

# PANLAR 2022 - Abstract Submission

COVID-19

PANLAR2022-ABS-1265

## Glucocorticoids, Rituximab And Interstitial Lung Disease Are Associated With Poor Outcomes Of The Sars-Cov-2 Infection In Patients With Rheumatoid Arthritis: Data From The National Sar-Covid Registry.

Andrea Belen Gomez Vara<sup>1</sup>, Tatiana Barbich<sup>1</sup>, Carolina A Isnardi<sup>1, 2</sup> on behalf of SAR-COVID, Emilce E Schneeberger<sup>1</sup>, Gustavo Citera<sup>1</sup>, Vanessa Castro Coello<sup>3</sup> on behalf of SAR-COVID Registry, Roberto M Baez<sup>3</sup> on behalf of SAR-COVID Registry, María J Haye Salinas<sup>3</sup> on behalf of SAR-COVID Registry, Alvaro A Reyes Torres<sup>3</sup> on behalf of SAR-COVID Registry, Juan A Albiero<sup>3</sup> on behalf of SAR-COVID Registry, Romina Tanten<sup>3</sup> on behalf of SAR-COVID Registry, Edson Velozo<sup>3</sup> on behalf of SAR-COVID Registry, Paula Alba<sup>3</sup> on behalf of SAR-COVID Registry, Maria J Gamba<sup>3</sup> on behalf of SAR-COVID Registry, Carla G Alonso<sup>3</sup> on behalf of SAR-COVID Registry, Hernán Maldonado Ficco<sup>3</sup> on behalf of SAR-COVID Registry, Josefina Gallino Yanzi<sup>3</sup> on behalf of SAR-COVID Registry, Veronica Savio<sup>3</sup> on behalf of SAR-COVID Registry, Cecilia Asnal<sup>3</sup> on behalf of SAR-COVID Registry, Sabrina S De la Vega Fernandez<sup>3</sup> on behalf of SAR-COVID Registry, Lorena Takashima<sup>3</sup> on behalf of SAR-COVID Registry, Leandro Carlevaris<sup>3</sup> on behalf of SAR-COVID Registry, María S Gálvez Elkin<sup>3</sup> on behalf of SAR-COVID Registry, Julia Scafati<sup>3</sup> on behalf of SAR-COVID Registry, Mercedes García<sup>3</sup> on behalf of SAR-COVID Registry, Noelia German<sup>3</sup> on behalf of SAR-COVID Registry, Marina L Werner<sup>3</sup> on behalf of SAR-COVID Registry, Carolina Aeschlimann<sup>3</sup> on behalf of SAR-COVID Registry, Santiago E Agüero<sup>3</sup> on behalf of SAR-COVID Registry, María E Calvo<sup>3</sup> on behalf of SAR-COVID Registry, Luciana Gonzalez Lucero<sup>3</sup> on behalf of SAR-COVID Registry, Gustavo F Rodriguez Gil<sup>3</sup> on behalf of SAR-COVID Registry, Marianela E Mauri<sup>3</sup> on behalf of SAR-COVID Registry, Sandra Petruzzeli<sup>3</sup> on behalf of SAR-COVID Registry, Diana M Castrillon<sup>3</sup> on behalf of SAR-COVID Registry, Leticia Ibañez Zurlo<sup>3</sup> on behalf of SAR-COVID Registry, María D Alonso<sup>3</sup> on behalf of SAR-COVID Registry, Jessica L Tomas<sup>3</sup> on behalf of SAR-COVID Registry, Dora L Vasquez<sup>3</sup> on behalf of SAR-COVID Registry, Sidney Soares de Souza<sup>3</sup> on behalf of SAR-COVID Registry, Natalia Herscovich<sup>3</sup> on behalf of SAR-COVID Registry, Laura Raiti<sup>3</sup> on behalf of SAR-COVID Registry, Jonatan M Mareco<sup>3</sup> on behalf of SAR-COVID Registry, Debora Guaglianone<sup>3</sup> on behalf of SAR-COVID Registry, Ana C Ledesma<sup>3</sup> on behalf of SAR-COVID Registry, Mónica P Diaz<sup>3</sup> on behalf of SAR-COVID Registry, Maria E Bedoya<sup>3</sup> on behalf of SAR-COVID Registry, Boris Kisluk<sup>3</sup> on behalf of SAR-COVID Registry, Gimena Gomez<sup>4</sup> on behalf of SAR-COVID Registry, Karen Roberts<sup>4</sup> on behalf of SAR-COVID Registry, Rosana Quintana<sup>4</sup> on behalf of SAR-COVID Registry, Guillermo J Pons-Estel<sup>4</sup> on behalf of SAR-COVID Registry

<sup>1</sup>Rheumatology, Instituto de Rehabilitación Psicofísica, <sup>2</sup>Research Unit, Argentine Society Rheumatology, <sup>3</sup>On behalf of the SAR-COVID Registry, <sup>4</sup>Research Unit, Argentine Society of Rheumatology, CABA, Argentina

