THU0602

TARGETING GENERATION Z: DEVELOPMENT AND VALIDATION OF AN ILLUSTRATED TRANSITION READINESS QUESTIONNAIRE FOR ADOLESCENTS WITH JUVENILE IDIOPATHIC ARTHRITIS

H. Lotfy¹, M. El Gaafary², N. El Aroussy³, D. Mekawy³, Y. Farag¹, Y. El Miedany^{3,4}, on behalf of PRINTO Egypt. ¹Pediatrics, School of Medicine Cairo University; ²Community and Public Health; ³Rheumatology and Rehabilitation, School of Medicine Ain Shams University, Cairo, Egypt; ⁴Rheumatology, Darent Valley Hospital, Dartford, UK

Objectives: To develop, validate and implement a transition readiness assessment tool to be completed by adolescents living with juvenile idiopathic arthritis.

Methods: Cross sectional, quantitative multicenter study. Patients with juvenile idiopathic arthritis aged 14 years or older were included. The assessment tool, designed to be self-administered, is divided into 4 domains: medical, psychosocial, emotional/cognitive, and academic. The medical domain assesses managing medications, booking appointments, disease literacy, self-management, and organ screening. The psychosocial domain assesses the adolescents' understanding of information related to adult rights, talking to providers as well as child motivation. Emotional concerns related to transition, self-advocacy skills, and completion of a personal health record. The academic domain assesses whether the adolescent is meeting school graduation requirements, able to verbalise an educational/job training plan and on track with future planning (eg, completed required testing). Items within each domain have equal value (ie, each question on the checklist is worth 1 point) and the sum of points yields the quantifiable assessment of how well patients are performing in each area of their health. Assessment meetings occur monthly when eligible patients are discussed. The questions are supported with illustrations explaining every answer. The tool was available in both paper and electronic formats. The children were also asked to rate the comprehensibility of the questionnaire on 0–10 numeric VAS. Sociodemographic, clinical as well as motivation scores were recorded.

Results: A total of 104 patients participated. The majority of patients (95.8%) understood the questionnaire and completed it correctly, in self-administered modality. Mean comprehensibility score was 9.3 ± 0.2 . Mean completion time was 6.2 min, with little or no help (78%). Children from low income families or those who had lower education level for their age needed more help. Internal consistency (Cronbach's alpha) for each domain score were 0.872, 0.861, 0.892, and 0.884 respectively. Construct validity was demonstrated by testing different hypotheses ($p < 0.01$).

Conclusions: The developed illustrated questionnaire was a valid, patient-centred questionnaire which can be used by the paediatricians/rheumatologists to assess the level of preparedness of adolescents with JIA during planning for adult transition. The questionnaire gives information regarding the adolescents' ability to make appointments, attend their consultations, understand their treatment and to develop other skills required for transition to adult care. The questionnaire can be used to identify aspects in which the adolescent need education or training to achieve independence in transition-relevant skills. The questionnaire can be used also to set goals for the achievement of skills that will help adolescents manage their health and health care into adulthood. Implementing the questionnaire in the standard practice has the potential to improve transition assessment and support as well as improve health outcomes during healthcare transition for adolescents with inflammatory arthritic conditions.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2795

THU0603

DISEASE MODIFYING ANTI-RHEUMATIC DRUGS IN JUVENILE IDIOPATHIC ARTHRITIS: MOVING TOWARDS TARGETED INDIVIDUALISED TREATMENT STRATEGY

S.I. Nasef¹, G. El Deriny², M. Eissa³, M.A. Mortada⁴, W. Hassan⁵, D. Mekawy⁶, Y. El Miedany^{6,7}. ¹Rheumatology and Rehabilitation, School of Medicine, Suez Canal University, Ismailia; ²Pediatrics, School of Medicine Alexandria University, Alexandria; ³Rheumatology and Rehabilitation, School of Medicine Cairo University, Cairo; ⁴Rheumatology and Rehabilitation, School of Medicine Zagazig University, Zagazig; ⁵Rheumatology and Rehabilitation, School of Medicine Banha University, Banha; ⁶Rheumatology and Rehabilitation, School of Medicine Ain Shams University, Cairo, Egypt; ⁷Rheumatology, Darent Valley Hospital, Dartford, UK

Background: Despite the expansion in the number of medications available in the treatment of juvenile idiopathic arthritis (JIA), inter-individual variation in therapeutic response and drug-associated toxicities continue to be a major concern and has driven efforts towards individualised therapy. Recent advances in paediatric treatment strategies and guidelines, as well as innovative approaches to identify a priori predictors of drug response, hold the promise for an individualised approach to therapy that will yield the highest efficacy and safety potential for each JIA patient.

Objectives: To determine whether baseline demographic, clinical, articular, laboratory variables and adherence to therapy may act as predictors of good response to DMARDs therapy in JIA.

