at ed over a 60-year horizon, discounted at 3.5% annually. RESULTS: Mean life expectancy improved by 2.3% (95% CI 2.1%-2.5%) in the intervention group, and 1.9% (95% CI 1.7%-2.1%) in the control group. Conclusion: Lifetime costs were reduced in the intervention group by 15% ($10,281), whereas in the control group costs increased by $25,457. The estimated difference in costs was statistically significant (p = 0.001). CONCLUSIONS: The effect of the intervention seen in the study is primarily related to weight loss and hypoglycaemic profiles of available therapies are therefore key to both their cost-effectiveness and effectiveness in clinical practice.

PDB77
THE ROLE OF SELECTIVE INHIBITORS OF SODIUM-GLUCOSE CO-CONERTER TYPE 2 IN REDUCING VASCULAR AFTERTREATS
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OBJECTIVES: Diabetes Mellitus II (DM type II) is characterized by high prevalence and in DM patients and lead to grave social and economic consequences. The objective of the present study was to assess the impact of selective inhibitors of sodium-glucose co-converter type 2 on frequency of complications and the costs per QALY comparing with inhibitors dipeptidyl peptidase-4 type. METHODS: Modeling using Global «Cardiff diabetes model» in time horizon of 25 years. Strategy I: Line I - selective inhibitors of sodium-glucose co-converter type 2 (for example, dapagliflozin), Line II - Line I + metformin, Line III: insulin. Strategy II: Line I - inhibitors dipeptidyl peptidase-4 type (for example, sitagliptin); Line II - Line I + metformin; Line III: insulin. The direct medi-
costs of medicines, out-patients care and fatal complications were evaluated and cost utility analysis (CUA) were held. RESULTS: All patients were identified by the pharmacy data of the subjects treated by dipeptidyl peptidase-4 type for 1000 patients during 25 years were 5 309 305 USD. For Strategy II: 5 316 676 USD (€ 731 676 USD higher). The strategy I helps to prevent the 11 fatal complications among 1000 DM patients. Adherence was calculated by the public drug insurance plan of the Province of Quebec, Canada. Patients initiated OAD therapy between 2000 and 2009 and were aged 45-85 years at cohort entry. A nested case-control study was conducted to monitor the percentage of patients whose OAD therapy was matched to 10 controls by gender, age, and duration of follow-up. The adherence to OAD was measured by calculating the medication possession ratio. Conditional logistic regression models were used to estimate the association between adherence to OAD and all-cause mortality. A population-based nested case-control study design was used to investigate the relationship between adherence to OAD and all-cause mortality among incident users of OAD. METHODS: Incident OAD users were identified using healthcare databases of residents covered by the public drug insurance plan of the Province of Quebec, Canada. Patients initiated OAD therapy between 2000 and 2009 and were aged 45-85 years at cohort entry. A nested case-control study was conducted to monitor the percentage of patients whose OAD therapy was matched to 10 controls by gender, age, and duration of follow-up. The adherence to OAD was measured by calculating the medication possession ratio. Conditional logistic regression models were used to estimate the association between adherence to OAD and all-cause mortality. A population-based nested case-control study design was used to investigate the relationship between adherence to OAD and all-cause mortality among incident users of OAD. RESULTS: The cohort included 63,859 incident OAD users at entry: mean age was 68 years old, 45% were male, 37% had coronary artery disease, 82% had hypertension, and 62% dyslipidemia. Most patients initiated their OAD treatment with biguanides (78%) and sulfonylureas (12%). The average follow up time was 48 months. Among those deemed adherent, the risk of mortality was decreased compared to nonadherent (Ratio of mortality: 0.67 [95% CI: 0.64-0.70]). The likelihood for mortality was higher for patients with history of cardiovascular diseases (1.56 [1.49-1.62]), antipsychotics (2.03 [1.42-2.91]), chronic viral infections (1.73 [1.44-2.07]), corticosteroid use (1.69 [1.56-1.89]), and ≥ 1 hospital admissions (1.73 [1.65-1.80]). Conversely, mortality was least likely for patients with dyslipidemia (0.70 [0.73-0.79]), and hypertension (0.88 [0.83-0.94]). CONCLUSIONS: Adherence to OAD seems to be associated with a risk reduction of mortality. Further research is needed to confirm this risk. Initial confounding may remain a potential issue.

