class will provide additional life years and avoid high-grade adverse events (AEs) with a manageable budget impact per year compared to the standard of care. The model also enables policy-makers to assess the adequacy of their budget for the near future and explore the implications of different policy decisions. Results for Belgium show that over the five-year period the PD-1/PD-L1 inhibitors will save 10,635 additional life years, avoid 7,597 AEs and have a budget impact of approximately EUR 260 million. Results for Slovenia show 1,468 additional life years gained and 869 AEs avoided with a budget impact of approximately EUR 116 million; for Switzerland, 6,775 life years gained, 6,953 AEs avoided, and EUR 106 million budget impact; and for Italy, 5,019 life years gained, 2,040 AEs avoided, and EUR 627 million budget impact.

Conclusions. Although limitations exist, the model informs planning by helping quantify the potential impact of immune-oncology treatments on health and budget in different scenarios.

PP41 Cost-Effectiveness Modeling Of Chimeric Antigen Receptor T-Cell Therapies

Siguroli Teitsson (siguroli.teitsson@parexel.com) and Richard Macaulay

Introduction. This study has two key aims. The first is to review cost-effectiveness (CE) models for chimeric antigen receptor T-cell (CAR-T) therapies that have been appraised by health technology assessment (HTA) authorities. The second is to identify the key challenges of CE modeling of CAR-T therapies based on the main points raised in the HTA appraisals.

Methods. A targeted HTA review of published CE models for CAR-T therapies in the United Kingdom (UK) and United States (US) was undertaken.

Results. Four relevant CE models were identified – three from the UK and one in the US. Of the three UK models, two were single technology submissions to the National Institute for Health and Care Excellence (NICE) and one was a 'mock' appraisal undertaken by NICE with a hypothetical evidence dataset. The one US model was published by the Institute for Clinical and Economic Review (ICER) committee. Two key model structures were adopted across the appraisals: a three-health state partitioned survival analysis model and a short-term decision tree followed by a three-health state partitioned survival model. The key modeling challenges identified can by summarized into five main categories: comparator evidence generation, estimation of long-term survival, curative benefit, health-related quality of life, and infrastructure/training requirements.

Conclusions. There are many challenges associated with the CE modeling of CAR-T therapies, with the most critical issues related to how uncertainty for long-term efficacy and safety can be addressed and mitigated. With more mature evidence sets in the future, stakeholders will get a clearer picture for the long-term benefit and risk of CAR-T therapies, but until then it is likely that HTA authorities will take a conservative stand when appraising the comparative value of CAR-T therapies.

PP43 Decision-Making Tool In Case Of Beta-Lactam Allergy: How To Help Clinicians?

Sylvie Bouchard, Geneviève Robitaille, Fatiha Karam, Jean-Marc Daigle and Mélanie Tardif (ann.levesque@inesss.qc.ca)

Introduction. Beta-lactams (BLs), especially penicillins, are the most commonly used antibiotics, particularly in primary care, and one of the most reported drug allergies. Fearing cross-reactivity, clinicians refrain from prescribing another BL (e.g., cephalosporin or carbapenem) to penicillin-allergic patients. This can have significant consequences for the patients and the health-care system (e.g., exposure to broad-spectrum antibiotics, increased risk adverse effects, and increased healthcare costs).

Methods. To assess the absolute cross-reactivity risk, two systematic reviews with meta-analysis were conducted. Then, an approach based on a knowledge mobilization framework considering scientific, contextual and experiential evidences was used. Focus groups with stakeholders, including primary care clinicians, pediatricians, infectious disease specialists and allergists/immunologists, were also held to meet the needs of all actors concerned.

Results. Following this work, it appears that true allergies to penicillin are very rare. Indeed, in patients with a history of penicillin allergy, very few are truly allergic and thus the risk of cross-reaction with another BL is even lower, varying according to structural and physicochemical similarities with alleged-penicillin. Moreover, the risk of having an anaphylactic reaction after penicillin exposure is very low, especially among children. As well, in patients with confirmed penicillin allergy, the observed reactions are usually delayed non-severe skin reactions. However, with a confirmed penicillin allergy, it is important to remain cautious when administering a new BL, especially if the initial reaction was serious or severe. Based on these key messages, a decision aid including an algorithm was developed. Likewise, individualized algorithms for common infections met in primary care were produced.

Conclusions. From this work, health professionals non-specialized in allergology should be able to better manage the risks attributed to penicillin allergies. Therefore, patients should receive the most effective and safe antibiotics to treat their clinical conditions in primary care.

