



Clinical Duration of COVID-19 Infection in Preexisting Diabetes in Outpatient Primary Care Setting

Elena Tran OMS-IV¹, Dr. Johnny Koor, MD²
¹ Lake Erie College of Osteopathic Medicine, Erie, PA
² South Yonkers Family Medicine, Yonkers, NY

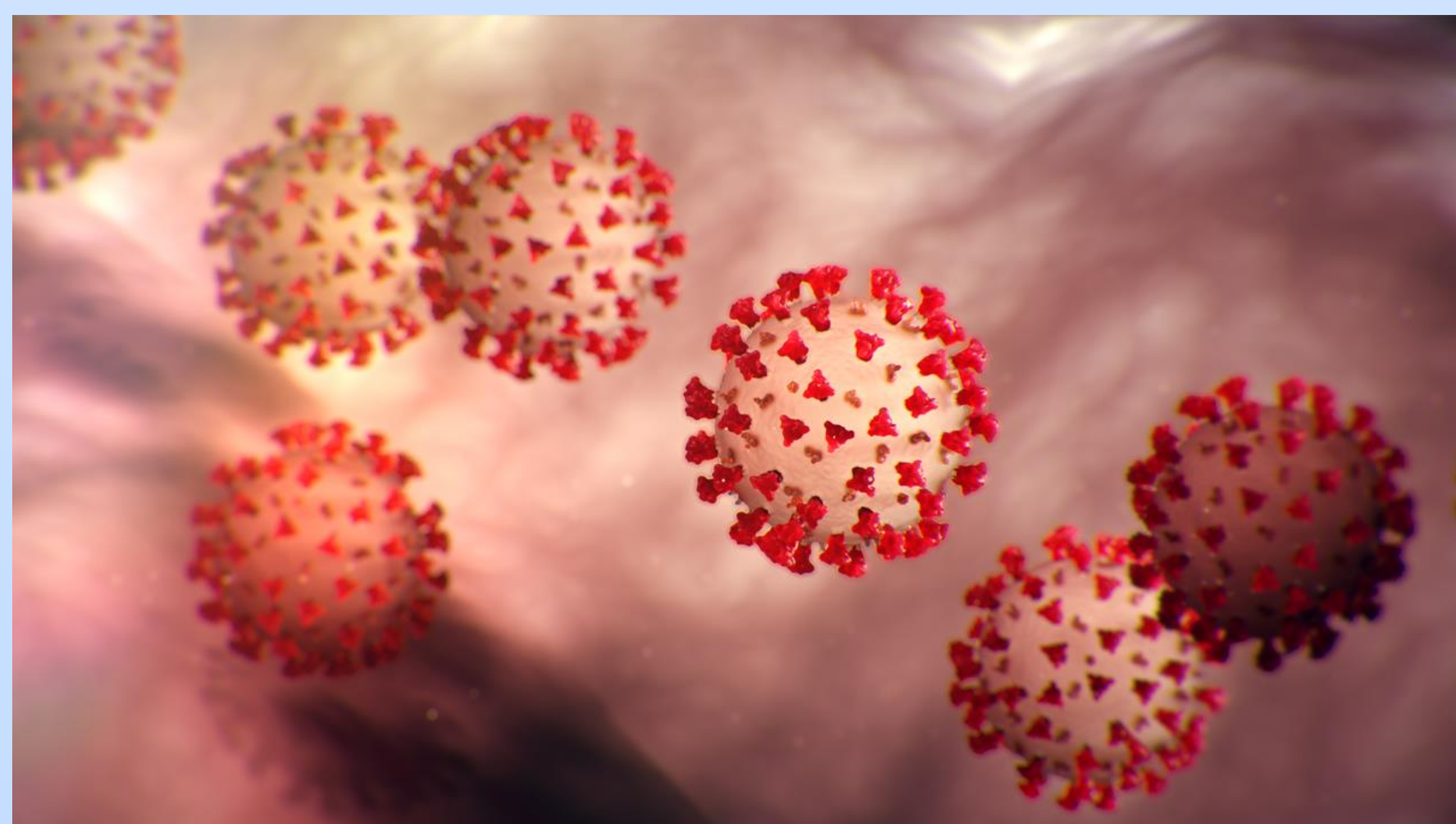


◆ Introduction

- Diabetes affects 37 million people in the U.S. and its growing prevalence and economic stress proves to be a major public health concern.
- Data on whether persons living with diabetes are more likely to be infected with COVID-19 compared to the general population is currently limited¹. However, the potential of serious and permanent complications of COVID-19 is greater in persons with diabetes².
- The consequences of the COVID-19 pandemic have exacerbated resources and created barriers for the outpatient management of diabetes^{3,4}. Primary care providers (PCPs) are expected to bear the brunt of these consequences as most of diabetes management occur in outpatient settings⁵.

◆ Purpose

This study investigates COVID-19 illness duration in persons with diabetes as it relates to improved management for diabetes with COVID-19 infection in outpatient settings.



◆ Methods

Study Design	Original qualitative analysis.
Setting	Outpatient primary care setting located in a suburb of New York City.
Population Studied	Adult patients with preexisting diabetes and history of positive COVID-19 infection.
Intervention	<ul style="list-style-type: none">▪ Retrospective survey of eleven questions.▪ Responses collected for four weeks.▪ Duration of COVID-19 illness experienced was classified as 'severe' duration being more than 10 days of active signs and symptoms and 'mild' duration as less than 10 days or asymptomatic.
Analysis	Content analysis compared qualitative data regarding COVID-19 illness duration experienced in patients with preexisting diabetes to patients without diabetes in an outpatient setting.

COVID-19 Survey:

- 1.) How old are you? _____
- 2.) Do you have diabetes?
a. Yes
b. No
- 3.) What was your most recent HbA1c?
a. Above 7.0%
b. Below 7.0%
- 4.) Have you tested positive for COVID-19 in the past?
a. Yes
b. No
- 5.) Are you COVID vaccinated?
a. Yes- Which one? _____
b. No
- 6.) Did you experience any of the following symptoms: (Circle all that apply)
a. Fever or chills
b. Cough
c. Shortness of breath or difficult breathing
d. Fatigue
e. Muscle or body aches
