INTRODUCTION

Chronic myeloid leukemia (CML) is a rare blood disease, often resulting from the formation of reciprocal translocations between chromosomes 9 and 22.

The current standard of care for chronic phase (CP)-CML consists of tyrosine kinase inhibitors (TKIs).

Asciminib, the first specific ABL-pocket inhibitor, showed promising efficacy and safety results after 96 weeks of follow-up in the phase 3 ASCEMBL (NCT03186779) trial at 24 and 48 weeks of follow-up.

Thus, matching-adjusted indirect comparisons (MAICs) were conducted to compare the efficacy of competing TKIs in CP-CML after failure of 2x TKIs, using 96-week follow-up data from ASCEMBL.

RESULTS

• The ESS was calculated after matching and adjusting for select baseline characteristics reported both in the ASCEMBL trial and in comparator studies (Table 1).

Table 1. Overview of studies and outcomes in the MAIC

<table>
<thead>
<tr>
<th>Trial Study</th>
<th>ASCEMBL vs Ponatinib (3L CP-CML Patients)</th>
<th>ASCEMBL vs Ascalimib* (3L CP-CML Patients)</th>
<th>ASCEMBL vs Dasatinib Prospective observational study</th>
<th>ASCEMBL vs Dasatinib* (3L CP-CML Patients)</th>
<th>ASCEMBL vs Ponatinib (≥3L CP-CML Patients)</th>
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</thead>
<tbody>
<tr>
<td>ESS=23</td>
<td>ESS=39</td>
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- The ESS was calculated after matching and adjusting for select baseline characteristics reported both in the ASCEMBL trial and in comparator studies (Table 1).

- No trial-to-trial treatment comparisons were conducted for adjusting asciminib to bosutinib in the phase 3 ASCEMBL (NCT03186779) trial at 24 and 48 weeks of follow-up.

- Recent trial data showed that asciminib continued to demonstrate superior efficacy and safety vs ponatinib in CP-CML patients.

- With no head-to-head trials comparing asciminib to other TKIs beyond bosutinib, there is no need to further clarify treatment recommendations for patients with 3L CP-CML.

- Thus, matching-adjusted indirect comparisons (MAICs) were conducted to compare the efficacy of competing TKIs in CP-CML after failure of 2x TKIs, using 96-week follow-up data from ASCEMBL.

METHODS

• According to methods by Signorovitch et al.,14 unanchored MAICs were conducted to adjust patient-level data for asciminib, from the ASCEMBL trial, follow-up (296 weeks) to published aggregate data for comparator TKIs.

- Three key comparator TKIs included ponatinib (PACE: 3L+ Patients), nilotinib (Okses et al. 2010; Ibrahim et al. 2018), and dasatinib (Tan et al.; Rosai et al.; Ibrahim et al. 2018).

- The MAICs aimed to adjust for the following key prognostic factors: number of prior TKIs, resistance/interloence to prior TKIs, cytogenetic response status, number of mutations, Eastern Cooperative Group (ECOG) performance score, age and gender.

- Effective sample size (ESS) was calculated to show the degree of overlap between the adjusted asciminib population and the comparator population.

- A large reduction in ESS after adjustment indicates very little overlap between the asciminib and comparator populations.

REASONS FOR POST-MATCHING ADDITIONAL ANALYSES

- Removal of patients pre-treatment with ponatinib showed that post-adjustment asciminib had favorable results for times to MMR and CCyR by both 6- and 12-months vs ponatinib (Figure 2).

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