was evaluated using the HbA1C values closest to 365 days after index treatment. ADHERENCE TO ADA HBA1C TESTING FREQUENCY AND ANTIDIABETIC PDB104 monitor OAD treatments of NH residents with moderate to severe CKD, received at least one OAD prescription that was classified as non-concordant.

**RESULTS:**

HbA1C testing and treatment modification and determine its impact on treatment type 2 diabetes (T2DM) patients starting drug treatment to the ADA guidelines on diabetes mellitus (T2DM).

To evaluate the relationship between self-monitoring of blood sugar (SMBG) use in patients with an increase in AH classes between users and non-users of SMBG test strips at baseline was conducted using chi-square analysis. **RESULTS:** Among 824,461 patients selected, 482,854 used one, 258,477 used two, and 81,130 used three AH agents at baseline. SMBG test strip use was observed in 28.3% of the entire population, with 17.0% using >4 test strips weekly. The following treatment changes occurred from baseline to follow-up: no change 67.9%, a decrease in AH classes 13.0%, an increase in AH classes 15.4%, initiating insulin 2.5%, and increasing dose 6.8%. The utilization of SMBG test strips at baseline in patients with no change or a decrease in medication adherence during follow-up was 28.0%, which was significantly different compared to SMBG use in patients with an increase in AH classes (29.1%), patients initiating insulin (32.8%), and in patients increasing dose (30.6%) (all P<0.001). **CONCLUSIONS:** The use of SMBG test strips is associated with medication intensification among users of AH therapy in T2DM.

**PDB105**

**ADHERENCE TO ADA HBA1C TESTING FREQUENCY AND ANTIDIABETIC THERAPY GUIDELINES IMPROVES PATIENT OUTCOMES**

**OBJECTIVES:** The aim of this retrospective study is to evaluate the adherence of type 2 diabetes (T2DM) patients starting drug treatment to the ADA guidelines on HbaA1c testing and treatment modification and determine its impact on treatment outcomes. **METHODS:** Data was obtained from a large health care plan claims database between July-2008 to December-2011. Eligible patients were aged ≥18 years with ≥2 T2DM diagnoses (ICD-9CM codes 250.x0, 250.x2), and were drug-naive for ≥6 months before the first antidiabetic drug (termed “index treatment”) was started. Patient adherence to the HbaA1c testing guideline was defined as an initial HbaA1c test within 105 days of the index treatment and subsequent tests within 105 or 195 days of the previous test depending on the result (≥7 or <7%, respectively). The drug modification guideline was defined as a medication change in treatment within 45 days of HbaA1c ≥7%. Patient outcome after one year was evaluated using the HbaA1c values closest to 365 days after index treatment.

**RESULTS:** Of the 1,164 patients who met the study criteria, 4,409(37.2%) met the testing criteria for drug modification (HbaA1c ≥7%). Of these patients, 546(12.36%) met the recommended testing frequency, 934(21.14%) adhered to the ADA guidelines on HbaA1c testing frequency and therapy modification correlated with improved outcomes one year after initial drug treatment.

