In this study, the comparative safety and effectiveness between fostamatinib (FOS) and the TPOs was evaluated in a real-world community hematology setting.

**METHODS**

- The GCAC network database was reviewed for ITP patients who had received treatment between June 1, 2018 and December 31, 2021.
- The primary endpoints were the proportion of patients with PLT levels ≥ 30 and ≥ 50 x 10^3/μL and the proportion whose PLT levels increased by at least 2-fold relative to baseline at 3 and 6 months, respectively.
- Secondary endpoints were the use of rescue therapy for PLT related events, the median number of prior therapies being three, compared to two in the start of therapy and median duration of ITP (Table 1).
- The primary clinical endpoints between FOS and the TPOs were evaluated using multivariate logistic regression analysis, adjusted for clustering on the patient.
- A patient level economic analysis was also conducted.

**RESULTS**

- The final sample of 51, 87, 127 and 44 patients who received FOS, ELT, Rom and AVA, respectively.
- Patient groups were reasonably balanced in terms of performance status, comorbidity score, hematology and biochemistry parameters at the start of therapy (ELT and AVA were the same as well).
- The fostamatinib group tended to be more heavily pretreated, with the median number of prior therapies being three compared to two in the TPO groups (Table 2).
- AEs were not significantly different between the FOS and TPO groups. 3.9% of patients had documented or undocumented, duration < 3 months.
- AEs leading to hospital visit occurred in 9.2% (8) of patients, 11.4% (5) of patients, 18.4% (16) of patients, and 12.8% (15) of patients, respectively.

**LIMITATIONS**

- This was not a prospective study, and some data was undocumented for some important parameters.
- The study was retrospective, so it was difficult to quantify the severity of bleeding events.
- The study was not powered to detect significant differences in overall safety and PLT related event endpoints.

**CONCLUSIONS**

- To our knowledge, a real-world comparative analysis evaluating treatment effectiveness, patient safety and resource use between fostamatinib and the TPOs has not been undertaken.
- Fostamatinib was comparable to the TPOs in maintaining platelet levels at clinically beneficial levels.
- The total cost of therapy with fostamatinib was numerically lower than that with TPOs.
- Fostamatinib appeared to have a favorable side effect profile, with fewer patients with AE related treatment discontinuations and TEs requiring ER visits and hospitalizations.
- Given these findings, treatment selection should be based on overall patient safety, presenting risk factors for TE and cost effectiveness.