To investigate different parameters in SF of patients with systemic lupus erythematodes (SLE), rheumatoid arthritis (RA) and osteoarthritis (OA).

Methods We describe the evaluation of SF in 28 SLE, 41 RA, and 36 OA patients. SF is collected via arthrocentesis in heparinized or EDTA tubes. The diagnosis was established in all subjects prior to SF examination based on typical clinical and laboratory features. The clinical activity of the diseases at the time of joint aspiration varied.

Results The white blood cell (WBC) count in 28 SLE patients, ranging from 500 to 12 250 with an average count of 3473 cells/µl with 55% polymorphic nuclear cells (PMNs), was significantly lower than in RA - 11 048 cells/µl with 75% PMNs. The WBC count in OA patients was significantly lower - 3718±2373 cells/µl. The highest protein levels were found in RA patients, followed by SLE and OA patients: total protein respectively 50.3±6.9 vs 45±7.3 vs 48.6±10.9 g/L and IgG concentration - 21.22±3.53 vs 9.53±4.27 vs 18±2.48 g/L. Circulating Immune Complexes were significantly higher in the RA group compared to SLE group and OA: 0.247 ±0.07 vs 0.193±0.05 vs 0.108±0.40 mg/ml.

Conclusions The analysis of the SF of lupus patients has shown elevated levels of WBCs, total protein and circulating immune complexes as a markers for the high SLE activity. Synovial fluid is a possibility to define the type of arthritis in different rheumatic diseases.

382 ANA AND ENA TESTING ALGORITHM: PERSPECTIVE OF A LARGE PUBLIC HOSPITAL LABORATORY IN NEW ZEALAND

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Background and aims An ANA and ENA testing algorithm was established at the immunology laboratory at Waitemata District Health Board (WDHB) in New Zealand. WDHB serves more than 500 000 people in central New Zealand. Due to the high demand for ANA testing, WDHB opted for an automated ANA EIA screening and Extractable Nuclear Antibodies (ENA) EIA reflex testing algorithm, with HEp-2 IFA as an option when there is a strong indication of false negative results.

Methods From January 2012 to April 2016, 8515 patient samples were tested with ANA Screening EIA kits, and 1624 samples were reflex tested with ENA EIA kits for detection of antibodies to SSA, SSB, Sm, Sm/RNP, Scl-70, Jo-1, dsDNA and centromere (Bio-Rad Laboratories, California, USA). The reflex testing is triggered when either the screening result was positive or requested by a clinician. ANA IFA tests were performed on request.

Results The general ANA screening positive rate was 18.5% (1585/8515) in the WDHB population. The positivity rate for each individual ENA is shown in Table 1. The overall positive rate for ENA testing was 54.8% (890/1624) indicating that the ANA screening has been effective in detecting the specific presence of ENAs.

Conclusions Using this ANA and ENA testing algorithm, WDHB was able to screen a large number of patient samples and quickly identify specific ENA all in one day, resulting in improved workflow and significant labour and cost savings.

383 PLASMA ADAMTS-13 ACTIVITY IN PROLIFERATIVE LUPUS NEPHRITIS: A LARGE COHORT STUDY FROM CHINA

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Background and aims The aim of this study was to investigate plasma ADAMTS-13 activity in proliferative lupus nephritis patients, and evaluate their correlations with clinical, laboratory and pathological features, especially the vascular lesions in lupus nephritis.

Methods Plasma samples from 163 biopsy-proven class III and IV lupus nephritis patients and 98 normal controls were collected. ADAMTS-13 activity was evaluated by residual collagen binding assay. IgG autoantibodies against ADAMTS-13 were detected by ELISA. Levels of vWF were evaluated by ELISA. Their associations with clinical, laboratory and pathological features were further assessed.

Results Plasma ADAMTS-13 activity in lupus nephritis patients was significantly lower than that in normal controls (84% ±21%% vs. 90%±13%, p=0.005). The plasma levels of vWF was significantly higher in lupus nephritis group than that in normal controls (1.00±0.79 vs. 0.70±0.30, p=0.025). Plamsa ADAMTS-13 activity was negatively correlated with the level of serum creatinine and proteinuria (r=−0.354, p<0.001; r=−0.200, p=0.011, respectively). Patients with higher ADAMTS-13 activity had significantly higher levels of factor H (401.51±183.01 µg/ml vs. 239.02±155.45 µg/ml, p=0.005). Plasma ADAMTS-13 activity was negatively associated with the total pathological AI scores ,acute glomerular vascular lesions, acute renal vascular lesions (all p<0.001) and tubular atrophy (p=0.011). Low activity of ADAMTS-13 was a risk factor for renal outcomes (p=0.039, HR=0.047, 95% CI: 0.120–1.005).

