

were 7.64% for GLAR and 7.87% for DET at the follow-up visit. After adjusting for baseline characteristics and HbA1c and concomitant antidiabetic medications during the follow-up period, A1C remained lower in GLAR versus DET (7.06 vs 7.84%, $P = 0.0178$). Total insulin dose in GLAR was increased from 45.3 U to 75.8 U at the follow-up visit and 33.5 U to 48.6 U in DET. Adjusted weight was 101.2 kg for GLAR and 97.1 kg for DET. **CONCLUSIONS:** Initiation of GLAR relative to DET in T2D patients is associated with greater improvement in glycemic control achieved within six months. More exenatide use in DET relative to GLAR may possibly explain the group difference in body weight. This analysis was conducted in a single clinical practice hence further studies are needed to determine reproducibility of the findings.

PDB6

EFFECTS OF PIOGLITAZONE AND ROSIGLITAZONE ON GLUCOSE AND THE CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH TYPE 2 DIABETES: A META-ANALYSIS

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OBJECTIVES: A meta-analysis of Pioglitazone and Rosiglitazone in patients with type 2 diabetes was conducted to evaluate the effects of each drug on glycemic control, lipids, blood pressure, and weight. In addition, this study was aimed to identify if there is an ethnic difference in the effects between Asian and Caucasian patients by subgroup analysis. **METHODS:** Among the randomized controlled trials of Pioglitazone or Rosiglitazone which had been published before February 2008, 63 randomized controlled trials that were eligible for the inclusion/exclusion criteria were collected. For quantitative meta-analysis, the weighted pooled effect sizes and their 95% confidence intervals were calculated. **RESULTS:** Glucose lowering effect was higher in Rosiglitazone, whereas Pioglitazone produced a more favorable lipid profile. Both thiazolidinediones demonstrated similar increases in body weight. The effect on blood pressure was slightly higher in Pioglitazone. Regarding the effects of Pioglitazone, the pooled effect sizes of Pioglitazone 15 mg were very similar for two different ethnic groups in all parameters. When the effects of Pioglitazone in Caucasian patients group at dose of 30 mg and Asian patients group at dose of 15 mg were compared, most of the overall effects sizes were higher in Caucasian patients group than that of Asian patients group. In case of Rosiglitazone, the pooled effect sizes of Asian patients group administered 4 mg were higher than Caucasian patients group administered the same dose. Furthermore, in comparing the effect sizes of Asian patients group administered 4 mg and Caucasian patients group administered 8 mg, the effect sizes were rather similar than they administered the same dose. **CONCLUSIONS:** The effects of Pioglitazone on the cardiovascular risk factors are almost the same in different ethnic groups, whereas those of Rosiglitazone varies with ethnicity. In this regards, well-designed head-to-head comparative trials as well as long-term cardiovascular outcome studies should be conducted in order to accurately determine the various effects of the two thiazolidinediones on different ethnic groups.

PDB7

LONG TERM HEALTH OUTCOMES IN NEWLY DIAGNOSED TREATMENT NAIVE TYPE 2 DIABETES PATIENTS INITIATED WITH BIPHASIC INSULIN ASPART IN CHINA: DATA FROM THE IMPROVE STUDY

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OBJECTIVES: The objective was to estimate the long-term clinical outcomes in pharmaceutical treatment naive type 2 diabetes patients when initiated with biphasic insulin aspart (BIAsp) in a secondary care setting in urban China. **METHODS:** A validated computer simulation model of diabetes (the CORE Diabetes Model) was used to make long-term projections of clinical outcomes based on patient characteristics (mean age 49.7 years, time since diagnosis 1.61 years, HbA1c 9.86%, BMI 24.62 kg.m⁻²) and treatment effects of BIAsp (HbA1c improvement of 3.27 percentage points, an increase in hypoglycaemic events of 2.4 per patient-year). All background and treatment data were obtained from the Chinese part of the IMPROVE study (n = 7012). Treatment management practices were taken from Chinese urban hospitals. **RESULTS:** Superior glycemic control with BIAsp led to a delay in the onset of diabetes-related complications by 0.31 years (1.16 vs 0.85), e.g. the delay of onset to neuropathy, myocardial infarction and stroke were 1.09, 0.55, and 0.41 years, respectively. The cumulative incidence of complications was projected to decrease with BIAsp in the majority of parameters studied e.g. the incidence of neuropathy was decreased by 9.3%. Life expectancy increased from 13.62 to 14.05 years. Quality-adjusted life years (QALYs) (mean ± sd) increased by 0.772 (9.01 ± 0.171 vs 8.24 ± 0.146). **CONCLUSIONS:** The long term health outcome projections based on surrogate endpoints reported in the Chinese cohort of the IMPROVE study, indicate that initiating treatment with BIAsp in treatment naive (including OAD naive) type 2 diabetes patients will improve life expectancy and quality-adjusted life years, delay the onset of diabetes related complications, and reduce their cumulative incidence over patient lifetimes.

