EULAR 2024

This year's Congress aimed to unite medical professionals, people living with RMDs, health professionals in rheumatology...

Congress Review

Review of the European Alliance of Associations for Rheumatology (EULAR) 2024 Congress

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THE European Alliance of Associations for Rheumatology (EULAR) 2024 Congress took place in Vienna, Austria, from June 12th–15th, with 14,000 rheumatologists attending. The event featured oral presentations, abstract and poster talks, and meet-the-expert sessions.

EULAR is a leading non-profit organisation dedicated to reducing the impact of rheumatic and musculoskeletal diseases (RMD) across Europe, representing patients, health professionals, rheumatologists, researchers, and scientific societies. The Congress is renowned for its high scientific standards, serving as a platform for sharing advancements in rheumatology and fostering collaboration among experts. This year's Congress aimed to unite medical professionals, people living with RMDs, health professionals in rheumatology, paediatric rheumatologists, and industry partners. This alliance strives to improve the lives of those affected through innovation, education, and collaboration.

EULAR President David Aletaha conducted the opening ceremony, showcasing the organisation's core values of patient-centredness, innovation, responsibility, flexibility, inclusivity, and dedication. In an exciting announcement, Aletaha and EULAR President-Elect Xenofon Baraliakos introduced the new 2024–2029 EULAR manifesto focusing on improving care quality, advocating for better social policies, and advancing RMD research and innovation. Key goals include better prevention, timely specialist access, and the integration of digital health technologies.

Loreto Carmona, Past-Chair of the EULAR Advocacy Committee, started with explaining the patient-centredness objective of the manifesto. She explained that one in five Europeans are affected by RMDs, and called for greater awareness and action from policymakers and the public. RMDs are a significant reason for patients to seek out medical consultations; however, their impact on health systems and economies remains under recognised. The manifesto calls for collective efforts from rheumatologists, healthcare professionals, and patients with RMD to address these issues. Other key focus areas in the manifesto are improving quality of care, social policies, and research and innovation. Uta Kiltz, Chair of the EULAR Quality of Care Committee, highlighted the importance of prioritising RMDs in the European Union (EU) non-communicable diseases initiative, placing an emphasis on the importance of early diagnosis, prevention, and cost-effective patient-centric treatment models. Elsa Mateus, EULAR PARE Vice President, called for the recognition of RMDs as a leading cause of

disability, urging policymakers to enhance social care and mental health services, and create more inclusive work environments and education. Roland van Vollenhoven, Chair of the EULAR Research Committee, highlighted the importance and necessity of research and innovation to better understand and treat RMDs, calling for a collaboration between the EU, member states, medical societies, and patient associations to drive advancements in rheumatological care.

In recognition of special achievements in the field of rheumatic and musculoskeletal diseases, Aletaha hosted the annual awards ceremony. The EULAR Meritorious Service award went to Julia Rautenstrauch, University Medical Center, Johannes Gutenberg University of Mainz, Germany, for her outstanding service to rheumatology. Thea Vliet Vlieland, Universiteit Leiden, the Netherlands, received the EULAR HPR Lifetime Achievement Award, and Emma O'Carroll received 1st place for the EULAR Edgar Stene Prize, awarded to a person with an RMD submitting the best essay describing their experience.

Laure Gossec, EULAR Council Treasurer, followed by sharing her insights on exiting projects such as RheumaFacts, which provides essential data on rheumatic diseases to support advocacy, identify underserved care areas, and highlight the needs and challenges of patients with RMDs. Gossec also introduced the ENTRI network, aimed at enhancing clinical trial collaboration across Europe to accelerate new treatments. Additionally, she discussed the EULAR Impact of RMDs survey, a large patient-led initiative to gather firsthand information on how RMDs affect patients, informing future policies and care strategies.

The ceremony concluded with the EULAR abstract awards, the undergraduate abstract award was received by Maria Hanif, University of Liverpool, UK, and Yuan Zhao, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China. The EULAR Abstract Award PARE (People with Arthritis/Rheumatism in Europe) was received by Zoë Clark, National Axial Spondyloarthritis Society, London, UK. The EULAR Abstract Award FOREUM was received by Edoardo Cipolletta, Polytechnic University of Marche, Ancona, Italy, for Clinical Science and Stefania Croci, IRCCS of Reggio Emilia, Italy, for Basic Science.

