

## CADTH REFERENCE LIST

# Cataract Surgical Care in Non-Hospital Settings: Clinical Effectiveness and Guidelines

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## Key Messages

- No evidence was identified regarding the clinical effectiveness of performing cataract surgeries in non-hospital settings for individuals accessing scheduled cataract surgeries.
- No evidence-based guidelines were identified regarding performing cataract surgeries in non-hospital settings.

## Research Questions

1. What is the clinical effectiveness of performing cataract surgeries in non-hospital settings for individuals accessing scheduled cataract surgeries?
2. What are the evidence-based guidelines for performing cataract surgeries in non-hospital settings?

## Methods

### Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were cataract surgery in non-hospital settings. No search filters were applied to limit retrieval to study type. Comments, newspaper articles, editorials, letters, and conference abstracts were excluded. Where possible, retrieval was limited to the human population. The search was also limited to English-language documents published between January 1, 2015 and December 15, 2020. Internet links are provided, where available.

### Selection Criteria and Summary Methods

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed. The Overall Summary of Findings section was based on information available in the abstracts of selected publications. Open-access, full-text versions of evidence-based guidelines were reviewed when abstracts were not available and relevant recommendations were summarized.

**Table 1: Selection Criteria**

Criteria	Description
<b>Population</b>	Individuals accessing scheduled cataract surgeries
<b>Intervention</b>	Cataract surgeries performed outside of the hospital settings (e.g., specialized clinic)
<b>Comparator</b>	Q1: Cataract surgeries performed inside the hospital setting (e.g., operating room, inpatient surgery, day surgery, ambulatory or emergency surgery) Q2: Not applicable
<b>Outcomes</b>	Q1: Clinical effectiveness (e.g., patient satisfaction, surgery success, clinical benefits [e.g., time to surgery, recovery time], mortality, safety, adverse events) Q2: Recommendations regarding best practices for performing cataract surgeries in the non-hospital setting
<b>Study Designs</b>	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, evidence-based guidelines

Q = question.

## Results

No health technology assessments, systematic reviews, randomized controlled trials, or non-randomized studies were identified regarding performing cataract surgeries in non-hospital settings for individuals accessing scheduled cataract surgeries. Furthermore, no evidence-based guidelines were identified regarding performing cataract surgeries in non-hospital settings.

References of potential interest that did not meet the inclusion criteria are provided in the appendix.

## Overall Summary of Findings

No relevant literature was found regarding the clinical effectiveness of performing cataract surgeries in non-hospital settings for individuals accessing scheduled cataract surgeries and no evidence-based guidelines were found regarding performing cataract surgeries in non-hospital settings; therefore, no summary can be provided.

## References Summarized

### Health Technology Assessments

No literature identified.

### Systematic Reviews and Meta-analyses

No literature identified.

### Randomized Controlled Trials

No literature identified.

### Non-Randomized Studies

No literature identified.

### Guidelines and Recommendations

No literature identified.

## Appendix 1 — Further Information

### References of Potential Interest

#### Previous CADTH Report

1. Cowling T, de Léséleuc L. Surgical interventions performed outside the hospital operating room [CADTH Environmental Scan; Issue 49]. Ottawa (ON): CADTH; 2015: [https://cadth.ca/sites/default/files/pdf/ES0294\\_Surgical\\_Interventions\\_e.pdf](https://cadth.ca/sites/default/files/pdf/ES0294_Surgical_Interventions_e.pdf) Accessed 2020 Dec 21.

#### Non-Randomized Studies

##### *Mixed Intervention — Non-Hospital and Hospital Settings*

2. Solborg Bjerrum S, Mikkelsen KL, la Cour M. Epidemiology of 411 140 cataract operations performed in public hospitals and private hospitals/clinics in Denmark between 2004 and 2012. *Acta Ophthalmol (Oxf)*. 2015 Feb;93(1):16-23. [PubMed: PM25495244](#)

##### *Alternative Population — Not Specific to Cataract Surgery*

3. Branch-Elliman W, Pizer SD, Dasinger EA, et al. Facility type and surgical specialty are associated with suboptimal surgical antimicrobial prophylaxis practice patterns: a multi-center, retrospective cohort study. *Antimicrob*. 2019;8:49. [PubMed: PM30886702](#)

