



# **Diabetes and COVID-19: understanding the reasons for worse outcomes and its management**

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Since the initial COVID-19 outbreak in China in 2019, much attention has been brought on people with diabetes because of poor prognosis in those with the infection. Initial reports mainly focused on type 2 diabetes, although recent survey has pointed out that type 1 diabetes may be at even greater risk. The reason for worse prognosis is likely to be multifactorial, thus reflecting the syndromic nature of diabetes. Age, gender, ethnicity, comorbidities such as hypertension and cardiovascular disease, obesity, impaired kidney function along with a pro-inflammatory, and pro-coagulative state all likely contribute to poor outcome. Glucose-lowering agents and anti-viral treatment may modulate the risk and their use limitations and potential interaction with COVID-19 treatment are to be carefully assessed. Finally, the infection itself may represent a worsening factor as it can precipitate acute metabolic complication though direct negative impact on beta-cell function. The latter may also cause new-onset diabetes or hyperglycaemia at hospital admission, which, per se may represent a severe prognostic factor.