of wound healing and amputation rates for becaplermin and non-becaplermin DFU at baseline. Outcome data used in the analysis were derived from a propensity score match cohort of 24,898 subjects with DFU from the Curative Health Services database from 1998-2004 who were followed for 20 weeks. Primary outcomes of interest were ulcer-free weeks and rates of amputation, death, and becaplermin utilization. Secondary outcomes were reported costs and medical supply wholesalers. Total weekly costs per episode of DFU care were estimated from a large retrospective claims database. Transition probabilities for healing and amputation were derived from the aforementioned propensity score match cohorts. Ulcer recurrence was estimated from the medical literature. Utilization for becaplermin was calculated using the manufacturer’s recommended dosing algorithm. The economic perspective taken was that of the payer. Costs are reported in 2013 US dollars. RESULTS: Overall, 2,384 patients received becaplermin. Of those who received becaplermin, 33.5% healed at 20 weeks compared to 26.5% who did not receive becaplermin (p<0.0001). In addition, the percent of patients requiring amputation was significantly lower (5.8% vs 9.1%, p<0.0001). Patients treated with becaplermin had substantially higher ulcer-free weeks compared to non-becaplermin patients (16.1 versus 12.5 weeks, respectively). Expected annual direct costs for DFU were $20,885 for becaplermin utilization as compared to $3,446 for non-becaplermin. CONCLUSIONS: Beca plermin was economically dominant over standard therapy, providing better outcomes at a lower cost in patients with DFU. In addition, becaplermin is more effective in wound healing and preventing amputation, thereby decreasing long-term costs for DFU. [Regrans®, Smith & Nephew Biotherapeutics, Fort Worth, Texas]

PB658 COST-EFFECTIVENESS OF SMALL INTESTINAL SUBMUCOSA EXTRACELLULAR MATRIX ON WOUND CLOSE NATION IN PATIENTS WITH DIABETIC FOOT ULCER Giliam AM, Waycacer C Smith & Nephew Biotherapeutics, Fort Worth, TX, USA

OBJECTIVES: Determine the cost-effectiveness of small intestinal submucous extracellular extracellular matrix (SIS)® relative to human fibroblast-derived dermal sub- sition; 2-stage Markov model was used to predict the expected costs and outcomes of wound closure for SISEM and HF-DDS. Outcome data used in the analysis were taken from a 12-week randomized clinical trial that directly compared becaplermin to standard of care. Twenty-six patients were randomized to SISEM and 13 for HF-DDS. The primary outcome of interest was ulcer-free weeks. Transition probabilities for the Markov states were estimated from the clinical trial. Resource utilization was based on the treatment regimen used in the clinical trial. Costs were derived from standard cost references and medical supply wholesalers. The economic perspective taken was that of the payer. No cost discounting was performed due to the short duration of the study. RESULTS: Ten wounds closed in the SISEM group (77% closing rate) versus one reference closure of 16 wounds (6% closing rate) in the HF-DDS group (8%), with an average closure time of 41 days. No significant difference was found in the time to closure or in the percentage of wound closure between the two groups (p=0.73). Expected direct costs per patient for DFU were $2,949 for SISEM and $5,282 for HF-DDS. Patients treated with HF-DDS incurred total treatment costs that were approximately 1.8 times higher than those treated with SISEM. The estimated cost per ulcer-free day was more than 1.5 times higher for HF-DDS vs. SISEM. CONCLUSIONS: SISEM yielded similar outcomes at a lower cost in patients with DFU. Health care providers should consider SISEM as a cost-saving alternative to HF-DDS. [OASIS®, Smith & Nephew Biotherapeutics, Fort Worth, Texas; Dermagraft®, Smith & Nephew, San Diego, California]

PB666 ADDING VILAGLITAPIN TO STANDARD CARE IN PATIENTS WITH TYPE 2 DIABETES IN COLOMBIA: A COST-EFFECTIVENESS ANALYSIS Vecino A1, Diaz-Sotelo O2, Karpf Benavides E.3, Vecino A1, Diaz-Sotelo O2

