351. **CD4+ T-CELL TREC-CONTENT IN RA PATIENTS IN CLINICAL REMISSION**

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**Background:** Rheumatoid arthritis (RA) is a chronic, inflammatory disease with a number of phenotypic and functional T-cell defects suggesting abnormality in T-cell production, proliferation and/or differentiation. Recent thymic emigrants (RTE) can now be identified as T-cell receptor excision circle (TREC)-containing cells and provide a surrogate measure of recent T-cell activity. We previously demonstrated that RA patients lack TREC-containing cells and that CRP was inversely correlated with this defect (F Ponchel et al. Blood, 2002, in press). These data suggested that the defect observed in RA patients was secondary to inflammation. However it is still not clear, if there is a primary thymic defect in generating new T-cells in RA or if an inflammation driven turn over of naive cells is responsible for this finding. Therefore we analysed RA patients in clinical remission in whom systemic inflammation was controlled (CRP < 10 mg/L).

**Methods:** Analysis of CD4+ and CD8+ T-cell differentiation by FACS using CD45RB, CD45RA, CD45RO, and CD62L. Measurements of TREC content in total and sorted naïve CD4+ and CD8+ T-cells.

**Results:** Remission patients (n=18) possess significantly fewer TREC than healthy controls (n=24, P=0.02 for total cell TREC and P=0.001 for naive cell TREC content) but more then active RA (n=56, P=0.04 for total cell TREC but non significant for naïve cell TREC content). However, remission patients appear very heterogeneous and a subgroup (n=8) is similar to healthy controls (non significant difference for all parameters) whereas a second group (n=10) resembles active RA patients (non significant difference for all parameters). We performed linear regression to seek clinical correlate to high and low T-cell TREC content using age, sex, disease duration, remission duration, remission quality, RF, NSAID, use of DMARDs as predictors. There was nothing allowing us to distinguish these 2 groups.

**Conclusions:** These results raise the possibility of thymic compromise in a subgroup of RA patients although we need to investigate sub-clinical inflammation, remission quality, RF , NSAID, use of DMARDs as predictors. There was nothing allowing us to distinguish these 2 groups.

352. **BCA-1 (CXCL13) and SLC (CCL21) PRODUCTION AND LYMPHOID NEOGENESIS IN RHEUMATOID SYNOVITIS**

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**Background:** Ectopic lymphoid neogenesis is a characteristic feature of chronic inflammation in RA synovium. The lymphoid chemokines BCA-1 and SLC have been shown to be instrumental in the physiologic organization of secondary lymphoid organs. Furthermore, their overexpression in transgenic animals recapitulates lymphoid tissue architecture in ectopic organs. Therefore, we produced BCA-1 and SLC protein in RA synovium and related this to the development of typical lymphoid structures such as T/B cell segregation, follicular dendritic cells clusters and PNAd expression.

**Methods:** 50 archival samples from 20 RA patients were studied using immunohistochemistry and in situ hybridization. Samples were stained for T, B and follicular dendritic cell (FDC) markers, peripheral node addressin (PNAd), a group of vascular adhesion molecules constitutively expressed by HEV in secondary lymphoid tissues) BCA-1 and SLC. In situ hybridisation was performed with radio-labelled BCA-1 and SLC specific RNA probes. Grading analysis was performed as described by Yanni et al. (Sem Arthr & Rheum 1992; 21: 393) according to the radial cell count from the central to the peripheral inflation: Grade 1 (2-5 cells), grade 2 (6-10) and grade 3 (10- cells) The percentage of aggregates positive for each factor within each grading group was calculated.

**Results:** Samples from 17 patients were characterized by the presence of immune-mediated chronic inflammation. The lymphoid chemokines BCA-1 and SLC have been shown to be instrumental in the physiologic organization of secondary lymphoid organs. Furthermore, their overexpression in transgenic animals recapitulates lymphoid tissue architecture in ectopic organs. Therefore, we produced BCA-1 and SLC protein in RA synovium and related this to the development of typical lymphoid structures such as T/B cell segregation, follicular dendritic cells clusters and PNAd expression.

**Conclusion:** BCA-1 and SLC are associated with the ectopic lymphoid organisation seen in RA. Furthermore, it demonstrates for the first time, by in situ hybridisation, the precise site of production of these chemokines. Finally, grading analysis indicates a relationship between their expression and the progressive enlargement and organisation of the cell clusters.

