ACR 2024

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Congress Review

Review of the American College of Rheumatology (ACR) Convergence 2024

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SET against the vibrant backdrop of Washington, D.C., this year's American College of Rheumatology (ACR) Convergence was truly unforgettable. Bringing together the brightest minds in rheumatology, the congress showcased a wealth of knowledge through scientific sessions, abstract presentations, symposia, and an impressive array of scientific posters. Experts from across the globe shared the latest breakthroughs, sparking conversations that are shaping the future of the field.

At its heart, the Convergence embodied the ACR's mission: to empower rheumatology professionals to excel in their practice, advance the specialty, and inspire progress. As the leading authority and trusted partner for rheumatology professionals, the ACR remains committed to supporting healthcare providers so they can deliver the best care to their patients. The 2024 ACR Convergence emphasized innovation, collaboration, and cutting-edge research, creating a dynamic platform to drive advancements in rheumatology.

The bustling event kicked off with a welcome from the 87th ACR president, Deborah Dyett Desir, Yale School of Medicine, Woodbridge, Connecticut, who expressed her gratitude towards the attendees of this year's congress for gathering for the convergence in the nation's capital, Washington, D.C. "ACR Convergence is brought to you by the phenomenal work of our staff and the talented and dedicated ACR and Association of Rheumatology professionals and volunteers. It is through their hard work and dedication that we can make this the premier event of the year for physicians, researchers, advanced practice practitioners, pharmacists, physical and occupational therapists, practice managers, and other medical professionals," Desir highlighted to the gathered attendees. The aim of the ACR Convergence 2024 was to celebrate the remarkable achievements of the ACR and to commemorate 90 years of forward momentum by honoring the legacy and ensuring the future.

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The ceremony continued with Desir sharing the many ways through which the Convergence aims to uphold its mission and fulfill its brand promise. Desir explained that ACR fulfills its promise through its relentless advocacy efforts at Capitol Hill and State Houses across the country. This includes initiatives such as the advocacy leadership conference at Capitol Hill Day, where ACR ensures that the voices of rheumatology professionals are heard and their needs are prioritized in policy discussions, as well as active campaigning for better legislation that will have a positive impact on healthcare professionals and patients alike. Another effort to support healthcare professionals was the establishment of the "Women in Rheumatology Task Force". "With over half of medical school graduates and 66% of ACR fellows being women, it is essential to create an environment where women feel truly at home, where their unique needs are prioritized," Desir said. She created the task force this year for women in rheumatology with the aim of fostering the growth and success of women in the field. The task force will provide strategic recommendations for developing and expanding resources, programs, and advocacy efforts that promote leadership and professional development for women in rheumatology, with a focus on key areas such as career advancement, working in mentorship opportunities, pay equity, and family support policies. The task force will collaborate with the Association of Women in Rheumatology (AWIR) in these efforts. By addressing critical issues such as work-life balance, access to mentorship, and leadership development, one can ensure that women have every opportunity to thrive and succeed.

Desir then introduced another notable initiative, the "Climate Change and

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Rheumatology Task Force", as understanding the impact of climate change on health is important when it comes to providing the comprehensive care that patients deserve. As Desir explained, rheumatologists witness firsthand the effects of climate change, and how they worsen the conditions of patients with chronic rheumatic disease, making them more vulnerable to disease exacerbations triggered by worsening environmental factors. These impacts are felt most acutely by socio-economically disadvantaged populations who already face significant barriers in accessing effective treatment. “I recognize the urgency of this issue, and I empower the task force to investigate how climate change affects patients with rheumatic diseases and provide a strategic and proactive response,” announced Desir, with a further explanation that by addressing this challenge now, ACR places itself at the forefront of the issue that impacts patients.

Desir explained that ACR achieved its promise by embedding Diversity, Equity, Inclusion & Belonging (DEIB), into the very foundation of the organization. By emphasizing DEIB, ACR addresses the needs of all ACR members. This is a fundamental aspect of ACR’s vision; it is the need for greater diversity in rheumatology and within ACR leadership. ACR’s commitment to DEIB is not only about bringing the wealth of perspectives, experiences, decision-making, and innovation, but it is also about creating unobstructed pathways for underrepresented groups to leadership roles, stressed Desir, as this ensures that ACR will remain relevant and responsive to the diverse membership of the ACR and ARP. “Our leadership, membership, and the workforce should reflect the diversity of our patients, guaranteeing that our organization is truly representative of the communities we serve,” explained Desir.

