

analyses considering the healthcare system perspective were performed to explore model uncertainty.

**Results:** Patients receiving sintilimab plus chemotherapy incurred a mean total cost of USD67,727 and gained 2.5 QALYs during the lifetime period, compared with USD40,530 and 1.5 QALYs for patients receiving standard chemotherapy. The corresponding ICER was USD27,665 per QALY in China. At a willingness-to-pay threshold of three times the gross domestic product per capita in China (USD37,663), sintilimab plus chemotherapy was the optimal treatment in 84 percent of replications. Deterministic sensitivity analysis showed that the most significant driving determinant was the discount rate of costs and QALYs. An ICER of USD21,020 per QALY was obtained from the Chinese healthcare system, validating the robustness of the cost-effectiveness analysis.

**Conclusions:** Compared with standard chemotherapy, sintilimab plus chemotherapy is a cost-effective treatment regimen for non-squamous NSCLC in China. Thus, sintilimab may benefit Chinese patients and should be promoted by decision makers.

## OP14 Cost-Utility Analysis Of Regorafenib For Patients With Hepatocellular Carcinoma Who Progressed On Sorafenib Treatment

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**Introduction:** In the RESORCE trial, regorafenib was shown to provide overall survival (OS) benefit for patients with hepatocellular carcinoma (HCC) that has progressed on sorafenib treatment. Subsequently, it was approved by the Therapeutic Goods Administration for the treatment of patients with HCC who were previously treated with sorafenib; however, regorafenib is still not recommended by the Pharmaceutical Benefits Advisory Committee in Australia. We aimed to assess the cost effectiveness of regorafenib as a second-line therapy for patients with HCC who progressed on sorafenib from an Australian healthcare perspective.

**Methods:** We developed a Markov model to compare the cost effectiveness of regorafenib with best supportive care (BSC) as a second-line therapy for HCC after treatment with sorafenib. The health outcomes of life-years and quality-adjusted life-years (QALYs) were derived from the RESORCE trial. Survival benefits sourced from the RESORCE trial were fitted with the parametric model to estimate survival beyond the follow-up period. Drug costs and costs associated with adverse events (AEs) were sourced from published literature and the Independent Health and Aged Care Pricing Authority cost report. Model validity was verified using probabilistic sensitivity analyses.

**Results:** The incremental monthly cost of treatment with regorafenib was AUD19,273 (USD13,374), with an incremental life-year gain of 0.38, compared with BSC. The incremental QALYs gained with regorafenib were 0.24, resulting in a base-case incremental cost-

effectiveness ratio (ICER) of AUD80,511 (USD55,872) per QALY. In the probabilistic sensitivity analyses across scenarios, the ICER remained above the conventional threshold of AUD50,000 (USD34,698) per QALY, with a zero probability of being cost effective at this willingness-to-pay threshold.

**Conclusions:** At the current price, second-line treatment with regorafenib in patients with HCC that has progressed on sorafenib was not cost effective at the conventional willingness-to-pay threshold from an Australian health-system perspective.

## OP18 Laying The Foundation For Sustainable Health Technology Assessment Training Program In Ukraine

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**Introduction:** Since 2017, health technology assessment (HTA) has been included in the Ukrainian Health Law fundamentals and its implementation has accelerated since it became mandatory in 2020. SAFEMed has been supporting the Ministry of Health in integrating HTA into the decision-making ecosystem and building capacity in HTA. In this 2022 to 2023 project, we aimed to create and conduct HTA training for doers, users, and trainers based on a developed model curriculum for an HTA master's program, and to identify sets of criteria for successful training and training centers.

**Methods:** First, we reviewed websites and documents of current academic HTA master's and advanced programs worldwide. Second, we performed an assessment of the training needs of HTA doers, users, and trainers in Ukraine using an online survey that captured level of experience and knowledge gaps. Third, we reviewed the capacity and quality requirements of existing academic centers that provide HTA training.

**Results:** We identified seven HTA master's programs globally, which covered five HTA domains: (i) health problem and current use of the technology; (ii) description and technical characteristics; (iii) safety; (iv) clinical effectiveness; and (v) costs and economic evaluations. Other aspects of HTA, such as ethical, legal, social, and cultural aspects were also covered, but not in all programs. The needs assessment was completed by 40 doers (53%), users (43%), and potential trainers (5%) of HTA in Ukraine. Specific knowledge gaps included: comparative effectiveness, health economics, qualitative evidence synthesis, patient and public involvement, and ethical issues. The proposed program addresses these gaps and includes an introduction to HTA that is in line with the new HTA definition. We also generated a minimum set of quality assurance criteria to ensure successful training and to develop efficient training centers for delivering HTA programs.