353. **IL-7 DEFICIENCY AND PROLONGED THERAPY-INDUCED LYMPHOPENIA IN RHEUMATOID ARTHRITIS**

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**Background:** A prolonged CD4+ T-cell lymphopenia has been observed in RA patients up to 7 years after lymphodepleting therapy. It was hypothesised that an intrinsic thymic defect was responsible for this observation in RA and other autoimmune diseases. Recent thymic emigrants can now be identified as T-cell receptor excision circle (TREC)-containing cells and provide a surrogate measure of recent T-cell activity. There is a complex relationship between thymic activity, T-cell proliferation, differentiation and death. However, just after lymphodepleting therapy T-cell counts and TREC levels are low and subsequent accumulation of TREC must therefore reflect true thymic output. We therefore documented the thymic response to lymphopenia in RA patients in a longitudinal analysis of patients undergoing ASCT and used patients with non-autoimmune conditions as controls.

**Methods:** 354. **FOOT FUNCTION INDEX (FFI): AN ASSESSMENT OF FEET RELATED MORBIDITY IN PATIENTS WITH RHEUMATOID ARTHRITIS**

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**Background:** Foot problems account for 16% of initial rheumatoid arthritis (RA) presentations, and in long-standing RA this may increase to as many as 90% of cases. Despite these statistics, feet are relatively ignored during routine rheumatological assessments in patients with RA. Factors affecting assessment of RA feet include current disease activity, mechanical or inflammatory influences and patient perceptions. We selected the Foot Function Index (FFI) to study the scale of RA feet problems in outpatients. The FFI is an easily administered practical clinical index, which is validated and a reliable instrument for measuring foot pain, disability and activity restrictions in patients with RA. FFI scores were then assessed according to specific indices of disease activity to determine predictors of foot morbidity.

**RA: Clinical assessment**
Methods: 150 patients were invited to complete the questionnaire. This self-administered index consists of 23 items based upon a 10-point visual ana-
logue scale divided into subscales of pain, disability and activity limitations. The score is derived for each item by dividing the total items by the maximum total possible for all of the subscale items. A high total score represented poor foot function.

Results: All patients completed the questionnaires. FFI scores varied between 5 to 89 (mean 54%). No statistically significant correlation was demonstrated between the RF, erosions, disease duration, CRP/ESR, DMARD and total FFI score. Statistical significance was demonstrated between the patients who complained of foot pain (p = 0.002), those referred to chiropodist (p = 0.002), previous surgery (p = 0.02) and FFI. 42% of patients who complained of foot pain were not referred to chiropodists.

Conclusions: This study demonstrates a high incidence of foot related problems in patients with RA, as expressed by the high FFI scores (87 patients scoring from RF = 50 – 82). Interestingly, higher FFI scores were not related to disease duration, erosions, or DMARD use. However, significant correlation were observed between high FFI scores and the patients who complained of foot related pain, reflecting the complexities involved in foot assessments in RA patients.

A more comprehensive evaluation of RA feet should include input from phys-

355. GENERAL HEALTH STATUS INSTRUMENTS ARE INSENSITIVE TO CHANGE IN RHEUMATOID ARTHRITIS (RA)

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Background: Health status and quality of life measures are increasingly used to assess the effect of treatment in rheumatoid arthritis. Short form-36 (SF-36) is the most commonly used instrument. Previous study suggested that the SF-36 flooring effects in RA revealed insensitivity to differences between states of disability. Performance and sensitivity to change of an alter-
native instrument, the Nottingham Health Profile (NHP), was compared to the SF-36.

Methods: We evaluated the inter-relationships of the SF-36 and NHP functional measure using the Modified Health Assessment Questionnaire (mHAQ) in two studies; a) cross sectional study of SF-36, NHP and mHAQ scores in 177 cases. b) 0 and 6 month NHP and SF-36 scores in 42 cases started on intramuscular depomedrone 120mg monthly plus DMARDs. Dis-

ease activity (DAS) was measured by pain score, assessor and patient global assessment, 28 tender and swollen joint counts and ESR. The NHP and SF-36 scores were divided by Spearman’s correlation. Multiple regression was used to assess how components of NHP and SF-36 relate to disability mea-

sured by mHAQ score. Sensitivity of SF-36 and NHP effect size and index using the Guyatt method was assessed. Analyses were carried out using SPSS.

