constrain* or curb* or hinder* or obstruct* or suppress* or restrain* or intravitreal* or intra vitreal*)).tw.
33 antivascul*.tw.
34 Angiogenesis Inhibitors/
35 ((angiogen* or angiost* or anti angiogen* or antiangiogen* or neovascular*) adj4 (inhibit* or agent* or drug* or medic* or antagonist* or effect*)).tw.
36 Bevacizumab/
37 (Bevacizumab or Avastin).tw.
38 Ranibizumab/
39 (Ranibizumab or Lucentis or RhuFab).tw.
40 Vitrectomy/
41 vitrectom*.tw.
42 Vitreous Body/su [Surgery]
43 (vitreous adj4 (resect* or remov* or extract*)).tw.
Medline Strategy, searched 18th October 2016
Database: Ovid MEDLINE(R) 1946 to October Week 1 2016
Search Strategy:

44 or/31-43
45 22 or 30 or 44
46 7 and 45
47 Animals/ not Humans/
48 46 not 47
49 limit 48 to english language

Note: In house RCT and systematic review filters appended to strategy. Date limit of 1990 onwards. Any papers published before 1990 were removed in reference management software.

D.2.17 Search strategy review question 33
RQ33: What are the early and late complications of cataract surgery?

Table 17: search strategy RQ33

Medline Strategy, searched 11th October 2016
Database: Ovid MEDLINE(R) 1946 to September Week 4 2016
Search Strategy:

1 exp cataract extraction/
2 (pha?oemulsif* or phaco or phako).tw.
3 (lensectom* or capsulorhexis or capsulorrhexis).tw.
4 (((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.
5 Lens Implantation, Intraocular/
6 (((lens* or IOL* or intraocul*) adj4 implant*).tw.
7 or/1-6
8 *Intraoperative Complications/
9 *Postoperative Complications/
10 ((surg* or operat* or intraoperat* or postoperat*) adj2 (complicat* or injur* or advers* or detriment* or unfortunat* or undesirabl* or side effect* or harm*)).tw.
11 ((medic* or postsurg* or preoperat* or perioperat* or peroperat*) adj2 (complicat* or injur* or advers* or detriment* or unfortunat* or undesirabl* or side effect* or harm*)).tw.
12 ((wound* or injur*) adj2 (burn* or scorch* or leak* or drip*)).tw.
13 ((iris* or irides) adj4 (damag* or injur* or wound* or harm* or impair*)).tw.
14 Posterior Capsular Rupture, Ocular/
15 Anterior Capsular Rupture, Ocular/
16 Capsule Opacification/
17 ((posterior or anterior) adj2 capsul* adj2 (tear* or ruptur* or opacification or crack* or breach* or lacerat* or fissure* or split* or gash* or scratch* or clog*)).tw.
18 (capsul* adj4 (block* or phimos*)).tw.
19 (zonul* adj4 (ruptur* or disinsert*)).tw.
20 (drop* adj4 nucleus).tw.
21 (vitre* adj4 (los* or deficienc* or deplet*)).tw.
22 exp Eye Hemorrhage/
23 Retrobulbar Hemorrhage/
24 ((eye* or ocular* or intraocular* or choroid* or suprachoroid* or retina* or retrobulbar* or retroorbital* or vitre*) adj2 (h?emorrhag* or bleed* or h?ematoma* or effus* or efflu*)).tw.
26 (aqueous adj4 misdirect*).tw.
27 Ocular Hypertension/
Medline Strategy, searched 11th October 2016
Database: Ovid MEDLINE(R) 1946 to September Week 4 2016
Search Strategy:

28 ((ocular* or intraocular* or eye*) adj4 hypertension*).tw.
29 ((raise* or height* or lift* or increas*) adj4 (ocular* or intraocular* or eye*) adj4 (pressur* or strain* or tension* or stress*)).tw.
30 exp Lens Subluxation/
31 (lens* adj4 (subluxation* or dislocat* or displac* or seperat* or malposit*)).tw.
32 Corneal Edema/co, su [Complications, Surgery]
33 (((cystoid macula* or cornea*) adj2 (edema* or edema* or dystroph* or hydration or swell*)) and (complicat* or injur* or advers* or detriment* or unfortunat* or undesirabl* or side effect* or harm*)).tw.
34 (Irvine Gass adj4 syndrome*).tw.
35 (decentration or hypopion or sympathetic).tw.
36 ((contralateral or unoperated) adj4 eye*).tw.
37 (refract* adj4 (surpris* or disappoint* or bewilder* or constern* or disillus* or discontent* or dissatisfact* or frustrat* or regret*)).tw.
38 ((glob* or ocular* or block*) adj4 (perforat* or puncture* or prick*)).tw.
39 Syncope, Vasovagal/
40 ((vaso* or vagal* or neurocardiogen* or neurogen* or neurally mediated or cerebral or supine) adj2 (syncope* or faint* or respons* or episod* or attack*)).tw.
41 Diplopia/
42 (diplopia* or polyopsia*).tw.
43 (double adj4 vision).tw.
44 Optic Neuropathy, Ischemic/
45 (isch?emi* adj4 optic neuropath*).tw.
46 dysphotopsia*.tw.
47 (((unexplain* or unidentif* or myster* or baffl* or inexplic* or mystif* or perplex* or puzzl*) adj4 (poor* or insuffic* or mediocre or modest* or substandard or unsatisfact* or weak* or subnorm* or impair* or diminish* or reduc* or low* or decreases* or less*)) adj4 (vision* or eye* or sight* or visual*)).tw.
48 exp Uveitis/co [Complications]
49 ((uveiti* or panuveiti*) and (complicat* or injur* or advers* or detriment* or unfortunat* or undesirabl* or side effect* or harm*)).tw.
50 Retinal Detachment/co [Complications]
51 (((retina* or RPE) adj2 (detach* or ablat* or separat* or sublat*)) and (complicat* or injur* or advers* or detriment* or unfortunat* or undesirabl* or side effect* or harm*)).tw.
52 exp Endophthalmitis/co, su [Complications, Surgery]
53 ((endophthalmiti* or ophthalmia*) and (complicat* or injur* or advers* or detriment* or unfortunat* or undesirabl* or side effect* or harm*)).tw.
54 exp Death/
55 exp Mortality/
56 (death or dead or died or dying or fatalit* or decease* or mortalit*).tw.
57 or/8-56
58 exp Anesthesia/
59 exp Anesthetics/
60 Anesthesiology/
61 an?esth*.tw.
62 Conscious Sedation/
63 Deep Sedation/
64 ((conscious or moderate or procedur* or deep) adj4 sedat*).tw.
65 Anesthesia Recovery Period/
**Review Search Strategies**

<table>
<thead>
<tr>
<th>Medline Strategy, searched 11th October 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database: Ovid MEDLINE(R) 1946 to September Week 4 2016</td>
</tr>
<tr>
<td>Search Strategy:</td>
</tr>
<tr>
<td>66 Nurse Anesthetists/</td>
</tr>
<tr>
<td>67 exp Analgesia/</td>
</tr>
<tr>
<td>68 exp Analgesics/</td>
</tr>
<tr>
<td>69 (analgesi* or anodyne* or antinociceptiv*).tw.</td>
</tr>
<tr>
<td>70 exp Macular Degeneration/</td>
</tr>
<tr>
<td>71 (macula* adj4 (degenerat* or atroph*)).tw.</td>
</tr>
<tr>
<td>72 (age related adj4 maculopath*).tw.</td>
</tr>
<tr>
<td>73 (AMD or ARMD).tw.</td>
</tr>
<tr>
<td>74 Diabetic Retinopathy/</td>
</tr>
<tr>
<td>75 (diabet* adj2 (retinopath* or retinitis or eye diseas*)).tw.</td>
</tr>
<tr>
<td>76 exp Informed Consent/</td>
</tr>
<tr>
<td>77 Presumed Consent/</td>
</tr>
<tr>
<td>78 (consent* or agree* or acquiesce* or accept* or assent* or sanction*).tw.</td>
</tr>
<tr>
<td>79 or/58-78</td>
</tr>
<tr>
<td>80 (complicat* or injur* or advers* or detriment* or unfortunat* or side effect* or harm* or undesirabl* or toxic*).tw.</td>
</tr>
<tr>
<td>81 79 and 80</td>
</tr>
<tr>
<td>82 57 or 81</td>
</tr>
<tr>
<td>83 7 and 82</td>
</tr>
<tr>
<td>84 Animals/ not Humans/</td>
</tr>
<tr>
<td>85 83 not 84</td>
</tr>
<tr>
<td>86 limit 85 to english language</td>
</tr>
</tbody>
</table>

Note: In house RCT and systematic review filters appended to strategy.

**Search strategy review questions 34, 35, 36, 37 and 38**

- RQ34: What should the postoperative assessment include?
- RQ35: Who and in what setting should carry out the postoperative assessment?
- RQ36: What issues should be considered when organising postoperative care?
- RQ37: What is the appropriate time to assess outcomes in the postoperative period?
- RQ38: If the postoperative assessment and care are undertaken outside of the hospital, how should outcomes between surgical units and these providers be effectively communicated?

