Updates to RA, PsA recommendations reflect new evidence and consensus

**Task force develops 10 recommendations for the generic core competencies of HPRs**

Important updates to EULAR recommendations for the pharmacological treatment of psoriatic arthritis (PsA) and rheumatoid arthritis (RA) will be released Saturday morning at the EULAR Projects in Clinical Affairs session.

Evidence-based and consensus-based changes and additions to management recommendations for another four conditions – systemic lupus erythematosus (SLE), large vessel vasculitis, Sjögren’s syndrome, and adult antiphospholipid syndrome (APS) – will also be released during the session. (See article on page 9.)

The PsA-related update comprises six overarching principles and 12 recommendations that take into account the different phenotypes of patients with PsA and strategic approaches to treatment, according to Prof. Laure Gossec of Sorbonne University and Pitie-Salpetriere Hospital, Paris, who will present the updates on behalf of the EULAR PsA management task force.

**Imaging survey highlights need for MRI, CT, and PET training**

Although modern musculoskeletal imaging is available to rheumatologists in EULAR countries, access to the techniques and training offered by different countries varies, a survey reveals.

Dr. Peter Mandl of the department of rheumatology at the Medical University of Vienna will present the results of the survey at the Saturday afternoon session on EULAR Projects in Musculoskeletal Imaging.

In an interview, Dr. Mandl said that previous research by his group had focused on the use of musculoskeletal ultrasound in EULAR member countries. But this time, the research team wanted to cast the net wider to look at the use of other modern imaging techniques that are increasingly playing a role in rheumatologic practice, namely MRI, CT, and PET.

“While diagnosis is still primarily based on history and
Strengths, weaknesses of axSpA imaging outlined

To use imaging studies effectively for the diagnosis and evaluation of axial spondyloarthritis (axSpA), clinicians must first recognize their limitations, according to a preview of expert opinion and new data to be presented during a Clinical Science session starting at noon on Saturday.

“Imaging has to be understood in the context of a clinical picture. With the patient history, the physical examination, and the laboratory results, the value of imaging improves substantially. Therefore, before an image is ordered it is important to ask how likely is it that a patient has axial spondylitis,” said Dr. Floris A. van Gaalen of Leiden (Netherlands) University Medical Centre.

One of the speakers on Saturday, Dr. van Gaalen will explain why images, whether they are radiographs or an MRI scan, can fool even highly experienced radiologists, particularly at early stages of disease. He will advise rheumatologists to look at the images themselves, not just read the radiologist’s report, and then consider how findings fit with other clinical features.

“There is no cookbook approach with which you can guarantee a diagnosis of spondyloarthritis. Imaging can be valuable, but there is a risk of false positives because features on imaging, such as bone marrow oedema, are shared with other sources of back pain,” according to Dr. van Gaalen.

Another expert, Dr. Xenofon Baraliakos of Rheumazentrum Ruhrgebiet, Ruhr-University Bochum, in Herne, Germany, will provide additional perspective with a similar message. In an expert review, he will explain how to incorporate imaging in the monitoring of axSpA. Separately, he will provide data from a recent study that explores the contribution of structural changes additional to bone marrow oedema on imaging as key criteria for axSpA diagnosis.

“In general, MRI findings correlate with other objective measures of disease status, but the question to ask when escalating or deescalating therapy is what features are relevant to the decision to modify therapy,” Dr. Baraliakos said.

The overview is meant to provide practical information. Within the treat-to-target principle of axSpA management, there are still relatively limited data on how imaging should be employed in therapeutic decisions, but Dr. Baraliakos will outline where imaging is most likely to provide value in the framework of other clinical features.

“Imaging does provide information about disease activity, but it is also important to consider whether the information is likely to be relevant to treatment decisions,” cautioned Dr. Baraliakos, who plans to identify specific instances where there is potential for imaging to be helpful.

In a separate presentation, Dr. Baraliakos will present results of a study providing insight about the diagnostic value of MRI in axSpA. The study enrolled 300 consecutive patients with chronic pain of more than 3 months’ duration who were suspected of having axSpA. At the same time that experienced rheumatologists performed a complete diagnostic work-up, two experienced radiologists blinded to all clinical information attempted a diagnostic judgment based on imaging alone.

“The data from that study provide a basis on which to discuss the relative role of structural changes and bone marrow oedema when reaching a diagnosis of axial spondyloarthritis. Both are important for reducing the risk of false-positive assessments,” said Dr. Baraliakos, who will draw some practical lessons from these data in his talk.

Dr. van Gaalen had no disclosures. Dr. Baraliakos disclosed relationships with a dozen companies.

Dr. Peter Mandl

EULAR Projects in Musculoskeletal Imaging
Saturday, 12:00 – 13:30
N117/N118

Continued from // 1 physical examination in a number of rheumatic and musculoskeletal diseases, such as rheumatoid arthritis, psoriatic arthritis, and osteoarthritis, modern imaging can reveal a great deal of information on the extent of disease. It can reveal early signs of damage not yet visualised by conventional radiography, such as sub-clinical inflammation and pathologic findings, which are difficult or impossible to detect by clinical means, for example enthesitis or bone marrow edema,” Dr. Mandl explained.

He added that modern imaging methods are essential for diagnosing conditions such as large-vessel vasculitis, nonradiographic axial spondyloarthritis, or crystal-induced arthropathies.

The survey, which examined the implementation and role of modern musculoskeletal imaging across all EULAR member countries, found that modern imaging techniques were available to rheumatologists in EULAR countries, particularly the use of musculoskeletal ultrasound (MSUS).

For example, more than 90% of ultrasound experts said they had ultrasound units in their departments and cited the main clinical indications for their use was the suspicion of rheumatoid arthritis and spondyloarthritis.

“We could demonstrate a growing uptake in the use of MSUS by rheumatologists, both in terms of rheumatologists performing ultrasound and ultrasound-guided interventions as well as in terms of training in both ultrasound and ultrasound-guided interventions,” Dr. Mandl said.

However, the survey results also showed that the reported percentage of rheumatologists performing ultrasound was highly variable, ranging from more than 80% in 6% of countries to less than 10% in 15% of the countries surveyed.

When it came to the use of other imaging modalities, MRI and CT were used most commonly to diagnose sacroiliitis and degenerative spine disease, while PET was done mainly to diagnose large-vessel vasculitis and to investigate fever of unknown origin.

The survey showed that, generally speaking, countries with higher socioeconomic markers tended to have higher access to imaging or reported a higher percentage of rheumatologists performing imaging or reading images. However, Dr. Mandl noted, there were exceptions to this rule.

One surprising finding from the survey was that only a small fraction of rheumatologists reported reading their MRIs and CTs themselves, although a considerable fraction reported reading these examinations in addition to their being read by radiologists, he said.

“Considering the importance of these techniques in some of the most common musculoskeletal conditions such as low back pain, these findings are – to be honest – disappointing,” Dr. Mandl said.

The survey also highlighted a gap in the training offered to rheumatologists on modern imaging modalities and techniques, particularly in imaging modalities other than ultrasound. For example, the majority of experts (77%) reported that their national rheumatology societies organised ultrasound courses, while courses in MRI or CT were less commonly reported (29% and 8% respectively).

“There is a clear need for training in modern imaging techniques for rheumatologists, in particular for MRI, CT, or PET,” Dr. Mandl concluded.

“Further efforts in education by EULAR and other organisations in these imaging modalities, which have become essential in the field of rheumatology, would possibly facilitate the more efficient use of these techniques by rheumatologists in clinical practice,” he added.

Dr. Mandl had no relevant disclosures to report.
Rheumatoid arthritis is a destructive autoimmune disease driven by pathogenic antibodies and proinflammatory cytokines.¹

Constant renewal of T cell–initiated immune response² results in the production of autoantibodies and the perpetuation of proinflammatory cytokines.¹

Elevated levels of autoantibodies and cytokines lead to increased disease activity, structural damage, functional impairment, and extra-articular manifestations.¹,³

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References:
Mortality related to systemic lupus erythematosus (SLE) differs significantly between continents and is associated with country wealth, according to a study of SLE-related deaths from countries that provided data to the World Health Organisation between 2000 and 2015.

“Recent decades, SLE patients’ care has improved, leading to better patient outcomes. However, few data are available on the worldwide burden of SLE,” first author Dr. Marc Scherlinger of the Bordeaux (France) University Hospital said in an interview. On Friday morning in the SLE News Abstract Session, he will present the WHO data on the worldwide burden of disease that he compiled with Prof. Laurent Arnaud of Strasbourg (France) University Hospital and other colleagues.

“We were surprised to find that there were very significant differences between continents, with an increase of mortality associated with SLE in the African continent, compared to Europe,” Dr. Scherlinger said. “Moreover, we found a very strong association between country wealth (assessed by the Gross Domestic Product, or GDP per capita) and SLE-specific mortality, suggesting that the prognosis of SLE patients is worse in lower-income countries.”

A total of 97,008 SLE-related deaths occurred in 125 countries between 2000 and 2015, which accounted for 0.021% of all deaths during the same period, Dr. Scherlinger said.

In mixed-regression model analyses that controlled for time, GDP per capita, and continent in SLE-related death, the investigators found that global overall mortality attributed to SLE remained stable (P = .86) over the study period. However, SLE-related mortality in Africa was significantly higher than that of Europe (P = .004). The researchers also found a highly significant association between SLE-attributed mortality and the GDP per capita (P less than .0001).

