



Saudi National Diabetes Center (SNDC)
Management Guidance for People with Diabetes and
COVID-19 Infection

By SNDC COVID-19 Task Force

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This document is intended for all health care professionals taking care of Patients with Diabetes during COVID-19 Outbreak 2020.



- **Introduction:**

The pandemic of COVID-19 is hitting the world hardly in a real catastrophe not preceded for the last 100 years. It affects all the age groups with no difference between Sick or healthy individuals. Among those affected by the virus are the people with Diabetes who carry great risk of having aggressive complications and poor outcome. In that context the Saudi National Diabetes Center in Saudi Health Council come out with a summarized guidance targeting the Health Professionals in the Management of Diabetes during the outbreak of COVID-19; putting in the Mind the most updated information around the world despite the premature knowledge and experience in this field.

- **Definition, Symptoms, prevention and Treatment of COVID-19 infection: refer to Saudi CDC guidelines:**

<https://www.moh.gov.sa/en/CCC/healthp/regulations/Documents/Novel%20Corona%20Virus%20Infection%20Guidelines.pdf>

- **Risk of comorbidities and mortality of people with diabetes and existing or probable COVID-19 infection:**

The findings from the confirmed cases of the disease from the Chinese Center for Disease Control and Prevention indicated that the overall case-fatality rate (CFR) was 2.3% (1,023 deaths of the 44,672 confirmed cases). The data indicated that the CFR was elevated among COVID-19 patients with preexisting comorbid conditions, specifically, cardiovascular disease (CFR,10.5%), diabetes (7.3%), chronic respiratory disease (6.3%), hypertension (6%), and cancer (5.6%). The data also showed an age-related trend in the CFR, with patients aged 80 years or older having a CFR of 14.8% and those aged 70-79 years, a rate of 8.0%, while there were no fatal cases reported in patients aged 9 years or younger. Prevention from contracting the virus.

The measures recommended by CDC should be encouraged by Health care providers to their patients in particularly:

- To stay at home as long as possible and avoid gathering inside the home
- Wash hands regularly with water and soap
- Avoid Hand shaking
- Should not exposed to sick people



- **Outpatient management of diabetes to control COVID-19:**

From the previous experience; it seems that the ability to fight the infection and decrease the risk of severe infection in people with Diabetes is correlated well with glycemic control, it is suggested that if Hba1c below 7% the risk of severe infection will be similar to the normal population. However, if the patient has other comorbidities like cardiovascular or renal diseases the risk will increase. Therefore, the target of the medical team is to encourage glycemic control before and during contracting the infection by the following measures:

- Secondary care services that may need to continue at full capacity: – multidisciplinary diabetes foot services – pregnancy and diabetes services can be performed remotely.
- Secondary care and community services contacts should be performed remotely as possible to avoid hospital visit.
- Primary care delivered diabetes services Implications for routine diabetes care should be considered in the context of broader longterm condition management and prioritization, taking into account individual risk factors and clinical needs.
- Diabetes services should look to maintain and optimize the health of individuals within their services over the course of the pandemic, and should not underestimate the importance of these contributions to the overall health service response.
- Some services should not be postponed/cancelled if at all possible, due to acuity and potential impacts, eg risk of amputation in the context of active diabetic foot disease.
- Some non-urgent patient contacts could be postponed, but there may not be sufficient capacity in the future to 'catch-up', so it should be acknowledged that postponement will equate to cancellation in a proportion of cases
- Specific visits for blood testing should only be arranged if the results are felt likely to change management. The service performing the remote consultation should make arrangements for the blood testing where necessary.
- Group-based face-to-face contacts should be avoided, and replaced with remote contacts, or if necessary, one-to-one face-to-face contacts. We should avoid unproductive attendances at hospital. Senior decision-making at the first point of contact should reduce or even prevent the need for further attendances.



- Make sure of the availability of medication and to be delivered to the patient even during the detention and staying at home.
- Make sure that the patient has enough supply that's include blood glucose monitoring and insulin pump consumables.
- Patients should have the tools and knowledge to control their diabetes particularly sick day management.

- **Emergency Room Visit recommendations:**

The medical team or health professionals should advice their patients to Visit ER in the following conditions:

- 1- If they have symptoms and signs of Diabetic Ketoacidosis or Hyperosmolar Hyperglycemia Syndrome like Nausea and or vomiting, Abdominal pain, Acetone smelling in the mouth, dizziness or altered level of consciousness, hypotension, and dehydration.
- 2- Symptoms of acute macrovascular complications (CVA, CAD, or critical limb ischemia), e.g. sudden change in mental status, weakness of facial muscles, facial drop, slurred speech, chest pain, sudden palpitation, or shortness of breath, sudden limb pain, or Paresthesia.
- 3- Symptoms of Infected Diabetic foot e.g. wound with foot redness or pus.
- 4- Symptoms of Retinal detachment e.g. sudden change in vision presence of flashes and lights.

- **Indications of admission:**

Avoid unnecessarily admission during the outbreak of the virus unless the patient has one of the following risks:

- Life threatening acute complications e.g. DKA, hyperosmolar hyperglycemia syndrome or severe Hypoglycemia.
- Life threatening acute macrovascular complications e.g. CVA, CAD.
- Sight-threatening complications e.g. retinal detachment.
- Limb threatening complications e.g. infected diabetic foot, acute limb ischemia.



- **Inpatient management of COVID-19 Infection for People with Diabetes:**

- Intensify COVID-19 treatment and support as per approved guidelines.
- Intensify the glyceemic control as per diabetes management guidelines
- The patient should be seen and managed by the most senior physician because Senior decision-making at the first point of contact should reduce or even prevent the need for further attendances
- The medical team must expedite treatment to avoid delay and expedite discharge to minimize length of stay.

References:

- 1- Saudi Center for Disease Prevention and Control COVID-19 resources
- 2- World Health Organization COVID-19 resources
- 3- American Diabetes Association COVID-19 resources, march 25, 2020.
- 4- Joslin Diabetes Center COVID-19 resources, March 24 2020.
- 5- Diabetes UK, COVID-19 and Diabetes update, March 31 2020.
- 6- Diabetes Australia COVID-19 resources update March 27 2020.
- 7- International Diabetes Federation, COVID-19 guidance for people with Diabetes, March 28 2020.