PDB81
BASAL INSULIN PERSISTENCE, ASSOCIATED FACTORS, AND OUTCOMES AFTER TREATMENT INITIATION AMONG PEOPLE WITH TYPE 2 DIABETES MELLITUS IN JAPAN
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OBJECTIVES: Oral Antidiabetics (OAD) have been shown to reduce the risk of mor-
tality, particularly among metformin users, which had risk reductions of 36% for cardiovascular-related death and 33-40% for all-cause mortality. However, very few studies have assessed associated all-cause mortality in Japan. METHODS: A population-based nested case-control study design was used to investigate the relationship between adherence to OAD and all-cause mortality among incident users of OAD. RESULTS: Baseline characteristics of ART users were compared with those of non-users and showed the ART users were more likely to be female and older. Adherence to ART was associated with reduced all-cause mortality, as well as cause-specific mortality, including cardiovascular diseases (HR 0.83-0.94). CONCLUSIONS: Adherence to ART seems to be associated with a risk reduction of mortality. Further research is needed to confirm this risk. Initial confounding may remain a potential issue.

DIAETES/ENDOCRINE DISORDERS – Patient-Reported Outcomes & Patient Preference Studies
PBD79
IMPACT OF A TELEPHONIC OUTREACH PROGRAM ON MEDICATION ADHERENCE IN MEDICARE ADVANTAGE PRESCRIPTION DRUG (MAPD) PLAN BENEFICIARIES
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OBJECTIVES: To determine the impact of a telephonically delivered medication adherence program on medication adherence in elderly patients with hypertension and diabetes. METHODS: A retrospective analysis using the AvMed Health Plans (Jan 2013-2014 Dec) was conducted for Medicare Part D beneficiaries who received at least two oral anti-diabetics (Diabetes Cohort) and oral anti-hyper-
tensions (Hypertension Cohort), respectively. Adherence, defined by proportion of days covered (PDC), was measured using inpatient drug claims 6-month before and after the MTM program was implemented. Pre-post differences in the PDC
within and between the MTM members and controls were measured (difference-in-difference model) and adjusted for confounders. Results: Mean age, 75.44% male, control group: n = 2181, mean age, 74.48% male) in the diabetes cohort and 9751 patients (MTM group: n = 563, mean age, 76.39% male; control group: n = 9188, mean age, 75.40% male) in the hypertension cohort were included. For patients in the hypertension cohort, the MTM group had pre-post increase in PDC by 1.9% (P = 0.05), while the control group had decrease of 2.8% (P < 0.01) (IDD: 8.03%, P = 0.003). For patients in hypertension cohort, the MTM group had pre-post increase in PDC by 1.73% (P = 0.02), while the control group had increase of 1.64% (P = 0.01) (IDD: 7.67%, P < 0.01). The PDC finding was confirmed with regression analyses with propensity score comparison adjustment showing the MTM groups had a signif-
ificant increase in pre-post PDC for hypertension, as compared with the control group. Conclusions: Telephonically delivered medication adherence program (MTM) significantly increased medication adherence in Medicare MAPD patients with hypertension, as compared with a control group.

PDB80
IMPACT OF ADHERENCE TO ORAL ANTIDIABETICS ON ALL-CAUSE MORTALITY: A RETROSPECTIVE CASE-CONTROL STUDY
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OBJECTIVES: Oral Antidiabetics (OAD) have been shown to reduce the risk of mor-
tality, particularly among metformin users, which had risk reductions of 36% for cardiovascular-related death and 33-40% for all-cause mortality. However, very few studies have assessed associated all-cause mortality in Japan. METHODS: A population-based nested case-control study design was used to investigate the relationship between adherence to OAD and all-cause mortality among incident users of OAD. RESULTS: Baseline characteristics of ART users were compared with those of non-users and showed the ART users were more likely to be female and older. Adherence to ART was associated with reduced all-cause mortality, as well as cause-specific mortality, including cardiovascular diseases (HR 0.83-0.94). CONCLUSIONS: Adherence to ART seems to be associated with a risk reduction of mortality. Further research is needed to confirm this risk. Initial confounding may remain a potential issue.

PDB81
BASAL INSULIN PERSISTENCE, ASSOCIATED FACTORS, AND OUTCOMES AFTER TREATMENT INITIATION AMONG PEOPLE WITH TYPE 2 DIABETES MELLITUS IN JAPAN
Hadjidjouani I1, Desai U2, Ivanova J1, Kirson NY2, Enloe C2, Cummings A2, Birnbaum HG2, Chubb B1, Tikkanen C2
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ADHERENCE AND PERSISTENCE IN PATIENTS INITIATING TREATMENT WITH INJECTABLE THERAPIES FOR TYPE 2 DIABETES MELLITUS (T2DM) IN SPAIN
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OBJECTIVES: Studies indicate that poor adherence and low persistence to treat- ment could lead in not achieving recommended glycemic goals in T2DM patients. The aim of this study was to assess the adherence and persistence of patients who initiate treatment with insulin or with glucagon-like peptides analogs (GLP-1) in Spain.
METHODS: Observational, retrospective study based (funded by GSK) on review of medical records from patients located in Badalona sanitary area (1 hospital and 6 primary care centers). Inclusion criteria: patients ≥ 20 years old who initiated treatment with insulin or GLP-1 during 2010-2012, T2DM diagnosis at least one year before initiation of injectable treatment. Patients were followed for 1 year. All initiated patients were monitored for up to 3 years. Data were analy- zed. Medication Possession Ratio (MPR) was used as a proxy of adherence. MPR is calculated as the percentage of days covered by the medication prescribed during the study period. Persistence rate is defined as percentage of patients who are treated for more than 30 days.
RESULTS: 1,301 patients were recruited, mean age was 67.6 years, 51.6% men, 935 initiated with insulin and 366 with GLP-1. In comparison with insulin, patients treated with GLP-1 showed higher adherence to treatment (88.1% vs 82.7%, p<0.001). Higher persistence is also achieved with GLP-1 vs insulin (62.0% vs 55.9%, p=0.046). After 3 months treatment persistence rate start to diverge and differences are maintained during the study period (6 months, persistence rate 81% for GLP-1 vs 76.4% for insulin; 10 months 77.1% vs 70.8% respectively).
CONCLUSIONS: Adherence and persistence to treatment seems to be higher with GLP-1 than insulin in T2DM patients in Spain. Further studies are needed to determine reasons for those differences between treatments. The overall management of T2DM should address adherence and persistence as key drivers for achieving therapeutic goals.

