

2022 PRESS CONFERENCE AGENDA

Date: Wednesday, 1 June, 2022

Time: 14:30 – 15:30 CEST

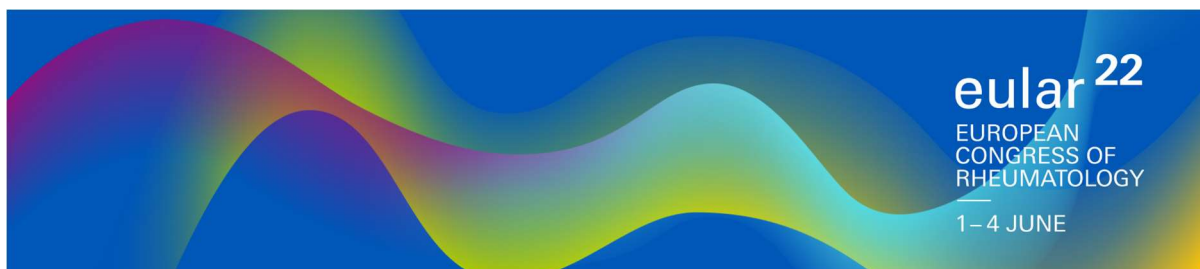
Chairpersons: Ms Carina Haupt, EULAR Research Manager

Location: Press Office – Bella Center Copenhagen (Onsite)

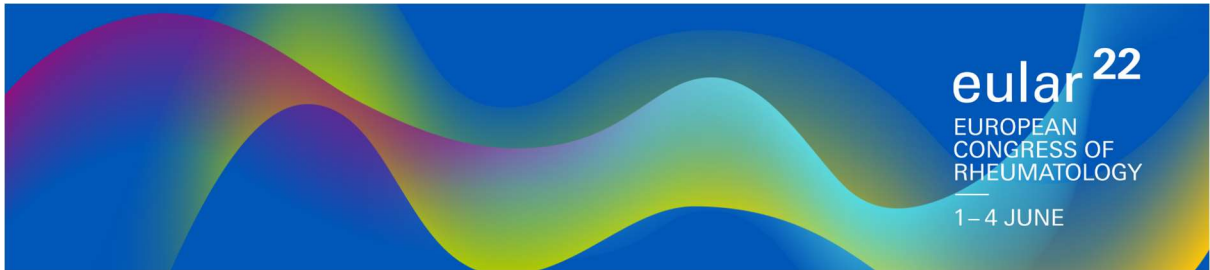
TIME	PRESENTATION	SPOKESPERSON
14:30	Introduction	Ms Carina Haupt <i>EULAR Research Manager</i>
14:35	EULAR at the age of 75 – Fit for the future Welcome message from EULAR President EULAR 75th Anniversary timeline	Prof Annamaria Iagnocco <i>EULAR President and Professor of Rheumatology, Department of Clinical and Biological Sciences, University of Turin, Italy</i> Curriculum vitae: https://orcid.org/0000-0001-5592-724X
14:45	Facilitate RMD research across Europe: The emerging EULAR Research Centre <i>RMD Open article</i> Reuter K, Haupt C, Molto A, Cope AP, van Vollenhoven RF, Elewaut D, Lories R, McInnes IB. Leveling the playing field of RMD research across Europe to address patients' needs: the emerging EULAR Research Centre. <i>RMD Open</i> 2022; in Press.	Prof Iain McInnes <i>EULAR Past President, Director of Institute of Infection, Immunity and Inflammation, University of Glasgow, Scotland/UK</i> Curriculum vitae: https://orcid.org/0000-0002-6462-4280 Prof Dirk Elewaut <i>EULAR Research Chair, Head Clinician, Rheumatology, UZ Ghent and Professor, Faculty of Medicine and Health Sciences, Ghent University, Belgium</i> Curriculum vitae: https://orcid.org/0000-0002-7468-974X

15:00	<p>Lessons learned from COVID</p> <p>EULAR COVID registries</p> <p>COVID related press releases</p> <ul style="list-style-type: none"> • Abstract nr 4704: COVID-19 breakthrough infections in vaccinated patients with immune-mediated inflammatory diseases and controls. <i>Presentation nr OP0178.</i> • Abstract nr 3386: Characteristics and outcomes of SARS-CoV-2 breakthrough infections among double and triple vaccinated patients with inflammatory rheumatic diseases. <i>Presentation nr OP0179.</i> <p>See press release (COVID BREAKTHROUGH INFECTIONS: RMD NOT NECESSARILY A RISK GROUP FOR SEVERE COVID-19) Embargo: Thursday, 02 June 2022 (11:45 CEST)</p> <ul style="list-style-type: none"> • Abstract nr 349: Incidence of COVID-19 infection and hospitalisation according to vaccination status and DMARD treatment in patients with rheumatoid arthritis. <i>Presentation nr OP0173.</i> • Abstract nr 1600: The impact of immunomodulating treatment on the immunogenicity of COVID-19 vaccines in patients with immune-mediated inflammatory rheumatic diseases compared to healthy controls. <i>Presentation nr OP0172.</i> • Abstract nr 1230: Serological response and safety of a three-dose SARS-CoV-2 vaccination strategy in patients with immune-mediated inflammatory diseases on immunosuppressive therapy. <i>Presentation nr OP0192.</i> <p>See press release (IMMUNOGENICITY OF COVID VACCINES IN PEOPLE WITH RHEUMATIC DISEASE) Embargo: Friday, 03 June 2022 (10:30 CEST)</p> <ul style="list-style-type: none"> • Abstract nr 2163: Risk factors for severe COVID-19 outcomes: a study of immune-mediated inflammatory diseases, therapies and comorbidities in a large US healthcare system. <i>Presentation nr OP0247.</i> <p>See press release (NEW DATA AT EULAR 2022: RISK FACTORS FOR SEVERE COVID-19 OUTCOMES IN A</p>	<p>Prof Pedro Machado <i>EULAR Lead for the COVID-19 Registries, University College London (UCL), London, UK</i></p> <p>Curriculum vitae: https://orcid.org/0000-0002-8411-7972</p> <p>Dr Elsa Mateus <i>EULAR PARE Vice President, EUPATI Fellow, President of the Board of the Portuguese League Against Rheumatic Diseases</i></p> <p>Curriculum vitae: https://orcid.org/0000-0003-0059-2141</p>
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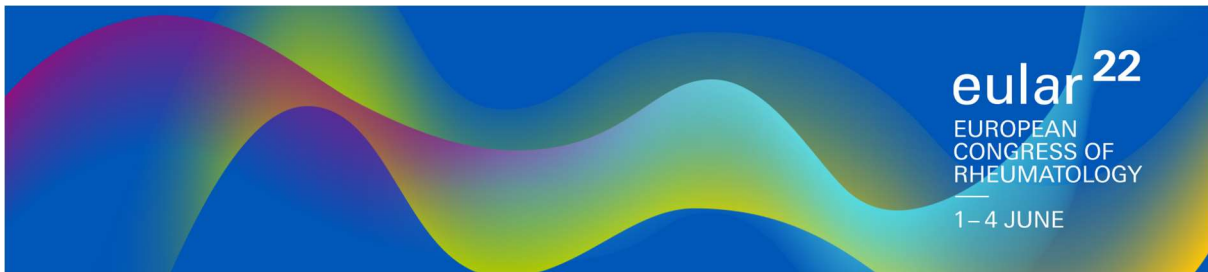
	<p><i>LARGE US HEALTH CARE SYSTEM</i> Embargo: Wednesday, 01 June 2022 (0:01 CEST)</p> <p>See press release (<i>EULAR COVID-19 REGISTRY TO CLOSE</i>)</p> <ul style="list-style-type: none"> • Abstract nr 1753: Characteristics associated with poor COVID-19 outcomes in people with psoriasis and spondyloarthritis: data from the COVID-19 PsoProtect and Global Rheumatology Alliance physician-reported registries. <i>Presentation nr OP0249</i> • Abstract nr 3235: Factors associated with severe COVID-19 outcomes in patients with idiopathic inflammatory myopathy: Results from the COVID-19 Global Rheumatology Alliance physician-reported registry. <i>Presentation nr OP0252</i> • Abstract nr 1325: SARS-CoV-2 vaccine safety in adolescents with inflammatory rheumatic and musculoskeletal diseases and adults with juvenile idiopathic arthritis. <i>Presentation nr POS1212</i> <p>See press release (<i>NEW EVIDENCE SUPPORTING COVID SEVERITY RISK FACTORS IN PEOPLE WITH DIVERSE RHEUMATIC DISEASES</i>) Embargo: Wednesday, 01 June 2022 (0:01 CEST)</p>	
15:10	<p>Abstract Highlights 1: Air pollution driving inflammatory arthritis?</p> <ul style="list-style-type: none"> • Abstract nr 533: Association between exposure to fine particulate matter and osteoporosis: a population-based cohort study. <i>Presentation nr OP0242.</i> • Abstract nr 532: Association between long-term exposure to air pollution and immune-mediated diseases: a population-based cohort study. <i>Presentation nr OP0071.</i> • Abstract nr 2626: Cleaning activities, dusty clothes laundry and talcum handling are underestimated major sources of exposure to crystalline silica in women with rheumatoid arthritis. <i>Presentation nr OP0006.</i> 	<p>Prof Hendrik Schulze-Koops <i>EULAR Scientific Programme Chair, Head of Rheumatism Unit, Klinikum der Universität München, Medical Clinic and Polyclinic IV</i></p> <p>Curriculum vitae: https://orcid.org/0000-0002-1681-491X</p>



