comparison of SFC versus MON in children with symptomatic asthma receiving inhaled corticosteroids and short-acting β2-agonists. Asthma-related medication, unscheduled physician contacts and hospitalizations were collected prospectively. The main effectiveness measure was percentage of asthma-controlled week with no short-acting β2-agonist use during the study period. The analysis was conducted from the Mexican health care perspective using 2010 unit cost prices, and only direct costs were considered, all costs are reported in US dollar. The model was made fully probabilistic to reflect the joint uncertainty in the model parameters. **RESULTS:** Over the whole treatment period, the median percentages of asthma-controlled weeks were 83.3% in the SFC group and 66.7% in the MON group (SFC-MON difference, 16.7%; 95% CI, 8.3–16.7; P < 0.001 in favor of SFC). The mean total cost of the SFC regimen was US$186 compared with US$271 for the MON regimen. The SFC was the dominant strategy (both more effective and less expensive) using the SFC was associated with an incremental cost per additional asthma-controlled of $US (513). Probabilistic sensitivity analysis tested numerous assumptions about the model cost and efficacy parameters and found that the results were robust to most changes. **CONCLUSIONS:** This analysis demonstrates that, compared with MON, SFC may be cost saving from the Mexican health care perspective for the treatment of pediatric patients with asthma. SFC provided a reduction in the number of severe exacerbations, frequent asthma symptoms and rescue medication use. Incremental cost-effectiveness analysis indicated the dominance of SFC because of both lower costs and greater efficacy.

PRS30

DISCREPANCY BETWEEN ANALYTIC APPROACHES IN THE CLINICAL AND ECONOMIC EVALUATION OF THE SAME TRIAL: EXPERIENCE IN COPD

Hoogendoorn M, Al M, Rutten-van Mölken MP
Erasmus University, Rotterdam, The Netherlands

OBJECTIVES: Clinical and economic evaluations of the same trial often use different statistical analyses and methods to handle missing data. This leads to different results for the same health outcome. We aimed to study how the combination of multiple imputation (MI) with frequently used advanced methods of clinical analysis affect estimates of cost-effectiveness. **METHODS:** Data from a two-year RCT of an INTERdisciplinary COMmunity-based COPD management program (INTERCOM) versus usual care were used. Five outcomes, SGRQ, EQ-5D, 6MWD, total and severe exacerbations measured at 4, 12 and 24 months or continuously (exacerbations) were selected. These outcomes were re-analyzed using the same methods used in the clinical paper, i.e. with repeated measurement analysis or negative bionomial regression, but now after missing data have been imputed using MI. The resulting estimates were compared with 1) the estimates in the original clinical paper before MI and 2) the estimates obtained after MI based on simple averages before any further statistical analyses based on maximum likelihood. **RESULTS:** A total of 175 patients were included in the analysis of which 158 completed the trial. The cost difference of €2751 between INTERCOM and usual care was kept constant. The number of severe exacerbations avoided varied from 0.014 to 0.077 resulting in ICERs from €35,700 to €196,500, depending on the approach used. The improvement in SGRQ ranged from 2.2 to 2.6 units, but the ICERs were all around €1000. The gain in QALYs varied from 0.062 with an ICER of €44,400 to 0.085 with an ICER of €32,400 per QALY gained. The probability that the INTERCOM program was cost-effective at a threshold value of €50,000 ranged from 56% to 74%. **CONCLUSIONS:** This study showed that the combination of analytic approaches of the clinical and economic evaluations does alter the cost-effectiveness ratios.

PRS31

SHOULD SALMETEROL/FLUTICASONE PROPIONATE (SAL/FP) BE ADDED TO ROUTINE COPD TREATMENT WITH FENOTEROL/IPRATROPIUM BROMIDE (FEN/IB)? PHARMACOECONOMIC ASSESSMENT OF COPD TREATMENT BASED ON OBSERVATIONAL RESEARCH (PHACTOR)

Denisov P[1], Belevsky AS[2], Chuchalin AG[3], Tolkushin A[4], Yagudina RI[5], Kulikov A[5], Zinchuk I[5]
[1]Worldwide Clinical Trials Co Ltd, Saint-Petersburg, Russia; [2]Russian State Medical University, Moscow, Russia; [3]SRI of Pulmonology, Moscow, Russia; [4]GlaxoSmithKline Russia, Moscow, Russia; [5]Moscow Medical Academy, Moscow, Russia

