Paediatric Allergy
Current Awareness: June

Enquiring About Tolerance (EAT) study: Feasibility of an early allergenic food introduction regimen
Citation: The Journal of allergy and clinical immunology, May 2016, vol. 137, no. 5, p. 1477
Author(s): Perkin, Michael R, Logan, Kirsty, Marrs, Tom, Radulovic, Suzana, Craven, Joanna, Flohr, Carsten, Lack, Gideon, EAT Study Team

Aim: We sought to determine the feasibility of the early introduction of multiple allergenic foods to exclusively breast-fed infants from 3 months of age and the effect on breastfeeding performance.

Methods: We performed a randomized controlled trial. The early introduction group (EIG) continued breastfeeding with sequential introduction of 6 allergenic foods: cow's milk, peanut, hard-boiled hen’s egg, sesame, whitefish (cod), and wheat; the standard introduction group followed the UK infant feeding recommendations of exclusive breastfeeding for around 6 months with no introduction of allergenic foods before 6 months of age.

Results: 1303 infants were enrolled. By 5 months of age, the median frequency of consumption of all 6 foods was 2 to 3 times per week for every food in the EIG. By 6 months of age, nonintroduction of the allergenic foods in the EIG was less than 5% for each of the 6 foods. Achievement of the stringent per-protocol consumption target for the EIG proved more difficult (42% of evaluable EIG participants).

Conclusion: Early introduction, before 6 months of age, of at least some amount of multiple allergenic foods appears achievable and did not affect breastfeeding.

Patterns of Growth and Decline in Lung Function in Persistent Childhood Asthma
Citation: New England Journal of Medicine, 2016, vol./is. 374/19
Author(s): McGeachie, M.J. et al.

Aim: Tracking longitudinal measurements of growth and decline in lung function in patients with persistent childhood asthma may reveal links between asthma and subsequent chronic airflow obstruction.

Methods: We classified children with asthma according to four characteristic patterns of lung-function growth and decline on the basis of graphs showing forced expiratory volume in 1 second (FEV1), representing spirometric measurements performed from childhood into adulthood. Risk factors associated with abnormal patterns were also examined.

Results: Of the 684 study participants, 170 (25%) had a normal pattern of lung-function growth without early decline, and 514 (75%) had abnormal patterns: 176 (26%) had reduced growth and an early decline, 160 (23%) had reduced growth only, and 178 (26%) had normal growth and an early decline. At the last spirometric measurement, 73 participants (11%) met Global Initiative for Chronic Obstructive Lung Disease spirometric criteria for lung-function impairment that was consistent with chronic obstructive pulmonary disease (COPD); these participants were more likely to have a reduced pattern of growth than a normal pattern (18% vs. 3%).

Conclusions: Childhood impairment of lung function and male sex were the most significant predictors of abnormal longitudinal patterns of lung-function growth and decline. Children with persistent asthma and reduced growth of lung function are at increased risk for fixed airflow obstruction and possibly COPD in early adulthood.

Full Text:
Available from Ovid in New England Journal of Medicine
Available from ProQuest in New England Journal of Medicine, The
**Symptoms suggestive of cow’s milk allergy in infancy and pediatric inflammatory bowel disease**

**Citation:** Pediatric allergy and immunology, Jun 2016, vol. 27, no. 4, p. 361-367

**Author(s):** Virta, Lauri J, Kautiainen, Hannu, Kolho, Kaisa-Leena

**Aim:** We tested at a national level the hypothesis that cow's milk allergy (CMA) is associated with the risk of contracting pediatric inflammatory bowel disease (PIBD).

**Methods:** A nationwide birth cohort (n = 225,041), including all Finnish children born between 1999 and 2002, was followed up until July 1, 2014. We identified all children with a diagnosis of CMA, asthma, and PIBD from a national register. We identified 7,910 infants with CMA yielding a cumulative incidence of 3.5% by 2 years of age. The cumulative incidence of PIBD was 0.14% (n = 316) and that of asthma 6.6% (14,807).

**Results:** Children with CMA were more likely to develop PIBD than non-CMA children. Children with a diagnosis of CMA contracted PIBD at a younger age than the respective non-CMA group (9 vs. 11 years). The risk was more evident for ulcerative colitis than for Crohn's disease. The association between CMA and asthma was stronger than that between CMA and PIBD.

**Conclusion:** CMA in infancy is associated with subsequent development of asthma and PIBD. This suggests that in a subgroup of patients, CMA may share underlying background with PIBD, warranting thorough follow-up.

