Metformin and outcomes in COVID-19 infection: an electronic cohort study from Wales, UK

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Abstract

There is considerable interest in repurposing metformin as an adjunctive therapy in the treatment of SARS-CoV-2 infection, COVID-19. The efficacy, optimum dose and relevant target-population are, however, undefined. This study used data from the Secure Anonymised Information Linkage (SAIL) Databank to test the hypothesis that COVID-19 outcomes, in terms of hospital admissions or death, were lower in adults with prescribed metformin compared with those not prescribed metformin. 10,247 patient records were identified, of which 2,123 (21%) were prescribed metformin. In those who were either admitted or died within 14 days of a positive COVID-19 result, the mean time to admission (or death) was comparable in both the metformin and metformin groups at 5.3 days (CI95% 5.0-5.7) and 5.7 days (CI95% 5.5-5.9), respectively. There is no evidence from this study that metformin is associated with any benefit to those who contract COVID-19 in the community if they are already prescribed metformin.

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