Population-wide patterns of care in chronic lymphocytic leukemia (CLL) in Australia: An analysis of the Pharmaceutical Benefits Scheme (PBS) dataset

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ABSTRACT

Aim: The CLL treatment landscape in Australia is changing with the approvals of Bruton's tyrosine kinase inhibitors (BTKis). To better understand the practice impact of introducing publicly funded novel agents for CLL, this study aimed to describe CLL treatment patterns in Australian patients from 2011-2021 using population-wide prescription records.

Method: Patients who initiated CLL treatment from 01Jan2011-31Jul2021 were extracted from the Services Australia 10% PBS dataset, which includes dispensing records for 10% of the Australian population and captures all publicly funded treatments in Australia. The index date was the commencement of any drug for treatment of CLL. First-line (1L) therapy was considered the first treatment prescribed for CLL. A patient was defined as relapsed/refractory (R/R) if they commenced a drug in a different therapeutic category, or restarted a regimen after a >180-day gap. Descriptive analyses were conducted to examine treatment regimen use for the overall 10-year population by therapy line. Analyses by calendar year were performed to assess changes in treatment patterns.

Results: 803 patients with CLL were identified. The majority were male (65%) and >60 years old (77%; 33% were 70-79 years). Baseline comedications included antihypertensives (47%), antipsychotics/antidepressants (17%), and/or anticoagulants (13%). In the overall population (2011-2021), most patients received

fludarabine-cyclophosphamide-rituximab (FCR; 49%), chlorambucil ± CD20 (27%), or CD20 monotherapy (17%) as 1L treatment. The most commonly used R/R regimens included CD20 monotherapy (56%), BTKi (41%), or FCR (33%). A trend in adoption of novel agents was observed in subsequent years following PBS listing. From 2011-2020, 1L FCR use decreased from 78% to 10% and BTKi use for R/R CLL increased from 0% to 62%.

Conclusion: Australian CLL treatment patterns have changed significantly since introduction of BTKis (e.g., ibrutinib, acalabrutinib). Use of FCR as 1L CLL treatment has decreased and BTKi use in R/R patients has increased.