way) suggested the largest driver of cost-effectiveness was the effect of irinotecan dose reduction on survival. Value of information analysis indicated a need for future research to reduce parameter uncertainty (5 year population EFV: €31,564). However, assumptions affecting model structure had a relatively higher impact on cost-effectiveness. CONCLUSIONS: This is the first economic evaluation of UGT1A1 testing to reduce the incidence of febrile neutropenia. This study illustrated the importance of considering efficacy, OMT and neutropenia in addition to grade 3 and 4 neutropenia in evaluations of UGT1A1 testing.

PM043 AN EVIDENCE-BASED MICROSIMULATION MODEL OF CHRONIC GRAFT VERSUS HOST DISEASE IN SPAIN
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OBJECTIVES: Rituximab (Rmb), Imatinib (Imt) and extra-corporeal photopheresis (ECP) are some of the strategies used as rescue therapy among patients with chronic graft-versus-host disease (cGVHD) who fail previous lines of treatment. The purpose of the study was to assess the cost-effectiveness of ECP in patients with cGVHD in Spain.
METHODS: A Microsimulation model was built to estimate the clinical and economic consequences of ECP versus Rmb or Imt for 1000 hypothetical patients. Model probabilities concerning the efficacy of ECP, Rmb and Imt and severity degree per organ affected were obtained from literature. Treatment pathways and adverse events were evaluated taking into consideration expert opinion. Local data on costs (Euros 2010) and use of health resources were also validated by clinical experts. An annual 3% discount rate was applied to costs and outcomes. The perspective was the Spanish National Health System and time horizon was 5 years. RESULTS: Differences in improvement when ECP is used showed a gain at first year of 6.2% and of 6.7% against Rmb and Imt, respectively. The higher efficacy of ECP lead to a gain of 0.011-0.004 QALY year in the first year and 0.062-0.094 year five compared to Rmb or Imt. Results showed that higher acquisition cost of ECP vs Imt was compensated at 9 months by higher efficacy and vs Rmb was partially compensated (517 vs 578 year 5). After 5 months, ECP was dominant vs Imt. The incremental cost-effectiveness ratio of ECP versus Rmb was 29,664 €/LY gained and 24,442 €/QALY gained at year 2.5. The probabilistic sensitivity analysis showed robustness of results, being the ECP cost-effective in 70% of the simulated cases at year 5 (threshold of €30,000/QALY gained).
CONCLUSIONS: ECP as third-line therapy for cGVHD is a more cost-effective compared to Rmb or Imt.

PM044 ECONOMIC EVALUATION OF THE UGT1A1 PHARMACOGENETIC TEST TO INFORM DOSE SELECTION OF IRINOTECAN-BASED CHEMOTHERAPY
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OBJECTIVES: The UGT1A1 pharmacogenetic test can potentially inform irinotecan dose selection and reduce the incidence of neutropenia, a key adverse event of irinotecan in advanced colorectal cancer (CRC). Acute myeloid leukaemia has a negative impact on health and its management uses healthcare resources. The UGT1A1 test identifies patients at low-, intermediate- or high-risk of grade 3/4 neutropenia. High-risk patients can be prescribed lower doses to reduce the incidence of neutropenia. This study assesses the cost-effectiveness of using UGT1A1 testing and identify key parameters driving cost-effectiveness.
METHODS: An economic model of UGT1A1 testing to predict grade 3/4 neutropenia compared to standard care was developed over a lifetime horizon from the UK NHS perspective. Treatment pathways were informed by a national survey of experts (n=44). The model was populated with data from: systematic reviews of the effectiveness and utility literature; a micro-costing observational study (n=48 patients); and CRC expert (n=55) elicitation. RESULTS: UGT1A1 testing was cost-saving and resulted in lower incidence of grade 3/4 neutropenia. For a cohort of 100 patients, the test was estimated to save £14,500, avoid 4 neutropenia episodes, and gain 0.06 life-years and 0.05 QALYs. The probability that the test was cost-effective at willingness-to-pay thresholds between £20,000 and £30,000 per QALY gained was above 95%. These findings are specific to model assumptions and specifications. Sensitivity analysis (probabilistic and one-way) suggested that the main driver of cost-effectiveness was the effect of irinotecan dose reduction on survival. Value of information analysis indicated a low value of future research to reduce parameter uncertainty (5 year population EFV: €11,116). In contrast, assumptions affecting model structure had a comparatively greater impact on cost-effectiveness. CONCLUSIONS: This analysis modelled NHS-relevant clinical treatment pathways and provided potentially useful evidence for UK decision-makers. Structural model assumptions rather than parameter inputs had a larger impact on cost-effectiveness.

PM045 OPTAR STUDY: TRANSCATHERET AORTIC VALVE IMPLANTATION (TAVI) VERSUS OPTIMAL MEDICAL TREATMENT (OMT) IN PROBIBITIVE SURGICAL RISK PATIENTS WITH SEVERE AORTIC STENOSIS (AS) – AN EXPLORATORY COST-EFFECTIVENESS ANALYSIS
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OBJECTIVES: Aortic valve stenosis is a chronic and progressive valvular heart disease. The standard treatment of this condition involves a major open surgery. For patients currently ineligible for surgery, medical management is the only option available. Transcatheter aortic valve implantation (TAVI) devices recently appeared as a new less invasive treatment option. The objective of this study was to develop an exploratory cost-effectiveness analysis of TAVI vs OMT in Portuguese Setting. METHODS: This analysis used a Markov model developed by Oxford Outcomes to assess costs and benefits of TAVI vs OMT. A short term sub-model represents the first 30 days after TAVI (cycle length of 30 days), whereas a long term model (cycle length of one month) considered a 10-year time horizon. For TAVI patients the health states considered are ICU, General Wards, Home, Re-operation and Death. OMT patients are in either Home or Dead health states, receiving medication until death and at risk of co-morbidity-related de-mobilizations. Portuguese NHS healthcare resource use was retrospectively collected at Hospital de Santa Cruz in Lisbon for a cohort of 44 high risk AS patients (21 TAVI, 23 OMT), over a period of 11 months. Clinical parameters, transition probabilities and utility values were derived from relevant literature. Costs were taken from the Oxford Outcomes database. Treatment pathways were derived from published tables and historical re-ports. Costs and benefits were discounted at 5% p.a. Probabilistic and one-way sensitivity analysis were performed. RESULTS: Treatment with TAVI compared to OMT increased life years by 1.7 (3.13 vs. 1.46) and quality-adjusted life years (QALYs) by 1.4 (2.23 vs. 0.80). Direct costs were 32,067 € with TAVI and 46,624 € with OMT. Incremental Cost Effectiveness Ratios (ICERs) estimated are 16,375 €/QALY and 19,180 €/QALY. CONCLUSIONS: TAVI is highly likely to be a cost-effective intervention for the treatment of AS in patients who are currently ineligible for surgery.