

**ABS28: Towards Excellence in Asthma Management (TEAM): final report of a 5-year program aimed at reducing care gaps in asthma management**

L.P. Boulet<sup>a</sup>, E. Dorval<sup>b</sup>, M. Turgeon<sup>c</sup>, M. Labrecque<sup>d</sup>, R.L. Thivierge<sup>e</sup>

<sup>a</sup>Laval Hospital, 2725 Chemin Sainte-Foy, Quebec City, G1V 4G5, Canada <sup>b</sup>Merck Frosst Canada & Co., Kirkland, Qc, Canada <sup>c</sup>CME Office, Laval University, Quebec City, Canada <sup>d</sup>Quebec Asthma and COPD Network and Hopital du Sacre-Coeur, Montreal, Qc, Canada <sup>e</sup>CME Office, University of Montreal and Ste-Justine Hospital, Montreal, Qc, Canada

Many care gaps persist in asthma care. TEAM is a multi-partnership and multidisciplinary disease management program developed to optimize asthma care. In the last 5 years, (A) Two populational "cartographies" of asthma helped identify regional variations in asthma-related morbidity, (B) Current delivery of asthma care has been evaluated in a cohort of physicians and patients, and (C) Two series of peer-reviewed outcome research studies targeting high-risk populations and specific asthma care gaps have been conducted. The cartographies allowed TEAM to identify regions to prioritise in regard to specific interventions. The cohort study contributed to identify specific care gaps such as insufficient referral for education and poor management of asthma exacerbations. Key-observations resulting from the studies performed included: (1) Four specific patterns of compliance to inhaled asthma medication, (2) The limited influence of an increased access to spirometry in Asthma Education Centers on referral for education, (3) The transient improvement in abilities to adequately inform the public, for nurses involved with an asthma hot-line service, (4) The beneficial effects of practice aids aimed at facilitating asthma management by general practitioners. Each study provided new interventions to apply to current care and new avenues for further research on optimal asthma management. In conclusion, TEAM has provided a large amount of data that should help to define optimal strategies for improving asthma care.

**Conflict of interest and funding**

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**ABS29: The SMART plan: development of a symptom-based asthma action plan for single inhaler therapy**

Jennifer Cleland<sup>a</sup>, David Price<sup>a</sup>, Jan-Paul Rosen<sup>a</sup>, Martyn Partridge<sup>b</sup>, John Haughney<sup>a</sup>, Elizabeth Stahl<sup>a</sup>

<sup>a</sup>Department of General Practice and Primary Care, University of Aberdeen, Foresterhill Health Centre, Westburn Road, Aberdeen, AB25 2AY, United Kingdom <sup>b</sup>Imperial College, London, UK

**Introduction:** Asthma patients are often uncontrolled on current asthma therapies [1], most patients in general practice do not have asthma action plans [2] and guideline recommendations are not being closely followed [3]. Negative attitudes towards personal asthma action plans (PAAPs) may be one reason for this obvious reluctance to adopt them in routine clinical practice. However, patients have positive attitudes towards PAAPs, if these are straightforward [4]. The introduction of single-inhaler therapy provides a timely opportunity to develop and evaluate a simple asthma action plan using only one inhaler only to achieve control. There have been no previous studies of asthma action plans for single-inhaler therapy. The literature is particularly weak on the criteria and timing of stepping up and down. **Aims and objectives:** To identify the key components of a symptom-driven asthma action plan which

covers what symptoms should drive up therapy in the short-term and long-term, and what should signal stepping down medication for patients taking single inhaler therapy with flexible dosing. **Subjects and methods:** The Delphi Technique [5] was used to establish a consensus opinion from 30 asthma experts (GPs, practice nurses, hospital specialists). The resulting plan will be piloted with asthma patients, to check for acceptability and clarity of language, and modified accordingly. **Results and conclusions:** We will present the SMART plan, discuss the next stages of this project and use of the SMART plan.

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None.

**References**

- [1] Rabe, et al. ERJ 2000;16:802–7.
- [2] Price, Wolfe. Asthma J 2000;5:141–4.
- [3] McShane, et al. Thorax 2000;55(Suppl 3):19.
- [4] Haughney, et al. PCRJ 2004;13:28–35.
- [5] Delbecq, VandeVen. J Appl Behav Sci 1971;7:466–91.

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**ABS30: Validation of the ACQ (Juniper) in children: A pilot study**

Kevin Gruffydd-Jones, Mike Thomas

Department of General Practice and Primary Care, University of Aberdeen, Foresterhill Health Centre, Westburn Road, Aberdeen, AB25 2AY, United Kingdom

**Introduction:** The Asthma Control Questionnaire (ACQ-Juniper) is widely used as a clinical endpoint in clinical trials. It has been validated for use in adults, but not in children. **Aims:** To carry out a pilot project look at the acceptability of carrying out the ACQ in children in a primary care setting and the correlation of the ACQ score with other measures of asthma control. **Methods:** 15 children (age range 6–16 yrs and median ICS dose 200 mcg BDP (or equivalent) attending 2 primary care asthma clinics in the United Kingdom were enrolled. Assessments were made at 2-weekly intervals over 12 weeks. The 6-question ACQ was used together with RCP 3 Questions, FEV1, mini-Asthma Quality of Life Questionnaire (mini-AQLQ) Paediatric Asthma Quality of Life Questionnaire (PALQ), bronchodilator use and exhaled nitric oxide (eNO) levels. Routine clinical care was allowed to continue. **Results:** 105 measurements of ACQ were made over the 12 week period. The questionnaire was easy to complete although younger children needed some help with interpretation from their parents. There was a strong cross-sectional correlation with PAQLQ (Spearman's rank correlation  $r=0.85$   $p<0.001$ ), moderate correlation with the RCP 3 questions ( $r=0.4$   $p<0.001$ ) and bronchodilator use ( $r=0.4$   $p<0.001$ ) and weak or no correlation with eNO ( $r=0.20$   $p<0.05$ ) and FEV-1% predicted ( $r=-0.12$ , ns) There was a strong longitudinal correlation between changes in ACQ and change in PALQ ( $r=0.66$ ,  $p<0.001$ ), moderate correlation between changes in RCP 3 question score ( $r=0.48$ ,  $p<0.001$ ) and bronchodilator use ( $r=0.42$ ,  $p<0.01$ ). There was no correlation with changes in eNO ( $r=0.15$ , ns) and FEV-1% predicted ( $r=0.02$ , ns). **Conclusion:** The 6-question ACQ is easy to use in children age 6–16 with asthma although parental help may be needed for younger children. It shows cross-sectional and longitudinal validity with some other parameters of asthma control. A larger multi-centre validation study in primary care is planned.

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