Conclusions Decreased ADAMTS-13 activity was found in proliferative lupus nephritis patients and plasma ADAMTS-13 activity was closely associated with renal injury indices, especially pathological vascular scores. The role of ADAMTS-13 in the disease need to be further investigated.

384 MULTI-SPECIALISTS' PERSPECTIVES ON CLINICAL DECISION MAKING IN SYSTEMIC LUPUS ERYTHEMATOSUS: AN INTERVIEW STUDY

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Background and aims Clinicians from different medical specialists are involved in the management of patients with systemic lupus erythematosus (SLE), however, unwarranted variation in practice remains largely unexplained. This study aims to describe specialists' attitudes and perspectives on the management of patients with SLE.

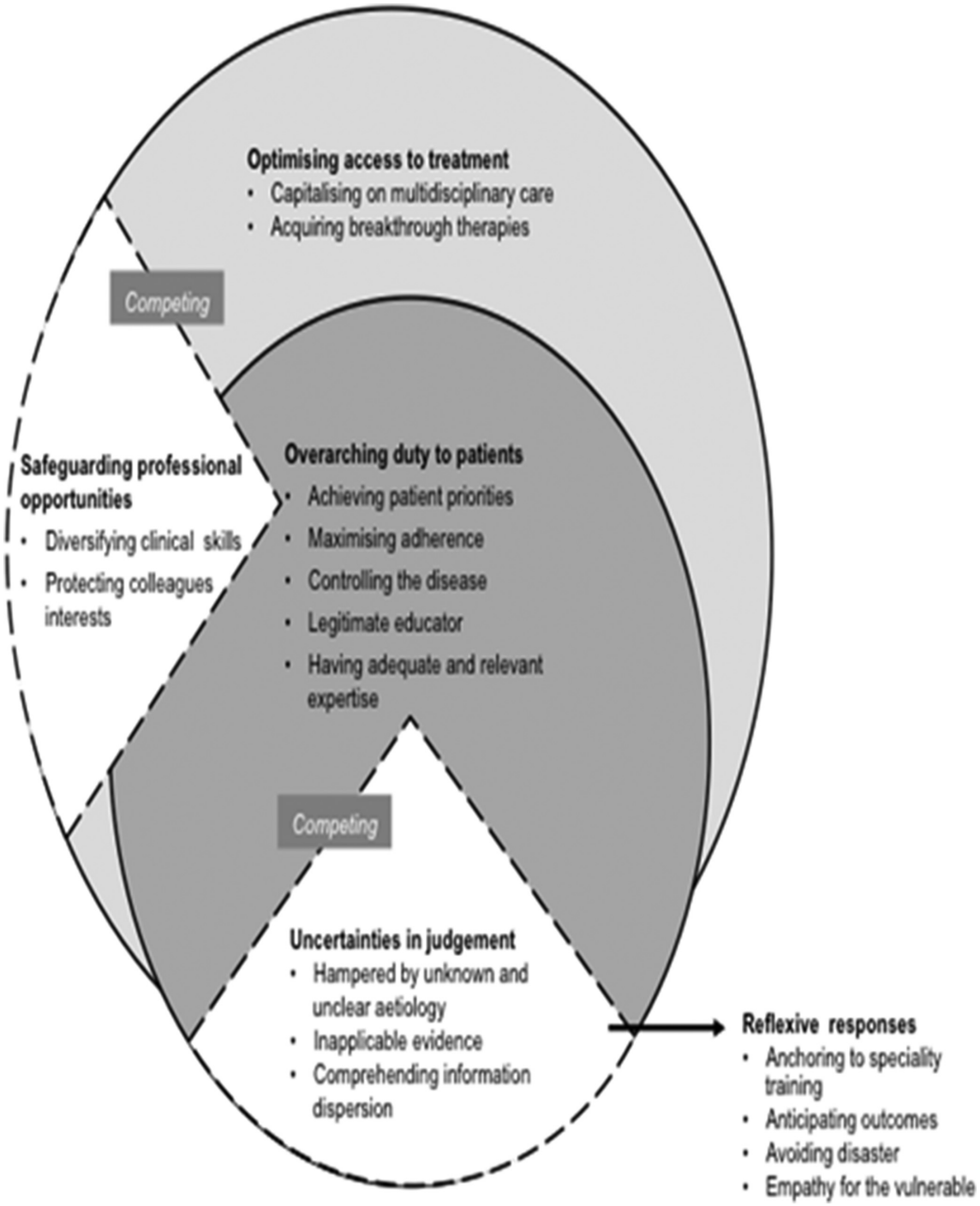
Abstract 384 Table 1 Participant characteristics (n=3)