MEDICATION ADHERENCE AND SATISFACTION WITH TREATMENT IN PATIENTS WITH DIABETES MELLITUS RECEIVING ORAL COMBINATION THERAPY: DATA OF A REAL-WORLD STUDY
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OBJECTIVES: Medication adherence and satisfaction with treatment are key dimensions of healthcare quality. Large proportion of patients with type 2 diabetes mellitus (T2DM) receive oral combination therapy. We aimed to assess medication treatment satisfaction in T2DM patients receiving oral combination therapy in a real-world setting.
METHODS: 160 T2DM patients receiving combination therapy for at least 6 months (mean 6.5 yrs, 0.6-17 yrs) were recruited from 6 centers in Russia. All the patients completed the Morisky Medication Adherence Scale (MMAS 4) and the checklist for assessment of treatment satisfaction. Statistical analysis was made using t-test for two groups and χ2-test for categorical variables.
RESULTS: A total of 72% (218/302) reporting exact HbA1c, 75 (34%) had HbA1c > 8.0%. Of the 302 respondents, 82% (247/302) knew their HbA1c with 37% (111/302) reporting HbA1c > 8.0%. Overall, 87% (260/302) had BMI<25kg/m2, with 56% (169/302) BMI<30. Basal-only insulin was used by 32% (96/302), short-acting (bolus) insulin only 13% (38/302), basal-bolus 47% (142/302), premix 7% (22/302). A total of 72% (216/302) reported ever having a non-severe (self-managed) hypoglycaemic event with 19% (42/216) of these reporting event being once a week or more. Also, 16% (67/302) reported at some point having a severe (requiring help to manage) hypoglycaemic event. 67% (201/302) respondents tested blood glucose 3-6 times daily. 12% (119/962) of the basal-only respondents had previously received basal-bolus but returned to long-acting insulin due to various issues. A total of 51% (49/96) currently on basal-only would hesitate to some degree if asked by their physician about intensifying treatment (switch to basal-bolus or premix). Most (82%, 251/302) report being dissatisfied (39%, 19/49), followed by dose calculation and timing (37%, both 18/49), risk of hypoglycaemia (35%, 17/49) and weight gain (33%, 16/49). CONCLUSIONS: Number and timing of injections, dose calculation, risk of hypoglycaemia and weight gain may present barriers to insulin intensification among T2DM patients on basal insulin in Germany, and contribute to suboptimal HbA1c control. Therapies addressing these challenges may help to achieve treatment goals.

BARRIER TO INTENSIFICATION OF INSULIN TREATMENT IN PATIENTS WITH TYPE 2 DIABETES IN THE NETHERLANDS: ASSESSING PATIENT PREFERENCES AND BEHAVIOURS
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OBJECTIVES: Factors other than efficacy and safety may influence choice of treatment for the patient. Barriers to intensification may lead to poor glycaemic control. This study aimed to assess patient barriers and behaviours related to initiation or continuation of insulin treatment in T2DM in the Netherlands.
METHODS: Patients diagnosed > 6 months ago and receiving insulin for ≥ 3 months were recruited through a representative online panel in the Netherlands. Of the 302 respondents, mean age 59 years, BMI 31kg/m2 and 8-years insulin treatment. In type 2 diabetic patients, 35% stopped insulin glargine and 38% insulin detemir. In only 15% of the patients discontinuing the initiated basal insulin, death or switch to other insulin or GLP-1RA explained the discontinuation suggesting non- adherence to insulin therapy from other reasons. CONCLUSIONS: There is a consider- able proportion of diabetic patients discontinuing their initiated basal insulin analog future studies are warranted to examine the detailed reasons for discontinuation.