exploratory analyses conducted and reported by an ERG is mentioned in 97% of ACDs and 94% of FADs, and had a clear influence on recommendations in 72% of ACDs and 47% of FADs. **CONCLUSIONS:** These results suggest that the additional analyses undertaken by independent Evidence Review Groups (ERGs) in the appraisal of company submissions to the NICE STA process are highly influential in the policy and decision-making process.

PHP168

EARLY MARKET ACCESS FOR PHARMACEUTICALS IN EU: WHAT IS THE IMPACT OF EMA'S ACCELERATED ASSESSMENT PROCEDURE?

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OBJECTIVES: In 2005, the accelerated assessment procedure (AAP) for medicines of major public health interest was introduced reducing timelines from 210 to 150 days for the Committee for Medicinal Products for Human Use (CHMP) opinion. The objective is to determine market access (MA) status of products accepted for AAP in selected countries: France, Germany and United Kingdom (UK). **METHODS:** All products accepted for AAP in 2015 were extracted from the European Medicines Agency (EMA) website. Health technology assessments (HTA) of these products were reviewed for France, Germany and UK through HAS, IQWiG/G-BA, NICE and SMC websites. **RESULTS:** Out of 17 products (8 with an orphan drug designation) accepted for AAP in 2015, 7 had marketing authorisation, and 2 had conditional marketing authorisation on the basis of less than comprehensive clinical evidence (as of June 2016). Remaining 8 products were either rejected, assessment is ongoing, or status is unknown. Thus far, 20 % (2/9) of approved products accepted for AAP were positively assessed by HTA bodies in France, and 10% (1/9) in UK (NICE and SMC) and Germany. Positive recommendations were granted without any restrictions in UK, while in Germany, G-BA recognised additional benefit in some specific subgroups. Timeframe from EMA approval to reimbursement-decision varied between HTA bodies; HAS providing the quickest and NICE the slowest route to MA (TC: 76-187, SMC: 113, G-BA: 182 and NICE: 314 days). In France, quick route to MA was facilitated by Temporary Authorisation for Use (ATU) scheme. **CONCLUSIONS:** Improved efficiency in EMA review time due to AAP is increasingly used to facilitate effective access to promising new treatments at regulatory level. Further alignment between regulators and HTA bodies is needed to bridge the gap between marketing authorisation and MA across Europe.

PHP169

GOOD COP, BAD COP; G-BA AND IQWIG IN CLINICAL OUTCOME EVALUATIONS

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OBJECTIVES: G-BA and IQWiG state the same guidelines for assessing clinical efficacy data on Mortality, Morbidity, and Quality of Life (QoL). This analysis compares the two agencies' approaches to clinical data evaluation to determine if they interpret the guidelines and standards similarly in practice, and accept the same outcomes for demonstrating benefit. **METHODS:** This analysis included 98 G-BA and 153 IQWiG evaluations for 88 different drugs across 41 disease conditions. 1,312 clinical outcomes were evaluated to determine the rates of outcome rejection. Rejection was defined as instances where the manufacturer submitted information and G-BA or IQWiG concluded that the data was not usable; instances of no data or inconclusive data were excluded. **RESULTS:** 15% of outcomes were rejected. QoL outcomes were more likely to be rejected than Morbidity and Mortality outcomes (27%, 15%, and 2%, respectively). Intra-agency disagreements were identified; IQWiG rejected more outcomes than G-BA (16% vs 12%; $p<0.083$). G-BA rejected zero Mortality outcomes (n=121), while IQWiG rejected six (n=125). IQWiG never accepted PFS, whereas G-BA rejected it outright 52% (n=25) of the time, and reported it with a disclaimer and commentary on internal disagreement on its validity 48% (n=23) of the time. The most common reasons for rejection were using a non-validated outcome or having too small of a proportion of patients in the analysis. During the presentation, further case studies on intra-agency (and internal) disagreement will be presented. **CONCLUSIONS:** IQWiG and G-BA appear to use differing standards in tandem, with IQWiG's more critical assessment bolstering G-BA's subsequent assessment of additional benefit. G-BA accepts more outcomes than IQWiG in every category, and reports internal disagreement on outcomes that IQWiG rejects outright. Overall, 15% of outcomes assessed in Germany are disregarded, a concern for manufactures developing clinical trials. Use of validated outcomes and sufficient population size, especially for QoL, is essential.

