tory concentration (MIC) distribution of moxifloxacin and levofloxacin in S. pneu-
moniae isolates remained stable during 2004-2009 and resistance to moxifloxacin and
levofloxacin was low (≤1%). Moxifloxacin was the most potent fluoroquinolone
available for treatment of S. pneumoniae infections in Belgium with MIC90 of 0.19
mg/L. CONCLUSIONS: The volume of fluoroquinolone use remains well controlled and
fluoroquinolones were primarily used in those indications where they have been
demonstrated to yield clinical benefit. The use of fluoroquinolones has not led, to
date, to an increase in the rate of pneumococcal resistance to fluoroquinolones.

PR68
A SYSTEMATIC REVIEW OF CRONCHIONISUSIS IN ASIA-PACIFIC AND
THE ROLE OF BALLOON SINUPLASTY
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OBJECTIVES: Chronic rhinosinusitis (CRS) is a debilitating chronic condition
with substantial burden of illness. The purpose of this study was to obtain information
to inform a budget impact model for balloon sinuplasty (BSP) in CRS in Asia Pacific
(Australia, China, India, Japan, South Korea). METHODS: Three systematic reviews
of the literature were undertaken (October 2010 – February 2011) using Medline,
Embase and Cochrane to identify prevalence of CRS in the region, clinical evidence
for BSP and economic evidence for CRS. Manual searching, including HTA data-
bases and interviews with clinicians in each country, supplemented the review.
RESULTS: A total of 171 epidemiological, 50 clinical and 95 economic articles were
identified. After title/abstract and full text review, 14 epidemiological, 14 clinical
and 95 economic studies remained. However, 11 studies reported prevalence of CRS to
be only reported for Japan (0.05%) and Korea (1-2%), with the remainder of the
published studies of BSP and nine case-series (n=10 patients) were identified. BSP
was reported to be favourable in terms of safety and efficacy with high osa
patency, shorter recovery time, improved symptoms and patient satisfaction. Eco-

PR69
SOCIOECONOMIC DETERMINANTS OF SMOKING STATUS IN GREECE
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OBJECTIVES: To identify factors that affect smoking status in Greece. METHODS: A
strictly-structured questionnaire-based telephone survey was conducted to a sample
of 6559 individuals, 18 years old, representative of the Greek population and stratified according to age, sex and place of residence. Participants were requested to answer questions regarding their smoking status, self-reported quality-of-life, family income and type of occupation. The survey took place from January to March 2011. A logistic regression analysis was conducted to identify the factors that influence smoking status (non-smokers vs. smokers) excluding ex-smokers. RESULTS: Distinguishing between non-smokers vs. smokers, higher income (Odds Ratio: 1.08, 95% Confidence Interval: 1.03-1.13), absence of a health problem (OR: 1.31, 95%CI: 1.14-1.50) and living single (OR: 1.46, 1.18 and 2.25 for singles, widows/ widowers and divorcees, respectively) were associated with a greater likelihood of smoking. Comparing female gender, enhanced quality-of-life status, and higher levels of education had a protective influence on the probability of smoking (OR: 0.69, 0.79, 0.91). Comparing ex- and current smokers, the regression showed that the probability of quitting was associated with higher levels of education (OR: 0.91, 95%CI: 0.88-0.95), increasing age (OR: 0.97, 95%CI: 0.95-0.97) and enhanced quality-of-life (OR: 0.88, 95%CI: 0.80-0.98), whereas, women (OR: 1.81, 95%CI: 1.46-2.24), people without health-related problems (OR: 1.62, 95%CI: 1.32-1.99) and those with a higher income (OR: 1.05, 95%CI: 1.01-1.13) had increased probability of being current smokers. Pensioners and students were more likely to have quit smoking than other occupational groups. All reported values are statistically significant (p<0.05).
CONCLUSIONS: Socioeconomic factors significantly influence smoking status and the decision to quit. In Greece, as in other countries with a high prevalence of smoking, evidence like the aforementioned can serve as important inputs in the health policy decision-making process.

PR70
REAL WORLD EVALUATION OF DIFFERENT SMOKING CESSATION SERVICE MODELS IN ENGLAND
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OBJECTIVES: NHS Stop Smoking Services provide various options for service and
counselling. Most services have evolved to suit local needs without any retrospec-
tive evaluation of their efficiency. Objective was to describe the structure and out-
comes associated with different services. METHODS: Local service evaluations
were done in three primary Care Trusts (PCTs) by conducting standardised inter-
views with key personnel in addition to extraction and analysis of data from 400 clients accepting the service after 1st April 2008 in each PCT. RESULTS: The PCTs varied in geography, population size and quit rate (47%-63%). Services were delivered by PCT-led specialist teams (PCT3), community-based health care providers (PCT3) and a combination of the two (PCT2) with varying resources and interven-
tions. More likely to increase in the highest closed groups vs 42.6% for one-to-one support (PCT1). Quit rates were higher for PCT (75%) versus GP (60%) and pharmacist-delivered care (40%) where all existed in the same model (PCT2). The most-prescribed therapy was NRT (56%-65%), followed by va-
renicline alone (34%), counselling alone (6%-8%) and bupropion. Quit rates were
for NRT at 4 weeks were 43%-55% across the 3 PCTs; 60%-81% for varenicline
and 38%-91% for bupropion. CONCLUSIONS: The results suggest that service structure, method of support, healthcare professional involved and pharmacotherapy all play a role in a successful quit. Services must be tailored to support individual needs and patient choice and access to varied services being key factors.
cals and diagnostic (or staging) tests, more than offset by cost savings related to lower consumption of other health care resources.

