



Cost-effectiveness of anterior surgical decompression surgery for cervical degenerative disc disease: a systematic review of economic evaluations.

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Disclosures

- Nothing to disclose





Introduction & Background

- No consensus exists on which anterior surgical technique is most cost-effective for treating CDDD
- Cervical disc arthroplasty (ACDA) was developed in an effort to reduce the incidence of clinical adjacent segment pathology (CASP) and associated additional surgeries and costs
- ACDA is often discouraged as the implant costs are higher than those for ACDF whilst the patient-reported outcome measures are similar

Aim: To assess cost-effectiveness of anterior surgical decompression techniques used to treat radiculopathy and/or myelopathy caused by CDDD.

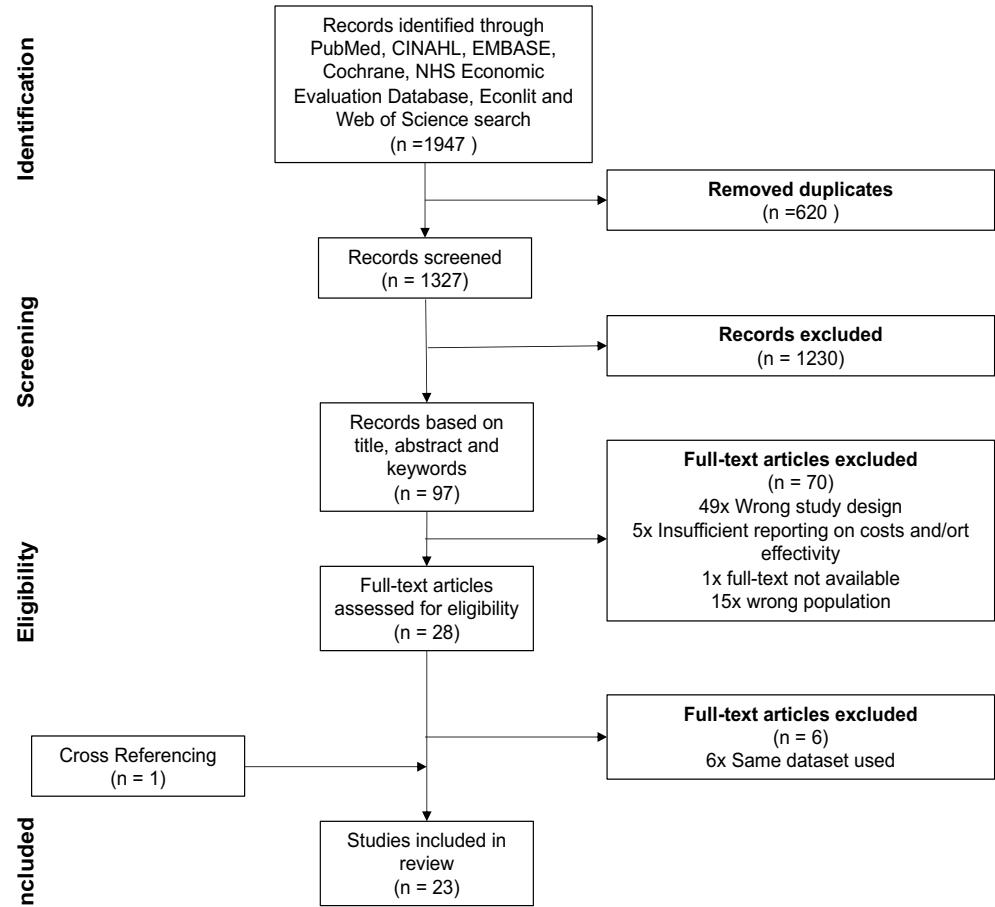
Materials and Methods

Inclusion

- Healthcare costs
- Utility or effectivity

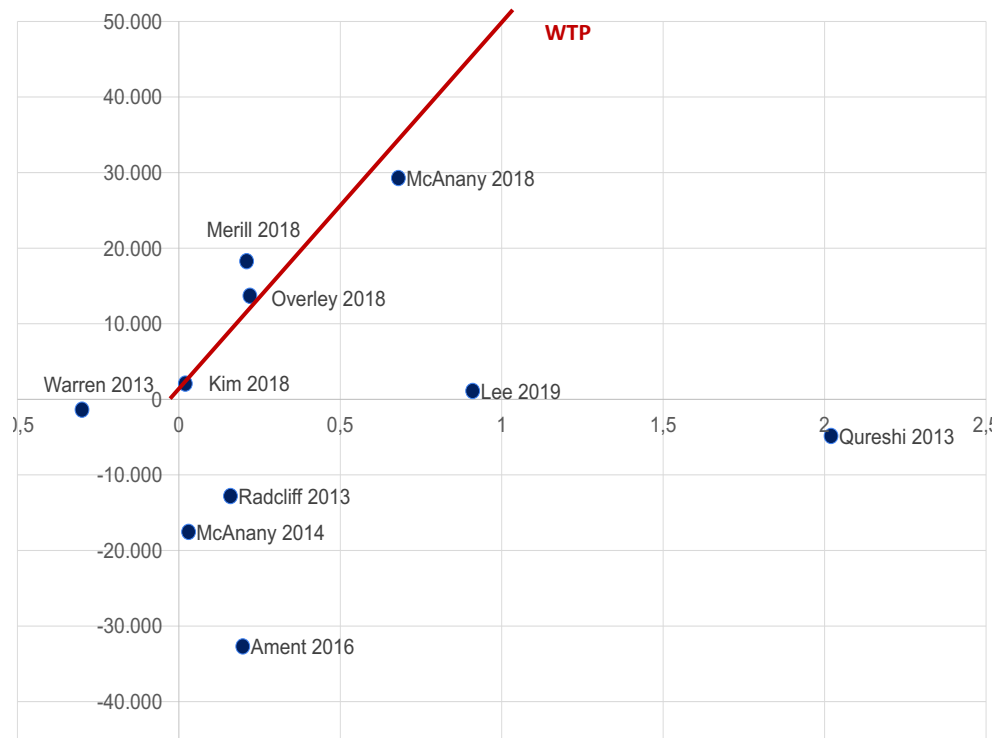
Quality assessment

- Cochrane risk of bias tool
- ROBINS-I
- CHEC criteria.



Results

- In 9/13 studies ACDA was the most cost-effective
- Reported ICERs range from \$2.900/QALY to \$98.475/QALY.
- Three studies passed the WTP threshold for ACDA
- Great heterogeneity in calculated costs and charges
- Moderate methodological quality



Discussion & Conclusion

- The majority of studies report ACDA to be a more cost-effective technique in comparison to ACDF.
- The lack of uniform literature impedes any solid conclusions to be drawn.
- There is a need for high-quality cost-effectiveness research and uniformity in the conduct, design and reporting of economic evaluations concerning the treatment of CDDD.

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