Characteristics	Rheumatologist (n=16) n (%)	Nephrologist (n=16) n (%)	Immunologist (n=11) n (%)
Sex			
Male	**8 (50)**	11 (69)	7 (64)
Female	**8 (50)**	5 (31)	4 (36)
Years of experience			
<20	**10 (62.5)**	9 (56)	6 (55)
≥20	**6 (37.5)**	7 (44)	5 (45)
Current number of patients with SLE in their care			
<10	**3 (19)**	5 (31)	1 (9)
≥10	**13 (81)**	11 (69)	10 (91)

Abstract 384 Table 2 Illustrative quatations

Theme	Illustrative quotations
Uncertainties in judgements	"It's heterogeneous, there are probably multiple different immune mechanisms that underpin the disease and I think that what we call lupus really is lupus A, lupus B, lupus C etcetera. It's a complicated disease, with a complicated pathogenesis." *Rheumatologist, F, 40s;* (subtheme – Hampered by unknown and unclear etiology) "There is less of an evidence base for rituximab, although everybody thinks it works. Unfortunately the controlled trial failed, I think, because the control patients got too much steroids because they could have any dose of steroid the doctor wanted. Rituximab seems to work in uncontrolled studies, so convincingly I don't think anybody believes the RCT." *Immunologist, M, 60s;* (subtheme – Inapplicable evidence)
Reflexive responses	"I think we are heavily influenced by our training, what we saw as we were learning, what our senior consultants were doing. So say rheumatologists may be accustomed to drugs they used commonly in other diseases they treat, such as rheumatoid arthritis, lots of cyclophosphamide, while renal physicians may be more comfortable with something like mycophenolate." *Immunologist, M, 50s;* (subtheme – Anchoring to speciality training)
Overarching duty to patients	"We always give the patients the choice to do whatever it is they want to do, they can stick with any clinician they want or they can come to the multidisciplinary clinic, we just need to ensure they keep getting looked after." *Nephrologist, F. 60s* (Subtheme – Achieving patient priorities) "I think nephrologists manage the renal side of things very well. I think the immunologists and rheumatologists to a large degree are much more adept at managing the psychosocial impact of lupus, the joint disease, the skin disease, the fatigue, all of those other additional components to lupus." *Nephrologist, M, 30s;* (subtheme – Having adequate and relevant expertise)
Safeguarding professional opportunities	"There is a lot of dispersion of care in Australia, as I think clinicians don't like to give up their lupus patients, so you see high levels of variability in the delivery of healthcare. That is usually a bad sign, and I think we're putting ourselves first, not the patient." *Rheumatologist, M, 50s;* (subtheme – Diversifying versatility of skills)
Optimising nuances of the health system	"There is a danger of the patient being seen by different teams who might offer different opinions, so there's the potential for a double service and that can create confusion for the patient. So we try and see the patient with other specialities to ensure we are on the same page and the patient isn't confused." *Rheumatologist, M, 40s;* (subtheme - Capitalising on multidisciplinary care) "Funding is the main issue and shifting of funding, whether it comes from within the renal unit budget or the bigger hospital budget which is run by the state government, or whether it can be cross shifted to the federal government. Those are the issues we face in deciding therapy for patients." *Nephrologist, M, 50s;* (subtheme - Accessing breakthrough therapies)

F=female, M=male; RCT= randomised controlled trial



Abstract 384 Figure 1 Thematic schema representing the conceptual patterns and relationships among all the perspectives and attitudes of specialists on the managent of patients with SLE. Specialists strived to achieve optimal outcomes for patients with SLE. They managed multiple roles to meet unmet needs. However, the perceived lack of high-quality evidence, and ill-defined aeitology contributed to their uncertainties in decision-making. To overcome these challenges specialists relied on their experiences gained throughout clinical training and advocated for their patients to have access to cutting-edge therapies and multidisciplinary care. Although, some felt that existing speciality silos structures restricted access to these services.

Methods Face-to-face, semi-structured interviews were conducted with rheumatologists, nephrologists, and immunologists providing care to adult patients with SLE from 19 centres across Australia. All interviews were transcribed and analysed thematically.

Results The 43 participants (Table 1) identified five themes and subthemes: uncertainties in judgements (hampered by unknown and unclear aetiology, inapplicable evidence, comprehending information dispersion); reflexive responses (anchoring to speciality training, anticipating outcomes, avoiding disaster, empathy for the vulnerable); overarching duty to patients

(achieving patient priorities, maximising adherence, controlling the disease, legitimate educator, having adequate and relevant expertise); safeguarding professional opportunities (diversifying clinical skills, protecting colleagues' interests); and optimising access to treatment (capitalising on multidisciplinary care, acquiring breakthrough therapies). Illustrative quotations are provided in Table 2, and patterns and relationships among all themes are shown in Figure 1.

