Introduction: In Australia, 18F-fluorodeoxyglucose positron emission tomography with low-dose computed tomography (FDG-PET/CT) is currently only funded for cancer staging-related indications. A recent multicenter randomized trial demonstrated that FDG-PET/CT, compared with standard of care computed tomography (CT) imaging, improved antimicrobial management and the outcomes of patients with persistent and recurrent neutropenic fever. There is potential value in expanding the use of FDG-PET/CT as a diagnostic tool for this high-risk population. We conducted an economic evaluation from a healthcare perspective alongside the randomized trial and compared FDG-PET/CT with standard CT up to 6 months after the scans.
Methods: Case report forms were used to collect resource utilization data and length of hospitalization. Effectiveness was measured as the number of patients with antimicrobial rationalization and quality-adjusted life-years (QALYs) derived from patient-reported trial-based health-related quality of life. Generalized linear models (GLM) were used to analyze costs and outcomes. Incremental cost-effectiveness ratios (ICERs) for each of the outcomes were calculated and interpreted as the cost per patient with antimicrobial rationalization and cost per QALY gained. To account for sampling, we performed bootstrapping with 1,000 replications using the recycled predictions method.
Results: The adjusted healthcare costs were lower in the FDG-PET/CT group (mean AUD49,563, 95% confidence interval [CI]: 36,867, 65,133; equivalent to USD34,268, 95% CI: 25,490, 45,033) compared with the standard CT group (mean AUD57,574, 95% CI: 44,837, 73,347; equivalent to USD39,807, 95% CI: 31,000, 50,712). The magnitude of differences in QALYs between the two groups was small (0.001; 95% CI: -0.001, -0.001). When simulated 1,000 times, our analysis showed that across both outcomes FDG-PET/CT was the dominant strategy as it was cheaper and had better outcomes than standard CT in 74 percent of simulations.
Conclusions: FDG-PET/CT is cost effective when compared with standard CT for investigating persistent or recurrent neutropenic fever in high-risk patients. Aligning economic evaluations with clinical studies is key to an integrated evidence generation approach for supporting funding for FDG-PET/CT in this patient group.

OP124 Cost Effectiveness Of End-Stage Renal Disease Treatment Methods In Türkiye

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Introduction: Chronic kidney disease is an important public health problem and is a leading cause of morbidity and mortality worldwide. Hemodialysis (HD), peritoneal dialysis (PD), and kidney transplantation (Tx) are the main treatments for this disease. The aim of this research was to determine the cost effectiveness of treatments for end-stage renal disease from the perspective of a reimbursement institution in Türkiye.
Methods: A Markov model was developed to measure costs and health outcomes in terms of quality-adjusted life-years (QALYs). The model parameters were based on a six percent discount rate, lifetime time horizon, and a reimbursement agency perspective. The main outcome measures were the incremental cost-effectiveness ratio (ICER) and the cost per QALY. One-way and probabilistic sensitivity analyses were performed to determine parameter uncertainty.
Results: The lifetime costs of HD, PD, and Tx were USD26,883, USD37,672, and USD31,227, respectively. The lifetime QALYs gained with HD, PD, and Tx were 5.21, 6.77, and 9.73, respectively. The cost per QALY of HD, PD, and Tx were USD5,161, USD5,567, and USD3,211, respectively. Compared with Tx, the ICERs for HD and PD were USD961 and USD2,178, respectively.
Conclusions: Cost differences have occurred between the treatment options for end-stage renal disease due to the increase in drug costs in Türkiye in recent years. As seen in the Markov model in this research, HD, PD, and Tx are complementary rather than rival treatments. This study found that the cost effectiveness of Tx is higher than HD or PD. However, the rate of Tx, which has a higher quality of life compared with HD, is around 22 percent in Türkiye; the rate for PD is four percent. It is therefore recommended that a health policy be developed to encourage kidney donation and promote PD as a superior alternative to HD for eligible patients.

OP125 How Can Health Technology Assessment Evolve To Better Consider Benefits For Patients, Their Families, And Carers?

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Introduction: In Australia, technical guidelines for the health technology assessment (HTA) of medical technologies do not formally include broader societal benefits in the base case economic evaluation; they are considered supplementary analyses. If what matters to patients is relevant and valuable, then why shouldn't these broader benefits play a more important role? This presentation will consider the challenges and opportunities for HTA guidelines to change to allow this, and the broader implications for decision makers.
Methods: A targeted literature review was undertaken to assess whether economic evaluation methods and their application in HTA are well positioned to assess what matters to patients. Practical challenges for this will be considered, particularly from the perspective of decision makers having a full understanding of broader societal benefits.
Results: Preliminary findings from the literature review suggested that taking a broader societal perspective in economic evaluations used in HTA has the potential to enable more informed decisions for policy makers. However, there are practical considerations regarding consistent approaches to assessing broader societal and patient benefits.
Conclusions: For decision makers to be fully informed on the impact of their decisions beyond healthcare budgets alone, explicit

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consideration of a societal perspective is necessary. However, for decisions to be equitable across different patient groups, there must be consistency in methodological approaches. Fixing this current limitation should not prevent HTA from giving what matters to patients a central role now, and refining methods on an ongoing basis.

