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Editorial

Pandemic—Helping Us Evolve Our Care for Those Living With Diabetes?

Every aspect of our lives has been affected by the COVID pandemic and, in this issue, there are several articles that help us understand what has happened and how we could prepare for the future. All the articles included are excellent, but here I will highlight a few that fit into the pandemic theme.

The first article, by Moin et al (pages 715–721), looks at what happened to diabetes care in the first 6 months of the pandemic as compared with the pre-pandemic period. They used data from over 1.4 million people living with diabetes in Ontario, Canada. As expected, there was a shift from in-person care to virtual care for both specialist and primary care visits. Thankfully, virtual care was able to pick up the slack, so the overall number of visits was only reduced by about 10% to 12%. However, eye examinations, foot examinations and glycated hemoglobin and low-density lipoprotein testing were significantly reduced.

Surprisingly, the complications of diabetes did not increase. In fact, if anything, there was a slight decrease. The authors speculate that people with diabetes did not go to the hospital because of fear of COVID during the lockdown. Also, complications from reduced care may need more than 6 months to manifest themselves. So, we should not conclude that “pandemic-type care” is good enough to keep those living with diabetes healthy in the long run.

How should we protect people living with diabetes if another lockdown were to happen? One simple way is to make sure that they are already on protective agents. Moin and colleagues described how the use of angiotensin-converting enzymes, angiotensin receptor blockers and statins were maintained throughout the pandemic. In other words, once on these medications, people continued to use them whether or not they were seen, and therefore they remained protected.

This brings me nicely to the second article of interest by Bod-oarca et al (pages 691–698), who looked at sodium-glucose cotransporter-2 inhibitors and glucagon-like peptide-1 receptor agonists and their usage in Canada. These medications have been shown to have cardiorenal benefits in those living with diabetes with atherosclerotic cardiovascular disease, chronic kidney disease and heart failure, but the question is whether they were being used to protect those living with diabetes.

The authors studied 56,411 people living with diabetes in Canada and, based on guideline recommendations, 34% of them should have been on a sodium-glucose cotransporter-2 inhibitor, but, in reality, only 14% were on one. Based on the guidelines, 17% should have been on a glucagon-like protein receptor-1 receptor agonist, but only 4.3% were actually on one. This is important, because, if tomorrow we go into another lockdown, I would want my patients to be on these therapies so that they would be protected regardless of whether or not they could see me in person. We must get our patients protected now.

Moin et al also showed that foot examinations decreased during the pandemic, which could lead to more foot ulcerations. In my practice, I have been asking people with diabetes and their family members to use their smartphones so that I could look for pressure points on their feet. I have even called their phone while it was on vibration mode so that I could assess their vibration sense. All of this is very crude but we do what we can to try to avoid the dreaded diabetic foot ulcers, which take forever to heal.

This is why the study by Costa et al (pages 671–677) on diabetic foot ulcers is of such great interest. They used decellularized dermal matrix to act as scaffolding to help guide the growth of skin cells across the ulcer. The authors assessed 11 individuals with diabetes who had their ulcers for an average of 14 weeks. Amazingly, with just 1 application of this dermal matrix, there was 50% wound closure within 1 week and full wound closure by 2.5 weeks (median time). If there is another lockdown, this would be of immense help to those living with diabetic foot ulcers.

In their work, Moin and colleagues also noted that eye examinations were done less frequently during the pandemic, which brings me to the last article to be highlighted. Nguyen et al (pages 649–654) looked at teleophthalmology, where retinal images are taken and sent to an ophthalmologist to be assessed. Use of this technology would greatly increase access to retinopathy screening, which could prevent blindness.

Nguyen and colleagues interviewed 7 physicians and 7 individuals living with diabetes about teleophthalmology. As expected, the patients liked the idea of doing the screening at their primary care physician's office, which saves them a trip to the specialist. However, physicians were less enthusiastic because of the complicated logistics and, in the event of a positive screen, the primary care physician would still have to deal with a specialist referral. So, teleophthalmology is great, but the process needs to be streamlined.

Perhaps the government can send out reminder notices, like they do for mammograms, and perhaps positive cases could be automatically referred for further assessment. However, all of these things take time and money to set up, so for now we must focus on educating those living with diabetes. We must explain to them that too much glucose can stick to the walls of the blood vessels on the back of the eye, which could affect their vision. We can even use Amsler's grid, which is just a grid of straight lines. If there is edema in the retina, then the retina will bulge and that will make the lines look curved. I have even asked people to look at a calendar and tell me if any numbers are missing or blurry. These are all quick tests that can be used, even during a lockdown.

The silver lining of this pandemic is that it has forced us to rethink how we should best support people living with diabetes. I do not think we should go back to the way things

were pre-pandemic. We must evolve just like the virus has evolved. We need to figure out how to get as much information from a virtual visit so that we can provide good quality care even remotely. We must identify new ways to monitor for organ damage and ensure that people living with diabetes are taking the protective agents that we already have. Most importantly, we need to educate people so that they understand the game plan and so that even if we get disconnected, they will know what to do to keep themselves healthy.

I hope you appreciate the articles in this issue of the *Journal* because each one is like a little beacon of hope and, collectively, they can help to illuminate the best path forward for the care of those living with diabetes. Enjoy.

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