Results: mHAQ scores showed high correlation with 3 domains of the NHP; physical R=0.63, emotion R=0.44 and pain R=0.56. Sub-scales of sleep, so-
cial and emotion showed low correlation R=0.34-0.37 respectively. There was very low correlation in all domains of the SF-36 to mHAQ scores (R= 0.21 pain to R=0.25 physical functioning). DAS; patient global, visual ana-

logue scale of pain, physician global and DAS correlate strongly with mHAQ ranging R=0.55-0.82. Interestingly, higher scores showed that 87% of RA patients no longer had joint progression. The SF-36 showed that 20% of patients did not had joint progression. The SF-36 showed that 20% of patients did not have key factors of ESR/CRP.

Conclusions: FFI scores showed any impact on the variation of HAQ. All effect sizes showed low to very low correlation in all domains of the SF-36 to mHAQ scores (R=0.50 – 0.62). Regression analysis showed that 3 predictors was very low correlation in all domains of the SF-36 to mHAQ scores (R=-0.008, p=0.94). The Steinbrocker index correlated strongly with both HAQ and Ritchie scores (r = 0.77, p = 0.0001 in this population, but ESR was neither correlated with HAQ score (r = 0.18, p=0.06), nor with Ritchie score (r = –0.008, p=0.94). The Steinbrocker index correlated strongly between the patients who reported poor function and disease activity in rheumatoid factor positive (r=-0.02, p=0.02), but not rheumatoid factor negative patients.

Conclusions: We conclude that, in this population of rheumatoid arthritis patients on current DMARD therapy, ESR did not correlate with either HAQ or Ritchie score and therefore recommend that it should not be used in isolation in a clinical setting.

356. CONTROL OF RHEUMATOID ARTHRITIS DISEASE ACTIVITY IS NOT SUMMARISED BY ESR

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Background: The erythrocyte sedimentation rate (ESR) is generally re-
garded by physicians as a reliable indicator of disease activity in rheumatoid arthritis and as such, might be expected to correlate with other measures of current disease activity such as the Health Assessment Questionnaire (HAQ) and the Ritchie Index. We undertook a study among patients with rheumatoid arthritis attending routine rheumatological clinics in order to test this hypothesis.

Methods: We interviewed 105 patients with rheumatoid arthritis attending our nurse practitioner clinics. Information was collected on: duration of dis-

case, rheumatoid factor status, erosiveness of disease as assessed by re-
cent radiographs of the hands and feet, ESR, HAQ score, Ritchie Index, Ste

inbrocker score, and duration of current disease modifying anti-rheumatic drugs (DMARDs).

Results: Thirty-five men and 70 women participated in this study. A very low proportion (7%) were currently taking Prednisolone, but 98.5% were taking DMARDs at the time of interview. Duration of disease ranged from 1 - 40 years. Eighty per cent of this group were rheumatoid factor positive and 74% had documented erosions on hand and feet radiographs. The mean ESR was 30.5 (standard deviation 24). The mean HAQ score was 1.6 (standard deviation 0.83) and the mean Ritchie score was 6.05 (standard deviation 6.07), while the distribution of the Steinbrocker index was as follows: 1 (13%), 2 (47.5%), 3 (28.7%) and 4 (10.9%). The Ritchie scores and HAQ scores were highly significantly correlated (r =0.46, p =0.001) in this population, but ESR was neither correlated with HAQ score (r = 0.18, p=0.06), nor with Ritchie score (r = –0.027, p=0.02), but not rheumatoid factor negative patients.

Conclusions: We conclude that, in this population of rheumatoid arthritis patients on current DMARD therapy, ESR did not correlate with either HAQ or Ritchie score and therefore recommend that it should not be used in isolation in a clinical setting.

357. RANGE OF MOVEMENT OF LARGE JOINTS IN RHEUMATOID ARTHRITIS IS A SIMPLE AND VALID MEASURE, AND HAS CLINICAL UTILITY. RESULTS FROM A 10YR INCEPTION COHORT STUDY OF 385 PATIENTS

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Background: To validate a clinical method for assessing range of movement (RoM) in large joints and to evaluate its clinical utility over ten years from the onset of rheumatoid arthritis (RA).