**Table 18: search strategy RQ34, RQ35, RQ36, RQ37 and RQ38**

<table>
<thead>
<tr>
<th>Medline Strategy, searched 20th September 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database: Ovid MEDLINE(R) 1946 to September Week 2 2016</td>
</tr>
<tr>
<td>Search Strategy:</td>
</tr>
<tr>
<td>1 exp Cataract Extraction/</td>
</tr>
<tr>
<td>2 (pha?oemulsif* or phaco or phako).tw.</td>
</tr>
<tr>
<td>3 (lensectom* or capsulorhexis or capsulorrhexis).tw.</td>
</tr>
<tr>
<td>4 ((lens* or cataract*) adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or emulsif*)).tw.</td>
</tr>
<tr>
<td>5 Lens Implantation, Intraocular/</td>
</tr>
<tr>
<td>6 ((lens* or IOL* or intraocul*) adj4 implant*).tw.</td>
</tr>
<tr>
<td>7 or/1-6</td>
</tr>
<tr>
<td>8 exp Postoperative Period/</td>
</tr>
</tbody>
</table>

Internal Clinical Guidelines, 2017
Medline Strategy, searched 20th September 2016
Database: Ovid MEDLINE(R) 1946 to September Week 2 2016
Search Strategy:

9  Postoperative Care/
10  ((postop* or post-op* or post op*) adj4 (car* or procedural* or period* or assess* or recover* or
outcome* or order* or manage* or direct* or protocol* or method* or techniq* or plan*)).tw.
11  ((after or follow*) adj4 car*).tw.
12  or/8-11
13  7 and 12
14  animals/ not humans/
15  13 not 14
16  limit 15 to english language

Note: In house qualitative filter appended to strategy. Date limit of 1990 onwards. Any papers published before
1990 were removed in reference management software. Results presented to analyst with and without appended
qualitative filter.

D.3 Cochrane search strategies

Table 19: Cochrane strategy RQ13

RQ13: What is the effectiveness of laser phacoemulsification compared with ultrasound phacoemulsification?
Search Strategy (taken from Cochrane ‘Laser-assisted cataract surgery versus standard ultrasound phacoemulsification cataract surgery systematic review’ systematic review):

1. randomized controlled trial.pt.
2. (randomized or randomised).ab,ti.
3. placebo.ab,ti.
4. dt.fs.
5. randomly.ab,ti.
6. trial.ab,ti.
7. (group or groups).ab,ti.
8. or/1-7
9. exp animals/
10. exp humans/
11. 9 not (9 and 10)
12. 8 not 11
13. phacoemulsification/
14. phacoemulsif$.tw.
15. (phaco or phako).tw.
16. capsulorhexis/
17. (capsulorhexis$ or capsulotom$).tw.
18. or/13-17
19. exp lasers/
20. laser$.tw.
21. femtosecond.tw.
22. (lensx or lensar or victus).tw.
23. or/19-22
24. 18 and 23
25. 12 and 24
### Table 20: Cochrane strategy RQ21

**RQ21**: What is the optimal strategy to facilitate simultaneous distance and near vision following cataract surgery?

**Search Strategy** (taken from Cochrane ‘[Multifocal versus monofocal intraocular lenses after cataract extraction](https://onlinelibrary.wiley.com/doi/abs/10.1002/14651858.CD010721.pub2)’ systematic review):

1. randomised controlled trial.pt.
2. (randomised or randomised).ab,ti.
3. placebo.ab,ti.
4. dt.fs.
5. randomly.ab,ti.
6. trial.ab,ti.
7. groups.ab,ti.
8. or/1-7
9. exp animals/
10. exp humans/
11. 9 not (9 and 10)
12. 8 not 11
13. exp cataract extraction/
14. exp pseudophakia/
15. ((extract$ or aspirat$ or operat$ or remov$ or surg$ or excis$) adj3 cataract$).tw.
16. pseudophakia.tw.
17. or/13-16
18. exp lens implantation intraocular/
19. exp lenses intraocular/
20. ((intraocular or intra ocular) adj3 lens$).tw.
21. or/17-20
22. (multifocal or multi focal or bifocal or bi focal or diffractive or refractive).tw.
23. 21 and 22
24. 17 and 23
25. 12 and 24

### Table 21: Cochrane strategy RQ29

**R29**: What is the effectiveness of prophylactic antiseptics (for example, topical iodine) and antibiotics to prevent endophthalmitis after cataract surgery?

