

Evaluating uptake of targeted agents by race/ethnicity in patients receiving first-line treatment for chronic lymphocytic leukemia (CLL).

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Background: The NCCN guidelines for first-line (1L) regimens in CLL have evolved over the past decade, shifting from ibrutinib (ibr) and chemoimmunotherapy (CIT) to second-generation BTK inhibitor and venetoclax combinations. We evaluated real-world use of preferred 1L treatment (tx) since 2016 in CLL patients (pts) in routine care to identify differences in prescribing based on race/ethnicity and practice type. **Methods:** This retrospective observational study utilized the US nationwide Flatiron Health electronic health record-derived de-identified database. Eligible pts had confirmed CLL and initiated 1L tx between 01/01/16–07/31/24. Primary outcome was receipt of preferred 1L tx defined by NCCN guidelines in four time periods by race/ethnicity (Hispanic, White, Black, Asian/Other). Odds ratios (ORs) were estimated using logistic regression, additionally adjusting for age, sex, ECOG performance status, IGHV, del17p/TP53 mutation status, time period, and practice type. **Results:** A total of 7528 pts were included. Compared with White pts (n = 5472), Black pts (n = 640) were younger (median age at 1L: 68 vs 71). More Black and Hispanic (n = 290) pts were treated at community practices (86% vs 80% White). Of those pts tested, more Black pts had unmutated IGHV than White (77% vs 56%). Presence of del17p/TP53 mutation was similar across races/ethnicities. The proportion of pts receiving preferred 1L tx based on the NCCN Guidelines significantly differed by race/ethnicity (Table) (P= 0.0021). The proportion of Hispanic pts treated with preferred 1L tx was significantly lower than White (OR = 0.61; 95% CI: 0.47–0.79), but Black was similar to White (OR = 1.07; 95% CI: 0.89–1.30). Updates to NCCN guidelines were significantly associated with pts receiving preferred 1L tx by practice type (P= 0.0005). In 2016–2018, 44% of community practices and 55% of academic centers adopted targeted therapies (TTs); in 2019, ibr use increased in both practices (77% vs 68%, respectively). Adherence to preferred tx improved across practices in 2020 but decreased with the prioritization of second-generation therapies. After the approval of zanu, use of TTs was 71% in community practices and 74% in academic centers. **Conclusions:** Inequities in pts with CLL receiving preferred 1L tx suggests disproportionate use of CIT and ibr by race/ethnicity. Use of preferred TTs also differed by practice type and time period, with increased adoption after pivotal trials. Research Sponsor: BeiGene.

Time period	% Pts receiving preferred tx by race ^a			
	White	Black	Hispanic	Asian/ Other
2016-2018: Preferred tx ibr	46%	50%	43%	45%
2019 (v2.2019: Jan 2019) Preferred tx ibr	76%	76%	67%	79%
2020-Jun 2022 (v4.2020: Feb 2020) Preferred tx acala, VO, ibr	84%	84%	69%	83%
Jul 2022-Jul 2024 (v2.2023: Aug 2022) Preferred tx acala, VO, zanu	72%	66%	56%	73%

VO, venetoclax + obinutuzumab.
^aBy listing of NCCN preference (preferred vs other) among non-del17p and age >65.