Methods: We have previously reported on the reliability of a simple clinical method for assessing loss of movement in large joints in RA. Scores of 0 to 5 were given for full RoM, <25%, 25-50%, 51-75%, >75%, or complete ankylosis for shoulders, elbows, wrists, hips, knees, ankles, and hind feet. This score is one of several outcomes recorded in a well described observa-
tional (inception) cohort of RA patients recruited from 1987 to 1994 from nine centres and seen yearly. We report on the validity of this measure used in seven centres, in 385 patients (66% women, median age 56) who had a minimum ten years follow up. Comparisons were made with measures of function and disease activity, x-ray changes (Larsen scores) and orthopaedic interventions.

Results: By 10yrs, 85% had at least some loss of RoM of at least one large joint (range 1-42). Progression of RoM scores over 10yrs was ba-
sically linear, but steepest from 3 to 5yrs. Mean total scores at 5yr and 10yr were 5.8 and 7.7, derived mainly from wrists, shoulders, and hind feet. The strongest associations with discreet variables were seen at 10yrs, in-
cluding functional grade (p=0.001), erosions (p<0.0001), work disability (p<0.002), orthopaedic surgery (p<0.002), and correlations with continuous variables were also strongest at 10yrs, including Health Assessment Ques-

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have a major contribution to functional outcome in patients still alive at ten years.

Conclusions: These results indicate that extra articular RA and comorbidity at 10 years was uncommon and included 8 with pulmonary fibrosis, 5 with Sjogrens, 4 with endocrine disease, 3 with severe dermatitis, and 3 with exRA. Severe dermatitis (OR 2.5, CI 1.2-5.1), any exRA (OR 1.9, CI 1.3-2.8), and Carstairs deprivation index (OR 1.6, CI 1.1-2.2) were associated with poor FG. The strongest risk factors for poor FG using univariate analysis (odds ratios OR and 95%CI) included: women (OR 1.9, CI 1.3-2.9), major comorbid conditions (OR 1.8, CI 1.2-2.7), any exRA (OR 1.9, CI 1.3-2.8), and Carstairs deprivation index (OR 1.6, CI 1.1-2.2). Specific conditions which were associated with poor FG included Sjogrens (OR 2.5, CI 2.4-5.1), nodules (OR 1.7, CI 1.1-2.7), endocrine disease (mainly thyroid, OR 2.7, CI 1.1-7.2), and joint deformity (37.3%). For 71.1% and 49.4% of the respondents, pain and fatigue were considered as unfulfilled needs. The distribution of the 600FF-71 months.

Results: By 10yrs, 110 (24%) were in FG III or IV (FG1=31%, II=45%), 231 patients (66% women, mean age 55) still alive at 10 years.

Methods: We have previously reported on clinical risk factors for mortality in RA. Socio-economic status, the presence of extra articular features of RA (exRA) and coexistent conditions have been recorded prospectively in a well described observational (inception) cohort of RA patients recruited from 1987 to 1994 from nine centres in England. We report on the presence of these possible risk factors for poor functional grade (FG I-IV, ARA) in 455 patients (66% women, mean age 55) still alive at 10 years.

Results: By 10yrs, 110 (24%) were in FG III or IV (FG1=31%, II=45%), 231 patients (66% women, mean age 55) still alive at 10 years.

Disease activity and patients' adherence to rheumatoid arthritis treatment

Background: Rheumatoid arthritis (RA) is chronic inflammatory disease of joints that is a major cause of morbidity and disability. To suppress inflammation and alleviate joint pain continuous drug therapy is required. Substantial costs of chronic medication, lack of efficacy and drug toxicity cause difficulty adhering to treatment and disease progression. In many patients with RA noncompliance with medication result to disease exacerbation and activity. The purpose of the present study is to determine the status of disease activity and patients adherence to prescribed medication for treatment of RA in a low socioeconomic population in north of Iran.

Methods: Patients who have been on treatment for RA attending our outpatient clinic for follow-up examination were included in this study. The diagnosis of RA was confirmed on the basis of ACR 1987 revised criteria. Data were provided by history, complete clinical examination, fill in questionnaire and, performing blood tests regarding the number of tender and swollen joints, medication, adherence to treatment and disease activity (DA).