Clinicians should be aware of the high global burden of SLE, and the disparity between the relative stability in high-income countries and the increase in mortality in lower-income countries, Dr. Scherlinger said. Additional research on other autoimmune diseases and autoimmune disorders is in progress. “A better knowledge of the evolution of autoimmune diseases mortality might help to assess the effect of new drugs and/or new treatment strategies,” he added.

Dr. Scherlinger had no financial conflicts to disclose; several coauthors disclosed relationships with companies including Alexion, Amgen, AstraZeneca, GlaxoSmithKline, Lilly, Novartis, Pfizer, and UCB.

Explosion in therapeutics attacking the complement system could benefit rheumatologic diseases

There is huge potential for complement therapeutics to put a brake on the vicious cycle of inflammation seen in rheumatologic diseases driven by the complement cascade, congress delegates will hear late Friday afternoon in the “Complement and autoimmunity – Emerging therapeutic opportunities” session. EULAR delegates can learn more about the impending explosion of complement therapeutics – the development of drugs that modulate or block the complement system and therefore provide therapy or treatment in disease – at a talk to be given during the session by Claire Harris, PhD, professor of molecular immunology in the Institute of Cellular Medicine at Newcastle University (England).

The complement system is associated with several diseases, including common diseases such as age-related macular degeneration (AMD) and arthritis, Prof. Harris said.

“It was the association of complement genes with high risk for AMD 14 years ago that drove massive interest in the field of anticomplement therapy... There are now more than 20 companies developing complement therapeutics,” she said.

For many decades, it has been known that complement is activated in a number of rheumatologic diseases and, while it is not certain whether this is cause or effect, evidence points to a key role for complement in pathogenesis, Prof. Harris explained.

“There are many ways to determine whether complement plays a role in disease; these include abnormally high complement activation products in plasma or in synovial fluid, the presence of complement deposits in the tissues under attack, and the ability of complement-blocking ‘tools’ or reagents to prevent disease onset or progression in animal models. ... There is abundant evidence for all these in diseases such as rheumatoid arthritis,” she noted.

According to Prof. Harris, we are experiencing a sea change in complement therapeutics, and a particularly exciting development has been the emergence of a new generation of orally bioavailable drugs. Their development has not been without challenges, though. Rapid turnover rates and high concentrations of targets dictate a need for high and frequent dosing of drugs, which present challenges around drug delivery. Disease mechanisms have not always been clear, meaning identification of the best target has not been easy.

“Matching the drug to the disease mechanism not only shows more promise of delivering effective therapy, but more selective drugs also pose less risk to health,” she noted.

“Third” generation of drugs have been designed to tackle some of these issues, including drugs which can be delivered by gene therapy to an organ or even “homing” drugs which “seek” a complement “hot spot” or a specific disease-associated target to provide therapy specifically at the tissue site.

“It is tempting to speculate that in the not-so-distant future, we will have multiple means to ‘turn off’ or ‘modulate’ complement in a number of diseases from our first- and second-generation drugs and some high-performing drugs which tackle specific diseases effectively,” Prof. Harris said.

But blocking the complement cascade alone is unlikely to provide complete and effective therapy in rheumatologic diseases, particularly in advanced disease. “There is huge potential for combination therapies with the objective to put a brake on the vicious cycle of inflammation driven by complement,” Prof. Harris said.

“We know that complement activation fragments are abundant in many rheumatologic diseases, and they feed different mechanisms of pathogenesis. One might also wonder whether ‘anticomplement’ drugs of the future may act to modulate the interplay between the complement system, T-cell activation, and cytokine responses, thereby affecting arms of the immune system beyond basic complement activation. This could be of particular relevance to arthritis," she speculated.

It is clear that we are emerging from a challenging decade of huge activity in the field, Prof. Harris said, and while many drugs with potential have fallen by the wayside during clinical development, a great deal has been learned along the way.
EULAR inducts six new honorary members

EULAR awarded honorary memberships on Wednesday to six individuals who have rendered outstanding service in accomplishing the objectives of EULAR.

Annette de Thurah is an associate professor in the section for rheumatology in the department of clinical medicine at Aarhus University in Denmark. She is a past chair of the EULAR HPR Standing Committee.

Ruxandra Ionescu is professor in the department of rheumatology and internal medicine at Stânta Maria Hospital and Carol Davila University of Medicine and Pharmacy in Bucharest, Romania. She is General Secretary of EULAR and president of the Romanian Rheumatology Society.

Eric Matteson is professor of medicine and emeritus chair of the division of rheumatology at the Mayo Clinic, Rochester, USA. He has served on task forces for EULAR/ACR recommendations and as a member of the EULAR scientific committee. He has also served as president of the ACR’s Rheumatology Research Foundation.

Lai-Shan Tam is a professor and head of the division of rheumatology at the Chinese University of Hong Kong. She has served as chairperson of International Affairs Committee of the Asia Pacific League of Associations for Rheumatology (APLAR) since 2012, vice president of APLAR during 2014-2016, and the EULAR Programme Committee since 2016. She was president of the Hong Kong Society of Rheumatology during 2011-2014.

Lene Terslev is a senior consultant in rheumatology and head of the rheumatology ultrasound division at Rigshospitalet in Glostrup, Denmark. During 2013-2016, she was a member of the EULAR scientific committee and is a past chair of EULAR Standing Committee of Musculoskeletal Imaging. Dr. Terslev has been a member of the faculty of the EULAR sonography courses since 2005.

Désirée van der Heijde is professor of rheumatology at Leiden (Netherlands) University Medical Centre. She has served on various EULAR task forces and served as chair of the EULAR Standing Committee for Clinical Affairs during 2013-2017. She currently serves as EULAR liaison officer to the American College of Rheumatology.

“My ideal employer” described by Stene Prize essayists

Ovidiu Constantinescu of Romania is this year’s winner of the Edgar Stene Prize for his essay titled “An interview with a Straight Face” on the given topic, “My ideal employer – Work without barriers for people with RMDs.”

In his essay, Mr. Constantinescu relates the most important “interview” he went through in his life, when changing jobs in his mid-50s.

After first being diagnosed with rheumatoid arthritis in 1996, has served as a member of the Romanian League against Rheumatism (LRR) for more than 15 years, concentrating on helping with communication and advocacy matters. He has worked as a journalist with the BBC World Service in London, as a public relations specialist with several companies in diverse fields in Romania, and has in recent years started his own small PR company.

Every year, EULAR and the Standing Committee of PARE (People with Arthritis and Rheumatism in Europe) offer the Edgar Stene Prize for the best essay on a previously determined topic. The winner receives a prize money of EUR 1,000, which is awarded during the Networking Platform Session at the Annual EULAR Congress, and is invited to the congress dinner. In addition, travel costs to the congress and four nights accommodation are covered by EULAR. The second and third winner receives a prize money of EUR 700 and EUR 300 respectively. The Stene Prize was established in honour of the memory of the late Edgar Stene who himself had severe ankylosing spondylitis. Mr. Stene was a great promoter of cooperation among doctors, patients, and community workers.

The national organisations of people with arthritis/rheumatism invite all people with rheumatic and musculoskeletal diseases in their countries to participate in the competition by writing and submitting an essay on the topic of the year. Essays may be written in any national language and should not exceed two typewritten pages. Persons who are professionally connected with rheumatology are excluded from the competition.

A jury elected by the PARE Standing Committee chose Mr. Constantinescu’s essay from those selected by each national PARE organisation as its best entry. Judges for the award represent the three pillars of EULAR (patients, health professionals, and rheumatologists) and come from a several different countries across Europe.

EULAR President Johannes Bijlsma congratulates Stene Prize winner Ovidiu Constantinescu for his winning essay, “An interview with a Straight Face.”
EULAR honours Meritorious Service Award winners

This year’s Meritorious Service Awards were given to Prof. Alberto Martini and Marios Kouloumas. EULAR gives the award to rheumatologists, health professionals, and others who have served rheumatology in an outstanding way, either by scientific research, with clinical science, or through their activities in EULAR, national, or international organisations.

Alberto Martini is professor of paediatrics at the University of Genoa (Italy) and is the scientific director of the G. Gaslini Institute in Genoa.

Prof. Martini is chairman of the Paediatric Rheumatology International Trial Organisation (PRINTO), and he has been president of the Paediatric Rheumatology European Society (2011-2016) and chairman of the EULAR Standing Committee on Paediatric Rheumatology (2013-2016).

Marios Kouloumas is president of the Cyprus League Against Rheumatism, board member of People with Arthritis and Rheumatism in Europe (PARE), and chairman of the “Don’t Delay, Connect Today” Time2Work campaign. He is also past vice president representing PARE.

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skeletal diseases (RMDs), and their impact on all aspects of life. EULAR convened the task force in 2017 to facilitate the development of EULAR educational activities for HPRs on the postgraduate level that are underpinned by desired competencies, said Prof. Thea Vlieland, of the department of orthopaedics, rehabilitation, and physical therapy at Leiden (Netherlands) University Medical Centre and a convenor of the task force.

Task force members – including rheumatologists, nurses, PTs, OTs, patient representatives, an educationalist, methodologists, and clinicians researchers from 12 countries – followed EULAR Standard Operating Procedures to develop recommendations or points to consider. During the first task force meeting, members established definitions and discussed clinically relevant questions regarding HPRs’ education, skills, and practice. They then developed research questions by consensus to form the basis of a systematic literature review. Members searched electronic databases to evaluate studies about competencies, roles, knowledge, attitudes, skills, and educational needs of HPRs in general, as well as studies specific to nurses, PTs, or OTs and postgraduate level education. In addition, the task force contacted national HPR organisations to supplement its findings.

