

NIHR Greater Manchester PSTRC

Plain English Publication Summary

Publication: [Impact of COVID-19 on diagnoses, monitoring, and mortality in people with type 2 diabetes in the UK](#)

Publication details (Vancouver format)

Carr MJ, Wright AK, Leelarathna L, Thabit H, Milne N, Kanumilli N, Ashcroft DM, Rutter MK. Impact of COVID-19 on diagnoses, monitoring, and mortality in people with type 2 diabetes in the UK. *Lancet Diabetes Endocrinol.* 2021 Jul;9(7):413-415.

What are the most important findings/conclusions in this paper? Why are they important?

We found large reductions in the number of people diagnosed, monitored, and treated for type 2 diabetes during the early stages of the COVID-19 pandemic. In April 2020, the number of new diagnoses was down by 70% in England and 68% in the rest of the UK. We estimate that 60,000 people had a missed or delayed diagnosis during 2020. It was a similar case for glucose monitoring and prescribing of antidiabetic medication. Death rates in England were more than twice as high in April 2020. Rates improved between May and December, but diagnosis rates remained well below expected levels, and the number of deaths began to increase again in October and November 2020.

What did you do?

We used the electronic health records from 25 million patients (with more than 14 million patients contributing records during the pandemic) to predict how many diagnoses, monitoring events, prescriptions of medication, and deaths we would have expected if the pandemic had not happened. We then compared the predicted numbers with the numbers that were actually seen in 2020.

Why did you conduct this research?

During 2020, the effect of COVID-19 on the NHS was huge. There were frequent interruptions to most routine care, and the effect on diabetes services in particular, was enormous. But we didn't know how much this had affected the diagnosis and monitoring of type 2 diabetes in particular. Early in the pandemic, almost a third of all COVID-related deaths were in people with diabetes, but there was no available information comparing death rates across the UK in people with type 2 diabetes.

What was known before your paper was published?

There was very little data about the effects of the COVID-19 pandemic on diagnosis of type 2 diabetes. A study from Salford in the UK, showed that there were 135 fewer diagnoses of type 2 diabetes (a 49% reduction) than we would have expected between March and May 2020. We then showed that this reduced diagnosis rate applied to all areas of the UK. To our knowledge, no study at the time had reported the effect of the COVID-19 pandemic on monitoring of patients with diabetes, or had compared national death rates in people with type 2 diabetes across different UK nations.

What is next? What is the potential impact of the work in this paper? What will change as a result of this paper (or the study it describes)?

Healthcare services will need to manage the predicted backlog, as well as the likelihood that patient health will get worse because of delayed diagnoses and reduced monitoring. We showed that older individuals, men, and people from poorer areas were most affected and could benefit from receiving early interventions.

Moving forward, public health communicators needs to make sure that patients remain engaged with diabetes services and make use of monitoring and remote consultations.

In the next phase of the project, we will be examining longer-term outcomes in patients with type 2 diabetes and assessing how outcomes were different for people who were diagnosed (and potentially hospitalised) with COVID-19.

Does this paper link in to a particular study / project? If so, please summarise the study and explain how this paper has improved understanding, or will move the study forward.

This paper is the first output from the rapid-response project called '*Clinical contact with health services for mental illness and self-harm before, during and after the COVID-19 pandemic*'.