EMJ was thrilled to be part of the 2024 Congress, and look forward to attending the EULAR 2025 Congress, which will be held in Barcelona, Spain.

Withdrawing Osteoporosis Treatment in Post-Menopausal Women Increases Fracture Risk

BISPHOSPHONATES and denosumab are recommended first-line and second-line treatments for post-menopausal women with osteoporosis, helping to reduce the risk of fractures by maintaining bone density.

These drugs are usually prescribed for the length of 3–5 years or longer for high-risk patients, based on the length of clinical trials. Recent recommendations suggest long-term use should be discontinued. However, recent data from the USA suggests that stopping these medications can increase fracture risks, these data are now supported by a new study from France, presented at the EULAR 2024 Congress.

The case-control cohort study collected data from the French National Claim Database (SNDS). It aimed to analyse the impact of long-term discontinuation of osteoporosis treatments (either oral or intravenous) on fragility fractures, and compare the risk with women continuing treatment. The study involved over 128,000 women with post-menopausal osteoporosis, focusing on those who discontinued bisphosphonates or denosumab.

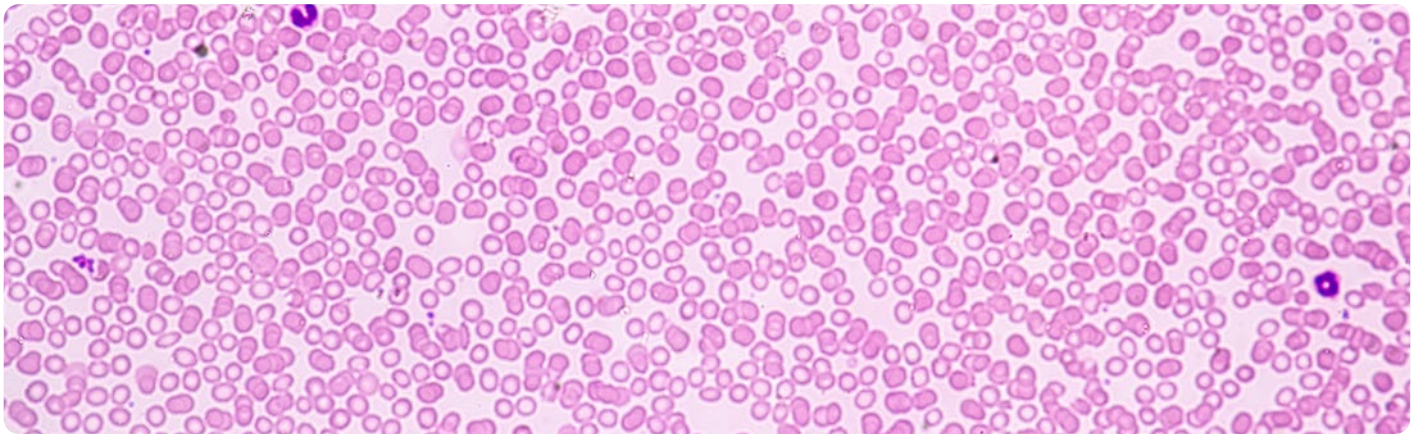
Results showed that 55.1% of women prescribed oral bisphosphonates, 68.9% of those prescribed intravenous bisphosphonates, and 42.5% of those prescribed denosumab had at least one discontinuation. Discontinuations occurred in women in their mid-to-late 70s after 3.6–4.8 years of treatment. Results also showed an upward trend in the incidence of long-term discontinuations, rising from 1.6–17.6% in 2015 and 12.1–29.5% in 2020.

Women who discontinued treatment faced a significantly higher risk of fragility fractures compared to those who continued treatment. Discontinuation of bisphosphonates increased fracture risk by 12.4%, while stopping denosumab nearly doubled the risk (92.3%). The most significant increase was observed in hip fractures, with a 19% increase for bisphosphonates discontinuation and a 108.3% increase for denosumab discontinuation. However, no significant differences were seen with the discontinuation of intravenous bisphosphonates.

