represented by 15,332 survey participants. Participants were classified according to CVD risk as diseased (history of coronary heart disease, angina, and/or myocardial infarction), at-risk (history of hyperlipidemia, hypertension, and/or diabetes mellitus), or low-risk (no history of any conditions). They were also classified according to the reported use of single-ingredient D’s including niacin, coenzyme Q10, fish oil, garlic, vitamin C, and vitamin E during the month prior to survey. Tests of moderation and confounding by age were performed. RESULTS: The prevalence of use of any of the six Ds increased with age. Odds ratios for any D use for the at-risk and diseased groups, relative to the low-risk group, were 1.91 (95% CI: 1.67–2.17) and 2.25 (95% CI: 1.88–2.69), respectively. With adjustment for age, these became 1.32 (95% CI: 1.15–1.52) and 1.20 (95% CI: 0.99–1.44), respectively. There was no evidence of moderation (p = 0.123), though confounding was present (p = 0.001). CONCLU- SIONS: There is a potential for residual confounding by age in studies of CVD risk and D use. After adequately controlling for age in this study, the relationship between CVD risk and D use was greatly attenuated. The findings indicated different patterns of responses to cardiovascular disease risk between younger adults and older ones in terms of D consumption. Awareness of the confounding effect of age in the associa-
tion of CVD risk and D use should be noted in clinical practice and health promotion.

PODIUM SESSION II: COST-EFFECTIVENESS STUDIES

COST-EFFECTIVENESS OF SWITCHING PATIENTS WITH TYPE 2 DIABETES FROM INSULIN GLARGINE TO INSULIN DETEMIR IN A CHINESE SETTING: A HEALTH ECONOMIC MODEL BASED ON THE PREDICTIVE STUDY

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OBJECTIVES: To evaluate the long-term cost-effectiveness of switching from insulin Glargine (IGla) to Insulin Detemir (IDet) in type 2 diabetes patients in the setting of Chinese tier 3 hospitals. METHODS: A published and validated computer simulation model of diabetes (the CORE Diabetes Model) was used to make the long-term (30 years) projection of health economic outcomes. Participant demographic information and clinical endpoints were derived from a subgroup analysis of the PREDICTIVE study. PREDICTIVE was a large, multi-centre, 6 months observational study assessing the safety and efficacy of IDet in everyday clinical practice. HbA1c was reduced by 0.35% by switching from IGla to IDet. Baseline risk factors and racial characteristic data were obtained from Chinese cohort studies. The market retail prices of medications were calculated to estimate treatment costs. The diabetes management and complications costs were obtained from Chinese published data and adjusted to 2009 values using the Chinese Consumer Price Index. An annual discounting rate of 3% was used for both health and cost outcomes according to the recommendation of Chinese Pharmacoeconomics guideline. One-way sensitivities analysis was performed and illustr- ated that the results were robust. RESULTS: Conversion to IDet from IGla was project to improve patient life expectancy by 0.09 year and 0.36 quality adjusted life years (QALYs). Treatment costs, and management costs were increased of 4,004 ($44,047 vs $40,043), 243 ($28,913 vs $28,670) Chinese Yuan (CNY) respectively. However, the cost-effectiveness of complications including cardiovascular disease, eye and hydropsycaemia events were reduced by 9,531 CNY ($95,628 vs $94,359), resulting in a total direct medical cost saving of 684 CNY when converting to IDet. CONCLUSIONS: Conversion to IDet from an IGla regimen improved life-expectancy and was a cost-saving treatment approach in a Chinese setting.

COST-EFFECTIVENESS OF SILDENAFL IN THE MANAGEMENT OF PULMONARY ARTERIAL HYPERTENSION IN MEXICAN ADULT PATIENTS

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OBJECTIVES: Pulmonary arterial hypertension (PAH) is a clinical condition that causes decreased exercise tolerance and heart failure. The aim of this study was to assess the cost-effectiveness of different drugs to manage PAH in adult, functional class III, patients, who have failed previously to calciumantagonists, from the health care payer's perspective.

METHODS: A five-state Markov model was performed to estimate one year costs and health consequences (1-month cycles). Effectiveness measures were quality-adjusted life years (QALY's) gained, as well as reduction in hospitalization rates. All-cause hospital mortality was extrapolated to survival (expected life-years per patient/annum) for each survivor average life expectancy (in years) by age and sex was retrieved from National Life Tables; for deceased patients, only the number of survival days as reported in the CRE, was retained. Per patient survival was then weighted using a predicted death rate based on individual Apache II scores, to account for disease severity. Univariate sensitivity analyses on costs and outcomes and 2000 Bootstrap simulations were run to test CEA's results. RESULTS: Based on the expected number of survival years (PMX-CT 8.24 patient, CT 4.69/patient), the mean difference in survival yielded an expected increase of 3.55LY/patient for PMX-CT, at the additional cost of $11,441/patient with a mean ICER of $3,774/LYG and a median ICER of $2,776/LYG. Results of the base-case CEA were confirmed by all sensitivity analyses with ICER values always well below commonly accepted value thresholds.

CONCLUSIONS: PMX-CT vs. CT is a cost-effective intervention for treatment of severe abdominal sepsis and septic shock and should be considered for use in the Italian NHS' hospital setting.

A PRELIMINARY COST-EFFECTIVENESS ANALYSIS OF TARGETED VACCINATION POLICIES TO MITIGATE THE IMPACT OF THE HINI PANDEMIC IN THE US

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OBJECTIVES: Under the circumstances of a severe pandemic and constrained research capacity, the need to appropriately deploy vaccination strategies becomes critical. The objective of this study was to provide insight into the most cost-effective vaccination strategy when under constrained circumstances. METHODS: A deterministic and compartmental SIR (Susceptible-Infected-Removed) cost-effective model was developed from a US CDC perspective using Microsoft Excel. The model consists of 6 distinct age groups, integrated by a contact matrix. The infectivity and mortality rates were obtained from the US CDC. The in model was performed to estimate one year costs and health consequences (1-month cycles). Effectiveness measures were quality-adjusted life years (QALY's) gained, as well as reduction in hospitalization rates. Dis- ease progression and treatment were modeled as a meta-analysis involving national and international published literature. Doses of vaccines used in the assessment were standard (60 mg/day); bosantan (250 mg/day); sitaxsentan (100 mg/day) and ambrisentan (5 mg/day, reference alternative). Resource use and costs were obtained from hospital records and the Social Security Mexican Institute. Costs include hospital stay, laboratory and respiratory function tests, immunology, drugs and adverse events management. The model was validated according to international guidelines. Sensitiv- ity analyses were performed employing bootstrapping techniques and acceptability curves were constructed. RESULTS: Per patient associated costs for sitaxsentan, bosantan, and ambrisentan were $331,640 (US$396,500–US$1,717,000), $331,640 (US$396,500–US$1,717,000), and $331,640 (US$396,500–US$1,717,000), respectively. Sensitivity is associated to the highest gain in QALY's: 0.11% and reduction in LOS: 8.75 days [8.53 days–9.27 days], respectively. In consequence, sitaxsentan represents the most attractive therapy to manage PHA in terms of cost-effectiveness. CONCLUSIONS: In the Mexican institutional setting, sitaxsentan demonstrated to be a cost-saving therapy to manage PHA in adult, functional class III patients. These results should be taken into account by Mexican health professionals to generate efficient resource allocation strategies.