Background: Mantle cell lymphoma (MCL) is a rare and aggressive B-cell malignancy, accounting for 10% of all non-Hodgkin lymphoma subtypes. Three Bruton tyrosine kinase inhibitors (BTKis) have been approved for the treatment of relapsed/refractory (R/R) MCL in the United States: ibrutinib, acalabrutinib, and zanubrutinib.

Objective: To examine US real-world BTKi treatment patterns, duration, and adherence in patients with MCL.

Methods: This retrospective observational study used electronic medical record (EMR) data from the IntegraConnect database of structured and unstructured fields across 18 US community-based oncology practices with >2000 physician caregivers.

Inclusion/Exclusion Criteria:
- Age ≥18 years at index date with ≥1 diagnosis of MCL.
- Payer type, n (%): Acalabrutinib (n=161), Ibrutinib (n=197), Zanubrutinib (n=44).
- Race, n (%): White (n=238), Black or African American (n=36), Asian (n=16), Hispanic or Latino (n=22), Other (n=18).
- Sex, n (%): Female (n=10), Male (n=186).
- Study population:

Table 1. Baseline Demographics and Characteristics

| Characteristic | Acalabrutinib | Ibrutinib | Zanubrutinib | n (%)
|----------------|--------------|-----------|--------------|------
| Age at index, years | 56-89 | 69-84 | 72-84 | 145 (36-89) |
| Median | 69 | 64 | 72 |

Table 2. Baseline Comorbidities

| Comorbidity | Acalabrutinib | Ibrutinib | Zanubrutinib | n (%)
|--------------|--------------|-----------|--------------|------
| Chronic pulmonary disease | 14 (5) | 7 (5) | 1 (0.5) | 24 (10.5)
| Diabetes | 15 (7) | 27 (16) | 28 (13.7) | 64 (14.3)
| Hypertension | 14 (5) | 17 (7) | 6 (3) | 37 (8.6)
| Renal disease | 10 (5) | 24 (14) | 22 (10.5) | 46 (10.7)

Table 3. BTKi Utilization and Switching Pattern

- Half of patients treated with zanubrutinib used other BTKIs in prior therapy, with 31.8% switching from other BTKIs to zanubrutinib within 60 days of treatment start.
- No patients treated in the acalabrutinib or ibrutinib groups.

Table 4. BTK Treatment Duration and Adherence

<table>
<thead>
<tr>
<th>Duration</th>
<th>1-6 months</th>
<th>6-12 months</th>
<th>12-24 months</th>
<th>&gt;24 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ibrutinib</td>
<td>149 (33.5)</td>
<td>238 (50.0)</td>
<td>25 (5.2)</td>
<td>10 (2.1)</td>
</tr>
<tr>
<td>Acalabrutinib</td>
<td>294 (49.5)</td>
<td>200 (32.9)</td>
<td>54 (8.8)</td>
<td>38 (6.4)</td>
</tr>
<tr>
<td>Zanubrutinib</td>
<td>197 (87.1)</td>
<td>27 (11.9)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
</tbody>
</table>

Table 5. BTKi Discontinuation

| Type of Discontinuation | Acalabrutinib | Ibrutinib | Zanubrutinib | n (%)
|-------------------------|--------------|-----------|--------------|------
| Treatment failure due to disease progression or worsened comorbidities | 0 (0.0) | 27 (23.7) | 3 (7.0) | 30 (6.7) |

Figure 3. Treatment Duration Between BTKi Groups

- The discontinuation rate was lower in the zanubrutinib versus acalabrutinib or ibrutinib groups.

Conclusions:
- Real-world EMR data from US community-based oncology practices suggested significantly longer treatment duration, better adherence, and a lower discontinuation rate in patients with MCL treated with zanubrutinib compared with acalabrutinib or ibrutinib.
- Further analyses on long-term utilization and outcomes are needed upon data maturation.

Limitations:
- This study is subject to the inherent limitations of a retrospective, observational, real-world study using EMR data with potentially inconsistent data documentation.

References:


Disclosures:

- BDS: Catalent, Eisai, Genentech, Kite, Lilly, Novartis, Precision Health Economics.
- BT: Kite, Lilly, Novartis, Precision Health Economics.
- KY: Precision Health Economics.

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