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# Use of systemic antibiotics in patients with COVID-19 in Colombia. A cross-sectional study

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**ABSTRACT** 

# OPEN ACCESS

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## **Abstract**

Antibiotics are frequently prescribed to patients with COVID-19. The aim was to determine the pattern of use of systemic antibiotics in a group of patients diagnosed with COVID-19 in Colombia in the 2020-2022 period. This was a descriptive crosssectional study designed to identify antibiotics prescription patterns for patients diagnosed with COVID-19 treated in 8 clinics in Colombia. The AWaRe tool of the World Health Organization (WHO) was used to classify the antibiotics. A total of 10,916 patients from 181 cities were included. The median age of the patients was 57 years, and 56.4% were men. A total of 29.7% of the patients required intensive care unit (ICU) care, and 20.2% required invasive mechanical ventilation. A total of 57.5% received antibiotics, especially ampicillin/sulbactam (58.8%) and clarithromycin (47.9%). Most of the antibiotics were classified as Watch (65.1%), followed by Access (32.6%) and Reserve (2.4%). Men (OR:1.29; 95% CI:1.17-1.43), older adults (OR:1.67; 95%CI:1.48-1.88), patients with dyspnea at admission (OR:1.26; 95%CI:1.13-1.41), rheumatoid arthritis (OR:1.94; 95%CI:1.17-3.20), and high blood pressure (OR:1.45; 95%CI: 1.29-1.63), patients treated in-hospital (OR:5.15; 95%CI: 4.59-5.77), patients admitted to the ICU (OR:10.48; 95%CI:8.82-12.45), patients treated with systemic glucocorticoids (OR:3.60; 95%CI:3.21-4.03) and vasopressors (OR:2.10; 95% CI: 1.60-2.75), and patients who received invasive mechanical ventilation (OR: 2.37; 95% CI: 1.82-3.09) were more likely to receive a systemic antibiotic. Most of the patients diagnosed with COVID-19 received antibiotics despite evidence showing that bacterial coinfection is rare. Antibiotics from the Watch group predominated, a practice that goes against WHO recommendations.

**ATTACHMENTS** 

BD\_COVID-19\_antibiotics.xlsx **Protocol status:** Working We use this protocol and it's

working

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