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**Degree of anxiety in food allergic children in a tertiary care center**

**Citation:** Annals of allergy, asthma & immunology, Jun 2016, vol. 116, no. 6, p. 528-532

**Author(s):** Petrovic-Dovat, Lidija et al.

**Aim:** It was hypothesized that children with food allergy (FA) would score significantly higher on a standardized anxiety screen than general pediatric (GP) patients but not as high as patients with diagnosed anxiety disorders.

**Method:** A total of 114 patients aged 8 to 16 years (37 with confirmed anxiety disorder from a pediatric psychiatry clinic, 40 with confirmed FA from a pediatric allergy clinic, and 43 well-care patients from a GP clinic) and their mothers completed the Screen for Child Anxiety Related Emotional Disorders (SCARED).

**Results:** Children and mothers in the allergy group did not report increased levels of anxiety in children on total SCARED scores or subscales compared with children and mothers from the GP group. There was a trend toward increased panic disorder symptoms reported in children by mothers of children in the allergy group, but this finding did not reach statistical significance.

**Conclusion:** Children with FA did not have increased anxiety; however, there was a trend for mothers of children with allergies to report more symptoms of panic disorder in their children.

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**Pre-birth cohort study of atopic dermatitis and severe bronchiolitis during infancy**

**Citation:** Pediatric allergy and immunology, Jun 2016, vol. 27, no. 4, p. 413-418

**Author(s):** Balekian, Diana S. et al.

**Aim:** We sought to examine risk factors for severe bronchiolitis, focusing on atopic dermatitis (AD).

**Methods:** A prospective cohort of pregnant women enrolled during 1998-2006 at Massachusetts General Hospital Obstetric Maternal Study (MOMS). Children of mothers enrolled in MOMS were included in the analysis if they received care within our health system (n = 5407). Potential risk factors for bronchiolitis and hospitalization data were extracted from the children's electronic health records; we also examined pregnancy and perinatal risk factors collected from underlying data.

**Results:** During the first year of life, 125 infants (2.3%) had severe bronchiolitis. Eighteen of these patients had AD; 11 (61%) were diagnosed with AD prior to bronchiolitis hospitalization. In unadjusted analyses, AD was associated with severe bronchiolitis. In multivariable analyses adjusting for nine known risk factors for severe bronchiolitis, AD was associated with increased odds of severe bronchiolitis.

**Conclusion:** Atopic dermatitis is significantly associated with severe bronchiolitis in infancy. The mechanism of the AD-bronchiolitis association is unclear and merits further study.
**Serious Asthma Events with Fluticasone plus Salmeterol versus Fluticasone Alone**

**Citation:** New England Journal of Medicine, 2016, vol./is. 374/19(1822-1829), 00284793

**Author(s):** Stempel, David A. et al.

**Aim:** This study was designed to evaluate the risk of administering the LABA salmeterol in combination with an inhaled glucocorticoid, fluticasone propionate.

**Methods:** In this multicenter, randomized, double-blind trial, adolescent and adult patients (age, ≥12 years) with persistent asthma were assigned to receive either fluticasone with salmeterol or fluticasone alone for 26 weeks. The primary safety end point was the first serious asthma-related event (death, endotracheal intubation, or hospitalization).

**Results:** Of 11,679 patients who were enrolled, 67 had 74 serious asthma-related events, with 36 events in 34 patients in the fluticasone-salmeterol group and 38 events in 33 patients in the fluticasone-only group. The risk of a severe asthma exacerbation was 21% lower in the fluticasone-salmeterol group than in the fluticasone-only group, with at least one severe asthma exacerbation occurring in 480 of 5834 patients (8%) in the fluticasone-salmeterol group, as compared with 597 of 5845 patients (10%) in the fluticasone-only group.

**Conclusions:** Patients who received salmeterol in a fixed-dose combination with fluticasone did not have a significantly higher risk of serious asthma-related events than did those who received fluticasone alone. Patients receiving fluticasone-salmeterol had fewer severe asthma exacerbations than did those in the fluticasone-only group.

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**June (12pm)**
- Weds 8th **Understanding articles**
- Thurs 16th **Statistics**
- Fri 24th **Information resources**

**July (1pm)**
- Tue 5th **Critical Appraisal**
- Wed 13th **Statistics**
- Thurs 21st **Information resources**
- Fri 29th **Literature Searching**

**Library and Information Service:** library@uhbristol.nhs.uk

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