Continuing, Desir addressed the rheumatology workforce shortage and how ACR plans to tackle this issue head-on. The efforts include expanding recruitment strategies to attract more medical students and residents to the field of rheumatology with targeted outreach, educational programs, and scholarships. In an exciting announcement, Desir introduced "Rheumatology for Primary Care", a new digital resource designed to support primary care practitioners in diagnosing and referring both pediatric and adult patients with rheumatic diseases. In the closing remark, Desir reassured the attendees that ACR’s commitment to addressing the rheumatology workforce shortage remains steadfast, ensuring that patients across the country have access to the specialized care they need and deserve.

In a celebration of global engagement and outreach, Desir welcomed the international attendees to this year's event, where they can connect, share knowledge, and celebrate the global rheumatology community together. With 10,000 members across 98 countries, this global community forms the vibrant and essential core of the ACR.

10,000 members

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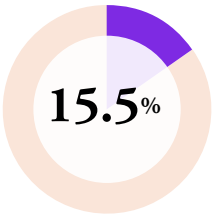
To conclude the opening ceremony, Desir urged the attendees to explore the many scientific sessions, peruse the poster hall, visit the exhibit hall, engage in networking lounges, and take advantage of meet-the-professor sessions, late-breaking abstract sessions, and much more!

Read on for more key insights into ACR Convergence 2024, and make sure to join us next year for ACR Convergence 2025, which will take place in Chicago, Illinois.

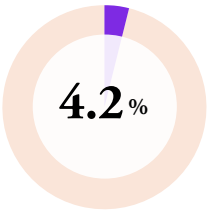
Low-Dose Prednisone Reduces Relapse Risk in Granulomatosis with Polyangiitis

MAINTAINING low-dose prednisone therapy significantly reduces relapse risk in patients with granulomatosis with polyangiitis (GPA), according to recent research presented at the ACR Convergence 2024.

By Month 6



(11/71) of the 0 mg/day group relapsed, compared to just



(3/72) of the 5 mg/day group

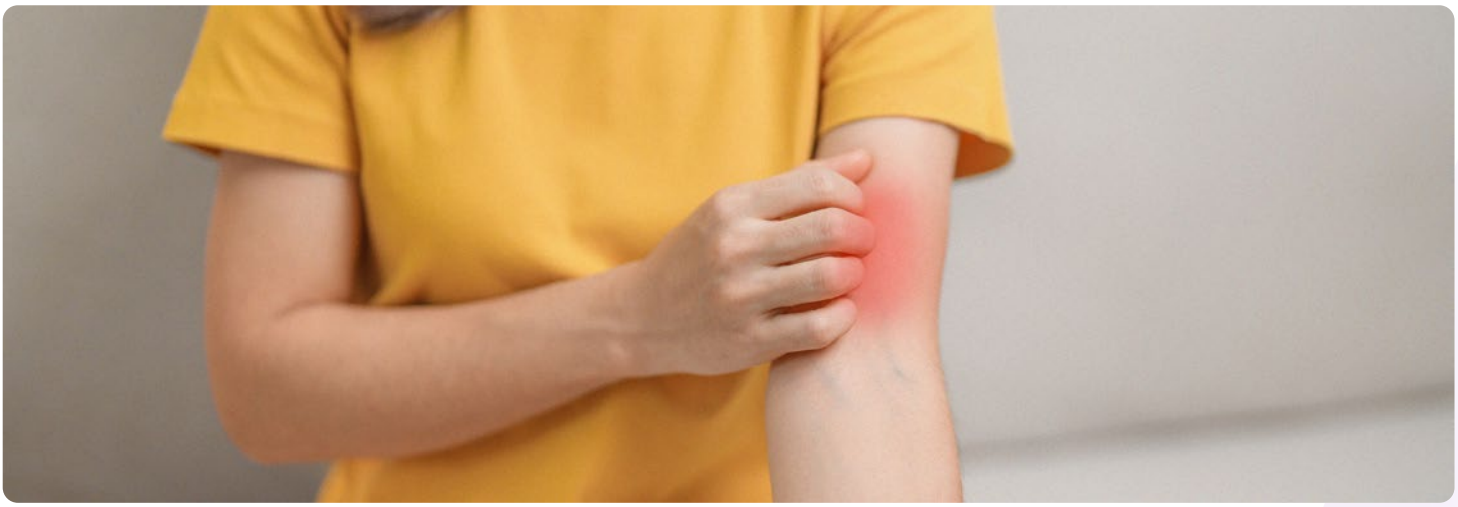
The Assessment of Prednisone in Remission (TAPIR) trial evaluated the efficacy and safety of 5 mg/day prednisone compared to complete discontinuation over 6 months, providing critical insights for clinical practice. The study enrolled 143 patients who were in remission following treatment for active GPA. Participants, all receiving prednisone at 5–20 mg/day, tapered to 5 mg/day before being randomized to either continue this dose (72 patients) or discontinue prednisone entirely (71 patients). Other immunosuppressive therapies, such as rituximab, were maintained. The primary focus was relapse rates at 6 months, defined by a need to restart or increase glucocorticoid dosage.

