€17.570/LYG. **CONCLUSIONS:** It was possible to develop a unique base case Markov model for early breast cancer from the literature and to adjust this model taking various published assumptions into account. The adaptation of various assumptions resulted in differences in outcomes of CEAs of adjuvant breast cancer therapies. This case example demonstrates the importance of the development of standardized model structures for adjuvant breast cancer therapies.

MO3

LESSONS LEARNED FROM A CROSS-VALIDATION BETWEEN A DISCRETE-EVENT SIMULATION MODEL AND A MARKOV MODEL FOR PERSONALIZED BREAST CANCER TREATMENT

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OBJECTIVES: Breast cancer is the most common malignant disease in Western women. In the ONCOTYROL research center, a Breast Cancer Outcomes & Policy (ONCOTYROL) model was developed to evaluate the cost-effectiveness of the new 21-gene assay that supports personalized decisions on adjuvant chemotherapy. The goal of this study was to validate our Oncotyrol-model. **METHODS:** The 21-gene assay was evaluated by simulating a hypothetical cohort of 50-year old women over a lifetime time horizon using a discrete event simulation. Main model outcomes were life-years gained, quality-adjusted life-years (QALYs) and costs. Based on the new ISPOR-SMDM best practice recommendations, the model has been validated. Major focus was on our experiences of the cross validation, i.e. the comparison of modeling results between the discrete-event-simulation ONCOTYROL-model and the THETA-model (Toronto Health Economics and Technology Assessment Collaborative) which is a Markov model. Therefore, the Oncotyrol-model has been populated with the Canadian THETA-model parameters. Cross validation started with a comparison of the natural history followed by QALYs and costs. **RESULTS:** The relative differences varied among the model outcomes. The smallest differences we found for costs, the highest for QALYs. All differences were smaller than 2.5%. The comparison of the efficiency frontiers showed that small differences due to the modeling approach can lead to a different set of non-dominated test-treatment strategies. The cross model validation involved several challenges: distinguishing between outcomes differences due to different modeling techniques and errors, definitions for meaningful differences and comparison techniques (mean estimates, distributions, multivariate outcomes). **CONCLUSIONS:** Cross-model validation was crucial to identify and correct modeling errors and to explain remaining differences of modeling results. However, small differences can lead to relevant changes in cost-effectiveness results.

MO4

TREATMENT DISCONTINUATION IN ECONOMIC MODELLING OF ONCOLOGY THERAPIES: SYSTEMATIC REVIEW AND BEST PRACTICES ANALYSIS

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OBJECTIVES: Compliance and treatment duration can have a significant impact on costs and health outcomes in health-economic assessments, especially in high-cost therapy areas such as oncology. The objective of this study was to systematically review different methods for addressing treatment compliance and discontinuation in oncology economic models, critique the identified methodologies, and highlight best practices. **METHODS:** A systematic review was undertaken to investigate the different methods that could be used to include compliance and treatment discontinuation in economic modelling in oncology populations. MEDLINE, Embase, EconLit and the Cochrane Library (from 2000 onwards), and technology assessment documents and manufacturer submissions to the National Institute for Health and Clinical Excellence (NICE) were searched for economic analyses which mentioned compliance or discontinuation. Results were filtered using pre-specified selection criteria and data extracted into a pre-defined template. **RESULTS:** Sixty-eight publications of 51 models were included, comprising 20 journal publications and 48 technology appraisal documents. Possible methods were divided into ten categories. Seven studies mentioned discontinuations, but did not include a modelling approach. There was a lack of consensus regarding the methods applied. Twenty studies varied dose or discontinuation rate in sensitivity analyses, although impact on overall outcomes was rarely explored. Dose intensity was most often adopted from clinical trials. Effects on the overall outcomes by inclusion of discontinuations or dose intensity adjustments were rarely discussed. Overall, the authors of included publications poorly justified their methods regarding compliance assumptions. **CONCLUSIONS:** The combination of several methods could improve accuracy of modelling discontinuations. Discontinuations should affect three aspects of the model: transition probabilities, costs and effects. Clear explanations and justification of the included parameter assumptions should also be improved in NICE submissions to enhance likelihood of positive recommendation. Standardised guidelines could raise more attention to compliance in economic modelling and could improve the accuracy of economic models.

