

providing a way to report these data, including which stakeholders have been involved, their tasks, what methods and data sources were used, and any impacts or outcomes observed.

**Methods:** STARDIT development began in 2019 and was guided by participatory action research paradigms. A multidisciplinary international team of over 100 citizens, experts, and data users was involved in co-creating STARDIT. These co-creators include cancer patients, people affected by rare diseases, Indigenous peoples from multiple countries, representatives involved in HTA processes, health researchers, environmental researchers, economists, librarians, and academic publishers. Methods of involving people included public events, online discussions, and a public consultation process. STARDIT is free to use, and data can be submitted by anyone. Report authors can be verified to improve trust and transparency, and data can be checked for quality.

**Results:** STARDIT can help create high-quality standardized information about HTA processes that can be accessed and edited by anyone. STARDIT enables data reporting at all stages of the HTA process and works in multiple languages. This allows stakeholders involved in or affected by HTA processes (including patients, the public, Indigenous peoples, and people from industry) to appraise and edit information and to self-identify the labels and terminology used to describe them. Organizations such as the Cochrane Collaboration, Australian Genomics, and multiple universities have created STARDIT reports. A link to the working beta version can be found at [scienceforall.world/STARDIT](https://scienceforall.world/STARDIT).

**Conclusions:** STARDIT offers those conducting HTA access to standardized information that enables well-founded comparisons of the effectiveness of different HTA methods, including the most effective methods of involving stakeholders. STARDIT allows anyone to access data about HTA processes, which can support participatory ways of working and help improve the equity and quality of HTA processes worldwide.

## OP11 Cost-Effectiveness Of Atezolizumab Plus Chemotherapy As A First-Line Treatment For Metastatic Non-Squamous Non-Small Cell Lung Cancer

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**Introduction:** Treatment with atezolizumab plus standard chemotherapy can prolong the overall survival of patients with metastatic non-squamous non-small cell lung cancer (NSCLC). However, the economic value of this treatment regimen is unknown. This study aimed to estimate the cost effectiveness of atezolizumab plus chemotherapy in the first-line treatment of metastatic non-squamous NSCLC from a healthcare system perspective in China.

**Methods:** A partitioned survival model consisting of three discrete health states was developed to estimate the cost and effectiveness of

atezolizumab plus carboplatin or cisplatin plus pemetrexed (APP) versus carboplatin or cisplatin plus pemetrexed (PP) in the first-line treatment of metastatic non-squamous NSCLC over a 12-year lifetime horizon. Key clinical data were generated from the IMPower132 trial. Local direct medical and non-medical costs were used and health preference data were collected from patients with NSCLC in 13 tertiary hospitals across five provinces in China. Costs, quality-adjusted life-years (QALYs), and incremental cost-effectiveness ratios (ICERs) were measured. One-way and probabilistic sensitivity analyses were performed to assess the robustness of the model.

**Results:** Compared with the PP regimen, APP therapy yielded a gain of 0.21 QALYs at an increased cost of CNY145,602 (USD22,574), resulting in an ICER of CNY684,894 (USD106,185) per QALY gained. The ICER was significantly higher than three times the gross domestic product per capita for China in 2021 (USD37,663). One-way sensitivity analyses revealed that one of the most influential factors in this model was the cost of atezolizumab. Probabilistic sensitivity analysis showed that there was 14.7% probability that atezolizumab plus chemotherapy was cost effective at a willingness-to-pay value of CNY242,928 (USD37,663) per QALY gained.

**Conclusions:** The APP regimen could prolong survival and improve health benefits over standard chemotherapy in the first-line treatment of patients with metastatic non-squamous NSCLC, but it is unlikely to be a cost-effective treatment option in China.

## OP13 Cost-Effectiveness Analysis Of Sintilimab Plus Chemotherapy For The First-Line Treatment Of Non-Squamous Non-Small Cell Lung Cancer: Societal Perspective

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**Introduction:** Sintilimab is an IgG4 anti-programmed cell death protein 1 (PD-1) antibody that has a high-affinity blocking interaction with PD-1 and its ligands. The updated ORIENT-11 study showed that sintilimab plus chemotherapy significantly prolonged progression-free and overall survival, compared with chemotherapy alone, in the first-line treatment of non-squamous non-small cell lung cancer (NSCLC). In China, it is uncertain whether sintilimab is a cost-effective alternative to standard immunotherapy.

**Methods:** A partitioned survival model with three health states (including progression-free survival, disease progression, and death) was constructed from the Chinese societal perspective using a three-week cycle with a lifetime horizon (16 years). Individual patient data were captured from the updated ORIENT-11 study, and high-risk and clinically severe adverse events were specifically added to the states. Quality-adjusted life-years (QALYs) and incremental cost-effectiveness ratios (ICERs) were the primary outcomes. Costs, health productivity losses, and utilities were derived from questionnaires and supplemented by expert opinion and literature review. All costs were expressed in 2021 USD, and costs and QALYs were discounted at an annual rate of five percent. Sensitivity analyses and scenario

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