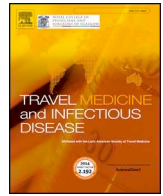




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Will the Colombian intensive care units collapse due to the COVID-19 pandemic?



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Dear Editor,

The current Coronavirus Disease 2019 (COVID-19) pandemic, due to the Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2), further impacts already precarious healthcare infrastructures that are already stretched in Latin America [1]. One of the major concerns in this setting is the management of severe cases of COVID-19. Some estimates indicate that between 10 and 30% of patients with COVID-19 will require admittance to an intensive care unit (ICU) [2]. In countries with limited resources, a relative, but particularly absolute increase in the number of patients requiring ICU may overcome existing infrastructures [3,4]. This is the potential scenario of some countries in Latin America, such as Ecuador, that have apparently already saturated their capacities [5]. For others, such as Colombia, the question remains if ICU will collapse in terms of capacity.

The COVID-19 arrived in Latin America in February 26, 2020, with the first case diagnosed in Brazil [4,6]. After that on March 6, 2020, the first case was diagnosed in Colombia. Some 60 days after the first case (May 4, 2020), a total of 7973 cases have been confirmed by RT-PCR, at the National Institute of Health (www.ins.gov.co) and the national collaborating laboratory network for SARS-CoV-2 diagnosis. The trend shows that a still increasing daily number of new cases (Fig. 1), but from the total, 1807 cases (22.7%) have recovered (negative follow-up RT-PCR) and 358 (4.5%) have died. Among those 5808 active cases, 90.4% of them have been managed at home (asymptomatic and mild

cases), 7.5% have been hospitalized (moderate cases) and 2.1% (120) have been admitted to ICU (severe cases).

With 5845 beds of ICU in Colombia (<https://bit.ly/2ytRap1>), those figures are not currently concerning regarding the occupancy due to COVID-19. Fortunately, 32.5% (39) corresponded to Bogota (capital district) where there is a capacity of > 1000 ICU beds (Fig. 1), followed by Valle del Cauca, 36 (30%), where the capacity is > 800 ICU beds (Fig. 1). The highest number of severe COVID-19 cases requiring ICU is observed in departments with higher ICU capacity (Fig. 1).

Nevertheless, there are five departments of Colombia, out of 32 and the capital district, without ICU. One of them is Amazonas, that have reported 229 cases. The other four departments, Guaviare, Guania, Vaupes and Vichada, have not reported cases to date (May 4, 2020).

Although there is too much to do, and this has been planned by the Ministry of Health of Colombia (MoH), such as the proposed hospital capacity expansion, the current balance is positive for Colombia, after the implemented measures. The MoH has proposed a four-phase plan including an amplification of the installed capacity (releasing 50% of the ICU beds, to make 2650 beds available) (phase 1), optimize the installed capacity (conversion of 2500 intermediate care units to ICU providing mechanical ventilation) (phase 2), extension of the installed capacity (creation of 2500 new ICU) (phase 3), and the critical extension (with 2,176 additional new ICU) (phase 4), to finally have 9826 ICU beds (an increase of 371%). What is unclear is the timing of this influx of patients and whether or not it will happen. With certainty,