### PS75

**SYSTEMATIC REVIEW OF THE GUIDELINES ON THE PREVENTION OF ALLERGIC MANIFESTATIONS IN CHILDREN**

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**OBJECTIVES:** A systematic review of the literature was performed to gather all official recommendations on the prevention in infants of allergic manifestations (AM), and, more specifically, atop dermatitis (AD), by using hydrolyzed infant formulas (HF) such as partially or extensively hydrolyzed formula (PHF, EHF).

**METHODS:** OVID MEDLINE® and the grey literature were searched by two reviewers using the keywords AM, AD, prevention and guidelines. A third person acted as adjudicator and resolved disagreements.

**RESULTS:** This review yielded 11 sets of guidelines published for Australia, France, Germany, Spain, Switzerland (all n = 1), Europe and the US (both n = 3) between 1999 and 2010. Most guidelines included AD either specifically (n = 3) or in the broad context of AMs. Six guidelines (of which 2 recommended PHF over EHF) endorsed the use of HFs for the prevention of AM in “at risk” infants when exclusive breastfeeding was not or no longer possible. Two other publications did not explicitly recommend HFs, but rather formulas with a documented reduced allergenicity. The need for an appropriate level of nutritional support was stressed in one publication. Five guidelines acknowledged that not all HFs have the same protective benefit. Four publications underlined the importance of sound clinical evidence when determining the preventive efficacy of HFs. None of the guidelines based their recommendations on recent evidence from meta-analyses focusing on a specific brand of PHF NANN-HA®.

**CONCLUSIONS:** HFs and specifically PHFs are endorsed for the prevention of AMs. The need for a strong validity and universality of the clinical evidence and methodology is acknowledged by national or regional medical associations. Recent evidence regarding the preventive efficacy of a specific brand of PHF, NAN-HA®, should provide the basis for new recommendations.

### PS76

**SYSTEMATIC LITERATURE REVIEW OF CONCEPTUAL MODELS TO INFORM ECONOMIC MODELING IN COPD**

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**OBJECTIVES:** To identify economic gaps for future economic modelling of Chronic Obstructive Pulmonary Disease (COPD) by reviewing published models and studies reporting associations between end-points and disease outcomes.

**METHODS:** A systematic literature search was undertaken to identify English language publications since 2000 in Medline and Embase describing Conceptual Models of COPD and studies reporting associations between end-points and disease outcomes.

**RESULTS:** Forty-one published papers were identified: 7 conceptual models of COPD and 34 articles on associations between endpoints and disease outcomes. Of the 7 conceptual models, 6 described single aspects of COPD (cognitive function, lung function, exacerbations, design of patient related interventions, activity and functional performance). Only 1 described a broader set of determinants of health status in COPD patients (physiological functioning, patient complaints, functional impairment and health quality of life). 2 reviewed cognitive function and functional performance and 1 reporting determinants of functional performance and dyspnoea based on patient/expert interviews were identified. 31 studies using regression analyses to estimate associations between relevant parameters in COPD, including smoking, poorly controlled disease, exacerbations, lung function and exacerbations, quality of life, biomarkers, co-morbidities, mortality and healthcare utilization were found. No studies on the use of conceptual models for economic modelling in COPD were identified. None of the studies presented a comprehensive set of determinants of disease progression and outcomes. 

**CONCLUSIONS:** It is recommended that models used to support economic evaluations of health care interventions are based on conceptual models capturing all relevant aspects of the disease and outcomes of value. The available evidence does not provide a full spectrum of relationships between diagnosis, disease progression and outcomes for a comprehensive disease based economic model in COPD.

### PS77

**APPLICATION OF INNOVATIVE METHODS TO IDENTIFY AND CHARACTERIZE DIFFERENTIAL RESPONDERS IN CLINICAL TRIALS OF COPD: THE USE OF MIXTURE MODELS**

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**OBJECTIVES:** Applying innovative methods to clinical trial data to identify and characterize unobserved subgroups of differential responders. 

**METHODS:** Data from three COPD clinical trials was retrospectively analysed using Growth Mixture Models (GMMs): INHANCE (indacaterol 150µg and 300µg vs tiotropium 18µg and placebo); INLIGHT-2 (indacaterol 150µg vs salmeterol 50µg and placebo); and IN- VOLVE (indacaterol 300µg and 600µg vs formoterol 12µg and placebo). GMMs were conducted on SGRQ Symptoms domain data at baseline, 12 weeks, and six months to identify unobserved subgroups. Baseline characteristics were compared between emergent subgroups of differential responders in post hoc analyses.

**RESULTS:** Within INHANCE and INLIGHT-2, two subgroups of patients emerged per treatment arm: responders (improvement) and non-responders (little change/de- terioration). Within INVOLVE, three subgroups of patients emerged per treatment arm: responders, non-responders, and partial-responders. When responders were analysed separately, mean treatment effects in terms of SGRQ Symptoms scores were generally larger than when all patients were included: INHANCE responder improvements ranged from 8-12 units compared with 7-14 for all patients; INLIGHT-2 responder improvements were 3-13 units versus 3-6 for all patients; INVOLVE responder improvements were 5-17 units vs 3-11 for all patients. Within each trial, responders made up the largest proportion of the sample (55% - 82%) but non-/partial-responder groups were large enough and different enough to dampen treatment effects when group means were analyzed as a whole. Responders had significantly better baseline SGRQ Symptoms scores than non-responders. Further significant differences were found between non-responders, partial-responders and responders in terms of smoking history, age, and breathlessness.