

European Respiratory Society Annual Congress 2012

Abstract Number: 2138

Publication Number: P4091

Abstract Group: 7.2. Paediatric Asthma and Allergy

Keyword 1: Asthma - diagnosis **Keyword 2:** Children **Keyword 3:** Wheezing

Title: Clinical scores for the assessment of acute dyspnoea in wheezing children: Systematic review

Dr. Jolita 16328 Bekhof j.bekhof@isala.nl MD ¹, RN. Roelien 16329 Reimink r.reimink@isala.nl ¹ and Prof. Paul 16330 Brand p.l.p.brand@isala.nl MD ¹. ¹ Princess Amalia Children's Clinic, Isala Klinieken, Zwolle, Netherlands .

Body: A reliable, valid, and easy-to-use assessment of the degree of wheeze-associated dyspnoea is important to provide individualised treatment for children with acute asthma, wheeze or bronchiolitis. We conducted a systematic review to assess validity, reliability, and utility of all available paediatric dyspnoea scores. We searched Pubmed, Cochrane library, National Guideline Clearinghouse, Embase and Cinahl for eligible studies. We included studies describing the development or use of a score, assessing two or more clinical symptoms and signs, for the assessment of severity of dyspnoea in an acute episode of asthma, wheeze or bronchiolitis in children aged 0-18 years. Study selection and data extraction was done independently by two reviewers. Validity, reliability and utility of the retrieved dyspnoea scores were assessed by 15 quality criteria for clinimetric studies. We retrieved 41 articles describing 32 dyspnoea scores. Thirteen scores were judged unsuitable for clinical use, because of insufficient face validity, use of items unsuitable for children, difficult scoring system or need of auscultation skills, leaving 19 possibly useful scores. The median number of quality criteria that could be assessed was 6 (range 5-10). The median number of positively rated quality criteria was 2 (range 1-5). In conclusion, none of the published dyspnoea scores has been sufficiently validated to allow for clinically meaningful use in children with acute wheeze. Proper additional validation of existing scores is warranted to allow clinicians and researchers to use the available paediatric dyspnoea score for clinical or research purposes.