PHP170

MARKET ACCESS PATHWAYS FOR DRUGS WITH EMA CONDITIONAL APPROVAL

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OBJECTIVES: A medicine addressing unmet medical needs can be granted conditional marketing authorisation (CMA) by the European Medicines Agency (EMA) despite providing less comprehensive data than normally required. CMA is one of the recently introduced initiatives designed to accelerate patient access to innovative therapies. This study investigates whether pursuing an accelerated pathway with CMA impacts outcomes of health technology assessments (HTAs). **METHODS:** Drugs that received conditional approval were identified via a search on the EMA website. Related HTAs were identified via websites of key HTA agencies in France (HAS), Germany (G-BA), Sweden (TLV), the Netherlands (ZIN) and the UK (NICE, SMC) going back to January 2011. Identified HTAs were studied on submitted clinical evidence, recommendation and decision drivers. **RESULTS:** 22 drugs received CMA from EMA and these drugs were reviewed in 56 HTAs from selected key agencies. 50% of these 56 HTAs received a positive recommendation, which is lower than the positive recommendation rate in all HTAs from the same agencies (58%). Analysis of decision drivers shows that positive recommendations for CMA drugs were mainly driven by demonstrated clinical benefit and high unmet need. Immature or insufficient data did not seem to affect the HTA outcome for CMA drugs. Relatively more HTAs based on single arm trials received a positive recommendation than HTAs based on randomised trials. Furthermore, using immature data seems to have a similar success rate as using data from the final analysis. **CONCLUSIONS:** Despite concerns around safety and evidence, CMA drugs do relatively well in HTAs. HTA decisions for such products are most likely to be influenced by high unmet needs and a lack of other therapeutic options. Payers might accept a lower standard of evidence when the unmet need is higher and thereby enabling earlier access to new treatment.

PHP171

THE ROAD TO RUSSIAN PHARMACOECONOMICS: UNDERSTANDING THE DRIVERS FOR ACCESS TO HIGH-VALUE / ORPHAN DISEASE DRUGS

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OBJECTIVES: Access to medicines in Russia has traditionally been highly correlated with the national Essential Drug List (ЖНВЛП) inclusion. Although an explicit methodology of assessing the new drug dossier exists, significant variation in the decision-making process and outcomes is common. This research aims to explore the current spectrum of decision drivers for pharmaceutical product assessment in Russia and the influence of pharmacoeconomics and regional price variability on this process. **METHODS:** The video-protocol of the decisions for drug inclusion in the Russian EDL in 2014 and 2015 were analysed (163 drugs) to identify the key drivers for Ministry of Health reimbursement and the role of pharmacoeconomics within it. Two categories of drugs were identified to test the research hypotheses: (1) drugs successfully securing a place on the EDL-2015 following an initial rejection for EDL-2014 (25 drugs), and (2) drugs unsuccessful in securing a place for both EDL-2014 and EDL-2015 (32 drugs). The Russian tender database system (zakupki.gov.ru) was used to analyse the regional price and reimbursement variations. **RESULTS:** Analysis of key decision-making drivers yielded the growing importance of secondary decision drivers in the face of currently stringent drug budget in Russia at the national and local levels. Such criteria includes some aspect of manufacturing that takes place locally, EDL listing of other therapeutics within the same class , date of approval, and the number of indications. Pharmacoeconomic analysis has not been considered consistently throughout the committee decisions, however remains the key question for high-value therapeutic options. Price variation across regional tenders, which sometimes rise to 20%, were not taken into consideration. **CONCLUSIONS:** To gain EDL-listing, an effort to ration the budget should include a request to delist older,less effective therapies, as well as provide a comprehensive overview of the difference between the therapy's nominal and real budget impact.