Findings showed that patients on 5 mg/day prednisone were significantly less likely to experience relapse than those who discontinued prednisone entirely. By Month 6, 15.5% (11/71) of the 0 mg/day group relapsed, compared to just 4.2% (3/72) of the 5 mg/day group, with an odds ratio of 4.22 (95% CI: 1.1–15.8). The relapse risk difference was particularly stark among patients not on rituximab, where the discontinuation group had a relapse rate of 20.0% versus 2.6% in the low-dose group (odds ratio: 9.50; P=0.023). Among rituximab users, relapse rates were comparable between groups (8.8% versus 6.1%; P=0.667).

Time to relapse was also significantly shorter in the discontinuation group (P=0.026), although most relapses (93%) were minor. Safety outcomes, including serious adverse events and infections, showed no significant differences between the groups, with six events in five patients on 0 mg and one event in the low-dose group (P=0.492). Patient-reported outcomes, such as fatigue and physical function, were similarly unaffected.

This study shows the value of low-dose prednisone in preventing GPA relapses, particularly for patients on non-rituximab therapies. While the risk of major relapses remains low, these findings highlight the importance of tailored tapering strategies in GPA management and future clinical trial designs.

Urinary Biomarker Panel Offers Non-invasive Breakthrough for Lupus Nephritis



A STUDY presented at the ACR Convergence 2024 showed that urinary biomarker panels can transform the diagnosis and management of lupus nephritis (LN), providing a non-invasive and highly accurate alternative to traditional methods.

LN, a severe complication of systemic lupus erythematosus, often requires kidney biopsies to determine disease activity. However, traditional biomarkers such as C3, C4, and anti-dsDNA offer limited accuracy, making it difficult for clinicians to monitor disease progression and response to treatment. This study introduced a panel of 12 urinary proteins that can identify active proliferative LN, characterized by a National Institutes of Health (NIH) Activity Index >2, with remarkable precision.

The biomarker panel, developed using machine learning techniques, demonstrated an impressive area under the curve of 90%, significantly outperforming traditional markers like C3 (73%) and C4 (67%). Key proteins such as interferon-gamma receptor 1, CD163, and CEACAM-1 emerged as crucial indicators. Importantly, the panel not only predicted disease activity but also tracked treatment responses. Patients classified as complete responders after 1 year displayed noticeable improvements in biomarker activity scores within the first 3 months, distinguishing them from partial or non-responders.

The findings present the potential of this panel to replace invasive kidney biopsies, offering a targeted approach to understanding intrarenal inflammation. Unlike proteinuria, which reflects general kidney damage, these biomarkers provide specific insights into LN activity. By accurately predicting histological activity and monitoring treatment outcomes, the panel could enable more effective and personalized care for patients with LN.

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With further validation, this urinary biomarker panel could become an essential tool for clinicians, revolutionizing the diagnosis and management of lupus nephritis.

Enhanced Fertility in Women with Rheumatoid Arthritis: A Treat-to-Target Approach

ACCORDING to new research presented at the ACR Convergence 2024, fertility is increased in women with rheumatoid arthritis (RA) when treated according to a treat-to-target strategy.

High rates of infertility and prolonged time to pregnancy (TTP) have both been observed in females diagnosed with RA. In a previous cohort study, known as the Pregnancy-induced Amelioration of RA cohort (PARA), RA-related factors shown to affect time to pregnancy were high disease activity, daily non-steroidal anti-inflammatory drug use, and daily prednisone intake exceeding 7.5 mg. Comparatively, the Preconception Counseling in Active RA (PreCARA) study followed women wishing to conceive with a treat-to-target treatment strategy and counseling, aimed at avoiding the use of non-steroidal anti-inflammatory drugs and high-dose prednisone. Radboud Dolhain and team, from the Erasmus University Medical Center, Rotterdam, the Netherlands, set out to investigate whether a treat-to-target approach, including TNF-inhibitors, improved TTP pregnancy in the Pre-CARA cohort compared to the PARA cohort.

In both the PreCARA (n=215) and PARA (n=245), TTP was defined as the time between unprotected sexual intercourse and the onset of the last menstrual period, and differences in TTP were analyzed using Kaplan-Meier curves. The median disease activity was lower in the PreCARA cohort compared to PARA. Additionally, 3% of the patients in PreCARA did not take any medication in the preconception period compared to 36% in the PARA cohort. Notably, in the PreCARA study, the median TTP was 84 days in patients who got pregnant, in contrast to 196 days observed in the PARA study. TTP exceeded 12 months in 23% of PreCARA patients compared to 42% in the PARA patients. Additionally, fewer patients took daily doses of prednisone exceeding 7.5 mg in the PreCARA versus PARA cohort (23% versus 48%).