> **Discontinuations occurred in women in their mid-to-late 70s after 3.6–4.8 years of treatment**

The study's findings highlight that discontinuation of denosumab is not recommended, with 42.5% of women who discontinued this treatment for at least a year presented with doubled fracture risk. Furthermore, increased fracture risks after treatment discontinuation varied in oral verses intravenous bisphosphonates, which warrants further research and clarification in treatment guidelines to mitigate risks associated with the discontinuation of osteoporosis medications.

VEXAS: Towards Molecular and Phenotypic Characterisation



NEW findings on VEXAS syndrome were presented at the EULAR 2024 Congress, shedding light on the molecular and phenotypic characteristics of this rare and life-threatening autoinflammatory disease.

VEXAS, an adult-onset condition caused by a somatic mutation in the *UBA1* gene, involves severe rheumatic and haematologic symptoms, complicating its diagnosis due to symptom overlap with other inflammatory diseases. Since its discovery in 2020, the medical community has struggled to fully understand VEXAS syndrome.

Researchers at the IRCCS San Raffaele Hospital in Milan, Italy, focused on the haematopoietic stem/progenitor cells (HSPC) in six patients with VEXAS, using multiparametric immunophenotypic analysis and single-cell RNA sequencing of peripheral blood and bone marrow. Their findings were compared with healthy age- and sex-matched controls.

The study revealed a myeloid skewing in the mutant HSPC of patients with VEXAS. This was evidenced by a two- to three-fold reduction in primitive stem cells, multipotent, and lymphoid progenitors in the bone marrow, coupled with a two-fold increase in myeloid progenitors compared to healthy individuals. Additionally, there was a three- to four-fold increase in circulating HSPC, myeloid-biased HSPC, and immature myeloid cells. Gene expression analysis showed upregulated inflammatory pathways and metabolic changes, including hyperactivation of the glycolytic pathway and alterations in lipid metabolism.

A notable discovery from the single-cell RNA sequencing of bone marrow mononuclear cells was a specific subpopulation of CD34+ cells unique to patients with VEXAS, marked by upregulated stress response and immune activation pathways.

> **There was a three- to four-fold increase in circulating HSPC, myeloid-biased HSPC, and immature myeloid cells**

Furthermore, the research team developed VEXAS models using gene-editing technologies on healthy human HSPC. When these gene-edited HSPC were transplanted into immunodeficient mice, there was a striking 100-fold reduction in circulating B cells, while the natural killer cell and myeloid compartments remained preserved.

These findings underscore the role of *UBA1* mutations in driving the expansion of HSPC and enhancing myelopoiesis, leading to the accumulation of myeloid precursors. The success of the gene-editing models offers hope for preclinical testing and validation of novel therapeutics for VEXAS syndrome, paving the way for potential new treatments for this rare disease.

Revealing Joint-Specific Responses in Psoriatic Arthritis Treatments

NOVEL results presented at the EULAR 2024 Congress shed new light on treating psoriatic arthritis (PsA), highlighting the importance of considering joint-specific responses to therapy.

EULAR advocates for a progressive management approach tailored to specific manifestations and disease activity in PsA. Traditionally, treatment outcomes have been measured by the overall reduction in the number of affected joints, often overlooking the specific locations of these joints. However, new research suggests that the location of the joint may significantly influence treatment effectiveness. Arthritis manifests differently across various joints despite being driven by systemic inflammatory cues. Previous studies in rheumatoid arthritis have shown that transcriptomic differences in synovial fibroblasts from different joints can lead to joint-specific phenotypes, each with unique characteristics and cytokine responses.

> **The clinical response to TNFi in PsA is influenced by joint location, at least in the time to first resolution of joint swelling**