PHP172

RETROSPECTIVE REVIEW OF OBSERVATIONAL DATA REQUESTED BY THE FRENCH HEALTH AND TECHNOLOGY ASSESSMENT AGENCY: HOW ARE RESULTS TAKEN INTO ACCOUNT?

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OBJECTIVES: When assessing medicinal products in order to provide recommendations for reimbursement, the Transparency committee (TC) of the French health and technology assessment agency (HAS) may ask pharmaceutical companies to provide additional data. These data are collected via observational studies called post-registration studies (PRS). We analysed how PRS final results are taken into account into TC reassessments. **METHODS:** Final results of PRS submitted between 1996 (files computerisation) and 01/06/2016 were extracted from HAS database. For each result, have been identified: time to obtain data, integration in a Transparency Opinion and percentage of change of TC assessment criteria "actual clinical benefit (ACB)" qualified on a 4 point-scale from substantial to insufficient and "clinical added value (CAV)" qualified on a 5 point-scale from major to absent. **RESULTS:** A total of 137 PRS final results have been registered. These requests for additionnal data were more likely to affect drugs with a "substantial" ACB (79%) and a "major to minor" CAV (62%). In median, 6 years was necessary for pharmaceutical companies to provide final data. These PRS were largely field epidemiological studies (80%) with a descriptive (77 %), non-comparative (72 %) and prospective (77 %) design. Final results have been integrated in a Transparency Opinion in 91% of the cases. No change of ACB and/or CAV have been observed in 68% of the Transparency Opinion integrating PRS final results. When the ACB criteria have been modified, it was largely degraded (n=21/22) leading to an unfavorable opinion for reimbursement for 15 drugs. When the CAV criteria have been modified, it was systematically lowered (n=16/16). **CONCLUSIONS:** PRS are a significant point taken into account for the assessment of medicinal products whilst their results do not change ACB and CAV in most cases.

PHP173

THE VALUE OF MCDA IN HEALTH TECHNOLOGY ASSESSMENT: A EXPLORATIVE STUDY IN THE DUTCH CONTEXT

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OBJECTIVES: There is a growing interest in supporting health technology assessment with multi-criteria decision analysis (MCDA). The objective of this study was to study the value of MCDA to support the advisory committee reimbursement of the Dutch National Health Care Institute. **METHODS:** In a retrospective case analysis, the relevance and importance of the decision criteria and the performance of the

interventions under consideration were elicited for three case studies. A mathematical MCDA was performed, criteria weights, performance scores and global values were calculated and the results were discussed with the committee members in a panel meeting. **RESULTS:** The number of relevant criteria varied between nine and 14 (out of 26) between respondents (n=5), with a median number of criteria of 12. The core criteria effectiveness (17% of the total weight), burden of disease (16%) and strength of evidence (15%) were judged as most important. In the case of Pompe Disease, the disease burden (93 out of 100) and the effect size of alglucosidase alfa (91/100) were judged high, the strength of evidence was perceived as moderate (55/100) and cost-effectiveness is low (28/100). There was large variation between members in importance and performance scores. The overall value (i.e. need to reimburse) of alglucosidase alfa for Pompe Disease is judged as 76 (out of 100), 39 for the smoking cessation program and 27 for the contraceptive pill. **CONCLUSIONS:** Theoretically and practically, differences in value judgements between and within committee members influence the consistency and validity of recommendations across innovations. At the same time, differences in judgments are viewed as a key strength of appraisal committees. The unique and complex context in which innovations are judged in appraisal committees complicates the use of the mathematical approach to MCDA. However, the explicit deliberation of the importance of criteria, supported by facts can bring structure to the decision process.

