Treatment of chloroquine poisoning

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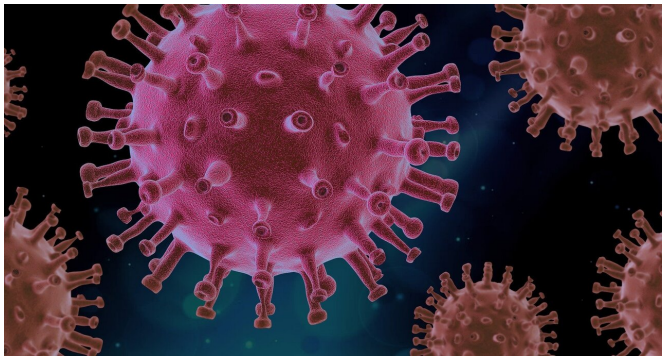

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Research by Bangor University's Professor Dyfrig Hughes has provided important evidence on the safety of treatments that are being tested for use in COVID-19.

Chloroquine, an old drug developed for treating malaria, and hydroxychloroquine, a related drug used in autoimmune diseases, are being used as potential treatments for COVID-19. The Food and Drug Administration authorised their emergency use in the U.S., and clinical guidelines have made recommendations for their use in the prevention and treatment of COVID-19 across many countries.

However, both drugs are poisonous in high dose. Several cases of overdose have been reported, resulting in death in some instances. Recent evaluations of the use of chloroquine and hydroxychloroquine in patients with COVID-19 have confirmed their toxic effects on the heart.

Current recommendations for the management of toxicity include the drug, diazepam. However, it is not known whether diazepam is effective or how it works in this context.

Research by Professor Dyfrig Hughes, co-directs the Centre for Health Economics and Medicines Evaluation, School of Health Sciences, involved experimental models of chloroquine toxicity and studies of the effects of diazepam. The results showed that diazepam alone does not reduce the effects of chloroquine on the heart, but it does improve cardiac function when used in combination with adrenaline—another drug used in the management of chloroquine toxicity.

The research is published in the *British Journal of Pharmacology*.

More information: Dyfrig A. Hughes. Acute chloroquine poisoning: A comprehensive experimental toxicology assessment of the role of diazepam, *British Journal of Pharmacology* (2020). DOI: 10.1111/bph.15101

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