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Review highlights impact of long COVID on cardiovascular system

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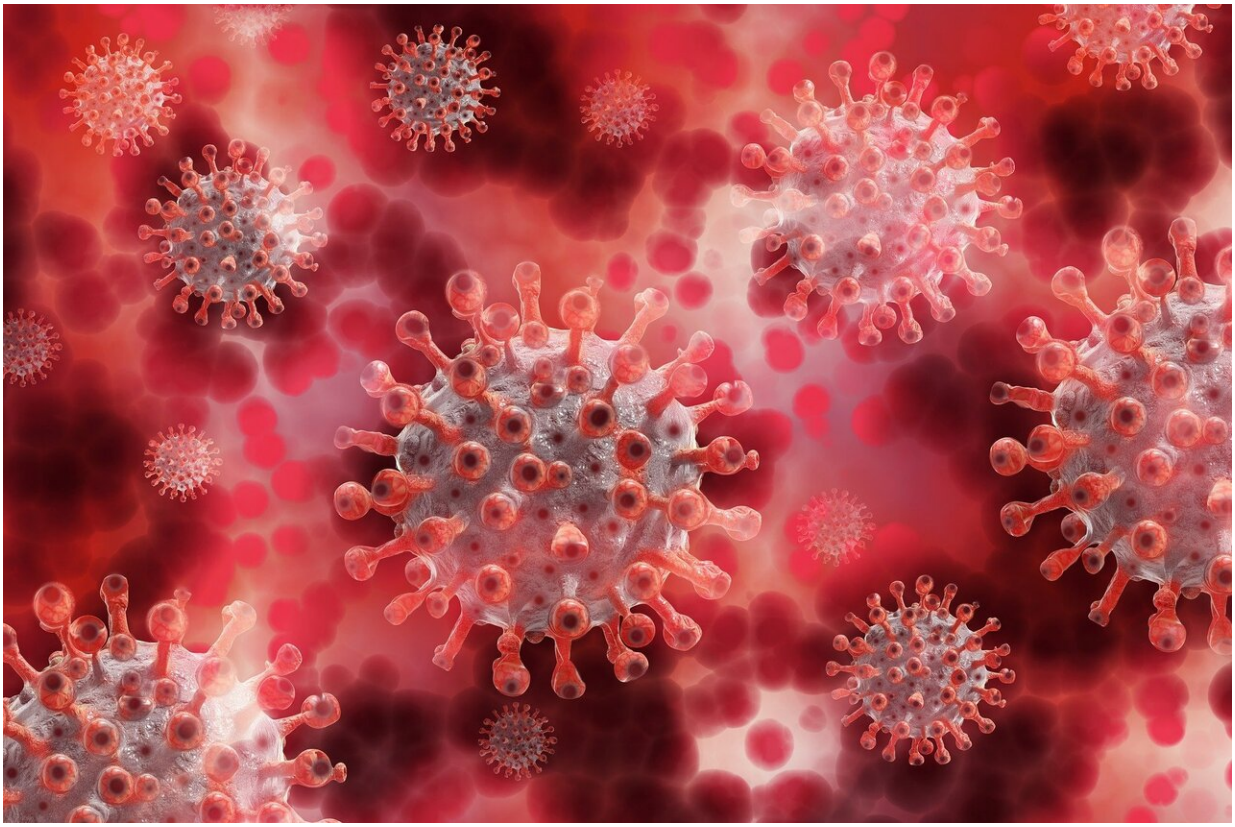

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The wide-ranging effects of long COVID and the associated issues for healthcare providers have been revealed in a new review of the major studies into the condition, which specifically highlights the impact of

Long COVID impact on the cardiovascular system.

The review, published in the *European Heart Journal*, was conducted by researchers from the University of Oxford, the University of Wisconsin School of Medicine and Public Health, Royal Brompton Hospital and Imperial College, London, and the University of Zurich, Switzerland.

The review spans each step from a patient's original coronavirus infection and the direct impacts, such as myocardial infarction or inflammatory myocarditis, to the long-term impacts on aspects of wellbeing such as mental health and fatigue.

The researchers also concluded that current evidence for the treatment of long COVID is lacking and that our current understanding of pathophysiological mechanisms and treatment options remains limited. They also found that the vast inequalities in healthcare provision exposed by COVID-19 continue to be magnified by long COVID, a problem that calls for global humanitarian efforts to promote and fund equitable access to healthcare, social and welfare support, and vaccines across the world.

Dr Betty Raman, of Oxford's Radcliffe Department of Medicine, said that "long COVID is emerging as a major public health issue, which makes it important that we better understand the long-term effects of COVID-19 to improve our treatment of it."

"This review highlights the wide range of short and long-term health impacts and the mechanisms behind them, which is key to providing treatment and ongoing care."

Professor Stefan Neubauer, Head of the Division of Cardiovascular Medicine, Radcliffe Department of Medicine, said that "long COVID is a huge medical challenge. This review gives a comprehensive update on

its effect on the cardiovascular system, and will also be important in guiding future research into the condition and for finding new treatments."

Dr Betty Raman is leading one of the first randomized, double-blind, placebo-controlled studies in the UK. Other trials to date have been open label or non-random assignment of therapy. The team's work is supported by the NIHR Oxford Biomedical Research Centre, a partnership between Oxford University Hospitals NHS Foundation Trust and the University of Oxford.

Professor Thomas Lüscher, Director of Research, Education and Development, Royal Brompton and Harefield Clinical Group, said that "this is the first review that summarizes the diverse evidence on Long Covid and provides a balanced picture of this important issue. The pandemic brought not only acute illness and death, it became a chronic disease of many organs, not just the lungs, but the heart, brain, kidney among others."

"Long Covid is, besides its huge impact for the affected individual, of great societal and economic importance as it leads to leave of absence from work, reduced work performance and hence unforeseen costs."

More information: Betty Raman et al, Long COVID: post-acute sequelae of COVID-19 with a cardiovascular focus, *European Heart Journal* (2022). doi.org/10.1093/eurheartj/ehac031

Provided by University of Oxford