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OBJECTIVES: Vildagliptin is a DPP-4 inhibitor available in Colombia for the treat- ment of diabetes mellitus as monotherapy or in combination with metformin, sulfonylureas, or insulin. Our aim was to determine the cost-effectiveness of the addition of vildagliptin to metformin, or sulfonylurea for the management of type 2 diabetes in Colombia. METHODS: We developed a hybrid decision Markov model to simulate the level of glycemic control and the health states associated with macrovascular complications (myocardial infarction, disabling stroke, and heart failure), nephropathy and death in a hypothetical cohort of patients with type 2 diabetes. Transition probabilities and utilities were derived from published trials and validated with local clinical experts. Costs were calculated based on resource use from clinical guidelines and databases from the Ministry of Health and private institutions. The base case was developed based on the demographic char- acteristics of patients with type 2 diabetes in Colombia with a mean age of 59 years. The analysis was performed from the payer perspective for a time horizon of 20 years. Probabilities and utility analysis were based on data from the clinical trial and standard references. RESULTS: The additional cost of vildagliptin to metformine yielded an incremental effectiveness of 0.83 QALY’s over the 20 years of this cohort when compared to metformin alone. The incremental cost to metformine plus vildagliptin mixture was $3,697,647 ($18,700 USD). CONCLUSIONS: The addition of vildagliptin to metformine and vildagliptin plus metformine is a cost-effective alternative for the treatment of diabetes type 2 in Colombia.
glycemic control, leading to a reduced incidence of diabetes-related complications, including renal disease, cardiovascular disease, ophthalmic and diabetic foot complications. Liraglutide was associated with increased direct costs (EUR 56,628 versus EUR 52,450), driven by the acquisition cost of liraglutide. However, this was partially offset by the reduced cost of treating diabetes-related complications. Based on these estimates, liraglutide was associated with an incremental cost-effectiveness ratio of EUR 10,436 per QALY gained versus sitagliptin. CONCLUSIONS: Liraglutide 1.8 mg was projected to improve clinical outcomes over sitagliptin as a result of reduced incidence of diabetes-related complications. Liraglutide is likely to be cost-effective from a health care payer perspective in Spain.

PDB70 COMPARING THE PROJECTED COST PER HBA1C REDUCTION OF EXENATIDE QR VS LIRAGLUITIDE 1.8 MG FOR THE TREATMENT OF TYPE 2 DIABETES MELLITUS USING ALTERNATE DATA SOURCES Wagner A.J., Nguyen C., Furnback W.1, Kip M., Hoodonk M., Knudsen M.S., Felber E., Knudsen M.S., Rogol J., Furnback W.1, Garrison L.1

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OBJECTIVES: Glucagon-like peptide-1 receptor agonists (GLP-1RAs), such as exenatide once weekly (EQW) and liraglutide (LIRA), are FDA-approved as treatment for type 2 diabetes mellitus (T2DM). Head-to-head studies and meta-analyses of these agents have reached different conclusions about their relative effectiveness. METHODS: We developed a decision-analytic model to evaluate the likely incremental cost-effectiveness of EQW versus LIRA 1.8 mg in T2DM patients, with effectiveness measured as reduction in glycated hemoglobin (HbA1c). The model structure tracks changes in clinical outcomes (direct medical expenditure and death) and in adverse events [AEs] over a 26-week time horizon, and allows patients to discontinue treatment due to AEs (nausea, diarrhea, vomiting, constipation, dyspepsia) after 12 weeks. The model’s aim is to estimate the approximate return to their baseline HbA1c. We compared the outcomes (cost per 1% and 0.2% reduction in HbA1c) of models populated with clinical data from a head-to-head 26-week trial (EUR 12,403) and meta-analysis conducted by Scott and colleagues (2012). Drug costs and other utilization costs were based on wholesale acquisition costs and published sources. RESULTS: For the base case, the projected total 6-month cost of EQW versus LIRA was $2,444 and $3,054, respectively. Using data from DURATION-6 and meta-analysis, compared with EQW, LIRA had a projected incremental cost per 1% reduction in HbA1c (ICER) of $3,262 and $18,578 over a 6-month time horizon, respectively. Compared with EQW, the projected 6-month cost per 0.2% reduction in HbA1c for LIRA was $562 and $3,716 based on data from DURATION-6 and meta-analysis, respectively. CONCLUSIONS: The projected cost per 1% reduction in HbA1c was lower with EQW than liraglutide 1.8 mg at 6 months. The difference in projected cost per HbA1c reduction varies significantly with real-world data sources used. Real-world data are needed to resolve the current uncertainties.

PDB71 COST-EFFECTIVENESS ANALYSIS OF HCG AND HUMAN GONADOTROPINS IN MEN WITH HYPOGONADOPHIC HYPOGONADISM IN THE CONTEXT OF AN ASSISTED REPRODUCTION PROGRAM Chamberlain C.