During a second task force meeting, members presented and discussed the findings of their literature review and developed the wording of the overarching principles and recommendations. If at least 75% of the task force voted to approve a principle or recommendation, it was accepted. If not, further discussion, revisions, and voting could follow. The systematic literature review yielded 79 full-text papers, 20 of which addressed the competencies, knowledge, skills, attitudes, or educational needs of HPRs. The task force’s average level of agreement for each recommendation on a 0-10 scale ranged from 9.42 to 9.79.

“The EULAR recommendations ... are intended for all HPRs and other healthcare providers in the field of RMDs and are relevant to key stakeholders,” including patients, patient organisations, institutions, and clinical educators, said Prof. Vlieland. The recommendations could serve as a framework for health insurers and policymakers and as a reference document for generic competencies of health professionals in other specialties, she added.

“Sets of generic core competencies have been developed on the national level in a limited number of countries but were lacking from an international perspective,” Prof. Vlieland said. Existing national sets are more detailed than the EULAR recommendations, and elaboration of the EULAR recommendations may be needed, she said.

“As we know that roles and responsibilities of a specific profession may vary largely among countries, as well as the provision of rheumatology services and healthcare systems as a whole, a next step would be to get feedback on the recommendations from a wide range of countries and different HPR disciplines,” Prof. Vlieland said. “In addition, one of the actions to be taken is to review the content of current EULAR educational activities to check whether all competencies are covered.”

The three overarching principles are:

- Effective communication skills and a biopsychosocial approach in the assessment, treatment, and care of people with RMDs are of paramount importance for HPRs.
- Person-centred care and patient advocacy are fundamental in the care delivered by HPRs for people with RMDs.
- An evidence-based approach, ethical conduct, and reflective practice are essential for HPRs.

The 10 recommendations for generic core competencies are:

- HPRs should have knowledge of the aetiology, pathophysiology, epidemiology, clinical features, and diagnostic procedures of common RMDs, including their impact on all aspects of life.
- Using a structured assessment, HPRs should identify aspects that may influence individuals with RMDs and their families, including clinical characteristics, risks, red flags, and comorbidities; limits to their activity and participation; and personal and environmental factors.
- HPRs should communicate effectively to make contributions to other healthcare providers and stakeholders in RMD care and to collaborate with other health-care providers, signpost, or refer where appropriate to optimise the interdisciplinary care of people with RMDs.
- HPRs should have an understanding of common pharmacologic and surgical therapies in RMDs, including their anticipated benefits, side effects, and risks, and use this knowledge to advise or refer as appropriate.
- HPRs should provide advice on nonpharmacologic interventions, treat, or refer as appropriate, based on the evidence, expected benefits, limitations, and risks for people with RMDs.
- HPRs should assess the educational needs of people with RMDs and their carers to provide tailored education using appropriate modes of delivery and relevant resources and evaluate their effectiveness.
- HPRs should take responsibility for their continuous learning and ongoing professional development to remain up to date with the clinical guidelines and/or recommendations on the management of RMDs.
- HPRs should support people with RMDs in goal setting and shared decision making about their care (e.g., identify, prioritise, and address their needs and preferences, and explain in lay terms).
- HPRs should support people with RMDs in self-management of their conditions. This encompasses selecting and applying the appropriate behavioural approaches and techniques to optimise their health and well-being (e.g., engagement in physical activity and pain and fatigue management).
- HPRs should be able to select and apply outcome measures for people with RMDs, as appropriate, to evaluate the effectiveness of their interventions.
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Virtual RMD conference for patients has its advantages

The advantages of an online programme for patients that centers on rheumatic and musculoskeletal diseases (RMDs) is the subject of a Friday afternoon session titled, “A novel approach to reach patients for educational purposes – Virtual conference ReumaNet.”

During the presentation, attendees will learn how a virtual conference organised by ReumaNet reached far more patients than did its traditional physical conference, broadened ReumaNet’s social media visibility, and raised patient awareness of RMDs on a broader scale.

“In this session you will learn about a new approach to bring educational content to patients,” said Mitchell Silva, PhD, M-Health coordinator at ReumaNet in Brussels. “If we want to reach a lot of patients, we should use more digital solutions to do so, such as a virtual conference. This session will show why the concept of a virtual conference is a big success compared with traditional conferences.”

The presentation stems from a virtual event ReumaNet hosted in place of its biennial physical conference that addresses various RMD topics. About 200 people generally attend the traditional event. For the virtual conference, ReumaNet created an online system that included more than 20 prerecorded presentations on subjects such as the medical evolution of RMDs; the psychological, vocational, social, and physical aspects of having an RMD; and changing technology in healthcare and sustainability of the healthcare system. ReumaNet also offered partner organisations “virtual booths” that enabled them to provide educational material in PDFs or video formats.

More than 1,300 people registered for the virtual event and more than 140,000 people were reached on social media, according to ReumaNet. On the platform itself, the content received more than 5,000 video views and the virtual booths received more than 3,000 visits. In addition, the virtual conference achieved high patient satisfaction rates and also raised the visibility of ReumaNet’s Facebook page.

“The fact that the virtual conference was a temporary event, meaning it had a start and end date, gave the programme a sense of urgency to visit the event,” Dr. Silva said. “After the end date, the content was taken offline,” he noted. “Having credible information, prescreened and validated, in one place was a big asset for visitors. A similar approach will be repeated this year, however, with a simple website that does not require pre-registration in contrast to the technology that was used in this pilot.”

The new approach demonstrated that it is possible to expand the reach of lay public to such information, compared with traditional face-to-face events, by using virtual conference technology, Dr. Silva said. Attendees to this session will learn how ReumaNet prepared for such an event, what the organisation learned from the results, and how others can organise similar events.

“This concept can be repeated by other patient organisations across Europe and serve as an inspiration,” he said. “By using this approach, high-quality educational content can be provided to anyone who has an interest in learning more on a variety of topics. Even more interesting, you will learn more about the profiles of the patients who have an interest in such educational content. ReumaNet is open to share this concept with other patient organisations in Europe.”

Sessions at EULAR showcase congress’ breadth of events
Task forces to give recommendations on SLE, Sjögren’s, antiphospholipid syndrome, and large-vessel vasculitis

A number of EULAR-commissioned task forces have undertaken the task of updating and revising recommendations for clinical care, and, in the case of Sjögren’s syndrome, writing recommendations for the first time. On Saturday morning, task force representatives will provide updates on recommendations for systemic lupus erythematosus, antiphospholipid syndrome (APS), and large-vessel vasculitis, along with Sjögren’s syndrome.

Systemic lupus erythematosus

The updates of EULAR recommendations for management of systemic lupus erythematosus (SLE) will be presented by Dr. Antonis Fanouriakis of Attikon University Hospital, Athens. The SLE update is based on a systematic literature review over a 10-year period, followed by a modified Delphi method to form questions, elicit expert opinions, and reach consensus guidance.

Among areas the recommendations address are the use of hydroxychloroquine (HCQ) and glucocorticoids (GCs). “The wider application of novel, more sensitive screening techniques for hydroxychloroquine-induced retinal toxicity suggests that the latter may not be as rare as previously believed,” Dr. Fanouriakis said. He noted that EULAR now recommends that the daily dose of HCQ should not exceed 5 mg/kg body weight and that screening for retinopathy should now include either optical coherence tomography or 10-2 visual field testing, or both, and not rely on fundoscopy only.

“Regarding glucocorticoids, the updated EULAR recommendations stress the detrimental effects of long-term GC therapy and suggest that maintenance daily dose of prednisone should not exceed 7.5 mg/day,” he said. “To achieve this, physicians are prompted to an early initiation of immunosuppressive agents and to consider using pulses of intravenous methylprednisolone when initiating GC.”

The updated EULAR recommendations on SLE also give guidance on the optimal use of biologic agents, namely belimumab and rituximab. “The former should be considered in patients with residual disease activity or frequent flares despite standard of care, the latter including those with prior use of conventional immunosuppressive drugs,” Dr. Fanouriakis said.

The updated EULAR recommendations were formulated with the purpose to provide practical guidance to physicians caring for patients with SLE, he noted. “To this end, in addition to the points mentioned above, the recommendations now give specific guidance on how to manage specific organ manifestations of lupus, namely skin, renal, neuropsychiatric, and haematological disease,” Dr. Fanouriakis said. “This is important for everyday clinical practice, as SLE is a notoriously heterogeneous disease and different organ manifestations may not respond to the same drugs.”

Sjögren’s syndrome

The EULAR-sanctioned recommendations for the management of patients with Sjögren’s syndrome (SjS) will be the subject of a presentation by Prof. Manuel Ramos-Casals of the University of Barcelona Hospital Clinic. Rheumatologists along with specialists in other medical disciplines, including ophthalmologists and epidemiologists, as well as patient representatives from 30 countries, participated in the task force.

“The therapeutic management of Sjögren’s syndrome has not changed substantially in recent decades,” Prof. Ramos-Casals said. “Treatment decisions remain challenging in clinical practice, without a specific therapeutic target beyond the relief of symptoms as the most important goal.”

That prompted EULAR to commission the task force. “The aim was to develop a rational therapeutic approach to SjS patients useful for healthcare professionals, physicians undergoing specialist training, medical students, the pharmaceutical industry, and drug regulatory organisations following the 2014 EULAR standardised operating procedures,” he said.