	<p>See press release (AIR POLLUTION A KEY ENVIRONMENTAL EXPOSURE DRIVING INFLAMMATORY ARTHRITIS DEVELOPMENT) Embargo: Wednesday, 01 June 2022 (0:01 CEST)</p>	
15:20	<p>Abstract Highlights 2: Sexual life and pregnancy</p> <ul style="list-style-type: none"> • Abstract nr 3226: The management of pregnancy in autoimmune rheumatic diseases: analysis of 758 pregnancies. <i>Presentation nr OP0124.</i> • Abstract nr 292: Are women with spondyloarthritis at increased risk of adverse maternal and infant outcomes? – A Swedish cohort study. <i>Presentation nr OP0126.</i> • Abstract nr 4496: Unfavorable pregnancy outcome is significantly associated with corticosteroid exposure during pregnancy in women with rheumatoid arthritis. <i>Presentation nr OP0127.</i> • Abstract nr 2846: Adherence to medications during pregnancy in systemic autoimmune disease. <i>Presentation nr OP0128.</i> <p>See press release (INVESTIGATING PREGNANCY OUTCOMES IN WOMEN WITH RHEUMATIC DISEASE) Embargo: Wednesday, 01 June 2022 (0:01 CEST)</p> <ul style="list-style-type: none"> • Abstract nr 5263: Impact of chronic joint diseases on the sexual sphere with regards to a healthy population: a multicentre study. <i>Presentation nr OP0139.</i> • Abstract nr 357: Effect of an 8-week specialized physical therapy program on sexual health in female patients with systemic sclerosis and idiopathic inflammatory myopathies: A pilot study. <i>Presentation nr OP0208-HPR.</i> <p>See press release (PEOPLE WITH RHEUMATIC DISEASES HAVE DETERIORATED SEX LIVES) Embargo: Wednesday, 01 June 2022 (0:01 CEST)</p> <ul style="list-style-type: none"> • Abstract nr 2031: Preconceptional NSAID 	<p>Prof Marta Mosca <i>EULAR Abstract Chair, Professor of Rheumatology, University of Pisa, Italy and Head of the Rheumatology Unit, Azienda Ospedaliera Universitaria Pisana, Italy</i></p> <p>Curriculum vitae: https://orcid.org/0000-0001-5937-4574</p> <hr/> <p>Prof Thea Vliet Vlieland <i>EULAR Vice-President HPR, Professor of Orthopaedics, Leiden University Medical Center (LUMC), The Netherlands</i></p> <p>Curriculum vitae: https://orcid.org/0000-0001-6322-3859</p>



	<p>treatment is associated with longer time-to-conception in women with spondyloarthritis: analysis of the prospective GR2 cohort. <i>Presentation nr OP0153.</i></p> <ul style="list-style-type: none">• Abstract nr 1345: What is the effect of methotrexate on semen parameters of men diagnosed with immune-mediated diseases? <i>Presentation nr OP0131.</i> <p>See press release (DATA SHARED AT EULAR GIVE IMPORTANT INSIGHTS INTO TREATMENT FOR RMD PATIENTS WHO WISH TO CONCEIVE) Embargo: Wednesday, 01 June 2022 (0:01 CEST)</p>	
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EULAR 2022 | WELCOME MESSAGE FROM EULAR PRESIDENT

Dear Friends,

Since its foundation in 1947, the European Alliance of Associations for Rheumatology, EULAR, has been recognised in the wide-ranging spectrum of World Rheumatology as a prestigious and reputable non-profit organisation with the highest profile on the continent. Among the multitude of outstanding EULAR activities, the EULAR European Congress of Rheumatology represents the flagship of our organisation, every year providing the utmost rheumatology congress experience.

The EULAR Congress is comprised of an extensive network of innovative minds working towards illustrating the latest scientific breakthroughs in clinical, translational, and basic sciences, discussing what is new in dedicated sessions, presenting data on how to treat rheumatic and musculoskeletal diseases (RMDs), giving view to the transfer of results from bench to bedside, showing the practical aspects of our specialty in specific workshop discussions, offering debates, and, in essence, displaying the future of Rheumatology.

The EULAR Congress attracts thousands of delegates from more than 140 countries and is held every year, in June, in a different European city. However, due to the pandemic restrictions, EULAR was forced to cancel any live meetings and conferences. Therefore, for 2 years in a row, in 2020 and 2021 the EULAR congress was held virtually. The virtual meetings were a great success and attracted more than 18,000 delegates in 2020 and more than 17,000 in 2021.

The EULAR 2022 Congress will be held both virtually and onsite, in Copenhagen, offering our first-ever hybrid congress experience. Thanks to the great flexibility of the EULAR Rheumatology Community and its high capacity to rapidly adapt to the ever-evolving challenges faced in the pandemic era, EULAR will prevail with this new and highly innovative congress structure, offering a combination of virtual and onsite sessions and activities that will run in parallel meetings.