PDB8

BURDEN OF DIABETES AND ASSOCIATED TREATMENT PATTERNS IN EUROPE: A COMPARISON OF SIX COUNTRIES

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OBJECTIVES: To assess diabetes disease burden and associated treatment patterns among six European nations. **METHODS:** A large multi-country online cross-sectional survey of approximately 175,000 adults was conducted in 2007 in France, Germany, Italy, Spain, UK and the The Netherlands by TNS Healthcare. The survey enabled TNS to build an epidemiological database based on its proprietary European Healthcare Panel (EHP) of consumers in these 6 countries. The data is representative of population gender and age (18–24, 25–34, 35–44, 45–54, 55–64, 65–69 yrs) strata in respective countries, ensured by sampling and intensive panel management. The survey collected information on select health conditions (incl. diabetes; in the past 12-months) and health care-utilization. **RESULTS:** Diabetes disease prevalence varied widely between the 6 nations, as follows (All pts, Males/Females, proportion type 1/type 2/Gestational/Unknown): Italy: 4%, 5%/3%, 28%/61%/3%/8%; France: 5%, 5%/4%, 21%/63%/4%/12%; Spain: 5%, 6%/4%, 18%/66%/3%/13%; The Netherlands: 5%, 6%/5%, 13%/84%/1%/1%; Germany: 6%, 6%/5%, 14%/81%/1%/4%;

UK: 7%, 4%/6%, 16%/79%/2%/4%. Within each country, burden of type 2 diabetes tended to increase with age among diabetic individuals (all-age, 18–24, 25–34, 35–44, 45–54, 55–64, 65–69 yrs: % pts): Italy: 61%, 17%, 16%, 31%, 66%, 79%, 61%; France: 63%, 7%, 19%, 46%, 61%, 73%, 76%; Spain: 66%, 18%, 16%, 44%, 75%, 68%, 93%; UK: 79%, 10%, 34%, 64%, 84%, 89%, 93%; Germany: 81%, 22%, 27%, 60%, 82%, 91%, 85%; The Netherlands: 84%, 50%, 50%, 71%, 86%, 89%, 92%. Type of treatment observed among type 1/type 2 diabetics varied across the countries (not mutually exclusive: % using Dietary restrictions/exercise, Oral-therapy/oral-antidiabetics, Insulin therapy): The Netherlands: type 1—16%, 4%, 92%, type 2—39%, 63%, 22%; UK: type 1—19%, 13%, 81%, type 2—39%, 62%, 16%; Spain: type 1—33%, 13%, 73%, type 2—57%, 61%, 17%; Germany: type 1—19%, 17%, 79%, type 2—61%, 54%, 25%; France: type 1—52%, 44%, 35%, type 2—66%, 78%, 16%; Italy: type 1—58%, 27%, 44%, type 2—79%, 77%, 14%. Among those using medications to manage diabetes, prescription medicines predominated (range: 74% (Spain) to 86% (The Netherlands)); use of OTC-products/complementary-therapy was rare (<1%–3%), and so as herbal-therapy (<1%–4%, except in Spain (12%)). **CONCLUSIONS:** Diabetes disease burden appear to be substantial in European nations studied, with type 2 diabetes burden increasing with age. The reported treatment patterns varied dramatically. With the aging European population, appropriate interventions, outcome evaluations and cost-effective diabetes management strategies are warranted to alleviate this burden.