Prof. Ramos-Casals noted the task force endorsed 3 overarching, general consensus-based recommendations and 12 specific recommendations that form a logical sequence, starting with the management of the central triplet of symptoms (dryness, fatigue, and pain) followed by the management of systemic disease. The recommendations address the use of topical oral (saliva substitutes) and ocular therapies, oral muscarinic agonists, HCQ, oral glucocorticoids, synthetic immunosuppressive agents, and biological therapies.

“The 2019 EULAR recommendations are based on the evidence collected in the last 16 years in the management of primary SjS patients and on discussions between a large and broadly international task force,” Prof. Ramos-Casals said. “The recommendations synthesise current thinking on SjS treatment in a set of overarching principles and recommendations.”

Antiphospholipid syndrome

Dr. Maria Tektonidou, head of rheumatology in the First Department of Propaedeutic and Internal Medicine at the University of Athens, will report on recommendations for the management of APS in adults. “Antiphospholipid syndrome is a complex autoimmune disorder with multifaceted presentations requiring different treatment approaches,” Dr. Tektonidou said. “EULAR recommendations for APS management include the most common and important questions impacting patient care, in order to facilitate accurate and prompt clinical decision making.”

Dr. Tektonidou will outline the different risk profiles among patients with positive antiphospholipid (aPL) antibodies and measures to take to modify risk. “Recommendations will be presented about the prophylactic treatment with low-dose aspirin in different groups of patients with high-risk aPL profiles, including asymptomatic aPL carriers, patients with SLE without prior thrombotic or obstetric manifestations, and nonpregnant women with a history of obstetric APS only,” she said. She will also explore treatment with vitamin K antagonists and the target international normalised ratio in patients with prior venous or arterial thrombosis, the role of new oral anticoagulants, and the management of refractory cases.

“Recommendations for the role of low-dose aspirin and/or heparin during pregnancy in different types of obstetric complications and the management of recurrent cases will be presented,” Dr. Tektonidou said. “We believe that EULAR recommendations will help guide practice for rheumatologists and other medical disciplines by providing evidence based on a comprehensive systematic literature review and quality assessment of all available studies, and expert opinion.”

Large-vessel vasculitis

The updated recommendations for large-vessel vasculitis (LVV) will be reported on by Prof. Bernhard Hellmich of the Clinic for Internal Medicine, Rheumatology and Immunology in Kirchheim/Teck, Germany. He noted the first EULAR recommendations for LVV were published in 2008.
Key changes made to 2015 PsA recommendations; RA update has global input

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(Ann Rheum Dis. 2009;68:318-23). “Since then, the results of several randomised clinical trials and cohort analyses have become available, and the EULAR recommendations on imaging in LVV have been published recently,” Prof. Hellmich said. “In light of these and other fundamental developments affecting key areas of management, the goal of the current project was to reevaluate the literature in order to update the EULAR recommendations for the management of LVV.” The task force that drafted the LVV recommendations consisted of 20 clinical experts, from 11 European countries, and India and China, as well as two patients affected by the diseases under study, and involved two completely new systematic literature reviews without time limits. “Therefore, this update represents a new set of recommendations rather than a simple revision,” Prof. Hellmich said. New data enabled the development of separate recommendations for giant cell arteritis and Takayasu arteritis. “For this update, substantial alterations were introduced, including the introduction of overarching principles and new recommendations on early diagnosis, multidisciplinary management, and relapse treatment,” he added.

Dr. Fanouriakis disclosed that he is a paid instructor for Amgen and GlaxoSmithKline, and is on the speakers bureaus of AbbVie, Enorasis, and Genesis Pharma.

Dr. Tektonidou and Prof. Ramos-Casals have no disclosures.

Prof. Hellmich disclosed that he is a consultant for Roche, and is on the speakers bureaus of AbbVie, Merck Sharp & Dohme, Roche, Novartis, and Pfizer.

of PsA were last updated in 2015. Since then, new evidence and new therapeutic agents have emerged, eliciting the need for an update of these recommendations in 2019,” Prof. Gossec said in an interview.

The recommendations address setting the target and shared decision making with the patient, which are considered key aspects by EULAR, and a new overarching principle relates to the heterogeneity of PsA, she noted.

Importantly, the role for the different conventional synthetic (cs), biologic, and targeted synthetic disease-modifying antirheumatic drugs (DMARDs) available for PsA will be clarified, and several key changes have been made to the 2015 recommendations, she said.

Specifically, newly evolved aspects on the use of interleukin (IL)-12/23, IL-17, Janus kinase, and phosphodiesterase-4 inhibitors have been incorporated.

“All these drugs find a specific, mostly hierarchical place in the algorithm, in addition to those of the established csDMARDs such as methotrexate, sulfasalazine, and leflunomide. Treatment strategies are composed with a mostly hierarchical approach to treatment, and, for the first time for PsA, tapering is also addressed,” she said.

The PsA update is based on a systematic literature review and a consensus meeting involving 28 international task force members, which took place in May 2019, so this presentation will bring breaking news, she noted.

“The process was both evidence based and consensus based, with each recommendation discussed in detail both in breakout groups and in a plenary session, and consensus was reached,” Prof. Gossec explained.

The category of evidence and strength of recommendation for each item was determined based on the Oxford Evidence-Based categorisation, and level of agreement was determined by the task force members. Similarly, the RA recommendation update to be presented by Prof. Josef Smolen of the Medical University of Vienna will incorporate the latest data on improving outcomes in RA.

The EULAR recommendations for the management of RA with synthetic and biological DMARDs were last updated in 2016 and comprised four overarching principles and 12 recommendations. Since then, new drugs have been approved and new evidence has accrued, Prof. Smolen said.

“The current task force – a group of close to 50 experts, including patients, health professionals, and representatives of EMEUNET – evaluated this new evidence as informed by a systematic literature review on efficacy and treatment strategies, and another on safety,” he explained.

The task force included experts from 15 European countries, as well as from Asia, Latin America, and North America.

“Thus, just like in 2016, we received global input into the development of the updated EULAR recommendations,” he noted.

The update includes a new overarching principle addressing the fact that RA is a chronic, often lifelong disease that is rarely curable and which therefore requires sustained therapeutic efforts with the necessity to sometimes use therapies directed against multiple therapeutic targets in succession, Prof. Smolen said, adding that “any limitation in this respect is an attack on the goal of achieving the best result for our patients.”

“This new principle complements the previous four which, among other aspects, address the importance of shared decision making between rheumatologists and patients, and cost aspects that need to be considered when therapies have similar efficacy and safety,” he said.

In all, the task force again arrived at 12 recommendations, with several remaining unchanged based on additional supporting evidence or lack of contradictory evidence.

“This is particularly the case for the definition of the treatment target, primarily remission (as defined by the American College of Rheumatology and EULAR a decade ago) or low disease activity (for patients with established disease), but also for the use of methotrexate plus glucocorticoids as initial therapeutic strategy or the addition of biological DMARDs or targeted synthetic DMARDs (Janus kinase inhibitors) to methotrexate in patients who failed methotrexate alone,” he said.

Changes to the recommendations involve the role of the various biological DMARDs and targeted synthetic DMARDs in patients who had an insufficient response to methotrexate or to previous phases of bDMARD or tsDMARD therapies, and these changes will be shown in detail during the presentation on Saturday.

As always, the task force discussed the optimal use and timing of various therapies, and differing views were ultimately resolved in the course of a democratic voting process, Prof. Smolen said.

“The update of the EULAR RA management recommendations is thus composed of five overarching principles and 12 recommendations that allow a hierarchical, logical, evidence-based approach to the optimal treatment of RA patients, providing the state of the art for treating RA at the brink of a new decade,” he said.
Cannabis OK for pain? The answer is complicated

Can medical cannabis be recommended as a new analgesic option in musculoskeletal conditions? It’s an increasingly common question, and the answer is not simple or clear-cut, as will be apparent from lectures in Friday afternoon’s From Bench to Bedside session, “Cannabis for arthritis: Hype or hope?”

The role of cannabis-derived medicines in fact remains controversial, despite their availability for chronic pain and other conditions in a number of countries, according to Prof. Serge Perrot, who will speak on the risks and potential benefits of cannabis in joint health.

While there is considerable interest worldwide in making cannabis available for analgesic purposes, the proof for its efficacy in pain is “very weak,” said Prof. Perrot, professor of clinical pharmacology at Paris Descartes University and a rheumatologist and head of the pain center at Cochin-Hotel Dieu Hospital, Paris.

“In fact, this is not a very effective drug,” he said in an interview. “All the meta-analyses and the literature reviews have demonstrated that, for example, in fibromyalgia, in back pain, in neuropathic pain, it was not very different from placebo. The literature review is very disappointing.”

That said, there are “specific clinical cases” where cannabis-based treatments may be useful on an individual basis, which speaks in favour of authorising the products, said Prof. Perrot, who added that such products will be available in France, through specific dedicated pain centers, by the end of 2019.

The benefits seen in specific patients suggests that more data are needed to understand which patients are most likely to respond to cannabis treatment and are therefore the best candidates to receive it, he said.

Moreover, he added, emerging data suggest that cannabis-derived medicines may prove to be more effective for conditions such as anxiety, sleep disorders, and loss of appetite, rather than specifically for pain.

Some of those effects – or side effects – may in fact be relevant to rheumatology patients, said Dr. Steve Alexander, associate professor in molecular pharmacology at the University of Nottingham (England) Medical School.

