

## QuANTUM-Wild: A phase 3, randomized, double-blind, placebo-controlled trial of quizartinib in combination with chemotherapy and as single-agent maintenance in *FLT3*-ITD–negative acute myeloid leukemia (AML).

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**Background:** Quizartinib (Quiz) is an oral, selective, type-II *FLT3* inhibitor with potent activity against wild-type (wt) *FLT3*, *FLT3*-ITDs, and other kinase domain variants. Quiz is approved for patients (pts) with *FLT3*-ITD+ newly diagnosed (ND) AML based on results from the QuANTUM-First trial (NCT02668653). Mutations in the *FLT3* gene are observed in ~30% of AML cases, most commonly as ITDs, but they are not the only mechanism affecting *FLT3* activation. Elevated expression of the *FLT3* receptor is observed in nearly all cases of AML, and high levels of *FLT3* gene expression are detected in 70–100% of AML blasts, independent of the presence of *FLT3* gene mutations, potentially contributing to leukemic cell survival and proliferation. Evidence from preclinical and clinical studies supports Quiz activity in *FLT3*-ITD–negative (*FLT3*-ITDneg) AML. In the phase 2 QUIWI trial, the addition of Quiz to standard chemotherapy and as single-agent maintenance significantly prolonged overall survival (OS) vs placebo (Pbo) in ND *FLT3*-ITDneg AML. QuANTUM-Wild is a global, phase 3, double-blind, Pbo-controlled trial evaluating Quiz with standard induction/consolidation chemotherapy and as maintenance in ND *FLT3*-ITDneg AML (NCT06578247). **Methods:** Eligible pts are aged 18–70 years with *FLT3*-ITD allelic frequency < 5%. Treatment includes standard induction with cytarabine and an anthracycline plus Quiz/Pbo, followed by up to 4 cycles of consolidation (+/– allo-HSCT) with high-dose cytarabine and Quiz/Pbo, and then single-agent maintenance with Quiz/Pbo in 28d cycles for up to 36 cycles. Pts are randomized 2:2:1 into 3 arms: Arm A (Quiz in all phases), Arm B (Pbo in all phases), or Arm C (Quiz in induction/consolidation and Pbo in maintenance). Quiz is administered at 60 mg/day, reduced to 30 mg if combined with strong CYP3A inhibitors. The primary endpoint is OS, and secondary endpoints include event-free survival (EFS), relapse-free survival (RFS), complete remission (CR) rate and duration, measurable residual disease (by *FLT3*-ITD in all pts and by *NPM1* and *CBF* if present), and safety. Planned enrollment is ~700 pts, with 280 each in Arms A and B, and 140 pts in Arm C. The primary OS analysis compares Arms A and B, while Arm C is descriptive. Enrollment is expected to continue through 2028. © American Society of Hematology (2024). Reused with permission. Clinical trial information: 2023-507936-20-00; NCT06578247. Research Sponsor: Daiichi Sankyo.