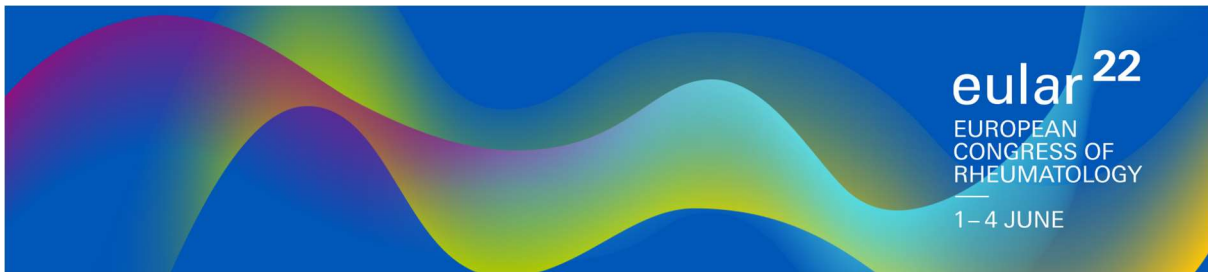
2022 will be an extraordinary year for EULAR, marking not only our first-ever hybrid congress but also our 75th anniversary! The EULAR 2022 Congress will offer a cutting-edge congress experience that will only be enhanced by the outstanding celebrations of the EULAR jubilee of the three [EULAR pillars](#) and the [EULAR communities](#).

Copenhagen is an exceptionally significant city for EULAR, marking the location of our first-ever EULAR Congress, and we look forward to going back to a city that acknowledges our organisation and supports its strategies, aiming to reduce the impact of RMDs on those afflicted and to improve their social position and quality of life.

I am extremely proud of EULAR's achievements thus far, and I would like to thank all members of the EULAR Family, the EULAR Office, and the faculty of the EULAR 2022 Congress for their commitment to this new experience. And my special thanks to the numerous delegates who will attend our marvellous congress in 2022. I am looking forward to meeting you all, virtually and onsite, in Copenhagen, next June.

My warmest regards,

Annamaria Iagnocco
EULAR President



COVID BREAKTHROUGH INFECTIONS: RMD NOT NECESSARILY A RISK GROUP FOR SEVERE COVID-19

Prospective and registry data shared at EULAR 2022 support vaccine recommendations

COVID-19 is the disease caused by SARS-CoV-2 infection. Despite a wealth of vaccination data now available, concerns have been raised regarding risks of COVID-19 breakthrough infections in vaccinated patients with immune-mediated inflammatory rheumatic diseases (IRDs) treated with immunosuppressants. Two groups chose to share their findings at the EULAR Congress. These abstracts suggest that most patients with IRDs should not necessarily be seen as a risk group for severe COVID-19, and support the general recommendations to reduce the risk of severe infection by administering three doses of vaccine – especially in older patients, and those receiving immunomodulatory treatment.

Laura Boekel and colleagues pooled data from two large ongoing prospective cohort studies and analysed post-vaccination serum samples for evidence of breakthrough infection. They report that the incidence of breakthrough infections was comparable between patients taking immunosuppressants and controls. Hospitalization was required in similar proportions in both groups – and in general hospitalized cases were older, and had more comorbidities compared with non-hospitalized cases.

Hospitalization rates were significantly higher among patients treated with anti-CD20 therapy compared to any other immunosuppressant. Although anti-CD20 therapy might increase susceptibility to severe COVID-19 breakthrough infections, the authors argue that traditional risk factors continue to make a critical contribution. With this in mind, most patients with IRDs should not necessarily be seen as a risk group for severe COVID-19, and integrating other risk factors should become standard practice when discussing treatment options, vaccination, and adherence to infection prevention measures with patients.

Breakthrough infection data was also presented by Dr Rebecca Hasseli, with a focus on the German COVID-19-IRD registry as of 31st January 2022. In total, 271 cases of breakthrough infections were reported, of whom 91% had received two doses of vaccines, and 9% patients three doses, and the median time from last vaccine dose to infection was 148 days.

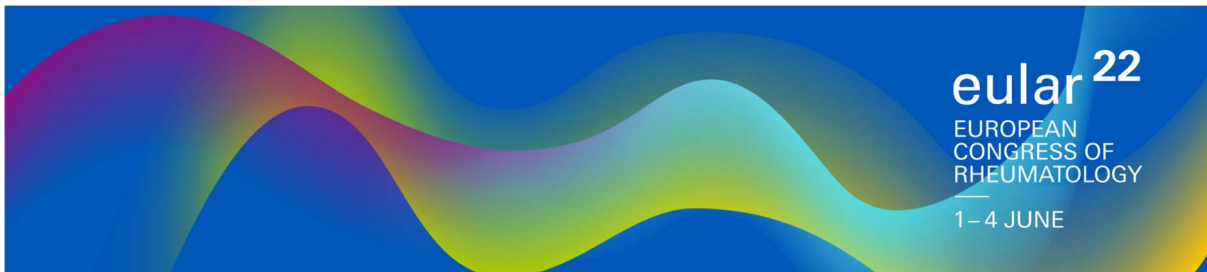
Although the rate of comorbidities and median age were higher in triple-vaccinated patients, infected patients showed a lower rate of hospitalization, COVID-19 related complications, need of oxygen treatment, or death.

These results support the general recommendations to reduce the risk of severe COVID-19 disease by administering three doses of vaccine, especially in patients with older age, presence of comorbidities, and those on immunomodulatory treatment.

Source

Boekel L, et al. COVID-19 breakthrough infections in vaccinated patients with immune-mediated inflammatory diseases and controls. Presented at EULAR 2022; abstract OP0178.

Hasseli R, et al. Characteristics and outcomes of SARS-CoV-2 breakthrough infections among double and triple vaccinated patients with inflammatory rheumatic diseases. Presented at EULAR 2022; abstract OP0179.



IMMUNOGENICITY OF COVID VACCINES IN PEOPLE WITH RHEUMATIC DISEASE

New insights shared at the EULAR Congress

COVID-19 is the disease caused by SARS-CoV-2 infection. Initial studies on the immunogenicity of COVID-19 vaccines in patients with immune-mediated inflammatory rheumatic diseases (IRD) reported diminished antibody responses, particularly for people treated with rituximab or abatacept. New data released at the 2022 EULAR Congress confirm that people on rituximab and abatacept should be prioritized for booster doses of COVID-19 vaccine.

Patients with rheumatoid arthritis (RA) may have impaired immunogenicity to COVID-19 vaccines. DANBIO data presented by Dr René Cordtz reveal that – regardless of vaccination status – patients with RA had increased incidence of COVID-19 hospitalization compared to matched individuals. However, the absolute risk was 0.20% for unvaccinated patients at 60 days and 0.08% for comparators, whereas it remained below 0.05% at 180 days of follow-up in both groups when fully vaccinated. The low absolute risk was due to the combined effect of vaccination, seasonality, and societal restrictions.

The group also showed that increased SARS-CoV-2 infection rates were seen only among unvaccinated patients with RA. Analysis demonstrated increased incidence of COVID-19 hospitalization among rituximab-treated patients compared to those receiving csDMARDs, but it was not possible to disentangle if this was due to rituximab or the fact that these patients were also more likely to receive glucocorticoids and have a history of cancer-treated patients.

Importantly, the parallel decreasing risk for patients with RA suggests a comparable relative benefit of vaccination. Less favourable outcomes among rituximab-treated patients suggest extra care should be taken around use and users of this drug.