PODIUM SESSION II:
PATIENT HEALTH CARE ACCESS

PA1

ASSESSING THE PROGRESSION OF THE UK NHS HEALTH CARE REFORMS AND THE IMPACT ON HEALTH CARE DELIVERY

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OBJECTIVES: The UK NHS is currently undergoing the most significant reforms to its structure possibly since the NHS was formed. There are many questions at all levels regarding the reforms, and this research aimed to address some of them The objectives were – 1) To assess how the reforms were proceeding and what issues they had been encountered, and 2) To determine how the delivery of care has been impacted at a grassroots level. **METHODS:** We adopted a two phased approach. The first phase involved extensive literature review in order to assess how the reforms were expected to proceed, what the outcomes were likely/expected to be and when key milestones were expected to be met. The second phase was centred on primary research carried out by Double Helix personnel. Key stakeholders in the reforming NHS at all levels were approached and data was collected using a combination of qualitative and quantitative methodologies. **RESULTS:** While the vision of the NHS reforms was very clear from the outset, the actual progression on the ground has been met with considerable challenges. Even while CCGs in the first wave were in the process of undergoing assessment, changes to the overall architecture of the reforms were continuous. Key personnel at all levels lacked a clear grasp of what the following 12 months would bring, and various influencer and guideline bodies faced uncertain futures or lacked a clear remit. At the stage of writing there was no clear evidence either way to suggest that the reforms were having an impact on frontline health care delivery. **CONCLUSIONS:** The UK NHS Reforms were always going to be challenging due to their scale and complexity. However there has been a clear lack of direction at various levels leading to uncertainty and fears for the short and medium term future.

PA2

HOSPITAL-BASED HTA IN ITALY: DIFFUSION AND POTENTIAL IMPACT

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OBJECTIVES: Early development of HTA in Italy has been mainly hospital-based (HB HTA). HB HTA can support administrative procedures increasing transparency and promoting the bottom-up awareness around HTA principles. Whether HTA has an impact on actual hospital expenditure and consumption of health technologies, particularly medical devices (MDs), has not been investigated. This research aimed at exploring potential HB HTA's impact on purchased MDs, once assessed its diffusion in Italy. **METHODS:** We run a survey, based on a semi structured on line questionnaire, on a sample of Italian Healthcare trusts, asking for 2008-2009 data about consumption and unitary costs of a class of MDs (e.g. coronary stents) and HTA activities. HB HTA's activities have been surveyed in terms of diffusion and structural/organizational characteristics. We assessed in a multivariate analysis whether an association exists between the implementation of HTA activities and MDs diffusion at the local level. **RESULTS:** Given 46 respondents, located in 15 Italian Regions, 22 (48%) have a commission for MDs. Commissions meet almost monthly and encompass on average 10 members (SD=5.4). On average there are 2 pharmacists (SD=1.13); 3 medical doctors (SD=2.91) and 1 clinical engineer (SD=2.9). About 60% of the Commissions produce evaluation forms and repertory, whereas about 40% produce hospital guidelines and other documents to support procurement activities. A preliminary analysis of HB HTA's characteristics shows that the perception on the importance of HTA in a hospital may depend on the presence/absence of the organizational structure (such as defined HTA Commission) and a correlation exists between expenditures/volumes of coronary stents and level of importance of "economic" aspects in HTA. **CONCLUSIONS:** We suggest HTA could potentially impact on health technologies' uptake and expenditure when realized within the hospital setting, stimulating collaboration between different units and actors, thus providing local health care managers with a useful tool for budget control and planning.

PA3

LIMITED ACCESS TO CATARACT SURGERY IN POLAND

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OBJECTIVES: Cataract surgery is commonly performed in developed countries. Artificial lens implantation is considered to be one of the most cost-effective medical interventions. The aim of this analysis was to describe the organization of cataract surgery in Poland and compare access and quality of care with other countries. **METHODS:** Access to cataract surgeries was assessed on the base of statistical reports issued by National Health Fund (NHF) regarding number and structure of cataract surgeries and waiting times. Epidemiological data was used to estimate number of patients qualifying for treatment. Data on reimbursement was obtained from Ministry of Health and NHF. To supplement publicly available data, a number of clinical experts were consulted. **RESULTS:** Each year 170k cataract surgeries are reimbursed in Poland. 300k patients are currently in a queue for surgery. The mean waiting time is geographically dependent and varies from 8 up to 22 months (stable cases). There is a high disproportion among voivodeships in funding of cataract surgeries. The Cataract Surgery Rate (CSR) in 2011 was 4.4k