

Poster presentation

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## Impact of involvement of individual joint groups on subdimensions of functional ability scales in juvenile idiopathic arthritis

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### Objective

To investigate the influence of disease in individual joint groups on subdimensions of functional ability questionnaires in children with juvenile idiopathic arthritis (JIA).

### Methods

206 patients who had the Childhood Health Assessment Questionnaire (C-HAQ) and the Juvenile Arthritis Functionality Scale (JAFS) completed simultaneously by a parent and received a detailed joint assessment were included. In each patient, joint involvement (defined as presence of swelling, pain on motion/tenderness and/or restricted motion) was classified in 3 topographic patterns: Pattern 1 (hip, knee, ankle, subtalar and foot joints); Pattern 2 (wrist and hand joints); Pattern 3 (elbow, shoulder, cervical spine and temporomandibular joints). Frequency of reported disability in each instrument subdimension was evaluated for each joint pattern, present either isolatedly or in mixed form.

### Results

Among patients with Pattern 1, the JAFS revealed the greatest ability to capture and discriminate functional limitation, whereas impairment in the C-HAQ was more diluted across several subdimensions. Both C-HAQ and JAFS appeared to be less reliable in detecting functional impairment in the hand and wrist (Pattern 2) than in other body areas. Overall, the JAFS revealed a superior ability to discriminate the relative functional impact of

impairment in individual joint groups among patients with mixed joint patterns.

### Conclusion

In children with JIA, a functional measure focused to assess the function of individual joint groups (the JAFS) may detect with greater precision the functional impact of arthritis in specific body areas than does a standard questionnaire based on the assessment of activities of daily living (the C-HAQ).