

Methods: The review protocol was registered on Prospero (CRD42022270039) and relevant studies published from inception to 23 October 2022 were identified through searches of the following databases: PubMed, Embase, the National Health Service Economic Evaluation Database, PsycINFO, the Health Economic Evaluations Database, and EconLit. Studies were included if they were modeling works of full economic evaluations, including cost-effectiveness analyses (CEA), cost-utility analyses, cost-benefit analyses, and cost-consequence analyses. The primary outcome was the cost effectiveness of adherence interventions reported as the incremental cost per additional quality-adjusted life-year (QALY). Study quality was assessed with the Quality of Health Economics Studies instrument. Due to the heterogeneity of the data, a permutation matrix was used for quantitative data synthesis rather than a meta-analysis.

Results: The 15 studies identified were conducted in North America (8/15), Africa (4/15), and Europe (3/15). The time horizon was one year in one study, ten years in one study, 20 years in three studies, and a lifetime horizon in ten studies. The types of interventions were smartphone-based (5/15), nurse involved (2/15), directly observed therapy (2/15), case manager involved (1/15), simplification of regimens (1/15), Link4Health (1/15), and others (3/15) that involved multicomponent intervention. The interventions gained higher QALYs with cost savings in all 15 studies and gained QALYs at a higher cost at an acceptable incremental cost-effectiveness ratio in 80 percent (12/15) of studies. The studies were of fair (13%) to high quality (87%).

Conclusions: This study is the first systematic review of decision analytic model-based CEAs of adherence interventions in the management of PLWHA. Most of the identified studies recently published good quality cost-effectiveness analyses with an adequate timeframe.

OP94 Economic Evidence On Hemodialysis Access Creation Procedures In Patients With End-Stage Kidney Disease: A Systematic Literature Review

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Introduction: It is important to create and maintain durable hemodialysis (HD) access in health systems to reduce morbidity and maintain overall cost control in patients with end-stage kidney disease (ESKD). To evaluate the choice of HD vascular access creation procedures and their related economic costs, we aimed to identify economic evaluations on vascular access (VA) creation procedures in patients with ESKD.

Methods: A systematic literature review was conducted using the Cochrane methodology to identify cost-effectiveness analyses (CEAs), budget impact analyses, and cost analyses of various HD access creation procedures. Eligible publications published from 2012 onwards were retrieved by searching PubMed, Embase, and the

Cochrane Library. The Consolidated Health Economic Evaluation Reporting Standards 2022 checklist and ISPOR Task Force guidelines were used to appraise the quality of the economic evaluations and budget impact analyses, respectively. Costs were adjusted for inflation and purchasing power parity and standardized to US dollars.

Results: A total of 40 economic evaluations met the inclusion criteria, including 28 cost analyses, three budget impact analyses, and nine CEAs. Widely evaluated procedures in the published literature were endovascular and surgical arteriovenous fistula (AVF), arteriovenous graft (AVG), and central venous catheterization (CVC). The results indicated that AVF was the most cost-effective strategy, followed by AVG, and CVC. Three studies showed that endovascular AVF was cost effective, compared with surgical AVF, and resulted in overall cost savings of about USD53 million dollars over a five-year period. Results of the quality assessment showed that budget impact analyses scored 63 percent, while the average score for economic evaluations was 58 percent.

Conclusions: It was challenging to identify a single effective method of managing vascular access due to the substantial heterogeneity among VA creation techniques. However, most of the included economic evaluations showed that AVF was a cost-effective method of VA creation relative to other identified techniques for patients with ESKD on HD.

OP95 A Systematic Review Of The Cost And Cost Effectiveness Of Immunoglobulin Treatment In Patients With Hematological Malignancies

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Introduction: Patients with hematological malignancies are likely to develop hypogammaglobulinemia (HGG) and subsequent infections. Immunoglobulin (Ig) replacement is commonly given to prevent infections, but the total costs and cost effectiveness of its use are unknown.

Methods: A systematic review was conducted following PRISMA guidelines to assess evidence on the costs and cost effectiveness of Ig replacement, administered intravenously (IVIg) or subcutaneously (SCIg), in adult patients with hematological malignancies. This review was registered with PROSPERO (CRD42022321908).

Results: Six studies were included out of a total of 3,612 citations. A narrative synthesis was conducted because of the high level of heterogeneity across the included studies. Two economic evaluations were identified: one cost-utility analysis (CUA) of IVIg versus no Ig and one comparing IVIg with SCIg. The quality of the evidence was low, with most studies having small patient numbers and a high risk of bias. Compared with no treatment, Ig replacement reduced the hospitalization rate in patients with hematological malignancies.