For example, the somnolence that has been associated with some cannabis preparations could be beneficial, since improved sleep does affect patients’ subjective scores of pain, said Dr. Alexander, who will speak on ethical issues in medical cannabis use at the same session.

“We know there’s a broader story, and that it’s not just pain itself – it’s all the ancillary things that go alongside it, such as the anxiety, depression, comorbidities, and so on,” Dr. Alexander said in an interview.

“So I think the messages is one of tentative hope.”

Some progress has been made toward reproducible bioavailable dosing because of the development of standardised formulations based on the two most widely-researched metabolites from the plant, delta 9-tetrahydrocannabinol (THC) and cannabidiol (CBD).

“The last time I looked, there was something on the order of 85 registered clinical trials for cannabinoids in a variety of conditions – everything from Tourette’s syndrome, to posttraumatic stress disorder, to generalised anxiety, and to pain,” Dr. Alexander said. “Not all of those trials will be successful for one reason or another, but if only a modest proportion prove to be successful, then that’s quite a major advance, I would suggest.”

Neither speaker had disclosures.
Congress Venue Overview Plan

HALL 9
Hospitality suites
Overflow area

MEZZANINE 9
Hospitality suites A09.01–A09.14
Related meetings A09.08 & A09.13

HALL 7
Sessions

MEZZANINE 7
First aid
Hospitality suites A07.01 & A07.02
Speakers preview, Rooms S01–S03

NORTH CONVENTION CENTRE
Overflow area
Related meetings N113/N114
Sessions N101–N116

HALL 10
Catering, exhibition, posters
Cyber café @ EULAR Village

MEZZANINE 10
Related meetings A10.01–A10.15

HALL 8
Sessions

HALL 6
Sessions

MEZZANINE 6
Hospitality suite A06.01
Press conferences A06.02

PRESS CENTRE

HALL 2
Cloakroom
Registration area

SOUTH CONVENTION CENTRE
South auditorium
Related meetings S12–S17
Prayer rooms S21–S22
Efficacy difference seen with HLA stratification in RA

New data to be presented in the late-breaking abstracts session on Saturday morning will support the premise that stratifying rheumatoid arthritis patients by presence or absence of a shared epitope (SE) on the HLA-DRB1 allele is relevant to choice of biologic early in the disease course. Although characterised as “exploratory,” the study exploring the relationship between HLA-DRB1 SE and the clinical efficacy of abatacept or adalimumab takes a step toward “a more rational approach to the selection of biologic agents,” according to Dr. Vivian P. Bykerk, director of the Inflammatory Arthritis Center of Excellence at the Hospital for Special Surgery in New York.

Offering a preview in advance of the presentation, Dr. Bykerk explained that there is already retrospective evidence that biologics with different mechanisms of action might not offer the same degree of efficacy in RA patients positive for anti-cyclic citrullinated protein 2 (anti-CCP2) antibodies. In this single-blind study, all patients were positive for anti-CCP2, but the data suggest that outcomes differ by SE status.

In the study, 80 biologic-naive patients with moderate to severe RA were randomised within 12 months of symptom onset to conventional dosing regimens of abatacept or adalimumab. Outcomes were compared at 24 weeks by treatment assignment and within the treatment assignments by SE status.

According to data Dr. Bykerk will present Saturday morning, there was greater numerical benefit overall for abatacept relative to adalimumab at the end of study across multiple measures of disease activity, including American College of Rheumatology 20, ACR 50, ACR 70, and Disease Activity Score in 28 joints based on C-reactive protein, but the relative advantage was even greater for abatacept in the SE-positive patients. No substantial difference in activity was observed in the adalimumab arm by SE status.

Abatacept inhibits T-cell activation by preventing antigen-presenting cells from delivering a costimulatory signal. Adalimumab blocks the pro-inflammatory cytokine tumour necrosis factor (TNF-α). Although the exact relevance of these mechanisms to anti-CCP2 and SE positivity remain incompletely understood, the data support the premise that biologics might be more effective according to patient factors associated with the underlying mechanism of action, such as SE. Dr. Bykerk will touch on the potential differences in the context of the study results.

In SE-positive patients, “the hypothesis is that abatacept exerts a more direct effect on the disease pathway than inhibition of the TNF cytokine,” Dr. Bykerk explained.

More than 80% of RA patients are positive for anti-CCP2, and most anti-CCP2 patients are positive for at least once copy of the SE, according to published reports. In this study, for which anti-CCP2 positivity was an entry criterion, about 76% of patients in both study arms were positive for SE.

The study builds on previous evidence that biologic mechanisms appear to be relevant to HLA-DRB1 risk alleles. For example, an analysis of U.S. registry data also found greater response to abatacept among RA patients positive for anti-CCP2, relative to those negative, a difference not observed when the same comparison was made with TNF-alpha inhibitors (J Rheumatol. 2018;45:32-9).

The trial was sponsored by Bristol-Myers Squibb (BMS). Most of the study authors are employees of BMS. Dr. Bykerk reported receiving grant/research support from BMS and other pharmaceutical companies. Two coauthors reported serving as consultants to BMS and/or AbäVie.

Flu vaccine succeeds in TNF inhibitor users

Influenza vaccination is similarly effective for individuals taking a tumour necrosis factor (TNF) inhibitor and healthy controls, but the number needed to vaccinate to prevent one case of influenza for patients taking a TNF inhibitor is much lower, according to data from a study by Dr. Giovanni Adami and colleagues.

Dr. Adami, of the University of Verona (Italy), will present the findings in detail at the “Rheumatoid Arthritis – Biological DMARDs” abstract session on Friday morning.

Influenza remains a dramatic social burden that affects millions of individuals each year. Dr. Adami said in an interview. TNF inhibitors “are known to increase the risk of infection by suppressing the activity of the immune system. Nonetheless, it is not clear whether the response to vaccination is impaired or not in such patients.”

“It is crucial to increase patients’ and physicians’ awareness about vaccination efficacy,” especially for fragile patients such as those on TNF inhibitors, he emphasised.

In the study, 15,132 TNF inhibitor–treated patients with moderate to severe RA were randomised within 12 months of influenza onset to either BMS or AbbVie. Among RA patients treated with a TNF inhibitor, Dr. Adami and colleagues reviewed data from 15,132 adult patients exposed to adalimumab and 71,221 healthy controls.

Overall, the rate of influenza infection was similarly reduced with vaccination in both groups. The rate in healthy individuals went from 2.3% for those unvaccinated to 0.9% for those vaccinated; for TNF inhibitor–treated patients, the rate was 14.4% for those unvaccinated versus 4.5% for those vaccinated.

The number needed to vaccinate (NNV) to prevent one case of influenza among healthy controls was 71, compared with an NNV of 10 for the adalimumab group.

“It is not surprising that the number needed to vaccinate is dramatically lower in patients treated with immunosuppressors, compared to healthy individuals,” Dr. Adami noted. “As a matter of fact, patients treated with such drugs are at higher risk of infections, namely they have a greater absolute risk of influenza. Nevertheless, it is quite surprising that the relative risk reduction is similar between TNF inhibitor–treated patients and healthy controls, meaning that the vaccination is efficacious in both the cohorts.”

The researchers also calculated the cost to prevent one case of influenza, using a cost of approximately $20-$40 per vaccine. Using this method, they estimated a cost of $1,420-$2,840 for healthy controls but only $200-$400 for patients on TNF inhibitors.

Dr. Adami advised clinicians to remember the low NNV for TNF inhibitor–treated patients with regard to influenza vaccination. “A direct disclosure of the NNV for these patients might help adherence to vaccinations,” he said.

Next steps for research should include extending the real-world effectiveness analysis to other medications and other diseases, such as zoster vaccination in patients treated with Janus kinase inhibitors, Dr. Adami said.

Dr. Adami had no financial conflicts to disclose.

Several coauthors disclosed relationships with companies including Abiogen Pharma, Grünenthal, Amgen, Janssen-Cilag, Mundipharma, and Pfizer.
Musculoskeletal adverse events associated with the immune checkpoint inhibitors used to treat cancer more often involve the muscle and fascia, as opposed to the synovium, results of a recent prospective clinical and imaging study suggest.

Musculoskeletal adverse events were overall relatively common, observed in about 8% of patients treated with nivolumab or other checkpoint inhibitors, according to researchers Dr. Dimitrios Daoussis and Dr. Alexandra Filippopoulou of the University of Patras (Greece). Medical School, who spoke at EULAR Congress News about their findings.

“These manifestations are not characterised by synovium-based pathology, so they shouldn’t be considered as a rheumatoid arthritis–like disease – it’s something completely different, and completely new,” said Dr. Daoussis, an associate professor of rheumatology at the university.

His colleague Dr. Filippopoulou, a resident physician in the department of rheumatology, will describe the study Saturday morning in the Basic and Translational Science Session titled “Lessons learned from checkpoint inhibitors.”

The prospective study included patients treated with checkpoint inhibitors between January 2016 and October 2018. Out of 130 total patients, 10 (7.7%) had developed musculoskeletal manifestations induced by checkpoint inhibitor therapy. Dr. Filippopoulou will report. The median time from treatment to musculoskeletal symptoms was 2.5 months among these patients, of whom 80% were male; the mean age was 66.8 years, and most (seven patients) had received nivolumab.

Eight patients underwent MRI, while one declined because of claustrophobia, and another had a metal implant, according to Dr. Filippopoulou.

