Do QALYs Discriminate Against the Elderly?

Background

Critics of QALYs argue that it discriminates against older individuals. However, little empirical evidence has been produced to inform this debate.

Objective

To compare results from published costeffectiveness analyses (CEAs) for patients aged \geq 65 and < 65 years.

Methods

Data source: Tufts Cost-Effectiveness Analysis Registry

Eligibility: CEAs published between 1976 to 2021 that reported incremental costs, QALYs, incremental cost per QALY ratio (ICER) and age of the target population.

Analyses: CEAs were categorized according to age group at the base-case analysis (≥ 65 versus <65 years). We used logistic regression to assess the association between age group and the cost-effectiveness conclusion adjusted for confounding factors. Sensitivity and subgroup analyses were conducted to explore the impact of uncertainty in the analyses.

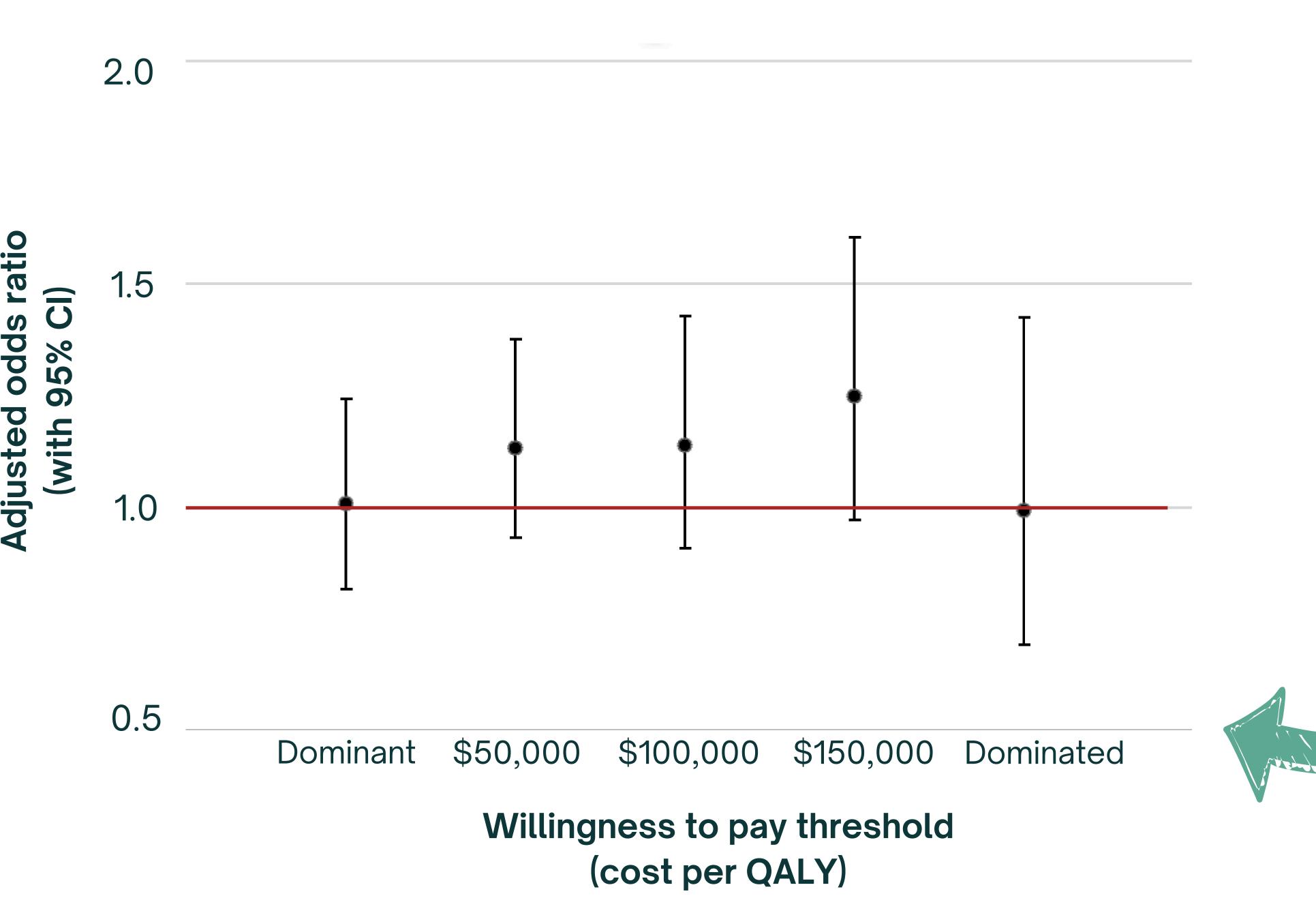
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Results

4,445 CEAs were included in the primary analysis. Included CEAs were categorized according to age <65 years (n=3,784) and \geq 65 years (n=661). More CEAs for patients \geq 65 years used a lifetime horizon and societal perspective. There were more CEAs on circulatory, musculoskeletal, connective tissue, and nervous systems disorders in the age \geq 65 years group.