Results: 101 patients (females, 83%) were studied. The mean age of patients was 51 ±15 years and the disease duration was 66 ±71 months. 61% of the patients had rheumatoid factor (RF) and 53% were receiving at least one disease modifying antirheumatic drugs (DMARDs). The remaining patients received non-steroidal antiinflammatory drugs (NSAIDs) alone or in combination with prednisolone. 56% of the patients with high DA received NSAIDs only. Methotrexate alone or in combination with chloroquine or sulphasalazine were used in 29% of the patients and low dose prednisolone alone or in combination with DMARDs was used in 55% and 7% of the patient's respectively. Using the DAS28, the proportion of patients to have high; moderate and; low DA were 51.5%, 28% and; 7% respectively. 13.8% of the patients were in remission. All patients at remission or with low DA received DMARDs whereas only 39% of patients with high or moderate DA were receiving DMARDs. This study show that a remarkable number of patients with RA are nonadherent to treatment so the disease remains active.

358. Determinants for Poor Function at 10 Years in Rheumatoid Arthritis Include the Presence of Extra Articular and Comorbid Conditions. Results from an Inception Cohort of 455 Patients

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Background: To assess risk factors for poor function at 10yrs from onset of rheumatoid arthritis (RA).

Methods: We have previously reported on clinical risk factors for mortality in RA. Socio-economic status, the presence of extra articular features of RA (exRA) and coexistent conditions have been recorded prospectively in a well described observational (inception) cohort of RA patients recruited from 1987 to 1994 from nine centres in England. We report on the presence of these possible risk factors for poor functional grade (FG I-IV, ARA) in 455 patients (66% women, mean age 55) still alive at 10 years.

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359. Disease Activity and Patients’ Adherence to Rheumatoid Arthritis Treatment

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Background: Rheumatoid arthritis (RA) is a chronic inflammatory disease of joints that is a major cause of morbidity and disability. To suppress inflammation and alleviate joint pain continuous drug therapy is required. Substantial costs of chronic medication, lack of efficacy and drug toxicity cause difficulty adhering to treatment and disease progression. In many patients with RA noncompliance with medication result to disease exacerbation and activity. The purpose of the present study is to determine the status of disease activity and patients adherence to prescribed medication for treatment of RA in a low socioeconomic population in north of Iran.

Methods: Patients who have been on treatment for RA attending our outpatient clinic for follow-up examination were included in this study. The diagnosis of RA was confirmed on the basis of ACR 1987 revised criteria. Data were provided by history, complete clinical examination, fill in questionnaire and, performing blood tests regarding the number of tender and swollen joints, medication, adherence to treatment and disease activity (DA).

Results: 101 patients (females, 83%) were studied. The mean age of patients was 51 ±15 years and the disease duration was 66 ±71 months. 61% of the patients had rheumatoid factor (RF) and 53% were receiving at least one disease modifying antirheumatic drugs (DMARDs). The remaining patients received non-steroidal antiinflammatory drugs (NSAIDs) alone or in combination with prednisolone. 56% of the patients with high DA received NSAIDs only. Methotrexate alone or in combination with chloroquine or sulphasalazine were used in 29% of the patients and low dose prednisolone alone or in combination with DMARDs was used in 55% and 7% of the patient's respectively. Using the DAS28, the proportion of patients to have high; moderate and; low DA were 51.5%, 28% and; 7% respectively. 13.8% of the patients were in remission. All patients at remission or with low DA received DMARDs whereas only 39% of patients with high or moderate DA were receiving DMARDs. This study show that a remarkable number of patients with RA are nonadherent to treatment so the disease remains active.

360. Evaluation of the Human Impact of Rheumatoid Arthritis by Estimating RA Patients' Preferences and Priorities for Treatment Options

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Background: Intangible costs estimates, which reflect the human burden of a disease, remain difficult to evaluate. Despite available utility measurement tools, there is no consensus on how to convert this into costs. Alternately, defining the patients' preferences about treatment goals may help to progress in the evaluation of the human burden in RA.

Methods: A cross-sectional survey was conducted in 2001 among 80 RA patients seen in 2 Rheumatology units (Montpellier and Strasbourg) and in information about RA activity, pain, fatigue, anxiety/depression and disability was collected. Participants were asked to specify the 5 most relevant domains, among a list of 11, with regards to the impact of RA on their everyday life. They were then asked what budget amount they would allocate to each symptom if they received a fixed monthly budget (916 (600 FF)) if they had to spend their own budget.

