CADTH’S $50,000 COST-EFFECTIVENESS THRESHOLD: FACT OR FICTION?

INTRODUCTION
The Canadian Agency for Drugs and Technologies in Health (CADTH) does not formally state a cost-effectiveness threshold for new medicines. A threshold of CAD$50,000 per-quality-adjusted life-year (QALY) is often cited as a benchmark, but there is limited evidence to confirm the accuracy of this figure.

AIM
To inform future submissions, CADTH appraisals were reviewed to determine whether a cost-effectiveness threshold for CADTH can be inferred.

RESULTS
- Between January 2010 and May 2016, CADTH published 279 drug appraisals: 215 under CDR and 64 under pCODR.
  - 29 submissions (10%) were recommended
  - 163 submissions (58%) were recommended with restrictions
  - 87 submissions (31%) were not recommended
- Cost-utility analyses were presented in 63/64 pCODR submissions and 83/215 CDR submissions, with other forms of economic analysis (e.g. cost-minimization, cost-comparison) presented in the remaining submissions
- The range of ICERs for recommended submissions was dominant to CAD$131,100, with half (6/12) being accepted with ICERs <$50,000; the median ICER was $41,938
- The range of ICERs for restricted submissions was dominant to $2.7 million, although the restriction imposed on many of these submissions was a reduced price/improved cost-effectiveness. The median ICER was $72,623
- The range of ICERs for rejected submissions was dominant to $1.5 million, with 54% (25/46) of submissions in this category rejected despite an ICER <$50,000. The median ICER was $41,275
- ICERs were often revised upwards by the review committee, especially in cases of high uncertainty
- In several appraisals, CADTH included wording such as “a [X%] price reduction would be required for the ICER to fall to <$50,000” or “the ICER was <$50,000 per-QALY in most scenarios”, suggesting that a $50,000 threshold may have been considered

CONCLUSIONS
There is some evidence to suggest that CADTH’s cost-effectiveness threshold is ~$50,000 per-QALY, but this is neither consistently applied nor explicitly stated. In reality, several submissions were recommended with ICERs above $50,000 per QALY, while many were rejected with ICERs below this implicit threshold. Further, CADTH will often make decisions based on alternative forms of economic analysis.

Although cost-effectiveness analysis has limitations, formally stating a cost-effectiveness threshold would improve transparency and may improve equitable access to new medicines.

References:

Abbreviations: CAD: Canadian dollar; CADTH: Canadian Agency for Drugs and Technologies in Health; CDR: Common Drug Review; ICER: Incremental cost-effectiveness ratio; pCODR: pan-Canadian Oncology Drug Review; QALY: Quality-adjusted life-year