**Search Strategy** (taken from Cochrane ‘[Perioperative antibiotics for prevention of acute endophthalmitis after cataract surgery](https://onlinelibrary.wiley.com/doi/abs/10.1002/14651858.CD009133.pub4)’ systematic review):

1. randomized controlled trial.pt.
2. (randomized or randomised).ab,ti.
3. placebo.ab,ti.
4. dt.fs.
5. randomly.ab,ti.
6. trial.ab,ti.
7. groups.ab,ti.
8. or/1-7
9. exp animals/
10. exp humans/
11. 9 not (9 and 10)
12. 8 not 11
13. exp ophthalmologic surgical procedure/
14. exp cataract/
15. exp cataract extraction/
R29: What is the effectiveness of prophylactic antiseptics (for example, topical iodine) and antibiotics to prevent endophthalmitis after cataract surgery?

Search Strategy (taken from Cochrane ‘Perioperative antibiotics for prevention of acute endophthalmitis after cataract surgery systematic review’):

16. ((cataract$ adj3 extract$) or aspirat$ or operat$ or remov$ or surg$ or excis$ or implant$).tw.
17. ((lens$ adj3 extract$) or aspirat$ or operat$ or remov$ or surg$ or excis$ or implant$).tw.
19. lensectomy.tw.
20. or/13-19
21. exp endophthalmitis/
22. endophthalmitis.tw.
23. ophthalmia.tw.
24. or/21-23
25. exp anti bacterial agents/
26. antibiotic$.tw.
27. bacteri$.tw.
28. chloramphenicol$.tw.
29. exp ciprofloxacin/
30. ciprofloxacin.tw.
31. (fusidic adj2 acid$).tw.
32. exp gentamicin/
33. gentamicin$.tw.
34. exp levofl oxacin/
35. levofloxacin$.tw.
36. neomycin$.tw.
37. ofloxacin$.tw.
38. (polymyxin$ adj1 B).tw.
39. cefazolin$.tw.
40. exp cefuroxime/
41. cefuroxime$.tw.
42. moxifloxacin$.tw.
43. norfloxacin$.tw.
44. exp vancomycin/
45. vancomycin$.tw.
46. or/21-45
47. exp antibiotic prophylaxis/
48. prophyla$.tw.
49. prevent$.tw.
50. or/47-49
51. 20 and 24 and 46
52. 50 and 51
53. 12 and 52

Table 22: Cochrane strategy RQ30

RQ30: What is the effectiveness of prophylactic topical corticosteroids and/or NSAIDs to prevent inflammation and cystoid macular oedema after cataract surgery?

Search Strategy: (taken from Cochrane ‘Prophylactic non-steroidal anti-inflammatory drugs for the prevention of macular oedema after cataract surgery systematic review’)

1. randomized controlled trial.pt.
RQ30: What is the effectiveness of prophylactic topical corticosteroids and/or NSAIDs to prevent inflammation and cystoid macular oedema after cataract surgery?

Search Strategy: (taken from Cochrane ‘Prophylactic non-steroidal anti-inflammatory drugs for the prevention of macular oedema after cataract surgery systematic review’)

2. (randomized or randomised).ab,ti.
3. placebo.ab,ti.
4. dt.fs.
5. randomly.ab,ti.
6. trial.ab,ti.
7. groups.ab,ti.
8. or/1-7
9. exp animals/
10. exp humans/
11. 9 not (9 and 10)
12. 8 not 11
13. exp macular edema cystoid/
14. exp macula lutea/
15. (macula$ adj3 oedema).tw.
17. (CME or CMO).tw.
18. or/13-17
19. exp anti inflammatory agents non steroidal/
20. nsaid$.tw.
22. non-steroidal anti-inflammatory$.tw.
23. exp diclofenac/
24. diclofenac$.tw.
25. fenoprofen$.tw.
26. flurbiprofen$.tw.
27. exp indometacin/
28. indometacin$.tw.
29. exp ketoprofen/
30. ketoprofen$.tw.
31. ketorolac$.tw.
32. piroxicam$.tw.
33. or/19-32
34. 18 and 33
35. 12 and 34

D.4 Study Design Filters

Table 23: study design filters
The MEDLINE SR, RCT, observational studies, qualitative and patient issues filters are presented below. They were translated for use in the MEDLINE In-Process and Embase databases.

Systematic review
2. Meta-Analysis as Topic/
The MEDLINE SR, RCT, observational studies, qualitative and patient issues filters are presented below. They were translated for use in the MEDLINE In-Process and Embase databases.

