

Cost Effectiveness of Hearing Screening in Older Adults: A Scoping Review Protocol

Review objective

To identify and map the available literature regarding cost effectiveness of various hearing screenings in older adults

Searches

Electronic searches

Published, unpublished and ongoing studies will be identified by searching the following databases;

- PubMed MEDLINE
- Embase
- CENTRAL Register of Controlled Trials
- Scopus
- Web of Science
- Proquest Dissertations
- CADTH (Canada)
- NICE (UK)
- clinicaltrials.gov

Search terms will be developed closely with an experienced librarian.

PubMed MEDLINE

(Adult[mesh] OR adult*[tiab] OR elder*[tiab] OR senior*[tiab] OR “older population”[tiab] OR “older people”[tiab] OR “older adults”[tiab] OR middle-aged[tiab] OR geriatric[tiab])
AND (“hearing disorders”[mesh] OR hearing[mesh] OR hearing[tiab] OR Hypoacusis[tiab] OR Hypacusis[tiab] OR presbycusis[tiab] OR deaf[tiab] OR deafness[tiab])
AND (“mass screening”[mesh] OR test[tiab] OR tests[tiab] OR testing[tiab] OR screen*[tiab] OR “hearing tests”[mesh] OR audiometry[tiab]))
AND (“Costs and Cost Analysis”[Mesh] OR cost[tiab] OR costs[tiab] OR cost-benefit[tiab]))

Other searches

We will scan the reference lists of final articles for inclusion for additional studies. In addition, we will search the aforementioned databases to retrieve existing systematic reviews relevant to this systematic review, so that we can scan their reference lists for additional studies.

Types of study to be included

Single and model based studies

Condition or domain being studied

Hearing screening in older adults

Participants/population

We will include studies if the participants meet the following criteria:

- Older adults (over 50 years)
- Comparisons between hearing screening and no hearing screening

We will exclude studies from the review if they have one or more of the following characteristics:

- No comparisons (standard practice/none or alternative hearing screening)
- No incremental cost effectiveness ratios, incremental cost utility ratios, or benefit cost ratios

Intervention(s)/ Comparator(s)

The main comparison of interest is:

- Hearing screening vs no hearing screening

Secondary comparisons

- Comparisons among various hearing screening instruments and strategies

Context

There will be no language, location, or date restrictions.

Main outcome(s)

- Incremental Cost Effectiveness Ratio (ICER)
- Incremental Cost Utility Ratio (ICUR)
- Benefit Cost Ratio (BCR)

Data extraction (selection and coding)

Selection of studies

At least two authors (AH and SB) will independently screen the titles and abstracts of the papers found by the searches against the criteria for inclusion using Rayyan. We will then retrieve and independently review the full text of the potentially eligible papers to determine if they meet the inclusion criteria for the review. We will resolve any differences by discussion and consensus.

Data extraction and management

For each study we will document the following information:

Methods:

- study design
- perspective
- duration of follow-up/ time horizon
- comparison groups
- uncertainty
- willingness to pay
- costs included
- assumptions
- choice of model

Participants:

- setting/location
- data source
- number of participants entered and analyzed
- sociodemographic factors
 - age
 - gender
 - race
 - socioeconomic status

Type of intervention:

- hearing screening instruments
- hearing screening strategies
- definition of hearing loss
- location of hearing screening
- personnel conducting hearing screenings
- use of additional intervention (hearing aids, assistive listening devices etc)

Outcome measures used in individual studies:

- quality adjusted life years (QALY)
- disability adjusted life years (DALY)
- utility
- benefits
- hearing aid use/ownership
- assessment method
- source of assessment method

Cost outcomes:

- Incremental Cost Effectiveness Ratio (ICER)
- Incremental Cost Utility Ratio (ICUR)
- Benefit Cost Ratio (BCR)

Other:

- whether participants have previous experience of hearing aid use
- funding sources
- declarations of interest

Strategy for Data Charting

Narrative charting of the literature will be conducted.

Contact details for further information

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Organizational affiliation of the review

Northwestern University

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Review team members and their organizational affiliations

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Type and method of review

Scoping review

Anticipated or actual start date

January 2020

Anticipated completion date

June 2020

Funding sources/sponsors

Advanced Rehabilitation Research Training Project, National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR)

Conflicts of interest

Amber Hsu: none known. Sarah Bassett (second reviewer): none known. Linda C. O'Dwyer: none known Megan McHugh: none known. Allen Heinemann: none known. Sumitrajit Dhar: none known.

Language

English

Country

United States of America

Subject index terms

Disability; hearing loss; hearing screening; older adults; cost

Published protocol

Stage of review

Review Ongoing

Date of registration in DigitalHub

April, 2020

Stage of review at time of this submission

Preliminary searches

Started Completed

Yes Yes

Piloting of the study selection process

Yes Yes

Formal screening of search results against eligibility criteria

Yes No

Data extraction

No No

Risk of bias (quality) assessment

No No

Data analysis

No

No