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## RT-PCR USEFULNESS IN MICROBIOLOGICAL DISCHARGE DECISIONS FOR COVID-19 PATIENTS

### To the Editors:

The Cuban Ministry of Public Health's Protocol for Attention to COVID-19 Patients establishes that case confirmations are determined by positive virological tests of persons with and without symptoms.[1] These studies are carried out for SARS-CoV-2 by real-time polymerase chain reaction (RT-PCR) in specimens of respiratory mucosa collected via nasopharyngeal swab. The Protocol also establishes three types of discharge: microbiological (based on negative RT-PCR), clinical-imaging (no signs or symptoms and negative chest scan) and epidemiological (14 days after negative RT-PCR). A microbiological release from hospital is warranted when a patient tests negative by RT-PCR at nine days after testing positive.[1]


For organizing case management, it becomes important to assess the usefulness of this RT-PCR at nine days post-confirmation. At the Pedro Kourí Tropical Medicine Institute, we analyzed the percent of patients who tested negative on day 9, as well as those testing negative on days 10–14, 15–21 and 22–28. All COVID-19 patients released from the Institute from April through August 2020 were included: 153 total, 95 symptomatic and 58 asymptomatic.

RT-PCRs were negative on day 9 for 75% of cases (115), with statistically significant differences between symptomatic and asymptomatic patients: 68.4% of symptomatic (65) and 86.2% of asymptomatic (50) ( $p = 0.0228$ ).

For the remaining groups, symptomatic and asymptomatic patients tested negative post diagnosis as follows:

- 10–14 days: 10 symptomatic (10.5%) vs. 4 asymptomatic (6.9%);
- 15–21 days: 15 (15.8%) vs. 2 (3.4%); and
- 22–28 days: 5 (5.3%) vs. 2 (3.4%).

The fact that 75% of patients tested negative on day 9 validates the usefulness of the current clinical conduct and its impact on reducing hospital burdens, freeing up beds for other patients if necessary.

We thank Dr María Guadalupe Guzmán-Tirado and Dr Daniel González-Rubio for their revision of the findings expressed in this letter. 

1. Ministry of Public Health (CU). Protocolo de actuación nacional para la COVID-19 [Internet]. Havana: Ministry of Public Health (CU); 2020 Aug [cited 2020 Aug 31]. 215 p. Available at: <https://files.sld.cu/editorhome/files/2020/08/VERSION-5-DEL-PROTOCOLO-PARA-PUBLICAR-13-DE-AGOSTO-2020.pdf>. Spanish.

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## COVID-19 AND DIABETES: HANDLE WITH CARE


### To the Editors:

As the latest issues of *MEDICC Review* reveal, the global scientific community is fully engaged in unraveling the mysteries of COVID-19, including its relationship to chronic conditions such as diabetes mellitus (DM), a frequent comorbidity with SARS-CoV-2 infection. Various studies report up to 30% of persons with COVID-19 are diabetic,[1] and such patients are at greater risk of intrahospital deaths from the disease.[2]

Huang's meta-analysis in China reviewed 30 studies assessing 6452 cases showed that DM patients had worse prognosis (RR 2.38 [CI 95%: 1.88–3.03;  $p < 0.001$ ]) and higher risk of death (RR 2.12 [CI 95%: 1.44–3.11;  $p < 0.001$ ]), severe COVID-19 (RR 2.45 [CI 95%: 1.79–3.35;  $p < 0.001$ ]) and disease progression (RR 3.31 [CI 95%: 1.08–10.14;  $p = 0.04$ ]).[3] Diabetic patients with compromised immune systems and those aged >65 years also had greater risk of dying from COVID-19.[4]

Among the physiopathological factors relating COVID-19 with DM is over expression of angiotensin converting enzyme 2 (ACE2), above all in those patients treated with ACE2 inhibitors for comorbidities or diabetic complications, as well as the cytokine storm induced by glucolipid disorders.

These observations give us ample warning of the need to protect DM patients in the context of COVID-19. However, circumstances provoked by the pandemic, in which specialist consults and follow up for these patients have been limited, can contribute to deteriorating disease control. The lack of physical activity coupled with the stress brought on by social isolation further aggravates the situation for those living with diabetes. Thus, it is left up to patients and their families to pay greater attention to self-care and safety measures.

Health systems and their professionals must seek alternatives that facilitate personalized medical care in the context of the pandemic, including telemedicine options. At the same time, health professionals are challenged to continuously update their knowledge concerning DM and its relation to COVID-19. 

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2. Zhou F, Yu T, Du R, Fan G, Liu Y, Liu Z, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet* [Internet]. 2020 Mar 28 [cited 2020 Jul 10];395(10229):1054–62. Available at: [https://doi.org/10.1016/S0140-6736\(20\)30566-3](https://doi.org/10.1016/S0140-6736(20)30566-3)
3. Huang I, Lim MA, Pranata R. Diabetes mellitus is associated with increased mortality and severity of disease in COVID-19 pneumonia – A systematic review, meta-analysis, and meta-regression. *Diabetes Metab Syndr* [Internet]. 2020 Jul–Aug [cited 2020 Jul 10];14(4):395–403. Available at: <https://doi.org/10.1016/j.dsx.2020.04.018>
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## STRENGTHEN MEDICAL EDUCATION TO IMPROVE ATTENTION TO GERIATRIC HEALTH


### To the Editors:

In her **MEDICC Review** article earlier this year, Ponce-Laguardia emphasized the need for integrating social and psychological support in efforts to improve quality of life (QoL) for older Cuban adults.[1] With global life expectancy on the rise, health professions education should emphasize the importance of active aging and stress appropriate preparation of future doctors on competencies related to geriatric health concerns. In the Dominican Republic, a country of 10.8 million residents with 7.5% of the total population older than 65 years, this complementary training should be widely incorporated across medical schools.

To address this learning gap in our country, we suggest that medical curricula incorporate geriatrics training through three innovative strategies. First, by creating student interest groups, even through established national medical student organizations like Organización Dominicana de Estudiantes de Medicina (ODEM) that can develop student-run activities with community elders that focus on social interactions and health education. Second, by coordinating a community rotation with primary healthcare community centers (Unidad de Atención Primaria, UNAP) so that family doctors can supervise students and facilitate direct interactions with elders to highlight geriatric health concerns and stress the important role of preventive medicine in geriatric health and QoL. Third, by revising clinical rotations to include palliative or end of life training, in order for students to learn and strengthen essential

competencies in preventive medicine, palliative care and communication skills with patients and families.

Integrating such academic community experiences into medical education can also highlight the value of the humanistic touch and more robust social and communication skills, as well as encourage students to seek community-serving opportunities and become involved in a wide range of wellness areas.

We would encourage expansion of this approach to other Latin American countries, to prepare medical students to lead community initiatives that promote adoption of healthy lifestyles and encourage social and community support for older adults. Such action can address current learning gaps about geriatric medicine in medical curricula, offer skills-based training in geriatric health concerns, and provide valuable leadership training for these future physicians as the world experiences a demographic shift towards aging populations. 

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