4. exp Review Literature as Topic/
5. (metaanaly$ or metanaly$ or (meta adj3 analy$)).tw.
6. (review$ or overview$).ti.
7. (systematic$ adj5 (review$ or overview$)).tw.
8. ((quantitative$ or qualitative$) adj5 (review$ or overview$)).tw.
9. ((studies or trial$) adj2 (review$ or overview$)).tw.
10. (integrat$ adj3 (research or review$ or literature)).tw.
11. (pool$ adj2 (analy$ or data)).tw.
12. (handsearch$ or (hand adj3 search$)).tw.
14. or/1-13
15. animals/ not humans/
16. 14 not 15

RCT
1. Randomized Controlled Trial.pt.
2. Controlled Clinical Trial.pt.
3. Clinical Trial.pt.
4. exp Clinical Trials as Topic/
5. Placebos/
6. Random Allocation/
7. Double-Blind Method/
8. Single-Blind Method/
9. Cross-Over Studies/
10. ((random$ or control$ or clinical$) adj3 (trial$ or stud$)).tw.
11. (random$ adj3 allocat$).tw.
12. placebo$.tw.
13. ((singl$ or doubl$ or trebl$ or tripl$) adj (blind$ or mask$)).tw.
14. (crossover$ or (cross adj over$)).tw.
15. or/1-14
16. animals/ not humans/
17. 15 not 16

Observational studies
1. Observational Studies as Topic/ (1963)
2. Observational Study/ (31665)
3. Epidemiologic Studies/ (7368)
4. exp Case-Control Studies/ (834658)
5. exp Cohort Studies/ (1624051)
6. Cross-Sectional Studies/ (235120)
7. Controlled Before-After Studies/ (220)
8. Historically Controlled Study/ (97)
9. Interrupted Time Series Analysis/ (245)
10. Comparative Study.pt. (1770070)
11. case control$.tw. (90405)
12. case series.tw. (42728)
The MEDLINE SR, RCT, observational studies, qualitative and patient issues filters are presented below. They were translated for use in the MEDLINE In-Process and Embase databases.

13 (cohort adj (study or studies)).tw. (111014)
14 cohort analy$.tw. (4593)
15 (follow up adj (study or studies)).tw. (40037)
16 (observational adj (study or studies)).tw. (57432)
17 longitudinal.tw. (157923)
18 prospective.tw. (400420)
19 retrospective.tw. (324288)
20 cross sectional.tw. (201959)
21 or/1-20 (3732055)

Qualitative
1 Qualitative Research/
2 Nursing Methodology Research/
3 Interview.pt.
4 exp Interviews as Topic/
5 Questionnaires/
6 Narration/
7 Health Care Surveys/
8 (qualitative$ or interview$ or focus group$ or questionnaire$ or narrative$ or narration$ or survey$).tw.
9 (ethno$ or emic or etic or phenomenolog$ or grounded theory or constant compar$ or ( THEMATIC$ adj4 analy$) or theoretical samp$ or purposive samp$).tw.
10 (hermeneutic$ or heidegger$ or husser$ or colaizzi$ or van kaam$ or van manen$ or giorgi$ or glaser$ or strauss$ or ricoeur$ or spiegelberg$ or merleau$).tw.
11 (metasynthes$ or meta-synthes$ or metasummar$ or meta-summ$ or metastud$ or meta-them$).tw.
12 "critical interpretive synthes*".tw.
13 (realist adj (review* or synthes*)).tw.
14 (noblit and hare).tw.
15 (meta adj (method or triangulation)).tw.
16 (CERQUAL or CONQUAL).tw.
17 ((thematic or framework) adj synthes*).tw.
18 or/1-17

Patient issues
1 qualitative research/
2 nursing methodology research/
3 exp interviews as topic/
4 questionnaires/
5 narration/
6 health care surveys/
7 (qualitative$ or interview$ or focus group$ or questionnaire$ or narrative$ or narration$ or survey$).tw.
8 (ethno$ or emic or etic or phenomenolog$ or grounded theory or constant compar$ or ( THEMATIC$ adj4 analy$) or theoretical samp$ or purposive samp$).tw.
9 (hermeneutic$ or heidegger$ or husser$ or colaizzi$ or van kaam$ or van manen$ or giorgi$ or glaser$ or strauss$ or ricoeur$ or spiegelberg$ or merleau$).tw.
The MEDLINE SR, RCT, observational studies, qualitative and patient issues filters are presented below. They were translated for use in the MEDLINE In-Process and Embase databases.