##### *Alternative Outcome — Operative Times*

4. Gulati S, Boland MV. Association of surgical setting and deployment of a new electronic health record with ophthalmic operative times. *JAMA Ophthalmol*. 2019 Jun;137(9):969-974. [PubMed: PM31219522](#)

##### *No Comparator — Single-Arm Studies*

5. Bigoteau M, Grammatico-Guillon L, Massot M, et al. Ambulatory surgery centers: possible solution to improve cataract healthcare in medical deserts. *J Cataract Refract Surg*. 2020 Oct 16. [PubMed: PM33086293](#)
6. Rementeria-Capelo LA, Garcia-Perez JL, Gros-Otero J, Moran A, Sanchez-Pina JM, Contreras I. Visual and refractive outcomes of cataract surgeries performed in one year in a private practice setting: review of 2714 procedures. *J Ophthalmol*. 2020 Apr;2020:2421816. [PubMed: PM32377414](#)
7. Ianchulev T, Litoff D, Ellinger D, Stiverson K, Packer M. Office-based cataract surgery: population health outcomes study of more than 21 000 cases in the United States. *Ophthalmology*. 2016 Apr;123(4):723-728. [PubMed: PM26804760](#)
8. Sangameswaran RP, Verma GK, Raghavan N, Joseph J, Sivaprakasam M. Cataract surgery in mobile eye surgical unit: safe and viable alternative. *Indian J Ophthalmol*. 2016 Nov;64(11):835-839. [PubMed: PM27958207](#)

9. Syed ZA, Moayedi J, Mohamedi M, et al. Cataract surgery outcomes at a UK independent sector treatment centre. *Br J Ophthalmol*. 2015 Nov;99(11):1460-1465. [PubMed: PM25926519](#)
10. Thavikulwat AT, Fisher SG, Thevenet-Morrison K, Pongtawigorn P, Ramchandran RS. Evaluation of cataract surgery outcomes at the Ban Phaeo Mobile Eye Clinic, Thailand. *Ophthalmic Epidemiol*. 2015;22(4):266-273. [PubMed: PM26218109](#)

## Guidelines and Recommendations

### *Unclear Methodology*

11. College of Physicians & Surgeons of British Columbia. Non-hospital medical and surgical facilities accreditation program: accreditation standards: immediately sequential bilateral cataract surgery. Vancouver (BC): CPSBC; 2018 Sep: <https://www.cpsbc.ca/files/pdf/NHMSFAP-AS-ISBCS.pdf> Accessed 2020 Dec 21.
12. College of Physicians & Surgeons of Alberta. Non-hospital surgical facility general standards. Version 23. Edmonton (AB): CPSA; 2016 Mar: [http://www.cpsa.ca/wp-content/uploads/2015/03/NHSF\\_Standards.pdf](http://www.cpsa.ca/wp-content/uploads/2015/03/NHSF_Standards.pdf) Accessed 2020 Dec 21.  
*See: Appendix D: Recommended practices for cleaning and sterilizing intraocular surgical instruments*

### *Unclear Methodology and Alternative Population — Not Specific to Cataract Surgery*

13. College of Physicians and Surgeons of Ontario. Out-of-Hospital Premises Inspection Program (OHPIP): program standards. Toronto (ON): CPSO; 2017 Oct (rev). <https://www.cpsso.on.ca/admin/CPSO/media/Documents/physician/your-practice/quality-in-practice/clinic-inspections-special-programs/ohpip-standards.pdf> Accessed 2020 Dec 21.  
*See: 6 Procedure Standards for all OHPs (p24-33)*

## Additional References

14. Wong IYH, Ni MY, Wong IOL, Fong N, Leung GM. Saving sight in China and beyond: the Lifeline Express model. *BMJ Glob*. 2018;3(4):e000766. [PubMed: PM30147943](#)
15. Bjerrum SS. Quality assessment of cataract surgery in Denmark - risk of retinal detachment and postoperative endophthalmitis. *Acta Ophthalmol (Oxf)*. 2015 Mar;93 Thesis 2:1-15. [PubMed: PM25712600](#)