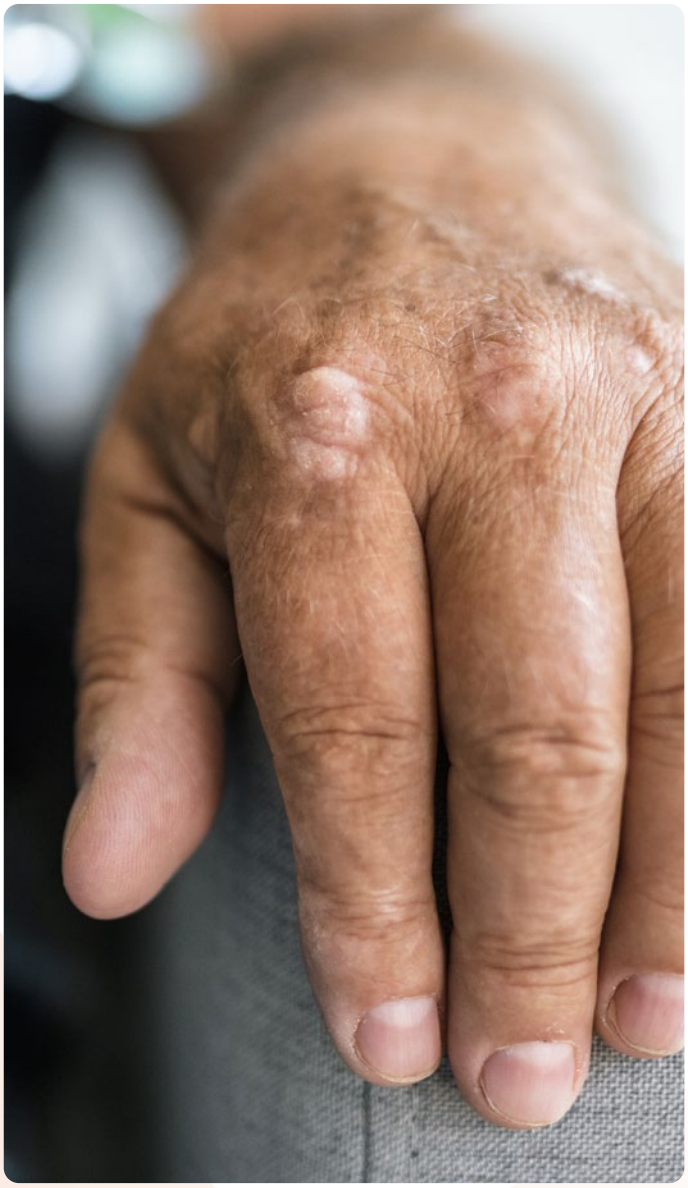
Adrian Cieurea, University Hospital Zurich, Switzerland, and colleagues investigated whether different anatomical locations in patients with PsA might respond variably to tumour necrosis factor inhibitor (TNFi) treatment. The study analysed real-life data from over 1,700 patients with PsA across several European registries within the EuroSpA network. The primary outcome measured was the time to the first resolution of joint swelling, assessed on an individual joint level using the 28-joint count at baseline and various intervals over two years. At baseline, the average number of swollen and tender joints was 4.8 and 7.4, respectively, with a mean disease activity score using C-reactive protein (DAS28-CRP) 4.7.

The study found significant variations in the resolution of joint swelling depending on the joint location. Specifically, joints in the upper limb, such as the elbow and shoulder, showed a higher swelling resolution rate than the proximal interphalangeal joint of the third digit (PIP3). Conversely, the wrist demonstrated a lower rate of resolution relative to the PIP3 joint. No significant difference was observed in the resolution of swelling in the knee compared to the elbow.

These findings suggest that the clinical response to TNFi in PsA is influenced by joint location, at least in the time to first resolution of joint swelling. The study indirectly identified joints less likely to respond to TNFi treatment, implying that local factors, such as mechanical influences or specific synovial fibroblast phenotypes, may impact treatment effectiveness. This research underscores the necessity for future studies to explore joint-specific responses in PsA and their associations with distinct therapeutic mechanisms, potentially leading to more targeted and effective treatment strategies.

Biological Treatments Reduce Psoriatic Arthritis Risk in Patients with Psoriasis

RESEARCH presented at the EULAR 2024 Congress suggested that early intervention with biologic treatments may prevent the progression from psoriasis to psoriatic arthritis (PsA).



PsA affects about one-third of individuals with psoriasis, a chronic inflammatory skin condition. The prevalence of PsA is estimated to be between 6–42%. However, in most cases symptoms precede PsA, making skin psoriasis a model for pre-PsA.

