



## The 65th ASH Annual Meeting Abstracts

## ONLINE PUBLICATION ONLY

## 632.CHRONIC MYELOID LEUKEMIA: CLINICAL AND EPIDEMIOLOGICAL

**Real-World Safety and Clinical Response of Flumatinib in the Treatment of Chronic Myeloid Leukemia: A Retrospective Study**Chen Chunyan, MD<sup>1</sup><sup>1</sup>Department of Hematology, Qilu Hospital of Shandong University, Jinan, Shandong,China, Jinan, China

**Objective:** The objective of this retrospective study was to assess the effectiveness and safety of flumatinib in the treatment of chronic phase chronic myeloid leukemia (CML) in real-world settings.

**Methods:** A total of 61 patients who received flumatinib as first-line therapy were compared with 92 patients who received first-line imatinib therapy. Furthermore, the 58 patients who received flumatinib as post-line therapy were divided into two groups based on the timing of switching to flumatinib: an early conversion group (n=18) and a late conversion group (n=40). The molecular responses and outcomes were assessed at multiple time points (3, 6, 9, and 12 months) during the treatment of flumatinib, along with the observation of adverse reactions.

**Results:** In comparison to imatinib, the use of flumatinib as a first-line therapy demonstrated statistically significant increases in early molecular response (EMR), major molecular response (MMR), and deep molecular response (DMR) at various milestones ( $p < 0.05$ ). Additionally, the incidence of adverse events was lower in the flumatinib group, as evidenced by higher event-free survival (EFS) rates (83.6% vs. 39.1%,  $P = 0.01$ ) and a lower medication switching rate (90.2% vs. 31.5%,  $P < 0.001$ ). However, there were no significant differences observed in overall survival (OS) and progression-free survival (PFS) rates between the two groups ( $P > 0.05$ ). In the context of post-line therapy, a significant proportion of patients (72.2%) achieved EMR at 3 months, while 71.9% achieved MMR at 12 months when treated with flumatinib. Notably, the early conversion group exhibited higher rates of molecular response and demonstrated superior OS, PFS, and EFS at the 12-month mark compared to the late conversion group ( $P > 0.05$ ). Adverse events (AEs) commonly associated with flumatinib encompassed limb discomfort, gastrointestinal reactions, and elevated transaminase levels, with thrombocytopenia being the most frequently observed hematologic AE.

**Conclusion:** Flumatinib exhibited notable efficacy and safety as a therapeutic option for patients with chronic phase CML, whether utilized as a first-line or post-line treatment. In comparison to imatinib, initial administration of flumatinib resulted in more profound and expeditious molecular responses. The utilization of flumatinib as a post-line therapeutic approach during the early stage of treatment exhibits a favorable influence on patient prognosis. However, no statistically significant disparity was noted when compared to the group receiving switch therapy during the late stage.

**Disclosures** No relevant conflicts of interest to declare.

Table 1: Molecular response to Imatinib/Flumatinib treatment at different time

	First-line Imatinib	First-line Flumatinib	Early Conversion to Flumatinib	Late Conversion to Flumatinib
3 months	n=88	n=58	n=18	n=36
IS≤10%	56 (63.6%)	53 (91.4%)	13 (72.2%)	26 (72.2%)
IS≤0.1%	4 (4.5%)	22 (37.9%)	5 (27.8%)	15 (41.7%)
IS≤0.01%	0 (0.0%)	6 (10.3%)	2 (11.1%)	10 (27.8%)
6 months	n=80	n=53	n=15	n=29
IS≤10%	69 (86.3%)	52 (98.1%)	14 (93.3%)	23 (79.3%)
IS≤0.1%	12 (15.0%)	32 (60.4%)	7 (46.7%)	18 (62.1%)
IS≤0.01%	3 (3.8%)	17 (32.1%)	4 (26.7%)	11 (37.9%)
9 months	n=73	n=45	n=12	n=26
IS≤10%	64 (87.7%)	44 (97.8%)	11 (91.7%)	22 (84.6%)
IS≤0.1%	26 (35.6%)	33 (73.3%)	9 (75.0%)	14 (53.8%)
IS≤0.01%	11 (15.1%)	20 (44.4%)	4 (33.3%)	9 (34.6%)
12 months	n=68	n=45	n=12	n=20
IS≤10%	60 (88.2%)	44 (97.8%)	12 (100.0%)	18 (90.0%)
IS≤0.1%	34 (50.0%)	36 (80.0%)	10 (83.3%)	13 (65.0%)
IS≤0.01%	14 (20.6%)	23 (51.1%)	7 (58.3%)	10 (50.0%)

Figure 1: Research flowchart

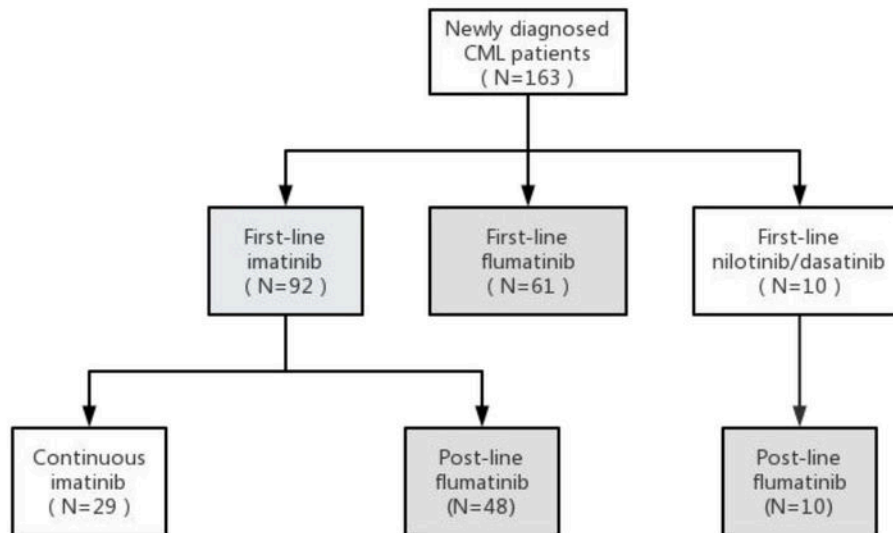


Figure 1

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