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

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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?

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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

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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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