The retrospective study utilised electronic history data from a global network of electronic health records, encompassing over one million patients. Researchers compared the incidence rates of new-onset PsA among patients receiving first or second line biologic treatments for psoriasis. The studied biologics included tumour necrosis factor inhibitors (TNFi) and biologics targeting interleukins (IL-12i, -23i, -17i, and -12/23i). The incidence rates of PsA were tracked over 5 years, for first-line treatments, and for 3 years for second line treatments, using the first-line TNFi population as a reference group.

Results showed that patients with psoriasis undergoing first-line treatment with IL-12/23i had a 37% lower risk of developing PsA, and those on IL-23i had a 39% lower risk compared to those on TNFi, at 5 years. For second-line treatments, the risk of developing PsA was 32% lower with IL-12/23i and 31% lower with IL-23i at 3 years, compared to first-line TNFi. Additionally, IL-23i showed a 47% lower probability of PsA development compared to IL-17i in both first and second line treatments over 3 and 5 years.

The findings of the study indicate that biologic treatments, particularly IL-12/23i and IL-23i, may significantly reduce the risk of PsA in patients with psoriasis, in both newly exposed patients and those who have been previously exposed to biologics. The findings underscore the potential of biologics in early intervention and altering the disease course, offering a promising strategy for preventing progression to PsA.

> **“The prevalence of PsA is estimated to be between 6% and 42%”**

Predicting Response in Treatment-Naïve Rheumatoid Arthritis

A RECENT study presented at the EULAR 2024 Congress assessed the power of multi-modal analysis of synovial tissue inflammation in treatment-naïve patients with rheumatoid arthritis (RA), with the aim of identifying predictive biomarkers for treatment response.

> **Researchers examined 373 treatment-naïve patients with RA, who were given an ultrasound-guided synovial tissue biopsy**

Researchers examined 373 treatment-naïve patients with RA, who were given an ultrasound-guided synovial tissue biopsy. The synovitis degree and synovial pathotype was then determined for each individual. A subset of 45 samples was used for synovial tissue macrophage phenotyping and profiling in order to measure the abundance of distinct macrophage populations. The transcriptomic profile of $CD68^{pos}$ cells in distinct regions of interest within the synovial tissue was also determined using spatial technology. After study entry, patients were managed with a treat-to-target strategy.

The findings showed that those patients who reached disease remission at 6 months had a lower Krenn Synovitis Score (KSS) at baseline compared to people who did not achieve this outcome. People who had been stratified based on synovial pathotype as lympho-myeloid or diffuse-myeloid pathotype had a lower response to conventional synthetic disease-modifying antirheumatic drugs (csDMARD) compared to people with a pauci-immune pathotype. Further analysis suggested, however, that at an individual level, baseline KSS has limited capacity to distinguish between responders and non-responders, which highlights the need for multi-modal tissue deconvolution.

Flow cytometry analysis revealed that those with lympho-myeloid or diffuse-myeloid pathotypes showed comparable enrichment of two distinct synovial tissue macrophage populations ($MerTK^{pos}CD206^{pos}$ and $MerTK^{neg}CD206^{neg}$), while patients with the pauci-immune pathotype showed a predominance of $MerTK^{pos}CD206^{pos}$. The enrichment of $MerTK^{pos}CD206^{pos}$ synovial tissue macrophages was also higher in people who achieved remission at 6 months. Notably, enrichment of these $MerTK^{pos}$ synovial tissue macrophages greater than 44.3% from baseline was shown to be an independent factor associated with achieving remission at 6 months.

This research has revealed that a multi-modal analysis of synovitis could enable differentiation of treatment-naïve patients with RA at their first medical evaluation. This data strongly supports the predictive value as a patient-based decision test tool.

Predictive Tools for Life-Threatening Complications in Still's Disease

A SIGNIFICANT advancement for rheumatology; a multi-centre, observational, prospective study presented at the EULAR 2024 Congress has underscored the clinical value of the systemic score in predicting life-threatening complications in Still's disease.

This inflammatory disorder, characterised by fever, arthritis, and skin rash, affects both children and adults. Formerly known as systemic juvenile idiopathic arthritis in children and adult-onset Still's disease in adults, the condition can lead to severe complications, including macrophage activation syndrome and increased mortality.

