and usual activities ($P = 0.027$ and $P = 0.006$ respectively), while in self care, pain/discomfort and anxiety/depression dimensions, there was no statistically significant difference between the two groups. Mean values of the visual analogue scale assessing global health status indicated by patients with and without type-2 diabetes mellitus were 70 (SD, ±16.92) and 72 (SD, ±16.75), respectively ($P = 0.395$). CONCLUSIONS: This study, comparing diabetic and non-diabetic patients of the same age and sex, suggest that the presence of type-2 diabetes mellitus is associated with higher problems in the physical sphere, specifically in domains such as mobility and usual activities, but not on the overall perception of health status.

**PDB26**

**THE IMPACT OF VASCULAR EVENTS ON HEALTH-RELATED UTILITY IN PATIENTS WITH AND WITHOUT TYPE-2 DIABETES**

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OBJECTIVES: Health-related utility is a numerical measure of individual satisfaction with health status or health care, and is routinely used for economic evaluation of new drugs. This study measured health-related utility in patients with type-2 diabetes and co-morbidities, such as multiple vascular events, and compared it with utility in non-diabetic patients with similar events.

METHODS: Data were taken from the Health Outcomes Data Repository, which includes medical histories, biochemistry, health-related utility (based on the EuroQol-5D), and demographic data for a large population in the UK. The data used here (n = 14,775; 8.3% with type-2 diabetes) were from hospital inpatients and outpatients.

RESULTS: The mean health-related utility score was lower in diabetic patients compared with non-diabetic patients (0.53 vs. 0.67). The mean utility score for acute myocardial infarction was 0.58 for those with diabetes compared with 0.56 for non-diabetic patients. Respective scores were 0.44 and 0.50 for heart failure; 0.46 and 0.53 for angina; 0.46 and 0.52 for stroke; 0.52 and 0.56 for transient ischaemic attacks; and 0.44 versus 0.51 for renal failure. The mean utility scores for peripheral vascular disease were similar in both groups (0.44 with diabetes and 0.43 without diabetes). The greatest difference was in eyesight diagnoses, with utility scores of 0.50 for diabetic versus 0.64 for non-diabetic patients. The mean utility score was lower (0.58 ± 0.34) for patients with diabetes and no vascular events compared with patients with neither diabetes nor a vascular event (0.70 ± 0.31). Utility scores decreased with increasing number of complications. The difference between diabetes and non-diabetes scores decreased with increasing disease severity, from 0.07 with one event to −0.01 with ≥3 events.

CONCLUSIONS: Type-2 diabetes is associated with decreased utility, which is affected by the degree of co-morbidity. These findings could affect how multiple vascular complications states should be valued in economic models.

**PDB27**

**A MULTIDIMENSIONAL HEALTH CARE INTERVENTION ASSESSMENT: THE CO-ORDINATED DIABETES HEALTHCARE NETWORK**

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Disease management assessment involves several steps: diagnosis, short and long term studies. From the hospital educational experience conducted in Vichy, hospital and office based practitioners developed a coordinated and multidisciplinary therapeutic educational approach, the “Vichy Diabète healthcare network”. Two assessment steps have been conducted. OBJECTIVES: Initial objective was to analyse the “hospital therapeutic education program” on diabetic patients knowledge and to identify ways for improvement. The objective of the second step was to validate, after a few months, the choices made by the network.

METHODS: Qualitative and quantitative studies were based on data currently collected, questionnaires submitted to diabetic patients who followed the hospital program and practitioners who belong to the network.

RESULTS: Initial assessment showed that the hospital program impact alone is modest. A total of 67% of the patients considered that diabetes is a severe disease; 68% estimated that they do their best to treat themselves; 60% declared that their treatment is difficult in every day life, 50% hadn’t changed their behaviour since the diabetes diagnostic; 21% didn’t know the potential complications. This underlined the need to develop the “Vichy Diabète network”.

The second step confirmed these observations; 87.9% of interviewed practitioners estimated that patients could improve their behaviour. According to them, respectively 57.5% and 66.7% didn’t know well the targeted glycaemia and HbA1C definition, 42.4% thought that diabetes isn’t a severe disease. Adherence to diet and physical activity recommendations is considered very insufficient. Thus, according to patients and practitioners, the “Vichy Diabète network” answered to their needs and expectations.