OP126 Clinical And Economic Evaluation Of The Effectiveness Of Cerebrolysin® In Neurological Patients With Post-Stroke Complications In Kazakhstan

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Introduction: Medical rehabilitation, one of the main components in the care of patients after stroke, is currently not specified in Kazakhstan, even though neurological disorders are a frequent and potentially disabling consequence of a stroke. The study aimed to evaluate the clinical and economic effectiveness of using Cerebrolysin in patients with post-stroke complications in the Republic of Kazakhstan.
Methods: An annual cost per patient Markov model was developed to compare the use of Cerebrolysin with placebo in the medical rehabilitation of adult patients after acute ischemic stroke. Outcomes and costs were assessed at day 90. Secondary analysis was performed at the end of one year. The primary criterion for effectiveness was change in Action Research Arm Test (ARAT) scale – Hand Function Assessment Test scores. The modified Rankin Scale (mRS) was used as a secondary measure of effectiveness.
Results: The results of the cost-effectiveness analysis showed a pharmacoeconomic advantage in using Cerebrolysin, in comparison with placebo, in the early rehabilitation of patients after stroke. Cerebrolysin resulted in a better ratio of the main cost-effectiveness ratio (CER) parameters and a negative incremental cost-effectiveness ratio (ICER), regardless of which effectiveness criterion was used. For the ARAT scale, the CER was USD63.33 versus USD148.07 and the ICER was -USD27.71; for the mRS, the CER was USD45.95 versus USD158.54 and the ICER was -USD14.93. The annual budget impact per patient of funding Cerebrolysin is expected to be an increase in the cost of purchasing the drug (an additional USD343.85) and an overall cost saving in the Cerebrolysin group due to accelerated patient rehabilitation (USD1,944.30 versus USD2,354.37).
Conclusions: New evidence has emerged on the effectiveness and safety of Cerebrolysin in patients after stroke, which has served as the basis for including this drug in many international clinical recommendations. The pharmacoeconomic advantages of Cerebrolysin make it possible to recommend its use in the medical rehabilitation of patients after stroke in Kazakhstan.

OP127 The Cost Effectiveness Of Anti-Vascular Endothelial Growth Factor Treatments For Age-Related Macular Degeneration In The Italian Healthcare Setting

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Introduction: Age-related macular degeneration (AMD) is a common condition that affects the middle part of a patient's vision. Typically, it first appears in people in their 50s and 60s. While it does not cause total blindness, it can make everyday activities, such as reading and recognizing faces, more difficult. This analysis aimed to define the resource absorption and cost-effectiveness profiles of the anti-vascular endothelial growth factor therapies currently available in the Italian healthcare context.
Methods: A questionnaire was prepared to gather information on specific drivers involved in the provision pathway. The economic analysis was conducted according to activity-based costing methods. A cost-effectiveness analysis was carried out to provide information on the sustainability profile of the treatments available in the Italian setting. Results were reported in terms of the incremental cost-effectiveness ratio (ICER).
Deterministic and probabilistic sensitivity analyses were carried out to test the robustness of the results.
Results: The average absorption of resources per patient along the whole clinical pathway for aflibercept, bevacizumab, ranibizumab, and brolucizumab was EUR6,858, EUR1,420, EUR7,930, and EUR5,667, respectively. Brolucizumab was characterized by an unacceptable cost-effectiveness profile (ICER EUR43,454) versus bevacizumab, considering a willingness-to-pay threshold of EUR40,000 per quality-adjusted life-year (QALY). Compared with ranibizumab, brolucizumab was associated with lower costs (EUR22,368 versus EUR29,333) and higher QALYs (12.8 versus 12.6). Brolucizumab had a higher level of QALYs (12.8 vs 12.7) and lower resources absorbed than aflibercept, with a saving of EUR4,222. Therefore, brolucizumab was a dominant alternative to ranibizumab and aflibercept.
Conclusions: The analysis underlined how brolucizumab is a cost-saving strategy, compared with aflibercept and ranibizumab, and is likely to be cost-effective relative to bevacizumab in the Italian healthcare context.

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