This study gathered data from 597 patients across two major research groups: the Gruppo Italiano Di Ricerca in Reumatologia Clinica e Sperimentale (GIRRCS) AOSD-study group and the AutoInflammatory Disease Alliance (AIDA) Still's disease registry.

Patients were assessed using the systemic score, which assigns one point to each of 12 clinical manifestations, including fever, rash, pleuritis, pneumonia, pericarditis, hepatomegaly or abnormal liver function tests, splenomegaly, lymphadenopathy, leucocytosis >15,000/mm^3, sore throat, myalgia, and abdominal pain. Notably, 100% of the study's patients exhibited fever, 87.9% had joint involvement, and 66.1% presented with skin rash. Additionally, liver involvement was noted in 43.5% of patients, macrophage activation syndrome in 13.1%, and lung disease in 6.9%, with a mortality rate of 3.4% due to Still's disease.

The study revealed that a systemic score of seven or higher is a significant predictor of life-threatening evolution. Further risk-profile assessments and a multivariate logistic regression model adjusted for age and sex identified liver involvement and lung disease as independent predictors of severe outcomes. Specifically, patients with liver involvement frequently experienced lymphadenopathy, splenomegaly, pericarditis, and pleuritis, while those with lung disease showed higher rates of sore throat, lymphadenopathy, splenomegaly, liver involvement, pericarditis, pleuritis, and abdominal pain.

> **A systemic score of seven or higher is a significant predictor of life-threatening evolution**

These findings suggest that the systemic score is a valuable prognostic tool in clinical practice. Moreover, liver involvement and lung disease should be recognised as key multi-organ manifestations and major predictors of life-threatening evolution in Still's disease. This study represents a crucial step forward in understanding and managing this complex condition.

New Threshold Recommendation for Spondyloarthritis Treatment

DECISIONS for treatment intensification for patients with axial spondyloarthritis (axSpA) is associated with a higher disease activity score cut-off than what is recommended, according to a study by Weber and colleagues presented at the EULAR 2024 Congress.

For patients with axSpA, persistent disease activity necessitates adapting treatment. EULAR, in collaboration with the Assessment of SpondyloArthritis International Society (ASAS), recommends using the Ankylosing Spondylitis Disease Activity Score (ASDAS) with a cut-off ≥2.1 to identify high disease activity and therefore consider treatment intensification. However, this recommendation is not always implemented in clinical practice, possibly because the ASDAS was initially developed for research purposes. This study aims to investigate whether the cut-off values align with treatment intensification decisions in everyday clinical practice.

> **ASDAS cut-off varied from 2.3–2.8, consistently higher than the recommended 2.1**

For the study, treatment intensification was defined as an increase in the dose or frequency of the same drug, switching to another drug, or adding a new drug due to inefficacy. Data were sourced from a prospective multi-centre registry for SpA, including 350 patients with 2,265 ASDAS measurements. Analyses included all observations, and were repeated with only the first observation per patient per calendar year to balance the number of observations per patient by follow-up duration. Approximately two-thirds received a biologic or targeted synthetic disease-modifying antirheumatic drug at some point during follow-up.

Researchers found that treatment intensification followed 10.4% of ASDAS measurements. Patients were often already on anti-inflammatory treatment at the time of intensification. Intensification typically involved switching to another drug within the same class or adding a drug, while the use of conventional synthetic disease-modifying antirheumatic drugs and corticosteroids was limited. The mean ASDAS and the proportion of patients with ASDAS ≥2.1 were higher at intensification time points than at non-intensification time points. The optimal ASDAS cut-off related to treatment intensification was 2.7 when all measurements were included, and similar when only one measurement per patient and calendar year was used. Over the years, the optimal ASDAS cut-off varied from 2.3–2.8, consistently higher than the recommended 2.1.

The study concluded that, in daily practice, treatment intensification in axSpA is associated with a higher ASDAS cut-off value than the recommended 2.1. This discrepancy suggests that rheumatologists may find the current cut-off too stringent, or that they consider additional factors beyond disease activity in their treatment decisions. EULAR and ASAS emphasise the need for individualised treatment considering axial, peripheral, and extramusculoskeletal manifestations, along with each patient's comorbidities and psychosocial factors.

