

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