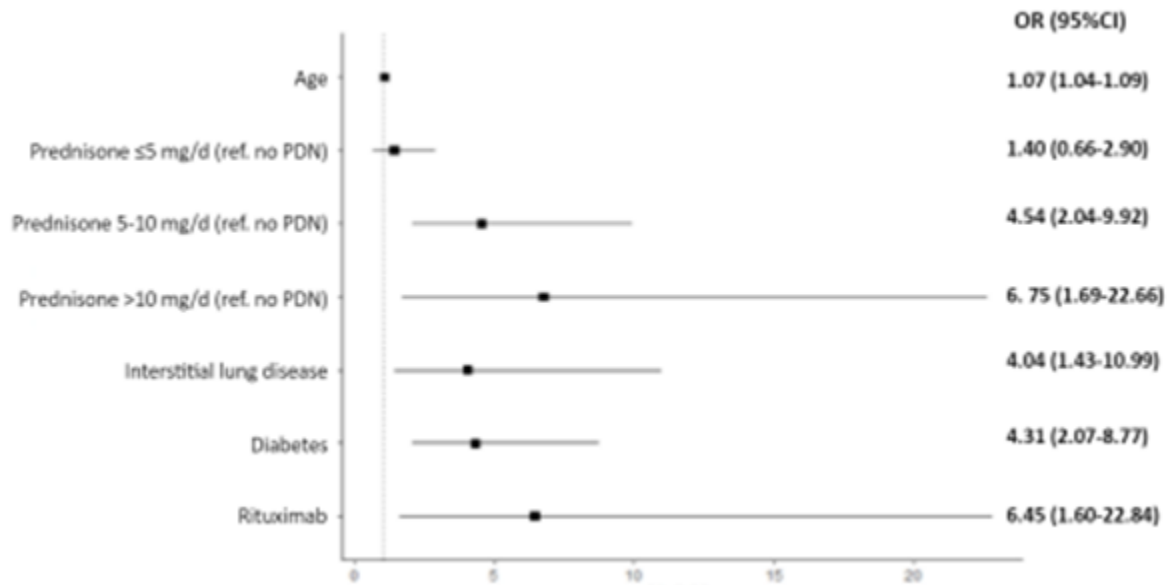
**Objectives** To assess clinical characteristics, severity and factors associated with poor COVID-19 outcomes in patients with rheumatoid arthritis (RA).

**Methods** SAR-COVID is a national, longitudinal and observational registry. Patients of  $\geq 18$  years old, with diagnosis of RA (ACR-EULAR 2010 criteria) who had confirmed SARS-CoV-2 infection (RT-PCR or positive serology) were included between 13-8-20 and 31-7-21. Sociodemographic, clinical data, comorbidities, disease activity and treatment at the moment of the infection were collected. Clinical data of the infection was registered. Infection severity was assessed using the WHO-ordinal scale (WHO-OS)<sup>1</sup>. A cut-off value of  $\geq 5$  identified patients with severe COVID-19 and those who died.

**Results** A total of 801 patients were included, with a mean age of  $53 \pm 13$  years, 84% were female and median (*m*) disease duration was 8 years (IQR 4-14). One third were in remission and 46% had comorbidities, hypertension (26%), dyslipidemia (13%), obesity (13%) and diabetes (9%). Moreover, 3% had interstitial lung disease (ILD). At SARS-CoV-2 diagnosis, 42% were receiving glucocorticoids (GC), 74% conventional (c) disease modifying antirheumatic drugs (DMARD), 24% biologic (b) DMARD and 9% targeted synthetic (ts) DMARD. During the SARS-CoV-2 infection, 27% required hospitalization and 4% died due to COVID-19. A total of 7% met WHO-OS $\geq 5$ ; they were older ( $63 \pm 12$  vs  $52 \pm 12$ ,

p<0.001), had more frequently ILD (18%vs2%, p<0.001), comorbidities (82% vs 43%, p<0.001), treatment with GC (61% vs 40%, p=0.04) and RTX (8% vs 1%, p=0.007). In multivariable analysis, older age, the presence of diabetes, ILD, the use of GC and RTX were significantly associated with WHO-OS≥5 (Img.1). Furthermore, older age (65±10vs52±12, p<0.001), the presence of comorbidities (88%vs45%, p<0.001), chronic obstructive pulmonary disease (22%vs5%, p=0.002), diabetes (30% vs7.9%, p<0.001), hypertension (57%vs25%, p<0.001), cardiovascular disease (15%vs3%, p=0.005), cancer (9%vs1%, p=0.001), ILD (23%vs2%, p<0.001) and the use of GC (61% vs 41%, p=0.02) were associated with mortality. Older age [OR 1.1 IC95% 1.06-1.13] and the use of 5-10 mg/day GC [OR 4.6 IC95% 1.8-11.6] remained significantly associated with death in the multivariable analysis.

**Image 1**



**Conclusion** Treatment with RTX and GC, older age, diabetes and ILD were associated with poor COVID-19 outcomes. Older patients and those taking GC had a higher mortality rate.

**Reference 1** World Health Organization coronavirus disease (COVID-19) Therapeutic Trial Synopsis Draft 2020.