parameter settings. ***Results:*** Compared with chemotherapy, NIV+IPI therapy incurred an additional cost of USD166,984 and conferred an additional 0.81 QALY, which resulted in an ICER of USD205,141/QALY gained. Contrary to prior expectations, the ICER of patients with a PD-L1 expression level ≥1% was higher than that of patients with a PD-L1 expression level <1% (USD241,734/QALY and USD129,288/QALY, respectively). Sensitivity analyses showed a relatively robust result that the ICERs remined higher than a Japanese price adjustment threshold of USD75,000/QALY over the full range of model parameters. ***Conclusions:*** The combination therapy of nivolumab plus ipilimumab as first-line therapy would not be cost-effective under a willingness-to-pay threshold of USD75,000/QALY. However, a better cost-effectiveness was found in the subgroup with a PD-L1 expression level <1%, which needs further research to elucidate the heterogeneity and specific biological mechanisms.

POSC163
COST-UTILITY ANALYSIS OF EMPAGLIFLOZIN IN CHRONIC HEART FAILURE WITH REDUCED EJECTION FRACTION: A UK HEALTHCARE SYSTEM PERSPECTIVE

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Objectives: Despite guideline-directed disease-modifying therapies, patients suffering from heart failure with reduced ejection fraction (HFrEF) continue to face long-term clinical sequelae. Empagliflozin, a sodium glucose co-transporter 2 inhibitor (SGLT2i), has been shown to reduce hospitalizations and deaths in patients with HFrEF. We conducted a cost-utility analysis to estimate the value of add-on empagliflozin versus usual care (UC) for HFrEF from a UK healthcare system perspective. ***Methods:*** A three-state Markov model (stable HFrEF, hospitalization, death) was developed with a monthly cycle length and a 20-year time horizon. Stable HFrEF patients were stratified into New York Heart Association (NYHA) classes. Costs and quality-adjusted life-years (QALYs) were discounted at 3.5% annually. Event rates were extrapolated from published Kaplan-Meier curves, while utilities, NYHA class transition probabilities and costs were derived from literature and national reference sources when appropriate. Adverse event (AE) probabilities were converted from published rates. We performed deterministic and probabilistic sensitivity analyses to account for parameter uncertainty, and value of information (VOI) analysis for decision uncertainty. ***Results:*** Empagliflozin use resulted in an incremental cost and QALY of £2,483 and 0.09 over UC respectively with an incremental cost-effectiveness ratio (ICER) of £26,543/QALY. Baseline utility, cost of empagliflozin, and probability of AEs were significant drivers for the base-case ICER. Probabilistic sensitivity analysis using Monte Carlos simulation revealed a cost-effectiveness probability of 54.6% at a threshold of £30,000/QALY. Probability of empagliflozin being cost-effective plateaued at 65% with increasing willingness-to-pay (WTP) thresholds, reflecting high decision uncertainty that is largely driven by uncertainties in utility values, probabilities of AEs and costs of AEs. ***Conclusions:*** Add-on empagliflozin is cost-effective versus UC in HFrEF management at a WTP threshold of £30,000/QALY but with high decision uncertainty. Further research is warranted to address underlying parameter uncertainty before empagliflozin can be recommended, with certainty, as a cost-effective treatment against UC.

POSC164
COST-OF-DISEASE IN HEART FAILURE IN TURKEY: A DELPHI PANEL BASED ANALYSIS OF DIRECT COSTS

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Objectives: To determine the direct cost-of-disease in heart failure (HF) in Turkey from payer perspective. ***Methods:*** In this cost-of-disease study, direct costs of HF were determined based on epidemiological and clinical practice inputs provided by a three-round Delphi panel consisted of 11 experts in HF. Direct costs included cost items on outpatient management, inpatient management, non-pharmaceutical treatments and medications. Cost inputs were obtained from the updated price list, institutional discount list and other annexes of national health authorities (dated March 2021). Costs which are originally in Turkish Lira were converted to Euro (EUR/TL currency rate: 9.0073 on 15th March 2021). ***Results:*** Based on the panel, 51.4%, 19.5% and 29.1% of the patients were estimated to have reduced, mid-range and preserved ejection fraction (HFrEF, HFmrEF and HFpEF), respectively. Total length of stays are calculated as 7.30, 3.27 and 3.66 days a year, respectively. Total annual direct cost per patient was €1,129, €546 and €639 in patients with HFrEF, HFmrEF and HFpEF, respectively. Average annual direct cost per patient –weighted due to the distribution of patients with regards to ejection fraction status– was €873. Non-pharmaceutical treatment was the major direct cost driver –42.1% in overall patients, and 43.2%, 37.1% and 41.5% in patients with HFrEF, HFmrEF and HFpEF, respectively–. Total annual national economic burden of HF is estimated to be around 990 million EUR, taking the estimated nationwide number of HF patients as 1,128,000 in 2021. ***Conclusions:*** In conclusion, our findings confirm the substantial economic burden of HF in terms of direct costs. Presence of HFrEF seems to be associated with likelihood of cost increments related to direct expenses. Non-pharmaceutical treatment cost, which was almost completely related with inpatient management, was the key cost direct in the management of heart failure, regardless of the EF status of patients.

