

Using antibiotics to help heart problems

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A research team from the University of Bristol is looking at whether an antibiotic has the potential to prevent or treat irregular heartbeats brought on by other medicines, thanks to a grant from national charity Heart Research UK.

Depending on the severity and type, cardiac arrhythmias – disturbances to the <u>heart</u>'s normal electrical rhythm causing an <u>irregular heartbeat</u> - can lessen the quality or length of a person's life and in extreme cases can even cause sudden death.

In some cases certain medicines can affect the normal electrical activity of the heart and cause these arrhythmias.



The Bristol research team will study whether low levels of the antibiotic, erythromycin, can block such effects and will further investigate the mechanisms involved. It may lead to new ways of preventing or treating harmful drug-induced cardiac side effects.

The two-year project, led by Professor Jules Hancox and Dr Chris Dempsey, has been given a research grant of $\pounds 117,433$ from Heart Research UK.

Sometimes patients taking drugs to treat medical conditions suffer adverse side effects affecting their heart. Evidence shows that up to three per cent of patient prescriptions are for drugs with some potential to cause <u>arrhythmia</u>, so the number of patients exposed to this risk is sizeable.

Certain factors can worsen the risk of drug-induced <u>cardiac arrhythmia</u> but it is not yet possible to predict or avoid all cases of drug-induced arrhythmias.

Professor Jules Hancox, from the School of Physiology and Pharmacology, said:"We are delighted to have received this support from Heart Research UK for this important research project, which will allow us to explore new ways to offset unwanted side effects of drugs on the heart."

Barbara Harpham, National Director of Heart Research UK said: "Irregular heart rhythms are potentially serious and this interesting project will investigate treatments for arrhythmias caused by other medicines. Our aim with grants like this is to support cutting-edge science with the potential to benefit patients as soon as possible."

Provided by University of Bristol



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