Measurement characteristics of the pediatric asthma health outcome measure.

INTRODUCTION: The Pediatric Asthma Health Outcome Measure (PAHOM) was designed to measure quality-adjusted life years (QALYs) in children with asthma. Our objective was to compare parent- and child-reported PAHOM scores to each other, to parent-reported scores on the Juniper Asthma Control Questionnaire (ACQ), and to physician-rated asthma control.

METHODS: A convenience sample of primarily African-American parent-child dyads (N = 261) was recruited from asthma clinics between May 2008 and May 2010. Correlations and differences in scores between the instruments and respondents were compared across variables of interest. The sensitivity and specificity of each, relative to physician-rated asthma control, were estimated.

RESULTS: Mean (SD) parent- and child-reported PAHOM scores were significantly different, 0.91 (0.13) and 0.95 (0.08), respectively, (p < .01) and were weakly correlated (0.24). Parent-reported PAHOM and parent-reported ACQ, 5-item version (ACQ5) scores were moderately correlated (-0.69). Both the parent- and child-reported PAHOM scores distinguished between physician-rated well-controlled and not well-controlled asthma (p < .01 and p < .01, respectively). When compared with physician-rated asthma control, the areas under the receiver operating...
characteristic (ROC) curves for the parent-reported PAHOM and the ACQ5 were similar (p = .11), but both performed better than the child-reported PAHOM (both p < .01). Discussion. The validity of the PAHOM is supported by its moderate correlation with the ACQ and its association with physician-rated asthma control. Although intended to be administered to children, parent-reported scores were better predictors of physician-rated asthma control.

CONCLUSIONS: A validation study in a more economically and ethnically diverse population is needed. Until then, we recommend the PAHOM to be administered to both parents and children.

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