PP44 Optimal Use Of Warfarin: Self-Monitoring From A Quebec Perspective

Sylvie Bouchard, Frederic St-Pierre, Ann Levesque (ann.levesque@inesss.qc.ca), Melanie Turgeon, Helene Guay, Adriana Freitas, Eric Plante, Gabriel Carpentier and Mélanie Tardif

Introduction. Frequent standard International Normalized Ratio (INR) monitoring by health professionals is one of the major inconveniences reported by warfarin users. However, portable coagulometers are now available to reduce this burden by allowing patients to self-monitor their INR in the comfort of their home,

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thereby reducing their visiting frequency to a medical clinic. The aim of this work was thus to elaborate recommendations on the use of self-monitoring in the management of warfarin-treated patients in the province of Quebec.

Methods. Systematic literature reviews were conducted to retrieve the most up-to-date scientific data from primary studies and pharmacoeconomic evaluations as well as recommendations from published clinical practice guidelines. This information was then triangulated with the experiential knowledge of Quebec experts and clinicians collaborating on the project.

Results. The scientific, contextual and experiential evidence gathered during this work provided convincing support for the use of self-monitoring for long-term warfarin-treated patients, leading to a more effective treatment than standard monitoring while being safe, cost-effective and potentially improving patients' quality of life. However, physical and mental limitations can hinder the use of portable coagulometers, outlining the need for caution in the selection and support of self-monitoring patients.

Conclusions. This work led to the development of specific recommendations on the use of self-monitoring along with a clinical tool to help discussion between patients and health professionals leading to a shared decision-making. This work will be part of two optimal usage guides on oral anticoagulant therapy to be published by the Institut national d'excellence en santé et en services sociaux.

PP48 Risk Of Bias Of Systematic Reviews Connected To Journal Impact Factor?

Vanesa Huertas Carrera (vanesa@systematic-reviews.com), Gill Worthy and Joseph Kleijnen

Introduction. Systematic reviews (SRs) are today's cornerstone of evidence-based medicine. However, their risk of bias (ROB) may critically impact their findings. Hence, an impartial assessment of their ROB is paramount to their interpretation. The objective of this study is to evaluate the potential association between the results of the ROB assessment for a series of SRs and their corresponding journal's impact factor as determined by the citation reports.

Methods. A sample of over 500 SRs and their corresponding ROB will be employed in this study. The source for these data will be the database KSR Evidence. The corresponding impact factor (IF) for the publishing journal as reported by the Science Citation Index will also be retrieved. The total of ROBIS signaling questions answered as 'yes' or 'probably yes' will be used to approximate the awarded quality (Quality) for each systematic review. An analysis of the potential correlation between Quality and the IF will be performed with a simple linear regression.

Results. Results will be presented in tables and figures. Preliminary results confirm that a statistically significant association between the suggested variables exists, though this is of low magnitude.

Conclusions. Findings confirm that the ROB of an SR and the IF of the publishing journal are correlated.

PP50 How Do Target Population Sizes In Health Technology Assessments Impact Drug Price Changes?

Daniel Liden (daniel.liden@contextmattersinc.com), Rachel Jao, Cameron Lockwood and Floriane Reinaud

Introduction. The relationship between heath technology assessment (HTA) recommendations and drug prices has received little attention in the published literature. We consider whether target population sizes estimated as part of positive HTA decisions impact future price changes. We hypothesize that larger target populations may result in larger drug price reductions, as overall budget impact is an important component of price negotiations.

Methods. HTA and pricing data were obtained from the Context Matters Market Access Platform (MAP) and IHS Markit's PharmOnline International (POLI) pricing database, respectively. We analyzed 55 HTA decisions from the Gemeinsame Bundesausschuss (G-BA; Germany) and the Haute Autorité de Santé (HAS; France) for oncology products receiving European Medicines Agency approval between 2011 and the end of 2014. Pricing and HTA histories were tracked from the beginning of 2012 until October 2018. Using multiple regression to control for HTA agency, country-specific scores (Improvement in Actual Benefit and Additional Benefit scores), pack size, and initial price, we examined the relationship between a drug's price change in the year following an HTA review and the increase in target population resulting from the HTA decision.

Results. We found that larger increases in target population were related to larger reductions in drug prices ($p = 0.014$). The magnitude of the effect size was low.

Conclusions. For the sample evaluated, we found a small but statistically significant association between target population size increases (as estimated by HTA bodies) and price reductions, supporting our hypothesis that target population plays a role in price negotiations. Confidential discounts and managed-access agreements likely account, in part, for the low magnitude of the observed association. Future work on this topic will involve larger samples covering a greater number of HTA agencies to improve the power and generalizability of the analysis.

PP52 Interim Decision-Making To Address Uncertainty At Early Assessment

Noreen Downes (noreen.downes@nhs.net), Jan Jones, Anne Lee and Pauline McGuire

Introduction. Medicines regulation has become increasingly adaptive to support earlier patient access but the immature clinical data is often challenging for health technology assessment decision-makers due to high levels of uncertainty on long term risks and benefits. Scottish Medicines Consortium (SMC) is therefore exploring new, more adaptive approaches to help manage this challenge.

Methods. SMC consulted with key stakeholders including clinicians, the pharmaceutical industry and patient groups on a

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