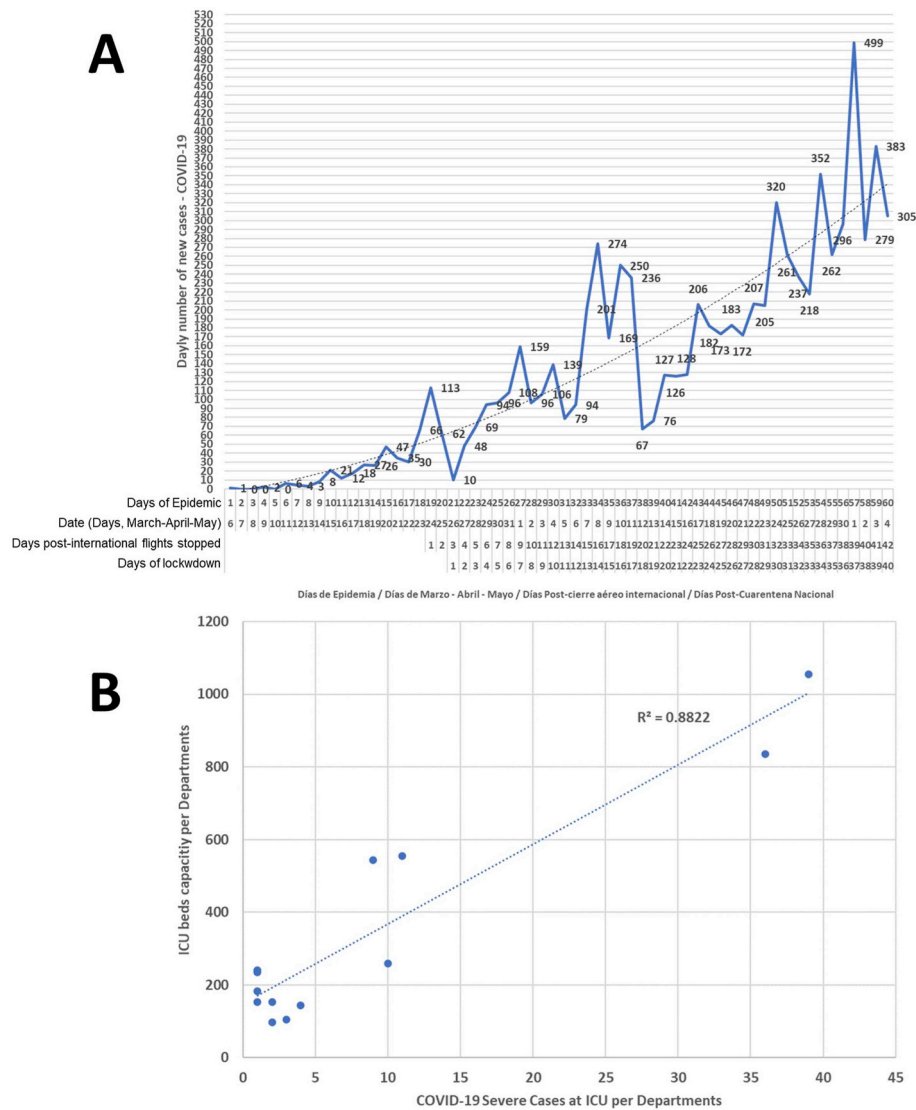


Fig. 1. A. Daily new cases reported of confirmed SARS-CoV-2 in Colombia, first 60 days. B. Relationship between severe COVID-19 cases requiring ICU and ICU beds capacities, by departments, cumulated during the first 60 days in Colombia.

flattening the curve or decreasing the speed of spread of the epidemic will become a cumbersome task for public health professionals and clinicians all over the country. Up to May 17, 2020, Colombia has reported 14,939 confirmed COVID-19 cases (293.6 cases/1,000,000 inhabitants), 24.01% recovered and 3.76% died.

Declaration of competing interest

None.

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Diego Andres Díaz-Guio
 Vital Care Centro de Simulación Clínica, Armenia, Quindío, Colombia
 Faculty of Health Sciences, Universidad Alexander von Humboldt, Armenia, Quindío, Colombia

Wilmer E. Villamil-Gómez
 Infectious Diseases and Infection Control Research Group, Hospital Universitario de Sincelajo, Sincelajo, Sucre, Colombia
 Programa del Doctorado de Medicina Tropical, SUE Caribe, Universidad del Atlántico, Barranquilla, Colombia
 Committee on Tropical Medicine, Zoonoses and Travel Medicina, Asociación Colombiana de Infectología, Bogotá, DC, Colombia
 Latin American Network of Coronavirus Disease 2019-COVID-19 Research (LANCOVID-19), Pereira, Risaralda, Colombia

Luis Dajud
IPS CardioDajud, Sincelejo, Sucre, Colombia

Carlos E. Pérez-Díaz
Clínica Marly, Bogotá, DC, Colombia
Hospital de La Samaritana, DC, Colombia