Results: The 5 most relevant dimensions in our sample was pain (88% of respondents), fatigue (68.7%), joint swelling (61.4%), stiffness (57.8%) and joint deformity (37.3%). For 71.1% and 49.4% of the respondents, pain and fatigue were considered as unfulfilled needs. The distribution of the 600FF-fixed budget is indicated in table. Respondents were likely to spend approximately half of this budget on pain; 26% of them wanted to dedicate their all budget for that. Moreover, 28.8% of them agreed to spend more than the public health insurance budget (i.e., to spend additional money from respon- dent's personal incom to co-pay). In almost half of the respondents, the proportion of patients to have high; moderate and; low DA were 51.5%, 28% and; 7% respectively. 13.8% of the patients were in remission. All patients at remission or with low DA received DMARDs whereas only 39% of patients with high or moderate DA were receiving DMARDs. This study show that a remarkable number of patients with RA are nonadherent to treatment so the disease remains active.
361. THE INFLUENCE OF PSYCHOSOCIAL AND DEMOGRAPHIC FACTORS ON HEALTH UTILITY MEASURES IN RA PATIENTS

AG Witney, G Trehanne, K Vincent, M Tavakol, DL Scott, GD Kitas 1; 2; 3; 4

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Background: Rheumatoid arthritis (RA) is associated with physical impairment and work disability. Health utility measurement is important in the development of costly new interventions for RA patients. The Standard Gamble (SG) and Time trade off (TTO) are the two main tools for cost-utility measures. Patient’s responses to these instruments may be influenced by demographic or psychosocial factors more than by the severity of their condition. If so, this needs to be accounted for when using these tools to derive health utility measures.

Methods: 49 patients (aged 23-83 yrs; 33 female) diagnosed with RA using the ACR definition. Diagnosis duration: (37% > 6 months, 63% > 1 yr). 84% on disease modifying and reducing drug (DMARD) and 88% comorbidities. Standard Gamble (SG) and Time Trade Off (TTO) interviews were completed. The Health Assessment Questionnaire (HAQ) was used to measure functional disability. Visual analogue scales were used to assess perceptions of current fatigue, pain, and global impact of the RA. The Euroqol (EQ-5D) was used to assess quality of life. Medication perceptions were measured using the Hospital Anxiety and Depression Scale (HAD). Objective disease activity was assessed by standard biological measures.

Results: Utility scores derived from SG and TTO were not significantly affected by demographic factors (patient’s gender, age, marital status, dependent children). Utility measures are not influenced by psychosocial factors including attitudes to medications (BMQ), social support (SSS), or optimism (LOT). Utility scores derived are significantly correlated with the severity of the patient’s functional disability (HAQ), level of depression (HAD) and quality of life (EQ-SD). The TTO scores demonstrate a correlation with patients’ HAQ scores (Rho=−0.475, p<0.001), depression (Rho=−0.483, p<0.01) and EQ-5D (Rho=−0.69, p<0.0001). The SG significantly correlates with the HAQ (Rho=−0.359, p<0.01), depression (Rho=−0.356, p<0.01) and EQ-SD (Rho=−0.351, p<0.01).

Conclusions: The SG and TTO are not significantly influenced by the demographic factors but are affected by the patient’s functional disability, depression and quality of life. Therefore SG and TTO are robust tools for the measurement of health utility in RA.

362. INFLUENCE OF PSYCHOSOCIAL AND DEMOGRAPHIC FACTORS ON HEALTH UTILITY MEASURES IN RA PATIENTS

AG Witney, G Trehanne, K Vincent, M Tavakol, DL Scott, GD Kitas 1; 2; 3; 4

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Methods: 49 patients (aged 23-83 yrs; 33 female) diagnosed with RA using the ACR definition. Diagnosis duration: (37% > 6 months, 63% > 1 yr). 84% on disease modifying and reducing drug (DMARD) and 88% comorbidities. Standard Gamble (SG) and Time Trade Off (TTO) interviews were completed. The Health Assessment Questionnaire (HAQ) was used to measure functional disability. Visual analogue scales were used to assess perceptions of current fatigue, pain, and global impact of the RA. The Euroqol (EQ-5D) was used to assess quality of life. Medication perceptions were measured using the Hospital Anxiety and Depression Scale (HAD). Objective disease activity was assessed by standard biological measures.