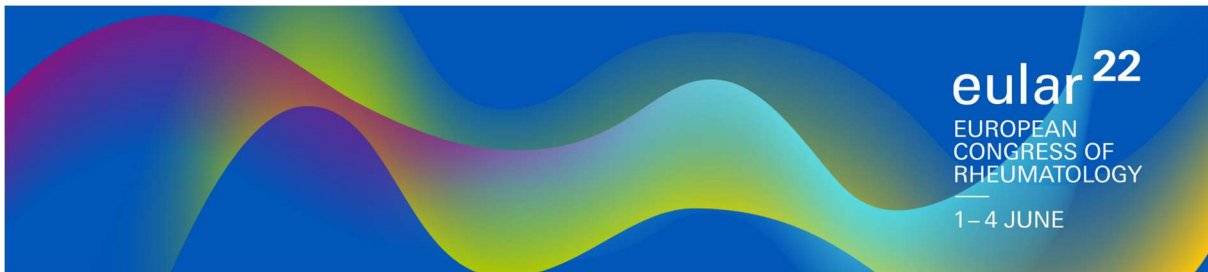
Similar conclusions were drawn by a Swedish national group led by Professor Meliha C Kapetanovic and presented by Dr Martina Frodlund, who shared data on the antibody response after two doses of COVID-19 vaccine in 414 patients with various IRD treated with biologic or targeted synthetic DMARDs, either as monotherapy or in combination with csDMARDs.

Their results showed that those receiving IL-6 inhibitors, abatacept, or rituximab had a significantly lower antibody response rate compared to controls. This difference was more pronounced when therapies were combined with a csDMARD. When analysed further, higher age, rituximab, abatacept, concomitant csDMARD but not IL-6 inhibitors, concomitant prednisolone, or a vasculitis diagnosis, remained significant predictors of antibody response.

In general, all vaccines were well tolerated, and only 3.4% of the patients reported an increase in their disease activity following vaccination.

In another session, Dr Ingrid Jyssum presented findings from the Nor-vaC study, assessing serological response and safety of a three-dose vaccination strategy in patients with immune mediated inflammatory diseases (IMID) on immunosuppressive therapy as compared to the standard two-dose vaccination offered to healthy controls.

After two doses, median anti-Spike antibody levels were significantly lower in patients than controls, but there were comparable levels following the third dose. One of the main factors associated with high antibody levels after the third dose was vaccine type. These findings were consistent across all



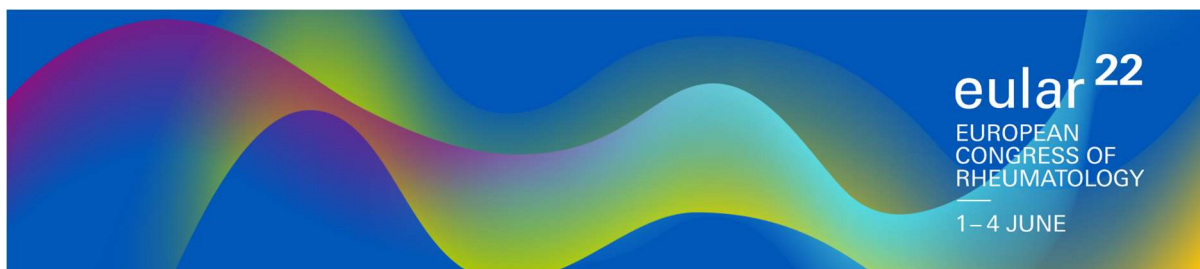
diagnoses and treatment groups, supporting the implementation of a three-dose vaccine regimen as standard in the IMID population.

Source

Cordtz R, et al. Incidence of COVID-19 infection and hospitalisation according to vaccination status and DMARD treatment in patients with rheumatoid arthritis. Presented at EULAR 2022; abstract 349; presentation number OP0173.

Frodlund M, et al. The impact of immunomodulating treatment on the immunogenicity of COVID-19 vaccines in patients with immune-mediated inflammatory rheumatic diseases compared to healthy controls. Presented at EULAR 2022; abstract 1600; presentation number OP0172.

Jyssum I, et al. Serological response and safety of a three-dose SARS-CoV-2 vaccination strategy in patients with immune-mediated inflammatory diseases on immunosuppressive therapy. Presented at EULAR 2022; abstract 1230; presentation number OP0192.



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.

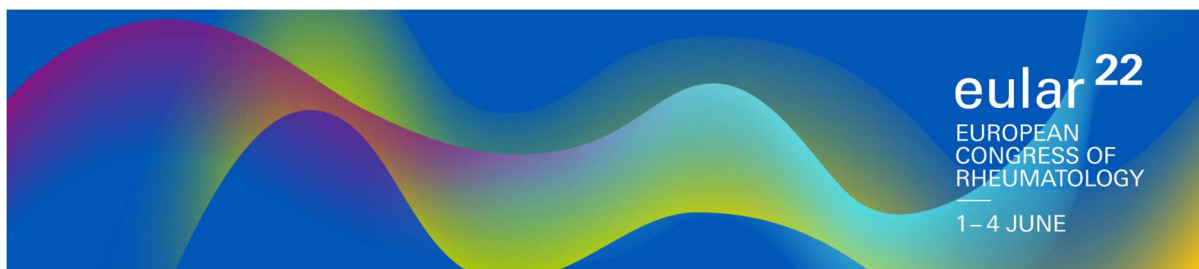
The most important risk factors for hospitalization were found to be age and presence of heart failure. When considering the need for invasive mechanical ventilation, heart failure was the most important risk factor, whereas age was the most important factor for increased mortality. Diabetes showed weak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



ANNOUNCEMENT: EULAR COVID-19 REGISTRY TO CLOSE

The EULAR/GRA COVID-19 Registry will be closing on the last day of the 2022 EULAR annual congress

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Since early in the pandemic, EULAR – the European Alliance of Associations for Rheumatology – has been committed to collecting data to inform the understanding of COVID-19 in people with rheumatic and musculoskeletal diseases (RMDs), as well as outcomes following vaccination. In March 2020, EULAR partnered with the Global Rheumatology Alliance (GRA) to rapidly institute an online case registry. Over the past 2 years, this initiative has facilitated the collection of 12,908 cases in the EULAR registry, and over 22,000 in total across global provider registries. The information collected has informed clinical practice and the development of new recommendations. The next phase of the pandemic will benefit from detailed biologic data – such as SARS-CoV-2 variant characterisation, length of viral replication, immune response to vaccination, and detailed information on COVID-19 treatments to inform patient care. Future efforts should focus on the collection and analysis of this type of data; therefore, the EULAR/GRA COVID-19 Registry will close on 4th June 2022.