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OBJECTIVES: To evaluate the efficiency, in terms of incremental cost-effectiveness ratio (ICER), of human gonadotropic (HCG) and human gonadotropins drugs used for male infertility due to hormonal disorder hypogonadotropic hypogonadism (HH), whose female partner has or doesn’t have infertility problems, in comparison with no treatment is cost-effective with an ICER of 20,915$CAN per QALY. Probabilistic analysis of the four comparisons suggests a likelihood of above 50% of canagliflozin being cost-effective. Sensitivity analyses show that canagliflozin remains cost-effective when indirect costs were not included. CONCLUSIONS: Canagliflozin 100 mg and 300 mg (80/20 dose split) appears to be a cost-effective alternative to sitagliptin in dual therapy. Adding canagliflozin to insulin will be cost-effective compared with placebo. Canagliflozin is a cost-effective alternative to sulfonylurides in mono therapy.

PDB73 ECONOMIC EVALUATION OF BLOOD GLUCOSE POINT-OF-CARE TESTING IN THE INTENSIVE CARE UNIT Steuten M.1, 2, 3, Furnback W.1, 4, 5, Seniawski M.1, 2, 6, 4, Hemels M.7, 8, Kjellberg J.1, 9, 4, Lutanen M.1, 10, 4, Furnback W.1, 4, 5, 11, Yang L.1, 2, 3, Yang L.1, 2, 3

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OBJECTIVE: Point-of-care testing of blood glucose (BG-PoCT) is essential for safe insulin infusion in critically ill patients. Costs associated with BG-PoCT are considered substantial, especially when more frequent monitoring is needed as with strict glycemic control. METHODS: We used a Markov model that compared the incremental cost-effectiveness of a strict BG-PoCT guideline versus a loose guideline, from a hospital perspective. RESULTS: This is a secondary analysis of a previous implementation of a normal range glucose control guideline in the ICU in Sweden. The expected costs savings of €13 per additional patient in target glucose and €10 per additional life year saved. The model outcomes are most sensitive to changes in ICU length of stay. CONCLUSIONS: This health-economic analysis shows that additional costs of BG-PoCT with implementation of a strict glucose control guideline are offset against savings generated by reduced hypo/hyperglycemic events and length of stay in ICU and hospital. [1] Schultz, M.J., et al. Minerva Anestesiologica. 2011. 78(9): p. 982-95.

PDB74 COST-EFFECTIVENESS OF SWITCHING TO BIPHASIC INSULIN ASPART FROM HUMAN PREMIX INSULIN IN TYPE 2 DIABETES IN CHINA Clay J., Rian X., Zhan Y., Yang L.

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OBJECTIVE: To evaluate long-term cost-effectiveness of switching from human premix insulin to biphasic insulin aspart (BIAsp 30) in people with type 2 diabetes mellitus (T2DM) in China. METHODS: The previously published and validated IMS Core Diabetes Model was used to project life expectancy, quality-adjusted life years (QALYs) and total direct medical costs over 30 years from a societal perspective. Patient characteristics and treatment effects were obtained from Chinese subgroup (n=1191) in the AChieve observational study. After treatment with BIAsp 30 over 26 weeks, patients’ HbA1c decreased by 1.6%, rate of major and minor hypo/hyperglycemia decreased by 0.51 and 4.32 events per patient-year respectively. Treatment costs were based on insulin doses (35.18 IU daily for human premix insulin and 36.1 IU for BIAsp 30) and market retail prices in China. Management (concomitant medications, screening programmes, etc) and complication costs were obtained from Chinese published data in 2011 and adjusted to the price level of 2012 with the consumer price index. RESULTS: Cost savings of CNY 718 and an average QALY gain of 0.011 and as an incremental QALY of 0.054. In mono therapy canagliflozin is cost-effective compared to sulfonylurides with an incremental cost-effectiveness ratio (ICER) of 1383 $ per QALY. Probabilistic analysis of the four comparisons suggests a likelihood of above 50% of canagliflozin being cost-effective. Sensitivity analyses show that canagliflozin remains cost-effective when indirect costs were not included. CONCLUSIONS: Canagliflozin 100 mg and 300 mg (80/20 dose split) appears to be a cost-effective alternative to sitagliptin in dual therapy. Adding canagliflozin to insulin will be cost-effective compared with placebo. Canagliflozin is a cost-effective alternative to sulfonylurides in mono therapy.

PDB75 COST-EFFECTIVENESS OF SAXAGLUTIPIN AND LINAGLUTIN IN COMBINATION WITH METFORMIN FOR TYPE II DIABETES: A DECISION-TREE ANALYSIS MODEL Stewart T.J., 1, Sanagory S.S.2

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OBJECTIVES: To evaluate the cost-effectiveness of saxagliptin and linagliptin in combination with metformin for type II diabetes. METHODS: A decision-tree analysis model was developed with decision nodes, chance nodes, utility nodes, and cost nodes. The model was based on A1-A295