Conclusions Specialists endeavour to achieve optimal outcomes for patients with SLE but uncertainties in clinical decisions arise due to the ill-defined aetiology of SLE, lack of robust, consistent and implementable evidence, and speciality silo structures. Developing tools to support evidence-informed decisions, generating robust evidence to address clinical priorities, and establishing collaborative and multidisciplinary care pathways may support clinical decision making and management of a complex and heterogeneous disease, and help to minimise unwarranted variation in practice

385 TREATMENT OF RHEUMATOID ARTHRITIS WITH DIFFERENT STRATEGIES IN A HEALTH RESOURCE-LIMITED SETTING LOW-DOSE PREDNISONE PLUS DMARDS MAY BE MAY BE A BETTER ALTERNATIVE

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Background and aims The application of early treat-to-target strategies with biologics has greatly improved the prognosis of rheumatoid arthritis (RA). But the high cost of biologics place the a huge burden on the national health systems. Accumulating evidence suggests thatcombinations with tDMARDs and low-dose prednisone would produce rapid and relevant improvements in signs and symptoms and has been widely accepted for the treatment of RA. Concerns still exist about potential adverse events in the long term. The objective of this study was to analyse the cost-effectiveness of combination of traditional DMARDs and low-dose prednisone compared to biological therapies from the perspective of Chinese society.

Methods A validated lifetime Markov model incorporating the clinical trial data and Chinese unit cost was employed to evaluate the cost-effectiveness of combination strategy (low-dose prednisone and tDMARDs) and three anti-TNFs in active RA patients. Expected costs, quality-adjusted life-years (QALYs) and the incremental cost effectiveness ratios (ICERs) for a one-year time horizon were calculated in Monte Carlo simulation following a societal perspective.

Results In comparison with combination strategy, the ICERs for etanercept, infliximab, and adalimumab were $90488.8, $77295.78, $88961.11 per QALYs. The combination strategy was more cost-effective than any of anti-TNF under the willingness to pay threshold when it was set at 3 times the per capita GDP of China ($7557.04).

Conclusions Based on this study, the treatment starting with low-dose prednisone plus traditional DMARDs is the most cost-effective option for RA patients in the Chinese healthcare setting.

386 SEVERE PERIPHERAL ARTERY DISEASE IN PATIENT WITH SCLERODERMA MANAGED WITH ENDOVASCULAR TREATMENT: A CASE REPORT

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Background and aims Scleroderma has been linked to narrowing of vessel lumen, accelerated atherosclerosis, and vascular inflammation. Peripheral artery disease (PAD) in scleroderma ranges from Raynaud's phenomenon to gangrene. Evidence for endovascular treatment for PAD in patient with scleroderma is still lacking.

Methods We report a case of severe PAD in scleroderma managed with endovascular treatment.

Results Female, 44 years old complained for intermittent claudication. She had been diagnosed scleroderma with Raynaud phenomenon since 3 years. She got methotrexate, folic acid, acetylsalicylic acid, nifedipine, and beraprost sodium. Angiography showed total stenosis at bilateral anterior tibial artery, posterior tibial artery, and peroneal artery. Two drug eluting stents were inserted to the left posterior tibial artery. Balloon angioplasty was done at left peroneal artery. She was also given methotrexate, folic acid, acetylsalicylic acid, clopidogrel, beraprost sodium, and amlodipine. The pain was resolved after these treatments.

Eight months after first percutaneous transluminal angiography (PTA), the patient started having intermittent claudication again and cyanotic toes. Angiography showed total stenotic at proximal left anterior tibial artery and 80% stenotic of left posterior tibialis artery before the stent. The stent was still patent at distal left posterior tibial artery. Balloon was inserted to the posterior tibial artery and left plantar foot. Previous medications were continued, but the dose of beraprost sodium was increased and cilostazol was also given. The symptoms resolved after treatment.

Conclusions Combination of medication and endovascular treatment for PAD in patient with scleroderma could provide rapid pain relief. Probability of restenosis needs to be evaluated.

387 A CROSS-SECTIONAL STUDY ON APPLICATION OF GLUCOCORTICOID IN SYSTEMIC LUPUS ERYTHEMATOUS PATIENTS IN CHINA

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Background and aims To explore the status of glucocorticoid application in patients with systemic lupus erythematosus (SLE) in China.

Methods The SLE patients who meet the 1997 classification criteria of American College of rheumatology were enrolled. Epidemiological survey was used. The usage of glucocorticoid and related adverse reactions were recorded and analysed.

Results The 400 cases with SLE were enrolled. In these patients, the male to female ratio was 1:19. The average age