

Title: **Comparative analysis of clinical characteristics, evolution and mortality of hospitalized patients with COVID-19 during the first and second wave of the pandemic (ECCOVID Study)**

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Abstract:

INTRODUCTION: Clinical features and outcomes of SARS-CoV-2 infections may change between different waves of the pandemic. The objective of this study was to compare clinical characteristics and outcomes between two cohorts of patients hospitalized for COVID-19 during the first and second waves in Argentina.

METHODS: Multicenter and prospective registry of patients ≥ 18 years old with a confirmed diagnosis of COVID-19 admitted to 18 hospitals in Argentina during the first wave (March to October 2020) and second wave (March to July 2021) of the pandemic. Demographics, clinical characteristics, and outcomes of these patients were compared.

RESULTS: A total of 1691 patients were included (first wave $n = 809$, second wave $n = 882$). Hospitalized patients during the second wave were older (median 53 years vs. 61 years, $p < 0.001$), had more comorbidities (71% vs. 77%, $p=0.007$) and required more supplemental oxygen at admission (21% vs 62%, $p < 0.001$). During hospitalization, patients of the second wave required more supplemental oxygen (49% vs. 85%, $p < 0.001$), invasive ventilation (12%

vs. 22%, $p < 0.001$) and had higher 30-day mortality (11% vs. 26%, $p < 0.001$). Comparing only patients who required supplemental oxygen during hospitalization, 30-day mortality was 20% and 30% $p < 0.001$ for the first and second wave, respectively.

CONCLUSION: Compared to patients admitted during the first wave, patients admitted with SARS-CoV2 during the second wave in Argentina were more seriously ill and had a higher mortality.

**Other
Abstract:**

Publisher

Introducción: Las características clínicas y evolutivas de los pacientes con diagnóstico de COVID-19 pueden diferir entre las distintas olas de la pandemia. El objetivo de este estudio fue comparar las características clínicas, evolución y mortalidad de pacientes hospitalizados por COVID-19 durante la primera y segunda ola en Argentina. Métodos: Registro multicéntrico y prospectivo de pacientes = 18 años con diagnóstico confirmado de COVID-19 internados en 18 hospitales de Argentina durante la primera (marzo a octubre 2020) y la segunda ola (marzo a julio 2021) de la pandemia. Se compararon variables demográficas, características clínicas, y evolución a 30 días. Resultados: Se incluyeron un total de 1691 pacientes (primera ola $n = 809$, segunda ola $n = 882$). Los pacientes hospitalizados durante la segunda ola tenían mayor edad (mediana 53 años vs. 61 años, $p < 0.001$), comorbilidades (71% vs. 77%, $p = 0.007$) y requerimiento de oxígeno (21% vs. 62%, $p < 0.001$). Durante la hospitalización, los pacientes de la segunda ola requirieron más oxigenoterapia (49% vs. 85%, $p < 0.001$), asistencia mecánica respiratoria (12% vs. 22%, $p < 0.001$) y presentaron mayor mortalidad (11% vs. 26%, $p < 0.001$). Comparando únicamente a los que requirieron oxigenoterapia durante la hospitalización, la mortalidad a los 30 días fue de 20% y 30% $p < 0.001$ en la primera y segunda ola respectivamente. Conclusión: Comparados con los pacientes internados durante la primera ola, los internados durante la segunda ola de SARS-CoV-2 en Argentina presentaron mayor gravedad y mortalidad.
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