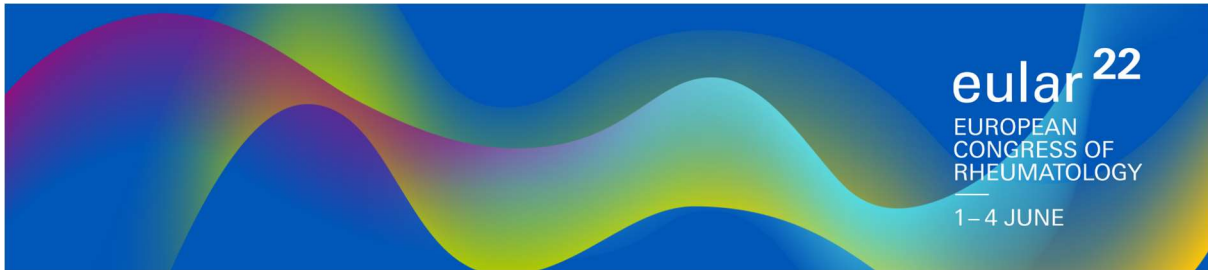
COVID-19 is the infection caused by the SARS-CoV-2 virus. The outbreak of this virus was declared a pandemic on 11th March 2020 by the World Health Organization. By the end of that month, EULAR had partnered with the GRA to institute an online case registry. The EULAR COVID-19 Registry is an observational database capturing physician-entered data on adult and paediatric patients with a pre-existing RMD and SARS-CoV-2 infection. This initiative has been instrumental in capturing nearly 13,000 cases of COVID-19 in people with RMDs in Europe, and over 22,000 cases worldwide. The aim of the EULAR–GRA partnership was to collect, analyse, and disseminate information about COVID-19 and rheumatology to patients, physicians, and other relevant groups to improve the care of people with RMDs.

A major success of the EULAR–GRA partnership has been the rapid and collaborative mobilisation of the rheumatology community worldwide. By working together, EULAR and the GRA have been able to develop a good picture of how patients with RMDs fare with COVID-19. The data and resulting recommendations have helped clinicians and patients guide their way through the pandemic. These collaborations have also directed and informed further work in the field of RMDs and infectious disease, which will continue to support patients long after the pandemic ends.

Across the 2 years of the EULAR-GRA partnership the data collected have generated an extensive list of peer-reviewed publications. Key data and insights have included the unravelling of factors associated with worse COVID-19 outcomes in patients with RMDs, and the description of the safety of vaccines against SARS-CoV-2 in people with RMDs. Data from the EULAR COVID-19 Registry have also been combined with that from other groups capturing COVID-19 data – particularly those with affinities to rheumatology – for example, in diseases with EULAR 29.04.2022 Kilchberg, Switzerland eular.org EULAR PRESS RELEASE Page 2 of 2 mechanistic links in disease pathogenesis or those that use of similar drugs, such as inflammatory bowel disease or psoriasis.

Although the registry is slated to close, there are still more outputs yet to be produced, such as articles, conference presentations, lay summaries for the public, and media content. EULAR is pleased to announce three important new studies that will be presented at the 2022 congress.

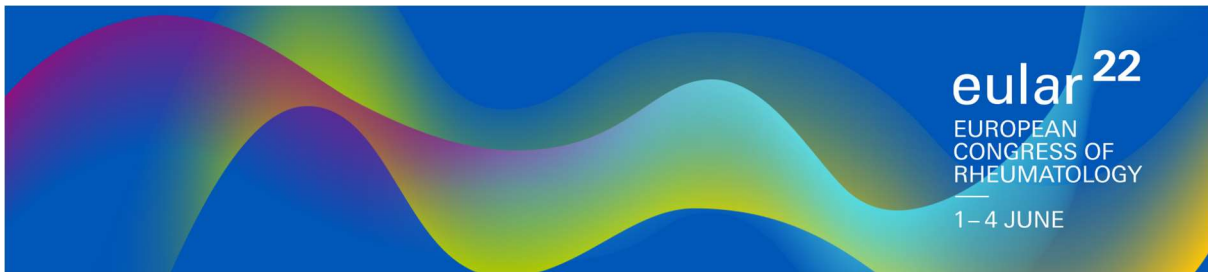
- "Characteristics associated with poor COVID-19 outcomes in people with psoriasis and spondyloarthritis: Data from the COVID-19 PsoProtect and Global Rheumatology Alliance physician-reported registries"



- "Factors associated with severe COVID-19 outcomes in patients with idiopathic inflammatory myopathy: Results from the COVID-19 Global Rheumatology Alliance physician-reported registry"
- "SARS-CoV-2 vaccine safety in adolescents with inflammatory rheumatic and musculoskeletal diseases and adults with juvenile idiopathic arthritis"

The EULAR COVID-19 Registry and its partner GRA registry will close on 4th June 2022 – the last day of the annual congress. EULAR would like to sincerely thank all the rheumatologists, physicians, epidemiologists, healthcare professionals, national societies, and patients who contributed to and supported this important initiative.

For more information, please visit the [EULAR COVID-19 Registry](#) website.



NEW EVIDENCE SUPPORTING COVID SEVERITY RISK FACTORS IN PEOPLE WITH DIVERSE RHEUMATIC DISEASES

New insights shared at the EULAR Congress

COVID-19 is the disease caused by SARS-CoV-2 infection. Some factors associated with severe COVID-19 outcomes have been identified in patients with inflammatory and autoimmune rheumatic and musculoskeletal diseases (RMDs), including older age, male sex, comorbidity burden, higher disease activity, and certain medications such as rituximab. New data released at the 2022 EULAR Congress shine a light on some specific factors for people with psoriasis, psoriatic arthritis (PsA), axial spondyloarthritis (axSpA), or idiopathic inflammatory myopathy (IIM).

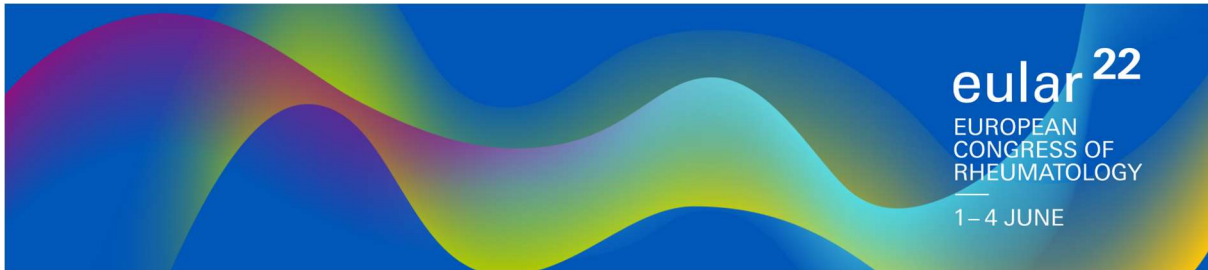
Until now, information about the factors associated with severe COVID outcomes in people with psoriasis, PsA, or axSpA have been lacking – including how specific treatments for these conditions might impact outcomes. Professor Pedro Machado presented new data from the COVID-19 PsoProtect and Global Rheumatology Alliance physician-reported registries, confirming that more severe COVID-19 outcomes in this group are largely driven by demographic factors (age, sex), comorbidities, and active disease – as has been seen for other RMDs.

This pooled analysis of data from the two registries included over 5,000 patients. Overall, 14.6% of cases were hospitalised (but survived), and 1.8% died. Modelling revealed that being older and male was associated with more severe outcomes from the infection. People also tended to do worse if they had other underlying diseases, such as hypertension, lung disease, chronic kidney disease, diabetes, or if they were obese. Some elements of the RMD also played a role. For example, people with higher disease activity and those using glucocorticoid medicines also tended to have more severe COVID-19 outcomes. Conversely, there were some variables that were associated with less severe COVID-19 outcomes. This included contracting the infection later in the pandemic compared to those who had COVID before June 2020. Importantly, none of the disease-modifying anti-rheumatic drugs (DMARDs) typically used in people with psoriasis, PsA, or axSpA, were associated with severe COVID-19 outcomes; this included IL-17i, IL-23/IL-12+23i, JAKi, and apremilast.