OBJECTIVES: To assess cost-effectiveness of adding SAL/FP to routine COPD treatment with Fen/IB. **METHODS:** Depersonalized patient database was created in multicenter observational research of severe and very severe COPD. Patients were subdivided into two groups: 1- Fen/IB-based therapy without SAL/FP (N = 245); 2- Fen/IB-based therapy with SAL/FP (N = 84). Prices of drugs were up to Q1 2010 for Moscow city (from Farmexpert market monitoring). Unit cost of inpatient-day, outpatient-visit and emergency-visit was derived from Moscow city government regulation #290 from 04.2010 (about medicare). Direct medical costs within one year time horizon were assessed as health care perspective was taken. **RESULTS:** Number of COPD exacerbations per patient was 3.9 with and 6.8 without SAL/FP. Sum of yearly direct medical costs was 31,607 RUB (€832) with and 55,179 RUB (€1452) without SAL/FP. Incremental cost per one prevented exacerbation (ICER) was 1237 RUB (€32.5). Average cost of treatment of one exacerbation was 8 056 RUB (€212). Results were sensitive to unit cost of inpatient-day (25% increase leads to cost-saving in with SAL/FP arm). Indirect cost inclusion lead to considerable cost-saving in with SAL/FP arm (7952 RUB = €209). **CONCLUSIONS:** Adding SAL/FP to routine treatment of severe and very severe COPD with Fen/IB is cost-effective.

PRS32

REGIONAL DIFFERENCES AS A BASIS FOR SENSITIVITY ANALYSIS OF COST-EFFECTIVENESS OF SALMETEROL + FLUTICASONE PROPIONATE (SAL/FP) VS. INHALED CORTICOSTEROIDS (MONO-ICS)

Demko IV[1], Tolkushin A[2], Yagudina RI[3], Kulikov A[3], Ogorodova LM[4], Chuchalin AG[5]
[1]Krasnoyarsk State Medical University, Krasnoyarsk, Russia; [2]GlaxoSmithKline Russia, Moscow, Russia; [3]Moscow Medical Academy, Moscow, Russia; [4]Siberian State Medical University, Tomsk, Russia; [5]SRI of Pulmonology, Moscow, Russia

OBJECTIVES: To assess cost-effectiveness of SAL/FP vs. mono-ICS in different Russian regions using OPTIMA pharmacoeconomic model. **METHODS:** Description and calculation steps of OPTIMA model were published in ISPOR Twelfth Annual European Congress Research Abstract #PRS8. Variable region-specific input data: drug prices and dosage proportion (from Farmexpert monitoring as of Q4 2009), medical tariffs (from regional government regulations), GDP per capita and average salary (from statistics service). Constant disease-specific data: frequency of controlled/uncontrolled asthma in arms (from clinical trial), number of unscheduled resources utilization and QoL in controlled and uncontrolled asthma (from prof. I.V.Demko's observational study). Fixed combination SAL/FP (Seretide) was compared with mono-ICS (Beclomethasone, Fluticasone and Budesonide). ICERs (cost per QALY) were assessed for each 84 Russian regions. Regional WTP was assumed as three regional GDP per capita. 1 EUR = 38 RUB. **RESULTS:** Weighted average monthly pharmacotherapy cost varied from 1410RUB (in Kostroma) to 3376RUB (in Tula) for SAL/FP, and from 430RUB (in Kostroma) to 1524RUB (in Khanty-Mansi) for MonoICS. The differences were driven by proportion of low/medium/high doses. Medical tariffs varied dramatically as well: tariffs of outpatient visit varied from 107RUB (in Ivanovo and Dagestan) to 975RUB (in Yamal-Nenets), bed-day cost varies from 500RUB (in Kurgan) to 3123RUB (in Yamal-Nenets). GDP per capita were from 38110RUB (in Ingush) to 928374RUB (in Tyumen); average salary—from 9 125 RUB (in Dagestan) to 46480RUB (in Yamal-Nenets). SAL/FP was cost-saving (dominating) in 18 regions, cost-effective in 62 regions (ICER < WTP; in this regions ICERs were from 3210RUB (84EUR) to 639480RUB (16828EUR) per QALY), and disadvantageous (ICER > WTP) in 4 regions (Ivanovo, Kabardino-Balkaria, Ingush, and Dagestan; mainly due to low WTP). **CONCLUSIONS:** In general case SAL/FP was cost-effective in most Russian regions, in some regions SAL/FP was cost-saving, and in few regions—not cost-effective. To assess cost-effectiveness in particular cohort of patients additional analyses are needed.

