Patient Activity Score (PAS and PASII)

General Description

Purpose. The PAS and PASII combine single measures into an overall, continuous measure of RA disease activity. It is feasible to use the PAS/PASII for monitoring of RA disease activity in daily clinical practice as the lack of a laboratory value or provider derived data may facilitate more routine evaluation of RA disease activity when time constraints are considered.

Content. The PAS and PASII contain only patient derived data and include a patient assessment of pain on a 10 cm VAS, PtGA on a 10 cm VAS, and the HAQ for PAS or HAQII for PASII.

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Versions. The PAS is analogues to the PASII and RAPID3, however PASII substitutes HAQII for the HAQ and RAPID3 substitutes MDHAQ for the HAQ.

Number of items in scale. The PAS and PASII have 3 items each.

Subscales. None.

Populations. *Developmental/target.* Patients with RA.

Other uses. Not validated for other rheumatic disorders.

ACR Components. Patient assessment of pain, PtGA, and patient assessment of physical function.

Administration

Method. Patient administered questionnaire.

Training. None.

Time to complete. For the PAS: Patient: < 3.5 minutes; Provider: < 1 minute; Laboratory: N/A. For the PASII: Patient: < 1.5 minutes; Provider: < 30 seconds; Laboratory: N/A.

Equipment needed. None.

Availability/cost. None.

Scoring

Responses. *Scale.* The HAQ and HAQII range from 0-3. The patient assessment of pain and PtGA VAS both range from 0-10. The range of both the PAS and PASII is 0-10.

Interpretation of scores. Categories of disease activity for PAS and PAS-II may be defined as remission ≤0.25, minimal ≤3.7, moderate <8.0 and severe ≥8.0.

Method of scoring. The PAS is calculated by multiplying the HAQ by 3.33 and then dividing the sum of the VAS pain, PtGA and HAQ by 3. For PASII the HAQ is replaced by HAQII.

Training to interpret. None

Norms available. Specific reference values are available (see above in interpretation of scores), but have not been validated outside of the formative data set.

Psychometric Information

Reliability. *Test-retest.* Test-retest reliability studies have not been done for the PAS or PASII.

Validity.

Content. The PAS and PASII contain patient derived variables from the core set of measures used to assess outcomes in RA. No provider-derived data is included in the composite scores.

Criterion. The PAS and PASII have not been evaluated against the DAS/DAS28 or the ACR response criteria.

Concurrent. The PAS and PASII are equally associated with the SF-36 composite scale and the EuroQol (Kendall's tau-a = 0.59). The SF-36 physical and mental component subscales and the RADAI are more strongly associated with the PAS/PASII as compared to the EuroQol. As compared to the HAQ and HAQII, the PAS and PASII satisfactorily predict mortality, performing only marginally less well.(12)

Responsiveness to change. Studies to evaluate for responsiveness to change have not been done for the PAS or PASII. Both PAS and PASII are comprised of core set measures which have established responsiveness to change, however pain scores have been shown to be relatively stable over time in established RA.(13)

Comments and Critique

The PAS and PASII are simple to use composite scores which use patient derived data without provider effort which makes the feasibility of the measure very good for use in daily clinical care. While the PAS and PASII are composed of the three patient-derived core set data elements, the measures have not been compared directly to measures such as the ACR response criteria or the DAS in clinical trials and may not be suitable for use in that setting. As the components of the PAS are included in the majority of observational and clinical studies, it has been

suggested that the PAS could be used to compare data between such studies.(12) Although the HAQII is not widely used at this time, this could similarly be said for the PASII, as formula exist to convert from the HAQII to the HAQ.(14, 15) Other than choice of HAQ version, the PAS is identical to both the PASII and RAPID3. An advantage of the PASII as compared to the PAS is use of the shorter HAQII which is therefore easier for patients to complete. Time to complete the PASII is identical to RAPID3, however the HAQII has better question spacing and a lesser floor effect as compared to the MDHAQ.(14)