National Institute for Health and Care Excellence

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Glaucoma: assessment and management

Search strategies

NICE guideline <number>

Search strategies

November 2021

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Disclaimer

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and, where appropriate, their carer or guardian.

Local commissioners and providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.

NICE guidelines cover health and care in England. Decisions on how they apply in other UK countries are made by ministers in the Welsh Government, Scottish Government, and Northern Ireland Executive. All NICE guidance is subject to regular review and may be updated or withdrawn.

Contents

Clinical search strategies

Databases

Bibliographic databases 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 (CRD)
- EMBASE (Ovid)
- MEDLINE (Ovid)
- MEDLINE Epub Ahead of Print (Ovid)
- MEDLINE In-Process (Ovid)

Identification of evidence for review questions

Search design and peer review

A NICE information specialist conducted the literature searches for the evidence review. The searches were run between the 25th to 26th of August 2021. This search report is compliant with the reporting requirements of PRISMA-S.

The MEDLINE strategy below was quality assured (QA) by a trained NICE information specialist. All translated search strategies were peer reviewed to ensure their accuracy. Both procedures were adapted from the 2016 PRESS Checklist.

The principal search strategy was developed in MEDLINE (Ovid interface) and adapted, as appropriate, for use in the other sources listed in the protocol, taking into account their size, search functionality and subject coverage.

Review management

The search results were managed in EPPI-Reviewer v5. Duplicates were removed in EPPI-R5 using a two-step process. First, automated deduplication is performed using a high-value algorithm. Second, manual deduplication is used to assess 'low-probability' matches. All decisions made for the review can be accessed via the deduplication history.

Prior work

The terms for 'glaucoma' are based on those used for the previous NICE guideline, NG81 Glaucoma: diagnosis and management (2017). However, amendments were made to the search strategy as appropriate for this specific evidence review topic.

Limits and restrictions

English language limits were applied in adherence to standard NICE practice and the review protocol.

Limits to exclude books, chapters, conference abstracts, conference papers, "conference reviews", letters, notes, and tombstones were applied to the Embase (Ovid) search. Limits for conference abstracts and trial registry data were also applied in the Cochrane Central Register of Controlled Trials - CENTRAL (Wiley). These limits were applied in adherence to standard NICE practice and the review protocol. The search was limited from 2008 to the present day as defined in the review protocol.

The limit to remove animal studies in the searches was the standard NICE practice, which has been adapted from: Dickersin, K., Scherer, R., & Lefebvre, C. (1994). Systematic Reviews: Identifying relevant studies for systematic reviews. *BMJ*, 309(6964), 1286.

Search filters

Clinical/public health searches

Systematic reviews (SR)

The MEDLINE SR filter was "Health-evidence.ca Systematic review search filter" from Lee et al. (2012).

The standard NICE modifications were used: pubmed.tw added; systematic review.pt added from MeSH update 2019.

The Embase SR filter was "Health-evidence.ca Systematic review search filter" from Lee et al. (2012).

The standard NICE modifications were used: pubmed.tw added to line medline.tw.

- Lee, E. et al. (2012) An optimal search filter for retrieving systematic reviews and meta-analyses. *BMC Medical Research Methodology,* 12(1), 51.

RCTs

The MEDLINE RCT filter was McMaster Therapy – Medline - "best balance of sensitivity and specificity" version.

The standard NICE modifications were used: randomized.mp changed to randomi?ed.mp.

- Haynes RB et al. (2005) Optimal search strategies for retrieving scientifically strong studies of treatment from Medline: analytical survey. *BMJ*, 330, 1179-1183.

The Embase RCT filter was McMaster Therapy – Embase "best balance of sensitivity and specificity" version.

- Wong SSL et al. (2006) Developing optimal search strategies for detecting clinically sound treatment studies in EMBASE. *Journal of the Medical Library Association*, 94(1), 41-47.

Cost effectiveness searches

The following search filter was applied to the search strategies in MEDLINE and Embase to identify cost-effectiveness studies:

- Glanville J et al. (2009) Development and Testing of Search Filters to Identify Economic Evaluations in MEDLINE and EMBASE. Alberta: Canadian Agency for Drugs and Technologies in Health (CADTH)

Several modifications have been made to these filters over the years that are standard NICE practice.