PRS33

ECONOMIC EVALUATION OF ILOPROST, EPOPROSTENOL AND TREPROSTINIL FOR THE TREATMENT OF PULMONARY ARTERIAL HYPERTENSION

Román A[1], Barberà JA[2], Escribano P[3], Sala ML[4], Febrer L[5], Casado MA[6]
[1]Hospital de la Vall d'Hebron, Barcelona, Catalunya, Spain; [2]Hospital Clínic de Barcelona, Barcelona, Catalunya, Spain; [3]Hospital 12 de Octubre, Madrid, Spain; [4]Hospital de la Santa Creu i Sant Pau, Barcelona, Catalunya, Spain; [5]Bayer Healthcare, Barcelona, Catalunya, Spain; [6]Pharmacoeconomics & Outcomes Research Iberia, Pozuelo de Alarcón , Madrid, Spain

OBJECTIVES: To analyze the eficiency of three alternative treatments (inhaled iloprost (ILO), intravenous epoprostenol (EPO) and subcutaneous treprostinil (TRE)) for patients suffering from pulmonary arterial hipertensión (PAH) iniciating therapy with a prostanoid. **METHODS:** A Markov model was built to simulate a PAH patient cohort in functional class III of the New York Heart Association (NYHA). The model had four health states, those of the functional classes, plus death. Treatment changes were allowed when patients worsened from class III to IV. Time horizon was three years and transition cycles were of 12 weeks. Perspective was that of the National Health System (NHS) in Spain. Data sources were: 1) literature review, 2) costs databases and 3) expert opinion. Costs were expressed in euros 2009. Costs and effects were discounted at a 3% rate following Spanish recommendations. Both, deterministic and probabilistic analyses were performed to check for robustness of results. **RESULTS:** At three years, results for initiating prostanoid therapy with ILO, EPO and TRE were, respectively: total cost—€143,092, €430,271 and €360,387 -; efficacy—2.695 LYG, 2.729 LYG and 2.690 LYG -; —1.737 QALY, 1.780 QALY and 1.728 QALY -; mean cost per LYG—€53,092, €157,678 and €133,997; mean cost per QALY—€82,376, €241,667 and €208,595 -. Incremental cost-effectiveness ratios and cost-utility ratios of EPO vs. ILO were: >8.5M€/LYG and >6.5M€/QALY, and vs. TRE were: >1.5M€/LYG y > 1.3 M€/QALY, much above the usually accepted threshold in Spain of 30,000 €/LYG or QALY. ILO was dominant vs. TRE. Sensitivity analyses confirmed these results. **CONCLUSIONS:** Initiating prostanoid therapy in class III PAH patients with intravenous epoprostenol is slightly more efficacious than the alternatives. At a three-year time horizon, inhaled iloprost shows to be the less costly alternative for the NHS in Spain.

PRS34

IMPROVED PREDICTION OF FINDING COPD PATIENTS BY LUNG FUNCTION PRE-SCREENING IN PRIMARY CARE

Thorn J[1], Tilling B[2], Lisspers K[3], Jörgensen L[4], Stenling A[4], Stratelis G[4]
[1]Sahlgrenska School of Public Health and Community Medicine, Gothenburg, Sweden; [2]Primary Care, Åtvidaberg, Sweden; [3]Department of Public Health and Caring Sciences, Uppsala, Sweden; [4]AstraZeneca Nordic MC, Södertälje, Sweden

OBJECTIVES: To investigate if easily accessible pre-screening of individuals at risk for COPD leads to a more accurate selection of patients for ordinary spirometry, thereby improving the incidence of pathological test results. **METHODS:** Primary care