



REPRIEVE



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Prevalence and Correlates of Electrocardiographic Abnormalities in Adults with HIV: Insights from the REPRIEVE Trial

Gerald Bloomfield, Isabelle Weir, Pamela Douglas, and colleagues

Link to full article: https://journals.lww.com/jaids/Abstract/9000/Prevalence_and_Correlates_of_Electrocardiographic.95753.aspx

Multiple studies have found that people with HIV (PWH) have an increased risk of cardiovascular disease (CVD). Prior research has also shown that PWH have more abnormalities than the general population in the electrical signals of heart function, or ECG. Of particular importance is the duration of the heart's contraction as measured by prolonged corrected QT interval (QTc) which is related to sudden cardiac death. How common ECG abnormalities are in middle-aged antiretroviral-treated PWH and their relationships to antiretroviral therapy (ART), sex, race or ethnicity has not been reported in contemporary global cohorts. In this study we analyzed baseline ECGs from asymptomatic REPRIEVE participants, at low to moderate risk for CVD, for research purposes only. Any participants with significant abnormalities were informed at the time of ECG acquisition.

➤ The participants

- 7720 REPRIEVE Participants
- Average age: 50 years
- 31% women
- 43% Black or African-American, 35% White, 15% Asian, 7% other race

➤ Overall ECG findings

- 44% of participants had at least one ECG abnormality.
- The most common ECG findings were early repolarization (abnormal electrical signal pattern during recovery from contraction) at 12%, heart chamber enlargement at 8% and QTc prolongation at 8%.

➤ ECG findings according to demographic groups

- Men had prolonged QTc more often than women.
- QTc prolongation was nearly twice as common among Asian participants (12%) as compared with Black or African Americans (8%), White (7%), or other race (6%).

➤ Relationship between prolonged QTc and viral load

- Participants with viral load >400 copies/ml were nearly twice as likely to have prolonged QTc as compared to those with undetectable viral load.
- This relationship was consistent even after considering differences in sex, age, race, body mass index, smoking and high blood pressure.

REPRIEVE Trial Website: reprivetrial.org

The findings shared in this summary are from the REPRIEVE population at a specific point in time. These findings are descriptive and not intended to change clinical care. If you have questions about what you've read, please talk to members of the REPRIEVE study team at your local site or a health care provider.



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In summary: We found that almost half of all participants had at least one ECG abnormality, with early repolarization, chamber enlargement and QTc prolongation being the most common. QTc prolongation was most common among Asian participants, males and those with greater HIV viral load. Although care guidelines are not always consistent on whether an ECG should routinely be performed on middle aged PWH at low-to-moderate CDV risk, our findings suggest that there may be utility in doing so. Future studies, including the ongoing follow up of REPRIEVE participants, will provide more information regarding this question.

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