10 (metasynthes$ or meta-synthes$ or metasummar$ or meta-summar$ or metastud$ or meta-stud$ or meta-them$ or meta-them$).tw.
11 "critical interpretive synthes*".tw.
12 (realist adj (review* or synthes*)).tw.
13 (nobilit and hare).tw.
14 (meta adj (method or triangulation)).tw.
15 (CERQUAL or CONQUAL).tw.
16 ((thematic or framework) adj synthes*).tw.
17 or/1-16
18 exp Patients/px
19 exp Family/px
20 exp Caregivers/px
21 ((patient$ or parent$ or famili$ or relative$ or carer$ or caregiver$ or care-giver$ or inpatient$ or in-patient$ or spous$ or husband$ or wife$ or wive$ or partner$ or mother$ or father$ or sibling$ or sister$ or brother$) adj6 (experience$ or belief$ or stress$ or emotion$ or anx$ or fear$ or concern$ or uncertain$ or unsure or thought$ or feeling$ or felt$ or view$ or opinion$ or perception$ or perspective$ or attitud$ or satisfact$ or know$ or understand$ or aware$)).ti.
22 Stress, Psychological/
23 Adaptation, psychological/
24 emotions/
25 anxiety/
26 fear/
27 exp consumer satisfaction/
28 patient* report* outcome*.tw.
29 or/18-28
30 exp patients/
31 exp family/
32 exp caregivers/
33 (patient$ or parent$ or famili$ or relative$ or carer$ or caregiver$ or care-giver$ or inpatient$ or in-patient$ or spous$ or husband$ or wife$ or wive$ or partner$ or mother$ or father$ or sibling$ or sister$ or brother$).ti.
34 or/30-33
35 pamphlets/
36 needs assessment/
37 information centers/
38 information services/
39 health education/
40 information dissemination/
41 counseling/
42 social support/
43 self-help groups/
44 self care/
45 ((patient$ or parent$ or famili$ or relative$ or carer$ or caregiver$ or care-giver$ or spous$ or husband$ or wife$ or wive$ or partner$) adj6 (educat$ or informat$ or communicat$ or pamphlet$ or handout$ or hand-out$ or hand out$ or booklet$ or leaflet$ or support$ or need$ or advice$ or advis$)).ti.
The MEDLINE SR, RCT, observational studies, qualitative and patient issues filters are presented below. They were translated for use in the MEDLINE In-Process and Embase databases.

46 ((patient$ or parent$ or famili$ or relative$ or carer$ or caregiver$ or care-giver$ or spous$ or husband$ or wife$ or wive$ or partner$) adj6 (counsel$ or selfhelp$ or self-help$ or self help$ or selfcar$ or self-car$ or self car$)).ti.
47 patient education as topic/
48 patient education handout/
49 consumer health information/
50 patient* diar*.tw.
51 or/35-50
52 34 and 51
53 17 or 29 or 52
54 animals/ not humans/
55 53 not 54
56 qualitative research/
57 nursing methodology research/
58 exp interviews as topic/
59 questionnaires/
60 narration/
61 health care surveys/
62 (qualitative$ or interview$ or focus group$ or questionnaire$ or narrative$ or narration$ or survey$).tw.
63 (ethno$ or emic or etic or phenomenolog$ or grounded theory or constant compar$ or (thematic$ adj4 analys$) or theoretical samp$ or purposive samp$).tw.
64 (hermeneutic$ or heidegger$ or husser$ or colaizzi$ or van kaam$ or van manen$ or giorgi$ or glaser$ or strauss$ or ricoeur$ or spiegelberg$ or merleau$).tw.
65 (metasynthes$ or meta-synthes$ or metasummar$ or meta-summar$ or metastud$ or meta-stud$ or metathem$ or meta-them$).tw.
66 "critical interpretive synthe$".tw.
67 (realist adj (review* or syntheses*)).tw.
68 (nobilit and hare).tw.
69 (meta adj (method or triangulation)).tw.
70 (CERQUAL or CONQUAL).tw.
71 ((thematic or framework) adj synthe$*).tw.
72 or/56-71
73 exp Patients/px
74 exp Family/px
75 Caregivers/px
76 ((patient$ or parent$ or famili$ or relative$ or carer$ or caregiver$ or care-giver$ or inpatient$ or in-patient$ or spous$ or husband$ or wife$ or wive$ or partner$ or mother$ or father$ or sibling$ or sister$ or brother$) adj6 (experience$ or belief$ or stress$ or emotion$ or anx$ or fear$ or concern$ or uncertain$ or unsure or thought$ or feeling$ or felt$ or view$ or opinion$ or perception$ or perspective$ or attitude$ or satisfact$ or know$ or understand$ or aware$)).ti.
77 Stress, Psychological/
78 Adaptation, psychological/
79 emotions/
80 anxiety/
81 fear/
82 exp consumer satisfaction/
83 patient* report* outcome*.tw.
The MEDLINE SR, RCT, observational studies, qualitative and patient issues filters are presented below. They were translated for use in the MEDLINE In-Process and Embase databases.

