Poster # CML-196

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Asciminib after one Prior Tyrosine Kinase Inhibitor (TKI) in Patients with Chronic Myeloid Leukemia in Chronic Phase (CML-CP): A Real-World Chart Review Study in the United States (US)

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KEY FINDINGS & CONCLUSIONS

- This is the first real-world study to describe treatment patterns and clinical outcomes among patients with CML-CP who initiated asciminib as second line treatment after one prior TKI in the US
- While just over 50% of patients who switched to asciminib did so because of resistance to their first TKI, these patients had high major molecular response rates, demonstrating rapid and efficacious responses in real-world clinical practice
- Patients who initiated asciminib had low discontinuation rates, suggesting that asciminib was well-tolerated in line with prior reports from later lines
- These findings were consistent across different subgroups of patients, indicating that asciminib was well-tolerated and efficacious regardless of prior TKI used (i.e., imatinib or a 2G TKI) or reasons for treatment switch (e.g., resistance or suboptimal response to prior TKI)
- This study continued to enroll additional patients and future updates at upcoming scientific meetings are planned

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BACKGROUND

- Tyrosine kinase inhibitors (TKIs) are the mainstay of treatment for patients with Philadelphia chromosome-positive (Ph+) chronic myeloid leukemia in chronic phase (CML-CP)[1]
- In patients with CML-CP, intolerance or resistance to current ATP-competitive TKIs is frequent,[2,3] highlighting the need for treatments that optimize tolerability and efficacy to allow patients to stay on longer and achieve treatment goals
- Asciminib is an ABL/BCR::ABL1 TKI targeting the ABL myristoyl pocket approved for patients with CML-CP previously treated with ≥2 TKIs or with the T315I mutation,[4,5] and is currently being assessed in clinical trials in newly diagnosed patients or those previously treated with one TKI[6,7]

OBJECTIVES

- To describe patient characteristics, treatment patterns, and clinical outcomes of adults with CML-CP who initiated asciminib after one prior TKI in the US clinical practice

METHODS

Data source

- This study was a retrospective physician panel-based chart review study in the US
- In February 2024, de-identified patient-level data were retrospectively collected from patient medical charts via an online case report form (CRF) completed by US hematologists/oncologists
- Respondents were from an existing panel of physicians with experience treating patients with CML-CP from various practice settings (e.g., community and academic practice) and from all US census regions
- Hematologists/oncologists were eligible to participate in the study if: 1) they were responsible for treatment decisions and follow-up of ≥1 adult patient with CML-CP treated with asciminib between January 1, 2022, and June 30, 2023, and 2) had access to molecular monitoring results reported on the international scale (IS) with a sensitivity level of detection of MR3 or better (BCR::ABL1 ≤0.1%)
- Eligible medical charts included those of adult patients who: 1) had CML-CP without the T315I mutation, 2) initiated treatment for CML-CP with a TKI (i.e., imatinib, dasatinib, nilotinib, or bosutinib) and subsequently switched to asciminib between January 1, 2022 and June 30, 2023, and 3) have not received HSCT and were not diagnosed with active cancers other than CML prior to asciminib initiation
- Institutional review board exemption was obtained from the Pearl IRB
- Interim data, collected as of February 27, 2024 are presented, including 70 patient charts

Study design

- Patient characteristics were measured at CML-CP diagnosis; treatment patterns were described from CML-CP diagnosis
- The observation period spanned from asciminib initiation (index date) to the earliest of HSCT, progression to AP/BC, loss to follow-up (e.g., last contact, visit, phone/telemedicine call, drug prescription, or lab test), CRF completion, or death

Measures and study outcomes

- Time-to-treatment discontinuation (TTD) was defined as the time from asciminib initiation until treatment discontinuation, as reported by the treating physician (event), or the end of the observation period (censor)
- Time-to-MR2 (BCR::ABL1 ≤1%) or better and time-to-MR3 or better were defined as the time from asciminib initiation until the first MR assessment documenting MR2 or better and MR3 or better (event) or the earliest occurrence of either treatment discontinuation or the end of the observation period (censor)

