

November 12, 2008

Corrected Error in Cost-Effectiveness Results for Outpatient “Lifetime” Model

ICER recently found a calculation error in the outpatient model that resulted in overcounted test costs and thus an overstatement of lifetime costs for all strategies. Diagnostic phase findings were not affected. We have corrected this error and regenerated our lifetime cost estimates. The key differences and conclusions in our findings are summarized below, and key findings are also shown in new figures on the next page:

- Unchanged from the original version is the finding that the difference in lifetime “effectiveness,” as measured by accumulated QALYs, is very small across all diagnostic strategies.
- The difference in lifetime cost estimates among different strategies is now only \$1,700 instead of \$12,000 between most and least expensive strategies.
- In the lifetime model for a patient population with 30% prevalence of CAD:
 - the narrowing of cost differences reduced the incremental cost-effectiveness ratio between CCTA and stress-ECHO to \$12,300 per QALY as opposed to \$178,000 per QALY in the original report.
 - CCTA alone remains more effective and less costly than SPECT alone.
- In the lifetime model for a patient population with 10% prevalence of CAD:
 - The incremental cost-effectiveness ratio for CCTA vs. stress-ECHO is \$17,000
 - SPECT alone is the most effective strategy but is more expensive than CCTA, generating an incremental cost-effectiveness ratio of \$82,000
- ICER has not had the benefit of its own Evidence Review Group deliberation on this appraisal, but at this time it is the judgment of the ICER staff that these revised findings in the lifetime model results do not change our impression and summary estimates of comparative clinical effectiveness (U/P = “Unproven with Potential) or comparative value (b = “reasonable/comparable) for CCTA in the outpatient setting. This judgment is based largely on the greater weight we have given to the diagnostic phase model results, which reflect what we believe in this case to be more robust findings for current medical policy decision-making and which were not affected by the calculation error.

Lifetime Model: 30% CAD Prevalence

Strategies Ordered
 by Increasing
 Effectiveness

| Strategy | Effectiveness | Costs |
|------------|---------------|-------|
| CCTA-ECHO | 15.146 | 7,605 |
| SECHO-CCTA | 15.151 | 7,343 |
| CCTA-SPECT | 15.154 | 7,911 |
| SPECT-CTA | 15.157 | 8,077 |
| SECHO | 15.167 | 7,998 |
| SPECT | 15.172 | 9,051 |
| CCTA | 15.183 | 8,207 |

Lifetime Model: 10% CAD Prevalence

Strategies Ordered
 by Increasing
 Effectiveness

| Strategy | Effectiveness | Costs |
|------------|---------------|-------|
| SECHO | 16.012 | 4,543 |
| CCTA-ECHO | 16.014 | 3,962 |
| SECHO-CCTA | 16.015 | 3,831 |
| CCTA-SPECT | 16.017 | 4,175 |
| CCTA | 16.018 | 4,645 |
| SPECT-CCTA | 16.024 | 4,450 |
| SPECT | 16.030 | 5,633 |