1. or/73-83  
2. exp patients/  
3. exp family/  
4. caregivers/  
5. (patient$ or parent$ or famil$ or relative$ or carer$ or caregiver$ or care-giver$ or in-patient$ or spous$ or husband$ or wife$ or wive$ or partner$ or mother$ or father$ or sibling$ or sister$ or brother$).ti.  
6. or/85-88  
7. pamphlets/  
8. needs assessment/  
9. information centers/  
10. information services/  
11. health education/  
12. information dissemination/  
13. counseling/  
14. social support/  
15. self-help groups/  
16. self care/  
17. ((patient$ or parent$ or famil$ or relative$ or carer$ or caregiver$ or care-giver$ or spous$ or husband$ or wife$ or wive$ or partner$) adj6 (educat$ or informat$ or communicat$ or pamphlet$ or handout$ or hand-out$ or hand out$ or booklet$ or leaflet$ or support$ or need$ or advice$ or advis$)).ti.  
18. ((patient$ or parent$ or famil$ or relative$ or carer$ or caregiver$ or care-giver$ or spous$ or husband$ or wife$ or wive$ or partner$) adj6 (counsel$ or selfhelp$ or self help$ or selfcar$ or self-car$ or self care$)).ti.  
19. patient education as topic/  
20. patient education handout/  
21. consumer health information/  
22. patient* diar*.tw.  
23. or/90-105  
24. 89 and 106  
25. 72 or 84 or 107  
26. animals/ not humans/  
27. 108 not 109

**D.5 Health economics search strategy**

**D.5.1 Economic evaluations and quality of life data**

**Sources searched to identify economic evaluations**

- NHS Economic Evaluation Database – NHS EED (Wiley)  
- Health Technology Assessment Database – HTA (Wiley)  
- Embase (Ovid)  
- MEDLINE (Ovid)  
- MEDLINE In-Process (Ovid)
• Search filters to retrieve economic evaluations and quality of life papers were appended to cataracts population search terms to identify relevant evidence in July 2015. The re-run search took place in December 2016.

Table 24: Cataracts health economics search

<table>
<thead>
<tr>
<th>Medline Strategy, searched</th>
<th>17th July 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database: Ovid MEDLINE(R) 1946 to July Week 2 2015</td>
<td></td>
</tr>
</tbody>
</table>

**Search Strategy:**

1. exp Cataract/ (24456)
2. exp Cataract Extraction/ (29877)
3. cataract*.tw. (42416)
4. (pha?oemulsif* or phaco or phako).tw. (6366)
5. ((lens* or capsul*) adj4 (opaci* or cloud*)).tw. (4413)
6. (lensectom* or capsulorhexis or capsulorrhexis).tw. (2012)
7. Lenses, Intraocular/ (13023)
8. Lens Implantation, Intraocular/ (8890)
9. (lens* adj4 (extract* or aspirat* or operat* or remov* or surg* or excis* or implant* or emulsif* or intraocul*)).tw. (17838)
10. IOL*.tw. (7513)
11. Pseudophakia/ (1722)
12. pseudophaki*.tw. (2958)
13. Aphakia, Postcataract/ (1804)
14. aphaki*.tw. (4173)
15. or/1-14 (69976)
16. Economics/ (26821)
17. exp "Costs and Cost Analysis"/ (191630)
18. Economics, Dental/ (1879)
19. exp Economics, Hospital/ (20606)
20. exp Economics, Medical/ (13901)
21. Economics, Nursing/ (3930)
22. Economics, Pharmaceutical/ (2596)
23. Budgets/ (10120)
24. exp Models, Economic/ (10960)
25. Markov Chains/ (10669)
26. Monte Carlo Method/ (21496)
27. Decision Trees/ (9248)
28. econom$.tw. (165942)
29. cba.tw. (8917)
30. cea.tw. (16896)
31. cua.tw. (815)
32. markov$.tw. (12516)
33. (monte adj carlo).tw. (22197)
34. (decision adj3 (tree$ or analys$)).tw. (8949)
35. (cost or costs or costing$ or costly or costed).tw. (326036)
36. (price$ or pricing$).tw. (24417)
37. budget$.tw. (18103)
38. expenditure$.tw. (36926)
39. (value adj3 (money or monetary)).tw. (1416)
40. (pharmacoeconomic$ or (pharmaco adj economic$)).tw. (2930)
41. or/16-40 (690826)
42. "Quality of Life"/ (128885)
### Medline Strategy, searched 17th July 2015