PHP174

VARIATIONS IN STAKEHOLDER PREFERENCES BETWEEN INNOVATIVE PRICING AGREEMENT TYPES ACROSS THE EU5

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OBJECTIVES: Global medicines expenditure is forecast to hit $1.4 trillion annually by 2020 (private / public sources, USD, source: IMS Institute), an increase of approximately 30% from current levels. To manage global medicine spend, it is likely that payers and pharmaceutical companies will need to expand innovative contracting, with increased reliance on mechanisms that share risk and ensure predictable patient costs. Payer preferences and perceptions of implementation hurdles across types of innovative agreements are currently not well understood, leading to a potential disconnect between pharmaceutical manufacturers and payers which may ultimately reduce timely patient access to medicines. **METHODS:** To understand stakeholder preferences in EU5 markets, a two-stage research approach was used. In a pilot focus group (n=5), payer stakeholders from each market were asked to estimate national preference ranks for innovative agreements, defined as performance-based (individual patient response), evidence development (e.g. patient registries), or financial-based risk-sharing (such as patient capitation). This pilot will be followed by an EU5 online discrete-choice survey (targeted n~55) to generate utility scores across product / agreement scenarios. **RESULTS:** Average preference rank (1 = not preferred, 5 = most preferred) for financial-based risk-sharing was 3.5, followed by performance-based (2.6) and evidence development (1.8). Evidence development was ranked highest in France but lowest in all other markets. Only the UK ranked performance-based schemes as the most-preferred option (4/5). Mandatory in-market negotiations (such as in Germany) were seen as a barrier to innovative contracting, through achieving a lowest acceptable price as a condition of reimbursement. **CONCLUSIONS:** In order to manage public medicine expenditure, innovative contracting may represent a better alternative to simple discounts or rebates, but uptake requires acceptance from stakeholders. Pilot results indicate that in-market preferences vary across the EU5, and that existing pricing/access policies may act as a disincentive to innovation. Funded by Mundipharma International Limited

HEALTH CARE USE & POLICY STUDIES – Health Care Research & Education

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SIMULATING PATIENT-LEVEL PROFILES TO CAPTURE PATIENT HETEROGENEITY IN HEALTH-ECONOMIC APPLICATIONS

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To accurately capture the impact of patient heterogeneity some health economic models run on patient-level profiles. Unfortunately, these are often not available for all populations of interest. Mean characteristics are commonly substituted for patient-level profiles, ignoring patient heterogeneity and potentially leading to biased results. For example, using mean characteristics with a survival regression assigns a medium-risk survival curve to the full population. Since survival of low and high-risk patients is not symmetrically distributed around the mean, this predicted curve is inaccurate. A crude approach is to simulate characteristics independently, but as patient characteristics are usually correlated, this produces unrealistic patient profiles. We present a technique for sampling profiles from a target distribution specified using characteristics' means and covariances, which may come from different sources. The proposed technique is based on multi-normal sampling, extended to include combinations of normal, log-normal, and dichotomous variables. This generalization is important, as many patient covariates are dichotomous. In standard multi-normal sampling, profiles are sampled from a distribution, $Z \sim N(\mu, \Sigma)$, defined by means μ and covariances Σ. We sample using a modified covariance matrix, $Z' \sim N(\mu, \Sigma')$, and then apply a transformation function, $Z = T(Z')$. T and Σ' are constructed to ensure that Z has means μ and covariances Σ. Consider a hypothetical economic model requiring prediction of life-expectancy in various populations described by baseline means. As an illustration, we used survival data from a SEER lung cancer population characterized by age, gender, and histology. A parametric model fitted to the population yielded a log-normal model, with predicted life expectancy at 2.23 years. Using patient characteristic means estimated life-expectancy at 2.10 years. Using the proposed simulated profile approach estimated life-expectancy at 2.26 years. The bias illustrated is systematic in direction, as predictions generated at the means underestimate the mean of predictions. Thus, applying the proposed approach achieves more accurate results.

