



## The Philippine Society of Endocrinology, Diabetes and Metabolism

### Position Statement on COVID-19 Infection and Diabetes

Coronavirus disease 2019 (COVID-19) has affected millions of lives worldwide, posing unprecedented challenges to global public health. It has infected people of different backgrounds, and from all industries, including healthcare workers. In China, an estimated 3000 health care workers have been infected and at least 22 have died.<sup>1</sup> This illness has disrupted the flow of outpatient and inpatient processes, a difficult challenge for both patients and doctors.

During this time, all physicians are mobilized to make sure that the stability of healthcare continues to be provided despite the crisis. Endocrinologists have joined the frontline forces as direct health providers and/or responders to tele-consults. However, during such a crisis, it is imperative that guidelines and/or recommendations are shared to all medical practitioners and to patients as well to ensure timely provision of care.

The PSEDM would like to provide recommendations for the clinical care of endocrine diseases during this COVID-19 crisis.

#### DIABETES MELLITUS AND COVID-19

Diabetes has been identified as one of the risk factors for increased severity of COVID-19. Persons with diabetes of older age (>60 y/o), with uncontrolled blood sugar, and the presence of complications of diabetes is associated with poor outcome of COVID-19. Based on the data from China,<sup>2</sup> the case fatality rate of people with diabetes who were diagnosed with COVID-19 was 7.3%. In Italy, diabetes accounts for 36% of COVID-19 related deaths.<sup>3</sup> Reports from the Philippine Department of Health (DOH) show that diabetes and hypertension are the most common co-morbidities among the mortalities of COVID-19 infected Filipino patients.<sup>4</sup>

#### Recommendations for persons with diabetes in preventing COVID-19<sup>5</sup>

- 1) Wash your hands often. Avoid touching your face.
- 2) Diabetic patients should stay home and practice social distancing. Limit your exposure to potential carriers of the virus.
- 3) Continue to take your regular oral medications or injectable medications.
- 4) Maintain a healthy and balanced diabetic diet. This should be complemented with proper exercise.
- 5) Monitor your blood sugars regularly using capillary blood glucose. Check for hypoglycemia if you do not feel well.

Get in touch with your doctor for your next follow up.

Handwashing is a recommendation to the general population and must become a regular habit. This applies specifically to persons with diabetes in how they handle their medications, both oral and injectable. Proper handwashing is easy yet essential to avert the transmission of infection.

Our country is under an enhanced community quarantine which means the public is strongly advised to stay at home. Diabetics should go out only when it is extremely necessary, We recommend that social distancing of at least 1 meter be strictly followed. These measures will reduce the exposure of persons with diabetes to infections like COVID-19.

Staying at home means that outpatient follow ups with the healthcare providers are impeded. We recommend that for any health-related concerns, patients with type 1 diabetes should get in touch with their endocrinologists, while type 2 diabetics should be in communication with their endocrinologists, or internal medicine specialists, or general practitioners for continuity of care. We discourage clinic encounters with the physicians as persons with diabetes should avoid crowded areas (such as waiting rooms). We uphold the move of the Philippine Food and Drug Administration to recognize the use of electronic prescriptions to ease patient procurement of medications. We recommend that patients stock enough medications and supplies for blood glucose monitoring for the entire duration of the quarantine.

Uncontrolled blood sugar predisposes a diabetic to contract severe infections. To avoid such occurrence, strict glycemic control should be maintained at all times. We recommend that persons with diabetes follow proper dietary intake and that they exercise at home, as adherence to these practices are known to improve glycemic control, thus, curbing the risk for infection.

#### **Recommendations for Diabetic patients with COVID-19 infection**

- 1) Seek immediate medical attention if you are manifesting respiratory signs and symptoms consistent with COVID-19 infection. Proper assessments and recommendations should be followed.
- 2) Continue to take your regular oral medications or injectable medications.
- 3) Continue to monitor your blood sugars regularly using capillary blood glucose. Check for hypoglycemia if you do not feel well.
- 4) If your condition gets worse please seek immediate emergency room consultation.

All persons with diabetes, whether type 1 or type 2, may experience fluctuations or worsening of glycemic control. Implementation of “sick day rules” is therefore mandatory to overcome potential diabetes decompensation. Close monitoring of blood glucose is recommended, with a frequency of at least 2-3x a day, to properly observe and account the behavior of the patient’s blood glucose during the illness.

If a person with diabetes experiences possible symptoms of COVID-19 such as fever, cough, shortness of breath, joint or body pains (myalgia), and/or diarrhea, they should immediately communicate with their health care provider, and seek advice regarding measures to avert possible deterioration of glycemic control. In case of moderate to severe symptoms, or severe hypoglycemia or hyperglycemia with changes in sensorium, it is necessary to seek immediate emergency consultation.