**PDB106**

**UTILIZATION TRENDS OF VARIOUS FORMULATIONS OF TESTOSTERONE: AN ANALYSIS OF THE RAMQ DATABASE**

**OBJECTIVES:** Testosterone is mainly used as androgen replacement therapy. The purpose of this study was to describe utilization trends of various testosterone formulations in a real life setting, using the RAMQ database. **METHODS:** Male patients covered by the Quebec provincial drug reimbursement program (RAMQ) who had used at least one formulation of testosterone in the period from June 1, 2003 to March 31, 2011 were selected. Characteristics of the treatments were analyzed, including switches from one formulation to another. A 1:1 ratio control group was selected for each patient: a patient with testosterone was treated and incidence of co-morbidities in patients in the study group was compared to the control group. **RESULTS:** Among a random sample of 125,000 patients covered by the drug plan, 723 males at least one formulation of testosterone in the period from June 1, 2003 to March 31, 2011 were selected. Characteristics of the treatments were analyzed, including switches from one formulation to another. A 1:1 ratio control group was selected for each patient: a patient with testosterone was treated and incidence of co-morbidities in patients in the study group was compared to the control group. **RESULTS:** Among a random sample of 125,000 patients covered by the drug plan, 723 males at least one formulation of testosterone in the period from June 1, 2003 to March 31, 2011 were selected. Characteristics of the treatments were analyzed, including switches from one formulation to another. A 1:1 ratio control group was selected for each patient: a patient with testosterone was treated and incidence of co-morbidities in patients in the study group was compared to the control group. **RESULTS:** Among a random sample of 125,000 patients covered by the drug plan, 723 males at least one formulation of testosterone in the period from June 1, 2003 to March 31, 2011 were selected. Characteristics of the treatments were analyzed, including switches from one formulation to another. A 1:1 ratio control group was selected for each patient: a patient with testosterone was treated and incidence of co-morbidities in patients in the study group was compared to the control group. **RESULTS:** Among a random sample of 125,000 patients covered by the drug plan, 723 males at least one formulation of testosterone in the period from June 1, 2003 to March 31, 2011 were selected. Characteristics of the treatments were analyzed, including switches from one formulation to another. A 1:1 ratio control group was selected for each patient: a patient with testosterone was treated and incidence of co-morbidities in patients in the study group was compared to the control group. **RESULTS:** Among a random sample of 125,000 patients covered by the drug plan, 723 males at least one formulation of testosterone in the period from June 1, 2003 to March 31, 2011 were selected. Characteristics of the treatments were analyzed, including switches from one formulation to another. A 1:1 ratio control group was selected for each patient: a patient with testosterone was treated and incidence of co-morbidities in patients in the study group was compared to the control group. **RESULTS:** Among a random sample of 125,000 patients covered by the drug plan, 723 males at least one formulation of testosterone in the period from June 1, 2003 to March 31, 2011 were selected. Characteristics of the treatments were analyzed, including switches from one formulation to another. A 1:1 ratio control group was selected for each patient: a patient with testosterone was treated and incidence of co-morbidities in patients in the study group was compared to the control group. **RESULTS:** Among a random sample of 125,000 patients covered by the drug plan, 723 males at least one formulation of testosterone in the period from June 1, 2003 to March 31, 2011 were selected. Characteristics of the treatments were analyzed, including switches from one formulation to another. A 1:1 ratio control group was selected for each patient: a patient with testosterone was treated and incidence of co-morbidities in patients in the study group was compared to the control group. **RESULTS:** Among a random sample of 125,000 patients covered by the drug plan, 723 males at least one formulation of testosterone in the period from June 1, 2003 to March 31, 2011 were selected. Characteristics of the treatments were analyzed, including switches from one formulation to another. A 1:1 ratio control group was selected for each patient: a patient with testosterone was treated and incidence of co-morbidities in patients in the study group was compared to the control group.

**SENSORY SYSTEMS DISORDERS – Clinical Outcomes Studies**

**PSS1**

**THERAPEUTIC TRIAL OF INTRALESIONAL INJECTION OF MYCOPHENOLATE MOFETIL IN PSORIASIS VULGARIS: CLINICAL, HISTOPATHOLOGICAL AND IMMUNOHISTOCHEMICAL EVALUATION**

Ahoush NN

British University in Egypt, Cairo, Egypt

**OBJECTIVES:** Systematically administered mycophenolate mofetil (MMF) has a tendency to treat plaque psoriasis. The purpose of the current study was to investigate the efficacy and safety of intralesional MMF in ordinary psoriasis vulgaris and to find out the best regimen of treatment.

**METHODS:** In hundred plaque psoriasis patients, response to different concentrations (3.125, 6.25, 12.5 and 25 mg/ml) of MMF have been objectively evaluated and compared to control (5% dextrose). Patients were divided into two groups, group (A): patients who were injected once every week for six weeks. Patients were followed up clinically, histopathologically, and immunohistochemically for CD3. **RESULTS:** Maximum response to MMF was achieved 8 weeks after initiation of therapy. There was significant reduction of erythema, thickness, scaliness (P<0.01) but not surface area (P>0.152). Histopathologically, there was significant reduction in scores of parakeratosis, acanthosis, dilatation of papillary vessels and density of dermal mononuclear infiltrate. Immunohistochemical, semi-quantitative analysis revealed variable, but in general, obvious degree of reduction in the density of CD3+ cellular infiltrate (i.e. -cells) at the eighth visit compared to the first visit in all specimens examined. No sex-related difference could be found in the efficacy of different concentrations with different regimens. No systemic or local adverse effects were noted apart from mild and transient burning sensation especially with higher concentrations.