Dr Su-Ann Yeoh and colleagues also examined the COVID-19 Global Rheumatology Alliance physician-reported registry to report on the factors associated with severe COVID-19 outcomes in 348 people with IIM. These are the first global registry data on the impact of COVID-19 in this patient population. As with other RMDs, people who were older, male, and had higher comorbidity burden or disease activity had worse outcomes from COVID-19 infection. Again, higher glucocorticoid intake and rituximab exposure were also risk factors for a more severe COVID-19 infection. These findings will inform risk stratification and management decisions for people with IIM.

Another area where information has been scarce until now is around vaccination safety in children and young people with RMDs, and current vaccination guidance is based on data from adults with RMDs or young people without RMDs. Ms Saskia Lawson-Tovey presented findings from 36 adolescents with inflammatory RMDs and 74 adults with juvenile idiopathic arthritis (JIA) who had been vaccinated against SARS-CoV-2 and followed in an observational registry dataset.

Overall, 56% of adolescents and 62% of adults experienced early reactogenic-like side effects within 7 days of vaccination. No adolescents reported SARS-CoV-2 infection post-vaccination, although three women were diagnosed post-vaccination in the adult group, all of whom fully recovered. The authors conclude that COVID-19 vaccines appear safe in adolescents with RMDs and adults with JIA, with a low frequency of disease flares, serious adverse events, and COVID infection seen in both populations. It should be noted that this dataset is limited by its size and does not follow patient outcomes over time, therefore further research is needed in this area.

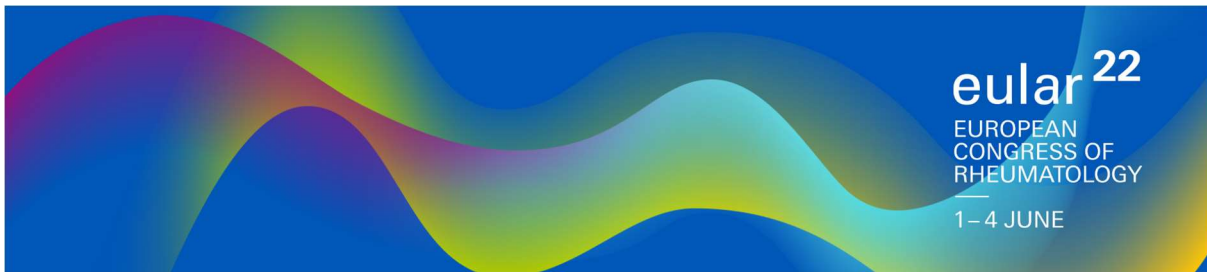


Source

Machado PM, et al. Characteristics associated with poor COVID-19 outcomes in people with psoriasis and spondyloarthritis: data from the COVID-19 PsoProtect and Global Rheumatology Alliance physician-reported registries. Presented at EULAR 2022; abstract OP0249.

Yeoh S-A, et al. Factors associated with severe COVID-19 outcomes in patients with idiopathic inflammatory myopathy: Results from the COVID-19 Global Rheumatology Alliance physician-reported registry. Presented at EULAR 2022; abstract OP0252.

Lawson-Tovey S, et al. SARS-CoV-2 vaccine safety in adolescents with inflammatory rheumatic and musculoskeletal diseases and adults with juvenile idiopathic arthritis. Presented at EULAR 2022; abstract POS1212.



AIR POLLUTION A KEY ENVIRONMENTAL EXPOSURE DRIVING INFLAMMATORY ARTHRITIS DEVELOPMENT

New evidence on pollutants and rheumatic disease shared at the 2022 EULAR Congress

Mounting evidence has shown that environmental exposures are linked to the development of inflammatory arthritis, with air pollution associated with disruption at a molecular level in the immune system. Pollutants can also have an impact on bone health. Data presented at the 2022 EULAR Congress in Copenhagen show that chronic exposures to air pollutants are associated with incremental increases in the risk of having an autoimmune disease. Meanwhile, a second research group demonstrate that cleaning activities are underestimated sources of silica exposure in women with RA compared to the general population, and may contribute to disease development.

Two abstracts presented by Dr Giovanni Adami at the 2022 EULAR Congress looked at the issue of environmental exposures and their role in disease development.

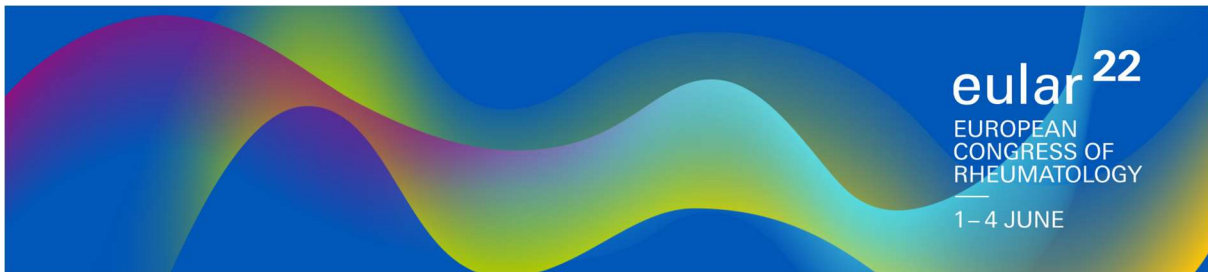
Particulate matter (PM) is defined as everything in the air that is not a gas. PM includes a variety of chemicals and materials, some of which can be toxic. Data from over 80,000 people in a retrospective observational study in Italy found a positive association between PM levels measured at local air-quality stations and the risk of autoimmune diseases. In fact, every 10 $\mu\text{g}/\text{m}^3$ increase in PM10 concentration was associated with an incremental 7% risk of having autoimmune disease.

Exposure to PM10 above 30 $\mu\text{g}/\text{m}^3$ and PM2.5 above 20 $\mu\text{g}/\text{m}^3$ was associated with 12% and 13% higher risks of autoimmune disease, respectively. When broken down by individual diseases, exposure to PM10 was associated with an increased risk of rheumatoid arthritis (RA) but no other autoimmune diseases, whereas exposure to high levels of PM2.5 was associated with an increased risk of RA and inflammatory bowel disease. Overall, chronic exposure to particulate air pollution above the threshold for human protection was associated with a 10% higher risk of developing immune-mediated diseases.

The same group looked at the association between long-term exposure to PM and osteoporosis in almost 60,000 women at high risk of fracture. The results showed that exposure to PM2.5 was negatively associated with low bone mass at the top of the thigh bone and lumbar spine. Chronic exposure above 25 $\mu\text{g}/\text{m}^3$ for PM2.5 and 30 $\mu\text{g}/\text{m}^3$ for PM10 was associated with a 16% and 15% higher risk of having osteoporotic bone mass scores at any site. The researchers concluded that long-term exposure to air pollution was associated with higher risk of osteoporosis.

Previous studies have shown that breathing in crystalline silica is associated with the development of RA – but this research has historically focused on professional exposures and on male workers. Since substantial amounts of this pollutant are present in other environments, Dr Johanna Sigaux and colleagues set out to identify the main sources of exposure to crystalline silica in a group of RA patients regardless of their professional activity, and to assess the association between silica exposure and disease features.

The results showed that in women with RA, the main sources of crystalline silica exposure were cleaning activities. For example, handling dusty clothes or talcum powder. Women involved in these activities had higher exposure compared to people in the general population. Across the whole series of RA patients, high silica exposure was independently associated with lung abnormalities such as interstitial lung disease and mediastinal lymphadenopathy.



