Upcoming blood and urine analysis showed increased serum creatinine with proteinuria 1 g/day and hematuria. Following interdisciplinary consultation immunologic investigations were performed showing elevated titres of ANA, anti-dsDNA and decreased complement levels.

The patient was diagnosed with SLE with shrinking lung and active renal involvement and was referred to Rheumatology Unit where treatment was initiated with prednisone 0.5 mg/kg/day and mycophenolate mofetil 2 g/day. Respiratory symptoms as well as pulmonary function tests improved within some days after initiation of steroid treatment.

After 12 months the patient displayed still abnormally restrictive respiratory pattern at pulmonary function tests, despite clinical improvement. She was also displaying proteinuria 0.8 g/day with active urinary sediment and rising anti-dsDNA antibodies. Thus, she underwent Rituximab 1 g 2 weeks apart with subsequent improvement of both renal and respiratory signs and symptoms. Improvement remained stable at 2 years.

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SP0100 NEUROPSYCHIATRIC LUPUS OR NOT?

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A 30 year old woman with a 10 year history of SLE was admitted in the Emergency Department with severe headache, drowsiness and vertigo. Brain magnetic resonance imaging revealed an extensive ischaemic stroke in the cerebellum. During the month prior to the episode, the patient had not been feeling well, complaining for arthralgias, fatigue, hair-loss, low grade-fever and the progressively deteriorating headache.

Should this patient's ischaemic stroke be attributed to lupus? Moreover, if yes, does it represent a thrombotic or an inflammatory process?

The second patient, a 38 year old woman of Asian descent, was referred to our Unit due to refractory seizures and status epilepticus for the past two years. On initial presentation, she had fever, mild leukopenia, low C3 and C4 levels and positive ANA (titer 1:320). She had been previously treated by different neurologists, with a combination of antiepileptic drugs, with no success. Brain magnetic resonance imaging was repeatedly unremarkable and electroencephalogram revealed mild epileptiform changes.

Does this patient represent a case of *bona fide* neuropsychiatric lupus?

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FRIDAY, 15 JUNE 2018

Understanding the language of basic research, epidemiology and health services articles

SP0101 UNDERSTANDING THE LANGUAGE OF EPIDEMIOLOGY ARTICLES

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'Clinical and Epidemiological Research' is one of two headings for original articles in the Annals of Rheumatic Disease. But what is epidemiological research? What do all those different types of bias mean? And what do all of those bizarre statistical terms mean? How can I make sense of the research, and how is it relevant to my practice? Answer: Attend the lecture and find out.

Disclosure of Interest: W. Dixon Consultant for: Google, Bayer

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SP0102 UNDERSTANDING THE LANGUAGE OF HEALTH SERVICES ARTICLES

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The only difference of Health services Research with other types of research is the study unit observed. This goes beyond individuals and it may likely refer to doctors, their clinics, or even countries. We still need to work on hypotheses, although some exploratory research can be done; and we always need to start with a research question. If you are unable to find a research question in an original article, remember: stop reading. We will review some of the top questions answered by health services research, such as performance of doctors and services, efficacy of complex interventions, and inequalities. In addition, we will review basic concepts, such as what is an indicator, very frequently used as outcome

measures, or what makes a best practice, as well as some special difficulties, such as multilevel (AKA hierarchical) models or instrumental variables. To end, we will review basic concepts in qualitative research, needed to understand the papers dealing with health services research.

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FRIDAY, 15 JUNE 2018

Joint EULAR – ESSR session on: The role of MR imaging in rheumatic diseases and its clinical implications