PHP176

QUANTIFICATION OF PATIENT PREFERENCE ANALYSIS: WEARING THE FEDERAL JOINT COMMITTEE LENS TO ASSESS EVIDENCE

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OBJECTIVES: The increased focus on value story driven by patient centric strategic imperatives and clinical outcome assessments have become an integral part of a successful reimbursement submission. Health technology assessment (HTA) agencies include patient views in their appraisals to various extents. We aimed to explore inclusion and evaluation of patient preference data in HTA assessments in Germany (Arzneimittelmarktneuordnungsgesetz, AMNOG). Part of the assessment was a review of statistical methods applied to patient preference assessments. **METHODS:** The research earlier published by Obradovic et al. 2014, exploring the evaluation of patient preference data, was updated from 1st April 2014 to 1stJune 2016. Types of patient preference data included in the value dossiers, and their consideration in the assessments, were collated, summarized and insights were drawn from the trends. Also, a thorough literature search was conducted to understand the quantitative techniques proposed/used by HTA bodies to determine patient preference analysis. **RESULTS:** A total of 136 dossiers were submitted in the study period, 20 dossiers were excluded due to insufficient information at the GBA website. 116 dossiers were analyzed and only a few dossiers (~10%) included data (qualitative/quantitative) on patient preferences. Further, the findings of the literature search revealed that the German Institute for Quality and Efficiency in Healthcare (IQWiG) has evaluated two quantitative techniques for the patient preference analyses: Analytic Hierarchy Process (2013) for major depression and Conjoint Analyses (2014) for Hepatitis C. Findings showed that despite of some methodological gaps, these techniques can be employed to answer key questions for patient preference analyses. **CONCLUSIONS:** In the wake of availability of robust statistical techniques, there is a limited evidence depicting the use of patient preference analysis in AMNOG submissions. Hence, there is an urgent need of discerning patient preferences and incorporating them in the value dossiers to move from patient-relevant to patient-preferred outcome reporting.

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PSYCHOMETRIC TESTING OF THE FINNISH VERSION OF THE PROSTHESIS EVALUATION QUESTIONNAIRE

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OBJECTIVES: To translate and cross-culturally adapt the Prothesis Evaluation Questionnaire (PEQ) into Finnish then test its psychometric properties on adult lower-extremity prosthetic users. **METHODS:** The PEQ was adapted into Finnish adhering the ISPOR translation guidelines. Study participants completed the following: the Finnish PEQ, patient-reported overall pain and health using a visual-analogue scale, a physical activity questionnaire, and the 15D health-related quality of life (HRQoL) instrument. The study poulation comprised 130 adult patients (65% men) who had undergone major lower-extremity amputation for various reasons were rehabilitated to prosthesis use and had completed all questionnaires. Reliability testing included internal consistency, the floor-ceiling effect, and test-retest assessment for which participants completed the PEQ twice separated by a 2-week interval. Validity assessment included criterion validity testing and linear regression analyses in the predictors of the 15D age and gender standardized regression coefficients β. **RESULTS:** Minor linguistic changes were made for Finnish cultural adaptation. The mean (SD) PEQ scale score was 65.1 (23.7). Cronbach's alphas ranged from 0.67 to 0.96 for the scales. The total score showed no floor or ceiling values. Reproducibility of the 10 separate scales ranged from 0.78 to 0.87. Seven of the 10 scales had statistically significant correlations with general pain and six scales with general health. Linear regression analyses identified large relationships between the 15D and four of the PEQ scales: Ambulation, Social burden, Usefulness and Well-being. **CONCLUSIONS:** The Finnish version of the PEQ was succesfully adapted for Finnish prosthetic users. Psychometric testing of the Finnish version of the PEQ showed good internal consistency and test-retest reliability. The PEQ is valid in assessing the HRQoL in Finnish adult major lower-extremity amputees who have rehabilitated to become lower-extremity prosthesis users.

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EPIDEMIOLOGICAL CHARACTERISTICS OF HOSPITALIZATIONS DUE TO ADVERSE DRUG REACTIONS (ADRS) RELAED TO ORAL ANTICOAGULANTS IN SPAIN: 2010-2013

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OBJECTIVES: Adverse drug reactions (ADRs) are a major public health problem owing to their impact on morbidity and mortality. Anticoagulant drugs are a common causes of ADRs. Our aim was to describe and analyze hospitalizations due to ADRs to oral anticoagulants based on data from the Spanish Hospital Minimum Basic Data Set during the years 2010, 2011, 2012, and 2013 **METHODS:** We performed a retrospective observational study on hospital discharges in patients diagnosed