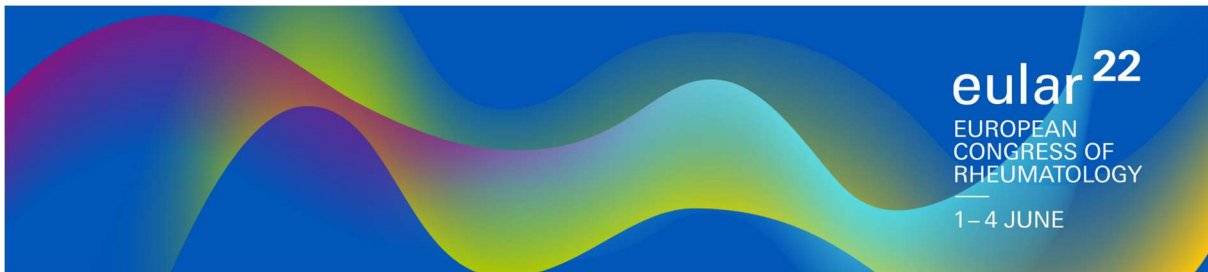
The study findings suggest that cleaning activities are underestimated sources of crystalline silica exposure that are overrepresented in women with RA compared to the general population, and may contribute to the pathogenesis of the disease.

Source

Adami G, et al. Association between exposure to fine particulate matter and osteoporosis: a population-based cohort study. Presented at EULAR 2022; abstract 533; presentation number OP0242.

Adami G, et al. Association between long-term exposure to air pollution and immune-mediated diseases: a population-based cohort study. Presented at EULAR 2022; abstract 532; presentation number OP0071.

Sigaux J, et al. Cleaning activities, dusty clothes laundry and talcum handling are underestimated major sources of exposure to crystalline silica in women with rheumatoid arthritis. Presented at EULAR 2022; abstract 2626; presentation number OP0006.



INVESTIGATING PREGNANCY OUTCOMES IN WOMEN WITH RHEUMATIC DISEASE

Several abstracts released at EULAR improve understanding of pregnancy in RMDs

An increased risk of adverse pregnancy and neonatal outcomes has been reported for pregnancies in women with several rheumatic and systemic autoimmune diseases including rheumatoid arthritis (RA), psoriatic arthritis (PsA), and systemic lupus erythematosus (SLE). New data presented at the 2022 EULAR Congress in Copenhagen show that foetal morbidity and severe maternal morbidity occur at a higher rate in women with SLE compared to those without. An increased risk of adverse pregnancy outcomes was also reported for women with spondyloarthritis (SpA), and shown to be associated with steroid use in women with RA. Taken together, this range of findings will help inform physicians in their management of patients with RMDs during pregnancy and planning.

SLE is an autoimmune disorder that typically affects women in their childbearing years. Evidence shows that foetal and maternal mortality have declined in SLE over the years, but little is known about morbidity. At the EULAR Congress, Dr Bella Mehta presented findings from a retrospective study in over 50,000 women with SLE and delivery-related hospital admissions.

The group's findings show patients with SLE had a higher risk of foetal morbidity than women without SLE. This included higher risk of intrauterine growth restriction and preterm delivery. SLE patients also faced a greater risk of blood transfusion, puerperal cerebrovascular disorders, acute renal failure, eclampsia or disseminated intravascular coagulation, cardiovascular and peripheral vascular disorders, and general medical issues than those without SLE. These important new insights will help inform the management of pregnancy in women with SLE.

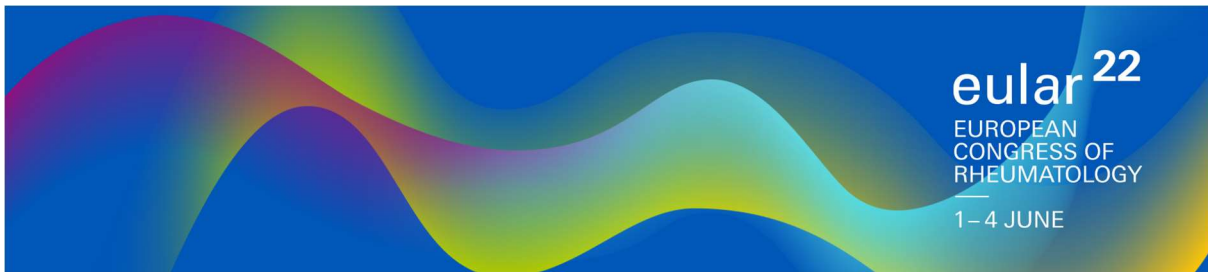
In SpA, findings have not been uniform, with some studies reporting increased pregnancy risks while others have failed to identify any significant differences between women with and without SpA. Matilda Morin's abstract shared findings from a nationwide register-based study of singleton births between April 2007 and December 2019 in women diagnosed with ankylosing spondylitis (AS) or undifferentiated SpA.

Overall, women with SpA were found to be at increased risk of several adverse outcomes. In particular, there was an increased risk of gestational diabetes, elective and emergency Caesarean delivery, and preterm birth including spontaneous preterm birth. The risk estimate for preeclampsia was also increased, but failed to reach significance. Infants born to mothers with SpA were not more likely to be born small for gestational age (SGA), but there was a slightly increased risk estimate of infection during their first year of life.

The authors conclude that, while most pregnancies in women with SpA are uneventful, there is an increased risk for a number of adverse pregnancy outcomes.

The impact of RA and its treatment on pregnancy was also presented, in an abstract from Sabrina Hamroun and colleagues. A favourable pregnancy outcome was found in 56.5% of the 92 women in the cohort.

The most common unfavourable outcomes were premature birth and SGA, observed in 16.9% and 20.5%, respectively. The group also ran a multivariate model, which found an association between unfavourable pregnancy outcomes and first-time deliveries, age, and exposure to corticosteroids during pregnancy.



The issue of medication use during pregnancy was also covered by Dr Dina Zucchi and colleagues, in their work on adherence to medication during pregnancy in women with systemic autoimmune disease. Overall, pregnant patients had good adherence to prescribed medication – although 25% did not take therapies adequately despite close monitored in a dedicated clinic for high-risk pregnancies and having received adequate pregnancy counselling. The findings suggest that anxiety may be a key determinant of low adherence, both in pregnant and non-pregnant women.

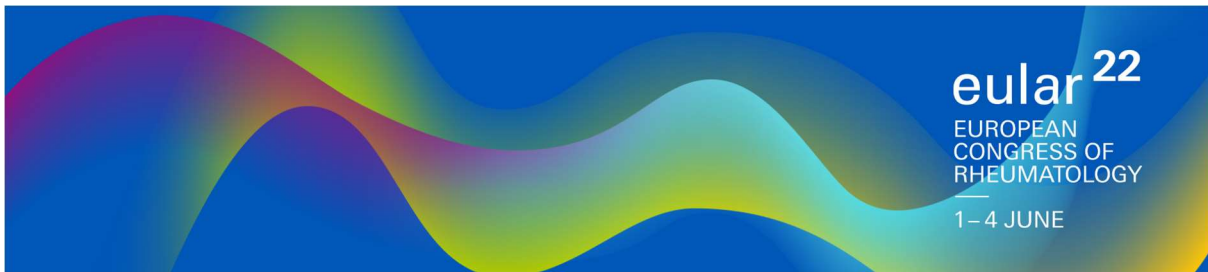
Source

Mehta B, et al. The management of pregnancy in autoimmune rheumatic diseases: analysis of 758 pregnancies. Presented at EULAR 2022; abstract 3226; presentation number OP0124.

