

Vigilant monitoring is needed to manage cardiac risks in patients using antipsychotics, doctors say

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The use of the antipsychotic drugs quetiapine and haloperidol is associated with an increased risk of ventricular arrhythmias and sudden cardiac death (SCD) caused by drug-induced QT prolongation, reports a [new study](#) in *Heart Rhythm*.

Caution is advised to manage cardiac risks in patients prescribed these medications, the authors of the study and an accompanying editorial said.

The risks of cardiac conditions associated with the use of antipsychotics have been a concern for the last 30 years. Drugs have previously been either removed from the market or had their use restricted due to an unacceptably high risk of lethal ventricular arrhythmias.

Drug-induced cardiac arrhythmias, however, remain an important clinical issue because there are drugs that increase the risk of SCD, but they remain on the market because they serve an important clinical need, and there are no safer alternatives.

Professor Jamie Vandenberg, Ph.D., MBBS, FHRS, of the Victor Chang Cardiac Research Institute, Darlinghurst, NSW, Australia, co-author of the editorial accompanying the study, explains, "Of the 41 drugs on the market in the United States that are listed as having known risk of heart rhythm disorders, five are [antipsychotic drugs](#), the mainstay of treatment for schizophrenia and psychosis."

"The use of antipsychotic drugs is associated with an approximately two-fold increased risk of sudden [cardiac death](#). If we cannot eliminate this risk, then at the least, we need to minimize the risk by identifying patients at highest risk and managing them more closely."

Lead investigator of the study Shang-Hung Chang, MD, Ph.D., adds, "The use of the antipsychotics quetiapine and haloperidol to treat mental disorders is widespread. In an effort to enhance [patient safety](#) and optimize the management of individuals receiving these medications, we have investigated the incidences, [risk factors](#), and clinical outcomes of severe QT prolongation to provide valuable insights for health care professionals, patients, and caregivers."

The research involved a retrospective analysis of electronic medical records of a large cohort of patients from a health care provider in Taiwan who received quetiapine or haloperidol therapy. Investigators evaluated the incidences, risk factors, and clinical correlates of severe QT prolongation (i.e., ventricular arrhythmias and sudden cardiac death) in these patients.

The most significant results of the study were that more than 10% of patients developed severe QT prolongation during follow-up and the increased risk of ventricular arrhythmias and sudden cardiac death in quetiapine or haloperidol users who developed severe QT prolongation.

Co-author Chun-Li Wang, MD, of the Cardiovascular Division, Department of Internal Medicine, Chang Gung Memorial Hospital, Linkou Medical Center, Taoyuan, Taiwan, says the findings underscore the importance of closely monitoring patients receiving these medications and implementing appropriate risk mitigation strategies to ensure patient safety.

"Clinicians should be aware of the potential risks associated with quetiapine use, particularly the risk of severe QT prolongation and its associated outcomes, including ventricular arrhythmias and sudden cardiac death."

Professor Vandenberg comments, "It would be prudent to undertake an ECG before and after commencement of an antipsychotic drug. If it is an option, one could stop a [drug](#) causing QT prolongation and try a different antipsychotic. But if this is not practical, one should pay particular attention to reducing other risk factors, such as prescription of other drugs that may exacerbate QT prolongation and be vigilant for hypokalemia."

More information: Chun-Li Wang et al, Incidences, risk factors, and

clinical correlates of severe QT prolongation after the use of quetiapine or haloperidol, *Heart Rhythm* (2024). [DOI: 10.1016/j.hrthm.2023.10.027](#)

Editorial: The real-world incidence of severe QT prolongation in patients taking antipsychotic drugs, *Heart Rhythm* (2024). [DOI: 10.1016/j.hrthm.2023.11.012](#)

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