**Conclusions:** Our study provides a strong foundation for planning and conducting sustainable HTA training for current and future

doers, users, and trainers in Ukraine, which can be an example for other countries wishing to increase HTA capacity.

## OP19 Exploring The Environment/Capacity Of South African Citizen Actors To Contribute To Health Technology Assessment Processes, Policy Development And Institutionalization

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**Introduction:** Several overarching health policy reform processes are currently underway in South Africa (SA), providing an opportunity to establish health technology assessment (HTA) and value-based assessment (VBA) frameworks that foster patient and citizen involvement (PCI). A mapping of the capacity, knowledge, and skill of SA PCI advocacy actors and understanding of the 'middle-ground' and influencing relationships that influence advocacy strategies for PCI in HTA, will allow us to determine the needs of PCI actors to entrench PCI principles in the emerging institutionalization of HTA in SA.

**Methods:** An analysis of national and international legislative and policy frameworks indicates current gaps and opportunities for PCI institutionalization in HTA in SA. A survey was conducted to determine SA patient and citizen advocacy actors' capacity, knowledge, and skill across multiple disease areas. An analysis of decision maker's opinions and positions about PCI in HTA and VBA policy, and their potential influence on the PCI process was undertaken.

**Results:** The legislation and policy review indicate that engagement initiatives are positioned at the 'involvement' or 'consultation' stages of the engagement continuum, rather than higher-level engagement. Five percent of patient advocacy groups (PAGs) interviewed have formalized PCI HTA advocacy strategies. Few PAGs indicated employing processes to actively monitor the HTA and PCI-related activities of decision-makers.

The majority of PAGs stated that collaborative efforts within larger networks would generate more success, if they engaged in PCI in HTA advocacy. Over eighty percent of civil society stakeholders face capacity constraints, such as lack of knowledge of the legislative framework and theory of HTA, funding and manpower to engage in PCI. The majority of HTA processes undertaken by funders in SA do not actively include PAGs or formalized PCI.

**Conclusions:** Existing legislative and policy frameworks do not include PCI capacity-building strategies. This is impacted by the lack of coordination amongst patient and consumer groups, the willingness of existing HTA structures to formalize PCI, and the resources of

the country's PCI advocate actors to influence existing HTA processes.

## OP21 Patient Values Project (PVP): Patient Preferences For Cancer Treatments To Inform A Framework Incorporating Patient Values Into Health Technology Assessment

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**Introduction:** The methodology for explicitly incorporating patient preferences by expert committees engaged in deliberative health technology assessment (HTA) processes for drug reimbursement recommendations is a relatively unexplored area despite the growing emphasis on patient-reported outcomes and patient engagement. The Patient Values Project (PVP) aims to improve patient input to expert review committees and promote a better understanding of the patient perspective using quantitative data to support the rationale in assessing new cancer drugs. Using colorectal cancer as a starting point, the PVP aims to develop a framework to objectively incorporate quantitative patient values and preferences into Canada's cancer drug HTA decision-making process. We report on results from the first phase.

**Methods:** In the first phase, we developed a bilingual survey informed by qualitative focus groups, literature review and feedback from clinicians, patients and experts. The survey includes background questions, general and cancer specific quality-of-life tools, two discrete choice experiments (DCE) and a best worst scaling (BWS) experiment. After pre-testing and pilot testing, the survey was administered across Canada to metastatic and non-metastatic colorectal cancer patients and caregivers, in addition to adults from the general population. In the next phases, we will use vignettes to explore how patient preferences could be incorporated explicitly into decision-making, and what approach to use in HTA submissions.

**Results:** DCE1 survey results (~n=1,000) reflect trade-offs between health-related quality-of-life and survival; DCE2 results reflect trade-offs between treatment regimens, side effects and survival/risk of recurrence; BWS results ranked and weighted the tolerability of 25 possible side effects of treatment. We observed differences in preferences amongst the general population, patients with metastatic cancer, non-metastatic cancer and caregivers.

**Conclusions:** Patients have unique perspectives and preferences about what is important and of value to them, which may impact patient adherence to treatment. In the next phases, we will explore how this evidence from patient preferences can be translated into