D. Katterine Bonilla-Aldana
Committee on Tropical Medicine, Zoonoses and Travel Medicina, Asociación
Colombiana de Infectología, Bogotá, DC, Colombia
Latin American Network of Coronavirus Disease 2019-COVID-19 Research
(LANCOVID-19), Pereira, Risaralda, Colombia
Incubator in Zoonosis (SIZOO), Biodiversity and Ecosystem Conservation
Research Group (BIOECOS), Fundación Universitaria Autónoma de las
Américas, Sede Pereira, Pereira, Risaralda, Colombia
Public Health and Infection Research Group, Faculty of Health Sciences,
Universidad Tecnológica de Pereira, Pereira, Risaralda, Colombia

Alvaro Mondragon-Cardona
Latin American Network of Coronavirus Disease 2019-COVID-19 Research
(LANCOVID-19), Pereira, Risaralda, Colombia
Fundación Universitaria Navarra, Neiva, Huila, Colombia
Universidad Surcolombiana, Neiva, Huila, Colombia
Internal Medicine Department and Intensive Care Unit, Clínica
EMCOSALUD – Clínica Uros, Neiva, Huila, Colombia

Jaime A. Cardona-Ospina
Committee on Tropical Medicine, Zoonoses and Travel Medicina, Asociación
Colombiana de Infectología, Bogotá, DC, Colombia
Latin American Network of Coronavirus Disease 2019-COVID-19 Research
(LANCOVID-19), Pereira, Risaralda, Colombia
Public Health and Infection Research Group, Faculty of Health Sciences,
Universidad Tecnológica de Pereira, Pereira, Risaralda, Colombia
Grupo de Investigación Biomedicina, Faculty of Medicine, Fundación

Universitaria Autónoma de las Américas, Sede Pereira, Pereira, Colombia
Grupo de Investigación Infección e Inmunidad, Faculty of Health Sciences,
Universidad Tecnológica de Pereira, Pereira, Risaralda, Colombia
Semillero de Investigación en Infecciones Emergentes y Medicina Tropical,
Faculty of Medicine, Fundación Universitaria Autónoma de las Américas,
Pereira, Risaralda, Colombia
Emerging Infectious Diseases and Tropical Medicine Research Group,
Instituto para la Investigación en Ciencias Biomédicas – Sci-Help, Pereira,
Risaralda, Colombia

José F. Gómez
Intensive Care and Critical Medicine Postgraduate, Faculty of Health
Sciences, Universidad Tecnológica de Pereira, Pereira, Risaralda, Colombia

Alfonso J. Rodríguez-Morales*¹
Committee on Tropical Medicine, Zoonoses and Travel Medicina, Asociación
Colombiana de Infectología, Bogotá, DC, Colombia
Latin American Network of Coronavirus Disease 2019-COVID-19 Research
(LANCOVID-19), Pereira, Risaralda, Colombia
Public Health and Infection Research Group, Faculty of Health Sciences,
Universidad Tecnológica de Pereira, Pereira, Risaralda, Colombia
Grupo de Investigación Biomedicina, Faculty of Medicine, Fundación
Universitaria Autónoma de las Américas, Sede Pereira, Pereira, Colombia
Grupo de Investigación Infección e Inmunidad, Faculty of Health Sciences,
Universidad Tecnológica de Pereira, Pereira, Risaralda, Colombia
Semillero de Investigación en Infecciones Emergentes y Medicina Tropical,
Faculty of Medicine, Fundación Universitaria Autónoma de las Américas,
Pereira, Risaralda, Colombia
Emerging Infectious Diseases and Tropical Medicine Research Group,
Instituto para la Investigación en Ciencias Biomédicas – Sci-Help, Pereira,
Risaralda, Colombia
E-mail address: arodriguezm@utp.edu.co

* Corresponding author. Public Health and Infection Research Group, Faculty of Health Sciences, Universidad Tecnológica de Pereira, Pereira, Risaralda, Colombia.

¹ www.lancovid.org.