f. Headache
g. Sore throat
h. New loss of taste or smell
i. Congestion or runny nose
j. Nausea or vomiting
k. Diarrhea
l. Other Symptoms: _____
- 7.) How long did your symptoms last?
a. More than 10 days
b. Less than 10 days
c. Asymptomatic/No symptoms experienced
- 8.) Did you need to be hospitalized for COVID-19?
a. Yes- How many days? _____
b. No
- 9.) Have you experienced lingering COVID-19 symptoms after resolution?
a. Yes
b. No
- 10.) Do you have a history of hypertension/high blood pressure?
a. Yes
b. No
- 11.) Are you taking an ACEI/ARB?
i. Yes
ii. No

Figure 1. Sample survey administered to patients.

◆ Results

- Of 24 respondents, 29% were living with preexisting diabetes and had positive COVID-19 infection history and 71% were patients without diabetes with positive COVID-19 infection history.
- Of patients with preexisting diabetes with positive COVID-19 infection history, 29% reported 'severe' illness duration, including one hospitalization for two weeks.
- Of patients without diabetes with positive COVID-19 history, 24% reported 'severe' illness duration.
- A significant proportion of patients with preexisting diabetes were vaccinated and still felt that their COVID-19 illness duration was increased in length and severity, likely due to hindrance to seek immediate care from their primary care team and suboptimal glycemic management.

◆ Conclusion

We discussed the relevance of further understanding the clinical course and length of COVID-19 disease in diabetes. While no detriments of 'severe' duration illness were reported, many patients expressed still being at great risk of infection and therefore need PCPs to continue prioritizing comprehensive outpatient management and improvement of care of diabetes and COVID-19 in outpatient settings.

◆ Key Takeaways

- Future management and delivery of care for diabetes with concurrent COVID-19 infection in outpatient settings can be improved.
- Persons with diabetes have a greater risk of developing serious symptoms and complications with COVID-19 infection. The risk can be mitigated with optimal management of diabetes.
- The lack of curative treatment and steep infection rate of COVID-19 asserts the need for progressive understanding of the illness' clinical course, including the duration of the infection, specifically in diabetes⁶.

◆ References

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