



Public vs. private payer perspective: Implications on cost-effectiveness

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Background

Incremental cost-effectiveness ratios (ICERs) are often used to determine whether a drug is cost-effective and therefore used to inform reimbursement decision-making.

The majority of cost-effectiveness analyses are conducted from the public payer perspective.

Public payers and private payers have different objectives because the populations they cover are different and therefore place value on different benefits from drugs.

It was hypothesized that an ICER calculated from different perspectives would result in different estimates.



Objective

The aim of this analysis was to evaluate the impact the perspective taken (i.e., private vs. public) has on ICER.



Methods

A retrospective review of 47 drug submissions was conducted.

All publicly funded costs were removed from the economic models.

Reanalysis of the submitted economic models included probabilistic sensitivity analyses to recalculate ICERs based on private payer perspective.

Recalculated ICERs were compared using: 1) average difference in incremental cost per quality-adjusted life year (QALY); 2) absolute percent change in ICER; 3) difference in ICER for oncology vs. non-oncology medications.



Results

A total of 34 products were included in the analysis, representing 47 indications (31 in oncology with the number of indications ranging from 1-5 per product).

22 ICERs decreased using the private payer perspective.

Average ICER for those that decreased was \$22,861/QALY.

Average ICER change for those that increased was \$40,789/QALY.

Versus the public payer perspective, the average difference in ICER when adopting a private payer perspective was an increase of \$8,188/QALY (SD \$53,782; 95% CI[-\$97,225,+ \$113,600]).

The mean percent change was 2% (SD 14%; 95% CI[-29% to +25%]) for oncology medications.

With a private payer perspective, the average change for oncology medications was a decrease of \$5,409/QALY.

For non-oncology medications, the average change was an increase of \$50,338/QALY.

Table 1. Average ICER estimates

| Disease area | Public ICER | Private ICER | Difference | % Change |
|-------------------|-------------|--------------|------------|----------|
| Oncology (31) | \$257,705 | \$252,296 | -\$5,409 | -2% |
| Non-oncology (10) | \$685,286 | \$735,623 | \$50,338 | 7% |
| Total (41) | \$361,993 | \$370,180 | \$8,188 | 2% |



Conclusions

Using a private payer perspective increased the ICER, on average, by \$8,188/QALY for an increase of 2%.

The high 14% standard deviation suggests that the difference can be large in either direction. The high uncertainty highlights the importance of conducting the analysis from a private payer perspective.

Given the different needs of public vs. private payers, it is important that manufacturers tailor their economic evaluations to the appropriate perspective as this will lead to more objective coverage decisions.