

Objectives: Hyperkalemia is an electrolyte abnormality with potentially life-threatening consequences. The potassium-binding polymer patiomer (Veltassa™) is associated with reduced rates of severe edema and hospitalization for heart failure compared with sodium zirconium cyclosilicate (SZC, Lokelma™) when treating hyperkalemia. The aim of this study was to evaluate the costs associated with these interventions in the UK, Italian and Spanish settings. **Methods:** A model was developed in Microsoft Excel to compare the costs associated with patiomer and SZC for the management of hyperkalemia. Clinical event rates were taken from a published real-world comparative study, with the base case capturing the statistically significant reduction in severe edema (treated either in the emergency department or as an inpatient) with patiomer versus SZC and a sensitivity analysis also including the non-statistically significant reduction in hospitalization for heart failure. Country-specific costs, expressed in 2022 British pound sterling (GBP) and Euros (EUR), were evaluated from a healthcare payer perspective and included pharmacy costs and costs of clinical events. **Results:** Patiomer was associated with cost savings of GBP 630, EUR 1,197 and EUR 107 per patient-year of treatment versus SZC in the UK, Italy and Spain, respectively. The majority of cost savings were due the lower daily cost of patiomer compared with SZC. Including the difference in heart failure hospitalization rates in a sensitivity analysis led to greater cost savings with patiomer over SZC, increasing to GBP 902, EUR 1,524 and EUR 460 in the UK, Italy and Spain, respectively. Extrapolation of patient-level outcomes to a population level found that patiomer was associated with annual cost savings of GBP 801.7 million in the UK, EUR 24.7 million in Italy and EUR 30.6 million in Spain versus SZC. **Conclusions:** Patiomer was projected to be cost saving versus SZC for the treatment of hyperkalemia in the UK, Italy and Spain.

EE477

EXPLORING THE PERCEIVED VALUE OF FIXED-DOSE COMBINATIONS IN TYPE 2 DIABETES MELLITUS IN THE EU4 AND THE UK

Cruz Arriola JC,¹ Zaniboni B,² Yeoh L,³ Reinert M,³ Naser R,⁴ Mos J,³ Gulotta G³

¹Alira Health, Barcelona, Spain, ²Alira Health, Milan, Italy, ³Alira Health, Basel, Switzerland, ⁴Alira Health, Paris, France

Objectives: Fixed-dose combinations (FDCs) are expected to simplify therapy and improve adherence in managing type 2 diabetes mellitus (T2DM) by combining multiple medications into a single pill. In Europe, metformin-based FDCs are commonly used and tailored to individual patient needs. The most common combinations include metformin with dipeptidyl peptidase-4 inhibitors or sodium-glucose cotransporter-2 inhibitors. This study aims to explore how FDCs are valued relative to their mono-components, by investigating the correlation between price changes of FDCs for T2DM vs. the sum of the mono-components (1+1) and the subsequent market share dynamics in the EU4 and the UK from 2018 to 2022. **Methods:** Four FDCs consisting of metformin + dapagliflozin (A), sitagliptin (B), vildagliptin (C) and sitagliptin (D) were analyzed. The price differential and price evolution between the FDCs with 1+1, and the relationship between these pricing factors and market share trends from 2018 to 2022 were examined to determine the perceived value of each FDC. **Results:** The pricing and market dynamics of FDCs for T2DM vary discreetly across European countries. The average price difference in 2022 between the FDC and the 1+1 for FDC-A was -35% (68% to 1%), for FDC-B -18% (-51% to 4%), for FDC-C (-51% to -24%), and for FDC-D -8% (-21% to -3%). FDC-A gained market share in all five countries regardless of price difference vs. the 1+1. FDC-C and D lost market share in 4 out of 5 countries even though they were always cheaper than the 1+1. FDC-B lost market share in every country despite being cheaper than the 1+1 in three out of five countries. **Conclusions:** The moderate market share of 3 out of 4 FDCs between 2018 to 2022, indicates that among physicians there might be a low awareness of the benefits of improving adherence and simplified therapy with price also playing a role.

EE478

OBESITY-RELATED OUTCOMES AND COST IMPACT OF WEIGHT LOSS IN SAUDI ARABIAN PRIVATELY INSURED ADULTS

Al-Omar H,¹ Aljehani N,² Alshehri A,³ Al-Khenizan A,⁴ Al-Shammari F,² Abanumay A,⁵ Schnecke V,⁶ Carapinha J,⁷ Alqhatani S⁸

¹Department of Clinical Pharmacy & Health Technology Assessment Unit, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia, ²Council for Health Insurance, Riyadh, Saudi Arabia, ³Obesity Medicine Department, Obesity, Endocrine and Metabolism Centre, King Fahad Medical City, Riyadh, Saudi Arabia, ⁴King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia, ⁵Novo Nordisk, Riyadh, Saudi Arabia, ⁶Novo Nordisk A/S, Søborg, Denmark, ⁷Syzena, Anaheim, CA, USA, ⁸Liver Transplant Centre, King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia

Objectives: To demonstrate the potential benefits of 10% weight loss in Saudi Arabia, using an adapted value of weight loss simulation model, in terms of both reduced complications and cost-savings. **Methods:** The value of weight loss tool compares clinical and economic outcomes in a cohort of patients who maintain a stable body mass index (BMI) versus those who undergo a 10% weight loss over a 10-year time horizon. Data of adults (aged 20-69 years) with obesity ([BMI] \geq 30 kg/m²) available in NPHIES platform was analyzed. A Cox proportional hazard model was used to estimate the benefits of weight loss by preventing 10 obesity-related outcomes. To

obtain domestic cost estimates for these outcomes, a micro-costing approach was used. **Results:** A 10% weight loss would lower the obesity prevalence from 25.6% to 12.5%. For the selected sub-population of 346,000 Saudi individuals with BMI between 30 and 50 and age from 20 to 69, a 10% weight loss is estimated to result in fewer incident cases for the 10 obesity-related comorbidities over the coming ten years and consequently lower treatment costs. Type 2 diabetes mellitus (T2DM), hypertension, and dyslipidemia accounted for the highest obesity-related costs. In terms of savings, losing 10% of one's body weight would save 879.4 million US\$ over the next ten years. T2DM (53.8 million US\$) dyslipidemia (40.0 million US\$) and hypertension (27.0 million US\$) would account for most of the savings. **Conclusions:** A weight loss of 10% over 10-year is associated with major cost-savings for Saudi private payers. This loss in weight can result in a reduction in health care costs associated with T2DM, dyslipidemia, and hypertension. The findings will help policymakers to focus on the prevalence of obesity-related outcomes and mitigate plans to implement weight loss programs in the country.

EE479

THE COST OF TREATING GASTROESOPHAGEAL REFLUX DISEASE: A SYSTEMATIC REVIEW

Hoffsten J,¹ Das S,¹ Kartha M²

¹Implantica, Zug, Switzerland, ²Implantica, Epsom, SRY, UK

Objectives: The mainstays of treating gastroesophageal reflux disease (GERD) are medical management and antireflux surgery. The vast amount of research reviews on the effects of clinical treatment stands in stark contrast to the modest economic evidence for each approach. This systematic review aims to provide insights on the direct and indirect costs associated with GERD treatment by analyzing the existing evidence. **Methods:** MEDLINE, Embase and the Cochrane Library were searched for full-text economic evaluations, costs studies, trials and observational studies published in English from 2013 to 2023. Eligible studies included cost data for different medical and surgical options used to manage adults with GERD. Data analysis contained a narrative synthesis. **Results:** Seventeen eligible studies were included, of which five were economic evaluations utilizing a Markov model. Most studies reported treatment costs in US dollars (n=9) and had a healthcare perspective (n=12). The time horizon ranged between index admission and lifetime management, and most costs were from the year 2013 (n=4). All studies reported total direct costs, whereas two studies reported total indirect costs. Most studies reported treatment costs for proton pump inhibitors (n=10) or laparoscopic Nissen fundoplication (n=7). In 2013, the total direct cost of medicine was USD \$11,587 over 30 years, whereas the total direct cost of surgery was USD \$48,491 at index admission and USD \$24,143 over 30 years. In general, the specific cost items included in- and outpatient visits, drugs, operating services, and additional procedures such as endoscopy. The indirect costs referred to transportation, absenteeism, and productivity loss. The heterogeneous nature of the cost data prevented the possibility to pool data. **Conclusions:** Treating GERD is inevitably associated with costs, which the present review showcases. The heterogeneity of studies investigating direct and indirect costs emphasize the need to assess each treatment method within the relevant context.

EE480

COST-EFFECTIVENESS ANALYSIS OF AN IMPLANTABLE DEVICE FOR CHRONIC GASTRO-OESOPHAGEAL REFLUX DISEASE IN SWEDEN

Lundell L,¹ Kartha M,² Harper S,³ Mealing S⁴

¹Karolinska Institutet, Stockholm, Sweden, ²Implantica, Epsom, SRY, UK, ³York Health Economics Consortium, York, UK, ⁴York Health Economics Consortium, York, York, UK

Objectives: Gastro-oesophageal reflux disease (GORD) is common in the European population. In Sweden, proton pump inhibitors (PPIs) are the standard treatment, with Nissen fundoplication as the standard of care surgical option for selected cases. RefluxStop is a device emerging as an alternative surgical option. The objective of this analysis was to evaluate the cost-effectiveness of RefluxStop compared to Nissen fundoplication and PPIs. **Methods:** A Markov model was developed based on a recent publication for the UK NHS to assess cost-effectiveness of RefluxStop against other treatments. The healthcare payer's perspective was adopted with a lifetime horizon, one-month cycle length, and 3% annual discount rate utilised. Health states included initial PPI use, PPI relapse, follow-on surgery, reoperations, higher-dose PPI, Barrett's esophagus, esophageal cancer, and death. The model incorporated adverse events associated with PPIs and surgeries, while benefits were measured in quality-adjusted life-years (QALYs). Unit costs were derived from Swedish diagnostic-related group tariffs and from medical literature. Clinical efficacy data came from publications in the literature. Uncertainty was explored through deterministic and probabilistic sensitivity analyses. **Results:** The lifetime difference in costs for RefluxStop relative to PPIs and Nissen fundoplication were SEK 86,684 and SEK 42,523 per person, while the difference in QALYs per patient gained were 1.80 and 0.68, respectively. Thus, the base case incremental cost-effectiveness ratios (ICERs) for RefluxStop compared to PPIs and Nissen fundoplication were SEK 48,152 and SEK 62,966 per QALY gained, respectively. At a cost-effectiveness threshold of SEK 500,000 per QALY gained, RefluxStop has a high likelihood of being cost-effective, with probabilities of 100% and 96% against PPIs and Nissen fundoplication, respectively. Model results remained robust with sensitivity analysis. In a scenario analysis with a 10-year time horizon, RefluxStop remained cost-effective compared to other