SP0103 INDICATIONS AND CLINICAL IMPLICATIONS OF MR IMAGING IN RA

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In clinical practice, rheumatologists most frequently use imaging techniques to explore bone and soft-tissue involvement in RA. MRI is the best noninvasive, observer-independent imaging modality technique that has advantages over clinical examination and conventional radiographs for assessing joint damage and soft tissue inflammation, which are common features even in the earliest stages of RA. MRI provides multiplanar images with a high degree of resolution without ionising radiation. Based on these characteristics, MRI identifies early signs of arthritis where other imaging modalities failed. Main indications for MRI in RA consequently are to determine joint involvement, differential diagnosis and early diagnosis of inflammation, such as synovial changes, changes in tendon sheaths and bursae, as well as bone marrow oedema (BME), not detected by clinical examination, BME even also not by ultrasound. The presence of BME has added benefits to modern diagnostic criteria, and anti-citrullinated peptide antibody positive patients have demonstrated higher osteitis scores. Additionally, MRI helps to assess and define prognosis and outcome, because synovitis and BME are risk factors for the progression of structural changes. Growing data on the validity of MRI in predicting and assessment of treatment response are available as well. Recent evidence has demonstrated that MRI inflammatory parameters are frequent findings in RA with clinical remission and low disease activity states, which has impact on treatment changes. MRI helps to identify at-risk individuals with arthralgia without clinical arthritis, furthermore these patients with defined RA and high risk for disease progression leading to therapy escalation and also may limit unnecessary treatment with potentially expensive biologic drugs. Studies that directly assess how MRI use in clinical care might even influence decision making, quality of care and cost effective delivery of that care. Clinical studies answering these questions of regular use of MRI are warranted.

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SP0104 INDICATIONS AND CLINICAL IMPLICATIONS OF MAGNETIC RESONANCE IMAGING IN SPONDYLOARTHRITIS

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Axial spondyloarthritis (axSpA) is a chronic inflammatory disease that affects the sacroiliac joints and the spine. Whereas early disease is characterised by inflammation, severe structural damage may occur later in the disease course.

Magnetic resonance imaging (MRI) can detect inflammatory lesions (bone marrow oedema (BME)/osteitis), and structural lesions (erosions, bone spurs, ankylosis and fat metaplasia).

In patients suspected for axial spondyloarthritis (axSpA) in clinical practice, MRI has a key role for early diagnosis of axial SpA, since MRI is by far the best available method for early detection of inflammation in the spine and sacroiliac joints. MRI is also more sensitive and accurate for assessment of structural sacroiliac changes than conventional radiography. Differential diagnoses, including anatomical variations, degenerative disease, osteitis condensans ilii, infections and others, should of course always be considered.

In patients with diagnosed axial SpA, MRI is the method of choice for sensitive objective monitoring of axial inflammation, and also peripheral inflammation and damage can be assessed. Whole-body MRI is a promising method, which may become important for simultaneous assessment of axial and peripheral disease manifestations in one examination. Furthermore, MRI can provide information which may help predict the response to therapy and the risk of subsequent progression of structural damage.

The present talk will describe the indications and implications of using MRI in spondyloarthritis in the diagnosis and management of SpA, taking a starting point in the "EULAR recommendations for the use of imaging in the diagnosis and management of spondyloarthritis in clinical practice"; Mandl et al, *Ann Rheum Dis* 2015 74:1327–1339, the "Recommendations of the ESSR Arthritis Subcommittee for the Use of Magnetic Resonance Imaging in Musculoskeletal Rheumatic Diseases"; Sudot-Szopińska et al, *Semin Musculoskelet Radiol* 2015 19:396–411 and the recent update from The Assessment in SpondyloArthritis International Society (ASAS) MRI working group; Lambert et al. *Ann Rheum Dis* 2016 75:1958–1963). However, selected data from important clinical studies will also be described.

Disclosure of Interest: None declared

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SP0105 MRI IN EARLY AND ESTABLISHED SPA: WHAT IS THE ADDED VALUE?

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MRI of the sacroiliac joints (SIJ) and of the spine has revolutionised diagnosis of early spondyloarthritis (SpA).

With its high contrast resolution, it is able to detect inflammation of the SIJ in its early stage before structural damage occurs. The introduction of biological drugs from the has further emphasised the need for early diagnosis of sacroiliitis. Since the treatment is to be used in a narrow window of opportunity to reach disease control, MRI was rapidly embraced as a dominant diagnostic tool and at the same time included into the classification criteria for axSpA becoming the cornerstone of SpA diagnosis. In this presentation, the early and more established imaging characteristics of sacroiliitis will be discussed in context of other imaging modalities and potential differential diagnoses.

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The stromal link to inflammation

SP0106 FIBROBLASTS: THEIR ROLES IN MATRIX AND VESSELS

J. Distler. *Department of Internal Medicine 3, University of Erlangen, Erlangen, Germany*

Persistent activation of fibroblasts is a common denominator of fibrotic diseases but mechanistically incompletely defined. In contrast to physiologic tissue repair responses, fibroblasts remain persistently active in fibrotic diseases and continue to release excessive amounts of extracellular matrix. We will discuss novel insights into the molecular mechanisms underlying the uncontrolled activation of fibroblasts in fibrotic diseases and potential implications of those findings for targeted antifibrotic therapies.

