Treatment Patterns and Clinical Outcomes Among Patients With Treatment-Naïve and Relapsed/Refractory (R/R) Mantle Cell Lymphoma (MCL) in Community Practice Between 2020 and 2025

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Background: First-line (1L) MCL treatment involves chemoimmunotherapy (CIT), with covalent BTKis recommended in second-line (2L). However, contemporary real-world treatment patterns may be evolving in recent years after landmark trials including TRIANGLE, ECHO, and ENRICH.

Methods: This retrospective study utilized the US Integra PrecisionQ database to identify adults with MCL receiving 1L-3L treatment (January 2020-August 2025). Treatment patterns were summarized descriptively. Kaplan-Meier methods estimated real-world time to next treatment or death (rwTTNT) and overall survival (rwOS) from line initiation.

Results: A total of 2162, 860, and 363 patients within the US were included in the 1L, 2L, and 3L cohorts, respectively. Median age was 72 years in 1L and 2L and 74 years in 3L; most were male and White. ECOG PS 0-1 was observed in 59% (1L), 60% (2L), and 56% (3L).

In 1L, chemo/CIT was most common (51.4%), followed by BTKi monotherapy (13.4%) and other BTKi-containing regimens (BTKi+chemo/CIT: 7.4%; BTKi+rituximab: 7.3%). In 2L, common regimens included BTKi monotherapy (28.7%), chemo/CIT (22.7%), and BTKi+rituximab (15.8%). In 3L, BTKi monotherapy (22.0%) and chemo/CIT (20.9%) remained common, followed by lenalidomide-based regimens (12.1%). High-intensity chemo/CIT was uncommon (1L: 3.5%; 2L: 3.7%; 3L: 1.4%). Venetoclax-based regimens were uncommon in 1L (4.0%) and increased in 2L (11.7%) and 3L (13.5%). Transplant and CAR-T were uncommon across these community practice cohorts (<4%).

Median rwTTNT was 35.0 months (95% CI: 31.7-39.3) in 1L, 19.6 months (15.3-23.4) in 2L, and 11.4 months (9.4-14.3) in 3L. Median rwOS was not reached (NR) in 1L, 58.7 months (45.1-NR) in 2L, and 36.2 months (21.4-47.8) in 3L. Among 2L patients with prior cBTKi (n=217), median rwTTNT was 26.2 months (14.3-36.6); median rwOS was NR (48.9-NR). Among 3L patients with prior cBTKi (n=145), median rwTTNT was 11.3 months (7.3-14.3); median rwOS was 29.7 months (17.3-NR).

Conclusion: Treatment patterns for MCL are rapidly evolving, with increasing 1L BTKi use in community practice. Transplant and CAR-T use remained low in this population, while use of BCL2i and lenalidomide-containing regimens was higher in the R/R setting. Survival outcomes were better than historical data for post cBTKi R/R MCL, likely reflecting advances in the field.