TITLE: Minimally Invasive Glaucoma Surgery: Clinical and Cost-Effectiveness and Guidelines

DATE: 27 April 2016

RESEARCH QUESTIONS

1. What is the clinical effectiveness of minimally invasive glaucoma surgery in adult patients with glaucoma?

2. What is the cost-effectiveness of minimally invasive glaucoma surgery in adult patients with glaucoma?

3. What are the evidence-based guidelines associated with surgical treatments for glaucoma?

KEY FINDINGS

One health technology assessment, four systematic reviews, three randomized controlled trials, one non-randomized study, one economic evaluation, and one evidence-based guideline were identified regarding minimally invasive glaucoma surgery.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to the main search to limit the retrieval by study type. Methodological filters were applied for research question 3 to limit retrieval to guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2011 and April 21, 2016. Internet links were provided, where available.

Disclaimer: The Rapid Response Service is an information service for those involved in planning and providing health care in Canada. Rapid responses are based on a limited literature search and are not comprehensive, systematic reviews. The intent is to provide a list of sources of the best evidence on the topic that the Canadian Agency for Drugs and Technologies in Health (CADTH) could identify using all reasonable efforts within the time allowed. Rapid responses should be considered along with other types of information and health care considerations. The information included in this response is not intended to replace professional medical advice, nor should it be construed as a recommendation for or against the use of a particular health technology. Readers are also cautioned that a lack of good quality evidence does not necessarily mean a lack of effectiveness particularly in the case of new and emerging health technologies, for which little information can be found, but which may in future prove to be effective. While CADTH has taken care in the preparation of the report to ensure that its contents are accurate, complete and up to date, CADTH does not make any guarantee to that effect. CADTH is not liable for any loss or damages resulting from use of the information in the report.

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SELECTION CRITERIA

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

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<th>Table 1: Selection Criteria</th>
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<td><strong>Study Designs</strong></td>
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RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, economic evaluations, and evidence-based guidelines.

One health technology assessment, four systematic reviews, three randomized controlled trials, one non-randomized study, one economic evaluation, and one evidence-based guideline were identified regarding minimally invasive glaucoma surgery.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments


Note: Term “minimally invasive” not used within report
Systematic Reviews and Meta-Analyses


Randomized Controlled Trials


Non-Randomized Studies

Economic Evaluations


Guidelines and Recommendations


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APPENDIX – FURTHER INFORMATION:

Randomized Controlled Trials – Alternate Comparator


Non-Randomized Studies – No Comparator Group


**Clinical Practice Guidelines – Methodology Not Specified**


**Horizon Scan**

Review Articles


PubMed: PM24369494

PubMed: PM22978183

PubMed: PM22249233

Additional References

PubMed: PM22922664