



# *Mycobacterium tuberculosis* borderline *rpoB* mutations: emerging from the unknown

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**Despite their name, borderline *rpoB* mutations are correlated with unfavourable outcomes when rifampicin-throughout treatment is used. They may become the drivers of rifampicin-resistant tuberculosis. Second-line treatment is recommended.** <https://bit.ly/3nbkZjt>

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*To the Editor:*

Rifampicin drives the efficacy of the current first-line treatment regimen for tuberculosis (TB) [1]. Mutations in the *rpoB* gene cause rifampicin resistance (RR) of varying levels. Common mutations typically confer high-level, “high-confidence” resistance, providing a selective advantage to *Mycobacterium tuberculosis* during treatment at low fitness cost [2]. Growth-based phenotypic drug-susceptibility testing (pDST) is very reliable for high-confidence mutations. Mutations conferring low-level resistance at high fitness cost are easily lost during primary culture or will cause phenotypically false-susceptible results if not given enough time for growth, especially with the widely used automated MGIT 960 DST [3]. Due to disagreement on their significance, such *rpoB* mutations were called “disputed”.

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