Results: Utility scores derived from SG and TTO were not significantly affected by demographic factors (patient’s gender, age, marital status, dependent children). Utility measures are not influenced by psychosocial factors including attitudes to medications (BMQ), social support (SSS), or optimism (LOT). Utility scores derived are significantly correlated with the severity of the patient’s functional disability (HAQ), level of depression (HAD) and quality of life (EQ-SD). The TTO scores demonstrate a correlation with patients’ HAQ scores (Rho=−0.475, p<0.001), depression (Rho=−0.483, p<0.01) and EQ-5D (Rho=−0.69, p<0.0001). The SG significantly correlates with the HAQ (Rho=−0.359, p<0.01), depression (Rho=−0.356, p<0.01) and EQ-SD (Rho=−0.351, p<0.01).

Conclusions: The SG and TTO are not significantly influenced by the demographic factors but are affected by the patient’s functional disability, depression and quality of life. Therefore SG and TTO are robust tools for the measurement of health utility in RA.
365. PATIENT PRIORITIES FOR OUTCOMES IN RHEUMATOID ARTHRITIS

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Background: Measures of patient outcome in rheumatoid arthritis (RA) need to be patient-centred if they are accurately to reflect the results of therapeutic interventions. This study aimed to explore patient priorities for the overall outcome of therapy.

Methods: Focus groups of 6-9 hospital RA patients were convened in 5 UK cities in varying socio-economic areas. Participants considered three questions on outcome, the first of which was ‘What treatment outcomes are important to you?’ Discussions were taped, tapes transcribed verbatim and subjected to systematic qualitative analysis (interpretative phenomenological methodology), repeated by a researcher from another centre. Themes, grounded in the patient data, were identified and a report for each centre created, which was reviewed by a non-participating patient. Themes were then compared across the 5 centres and combined into a single report.

Results: 39 patients (23 F, 16 M) participated, mean age 58 (min-max 29-81) and disease duration 11 years (min-max 2-26). Outcomes of importance to patients could be grouped into 5 broad areas: Physical (pain, function and deformity); general well-being (reduction in fatigue and ‘feeling well’); return to normality, achieving a reduction in the emotional impact of RA; and reducing the ‘fear of the future’.

Patients reported that there was a shift in the relative importance of different outcomes both with time and with change in individual circumstance (disease flares). For example, within the first three years of diagnosis, pain control was considered the most important outcome. As time progressed functional ability became more important than pain as strategies to cope with pain were developed. During flares of disease, however, pain again assumed importance. A general sense of well-being was considered very important but patients struggled to define this clearly. Fatigue appeared an important factor in itself in defining well-being but could also exert an influence on all other outcomes. This seemed to overlap with the concept of return to normality achieved by reduction in symptoms and maintenance of function. Patients appeared willing to trade a certain level of drug adverse effects for therapeutic benefit.

Conclusions: Patients considered outcomes other than control of pain, functional ability and reduction of deformity to be important. Consideration of well-being and fatigue (not routinely measured in RA core outcome sets), changes of priority for outcomes with time and a trade off between adverse affects of interventions and benefit may influence development of measures of RA outcome.

RA: Imaging

366. HANDB DMR AND POROSITY AS MEASURED BY THE PRONOSCO X-POSURE SYSTEM: CHANGES OVER 4 YEARS IN SUBJECTS WITH RHEUMATOID ARTHRITIS

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Background: It has been shown previously that changes in hand bone mineral density (BMD) may be an early indicator for erosive changes due to disease progression in rheumatoid arthritis (RA) subjects.

Methods: In this current study we have measured hand BMD using the Pronosco X-Posure system over a 4 year period in subjects with early RA. We have compared the changes seen longitudinally using the BMD as measured by the Pronosco system (DXR-BMD) as well as the other measures i.e. porosity (Por), metacarpal index (MCI) and cortical thickness (CT) with the erosive changes. The subjects all fulfilled ARA criteria for RA and their hand X-rays were assessed by a rheumatologist (AB) as being erosive or non-erosive at baseline. We then divided the subjects into those who were non-erosive and subsequently became erosive, or were erosive at baseline but not erosive at 4 years. Therefore the Pronosco X-Posure system may be useful in assessment of those who should be considered for more aggressive therapy to prevent erosive joint damage in RA. However our sample size was small and these results need to be confirmed in a larger sample.

Conclusions: In conclusion changes seen at one year may be used to identify those who go on to become erosive at 4 years. Therefore the Pronosco X-Posure system may be useful in assessment of those who should be considered for more aggressive therapy to prevent erosive joint damage in RA. However our sample size was small and these results need to be confirmed in a larger sample.