CONCLUSIONS: Assessment approach conducted at different steps is particularly adapted to networks project. It brings a lot of information to network care givers on strategic choices and impact on health organisation.

**PDB28**

**VALIDATION OF ORAL ANTIDIABETIC DRUGS PRESCRIPTIONS: THE VIEWS OF PRIMARY CARE PHYSICIANS**

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OBJECTIVES: To assess views of primary care physicians (PCPs) in Spain regarding the purposes and impact of inspection validation of prescriptions (IVP) (in Spain known as “inspector visa”) prior to dispensing within the NHS, in general and particularly in type-2 diabetes mellitus (T2DM) drugs, and to what extent they are in favour of this control mechanism.

METHODS: A telephone survey was conducted during October—November, 2003 of 1471 PCP’s prescribing an oral antidiabetic requiring IVP (in Spain known as “inspector visa”) prior to dispensing within the NHS, in general and particularly in type-2 diabetes mellitus (T2DM) drugs, and to what extent they are in favour of this control mechanism.

RESULTS: A total of 40.6% of the 3618 PCP’s contacted agreed to participate in the study and met inclusion criteria. On average, they prescribe 30.6 drugs requiring IVP per month, and costs of time invested in tasks related to IVP are estimated around 336 million annually in primary care. Twenty percent (20%) of PCP’s declared that IVP put patients at risk of not receiving the appropriate treatment when they need it, and 56.5% believe that IVP could delay the onset of treatment with T2DM drug. Regarding T2DM drugs, 18.8% of PCP’s believed that Health Authorities imposed the IVP requirement to ensure its appropriate utilisa-
tion, but 76.2% thought that the objective was to control pharmaceutical spending. Most PCP's (87.1%) declared that their prescribing criteria provided enough control and that mechanisms such as IVP are not necessary in medicines used in prevalent chronic diseases managed in primary care such as T2DM, hence, 75.4% of PCP's support their withdrawal. CONCLUSIONS: PCP's believe that clinical criteria are enough to decide on the appropriate treatment for T2DM, and that other control mechanisms such as IVP are mainly focused on cost containment purposes.

**PDB29**

**THERAPY CHANGE AND PROGRESSION TO INSULIN USE AMONG TYPE-2 DIABETIC PATIENTS NEWLY TREATED WITH SULFONYLUREA (SU) OR METFORMIN (MF) MONOTHERAPY**

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OBJECTIVES: To assess therapy change, discontinuation, and insulin use among type-2 diabetic patients newly treated with metformin (MF) or sulfonylurea (SU) monotherapy.

METHODS: Type-2 diabetic patients ≥30 years old who started MF or SU monotherapy from January, 1997 to November, 2000 and had not received any hypoglycemic agents (HAs) within one year prior to therapy initiation were identified from a UK general practice (GP) database. At least one subsequent prescription of HAs within one year after monotherapy initiation was required for inclusion. Cox proportional hazards model, adjusted for baseline patient characteristics and co-morbid conditions, was used to estimate the likelihood of initiating insulin. RESULTS: Among the 3857 eligible patients, 59.4% (40.4%) of them started with SU (MF) monotherapy. For the SU (MF) group, 57.6% (30.8%) of them were male and the mean age was 67.5 (63.0) years. Those receiving MF were more likely to be women (49.1% vs. 42.4%, p < 0.001), obese (16.2% vs. 6.70%, p < 0.001) and with dyslipidemia (28.3% vs. 23.8%, p < 0.001). Mean duration of follow-up for the SU (MF) group was 25.1 (24.6) months. Therapy change was found in 19% (27%), whereas therapy discontinuation was found in 24% (18%) of the SU (MF)—treated patients. Initiation of insulin were 10.7% (95% CI: 9.05%–12.4%) and 8.80% (95% CI: 6.76%–10.8%) in the SU (MF) group, respectively. After controlling for confounders, the MF group had a lower hazard of initiating insulin (Adjusted Hazard Ratio = 0.58, 95% CI: 0.45–0.75) compared to the SU group. CONCLUSIONS: In this cohort of type-2 diabetic patients managed by GP's in the UK who were newly treated with MF or SU monotherapy, therapy change and discontinuation were common within a year. Almost 10% of them initiated insulin during the average of a 2 year follow-up period.

