



The 65th ASH Annual Meeting Abstracts

POSTER ABSTRACTS

902.HEALTH SERVICES AND QUALITY IMPROVEMENT - LYMPHOID MALIGNANCIES

Real-World Comparison of Healthcare Costs of Venetoclax-Obinutuzumab Vs. Btki Use Among Elderly U.S. Medicare Beneficiaries with Chronic Lymphocytic Leukemia in the Front-Line (1L) Setting

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Background: Since the March 2016 FDA approval of ibrutinib as a front-line therapy in chronic lymphocytic leukemia (CLL), BTK inhibitors (BTKi) used as continuous therapy until progression or toxicity, are increasingly utilized early in the CLL treatment pathway. Conversely, the BCL-2 inhibitor venetoclax, approved for front-line (1L) CLL in May 2019, has been shown to generate durable responses. As a result, venetoclax has gained approval with a fixed treatment duration wherein a venetoclax plus obinutuzumab (VenO) regimen is to be completed after 12 months in the 1L setting. Fixed-duration therapy with a treatment-free remission has the potential advantage of lowering health care costs by avoiding continuous exposure to treatment. However, little real-world evidence has been generated to assess the potential economic benefits of a fixed-duration treatment such as VenO relative to treat-to-progression therapies like BTKis. The objective of this study was to examine healthcare costs before and after completion of the fixed-duration treatment period for VenO relative to that observed for BTKis in a national sample of elderly U.S. Medicare beneficiaries with CLL in the 1L setting.

Methods: Our analysis used 2016–2021 100% Medicare Parts A, B, and D claims. Elderly fee-for-service Medicare beneficiaries initiating VenO (VenO group) or an available BTKi treatment (BTKi group) between 6/1/2019 and 6/30/2020 (index date = first prescription fill date) were included in the sample. Additional inclusion criteria for both groups were as follows: (a) ≥ 66 years old, (b) ≥ 1 diagnoses of CLL and no diagnoses for other indications of the index agent in the 12-month pre- and post-index period, (c) continuous medical and prescription coverage in the 36 months pre- and 12 months post-index period, (d) no prior CLL treatment in the 36-month pre-index period (i.e., to proxy 1L patients), and (e) continuous medical and prescription coverage from 13 to 18 months after the index date or until death if it occurs earlier (to capture costs after fixed-duration VenO treatment is completed). Healthcare cost measures included all-cause and CLL-related *monthly* total, prescription, and medical costs. Mean monthly cost measures were captured for both groups over two fixed time periods calculated from the index date: Month 0 to 12 (i.e. proxy for on-treatment period for VenO) and Month 13 to Month 18 (i.e. proxy for off-treatment period for VenO). Risk-adjusted monthly costs were estimated using generalized linear models controlling for differences in sociodemographic and clinical factors between the two groups. Difference-in-Difference method was used to assess reduction in costs across the two fixed time periods.

Results: The final sample contained 193 patients (pts) in the VenO group (mean [SD] age 75.6 [5.5] years, 69.4% male, 90.2% White) and 1,577 pts in the BTKi group (mean [SD] age 77.6 [6.3] years, 55.8% male, 92.5% White). Between months 0 to 12, risk-adjusted all-cause monthly total costs were slightly lower for VenO pts (\$13,887) than BTKi pts (\$14,492) (Table 1). However, during months 13 to 18 the monthly all-cause total costs declined by 67% for VenO pts (\$13,887 to \$4,462) but only by 10% for BTKi pts (\$14,492 to \$13,051). Hence, the relative reduction in costs across the two periods was significantly larger for VenO (-\$9,425) vs. BTKi (-\$1,441) pts (i.e. Difference-in-Difference=-\$7,984, $p < 0.001$). Similar patterns were observed for CLL-related costs with the substantially larger reductions in CLL-related total monthly costs (-\$9,880 VenO vs. -\$1,753 BTKi, $p < 0.001$) for the VenO group relative to BTKi group being primarily driven by the larger reduction in CLL-related monthly prescription costs (-\$9,437 VenO vs. -\$2,020 BTKi, $p < 0.001$) (Table 1).

Conclusions: This real-world study of elderly Medicare beneficiaries with CLL found a large reduction in monthly health care costs in the VenO group after the fixed-duration treatment period of 12 months. This drop was largely driven by the reduction in CLL-related prescription drug costs; however, similar declines were not observed in the BTKi group. Hence, the costs for

pts on VenO after the fixed-duration treatment period were approximately \$8000 per month lower than the BTKi group. Our study highlights the substantial economic benefits of VenO relative to treat-to-progression therapies like BTKis and carries implications for treatment decision-making CLL.

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

Table 1. Risk-Adjusted^a Mean Monthly Healthcare Costs by Time Period among Medicare Beneficiaries Initiated on Venetoclax (VEN) vs. BTKIs in the Frontline Setting

	Month 0 to 12	Month 13 to 18	Difference (M ₀₋₁₂ - M ₁₃₋₁₈)	Diff _{VEN} - Diff _{BTKi}	p-value
All-cause Monthly Total Costs					
VEN-O	\$13,887	\$4,462	-\$9,425	-\$7,984	<0.001
BTKI	\$14,492	\$13,051	-\$1,441		
CLL-related Monthly Total Costs					
VEN-O	\$12,873	\$2,993	-\$9,880	-\$8,127	<0.001
BTKI	\$13,281	\$11,528	-\$1,753		
CLL-related Monthly Medical Costs					
VEN-O	\$1,534	\$1,091	-\$443	-\$710	<0.001
BTKI	\$1,447	\$1,714	\$267		
CLL-related Monthly Prescription Costs					
VEN-O	\$11,339	\$1,902	-\$9,437	-\$7,417	<0.001
BTKI	\$11,834	\$9,814	-\$2,020		
CLL-related Monthly Part D Drug Costs^b					
VEN-O	\$7,815	\$1,852	-\$5,963	-\$4,030	<0.001
BTKI	\$11,547	\$9,614	-\$1,933		
CLL-related Monthly Part B Drug Costs^c					
VEN-O	\$3,524	\$50	-\$3,474	-\$3,387	<0.001
BTKI	\$287	\$200	-\$87		

^a Risk-adjusted costs were estimated using multivariate GLMs. Model covariates included age, sex, race, census region, metropolitan status, Part D low-income subsidy status, Part D drug benefit type, number of Elixhauser comorbidities, all-cause hospitalization and costs (as measured at baseline; for all-cause cost outcomes), CLL-related hospitalizations and costs (as measured at baseline; for CLL-related cost outcomes).

^b Self-administered drugs covered by Medicare Part D

^c Physician-administered drugs (e.g., infusions) covered by Medicare Part B

Figure 1

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