OBJECTIVES: Umeclidinium/vilanterol (UMEC/VI) is a novel fixed dose combination of a long acting muscarinic (LAMA) and a long acting beta agonist (LABA). The objective of this analysis was to evaluate the incremental cost-effectiveness ratio (ICER) of UMEC/VI compared with Tiotropium (TIO), from the Spanish National Health System (NHS) perspective. METHODS: A previously published linked equa-
tional model based on the longitudinal longitudinal study ECLIPSE was used. Patients included were COPD patients with a post-bronchodilator forced expir-
atory volume in one second (FEV1) <70% and presence of respiratory symptoms measured by the modified Medical Research Council (mMRC) scale (>2). Treatment effect, expressed as change FEV1 from baseline, was estimated from a 24 week-head-to-head phase III clinical trial comparing UMEC/VI with TIO and was assumed to last 52 weeks following treatment initiation (maximum duration of UMEC/VI clinical trials). Spanish utility values were derived from a published local study of Unitary healthcare costs ($2015) were obtained from local sources. A 3-year time horizon was selected and 3% discount was applied to effects and costs. Results were expressed as cost per quality adjusted life year (QALY). Univariate and probabilistic sensitivity analysis (PSA) were performed. RESULTS: UMEC/VI produced additional 0.03 QALY and $905 vs TIO, leading to an ICER of $21,475/QALY. According to PSA, the probability of UMEC/VI being cost-effective was 80.3% at a willingness-to-pay threshold of $30,000/QALY. CONCLUSIONS: UMEC/VI could be considered as a cost-effective treatment alternative compared with TIO in symptomatic COPD patients from the Spanish NHS perspective.

COST-EFFECTIVENESS OF TIOTRIUM VS GLYCOPRYRONID IN MODERATE TO VERY SEVERE COPD IN SPANISH
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OBJECTIVES: Tiotropium (TIO), Spiriva Handihaler, is a well-established broncho-
dilator, LAMA (long-acting anticholinergic), for the treatment of moderate to very severe COPD. The presence of respiratory symptoms from the SGRQ-L (Spiriva Long-Acting Glycopyronid, GLY) Seebri Breezhaler, in preventing severe exacerbations. This study assessed the cost-effectiveness of TIO versus GLY for Spain making use of this new clinical evidence. METHODS: A Markov cohort model, with GOLD II – IV patient populations, was developed using modelling parameters derived from the latest evidence available as well as Spanish costs, utilities and epidemiological data. Treatment efficacy was modelled as improvements in lung function, quality-adjusted life years and as a lowering of the risk of exacerbations (rate of exacerbations). Relative efficacy of preventing exacerbations differed between different cohorts based on data from SPARK. Health and cost outcomes were simulated over an approximate life time horizon, starting from an age of 65 years. Robustness of results was validated in determining its sensitivity to: health outcomes, used to inform uncertainty and probabilistic analyses. RESULTS: Over the life-time horizon, patients treated with TIO and GLY accumulated $1,419.127 and 406,036 respec-
tively in direct costs ($2014). TIO generated more QALYs (7.77) compared to GLY (7.52). In incremental terms TIO gained 0.25 QALYs compared to GLY at an incremen-
tial cost of $1,066, resulting in a cost per QALY gained of $4,281 and cost health outcomes discounted at 3% per annum). The results were mainly driven by the relative risk of severe exacerbations found in SPARK (RR GLY/TIO: 1.43 CI 0.85–1.97, P = 0.02). CONCLUSIONS: The costs from the base case scenario. From the Spanish societal perspective, the cost per QALY is well-below the willingness-to-pay threshold for Spain ($30,000). From the base case scenario.

ECONOMIC EVALUATION OF FLUTICASONE PROPIONATE/FORMOTEROL FUMARATE FLUTICASONE PROPIONATE/SALMETEROL AND BUDENOSIDE/FORMOTEROL IN SPAIN
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OBJECTIVES: To estimate the Cost-Effectiveness of Fluticasone propionate/ Formoterol fumarate (FPP) versus Fluticasone/Salmeterol (FS) and Budesonide/Formoterol (BF) in the treatment of adult patients with moderate to severe asthma from the perspective of the Society in Spain. METHODS: A Markov model was developed with five asthma health states: successful control, sub-optimal control, out-patient-managed exacerbation, in-patient-managed exacerbation, and death. Time horizon was set at 12 months. Weekly transition probabilities were derived from previous international and Spanish publications. Indirect resources utilization were obtained from a published Spanish study to ascertain healthcare resources utilization, identified as lost-workday-equivalents, and corresponding costs related with treatment of asthma in the year 2014. Effectiveness was expressed as qual-
ity-adjusted life years (QALY) gained. The cost-effectiveness was expressed as an incremental cost effectiveness ratio (ICER). Univariate and probabilistic sensitivity analysis were applied over the time horizon. RESULTS: The costs from the base case scenario. From the Spanish societal perspective were considered, including direct medical costs (pharmaco-
logical costs and management costs for each health state). A 3% discount rate was applied to health and economic data. QALY gain was the major outcome parameter. RESULTS: The incremental cost-effectiveness ratio was $1,066 between FPP and FS, and $1,035 between FPP and BF. The sub-optimal control health state was the mainstay of costs (80% of total costs) in any of the analyzed alternatives and the scenarios. SA results confirmed the data from the base case scenario. CONCLUSIONS: From the Spanish societal perspective in year 2014 FPP was cost-effective compared to BF, having 8.322 costs versus 14.79 and 89.430 with CT alone. The incremental cost-utility ratio for tiotropium plus CT was $12,985/QALY. Univariate and probabilistic SA results were robust according to the base case sce-
nario. Tiotropium therapy was a cost-effective alternative in 74% of simulations performed. CONCLUSIONS: Considering the current Spanish cost-effectiveness