

SSRI antidepressants not associated with an increased risk cardiovascular conditions

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Pills. Credit: Public Domain

Commonly used antidepressants, known as 'selective serotonin reuptake inhibitors', are not associated with an increased risk of cardiovascular conditions, such as heart attacks and strokes, according to new research at The University of Nottingham.

Depression is known to increase the risk of cardiovascular problems, but whether antidepressants, particularly SSRIs, increase or reduce this risk remains controversial.

The results are significant because antidepressants are one of the most commonly prescribed drugs and cardiovascular diseases are a leading cause of death and disability worldwide.

The study was led by the University's Division of

Primary Care and is published in The *BMJ*. The researchers examined associations between different antidepressant drugs and rates of three [cardiovascular outcomes](#) in people with depression.

Medical records of 238,963 patients aged 20-64 with a diagnosis of depression made between 2000 and 2011 were analysed using the UK QResearch database. Patients were monitored for occurrence of heart attacks, strokes or transient ischaemic attacks, and arrhythmia (an irregular heartbeat), and followed up until 2012.

The researchers looked at antidepressant class, including tricyclic and related antidepressants, selective serotonin reuptake inhibitors, and other types, as well as dosage and duration of use. Factors such as age, sex, smoking status, alcohol consumption, co-morbidities and use of other drugs were accounted for.

Professor of Medical Statistics in Primary Care, Carol Coupland, said: "Our study found no evidence that selective serotonin reuptake inhibitors were associated with an increased risk of arrhythmia, heart attacks, or stroke/transient ischaemic attacks in people with depression over the five-year period. But there was a significant doubling of risk for arrhythmia during the first four weeks of taking tricyclic and related antidepressants.

"In addition, we found some indication that selective serotonin reuptake inhibitors were associated with a reduced risk of heart attacks, particularly with the use of fluoxetine. Absolute risks of heart attacks were six per 10,000 for selective serotonin reuptake inhibitors over one year, and four per 10,000 for fluoxetine compared with 10 per 10,000 for non-use."

Citalopram, the most commonly prescribed drug among patients in the study, was not associated with an increased risk of arrhythmia, even at higher

doses. In 2011, the US Food and Drug Administration and the European Medicines Association both issued warnings about taking high doses of the drug following safety concerns.

But the authors say they can't rule out the possibility of an [increased risk](#) of arrhythmia in patients taking Citalopram at high doses because only a relatively small proportion of citalopram prescriptions (18 per cent) were at high doses in the study. They recommend that high doses should not be prescribed, particularly for patients with any risk factors.

This is an observational study so no firm conclusions can be made between cause and effect. Nevertheless, the authors say: "These findings are reassuring in the light of recent safety concerns about selective serotonin reuptake inhibitors."

Research titled 'Antidepressant use and risk of cardiovascular outcomes in people aged 20 to 64: cohort study using [primary care](#) database', in journal *The BMJ*.

More information: Antidepressant use and risk of cardiovascular outcomes in people aged 20 to 64: cohort study using primary care database, *BMJ*, [dx.doi.org/10.1136/bmj.i1350](https://doi.org/10.1136/bmj.i1350)

Provided by University of Nottingham

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