**PDB30**

**DRUG UTILIZATION OF GLITAZONES IN ITALY**

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OBJECTIVES: People suffering from type-2 diabetes who fail on monotherapy with metformin or sulphonylurea should receive glitazones instead of injective insulin. Patients report a poor preference for insuline treatment because of its burden on their quality of life. Glitazones could represent a more appropriate treatment for them. Nowadays in Italy, glitazones are approved for hospital use only. We describe the drug utilization of glitazones (rosiglitazone and pioglitazone), and relationship with their potential use. METHODS: The expected number of type-2 diabetic patients who could be treated with glitazones was calculated analyzing a large database of diabetic patients. Patient candidates for glitazones were those with an unsatisfactory glycaemic control using metformin or sulphonylurea, given at the highest dose tolerated by patients, obese (BMI > 30), with haemoglobin A1c > 8%, without heart failure and liver diseases. We obtained IMS Health data on sales of glitazones in Italy during 2003 (365 days). These data were turned into Defined Daily Dose (DDD)/1000 inhabitants day, by means the formula: distributed DDD/(population × reference days) × 1000.

RESULTS: The number of patients eligible for treatment with glitazones was about 23,000. The expected use of glitazones (to treat all eligible patients) was 0.4025 DDD/1000 inhab. day. During the evaluated period, 0.0507 DDD/1000 inhab. day of rosiglitazone and 0.0257 DDD/1000 inhab. day of pioglitazone were distributed. Altogether, 0.0764 DDD/1000 inhab. day were used in Italy. CONCLUSIONS: Distributed glitazones can treat about 19% of eligible diabetic patients. The reasons of this poor use could be the availability of glitazones only through the hospital, and the limitation of hospital expenditure for drugs. Eligible patients who do not receive glitazones risk being treated with injective insuline, with a negative burden on their quality of life.

**PDB31**

**COMPARISON OF BLOOD PRESSURE AND ATTRIBUTABLE HEALTHCARE COSTS BY DIHYDROPYRIDINE VS NONDIHYDROPYRIDINE CALCIUM CHANNEL BLOCKER INITIATED FOR HYPERTENSION IN DIABETES MELLITUS PATIENTS, AND MONITORING OF RENAL PARAMETERS**

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The JNC-7 and ADA recommend a goal BP of <130/80 mmHg in diabetes mellitus (DM) patients. Clinical trials suggest most DM patients require ≥2 antihypertensive medications to achieve BP goal. OBJECTIVES: Compare differences in BP and healthcare costs by CCB type (dihydropyridine [DHP] vs. (nondihydropyridine [NDHP]) added to an antihypertensive regimen. Proportion of patients tested for proteinuria was also assessed.

METHODS: Administrative claims data were obtained from Western and Southeastern US health plans. Patients were identified (N = 5551) with DM and HTN initiated on CCB therapy from January 1, 2000 through June 30, 2002, with eligibility 6 months prior and 1 year post-index, no CCB prescriptions within 6 months pre-index date, and medication possession ratio >50% in the 1 year post-index period. Costs attributable to DM or HTN were analyzed. A random sample was targeted for medical chart review. Testing for proteinuria was identified from both claims and medical charts. RESULTS: Majority of patients initiated on CCB received other antihypertensive medications; 86% and 76% in the DHP and NDHP groups, respectively. The NDHP group had lower annual attributable costs [$1637 [95% CI, $1479–$1813] vs. $1989 [95% CI, $1823–$2170]; P < 0.004). A total of 313 medical charts were reviewed (DHP = 242, NDHP = 71). Both groups had similar pre- and post-index BP values; mean changes in SBP and DBP were not statistically significant between groups. Percentages of patients achieving BP goal were low in both groups; <25% achieved SBP goal of <130 mmHg, and 36%–37% achieved DBP goal of <80 mmHg. Less than 45% of patients were tested for proteinuria during the study period. CONCLUSIONS: Patients initiated on an NDHP attained similar BP reductions compared to DHP at lower total costs. Opportunities exist for more aggressive management of BP and testing for proteinuria in DM patients with HTN.