

BARICITINIB AGAINST SEVERE COVID-19:

EFFECTIVENESS AND SAFETY IN HOSPITAL CARE

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Background and Importance

Baricitinib

Off-label used for COVID19 due to potential role in:

- Systemic inflammation
 - Immune response
- Lung damage
- Viral endocytosis

-50.7 pg/ml

-86.4 mg/l

-159.0 ng/ml

 $+0.41x10^3/mm^3$

 $+51.0x10^3/mm^3$

-347 ng/ml

0 (0)

0 (0)

Aim and Objectives

To analyse the effectiveness and safety of baricitinib for severe COVID-19 in hospitalized patients

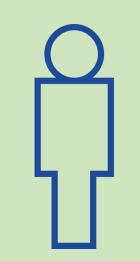
Material and methods



- Observational Tertiary hospital
- Severe COVID19

- - Retrospective Multidisciplinary
- Single-center

Inclusion Adult patients Baricitinib 2-4 mg /24h, 3-4 days criteria Other COVID-19 treatments were allowed





- Age Sex Drugs during admission
- Variables collected
- Time to recovery Adverse events Overall survival

✓ Clinical improvement → Difference in values on a 1-8 scale of clinical status during admission (from 1=hospital discharge without limitation of activities to 8=death) between day +1 of starting baricitinib and day +14.

Data -> Hospital electronic prescription program, Electronic medical record Statistical analysis -> SPSS® v.25 expressing the variables as frequencies, medians with interquartile ranges (IQR) and the Wilcoxon test for p values.

Patients Day 1 Receive	ving Baricitinib		
Characteristic	Patients		
Baricitinib (N = 43)			
< 40 yr	3 (7%)		
40–59 yr	11 (26%)		
60–79 yr	19 (44%)		
≥80 yr	10 (23%)		
Male — no.	30 (70%)		
Hypertension	22 (51%)		
Heart disease	12 (28%)		
Respiratory disease	6 (14%)		
Days with baricitinib	6 (5-7)		
Initial eight-category	6 (6-4)		
ordinal scale			
Analytical parameters improvement day			
$1 \rightarrow day 14 (p < 0.05)$			

Overall survival > 100% No adverse event was found

49 patients were		
administered baricitinib		
		n = 6 were excluded →4 baricit. only 1 day →2 baricit. only 2 days
43 patients were finally		

Drugs during admission — nº (%).		
Azithromycin	42 (98%)	
Ceftriaxone	36 (84%)	
Other antibiotic	19 (44%)	
agent		
Chloroquine or	42 (98%)	
hydroxychloroquine		
Corticosteroids	36 (84%)	
Tocilizumab	8 (19%)	
Convalescent plasma	2 (5%)	
Colchicine	1 (2%)	

Data are median (interquartile range, IQR), n (%), or n/N (%).

included in the study

- Eight-category ordinal scale are:
- 1, not hospitalized, no limitations of activities
- 2, not hospitalized, limitation of activities, home oxygen requirement, or both
- 3, hospitalized, just for infection-control reasons)
- 4, hospitalized, not requiring supplemental oxygen but requiring ongoing medical care
- 5, hospitalized, requiring any supplemental oxygen
- 6, hospitalized, requiring non-invasive ventilation or use of high-flow oxygen devices
- 7, hospitalized, receiving invasive mechanical ventilation or extracorporeal membrane oxygenation (ECMO). 8, death.

Time to recovery \rightarrow no days to reach categories 1 or 2 on the eight-category scale

Ordinal Scale Initial 8-category scale N = 43Overall 3 (1-4) Clinical 3 (2-4) 2 (1-2) 2 (1-2) p<0.01* improvement** Overall survival at 43 (100) 23 (53) 12 (28) 8 (19) day 14 20 (14-18 (13-23 (15-Time to recovery 12 (9-25) in days** 29) 31) 34) 8-category ordinal 3 (2-4) 23 (53) 12 (28) 8 (19) scale at day 14 3 (7) 2 (5) 6 (14) 1 (2) 1 points 20 (47) 2 points 2 (5) 3 (7) 1 (2) 0 (0) 3 points 1 (2) 8 (19) 3 (7) 4 (9) 4 points 0 (0) 3 (7) 3 (7) 0 (0) 5 points 3 (7) 0 (0) 3 (7) 0 (0) 6 points

0 (0)

7, 8 points

0 (0)

Interleukin (IL)-6

C-reactive protein

Serum ferritin

Lymphocyte count

Platelets

D-Dimers

Outcomes Overall and According to Score on the

Conclusion and Relevance

Patients treated with baricitinib for COVID-19 in our study presented statistically significant clinical and analytical improvement without relevant adverse events. The results of ongoing clinical trials will show more light on its efficacy and safety in treating COVID-19