

AB051: Is intestinal microflora in new-borns of significance for immunological maturation and development of atopic disease

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Background In the past 20-30 years, an increasing incidence of atopic diseases has been reported, particularly amongst children in the Western world. It has been hypothesised that Western lifestyle has changed the exposure to microbial stimulation early in life, which implies a reduced stimulation of TH1 immunity, a skewed cytokine balance and an increased risk of allergic disease. The composition of intestinal microflora in new-borns has been studied, but a controlled prospective study has been called for.

Aim The objective is to study the relationship between gut flora composition in new-borns, the development of the immune response and the incidence of atopic disease.

Design Within the frame of a large, controlled, prospective study of primary prevention of atopic diseases in Trondheim (PACT), blood, stools, and exposure information will be collected from mothers and their new-borns. End-points will be collected after 2 years.

Methods Some 760 pregnant women are included and blood, stools and vaginal bacterial specimen are collected at delivery. Stool samples from children are collected at age 2, 4, 7, 10 days, and 4, 12 and 24 months. Faeces are stored at -80 °C, and later 16S rRNA hybridisation technique will be used to specify and quantify the microbial composition. Likewise, samples of cord blood, and venous blood are collected at age 10 days, 4, 12 and 24 months. PBMC are separated, and stored in liquid nitrogen for later analysis of cytokine profile at different ages related to microbial stimulation.

Atopic children will be identified by questionnaire at 1 and 2 years of age, and the diagnosis confirmed by clinical examination, including skin tests at 2 years.

Result The inclusion of 760 pregnant women will be concluded in March 2002, and results presented in 2004. The protocol will be given in detail.

ABI052: Asthma related quality of life and health economics *Prim Care Respir 2002 11(2) 72*

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In a time of limited health care resources, it is important for medical interventions to be cost effective as well as clinically effective. As one of the commonest chronic diseases in the community, the direct and indirect costs of asthma place a significant burden both on the individual and on the wider community. Primary care physicians are under increasing pressure to limit health costs, and to provide cost effective care. Direct prescribing costs may only account for a fraction of the total costs associated with asthma. As there are several alternative therapeutic options available in the treatment of asthma of all levels of severity, economic evaluations assessing the various direct and indirect costs of care are vital to allow informed decision making and efficient use of limited resources. It is important for primary care clinicians to have accurate information on the costs and benefits of the interventions they initiate, and on the relative cost effectiveness of different therapeutic options.

Economic evaluations attempt to quantify the costs of disease and of disease management in relation to clinically relevant outcome measures. As there are now a number of different outcome measures for asthma care, including lung function, symptoms, exacerbations and health status, economic evaluations need to incorporate different outcome measures. There is increasing recognition of the importance of patient centred outcomes such as disease related quality of life in asthma.

This paper surveys the current tools for assessing the clinical and economic outcomes of asthma care, with particular attention to quality of life, and reports on projects under development to produce, validate and implement tools to allow accurate economic evaluations of asthma treatments.

Keywords Asthma, Quality of life, Health economic

ABI053 Clinical effectiveness of self management of asthma in general practice: a randomised controlled trial

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Aim To assess the effects of a guided self management program for steroid dependent asthmatics in general practice on asthma control and quality of life.

Method Nineteen General Practices were randomly allocated to usual care (UC) or a self management program (GSM). Follow up was two years. Patients kept diary cards and visited the lung function laboratory every six months. Outcomes were the number of successfully treated weeks, asthma specific quality of life, FE₁, FE₁-reversibility, PC20-histamine and the amount of inhaled steroids.

Result 214 patients were included (104 UC / 110 GSM) and 171 completed the 2-year follow up (86 UC / 85 GSM). Selected patients were predominantly female (62%). The mean number of STWs in two years time was 81 (95% CI 78; 84) for GSM and 75 (95% CI 72; 78) for UC, corresponding with a statistically significant gain of 6 STWs in two years in favour of self-management. Based on repeated measurements analysis the estimated increase in the overall asthma quality of life score was 0.10 points per visit in the UC group versus 0.2 points per visit in the GSM group (P=0.055). There were no statistically significant changes in FE₁, reversibility of FE₁ and PC20 histamine. After two years mean budesonide usage was 1680 puffs (95% CI 1538; 1822) for self-management and 1897 puffs (95% CI 1679-2115) for usual care, indicating a statistically significant saving of 217 puffs.

Conclusion Self management resulted in a higher number of successfully treated weeks and improvements in quality of life without compromising asthma control and with savings in the amount of inhaled steroids used.