Morin M, et al. Are women with spondyloarthritis at increased risk of adverse maternal and infant outcomes? – A Swedish cohort study. Presented at EULAR 2022; abstract 292; presentation number OP0126.

Hamroun S, et al. Unfavorable pregnancy outcome is significantly associated with corticosteroid exposure during pregnancy in women with rheumatoid arthritis. Presented at EULAR 2022; abstract 4496; presentation number OP0127.

Zucchi D, et al. Adherence to medications during pregnancy in systemic autoimmune disease. Presented at EULAR 2022; abstract 2846; presentation number OP0128.



PEOPLE WITH RHEUMATIC DISEASES HAVE DETERIORATED SEX LIVES

Sexual dysfunction should be addressed in the management of RMDs

Chronic rheumatic and musculoskeletal diseases (RMDs) cause pain and disability, and can impair quality of life. RMDs also have an important impact on people's sex lives. Two abstracts presented at the 2022 EULAR Congress in Copenhagen looked at how RMDs impact the sexual sphere, and how specialized physical therapy might be used to support some groups.

To date, there have been limited studies on joint diseases and the impact on sex. Furthermore, many lack a control group and do not explore the different areas of sexuality. Dr Carlos Valera-Ribera's group examined the impact of chronic joint diseases on the sexual sphere in a cross-sectional observational study. The aim was to describe the prevalence of sexual dysfunction in people with rheumatoid arthritis (RA) or psoriatic arthritis (PsA) compared to the general population.

A questionnaire was used to collect information from 188 patients in four different domains: pleasure, desire, arousal, and orgasm. In total, 48% of people with RA, 30% with PsA, and 6% of the control group had scores that indicated sexual dysfunction. The scores were typically higher in men than women.

The findings demonstrate that people with RA or PA have a deteriorated sexual life when compared to a healthy population – with impact evident across all domains of the sexual sphere. As shown in previous studies, age, gender, perceived health, employment situation, and economic status are related to the risk of suffering from sexual dysfunction. The researchers suggest that these factors must be considered as a holistic part of care, and recommend that the CSFQ-14 questionnaire be used as a tool for the management of sexual health in people with RMDs.

Although it is known that systemic rheumatic diseases such as systemic sclerosis (SSc) and idiopathic inflammatory myopathies (IIM) may affect all aspects of life – including sexual health – no non-pharmacological treatment has been proposed to date. Barbora Heřmánková and colleagues presented an abstract on their study into the effect of an 8-week physical therapy program on sexual health in 16 female patients with SSc and IIM, as compared to a control group with no intervention.

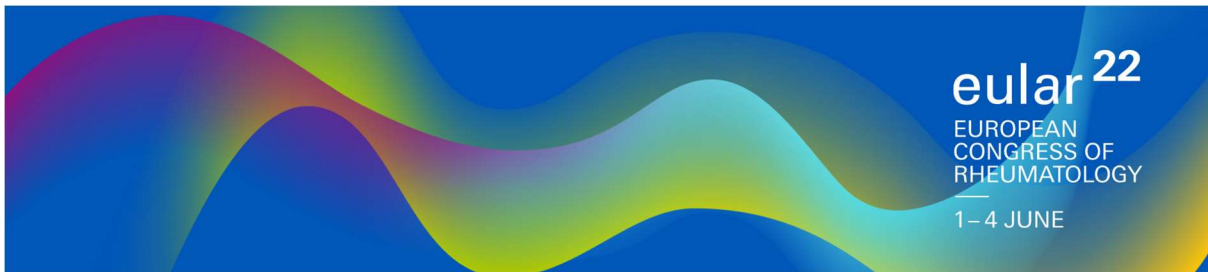
The intervention program included pelvic floor exercise and twice-weekly supervised physiotherapy for musculoskeletal problems that were thought to subjectively limit sexual function.

Compared to the control group, there was a statistically significant improvement in both sexual function, functional status, and quality of life. The authors conclude that their pilot physiotherapy program not only prevented the natural course of progressive deterioration of functional abilities, but also led to a significant improvement in sexual function and overall quality of life in women with SSc and IIM. These findings suggest that physical therapy might be a potential therapeutic option for sexual problems in women with SSc and IIM.

Source

Valera-Ribera C, et al. Impact of chronic joint diseases on the sexual sphere with regards to a healthy population: a multicenter study. Presented at EULAR 2022; abstract 5263; presentation number OP0139.

Heřmánková B, et al. Effect of an 8-week specialized physical therapy program on sexual health in female patients with systemic sclerosis and idiopathic inflammatory myopathies: A pilot study. Presented at EULAR 2022; abstract OP. Presented at EULAR 2022; abstract 357; presentation number OP0208-HPR.



DATA SHARED AT EULAR GIVE IMPORTANT INSIGHTS INTO TREATMENT FOR RMD PATIENTS WHO WISH TO CONCEIVE

Some rheumatic treatments may affect fertility

Many rheumatic and musculoskeletal diseases (RMDs) affect people of child-bearing age, but there is often limited knowledge about the impact of these diseases and their treatment on fertility in both men and women. Two abstracts presented at the 2022 EULAR Congress in Copenhagen shine a light on some of the key factors affecting time to conception, and semen parameters. The results should be used to support discussions with patients who wish to conceive, and may help balance treatment needs.

Spondyloarthritis (SpA) is one of the most common chronic inflammatory diseases and regularly affects women of childbearing age, Sabrina Hamroun presents new information about the factors associated with time-to-conception in women with SpA. Of 88 women selected for analysis of time-to-conception, 63.6% had a clinical pregnancy during follow-up. Subfertility was observed in 45.4% and the median time-to-conception was 16.1 months in women followed prospectively from the wish to conceive.

A multivariate model found an association between longer time-to-conception and age, as well as the use of non-steroidal anti-inflammatory drugs (NSAIDs) during preconception. No association was found for body mass index, disease activity or duration, smoking, form of spondyloarthritis, or exposure to conventional systemic or biologic disease-modifying antirheumatic drugs (b/csDMARDs). These important findings point to a need for cautious use of NSAIDs in women with SpA who wish to become pregnant.

Methotrexate is one of the most frequently prescribed medications for the treatment of several RMDs. Although this agent has well-established safety and efficacy profiles, there is limited evidence to support its use in men who wish to conceive.

Dr Luis Fernando Perez-Garcia and colleagues designed a study to evaluate semen parameters before and after exposure to methotrexate in 48 men with and without RMDs. This is the largest prospective study ever conducted to evaluate this topic.

The group looked at sperm concentration, volume, and progressive motility. The findings demonstrate that exposure to methotrexate did not result in significantly different semen parameters. The results suggest that methotrexate can be continued in men who wish to become a father.

Source

Hamroun S, et al. Preconceptional NSAID treatment is associated with longer time-to-conception in women with spondyloarthritis: analysis of the prospective GR2 cohort. Presented at EULAR 2022; abstract 2031; presentation number OP0153.

Perez-Garcia LF, et al. What is the effect of methotrexate on semen parameters of men diagnosed with immune-mediated diseases? Presented at EULAR 2022; abstract 1345; presentation number OP0131.