Most patients in the study had at least some myofascial involvement, with three patterns of musculoskeletal manifestation emerging, according to investigators:

- Prominent periaricular involvement was seen in four patients, marked by diffuse swelling of the hands, feet, or knees, with MRI showing mild synovitis and more prominent myositis or fascitis in surrounding tissues.
- Three patients presented with knee pain, and their MRIs all showed myofascitis of the surrounding muscles, and one showed a partial tear of the quadriceps tendon.
- Another three patients presented with prominent joint involvement: in the hand in two cases, and knee/ankle in the third, in whom MRI depicted not only synovitis, but also myositis in muscles around the involved joints.

Symptoms were all mild/moderate in these 10 patients, who responded well to low-dose glucocorticoids or analgesics, without need to discontinue the anticancer therapy, the report will show.

Interestingly, patients with these musculoskeletal immune-related adverse events (irAEs) more often had an oncologic response to checkpoint inhibitor therapy, the investigators noted.

With a follow-up of 6.5 months, half of the patients with checkpoint inhibitor–related musculoskeletal adverse events had a favourable response to the cancer therapy, compared with just 12.5% of patients with no such adverse events (P = .0016).

That finding corroborates at least one other recent report from a centre in France, in which tumour response to checkpoint inhibitors was significantly higher in patients with rheumatic irAEs (Ann Rheum Dis. 2018;77:393-8).

“From the oncologic point of view, it might be a good thing, after all, to develop these manifestations,” Dr. Daoussis said in the interview. “However, that’s just a hypothesis and remains to be proven.”

Dr. Daoussis and Dr. Filippopoulou had no disclosures. Coauthors of the report had disclosures related to Bristol-Myers Squibb, Merck Sharp & Dohme, Gilead, AstraZeneca, Roche, Genesis Pharma, Ipsen, Boehringer Ingelheim, and Sanofi.

Don’t forget fertility concerns in male rheumatic disease patients

Discussion of fertility issues with male rheumatic disease patients is important because chronic inflammation negatively affects male reproduction, either by affecting the hypothalamic-gonadal axis or by effects on spermatogenesis, Prof. Monika Østensen said in an interview before her talk about male infertility and rheumatic disease in the “Reproductive issues in rheumatology” Clinical Science Session on Friday afternoon.

“Patients with chronic rheumatic disease need to have the same options as their healthy peers leading a normal life, which includes having a family,” said Prof. Østensen of Sorlandet Hospital Kristiansand (Norway).

For male patients, either the rheumatic disease itself or the therapy can lead to infertility, she said. “For example, high disease activity and resulting symptoms like depression or anxiety often reduce sexual activity. In such cases, the control of disease activity is the most important intervention the clinician should offer.”

Prof. Østensen reviewed the latest literature and found no sign that doses of methotrexate at 5-25 mg per week impaired fertility. Case reports of men with psoriasis who took low doses of methotrexate showed some men with normal sperm as well as some with few or no sperm, she noted.

However, cyclophosphamide, given to adult and paediatric patients with systemic lupus erythematosus, other connective tissue disease, and vasculitides, is associated with gonadal damage that is dose dependent. The damage results in few or no sperm, low testosterone, low inhibin B, and elevated follicle-stimulating hormone levels.

Cumulative doses greater than 75 g/m2 carry a high risk of permanent infertility in adults, Prof. Østensen noted. Sulfasalazine can cause transient infertility, but normal sperm quality generally returns within 1-3 months after discontinuation of the drug, she said.

“Male patients are sometimes concerned about fertility when medications such as methotrexate, sulfasalazine, or cyclophosphamide are prescribed for control of disease activity,” said Prof. Østensen. “Sulfasalazine can induce transient infertility in men, whereas cyclophosphamide may lead to infertility depending on dose administered and age of the patient. Future fertility must be considered also in children or adolescents who need treatment with cyclophosphamide, and the clinician must inform male patients about the side effects of these drugs and counsel on interventions that prevent impairment of fertility.”

More research is needed on aspects of fertility in male rheumatic disease patients, Prof. Østensen said. Prof. Østensen had no financial conflicts to disclose.
Work on CNO/CRMO classification criteria gets going

Surveys and consensus techniques have been instrumental in identifying much-needed candidate criteria toward the classification of chronic nonbacterial osteomyelitis (CNO), according to recent findings of an international study of 259 paediatric rheumatologists. The findings will be discussed on Saturday morning.

Dr. Melissa Oliver of Riley Hospital for Children at Indiana University Health, Indianapolis, USA, and colleagues recently undertook the multiphase study as part of an international collaborative effort within the paediatric and adult rheumatology communities to establish consensus-based diagnostic and classification criteria.

CNO, also known as chronic recurrent multifocal osteomyelitis (CRMO), is an autoinflammatory bone disease of unknown cause that primarily affects children and adolescents. If not diagnosed and treated appropriately in a timely fashion, damage and long-term disability is possible. In the absence of widely accepted, consensus-driven criteria, treatment is based largely on expert opinion, Dr. Oliver explained in an interview. “There is an urgent need for a new and more robust set of classification criteria for CRMO, based on large expert consensus and the analysis of a large sample of patients and controls,” she said. The list of candidate items that have come out of the study is moving clinicians a step closer toward the design of a practical patient data collection form that appropriately weighs each item included in the classification criteria.

The study employed anonymous survey and nominal group techniques with the goal of developing a set of classification criteria sensitive and specific enough to identify CRMO/CNO patients. In phase 1, a Delphi survey was administered among international rheumatologists to generate candidate criteria items. Phase 2 sought to reduce candidate criteria items through consensus processes via input from physicians managing CNO and patients or caregivers of children with CNO.

Altogether, 259 (30%) of 865 paediatric rheumatologists completed an online questionnaire addressing features key to the classification of CNO, including 77 (30%) who practice in Europe, 132 (51%) in North America, and 50 (19%) on other continents. Of these, 138 (53%) had greater than 10 years of clinical practice experience and 108 (42%) had managed more than 10 CNO patients.

Initially, Dr. Oliver and colleagues identified 33 candidate criteria items. By phase 2, candidate items, which were presented to 39 rheumatologists and 7 parents, were refined or eliminated using item reduction techniques. A second survey was issued to 77 of 82 members of a work group so that the remaining items could be ranked by their power of distinguishing CNO from conditions that merely mimicked the disease. The greatest mean discriminatory scores were identified with multifocal lesions – ruling out malignancy and infection – and typical location on imaging, while C-reactive protein and/ or erythrocyte sedimentation rate more than three times the normal upper limit had the greatest negative mean discriminatory scores.

Dr. Oliver had no disclosures to report. Several coauthors reported financial ties to industry.
Faecal microbiota transplant (FMT) may have a role to play in people with systemic sclerosis with gastrointestinal involvement if the results of a randomised, double-blind, placebo-controlled pilot trial hold up to further testing in larger trials, EULAR delegates will hear in a presentation on Friday afternoon.

Finding novel ways of treating the often debilitating gastrointestinal (GI) symptoms that patients with systemic sclerosis (SSc) experience is important since the GI tract is affected in up to 90% of people with the disease.

“GI complications have been among the leading causes of death in the disease for decades. GI affliction is actually the organ involvement with the greatest impact on health-related quality of life reported by patients, and highly associated with a negative perception of illness severity,” presenter and first author Dr. Anna-Maria Hoffmann-Vold of Oslo University Hospital explained in an interview.

The possibility of permanent modification of the microbiome through FMT from healthy to ill individuals has become a subject of increased attention in the scientific literature in recent years. In particular, FMT has shown promising results in the treatment of *Clostridium difficile*

“One could speculate that there is a mechanistic link between dysmotility and dysbiosis in SSc, and that the manipulation of gut microbiota with FMT primarily affects motility patterns, which in turn leads to improvement of GI symptoms.”

Infections. While the study conducted by Dr. Hoffmann-Vold and colleagues did not focus on the mechanistic pathways by which FMT exerts its effects, such studies are highly warranted, she said.

“We do not know enough about the role of gut microbiota in SSc; however, we do know that SSc patients have dysbiosis and that certain gut bacteria are associated with certain GI symptoms. But it is unknown whether the divergent microbiota is a consequence of the disease or represents a causative factor.

“One could speculate that there is a mechanistic link between dysmotility and dysbiosis in SSc, and that the manipulation of gut microbiota with FMT primarily affects motility patterns, which in turn leads to improvement of GI symptoms,” she said.

The 16-week pilot trial randomly assigned 10 patients with limited cutaneous SSc to treatment with a commercially available anaerobic cultivated human intestinal microbiota (ACHIM) or placebo administered via gastroduodenoscopy.

Efficacy on GI symptoms was measured via the UCLA GIT 2.0 score questionnaire, with patients defined as responders if reported symptom improvement was equivalent to the UCLA GIT definition of “minimal clinically important difference.”

Primary endpoints were safety and clinical efficacy on GI symptoms assessed at weeks 4 and 16, and safety was assessed by observation, interviews, and a standardised safety form.

Results showed that treatment with FMT appeared to be safe, reduce lower GI symptoms, and alter gut microbiota composition in the patients.

The effects of the intervention were most pronounced on lower GI symptoms of bloating/distension, diarrhea, and faecal incontinence, with improvement reported by all five FMT patients, compared with two of the four patients who received placebo. (One placebo
More and more researchers in the Netherlands are finding their way to patient organisations for collaboration. The patient’s voice is becoming a more integral part of the healthcare landscape. The National Association ReumaZorg Nederland wants to take this voice of patients to the level where it helps set the agenda.

