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Laurence M. Djatche, PharmD; Joseph Goble, PharmD; Grace Chun, PharmD; Stefan Varga, PharmD

1Thomas Jefferson University, Philadelphia, PA; 2University of Texas, Austin, TX; 3Baylor Scott & White Health, Temple, TX; 4Rutgers University, New Brunswick, NJ

Background
- Approximately 11.5% of the US total drug costs are derived from oncology treatments, amounting nearly $38 billion in 2015. Experts suggest annual costs for oncology care will continue to rise between 7.5 to 10.5% each year through 2020, accounting for over $140 billion in the U.S. alone.1
- With the continuous rise in costs for oncology drugs, the Institute for Clinical and Economic Review (ICER), the American Society of Clinical Oncology (ASCO) and the National Comprehensive Cancer Network (NCCN) have developed value-based frameworks (VBFs) to assist stakeholders in formulary and treatment decision-making.2,3

Methods
- A literature review was performed and three VBFs were utilized to assess the Net health benefit (NHB): clinical benefit, toxicity and bonus.

Objective
- To compare ASCO, ICER and NCCN VBFs across three therapeutic options for relapsed or refractory multiple myeloma (RRMM)

Results

Table 1. Cost effectiveness analysis results (costs per QALYs)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Second line</th>
<th>Discount from list price</th>
<th>Third line</th>
<th>Discount from list price</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFZ + LEN + DEX</td>
<td>$219,982</td>
<td>32% 64%</td>
<td>$238,560</td>
<td>48% 77%</td>
</tr>
<tr>
<td>ELO + LEN + DEX</td>
<td>$427,607</td>
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Figure 2a. Net health benefit of each RRMN regimens

Figure 2b. Cost associated with each RRMN regimen

ICER Report
Comparative clinical effectiveness: all regimens received an equal rating of B+

Overall results
- ICER, ASCO and NCCN VBFs suggest CFZ, in combination with LEN + DEX may be the most valued treatment out of the three regimens
- While a number of therapies available to treat RRMM, this study was able to capture and analyze only three FDA approved treatment options
- There were some discrepancies between stakeholders about the results of the ASCO VBFs

Discussion
- Previous research demonstrated that while these VBF capture important value to diverse audience, they lack consistency and are presented with analytic challenges related to their use. Furthermore, the use of ASCO VBF in clinical decision making requires further specificity.3
- While there is a number of therapies available to treat RRMM, this study was able to capture and analyze only three FDA approved treatment options
- There were some discrepancies between stakeholders about the results of the ASCO VBFs

Conclusion
- Challenges and limitations associated with these VBFs should be further evaluated before implementation in practice
- Even though all VBFs suggested CFZ as the best option, the usability of VBF in formulary decision-making process remains unclear

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Methods
- A literature review was performed and three VBFs were utilized to assess the value of oncology drugs in the US: the American Society of Clinical Oncology (ASCO) VBF, the National Comprehensive Cancer Network (NCCN) Evidence Blocks and the Institute for Clinical and Economic Review (ICER).
- The four authors used each VBF to determine the RRMN treatment of greatest value by performing a test case analysis for each VBF

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