Drug costs were based on the 10-9 € per hour buprenorphine patch and the equivalent tramadol dose (2013 British National Formulary listings). Fracture costs were from a recent National Institute of Health and Care Excellence submission; utility weights were obtained from the literature. RESULTS: For a population of 100,000, the model predicted a reduction in the number of additional fractures (forehead, palate bones, or related to collection) associated with analgesia over 2,000 patients treated with tramadol to under 20 for patients treated with buprenorphine. An estimated £5.5 million was saved and over 1,300 QALYs were gained. In sensitivity analysis, buprenorphine was dominant in most analyses and most sensitive to treatment duration. The cost-effectiveness estimate was below £20,000 per QALY in all scenarios. CONCLUSIONS: Our preliminary analysis suggests that buprenorphine has the potential to be dominant and cost-effective, compared with tramadol.

PSY35 COST-EFFECTIVENESS OF ENZYME REPLACEMENT THERAPY (ERT) WITH ALCGLUCOSIDASE ALFA IN CLASSIC-INFANTILE PATIENTS WITH POMPE DISEASE
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OBJECTIVES: Infantile Pompe disease is a rare metabolic disease. Enzyme replacement therapy (ERT) has proven to have substantial effects on survival in infantile Pompe disease. However, costs of therapy are very high. This paper assesses the cost-effectiveness of ERT in infantile Pompe disease. METHODS: A patient simulation model was used to compare costs and effects of ERT with costs and effects of supportive therapy (ST). The model was filled with data on survival, quality of life and costs. For both arms of the model, data on survival were obtained from international literature. In addition, survival as observed among 20 infantile Dutch patients who were on ERT or had never been on ERT were used. Quality of life was assumed to be the same in both groups and was measured using the EQ-5D. Costs included the costs of ERT, which depend on a child’s weight, and costs of health care use, informal care and provision of the enzyme. As the costs of ERT are time dependent, the model applies varying rates for ERT costs in different cycles. RESULTS: On average, 58 receiving patients were modelled not to survive the first half of life, whereas the life expectancy in the ERT patients was modelled to be almost 14 years. Lifetime incremental QALYs were 6.7. Incremental costs were estimated to be € 7,000, varying for 95% of treatment costs. The incremental costs per QALY were estimated to be € 1.0 million. The incremental cost per QALY was estimated to be € 0.5 million. RESULTS: In 2012, the Dutch health care insurance board advised the Minister of Health to reimburse enzyme replacement therapy in Pompe disease, despite its unfavorable ICER. Other factors, such as the rarity of the disease, equity considerations, and the relatively modest budget impact have probably played a role in this decision. These and other factors could be incorporated in a formal multi-criteria decision analyses.

PSY38 COST-EFFECTIVENESS AND COST-UTILITY ANALYSIS OF BELIMUMAB FOR THE TREATMENT OF PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IN PORTUGAL
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OBJECTIVES: To estimate the incremental cost-effectiveness (ICER) and cost-utility ratio (ICUR) of belimumab compared to standard care (SC) for the treatment of patients with Systemic Lupus Erythematosus (SLE) in Portugal. METHODS: A lifetime Markov cohort model was developed to simulate the course of SLE, based on long term data from a US cohort of SLE patients. The analysis was undertaken using a societal perspective with 5% discount rates for costs (direct and indirect costs), and effects (Life Years Gained (LYG) and QALY). RESULTS: The ICUR was €8,400 (€24.86, 16.49+132.59, accounting for 32.0% of the total direct cost. The average of blood unit wastage was estimated at 4.90%. There were no differences between the cost of producing a unit of blood in Athens compared with the rest of the country (Man-Whitney test, p=0.31). The unweighted mean cost of collecting a blood unit was estimated at €240.84 (240.84+28.18, standard deviation =28.18, min/max =110.25-240.84). In addition, the indirect cost of donors’ loss of productivity was estimated at €33.70 (€49.26, 0.5 million). The cost of producing a unit of blood isn’t insignificant. These figures need to be complemented with those concerning the cost of transfusion to have a full picture of producing and using a cost of blood locally.

PSY40 BURDEN OF CYSTIC FIBROSIS IN THE RUSSIAN FEDERATION
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OBJECTIVES: To estimate the cost of tobramycin solution from different manufacturers and powder inhaled tobramycin (Tobi Podhaler) for the treatment of Pseudomonas infections in patients with cystic fibrosis. The study was performed in the perspective of the UK National Health Service (NHS). METHODS: An assessment of the burden of cystic fibrosis with the use of tobramycin inhalation solution from different manufacturers and powder inhaled tobramycin (Tobi Podhaler) for the treatment of Pseudomonas infections in patients with cystic fibrosis. The study took into account only the direct medical costs of one patient based on standards of outpatient and inpatient care for patients with cystic fibrosis. RESULTS: The burden of cystic fibrosis with the use of tobramycin powder for inhalation Tobi Podhaler with the time horizon of 10 years is reduced faster than in similar groups of patients: the point of profitability is on the eighth year of treatment when compared with tobramycin-Gobi and a 9-year - with Bratimotob, when the use of Tobi Podhaler requires less cost to 46,372 USD and 50,138, respectively. The additional costs were calculated due to the fact that tobramycin solution for inhalation requires compliance with “cold chain” at all stages of the life cycle of the product: transportation, storage at the distributor and at the pharmacy, storage at home. Thus, obtained data in controlled efficacy studies of tobramycin solution in actual practice, may be significantly lower.

PSY41 QUALITY OF LIFE BENEFITS AND COST IMPACT OF PROLONGED RELEASE OXYCODONE/NALOXONE VERSUS PROLONGED RELEASE OXCODONE IN PATIENTS WITH MODERATE TO SEvere PAIN AND OPIOID-INDUCED CONSTITUTION DESPITE THE USE OF 2 LAXATIVES: A UK COST UTILITY ANALYSIS
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OBJECTIVES: To evaluate the cost-effectiveness of prolonged release oxycodone/naloxone combination tablets (OXN, naloxone is added to counteract opioid-induced constipation (OIC) in patients who are constipated despite the use of two laxatives, compared with prolonged release oxycodone (OX) alone. METHODS: A model used data from one phase II randomised, controlled trial (RCT) in patients with moderate/severe cancer pain and a pooled analysis of two phase III RCT’s in patients with moderate/severe non-cancer pain. A subgroup of patients with OIC who had failed on two or more laxatives at screening was applied in the analysis (n=178). The drug for pain therapy was combined with laxative costs and other resources to calculate the cost difference between OXN and OX. Quality-adjusted life-year (QALY) gains were calculated by mapping Bowel Function Index scores to EQ-5D utility values. Deterministic sensitivity analyses were performed. The analysis was conducted from the perspective of the UK National Health Service (NHS). RESULTS: The incremental cost of OXN vs. OX was £409.60 for the average treatment duration of 301 days. OXN gave an incremental QALY gain of 0.0524. The estimated incremental cost-effectiveness ratio was £7,821.80 for OXN vs. OX. The ICER remained below £20,000 for all sensitivity analyses, with OXN dominating OX in some scenarios when higher constipation unit costs were applied. CONCLUSIONS: Patients treated with OXN experienced a quality of life gain, and OXN had an ICER considerably below thresholds (thresholds were used as cost-effectiveness cut-off points £20,000 – 30,000/QALY). More research is required into the cost of treating OIC, with OXN dominating OX (total saving cost to the NHS and quality of life benefit) in sensitivity on OIC unit costs. OXN is therefore estimated to be a cost-effective option for treating patients with moderate to severe pain and OIC, who are constipated despite the use of two laxatives.