

Diabetes and COVID-19

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After the recognition in December 2019 of a cluster of patients with pneumonia of unknown cause in Wuhan caused by the novel coronavirus, CoV-19,¹ China and the world have faced the extraordinary challenge of a previously unrecognized viral illness with high infectivity.² Every year, millions of persons (5%-15% of the world's population) contract influenza,^{3,4} causing between 300 000 and 600 000 excess respiratory deaths.⁵ In China alone, recent estimates put the annual influenza-associated mortality rate at more than 88 000 persons,⁶ likely in excess of any potential outcome of coronavirus disease 2019 (COVID-19). Regardless of the potential for spread of COVID-19, as with influenza-related mortality,⁷ diabetes is an important risk factor for adverse outcome. Mortality rates among persons with diabetes in Hong Kong age 75 and over from pneumonia currently exceed mortality rates in this age group from cardiovascular disease and from cancer.⁸ Similar evidence of risk among persons with diabetes has been reported for the two earlier CoV infections, severe acute respiratory syndrome (SARS) beginning in 2002 and affecting more than 8000 persons, mainly in Asia^{9,10} and the Middle East respiratory syndrome (MERS) in 2012 affecting more than 2000 persons, mainly in Saudi Arabia.¹¹ As MERS-CoV binds to the receptor-binding domain of human dipeptidyl peptidase IV (DPP-IV), a transgenic mouse model expressing this DPP-IV receptor on pulmonary alveolar cells has been used to study the effect of diabetes in worsening disease severity, showing an association of diabetes with greater weight loss and greater pulmonary inflammation, with macrophage infiltrates similar to those seen clinically in the disease.¹²

We acknowledge the frontline medical staff working day and night in China to rescue critical cases and protect the public health. We know that these great efforts are now and will be in the future crucial in overcoming COVID-19. Providing care to people with diabetes is an important part of the effort. The *Journal of Diabetes* was started more than a decade ago in a spirit of collaboration between East and West addressing the epidemiology, etiology, pathogenesis, management, complications, and prevention of diabetes. The journal is issuing a call for submission of commentaries, original articles, and case reports regarding issues with COVID-19 in patients with diabetes, as well as descriptions of basic aspects of the interrelationships between diabetes and the novel CoV. We hope in this way to support the thousands of Chinese medical workers involving themselves in the care of patients with COVID-19, and we look forward to these efforts helping our goal of eradication of the disease.

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