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New approaches in measuring what matters to patients

SP0107 WHAT CAN BAYESIAN STATISTICS CONTRIBUTE TO MEASURING PATIENT PERSPECTIVES?

V. Ritschl. *Section for Outcomes Research, CMSIIS – Center for Medical Statistics, Informatics, and Intelligent Systems, Medical University of Vienna, Vienna, Austria*

Thomas Bayes (1701–1761) founded the Bayesian approach, published as "Essay Towards Solving a Problem in the Doctrine of Chances" in 1763 as a new philosophy in inferential statistics opposed to the classical, frequentist approach. Frequentists test whether a hypothesis is true or false with a certain probability. The Bayesian approach depends on conditional probability which takes prior

knowledge (a prior distribution of probabilities) into account. An example for the use of the Bayesian approach is a self-reported instrument that assesses function in rheumatic and musculoskeletal diseases. This instrument produces worse scores with higher age due to the increasing incidence of physical disability. The prior knowledge (higher age leading to a worse function score) should be taken into account when the scores of the instruments are interpreted.

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SP0108 NEW APPROACHES IN MEASURING WHAT MATTERS TO PATIENTS – DECISION AID TOOLS

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Purpose: To explain what patient decision aids are, why they help patients engage more effectively with healthcare, and how their use enables health professionals to meet clinical guidance on delivering shared decision making about treatment choices.

People's healthcare decisions are emotionally and cognitively demanding, involving trade-offs between treatment options with negative consequences for themselves and their families. Health professionals are delivering increasingly complex care; patients live longer with co-morbidities and increased frailty, and new technologies lead to more treatments being offered. Decision science provides insight into how people make these decisions, and what can influence people's thinking encouraging them to make more or less reasoned choices.

Patient decision aids are resources developed with reference to decision science evidence on how to structure the health problem, present information about risks, benefits and consequences of options, elicit patient values and guide people to reach treatment choices that fit best in their lives (<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD001431.pub5/full>). This talk provides an overview of the components within patient decision aids (<http://ipdas.ohri.ca/who.html>) known to support people make more reasoned decisions about their healthcare, using examples taken from patient decision aids developed and evaluated within the UK.

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FRIDAY, 15 JUNE 2018

Innovative treatments for a better quality of life

SP0109 INVOLVEMENT OF A PATIENT ORGANISATION IN HEALTH TECHNOLOGY ASSESSMENT

J. Clausen. *Scientific Adviser, Deutsche Rheuma-Liga Bundesverband e.V., Bonn, Germany*

The term "Health Technology Assessment" (HTA) designates the systematic evaluation of therapies (drugs and non-drug interventions) and technologies for cost effectiveness, clinical effectiveness and safety to form the basis for evidence-based priority setting and policy decisions (reimbursement and coverage decisions). Usually, therapeutic or diagnostic interventions are subject to the assessment, but also complex programs (e.g. prophylactic screening programs) may be investigated. The involvement of patient organisations in Health Technology Assessments improves outcomes and offers additional insights. It guarantees that the perspective of the most important group – the patients as consumers – is adequately addressed.

A patient organisation may be involved in various ways in Health Technology Assessments: Patient organisations can identify gaps in healthcare coverage and initiate the generation of a respective Health Technology Assessment; they can provide additional registry data, complementing study data from randomised controlled trials for the Health Technology Assessment. The provision of information on patient-relevant outcomes and other patient-relevant aspects (e.g. mode of administration) is crucial to assess the benefit for patients of the therapy (or technology/program) under evaluation. Moreover, patient organisations may also be involved in the evaluation of the assessment report and in the execution of the results.

Generation of an HTA can be a time-consuming process and a very demanding one for patient organisations and the involved volunteers. Staff members of the patient organisation can be involved directly in the various tasks, or indirectly, supporting voluntary patients. If voluntary patients attend panel groups, most of them will need intensive support by their respective patient organisation depending on the complexity of the respective topic. Finding qualified volunteers, willing to