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These results show that TTP was significantly shorter in the PreCARA patients than the PARA, highlighting the benefit of treat-to-target treatment strategies to improve TTP in women diagnosed with RA.

Reducing Racial and Ethnic Outcome Disparities in Juvenile Idiopathic Arthritis

RESEARCH presented at the ACR Convergence 2024 conference has demonstrated that reducing disparities in patients with juvenile idiopathic arthritis (JIA) is feasible at a large tertiary care center if certain strategies are implemented.

Pronounced racial and ethnic outcome disparities in the management of JIA have been reported, despite advances in novel therapeutics and treat-to-target interventions. At the Children's Hospital of Philadelphia, Pennsylvania, the mean population-level clinical Juvenile Arthritis Disease Activity Score (cJADAS) was 2.9, with greater values in non-Hispanic Black (NHB) patients (5.0) compared to non-Hispanic White (NHW) patients (2.6). Therefore, researchers aimed to identify the key drivers of disparities, implement equity-focused interventions, and improve outcomes for patients. Specifically, the aim was to decrease the mean cJADAS from 2.9 to 2.7 in the full cohort and decrease by 1.2 units in NHB patients (50% of the baseline disparity gap) without widening the existing gap.

In early 2023, the research team identified the four drivers of racial and ethnic outcome disparities: consistent outcome documentation, application of JIA best practices, providing access to at-risk patients, and team awareness and agency. In a cohort of patients with a physician diagnosis of JIA seen within the prior 450 days, the researchers implemented strategies to reduce outcome disparities, with monthly outreach to patients overdue for follow-up, standardization medication adherence assessments, monthly divisional cJADAS distribution, and quarterly data assessment workshops for maintenance of certification (MOC) credit.

By May 2024, the JIA population at the tertiary center had grown by 9.7%, consisting of 870 patients (68% NHW and 7% NHB). Additionally, the mean disease activity target attestation increased to 95%, exceeding the goal of 90%. After launching a medication adherence assessment, performance was stable at 75% of eligible visits.

After introducing all interventions by June 2023, the analysis revealed that the mean cJADAS decreased from 2.9 to 2.7. Specifically, in NHB patients, the mean cJADAS decreased from 5.0 to 4.4, and in the NHW patients from 2.6 to 2.4.

These findings demonstrate the ability to reduce racial and ethnic outcome disparities in JIA treatment if clinicians implement the right strategies. Refining such strategies and creating more targeted interventions will improve outcomes further.

Cancer Therapy Outcomes Similar for Patients with Autoimmune Diseases

IMMUNE checkpoint inhibitors (ICI) have transformed cancer treatment, providing hope for patients with a range of malignancies. However, a study presented at the ACR Convergence 2024 has highlighted that individuals with pre-existing autoimmune diseases are often excluded from clinical trials due to concerns about increased immune-related adverse events.

This exclusion has raised questions about whether such patients experience different treatment outcomes compared to those without autoimmune diseases, and this recent study has sought to address this gap by assessing mortality risk in a large national cohort of patients with autoimmune diseases undergoing ICI therapy.

Researchers utilized the TriNetX Diamond network, a comprehensive multi-center US database of electronic health records, to identify patients with and without pre-existing autoimmune diseases receiving ICIs for cancers such as lung, digestive organ, melanoma, and urinary tract malignancies. Using the International Classification of Diseases, Tenth Revision codes, they analyzed mortality rates, adjusting for demographic and comorbid factors through propensity score matching, while survival outcomes were assessed using Kaplan-Meier analysis and Cox proportional hazards models.

The study included 25,153 patients with autoimmune diseases and 78,547 patients without autoimmune diseases. Initial analysis showed slightly higher mortality rates in the autoimmune disease group at 40.0%, compared to the non-autoimmune disease group at 38.1% (hazard ratio: 1.07; 95% CI: 1.05–1.10). Notably, patients with autoimmune diseases exhibited significantly higher rates of cardiovascular comorbidities, such as Type 2 diabetes (42.0% versus 24.8%), chronic kidney disease (25.6% versus 15.5%), and ischemic heart disease (39.2% versus 28.4%).

After propensity score matching, which produced two balanced cohorts of 23,714 patients, no significant difference in mortality risk was observed as mortality rates were 39.8% in the autoimmune disease group and 40.2% in the non-autoimmune disease group (hazard ratio: 0.97; 95% CI: 0.94–1.00).

These findings suggest that patients with pre-existing autoimmune diseases do not show an increased mortality risk when undergoing ICI therapy. This evidence challenges the prevailing rationale for excluding patients with autoimmune diseases from clinical trials, highlighting the potential for broader access to ICIs and emphasizing the need for inclusive trial designs.