POSC165
COST-EFFECTIVENESS ANALYSIS OF FREE ANTI-HYPERTENSIVE MEDICINES ON BLOOD PRESSURE AMONG HIV POSITIVE PATIENTS AT IDI

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Objectives: To determine the cost effectiveness of free anti-hypertensive drug intervention on HIV patients with hypertension. 1.To determine the impact of increased access to free-anti-hypertensive on median blood pressure. 2.To identify the factors associated with hypertension control among HIV patients receiving free-anti-hypertensive drugs. 3.To determine the cost per mm Hg reduction in blood pressure (BP). ***Methods:*** Information on the total cost of the intervention was extracted from IDI financial records. Data on blood pressure measurement was extracted from the IDI medical electronic database and matched with unit cost per prescribed medicine. The outcomes measured were systolic blood pressure (SBP) ≥140 mm Hg, diastolic blood pressure (DBP) ≥90 mm Hg of the participants, estimated from the random sample of 754 patients at the IDI clinic. For each participant in the sample, the blood pressure was measured 3 times before and after the intervention. The effectiveness of the treatment was defined as the value (in mm Hg) to which the intervention was able to reduce the patients' SBP and DBP. Thus, the intervention effectiveness was defined as: Intervention Effectiveness = Post-intervention BP – Pre-intervention BP ***Results:*** The total cost of implementing the intervention was $18,956 or $ 25.14 per participant. After the 1-year intervention, median SBP dropped by 2 mm Hg and the number of patients with controlled BP increased by 64 representing an 8.5% increment in the percentage of patients with controlled blood pressure. The reduction in controlled blood pressure was statistically significant ($p< 0.001$). Cost effectiveness ratio for SBP was $ 12.5 per person per mm Hg SBP and controlled BP was $ 0.571. ***Conclusions:*** Providing free anti-hypertensive drugs to HIV positive patients was effective in reducing BP thus reducing the overall risk of CVD events. The study provides preliminary evidence on the cost-effectiveness of providing free anti-hypertensive drugs in HIV clinics in Uganda.

POSC166
COST-EFFECTIVENESS OF EMICIZUMAB PROPHYLAXIS THERAPY VERSUS RECOMBINANT ACTIVATED FVII ON-DEMAND THERAPY FOR HEMOPHILIA A WITH INHIBITORS IN CHINA

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Objectives: Once patients with hemophilia A (HA) developed inhibitors to blood clotting factor VIII (FVIII), the regular treatments based on FVIII would have less or no effect. In China, emicizumab prophylaxis therapy and recombinant activated FVII (rFVIIa) on-demand therapy are the main treating options for patients with inhibitors, since the activated prothrombin complex concentrate (aPCC) is not available, and prothrombin complex concentrate (PCC) has very limited effect on bleed controlling. This study aims at comparing the cost-effectiveness of emicizumab prophylaxis therapy and rFVIIa on-demand therapy for HA patients with inhibitors in China. ***Methods:*** A two-state-plus-two-event Markov model from Chinese healthcare system perspective using annual cycles was constructed to evaluate the lifelong cost and effectiveness associated with the abovementioned therapies. Patients are either alive or dead (two states), and the alive patients can experience treated bleeds and arthroplasties (two events). The bleeding rates, adverse event rates and utility values associated with the two therapies were sourced from HAVEN 1 & 2 trials and a non-interventional trial. Prophylactic therapy is administrated from one year old to life-long for the emicizumab group, while on-demand therapy is given upon each treated bleed and the arthroplasties for both groups. The unit prices of emicizumab and rFVIIa were CNY 270 per mg and CNY 5,500 per 1.2mg, respectively. Other model parameters were from literature review and a survey with HA patients. Costs and quality-adjusted life-years (QALYs) were discounted by 5% annually. ***Results:*** Emicizumab prophylaxis therapy was associated with 4.96 more QALYs gained and CNY 10.73 million less in costs compared with rFVIIa on-demand therapy. Patients on emicizumab prophylaxis therapy were estimated to avoid 1,259 episodes