Statistical analyses

- All analyses were descriptive; no statistical comparisons were performed
- TTD, time-to-MR2 or better and time-to-MR3 or better were assessed using Kaplan-Meier (KM) analyses
- Time-to-MR2 or better and time-to-MR3 or better were assessed among patients with MR testing frequency of at least every 3 months during the observation period
- Subgroup analyses were performed for patients with resistance or suboptimal response to first TKI, and by first- (1G; i.e., imatinib) or second-generation (2G; i.e., bosutinib, dasatinib, nilotinib) TKI used as first treatment

RESULTS

Physician characteristics

- A total of 19 physicians provided data for 70 patients with CML-CP who initiated asciminib after one prior TKI
- Nearly two-thirds of physicians (63.2%) were from academic-based practices, the remainder were from community-based practices (36.8%)
- Most physicians were practicing in the Midwest (31.6%), followed by the South (26.3%), Northeast (26.3%), and West (15.8%)
- The majority of physicians (78.9%) were from large primary practices (≥10 physicians) located in urban areas (52.6%)

Patient characteristics

- The median age at CML-CP diagnosis was 65 years, with the majority of patients being male (51.4%) and White – Non-Hispanic/Latino (58.6%; **Table 1**)
- At CML-CP diagnosis, 72.9% and 8.6% of patients had an intermediate and high Sokal risk score, respectively
- Most patients had ECOG performance grade 0 (18.6%) or grade 1 (70.0%)
- Median follow-up post-asciminib initiation was 55.2 weeks (range: 23.5 to 104.2 weeks)
- No patients were observed to progress to AP/BC post-asciminib initiation

Table 1. Patient characteristics at CML-CP diagnosis

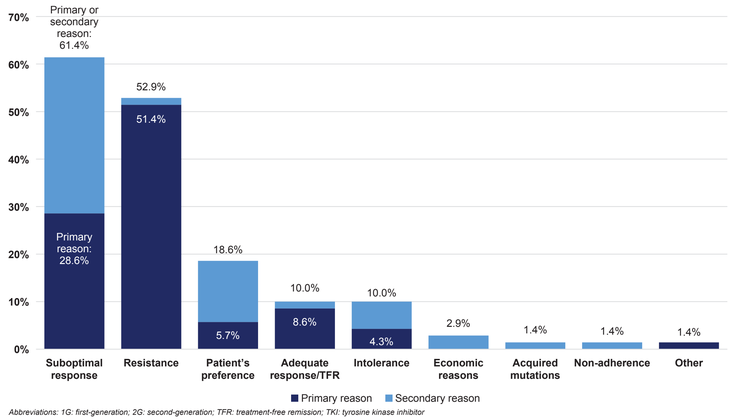
	N = 70
Age (years), mean ± SD [median]	63.4 ± 6.6 [65.0]
≥65 years, n (%)	36 (51.4%)
Male, n (%)	36 (51.4%)
Race/ethnicity, n (%)	
White - Non-Hispanic/Latino	41 (58.6%)
Black or African American - Non-Hispanic/Latino	16 (22.9%)
Hispanic/Latino	7 (10.0%)
Other	6 (8.6%)
Sokal score, n (%)	
Low risk (<0.8)	13 (18.6%)
Intermediate risk (0.8 to ≤1.2)	51 (72.9%)
High risk (>1.2)	6 (8.6%)
ECOG performance status, n (%)	
Grade 0	13 (18.6%)
Grade 1	49 (70.0%)
Grade ≥2	8 (11.4%)

Abbreviations: CML-CP: chronic myeloid leukemia in chronic phase; ECOG: Eastern Cooperative Oncology Group; SD: standard deviation

Treatment patterns

- As first TKI for CML-CP treatment, 54.3% received a 1G TKI and 45.7% received a 2G TKI, for a median treatment duration of 44.7 weeks
- Most switches to asciminib were primarily due to resistance (51.4%) or suboptimal response (28.6%) to prior TKI (**Figure 1**)
- Intolerance or management of adverse event(s) as a reason for first TKI discontinuation was observed for 10.0% of patients
- Overall, 91.7% of patients remained on treatment by 48 weeks post-asciminib initiation (resistance or suboptimal response: 95.7%; 1G TKI: 91.0%; 2G TKI: 92.6%)