Patricia Pennings of ReumaZorg Nederland will be presenting research on Friday morning on the top five patient problems and wishes for research into rheumatic and musculoskeletal diseases (RMDs) that she hopes will help to influence researchers and those who provide research funding to be more patient driven at the beginning of the research agenda-setting process, rather than relegating it to an obligatory (last) part at the end of the submission process of their research proposal.

“Patients want their voice to be heard from the very start of a research project, even before the first research proposal is actually written, even before research funds decide what to use their funding for, so that what matters most to patients is taken into account from the beginning,” Ms. Pennings said in an interview. “That is why we decided to make a research agenda developed by people with RMDs.”

To that end, ReumaZorg Nederland embarked on a research project to determine what is most on the minds of RMD patients when it comes to the problems they face with their condition and the wishes they have for further research. “What I found surprising is that the main problems of people with RMDs aren’t exactly the same as the wishes they have for further research,” Ms. Pennings said. “The problems people with RMDs have focus mainly on living and coping with RMDs, whereas their wishes for research are more medical.”

Patients with RMDs reported that out of 89 problems they were asked to prioritise as part of the research, the top problem they cited was uncertainty about their future. This was followed by coping with fatigue, coping with the unpredictability of RMDs, preserving boundaries, and the effects of RMDs on social life with family and friends. However, the research wishes don’t necessarily mirror the problems that patients with RMDs face. The top research wish, prioritised from a list of 85, was for the development of treatments for RMDs other than surgery. This was followed by the development of an accessible and affordable network of physical exercise activities under professional supervision, more investigation on the cause of inflammatory RMDs, more investigation on the cause of fatigue with RMDs and how to cope, and research on alternative forms of therapy and their effects on specific types of RMDs.

“More than two-thirds of respondents found exercise to be one of the main things for further development because they would really like to see an accessible and affordable network for exercising opportunities under professional supervision throughout the country,” she said.

The other standout to Ms. Pennings was the desire for more research on alternative therapies. “We learned in this project that many people with RMDs turn to alternative medication or alternative forms of therapy as well because they feel they are not completely helped by the regular medication that is available,” she said, emphasising the need for more research on alternative therapies to actually determine scientifically if they work. “Researchers need to focus more on that.”

Another conclusion she got from the research is that fatigue remains a consistent problem. “Fatigue is still one of the main problems of people with RMDs, along with learning how to cope with fatigue and finding out what causes fatigue in RMDs,” she noted. “This goes for people with all types of RMDs,” she said. “Although the abstract nature of fatigue makes it difficult to study, it absolutely remains a wish for further investigation.”

In addition to outlining a research agenda, Ms. Pennings wants to inspire people to get the patient’s voice into the discussion at the very beginning of the research agenda-setting process.

Continued from // previous

patient developed laryngospasms at first gastroduodenoscopy that necessitated exclusion from the study, and duodenal perforation occurred at final gastroduodenoscopy in another.)

“We were surprised by the effect the patients reported, as all had longstanding SSC with GI symptoms. ... We were especially surprised at the strong effect FMT had on faecal incontinence,” Dr. Hoffmann-Vold said.

For secondary outcome measures, the relative abundance, richness, and diversity of total and IgA-coated and IgM-coated bacteria fluctuated more after FMT than after placebo.

The side effects experienced by patients after the treatment were mild and transient, but Dr. Hoffmann-Vold noted that the two procedure-related serious adverse events among placebo patients “may be due to increased vulnerability of SSC patients marked by a fibrotic and stiffer GI tract. Studies on FMT with capsulated microbiota given per oral are emerging in C. difficile colitis; and this administration route appears attractive in SSC, given that it proves feasible to manufacture capsules for efficient delivery of the desired bacterial ecosystem.”

The research team has just received national funding for a large FMT randomised clinical trial that will involve 70 Norwegian SSC patients. It will commence at the end of 2019.

“We are really excited to get more insight on mechanistic pathways and FMT’s effect on SSC patients,” she said.

Dr. Hoffmann-Vold disclosed receiving research funding, consulting fees, or other remuneration from Boehringer Ingelheim, GlaxoSmithKline, and Actelion. She has served on speakers bureaus for Actelion and Boehringer Ingelheim. Two coauthors disclosed receiving consulting fees from GlaxoSmithKline and Actelion. One coauthor is the owner of the company that provided the ACHIM.

EULAR Congress Dinner at La Quinta de Jarama

Friday, 14 June 2019, 20:00-24:00

Price: EUR 95 per person (not included in the registration fee)

EULAR 2019 welcomes you to La Quinta de Jarama for the congress dinner held on Friday 14th June.

La Quinta de Jarama is an exclusive venue located only 30 minutes from Madrid city center.

The cocktail party will be held in the venue’s beautiful outdoor spaces among gardens, olive trees, and a fountain.

After cocktails in the amazing gardens, a dinner will be served in the elegant indoor spaces and porches.

The EULAR Congress Dinner is a great opportunity to dine and meet with friends and colleagues from around the world in a relaxed atmosphere, enjoying the unmatched charm and fascination of Madrid. Those who have shared this evening with us in previous years would not want to miss it. Come and join us!
A new augmented reality (AR) modality has shown effectiveness in increasing rheumatoid arthritis knowledge in a recent study examining the central message of EULAR’s “Don’t Delay, Connect Today” campaign. This research aims to find new and exciting forms of media that could be used to put forward the central message of the Don’t Delay, Connect Today campaign,” Louise Bennett, PhD, of the University of Glasgow, said in an interview. She will present the findings on Saturday morning.

Don’t Delay, Connect Today was created to educate the general public and primary healthcare providers about the importance of recognising the early warning signs of rheumatic and musculoskeletal diseases, such as RA. It also highlights the importance of early diagnosis and treatment in achieving long-term sustained remission, an approach that has been adopted by many countries across Europe.

Dr. Bennett and colleagues participating in the Rheumatosphere public engagement team from the University of Glasgow and Glasgow Caledonian University have worked to develop interesting and effective ways of disseminating the campaign's message to the public. Although augmented reality has been used successfully as an innovative teaching tool to enhance learning in other settings, until now its application in less-formal educational environments, such as public engagement, were still relatively unknown.

The investigators designed the interactive augmented reality application for a lay audience using aspects of RA pathogenesis, along with the concept of the importance of early diagnosis and treatment. Users unlocked the application contents from printed posters using a handheld tablet device.

A total of 27 visitors to the Glasgow Science Centre completed a 5-point Likert scale questionnaire before and after interacting with the posters and augmented reality application. The 25- to 34-year-old age range of the majority of participants was a key target audience for the campaign, since this demographic of the population largely believes that they are “too young” to develop arthritis, according to Dr. Bennett. Participants reported that the application was easy to use, engaging, and enjoyable. Further assessment of the application using a 5-point Likert scale revealed that it successfully raised awareness of RA, with 81% of participants reporting they felt more aware about the pathogenesis, symptoms, and treatment of RA after using the application. Additionally, 55% of participants said they were inclined to raise awareness about the causes, symptoms, and treatments of RA among friends and family.

“Through our presentation, we demonstrate how newer technology such as augmented reality can be used to explain complex subject matter, such as rheumatic disease states, whilst limiting cognitive overload,” Dr. Bennett said. She and her colleagues “also hope that others may be inspired to invest in these new technologies for the delivery of the Don’t Delay, Connect Today campaign in the future.”

One author disclosed serving on a speakers bureau for AbbVie and receiving grant/research support from AstraZeneca, Bristol-Myers Squibb, Celgene, Janssen, MedAnnex, Pfizer, and UCB.
The EULAR Strategic Objectives 2018 – 2023

**ESOR**
By 2023, EULAR will be the leading provider of education in rheumatic and musculoskeletal diseases (RMDs).

**CONGRESS**
By 2023, EULAR will provide the foremost RMD congress experience, building on the heritage of our outstanding annual meeting.

**QOC**
By 2023, EULAR will deliver pre-eminent comprehensive quality of care (QOC) frameworks for the management of people with RMDs.

**ADVOCACY**
By 2023, EULAR’s activities and related advocacy will have increased participation in work by people with RMDs.

**RESEARCH**
By 2023, EULAR will have established a European centre for RMD research to advance high quality collaborative research.

**GOVERNANCE, INFRASTRUCTURE, FINANCIALS**
By 2023, EULAR will have established governance, workflows and infrastructure to deliver the EULAR strategic objectives.
Saturday, 15 June
8:45 Exhibition opens
8:00 – 10:30 Scientific Sessions
10:30 – 12:00 Poster tours, poster viewing, visit of the exhibition, coffee break
12:00 – 13:30 Scientific Sessions
13:45 – 14:45 Congress Highlights Sessions
14:00 Exhibition closes

SESSIONS
8:00 – 9:00 Late-Breaking Abstract Session | Hall 7B
9:00 – 10:30 What is New (WIN)/How to Treat (HOT)
Pain management@2019 | N103/N104
Basic and Translational Science Sessions
Novel autoantibodies in RMDs: A neverending quest? | South Auditorium
Lessons learned from checkpoint inhibitors | N101/N102
Challenges in Clinical Practice Session
Lights at both ends of the tunnel? Advances in GI involvement in SSc | Hall 7B
Clinical Science Session
Current treatment of vasculitis | N111/N112
EULAR Projects in Clinical Affairs | Hall 7A

HPR Session
Ortotic treatment: Is it in or out? | N105/N106
PARE Session
Workshop: #ConnectToday and tomorrow: The campaigning continues | N115/N116
PReS Session
Tackling inflammatory bone disorders in children and adults | N117/N118
12:00 – 13:30 What is New (WIN)/How to Treat (HOT)
Skin and eye manifestations in rheumatic diseases | Hall 7A
Clinical Science Sessions
To image or not to image in spondyloarthritis? | Hall 7B
Novel treatment and old challenges: Where do we stand in the management of antiphospholipid syndrome | South Auditorium
How low should you go? What is the relevant target in T2T in rheumatoid arthritis? | N101/N102
Challenges in Clinical Practice Session
The lung in rheumatoid arthritis | N103/N104
EULAR Projects in Musculoskeletal Imaging | N117/N118
HPR Session
Behaviour change in fibromyalgia | N105/N106

EULAR Congress News
Friday & Saturday Edition
An authorised publication of the European League Against Rheumatism

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MERITORIOUS AWARDS
Since 2000, EULAR has awarded rheumatologists who have been judged by the EULAR Executive Committee to have served rheumatology in an outstanding way, either by scientific research, clinical science or through their activities in EULAR, national or international organisations.