Methods: Patients with JIA treated with DMARDs (methotrexate (MTX), leflunomide (LEF) or combination of MTX and LEF) were recruited for this study. Juvenile arthritis disease activity score (JADAS-27) was calculated at 3, 6 and 12 months. Multivariate logistic regression analysis was used to identify predictors of good response according to JADAS-27 score, development of deformities and extra-articular manifestations (uveitis).

Results: A total of 114 children were included in this study. The majority of patients were females 91 (79.8%). Mean age was 11.97 ± 3.26 years; mean age at disease onset was 8.19 ± 3.46 years whereas mean disease duration was 3.68 ± 2.89 years. The most common ILAR subtype was polyarthritis RF negative (50.9%), Polyarticular RF positive (21%), oligoarticular extended (14.9%), oligoarticular persistent (7.9%) and systemic type (5.3%). Over half of the patients were on MTX (55.3%), and (34.2%) were using combined MTX and LEF while (10.5%) of patients were on LEF monotherapy. Mean MTX dose was 12.9 ± 3.4 mg/week, and mean LEF dose was 16.67 ± 4.78 mg/day. Prevalence of positive RF was 24/114 (21.05%). Anti-nuclear antibody (ANA) was detected in 20/114 (17.5%) of patients. 10.5% of patients had chronic anterior uveitis. At baseline, joint deformities were present in (13.1%) of patients. After one-year follow up (45.6%) of patients achieved remission while (27.1%) reached a state of low disease activity. Multivariate logistic regression analysis revealed that the most important predictors of JADAS-27 remission/low disease activity status were: Short disease duration $< 6.1 \pm 0.4$ months (OR 1.93), polyarticular disease subtype, Childhood Health Assessment Questionnaire (CHAQ) disability index < 2.125 (OR 1.75), absence of joint damage/deformities (OR 1.92). A short duration of NSAIDs therapy (< 3 months) before moving to MTX therapy as well as from MTX to combination of MTX and LEF therapy (< 4 months) were associated with the targeted disease activity status (OR 1.76 and 1.95 respectively). Adherence to therapy was also a predictor of good response (OR 1.86). 15.4% of patients did not achieve the disease activity target and received biologic therapy.

Conclusions: The subgroup of JIA patients with polyarticular disease onset, shorter disease duration, rapid optimisation/escalation of DMARDs therapy as well as those who were adherent to therapy were significantly associated with a good response to DMARDs therapy.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4156

THU0604

JUVENILE INFLAMMATORY ARTHRITIS: THE DEVELOPMENT AND VALIDATION OF AN ILLUSTRATED QUESTIONNAIRE TO MEASURE CHILDREN'S MOTIVATION

Y. El Miedany^{1,2}, H. Lotfy³, N. El Aroussy², D. Mekawy², S.I. Nasef⁴, W. Hassan⁵, M. Eissa⁶, G. El Deriny⁷, S. Almedany⁸, Y. Farag³, M. El Gaafary⁹, on behalf of PRINTO Egypt. ¹Rheumatology, Darent Valley Hospital, Dartford, UK; ²Rheumatology and Rehabilitation, School of Medicine Ain Shams University; ³Pediatrics, School of Medicine Cairo University, Cairo; ⁴Rheumatology and Rehabilitation, School of Medicine Suez Canal University, Ismailia; ⁵Rheumatology and Rehabilitation, School of Medicine Banha University, Banha; ⁶Rheumatology and Rehabilitation, School of Medicine Cairo University, Cairo; ⁷Pediatrics, School of Medicine Alexandria University, Alexandria; ⁸Rheumatology and Rehabilitation, School of Medicine Tanta University, Tanta; ⁹Community and Public Health, School of Medicine Ain Shams University, Cairo, Egypt

Background: Self-determination theory (SDT) is a macro theory of human motivation and personality that concerns people's inherent growth tendencies and innate psychological needs. SDT is concerned with the motivation behind choices people make without external influence and interference. JIA disrupts a child's sense of normality and impairs his or her motivation capacity. Children with JIA have a sense of being misunderstood and stigmatised, and they feel perpetually caught between having hope and control over their bodies and overwhelming pain and despair. To increase their confidence and the ability to manage pain, children need ongoing information about treatments, lifestyle management, and active involvement in their own health decision making.

Objectives: To develop a questionnaire for evaluating the "motivation" amongst children living with inflammatory arthritic conditions and assess the psychometric properties of that measure.

Methods: Based on content analysis and semi structured group discussion as well as Rasch analysis, ten domains were identified and used as a frame for an expert consensus and patient focus groups. The questionnaire was developed including: 10-items scale (0–10 on VAS scale). A mean score is calculated across all items. The total score ranged from 0–10. Each item was supported by illustrations explaining both ends of the measure. The questionnaire was formatted, one copy for adolescents and another copy was directed for the parents of younger children. Construct validity was assessed by correlating the score of the questionnaire to disease activity scores (JADAS-27, SLEDAI-2K, ASDAS-CRP);