

**Population-Wide Patterns of Care in Mantle Cell Lymphoma in Australia: An Analysis of the Pharmaceutical Benefits Scheme Dataset**

Constantine Tam<sup>1\*</sup>, Fei-Li Zhao<sup>2</sup>, Tom Liu<sup>3</sup>, Raj Gauba<sup>2</sup>, Shu Chuen Li<sup>4</sup>, Boxiong Tang<sup>3</sup>

1. Peter MacCallum Cancer Centre, St. Vincent's Hospital, and University of Melbourne, VIC, Australia
2. BeiGene AUS PTY Ltd.
3. BeiGene USA, Inc. 4. University of Newcastle, NSW Australia

**Background.** The treatment landscape in patients with mantle cell lymphoma (MCL) is changing with the introduction of Bruton's tyrosine kinase inhibitors (BTKis) and bendamustine in Australia. We sought to analyze the practice impact of the introduction of publicly funded novel agents in MCL. The objective of this study was to describe the evolving treatment patterns of Australian patients with MCL over the last 10 years using population-wide prescription records.

**Methods.** Patients who initiated a treatment for MCL between 01/01/2011 and 07/31/2021 were extracted from the Services Australia 10% Pharmaceuticals Benefits Scheme (PBS) dataset, which includes the dispensing records for 10% of the Australian population. This dataset captures all publicly funded treatments in Australia. The index date was defined as the commencement of any drug for MCL. First-line (1L) therapy was defined as the first treatments prescribed for MCL. A patient was defined as relapsed/refractory (R/R) if they had commenced a drug which was in a different therapeutic category, or if they re-started the same regimen after a gap of more than 180 days. Descriptive analyses were conducted to examine the use of treatment regimens for the overall 10-year population by line of therapy. Analyses by calendar year were also performed to assess the changes in the treatment patterns.

**Results.** Overall, 241 patients with MCL were identified over the study period. The majority of patients were male (68.4%), age > 60 years (84.9%), and most being aged 70-79 years (42.1% of total). Many patients were receiving comedications at baseline, including antihypertensives (44.1%), anticoagulants (14.5%), and/or antipsychotics or antidepressants (12.5%). In the overall population (2011-2021), the majority of patients had received 1L treatment with bendamustine-rituximab (BR, 53.9%), rituximab plus other regimens (27.6%), or rituximab monotherapy (11.2%). The most commonly used regimens in R/R patients at any subsequent episode of treatment included BTKi (66.3%), rituximab monotherapy (52.8%) or rituximab plus other regimens (31.5%). A trend in adoption of novel agents was observed throughout the years following their PBS listing. Analysis by calendar year showed that from 2011 to 2020 for 1L therapy, the use of BR increased from 0% to 50% and use of rituximab-containing regimen except BR decreased from 100% to 16.7%; use of BTKi increased in R/R patients from 0% to 74.7%.

**Conclusions.** MCL treatment patterns have significantly changed in Australia since the introduction of BTKis and bendamustine-containing regimens. The use of rituximab-containing regimens except BR in 1L MCL has decreased and use of BTKis in R/R patients has increased.