Achieving Drug-Free Remission in Early AxSpA: Challenges and Successes

EARLY therapeutic interventions in inflammatory rheumatic diseases have been effective in achieving drug-free remission, as recommended by EULAR.

These interventions, particularly using conventional synthetic disease-modifying antirheumatic drugs (csDMARD), have slowed disease progression in conditions like rheumatoid and psoriatic arthritis. However, axial spondyloarthritis (axSpA) poses unique challenges for early intervention studies due to its insidious onset and often delayed diagnosis.

> **Of the 55 patients who completed the trial, 61.8% achieved sustained clinical remission, and 21.8% had low disease activity at Week 52**

At the EULAR 2024 Congress, Łukasik and colleagues presented a prospective study on a tight control, treat-to-target approach for newly diagnosed, treatment-naïve patients with axSpA, following Assessment of SpondyloArthritis international Society (ASAS)-EULAR recommendations. Patients initially received optimal doses of two different non-steroidal anti-inflammatory drugs (NSAID) for at least 4 weeks. If no clinically significant improvement was observed, monotherapy with golimumab was initiated. Patients were monitored until achieving sustained clinical remission, defined as inactive disease state at two consecutive visits spaced at least 12 weeks apart, or until the end of the trial. Post-remission, patients were observed in routine clinical practice to assess the feasibility of maintaining drug-free remission.

Of the 55 patients who completed the trial, 61.8% achieved sustained clinical remission, and 21.8% had low disease activity at Week 52. This marked the first clinical trial in early axSpA where over 60% of patients achieved sustained inactive disease. Univariate analysis indicated that sex and baseline BASDAI score significantly differed between those who did and did not achieve remission. Multivariate analysis further identified male sex, smoking abstinence, and lower BASDAI score as remission predictors.

Despite achieving remission, 84.8% of patients experienced a disease relapse within a year after stopping treatment, especially those who achieved remission with NSAID treatment. The median time to relapse was 61 days for NSAID-treated patients and 155 days for golimumab-treated patients, with 18.2% of the latter maintaining drug-free remission for over 3 years. Thus, while a treat-to-target approach can induce high rates of inactive disease in early axSpA, maintaining drug-free remission remains challenging.

Reassessing Glucocorticoid Withdraw in Lupus Management

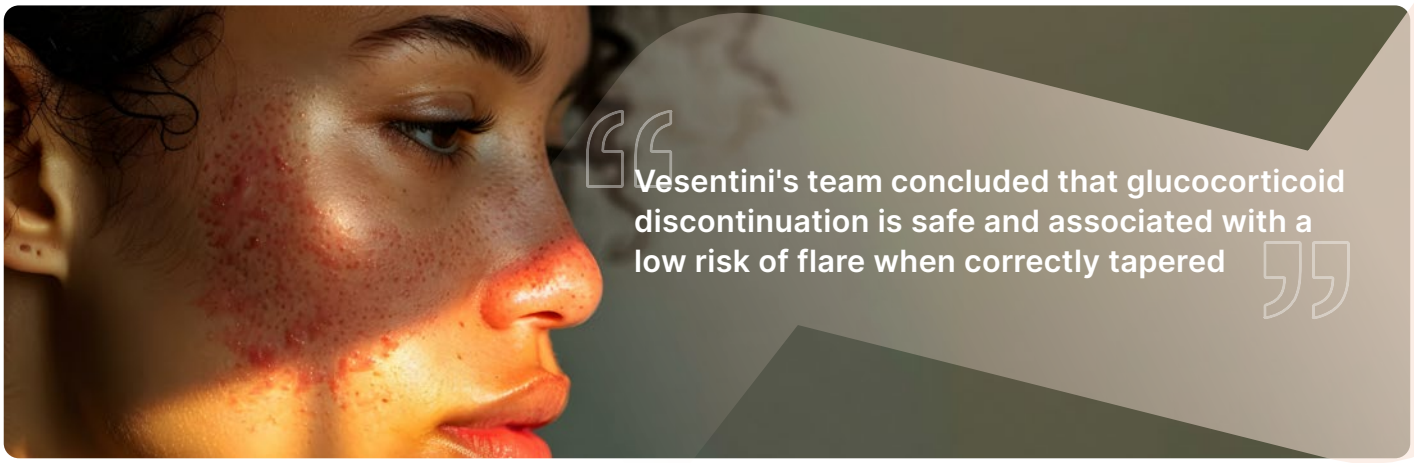
RECENT findings presented at the EULAR 2024 Congress offered new insights into the optimal management of glucocorticoid therapy for systemic lupus erythematosus (SLE).