**Database:** Ovid MEDLINE(R) 1946 to July Week 2 2015

**Search Strategy:**

<table>
<thead>
<tr>
<th>Number</th>
<th>Search Term</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>quality of life.tw.</td>
<td>(149495)</td>
</tr>
<tr>
<td>44</td>
<td>&quot;Value of Life&quot;/*</td>
<td>(5495)</td>
</tr>
<tr>
<td>45</td>
<td>Quality-Adjusted Life Years/*</td>
<td>(7808)</td>
</tr>
<tr>
<td>46</td>
<td>quality adjusted life.tw.</td>
<td>(6579)</td>
</tr>
<tr>
<td>47</td>
<td>(qaly$ or qald$ or qale$ or qtime$).tw.</td>
<td>(5382)</td>
</tr>
<tr>
<td>48</td>
<td>disability adjusted life.tw.</td>
<td>(1361)</td>
</tr>
<tr>
<td>49</td>
<td>daly$.tw.</td>
<td>(1322)</td>
</tr>
<tr>
<td>50</td>
<td>Health Status Indicators/*</td>
<td>(20843)</td>
</tr>
<tr>
<td>51</td>
<td>(sf36 or sf 36 or short form 36 or shortform 36 or sf thirty six or shortform thirty six or short form thirty six).tw.</td>
<td>(16326)</td>
</tr>
<tr>
<td>52</td>
<td>(sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.</td>
<td>(1042)</td>
</tr>
<tr>
<td>53</td>
<td>(sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.</td>
<td>(2919)</td>
</tr>
<tr>
<td>54</td>
<td>(sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.</td>
<td>(21)</td>
</tr>
<tr>
<td>55</td>
<td>(sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.</td>
<td>(339)</td>
</tr>
<tr>
<td>56</td>
<td>(euroqol or euro qol or eq5d or eq 5d).tw.</td>
<td>(4343)</td>
</tr>
<tr>
<td>57</td>
<td>(qol or hql or hqol or hrqol).tw.</td>
<td>(26846)</td>
</tr>
<tr>
<td>58</td>
<td>(hui or hui1 or hui2 or hui3).tw.</td>
<td>(904)</td>
</tr>
<tr>
<td>59</td>
<td>health$ year$ equivalent$.tw.</td>
<td>(38)</td>
</tr>
<tr>
<td>60</td>
<td>utilit$.tw.</td>
<td>(119657)</td>
</tr>
<tr>
<td>61</td>
<td>(hui or hui1 or hui2 or hui3).tw.</td>
<td>(904)</td>
</tr>
<tr>
<td>62</td>
<td>disutili$.tw.</td>
<td>(235)</td>
</tr>
<tr>
<td>63</td>
<td>rosser.tw.</td>
<td>(71)</td>
</tr>
<tr>
<td>64</td>
<td>quality of wellbeing.tw.</td>
<td>(5)</td>
</tr>
<tr>
<td>65</td>
<td>quality of well-being.tw.</td>
<td>(341)</td>
</tr>
<tr>
<td>66</td>
<td>qwb.tw.</td>
<td>(175)</td>
</tr>
<tr>
<td>67</td>
<td>willingness to pay.tw.</td>
<td>(2439)</td>
</tr>
<tr>
<td>68</td>
<td>standard gamble$.tw.</td>
<td>(686)</td>
</tr>
<tr>
<td>69</td>
<td>time trade off.tw.</td>
<td>(788)</td>
</tr>
<tr>
<td>70</td>
<td>time tradeoff.tw.</td>
<td>(217)</td>
</tr>
<tr>
<td>71</td>
<td>tto.tw.</td>
<td>(631)</td>
</tr>
<tr>
<td>72</td>
<td>or/42-71 (341572)</td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>41 or 72 (985875)</td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>15 and 73 (2282)</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>Animals/ not Humans/</td>
<td>(3986044)</td>
</tr>
<tr>
<td>76</td>
<td>74 not 75 (2223)</td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>limit 76 to english language</td>
<td>(1982)</td>
</tr>
</tbody>
</table>