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How diabetes management is adapting amid the COVID-19 pandemic



Lockdowns caused by the coronavirus disease 2019 (COVID-19) have turned the lives of people around the world upside down. Yet, for those living with diabetes, the movement restrictions have raised a whole series of extra questions: how can they seek advice; how can their health be monitored; and how can they continue to manage their condition? Healthcare professionals and those who support people with diabetes have rallied during the lockdown to find innovative ways to help.

Dr David Lipscomb, Consultant in Diabetes & Endocrinology, Diabetes Care for You, Sussex Community Foundation NHS Trust, UK, has continued monitoring some of his patients' albumin-to-creatinine ratio during the lockdown using a urinalysis dipstick that is posted to patients and then analysed by a mobile phone application, which sends the results to his team. Katherine Ward, Chief Commercial Officer at Healthy.io, the company that developed the dipstick and app, said: "The Sussex roll-out has been specific to high-risk young people with type 1 diabetes. We have got a 94% consent rate and 70% of those who have consented have done the test. For type 1 diabetes, we've seen the focus on routine screening continue, and the work in Sussex is a good example of that." The test and app are also being used by Barking & Dagenham Clinical Commissioning Group in London, UK, the collection of general practitioners that allocates the health service budget for its area.

Education about how to manage diabetes has also continued during the lockdown. MyWay Digital Health, a company spun-out from the University of Dundee, UK, ran a free online course entitled "Understanding type 2 diabetes" on April 28 and 29, which attracted 2000 participants, ranging from people with diabetes and their carers through to healthcare

professionals and members of the public. The course included information about the causes of diabetes, how to reduce the risk of potential complications, and details of screening. It also featured videos of people with diabetes sharing their experiences, as well as the chance for participants to ask questions and share their experiences in a moderated chat. Dr Debbie Wake, Chief Executive Officer at MyWay Digital Health, NHS Diabetes Consultant and Clinical Reader in Medical Informatics and Diabetes Care & Education at the University of Edinburgh, UK, said: "At the moment, no-one with diabetes can access any face-to-face education. We're doing all our diabetes clinics via telephone and we're triaging only the very highest-risk people for review and screening tests. A lot of people aren't getting any contact at all, so we're trying to plug that gap. A lot of course participants were keen to improve their diabetes control; some even wanted to push their type 2 diabetes into remission. That requires a big lifestyle change, but it's possible."

Diabetes Scotland, a charity that supports people with diabetes, also turned to technology. The organisation runs more than 30 local groups but, because those groups cannot meet during the lockdown, it has developed two digital support groups: one for people aged 16–25 years with type 1 diabetes; and the other for adults with type 2 diabetes. The groups have each run four-week courses with small group sizes to encourage discussions. Angela Mitchell, National Director at Diabetes Scotland, which also recorded a 68% year-on-year increase in calls to its helpline during March and April 2020, said: "Over the past 12 months, we'd been talking about setting up digital support groups in addition to the work the local groups do, because we recognise not everybody wants to engage with a

local group. When COVID-19 happened, it accelerated the plans we already had, and the team has worked hard to bring forward the launch." The charity plans to continue using digital support groups after lockdown eases.

Diabetes Scotland has also worked with Donna Booth, a yoga and mindfulness teacher to deliver online sessions for people with diabetes. She said: "I have adapted the yoga part of the sessions to be chair-based, so that it is easier for me to monitor what they are doing, and the mindfulness part of the sessions is very focused on stress reduction. It has allowed me to help a much wider audience and it has made yoga and mindfulness available to many people with diabetes who might not have had the opportunity or who would have been very nervous about attending face-to-face classes."

Looking ahead, Wake believes that technology will play a greater role in diabetes treatment and management once lockdowns ease, particularly through advances in medical apps and devices linked to smartphone and tablet computer cameras. She added: "A lot of what happens in both the clinical management and the self-management of diabetes can be delivered through technology-enabled approaches, whether that's through uploading symptoms, weight, blood pressure, or blood sugar meter readings from home so that healthcare professionals can review them and give feedback remotely, or uploading diet and physical activity data and then setting goals and delivering education. People with diabetes are at higher risk of poor outcomes from COVID-19 infection, so social distancing is particularly important in this group. There are many ways technology can keep people on track whilst we limit face-to-face contact."

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Published Online
May 15, 2020
[https://doi.org/10.1016/S2213-8587\(20\)30181-9](https://doi.org/10.1016/S2213-8587(20)30181-9)