Review question search strategies

RQ1:

- Effectiveness and cost-effectiveness of selective laser trabeculoplasty (SLT) as a first line treatment compared to intraocular pressure-lowering eyedrops in ocular hypertension (OHT) or chronic open-angle glaucoma (COAG) adult patients.

Table 1: search strategy

Medline Strategy, searched 26th August 2021
Database: Ovid MEDLINE(R) <1946 to August 25, 2021>
Search Strategy:

1   exp Ocular Hypertension/ (57729)

2   Intraocular Pressure/ (39811)

3   (glaucom* or coag).tw. (55708)

4   (((ocular* or intraocular* or intra-ocular* or eye*) adj3 (hypertensi* or tension* or pressur*)) or (oht or iop)).tw. (39644)

5   or/1-4 (89862)

6   Trabeculectomy/ (5905)

7   (trabecul* or slt or surgical* or surger*).tw. (1717046)

8   6 or 7 (1717754)

9   exp Prostaglandins/ (101690)

10   (prostaglandin* or pg or pga or latanoprost* or akistan* or arulatan* or catioprost* or droplatan* or droxal* or eylasol* or gisolom* or glaukodoc* or iopize* or jaskroptic* or lanotan* or latacris* or latadin* or latalux* or latan-ophtal* or latanelb* or lataniston* or latano* or latapres* or latizolil* or latop* or louten* or medizol* or microprost* or monopost* or monoprost* or ocusynt* or oftastad* or optopress* or pharmaprost* or pharmecol* or polat* or polprost* or proxal* or rozaprost* or sifitan* or tonlit* or xalatan* or visobar * or tafluprost* or vlepolin* or xalatan* or xalmono* or xaloptic* or xalost* or xelor* or xelpros* or zakoprost* or saflutan* or taflotan* or travoprost* or travatan* or bimatoprost* or eyreida* or lumigan* or latisse*).tw. (179854)

11   exp Adrenergic beta-Antagonists/ (85400)

12   (beta-blocker* or beta-antagon* or beta-adren* or betaxolol* or betoptic* or betoptima* or kerlon* or oxadol* or levobunolol* or novolevobunolol* or pmslevobunolol* or betagan* or akbeta* or ultracortenol* or vistagan* or timolol* or fixapost* or medox* or xalacom* or combigan* or duotrav* or azarga* or taptiqom* or eyzeeta* or ganfort* or tiopex* or eysano* or cosopt* or eylamdo* or blocadren* or optimol* or timacar*).tw. (72785)

13   exp Carbonic Anhydrase Inhibitors/ (10850)

14   (carbon* anhydras* inhibitor* or brinzolamide* or azopt* or dorzolamide* or eydelto* or trusopt* or vizidor*).tw. (3063)

Medline Strategy, searched 26th August 2021
Database: Ovid MEDLINE(R) <1946 to August 25, 2021>
Search Strategy:

15   exp Sympathomimetics/ or Brimonidine Tartrate/ (261489)

16   (sympathomimetic* or apraclonidine* or Iopidine* or brimonidine* or simbrinza* or brymont* or alphagan* or bromoxidine* or mirvaso*).tw. (6484)

17   exp Miotics/ (32550)

18   (miotic* or pilocarpine* or isopilocarpine* or isoptocarpine* or ocusert* or salagen).tw. (7689)

19   exp Ophthalmic Solutions/ (16532)

20   (eyedrop* or drop* or medicat* or medici* or pharm*).tw. (1540311)

21   or/9-20 (2080041)

22   8 and 21 (117813)

23   5 and 22 (6260)

24   limit 23 to english language (5468)

25   animals/ not humans/ (4844801)

26   24 not 25 (5183)

27   (MEDLINE or pubmed).tw. (198262)

28   systematic review.tw. (153596)

29   systematic review.pt. (163468)

30   meta-analysis.pt. (140255)

31   intervention$.ti. (140028)

32   or/27-31 (446528)

33   randomized controlled trial.pt. (541466)

34   randomi?ed.mp. (863018)

35   placebo.mp. (206660)

36   or/33-35 (916788)

37   32 or 36 (1237523)

38   26 and 37 (997)

39   limit 38 to yr="2008 -Current" (558)

Systematic reviews and RCT filters were used for the search strategy (see Section 3)

The MEDLINE search strategy in Table 1 was translated for use in the remaining databases.

