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POSTER ABSTRACTS

902.HEALTH SERVICES AND QUALITY IMPROVEMENT - LYMPHOID MALIGNANCIES

Real-World Treatment Patterns, Overall Survival, Healthcare Resource Utilization, and Costs Among U.S. Elderly Patients with Mantle Cell Lymphoma (MCL) after Failure of Covalent Btki Treatment

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Background: Over the past decade, Bruton's tyrosine kinase inhibitors (BTKis) have emerged as standard of care treatment for relapsed/refractory mantle cell lymphoma (R/R MCL). Despite improvements in progression-free survival with currently available covalent BTKis (cBTKis), response duration can be limited as patients eventually experience disease progression or treatment intolerance. Limited real-world evidence on post-cBTKi clinical and economic outcomes exists for these patients. The goal of this study was to examine treatment patterns, overall survival (OS), healthcare resource use (HRU), and costs in elderly U.S. patients with R/R MCL in the third-line (3L) setting who received first-generation or second-generation cBTKi treatment in prior lines of therapy (i.e. 1L or 2L).

Methods: This retrospective study used 2010-2019 U.S. Medicare claims (100%), the most recently available data at the time of the analysis, to identify elderly (≥66 years) patients with a new MCL diagnosis between 01/01/2010 and 12/31/2018 (index date = first MCL diagnosis date). Patients were required to have continuous fee-for-service Medicare coverage in the 12-months pre- and a minimum of 12-months post-index. An algorithm to identify lines of therapy (LOT) was developed using prior published studies. Patients were included in our final sample if they had evidence of use of a cBTKi (i.e. ibrutinib or acalabrutinib, the two available BTKIs during our study period) in the 1L and/or 2L setting and had progressed to 3L treatment. Outcomes included patient clinical and sociodemographic characteristics, treatment patterns, all-cause and MCL-related HRU and costs, and median OS after 3L treatment initiation.

Results: The final sample contained 230 elderly patients with R/R MCL receiving 3L treatment who had cBTKi use in a prior LOT. The vast majority (>95%) of these patients had received their cBTKi in the 2L setting; the most common cBTKi in the 1L (100%) and 2L (>93%) setting was ibrutinib. Patients had a mean age of 75.0 years (SD=5.9) and 21.7% were age >80 years. Over two-thirds (67.4%) were male and majority (93.9%) were white. About one-quarter (25.7%) of the patients received a cBTKi (17.8% ibrutinib and 7.8% acalabrutinib) in the 3L setting. Other common 3L treatments included standard chemotherapy (26.1%), lenalidomide (18.7%), and bortezomib (18.3%). Over a median follow-up of 1.6 years, 38.7% of the patients progressed to fourth-line (4L) treatment and the mean time to next treatment (i.e. end of 3L to start of 4L) was 2.8 months. Median OS from 3L treatment initiation was 9.4 months and the 1-year and 3-year survival rates were 43.7% and 17.9%, respectively. All-cause hospitalization was common (73.6%) and 44.7% used hospice services in the 12 months after 3L treatment initiation. All-cause total costs were substantial ($145,726) in the 12 months following 3L treatment initiation and 87% of these costs were MCL-related ($126,526). Inpatient and outpatient costs in the 12 months following 3L treatment initiation were $32,520 and $19,370, respectively (these costs were higher in the subgroup of patients who progressed to 4L therapy). MCL-related prescription costs ($70,127) represented over half (55%) of MCL-related total spending; most of those costs were for Part D oral agents ($43,009) rather than Part B IV-administered agents ($27,119).

Conclusions: In this real-world study of elderly U.S. patients with R/R MCL, we found that 3L patients treated with currently available cBTKis in prior lines had poor OS. Limited options for 3L treatment existed, with over half of patients using another cBTKi or standard chemotherapy. Further, rates of HRU were high and healthcare costs were substantial in the 3L setting. Our study suggests there is a large unmet need in elderly patients with R/R MCL who previously failed a cBTKi, highlighting the importance of ongoing development with novel therapeutics aiming to improve outcomes in R/R MCL.

Disclosures Squires: *Merck & Co., Inc.:* Current Employment. **Puckett:** *COVIA Health Solutions:* Current Employment, Other: COVIA Health Solutions is a consulting firm with clients in the biotech/pharmaceutical industry. **Ryland:** *Merck & Co., Inc., Rahway, NJ, USA:* Current Employment, Current equity holder in publicly-traded company. **Kamal-Bahl:** *COVIA Health Solutions:* Current Employment, Other: COVIA Health Solutions is a consulting firm with clients in the biotech/pharmaceutical industry. **Raut:** *Merck & Co., Inc.:* Current Employment. **Doshi:** *AbbVie:* Consultancy, Research Funding; *Acadia:* Consultancy; *Allergan:* Consultancy; *Boehringer Ingelheim:* Consultancy; *Catabasis:* Consultancy; *Ironwood Pharmaceuticals:* Consultancy; *Janssen:* Consultancy, Research Funding; *Kite Pharma:* Consultancy; *MeiraGTx:* Consultancy; *Merck:* Consultancy, Research Funding; *Otsuka:* Consultancy; *Regeneron:* Consultancy, Research Funding; *Sarepta:* Consultancy; *Sage Therapeutics:* Consultancy; *Sanofi:* Consultancy, Research Funding; *Takeda:* Consultancy; *The Medicines Company:* Consultancy; *Vertex:* Consultancy; *Biogen:* Research Funding; *Humana:* Research Funding; *Novartis:* Research Funding; *Pfizer:* Research Funding; *PhRMA:* Research Funding; *Valeant:* Research Funding. **Huntington:** *TG Therapeutics:* Consultancy; *Tyme Inc:* Consultancy; *Servier Pharmaceuticals LLC:* Consultancy; *Seagen Inc.:* Consultancy; *Pharmacyclics LLC, An AbbVie Company:* Consultancy; *Novartis:* Consultancy; *Merck:* Consultancy; *Lilly USA, LLC:* Consultancy; *Janssen Pharmaceuticals:* Consultancy; *Genentech:* Consultancy; *Epizyme, Inc.:* Consultancy; *BeiGene USA, Inc.:* Consultancy; *Bayer Healthcare:* Consultancy; *AstraZeneca:* Consultancy; *Arvinas:* Consultancy; *ADC Therapeutics:* Consultancy; *AbbVie:* Consultancy.

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