

Category : **Infections + antimicrobials**

**A294 - Vaccine effectiveness of the national vaccination campaign against sars-cov-2 in patients with acute respiratory failure (arf) with criteria for ventilatory support: a multicentric cohort study.**

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## **Introduction:**

Vaccine effectiveness (VE) against SARS-CoV-2 infection, hospitalization, and death from COVID-19 has been demonstrated [1–3]. In Argentina, it was also confirmed in adults  $\geq 60$  years VE to prevent infection and death [4]. However, it has not been possible to evaluate VE in hospitalized and critically ill patients due lack of availability in surveillance data.

Objective: to estimate the VE for death and other clinically relevant outcomes in critically ill patients due to ARF-COVID-19

## **Methods:**

A multicenter retrospective cohort study in 5 ICUs in Argentina. All patients admitted who have ARF-COVID-19 confirmed by real-time PCR were included. Patients were classified as Vaccinated when they had received at least one dose at least 14 days before admission to the ICU; the rest of the patients were classified as Unvaccinated. The outcomes were mortality, endotracheal intubation (ETI), support ventilatory-free days (SVFD), ICU stay, and hospital stay. An inverse probability weighting (IPW) approach was used to control for potential treatment-assigned bias. A robust approach analysis was used to adjust other potential confounders.

## **Results:**

651 patients were included, 91 were Vaccinated [89.9% (n=80) with 1 dose]. No differences were found between the groups in any outcome evaluated (Table 1). Differences in ICU and hospital mortality were not confirmed after adjustment for confounding factors [OR 0.66 (95% CI 0.36-1.22) and 0.69 (95% CI 0.37-1.27), respectively].

## **Conclusion:**

No differences were found between vaccinated and unvaccinated in the results, this could be due to the small number of vaccinated, incomplete regimens (88% only 1 dose), or finally immunized patients who present with ARF-COVID-19 could express some clinical-immunological response of the host that could not be explored.

## **References:**

1. López Bernal J, et al. BMJ. 2021 May 13;373:n10882.
2. Haas EJ, et al. Lancet. 2021;397: 1819–1829.
3. Jara A, et al. N Engl. J Med. 2021.; 386 (10) 875-884.
4. Rearte A, et al. Lancet. 2022;399: 1254–1264.

## **Table:**

	Vaccinated (n=91)	Unvaccinated (n=560)	p
In-hospital mortality, n (%)	37 (40,7)	155 (28)	0.01
ETI, n (%)	41 (45)	248 (44,3)	0.89

ICU stay (days), median (percentile 25-75)	8 (4-15)	9 (4-15)	0,85
Hospital stay (days), median (percentile 25-75)	13 (10-23)	13 (9-28)	0.93
SVFD (días), median (percentile 25-75)	19 (0-24)	18,5 (0-25,5)	0.38
Time to death (days), median. (percentile 25-75)	15 (9-25)	8 (5-11)	<0.001
Time to ETI (days), median (percentile 25-75)	2 (1-4,5)	1 (0-2)	<0,001

*Table 1- Clinical outcomes (unadjusted)*