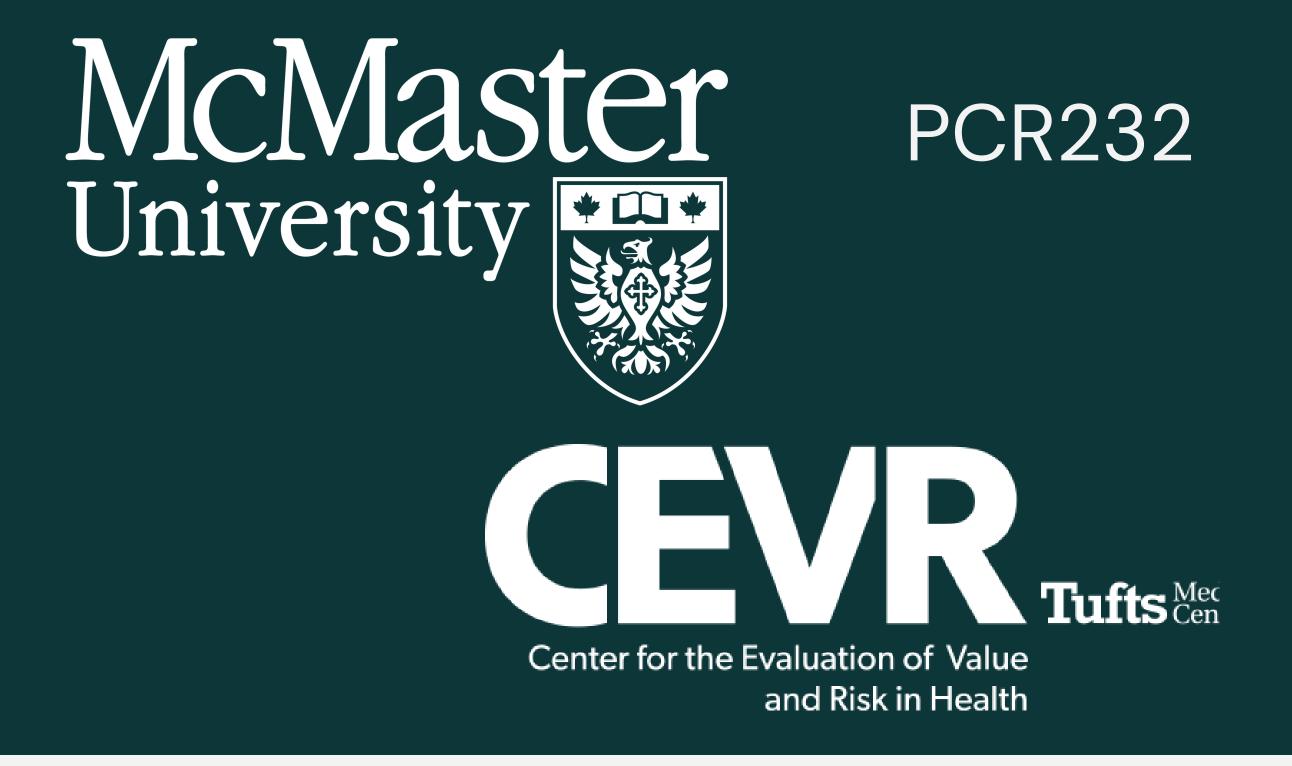
The distributions of ICERs and the likelihood of concluding that the intervention was cost-effective were similar between groups. Sensitivity and subgroup analyses found similar results.



Discussion

We found no systematic differences in published ICERs using QALYs between CEAs for age ≥65 years and <65 years. These findings can inform debates about the use of QALYs for drug price negotiations, reimbursement and coverage policy making.





Adjusted odds ratios for cost-effective conclusion between CEAs for age ≥ 65 and < 65 years

Interpretation

An odds ratio (OR) > 1 indicates that CEAs for aged >65 years were more likely to conclude the intervention was costeffective.

If the 95% confidence interval (CI) crosses 1, there is no significant difference between groups.