In 2019, the EULAR Meritorious Service Award goes to Alberto Martini and Marios Kouloumas.
eular.org/awards_meritorious_service.cfm

DID YOU KNOW …
Alberto Martini
Marios Kouloumas
Satellite Symposia Programme // Friday, 14 June

**IL-17A inhibition in psoriatic arthritis: Comprehensive treatment across disease manifestations**

Chair: Paul Emery (UK)

8:15 Paul Emery (UK)

Welcome and introduction

8:20 Ellen Gravellese (US)

Effects of the IL-17 pathway on inflammation, enthesisis, and bone in PsA

8:35 Xenofon Baraliakos (DE)

Back pain in PsA and axSpA: A critical comparison

8:55 Mikkel Østergaard (DK)

Real world evidence: The importance of comprehensive disease control

9:10 Peter Nash (AU)

IL-17A inhibition and data visualization: Comprehensive treatment for PsA

9:30 All

Panel discussion and conclusions

**Treatment of interstitial lung disease in systemic sclerosis and other autoimmune rheumatic diseases – A step forward**

Chair: Oliver Distler (CH)

8:15 Oliver Distler (CH)

Introduction

8:20 Anna-Maria Hoffmann-Vold (NO)

How should we screen for and monitor SS-c-ILD?

8:40 Olly Kelly (UK)

Can we apply learnings from SS-c-ILD to the screening and monitoring of ILDs in other autoimmune rheumatic diseases?

9:00 Oliver Distler (CH)

Are we a step closer to a new approach to the treatment of SS-c-ILD and other ILDs associated with autoimmune rheumatic diseases?

9:20 All

Questions and answers

**The standard of care in rheumatoid arthritis: The BAR Is Raised**

Chairs: José María Álvaro-Gracia (ES), Ronald van Vollenhoven (NL)

8:15 José María Álvaro-Gracia (ES), Ronald van Vollenhoven (NL)

Welcome and introduction

8:20 Ernest Choy (UK)

Is there any new evidence on JAK inhibition and its clinical implications?

8:40 Peter Taylor (UK)

Treating to target and beyond

9:00 Eugen Feist (DE)

The test drive is over: What have we learnt using baricitinib in clinical practice?

9:20 José María Álvaro-Gracia (ES), Ronald van Vollenhoven (NL)

Panel discussion and Q&A

**Transition to adulthood in clinical practice: How can we improve the experience of patients with JIA?**

Chair: Alberto Martini (IT)

8:15 Alberto Martini (IT)

Welcome, introduction and objectives

8:20 Alberto Martini (IT)

Understanding the journey of a patient with JIA: The changing needs throughout adolescence into adulthood

8:40 Helen Foster (UK)

Assessing and transforming transition strategies: What do the guidelines advise?

9:00 Cristina Estrach (UK)

Setting up a successful transition service: What do I need to know?

9:15 Helen Foster (UK), Cristina Estrach (UK)

Practical implementation: Case reports on the successful transition of patients with JIA

9:35 All

Panel discussion and Q&A

**Moderate PsA and perspectives from PDE4 inhibition**

Chair: Rubén Queiro (ES)

8:15 Rubén Queiro (ES)

Opening statements

8:20 Stefan Siebert (UK)

Challenges in PsA clinical practice: Tailoring treatment to patients’ profile

8:40 Dafna Gladman (CA)

Oligoarticular PsA: Lessons from longitudinal cohorts

9:05 Frank Behrens (DE)

Learnings from PDE4 inhibition: Optimising outcomes for moderate PsA

9:30 Rubén Queiro (ES)

Summary of the major learnings

9:35 All

Audience Q&A

**Painful conditions in rheumatological diseases – A therapeutic strategy**

Chair: Serge Perrot (FR)

8:15 Serge Perrot (FR)

Introduction

8:30 Stefano Coaccioli (IT)

Inflammatory vs mechanical pain in musculoskeletal diseases

8:50 Serge Perrot (FR)

Features of back pain: Which are the main rheumatological causes and its current treatments?

9:10 Magdi Hanna (UK)

Multimodal therapeutic strategy to address multiple mechanism of pain

9:30 All

Discussion and final remarks

**From today’s reality, to tomorrow’s “Vision for Lupus”**

Chair: Chiara Tani (IT)

8:15 Chiara Tani (IT)

Welcome and introduction

8:30 Patricia Cagnoli (US)

Disease awareness: What is needed, how and why?

8:45 Chiara Tani (IT)

Integrated service delivery: The reality and what is possible?

9:05 Chris Edwards (UK)

Clinical research: Preparing the future together

**Novelties in RA treatment**

Chair: Matthias Schneider (DE)

• Speakers: Peer M. Aries (DE), Xenofon Baraliakos (DE), Frank Behrens (DE), Christof Iking-Konert (DE), Christof Specker (DE), Torsten Witte (DE)

• Round table experts: Frank Buttgereit (DE), Jens Gert Kuipers (DE), Ulf Müller-Ladner (DE)

• Presentation of six trials presented at EULAR 2019

17:30 – 19:00 | N101/N102 Rheumatology Today a service by Chugai supported by Roche & Novartis

**German rheumatologists present their personal EULAR Congress highlights**

Chair: Matthias Schneider (DE)

**Addressing real-world practice gaps in the management of RA**

Chair: Paul Emery (UK)

Faculty: Leonard H. Calabrese (US), Ernest Choy (UK)

17:30 Dinner reception & posters review

18:00 Paul Emery (UK)

Welcome and introductions

18:10 Paul Emery (UK)

What do current gaps mean for patients?

18:20 All

Panel discussion #1: Pathologic mechanisms in RA and implications for management

18:40 All

Panel discussion #2: Standards for disease monitoring to guide treatment

19:00 All

Panel discussion #3: Switching versus cycling and the role of new treatment options

19:20 Paul Emery (UK)

Closing remarks

17:30 – 19:00 | N117/N118 supported by Sanofi Genzyme & Regeneron Pharmaceuticals

**The role of the endocannabinoid system in chronic inflammation and fibrosis**

Chairs: Christopher Denton (UK), Tracy M. Frech (US)

17:30 Christopher Denton (UK)

Welcome and introduction

17:55 Christopher Denton (UK)

Biology of the endocannabinoid system with a focus on inflammation and fibrosis

18:20 Tracy M. Frech (US)

Targeting endocannabinoid system as a potential therapeutic in inflammatory/fibrotic diseases
Investigator Sponsored Study (ISS)

GSK supports studies designed and executed by independent investigators, including healthcare institutions and medical networks, that contribute to medical science and improve patient care. Support can be in the form of product, funding or both. Support for a study is based on the importance of the research objectives, scientific rationale for the methodology, and the ability of the investigator to deliver a high-quality, ethical study. The results of GSK ISSs are publicly disclosed regardless of the outcome.

2019 ISS Request For Proposals

GSK is accepting ISS proposals

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Submission of proposal by Investigators</td>
<td>July 15, 2019</td>
</tr>
<tr>
<td>Committee Review &amp; Selection by GSK</td>
<td>August 2019</td>
</tr>
<tr>
<td>Communication to Investigators by GSK</td>
<td>September 2019</td>
</tr>
<tr>
<td>Submission of full Protocol and ICF by Investigators</td>
<td>October 2019</td>
</tr>
<tr>
<td>Committee Review/Final Decision by GSK</td>
<td>As soon as possible</td>
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</tbody>
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GSK is committed to deliver the above review timelines, however, the review process might take longer for certain proposals.

Areas of Research Interest

- BLyS inhibition with focus on diseases consistent with the belimumab anti-BLyS mechanism of action
- Use of anti-BLyS in combination with anti-CD20 in lupus and other mechanism of action compatible diseases
- Belimumab in lupus and other autoimmune diseases
- Lupus patient perception and opinion about their treatment and life (with or without belimumab)
- Association of biomarkers with patient stratification or clinical outcomes in lupus
- Use of belimumab in lupus in clinical practice
- Lupus disease state

Visit us at medical booth (31) if you would like to discuss further and log-on to [https://iss.gsk.com/](https://iss.gsk.com/) to get started

Interested In Access To Clinical Data For Secondary Research?

GSK provides access to anonymized patient-level data for research that can advance science or improve patient care. To learn more, go to: [http://www.clinicalstudydatarequest.com](http://www.clinicalstudydatarequest.com)