Cost-Effectiveness of Transoral Robotic Surgery in the Unknown Primary: Corrigendum and Response to Comments

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The commentator has identified errors in Table 6 (see Corrected Table 6). An error in the “Hospital Cost” formula produced the discrepancy in the value for the “Sequential EUA/TORS” strategy, the cost of EUA/tonsillectomy for all patients plus TORS cost for the 70% whose primary was not found. The corrections do not change the order of the strategies’ costs or effectiveness but do markedly affect the ICERs. The decreased total cost of the sequential strategy thereby significantly increases the incremental cost and ICER of the simultaneous strategy to $15,208 per primary found, removing the possibility of extended dominance. The reader may note that a change in cost can lead to a large change in ICER because it is a ratio.

In reference to Dr Shrime’s other comments, we considered applying extended dominance but did not feel that it was appropriate given the uncertainty in a small, retrospective study with only 3 strategies. Specifically, the ICER in the simultaneous EUA/TORS group was lowered despite increased costs by a tumor identification rate of 100%, which is very unlikely to be significantly different from the sequential strategy in larger studies. We therefore performed a 1-way sensitivity analysis on the identification rate to determine the threshold at which the ICER for simultaneous EUA/TORS would effect extended dominance. Furthermore, we did not recommend performing simultaneous EUA/TORS as the preferred strategy because of the potential for patient harm, for which we did not account in our analysis. Our decision not to exclude the sequential strategy was pragmatic, rather than strictly economic. However, extended dominance no longer applies with the corrected data. Finally, we disagree that an ICER for EUA/tonsillectomy should be calculated; it is generally accepted as the standard workup in patients with cervical unknown primary and is therefore set as the zero point for the analysis.

Our goal was to present a technique for identifying the unknown primary that our group and others have found to be useful with an economic evaluation, to the extent that our data allowed. Our conclusion that TORS is an effective means to locate the occult primary remains unchanged, and with our corrections, we now note that simultaneous EUA with tonsillectomy and robotic base-of-tongue resection is associated with a higher ICER than we initially reported, while the sequential approach may spare a number of patients the cost and burden of a tongue base procedure.

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Original Table 6.

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<th>Hospital Costs, $</th>
<th>Physician Costs, $</th>
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<th>Incremental Cost, $</th>
<th>Incremental Effectiveness, %</th>
<th>ICER</th>
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Corrected Table 6.

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References