Figure 1. Reasons for first TKI discontinuation with 1G or 2G TKI prior to asciminib initiation

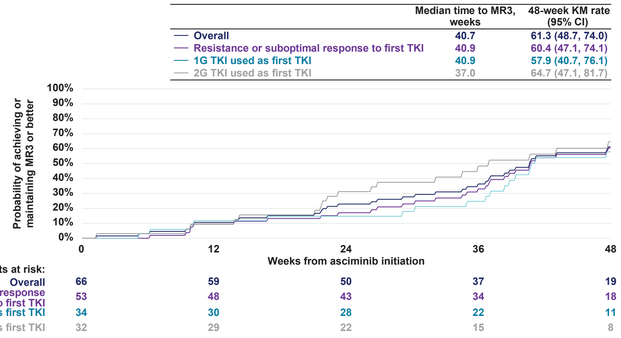


Abbreviations: 1G: first-generation; 2G: second-generation; TFR: treatment-free remission; TKI: tyrosine kinase inhibitor

Molecular response

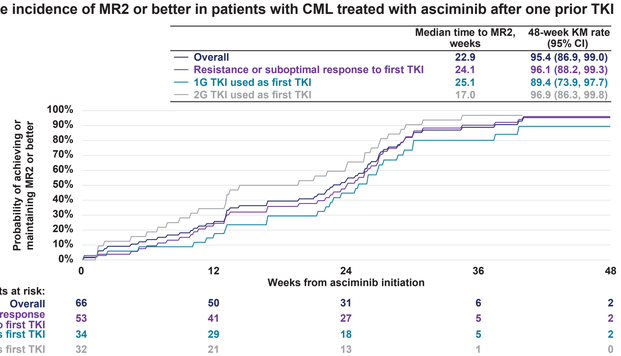
- Among patients with MR testing frequency of at least every 3 months (n=66), 61.3% (resistance or suboptimal response: 60.4%; 1G TKI: 57.9%; 2G TKI: 64.7%) achieved or maintained MR3 or better by 48 weeks (**Figure 2**)
- The median time-to-MR3 or better was 40.7 weeks (resistance or suboptimal response: 40.9 weeks; 1G TKI: 40.9 weeks; 2G TKI: 37.0 weeks)
- Among patients with MR testing frequency of at least every 3 months (n=66), 95.4% (resistance or suboptimal response: 96.1%; 1G TKI: 89.4%; 2G TKI: 96.9%) achieved or maintained MR2 or better by 48 weeks (**Figure 3**)
- The median time-to-MR2 or better was 22.9 weeks (resistance or suboptimal response: 24.1 weeks; 1G TKI: 25.1 weeks; 2G TKI: 17.0 weeks)

Figure 2. Cumulative incidence of MR3 or better in patients with CML treated with asciminib after one prior TKI



Abbreviations: 1G: first-generation; 2G: second-generation; CI: confidence interval; CML: chronic myeloid leukemia; KM: Kaplan-Meier; MR: molecular response; TKI: tyrosine kinase inhibitor

Figure 3. Cumulative incidence of MR2 or better in patients with CML treated with asciminib after one prior TKI



Abbreviations: 1G: first-generation; 2G: second-generation; CI: confidence interval; CML: chronic myeloid leukemia; KM: Kaplan-Meier; MR: molecular response; TKI: tyrosine kinase inhibitor

Limitations

- Findings should be interpreted in the context of the sample selection and it is unclear how generalizable these are to the overall CML practice in the US
- Assessments of real-world MR may be based on heterogeneous criteria and assessment schedules, and may not be made consistently across patients
- The results may be subject to limitations inherent of retrospective chart reviews, including potential missing/not well-recorded data in medical charts

Acknowledgements

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- Poster presented at the SOHO 2024 Annual Meeting, September 4 - September 7, 2024.

References

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