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## NEW DATA AT EULAR 2022: RISK FACTORS FOR SEVERE COVID-19 OUTCOMES IN A LARGE US HEALTH CARE SYSTEM

**More reliable analysis on larger populations is essential for current and future pandemics**

**COVID-19 is the disease caused by SARS-CoV-2 infection. Data from a large US health care system have been used to analyse COVID outcomes of patients with and without immune-mediated inflammatory diseases (IMIDs). Overall, patients with and without IMIDs had a similar rate of hospitalization, need for mechanical ventilation, and death. The strongest associations with COVID-19 severity included heart failure and age. Spondyloarthritis was weakly associated with favourable outcomes, whereas use of some rheumatic drugs was associated with increased hospitalization and mortality.**

The risk of acquiring COVID-19 – and the severity of illness – in the context of IMIDs and their therapy, remains incompletely understood. Reported infection rates and outcomes have varied depending on the specific IMID, the nature and size of the study population, and the presence or absence of appropriate control populations.

At the 2022 EULAR Congress in Copenhagen, Dr Philip Mease reported results from this large US analysis, designed to determine whether specific IMIDs – including common rheumatologic conditions and specific immunomodulatory drugs – are associated with certain outcomes from COVID-19 infection.

Overall, the results showed that rates for positive COVID-19 tests, invasive mechanical ventilation, and mortality were not greater in people with IMIDs compared to those without, whilst hospitalization rates were similar.

The most important risk factors for hospitalization were found to be age and presence of heart failure. When considering the need for invasive mechanical ventilation, heart failure was the most important risk factor, whereas age was the most important factor for increased mortality. Diabetes showed weak associations with these three outcomes.

Spondyloarthritis was weakly associated with decreased hospitalization, ventilation, and death. The use of conventional synthetic disease-modifying antirheumatic drugs (csDMARDs) and corticosteroids showed a weak association with hospitalization, and rituximab showed a weak association with increased mortality.

Following the original abstract submission, Dr Mease adds an update that the study now includes data for 230,773 patients with positive COVID-19 tests. Analyses include additional IMIDs and medications, with results for two time intervals: before and after the emergence of the Omicron variant. Overall, patients with IMIDs have higher percentages of hospitalization and death than the non-IMID population, likely associated with age and comorbidities. However, in multivariable analyses, few IMIDs showed association with severe outcomes, and those that did had lower predictive value in outcome models. Vaccination and booster status was strongly associated with favorable outcomes.

**Source**

Mease PJ, et al. Risk factors for severe COVID-19 outcomes: a study of immune-mediated inflammatory diseases, therapies and comorbidities in a large US healthcare system. Presented at EULAR 2022; abstract OP0247.

**About EULAR**

EULAR – the European Alliance of Associations for Rheumatology – is the European umbrella organisation representing scientific societies, health professional associations and organisations for people with rheumatic and musculoskeletal diseases (RMDs). EULAR aims to reduce the burden of RMDs on individuals and society and to improve the treatment, prevention and rehabilitation of RMDs. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances into daily care and fights for the recognition of the needs of people with RMDs by the EU institutions through advocacy action.

**About the EULAR European Congress of Rheumatology**

Since its introduction in 2000, the annual EULAR European Congress of Rheumatology has become the primary platform for exchange of scientific and clinical information in Europe. It is also a renowned forum for interaction between medical doctors, scientists, people with arthritis/rheumatism, health professionals and representatives of the pharmaceutical industry worldwide. The EULAR congress is usually held in June in one of the major cities in Europe.

The scientific programme covers a wide range of topics on clinical innovations, clinical, translational and basic science. Meetings set up by associations of people with arthritis/rheumatism, health professionals and the health care industry complement the programme. The poster sessions, offering lively interaction between presenters and participants, are regarded by many as the heart of the congress.

Over the years, the EULAR Congress has gained a reputation of being a most innovative platform for the practicing physician particularly with respect to the acquisition of information on novel clinical research. The congress attracts more than 18,000 delegates from more than 130 countries.

The aim of the EULAR European Congress of Rheumatology is to provide a forum of the highest standard for scientific, both clinical and basic, educational, and social exchange between professionals involved in rheumatology, liaising with patient organisations, in order to achieve progress in the clinical care of people with rheumatic diseases.

**Contact**

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