#### **Recommendation for healthcare providers**

- 1) Physicians should provide a means to communicate with patients with diabetes for continuity of care. (Remote consultation)
- 2) In the outpatient setting: Insulin titration, episodes of hypoglycemia and hyperglycemia should be discussed.
- 3) Among admitted patients:
  - a. All physicians must wear proper personal protective (PPE) equipment in seeing suspected and confirmed COVID 19 patients.
  - b. Allow patients that have stable vital signs to take their own blood glucose test while being visually monitored by a nurse or physician.
  - c. Allow patients that have stable vital signs to take their oral medications or insulin injections while being visually monitored by a nurse or physician.
  - d. When possible, use continuous glucose monitoring (CGM) to help mitigate the exposure of healthcare workers to COVID-19 cases. When using a CGM, we recommend its regular calibration with standard blood glucose testing.

We recommend that hospitals and satellite clinics develop a system optimizing emails, video and phone calls as means of consultation to provide continuity of care and to ensure that patients will be able to seek advice from their physicians. We recommend that physicians provide a means for their patients to communicate with them regarding issues of insulin titration, hypoglycemia and hyperglycemia. This is particularly true in patients with uncontrolled diabetes and those with gestational diabetes.

In the hospital setting, we recommend that all physicians wear the proper PPE in seeing PUIs (Suspect) and COVID positive (Confirmed) patients. To reduce exposure of healthcare workers to COVID-19, we recommend that PUIs and COVID+ patients who have stable vital signs and oxygenation be allowed to monitor their blood glucose and to take their oral anti-diabetic agents on their own, and if they are on insulin, be allowed to inject themselves, provided that they are visually monitored by the nurse or by their attending physician.

We recommend the use of continuous glucose monitoring, whenever possible, to closely monitor the patient's blood glucose as this may reduce the healthcare worker's exposure to the disease. It must be noted, however, that this may have to be compared to finger prick glucose testing for proper calibration and validation.

#### References

1. Adams JG, Walls RM. Supporting the health care workforce during the COVID-19 global epidemic. *JAMA*. 2020. PMID: 32163102. <https://doi.org/10.1001/jama.2020.3972>.
2. Novel Coronavirus Pneumonia Emergency Response Epidemiology Team. [The epidemiological characteristics of an outbreak of 2019 novel coronavirus diseases (COVID-19) in China]. *Zhonghua Liu Xing Bing Xue Za Zhi*. 2020;41(2):145–51. <https://doi.org/10.3760/cma.j.issn.0254-6450.2020.02.003>.
3. Onder G, Rezza G, Brusaferro S. Case-fatality rate and characteristics of patients dying in relation to COVID-19 in Italy. *JAMA* 2020. PMID: 32203977. <https://doi.org/10.1001/jama.2020.4683>.
4. Philippines Department of Health information.
5. Adapted from Puig-Domingo M, Marazuela M, Giustina A. COVID-19 and endocrine diseases. A statement from the European Society of Endocrinology. *Endocrine*. 2020;68(1):2-5. PMID: 32279224. PMCID: PMC7150529. <https://doi.org/10.1007/s12020-020-02294-5>.

Authors are required to accomplish, sign and submit scanned copies of the JAFES Author Form consisting of: (1) Authorship Certification, that authors contributed substantially to the work, that the manuscript has been read and approved by all authors, and that the requirements for authorship have been met by each author; (2) the Author Declaration, that the article represents original material that is not being considered for publication or has not been published or accepted for publication elsewhere, that the article does not infringe or violate any copyrights or intellectual property rights, and that no references have been made to predatory/suspected predatory journals; (3) the Author Contribution Disclosure, which lists the specific contributions of authors; and (4) the Author Publishing Agreement which retains author copyright, grants publishing and distribution rights to JAFES, and allows JAFES to apply and enforce an Attribution-Non-Commercial Creative Commons user license. Authors are also required to accomplish, sign, and submit the signed ICMJE form for Disclosure of Potential Conflicts of Interest. For original articles, authors are required to submit a scanned copy of the Ethics Review Approval of their research as well as registration in trial registries as appropriate. For manuscripts reporting data from studies involving animals, authors are required to submit a scanned copy of the Institutional Animal Care and Use Committee approval. For Case Reports or Series, and Images in Endocrinology, consent forms, are required for the publication of information about patients; otherwise, appropriate ethical clearance has been obtained from the institutional review board. Articles and any other material published in the JAFES represent the work of the author(s) and should not be construed to reflect the opinions of the Editors or the Publisher.



**Unique, interesting, enlightening.  
Your case report and the JAFES.**