The session comprised two abstracts tackling the debate about the safest and most effective dosing strategies. Glucocorticoids are a cornerstone in treating SLE, yet their long-term adverse effects have made dose reduction a critical objective in the treat-to-target management approach. EULAR guidelines recommend a glucocorticoid dose of no more than 5 mg/day, while the lupus low disease activity state (LLDAS) definition allows for up to 7.5 mg/day. However, a significant challenge is whether it is safe and feasible to discontinue glucocorticoids after achieving remission.

Filippo Vesentini, University of Padua, Italy, presented data on the risk of flare associated with glucocorticoid discontinuation versus low-dose maintenance. Based on prospectively collected data, the retrospective analysis evaluated flare-free remission in patients with SLE who had either discontinued glucocorticoids or maintained a dose of 5 mg/day or less. During the follow-up, 484 patients achieved remission, with 360 discontinuing glucocorticoids and 124 remaining on a low dose. Over an average of 87 months, 85 flares were recorded, of which 48 discontinued and 37 remained on a low dose. This equated to an annual flare rate of 8.5 flares per 100 patients/year for the discontinuation group and 1.65 for the low-dose group. Factors influencing flare-free remission included disease duration and anti-U1RNP status. Vesentini's team concluded that glucocorticoid discontinuation is safe and associated with a low risk of flare when correctly tapered.

In a separate presentation, Eric Morand, Monash University, Australia, examined the impact of lowering the glucocorticoid ceiling in the LLDAS definition to align with the 5 mg/day EULAR recommendation (LLDAS-5). The study analysed data from a longitudinal cohort of 2,213 patients with SLE. Results showed that 2.1% of patients died, 29% accrued organ damage, and 67% experienced flares. LLDAS-7.5 was achieved by 87% of patients in 47% of visits, while 83% attained LLDAS-5 in 42% of visits. Both thresholds provided similar protection against mortality, organ damage, and flare rates.

These findings underscore the importance of glucocorticoid dose reduction in SLE management. However, no evidence supported a revision of the current LLDAS dose threshold, indicating that the validated LLDAS definition should continue to guide clinical practice and research.



Barriers and Facilitators for Physical Activity in Rheumatic Diseases

A SYSTEMATIC review and qualitative study presented at the EULAR 2024 Congress explored the barriers and facilitators affecting adherence to EULAR's physical activity recommendations.

Challenges in real-world clinical settings persist, despite the well-established benefits for patients with rheumatic and musculoskeletal diseases (RMD). EULAR has long promoted health-enhancing physical activity, but significant gaps remain between research findings and their practical application.

A systematic review of 68 articles, identifying 29 themes across social, environmental, and systematic factors was conducted. Concurrently, a qualitative research study was conducted in Denmark, observing clinical practices and conducting interviews with healthcare professionals to understand their perspectives on integrating physical activity guidance into routine care.

Results of the systematic review showed that the five most significant facilitators for physical activity adherence were family and friends, a supportive health professional, costs, and access to adapted and supervised programs. At the same time, the results of the qualitative study identified barriers related to healthcare professionals' skills, competencies, and professional identity. The study on facilitators and barriers collected data from four rheumatology outpatient clinics in Denmark. Other major barriers identified in the study were environmental context and resources, particularly the lack of physical and clinical resources needed to provide appropriate guidance. However, informants shared beliefs about the potential benefits of incorporating physical activity guidance into rheumatology care. The Theoretical Domains Framework and template analysis were used in the data work-up and interpretation.

> **Significant gaps remain between research findings and their practical application**

The findings of the two studies underscore the need to improve the abilities of healthcare professionals to guide their patients in physical activity. Additionally, addressing the environmental and systemic barriers, such as costs and access to resources is also crucial. Further research, including a planned questionnaire in four European countries, aims to tailor strategies to enhance the adoption and adherence to EULAR's physical activity recommendations. These continued efforts will ultimately benefit people with RMDs.