

## OP90 Multiple Myeloma: Developing A Benchmark Patient Experience Index In Australia And New Zealand

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**Introduction:** Within Australia and New Zealand (ANZ) there is limited evidence regarding the experience and satisfaction across the healthcare system of people living with multiple myeloma (MM). We aimed to quantify the patient experience across the healthcare system to help identify potential areas of the healthcare pathway that could be targeted for improvement to maximize patient satisfaction.

**Methods:** A 30- to 40-minute online survey was completed by adults in ANZ diagnosed with MM. Anchored best-worst scaling (ABWS) is a technique that takes advantage of an individual's ability to reliably identify extremes ('best' and 'worst') in sets of items, eliciting discriminating rankings free of scale bias. This study implemented a novel anchoring process to rescale importance and satisfaction best-worst scores for factors across the MM healthcare pathway, which could be compared and combined to form a patient experience index (PEI). There were 15 factors or 'moments that matter' (MTM), each describing a different aspect of the patient journey, such as time to diagnosis, treatment logistics, and side effects. The MTM were derived from qualitative research with patients as well as a workshop with key opinion leaders. Additional survey questions were included to help identify potential ways to improve patient satisfaction.

**Results:** The results were based on 62 patients with MM. The overall median PEI score was 63.1. The top three MTM that were most important to patients, but they were least satisfied with (calculated by combining the top four of each most important/least satisfied factor for each participant), were side effects of medication, effectiveness of medication, and medication access.

**Conclusions:** The findings from this research contribute to the understanding of patient experiences of treatment and care for MM. The results can inform healthcare decisions for prioritizing interventions that align with patient experiences. In the future, the study could be executed longitudinally to assess shifts in satisfaction within the MM healthcare journey, which would be especially worthwhile if new programs are implemented to improve patient satisfaction.

## OP92 The Hidden Burden Of Patients And Families In Rare Diseases: A Scoping Review Of Economic Evaluations

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**Introduction:** There are more than 7,000 rare diseases (RDs), which are individually rare but have a large collective impact on patients and families, the health system, and society. There are few treatments for RD; where treatments do exist, they are often exceptionally expensive. Understanding the socioeconomic burden (SEB) of RD is crucial to properly valuing these treatments and informing health technology assessment. Our team has developed a framework of cost elements for inclusion in studies of the costs of RDs using an evidence-informed consensus-based approach.

**Methods:** We conducted a scoping review to identify published economic evaluations studies in RD, searching five electronic databases to identify English language RD studies published 2010-2021. We applied our framework of cost elements to assess studies regarding what cost elements were included.

**Results:** Of 4,890 records identified, 48 studies were screened for inclusion. Most were from the US (n=27), UK (n=6), and Canada (n=6), and focused on hemophilia (n=14) or cystic fibrosis (n=11). Healthcare system and payer perspectives were most often reported (n=41), with only seven studies reporting a societal perspective. Cost elements most often included were medications (n=41), hospitalizations (n=35), surgery (n=20) medical tests (n=16), and outpatient (unspecified) visits (n=16). Costs to patients, families, and society were less commonly included: productivity (n=5), travel/accommodation (n=3), government benefits (n=2), family impacts (n=0), or other costs relevant to RD (n=1). While unsurprising, given that most analyses focused on healthcare or payer perspectives, this finding illustrates the extent to which the burden of RD is largely unstudied.

**Conclusions:** Our scoping review demonstrated that most studies are conducted from a healthcare system/payer perspective, and largely consider only medical costs. These studies undercount the hidden burden of rare disease borne by patients and families leading to a gap in our global understanding of the full impact of rare diseases on families. To properly account for these and value emerging treatments for RD, patient- and family-borne costs must be considered in economic evaluations for health technology assessment.

## OP93 The Cost Effectiveness Of Antiretroviral Therapy Adherence Interventions In HIV/AIDS Patients: A Systematic Review Of Decision Analytic Models

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**Introduction:** People living with HIV/AIDS (PLWHA) frequently struggle to maintain optimal adherence to antiretrovirals (ARVs). Different adherence-improving interventions have been developed and examined through decision analytic model-based health technology assessments. Therefore, we aimed to conduct a systematic review of all decision analytic models developed to improve adherence in PLWHA.

**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.