

Real-world burden of disease (BoD), treatment patterns, and outcomes in patients with mantle cell lymphoma (MCL)

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ABSTRACT

BACKGROUND: This study aimed to examine the real-world BoD, treatment utilization, and outcomes in MCL patients by year and line of therapy (LOT) in the US.

METHODS: A retrospective, observational study was conducted using Symphony IDV® to identify adult patients with MCL who initiated treatment from 01/2019 to 09/2024. Treatment regimens were categorized into seven mutually exclusive groups: bendamustine-based chemotherapy (B-based), rituximab, cyclophosphamide, doxorubicin hydrochloride, vincristine sulfate, and prednisone (R-CHOP), rituximab monotherapy (R-mono), Bruton tyrosine kinase inhibitors (BTKi) including zanubrutinib, acalabrutinib, ibrutinib, and pirtobrutinib, bortezomib-based, venetoclax-based, and any other regimens. Patients were indexed on the day of treatment initiation and followed until end of study period or loss to follow-up. Treatment utilization patterns were examined by regimen, LOT and year. Time to next treatment (TTNT) was calculated from start of the index LOT to the start of the next LOT. Healthcare resource utilization (HCRU) was measured during time on treatment and reported as outpatient visits, inpatient services, and other services per patient per month (PPPM).

RESULTS: 7,503 MCL patients initiated 1L, and 4,506 and 1,383 patients initiated 2L and 3L+ regimens, respectively. In 1L, B-based was the most used regimen (45.4%), followed by R-mono (20.6%) and BTKi (13.7%). In 2L and 3L+ settings, BTKi was the most used regimen (2L:52.0%; 3L+:45.8%), followed by B-based (2L:13.7%; 3L+:8.2%) and R-mono (2L:10.3%; 3L+:12.4%). From 2019 to 2024, utilization of B-based and R-CHOP decreased while BTKi use increased across all LOTs. Mean TTNT in those with next treatment was 16.3 months in 1L, 17.7 in 2L, and 17.6 in 3L+. Mean outpatient visits/inpatient service utilization were 4.02/0.91, 3.02/1.01, and 3.41/1.44 PPPM in 1L, 2L, and 3L+ respectively. Across all LOTs, outpatient utilization PPPM was the highest for R-CHOP (1L:5.72; 2L:6.43; 3L+:6.08) and B-based (1L:4.23; 2L:4.41; 3L+:4.85) while lowest for BTKis (1L:1.02; 2L:0.86; 3L+:0.76).

CONCLUSIONS: In this real-world study, trends of increasing utilization of BTKis and reduction in the use of B-based regimens in the treatment-naïve and R/R settings were observed. Many patients received treatment that resulted in short TTNT and substantial HCRU, highlighting the need for novel agents to lower BoD in MCL.