PDB9

ESTIMATED INCIDENCE OF TESTOSTERONE DEFICIENCY IN AGING BRAZILIAN MEN AND THE CONSEQUENT COSTS OF NEW CASES OF OSTEOPOROSIS-RELATED HIP FRACTURES

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OBJECTIVES: This study aimed to model the increase in osteoporosis-related fractures and the associated costs related with aging and testosterone deficiency (TD) in the male population above 65 years in the Brazilian Private Health System (PHS). **METHODS:** Population-based prospective cohorts established age-specific annual incidence rates of testosterone deficiency and the prevalence of osteoporosis in men. Based on these estimates, projections for the number of cases of men with testosterone deficiency, osteoporosis and fractures in the Brazilian male population above 65 years were computed. The national costs associated with hip fractures have been previously recorded as R\$ 24,051 (US\$14,402) per event. **RESULTS:** Among 1,164,379 male individuals above 65 years under the Brazilian PHS, 27,130 new cases of TD would be expected in one year. Considering an osteoporosis incidence of 6% and 12.3% for men with normal and deficient testosterone, respectively, 1709 new cases of osteoporosis attributed to TD would be expected. This would result in an annual absolute increase of 0.16% in non-vertebral fracture incidence in men between 65–69 years; 0.24% between 70–74 years; 0.32% between 75–79 years and 0.40% above 80 years. Each of these absolute increases represents a 105% relative increase in the incidence of non-vertebral fractures between men with TD relative to men without TD. Seventy-one new non-vertebral fractures and 13 new cases of hip fractures would be expected, resulting in incremental costs of R\$318,002 (US\$190,420) for the Brazilian PHS. **CONCLUSIONS:** Male aging is associated with gradual decrease in circulating testosterone, which may be detrimental

to bone. This model suggests that, for the Brazilian male population above 65 years, testosterone deficiency is associated with a significant increase in new cases of osteoporosis-related fractures in one year. Diagnosis and proper treatment of this condition could have a favorable impact in the prevention of this costly complication.

PDB10

COMPREHENSIVE LIPID PROFILE AMONG TYPE 2 DIABETES MELLITUS (T2DM) POPULATION IN SPAIN. RECAP-DM SPANISH COHORT STUDY

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OBJECTIVES: Diabetes patients' management is complex and requires that many issues, beyond glycemic control, be addressed. Management of lipid profile is a crucial component of cardiovascular (CV) risk reduction in diabetic population. We assessed the characteristics of dyslipidemia among an adult type 2 diabetes mellitus (T2DM) population that added either sulphonylurea (SU) or a PPAR γ agonist to previous metformin (MF) therapy in Spain. **METHODS:** A retrospective clinical chart review and patient survey during physician visits (June 2006–February 2007) was conducted in Spain. Patients were aged ≥ 30 years at time of T2DM diagnosis and added SU or a PPAR γ agonist to previous MF between 2001 and 2006. Patients with gestational diabetes or T1DM were excluded. For the present analysis patients with missing values for LDL-c, HDL-c or triglycerides (TGs) were excluded. Individual patient lipid profiles were compared with the recommended lipid targets for diabetic patients by the latest ADA consensus. **RESULTS:** A total of 493 patients were recruited, and 338 included in this analysis. Average age was 63.1 (SD 10.6) years, 46.7% were female, and mean time from diabetes diagnosis was 8.6 (SD 5.3). The lipid parameter most frequently not at target was LDL-c (79.6%), followed by TGs (42.9%) and HDL-c (37.6%). 17.5% of patients had the three lipid parameters out of goal, and 31.4% had two of them not at target. Out of the 338 patients only 20 (a 6% approx.) presented all three lipid parameters at the recommended level. **CONCLUSIONS:** diabetic patients that start oral combination therapy with either MF+SU or MF + a PPAR γ agonist, very frequently have their lipid parameters not at recommended level. A greater focus is required to comprehensively manage their lipid profile, and reduce the cardiovascular risk associated with it.

PDB11

POTENTIAL IMPACT OF LIPID CONTROL AND SUBSEQUENT CARDIOVASCULAR (CV) RISK REDUCTION IN T2DM POPULATION TREATED WITH ORAL COMBINATION THERAPY (OCT) RECAP-DM STUDY

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OBJECTIVES: Diabetic patients are at CHD greater risk than the general population. Therefore these patients will benefit from optimal care based on CHD risk evaluation. We assessed the potential impact of risk factors (RF) management on the cardiovascular (CV) risk among T2DM population. **METHODS:** A retrospective cohort study was conducted in Spain (2006–2007). Patients were aged ≥ 30 years at time of T2DM diagnosis and had added sulphonylurea or PPAR γ agonist to previous metformin. Patient RFs were assessed for attainment of guideline-defined optimal values. The data for these patients correspond to their last available measurements before add-on therapy. Five-year CV risk was estimated with a