Study Design Filters

Study design filters

The study filters and limiting search strategies used as part of the literature searches are presented below.
RCT 1 randomized controlled trial.pt. 2 randomi?ed.mp. 3 placebo.mp. 4 or/1-3 Source: [McMaster Therapy – Medline](#) - "best balance of sensitivity and specificity" version. Haynes RB et al. (2005) [Optimal search strategies for retrieving scientifically strong studies of treatment from Medline: analytical survey.](#) *BMJ*, 330, 1179-1183.
Systematic Review 1 MEDLINE or pubmed).tw. 2 systematic review.tw. 3 systematic review.pt. 4 meta-analysis.pt. 5 intervention$.ti. 6   or/1-5 Source: Lee, E. et al. (2012) [An optimal search filter for retrieving systematic reviews and meta-analyses](#). *BMC Medical Research Methodology,* 12(1), 51. In MEDLINE, the standard NICE modifications were used: pubmed.tw added; systematic review.pt added from MeSH update 2019.

Health economics search strategies

Economic evaluations and quality of life data

Sources searched to identify economic evaluations

- Econlit (Ovid)
- Embase (Ovid)
- HTA database (CRD)
- INAHTA (INAHTA)
- MEDLINE (Ovid)
- MEDLINE In-Process (Ovid)
- NHS EED (Wiley)

Search filters to retrieve economic evaluations and quality of life papers were appended to the MEDLINE and Embase searches reported above. The searches were conducted between 25th August 2021 and 26th August 2021. The MEDLINE strategy used for the clinical searches (see Table 1) was translated for use in the remaining health economic evaluation databases.

Table 2: Economic evaluation and quality of life filters

Medline Strategy
Economic evaluations
1   Economics/
2   exp "Costs and Cost Analysis"/
3   Economics, Dental/
4   exp Economics, Hospital/
5   exp Economics, Medical/
6   Economics, Nursing/
7   Economics, Pharmaceutical/
8   Budgets/
9   exp Models, Economic/
10   Markov Chains/
11   Monte Carlo Method/
12   Decision Trees/
13   econom$.tw.
14   cba.tw.
15   cea.tw.
16   cua.tw.
17   markov$.tw.
18   (monte adj carlo).tw.
19   (decision adj3 (tree$ or analys$)).tw.
20   (cost or costs or costing$ or costly or costed).tw.
21   (price$ or pricing$).tw.
22   budget$.tw.
23   expenditure$.tw.
24   (value adj3 (money or monetary)).tw.
25   (pharmacoeconomic$ or (pharmaco adj economic$)).tw.
26   or/1-25

Medline Strategy

The economics filter above was adapted from the following: Glanville J et al. (2009) [Development and Testing of Search Filters to Identify Economic Evaluations in MEDLINE and EMBASE](). Alberta: Canadian Agency for Drugs and Technologies in Health (CADTH)

Several modifications have been made to the filter over the years that are standard NICE practice.

Quality of life
1   "Quality of Life"/
2   quality of life.tw.
3   "Value of Life"/
4   Quality-Adjusted Life Years/
5   quality adjusted life.tw.
6   (qaly$ or qald$ or qale$ or qtime$).tw.
7   disability adjusted life.tw.
8   daly$.tw.
9   Health Status Indicators/
10   (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw.
11   (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.
12   (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.
13   (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.
14   (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.
15   (euroqol or euro qol or eq5d or eq 5d).tw.
16   (qol or hql or hqol or hrqol).tw.
17   (hye or hyes).tw.
18   health$ year$ equivalent$.tw.
19   utilit$.tw.
20   (hui or hui1 or hui2 or hui3).tw.
21   disutili$.tw.
22   rosser.tw.
23   quality of wellbeing.tw.
24   quality of well-being.tw.
25   qwb.tw.
26   willingness to pay.tw.
27   standard gamble$.tw.
28   time trade off.tw.
29   time tradeoff.tw.
30   tto.tw.
31   or/1-30