# QUANTUM-FIRST: SAFETY BY TREATMENT PHASE AND BY AGE IN NEWLY DIAGNOSED PATIENTS WITH FMS-LIKE TYROSINE KINASE 3–INTERNAL TANDEM DUPLICATION POSITIVE ACUTE MYELOID LEUKEMIA

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## Background

We describe quizartinib safety by treatment phase (Induction [IND], Consolidation [CONS], Continuation [CONT]) and patient age (<60, 60-64, >=65 years [y]) in the phase 3 QuANTUM-First trial in patients (pts) with *FLT3*-ITD+ newly diagnosed AML.

## Methods

Pts aged 18-75y (randomized 1:1) received quizartinib (Q) 40mg/day or placebo (P) with induction chemotherapy; pts in remission received consolidation chemotherapy in combination with Q (40mg/day) or P, followed by Q (30-60mg/day) or P monotherapy continuation (<=36 cycles).

## Results

Treatment-emergent adverse event (TEAE) rates were similar between arms in IND (Q/P, 98.1%/97.4%) &CONS (IND [Q/P]: 98.1%/97.4%; CONS: 92.5%/91.4%); grade >=3 TEAEs were more common with quizartinib in CONT (Q/P, 78.4%/57.6%). Common TEAEs were GI events, infections, hypokalemia, pyrexia, febrile neutropenia, and rash in IND & CONS; and upper respiratory tract infections, GI events, cytopenias and increased ALT in CONT. In IND & CONS, most pts in both arms had myelosuppression (median <4 weeks to recovery); in CONT, more pts had myelosuppression with Q. ECG QT prolongation was more common with Q (QT interval corrected using Fridericia's formula [QTcF] >450 ms [Q/P]: IND: 23.0%/11.9%; CONS: 22.5%/7.4%; CONT: 26.7%/15.2%). Rate of QTcF of >500 ms was low and only seen in IND & CONS (IND [Q/P]: 0.8%/0.7%; CONS: 2.3%/0%). Ventricular arrythmias were rare with Q (2 pts [0.8%] had cardiac arrest/ventricular fibrillation with severe hypokalemia). Infections were the most common serious TEAEs (SAEs). TEAEs leading to death were numerically higher with Q in IND & CONS, mainly due to infections in older pts, but lower in CONT. TEAEs requiring discontinuation were higher

with Q vs P (Induction, 9.8%/4.1%; CONS, 5.8%/2.9%; CONT, 15.5%/7.6%).

SAEs and TEAEs leading to death or discontinuation were more common in older (>=65y [n=134]) vs younger pts (<60y or 60-64y [n=399]). Infections in the elderly were most commonly severe, serious, or fatal, and were a main cause of early death. With Q, cytopenias were more common in younger pts and GI AEs were more common in older pts. QTcF >500 ms occurred mainly with Q in pts aged 60-64y (<60y [Q/P], 0.6%/0%; 60-64y, 10.8%/0%; >=65y, 1.4%/3.1%).

## Conclusions

Quizartinib-associated infections/cytopenias were observed across phases; QTcF >500 ms was rare. Older pts had more SAEs/TEAEs leading to death or discontinuation than younger pts.

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