**CONCLUSIONS:** Intralesional MMF could be adopted as a safe and effective adjunctive line of treatment especially in localized plaque psoriasis.
OBJECTIVES: Clinical trials have shown that ranibizumab is efficacious in improving vision among patients with AMD. The objectives of this study are to:

1) evaluate responses to ranibizumab (a) as monotherapy and (b) in combination with laser treatment, and
2) compare the efficacy of ranibizumab 0.5mg treatment with: a) control; b) ranibizumab 0.3mg, and c) bevacizumab. METHODS: This is a systematic meta-analysis review of 8 randomized controlled clinical phase III or IV trials with a minimum follow-up that investigated the efficacy of ranibizumab in treating AMD. The dependent variables were effect sizes of visual acuity gained and odds ratios of percentage of patients who gained ≥15 visual acuity letters. Weighted effect sizes of visual acuity were used to compare the monthly versus PRN treatment. RESULTS: Regression results showed no significant differences in efficacy between PRN and monthly treatment. The ranibizumab to control (placebo injection/surgery) comparison (4 effect sizes, 4 odds ratios, N=1006) showed that ranibizumab had significantly higher improvements in visual acuity (g=1.20, z=7.83, p<0.05) and a higher proportion of patients who gained ≥15 letters (OR: 6.37; 95% CI 3.96-9.98; p<0.05). When comparing ranibizumab doses (6 effect sizes, 5 odds ratios, N=3449): ranibizumab 0.5mg gained ≥15 letters (OR: 6.37; 95% CI 3.96-9.98; p<0.05). When comparing visual acuity (g=1.20, z=7.83, p<0.05) and a higher proportion of patients who gained ≥15 letters was not significantly different. The ranibizumab to bevacizumab comparison (3 effect sizes, 3 odds ratios, N=800) revealed no significant differences.

CONCLUSIONS: Ranibizumab 0.5mg was found to be more effective than control and ranibizumab 0.3mg. Monthly treatment was not significantly different from PRN. Results from clinical trials are needed to compare the efficacy of ranibizumab and bevacizumab.

PSS3
THE BURDEN OF GLAUCOMA AND ITS COMPLICATIONS: A LARGE POPULATION-BASED COHORT STUDY
Levkovitch-Verbin H, Goldshtein I, Chodick G, Zigman N, Shalev V
Maccabi Healthcare Services, Netanya, Tel Aviv, Israel

OBJECTIVES: To investigate the burden and epidemiology of glaucoma in a large health maintenance organization (HMO) in Israel. METHODS: A retrospective cohort study, conducted using the electronic medical databases of Maccabi Healthcare Services (MHS), a 2 million member HMO in Israel. The study population consisted of all patients who were newly diagnosed with glaucoma between 2003 and 2010 at MHS. In addition, for prevalence calculation we included all patients who are currently (2012) active members of MHS. Collected data included: personal characteristics, relevant surgical procedures, anti-glaucoma medications, caregiver characteristics, comorbidity, possible complications (asthma, depression, cardiovascular diseases, cataract) and all-cause mortality. RESULTS: Over 2 years using the educational rate evolution and the type of integrated care used, a total cost of $31.2 million in Year 3, or $0.61, $1.78, and $2.60 PMPM savings in Years 1, 2, and 3. CONCLUSIONS: Adding IAI Q28 to a US formulary saves money in the first three years, primarily due to reduced injection frequency compared to RQ4.

PSS6
COST ANALYSIS OF FARS PLANAS VITRECTOMY FOR THE TREATMENT OF SYMPTOMATIC VITREOMACULAR ADHESION: A BOTTOM-UP COSTING APPROACH
Nicola F1, Jackson T2, Grimaudice F1, Angelis A1, Kanavos P1
1London School of Economics and Political Science, London, UK, 2King’s College Hospital, London, UK

The direct cost to the NHS of pars plana vitrectomy (PPV) is unknown since a bottom-up costing exercise has not been undertaken. Health care resource group (HRC) costing relies on a top-down approach. OBJECTIVES: To quantify the direct cost of PPV for vitreomacular traction (VMT), epiretinal membrane (ERM) and macular hole (MH). METHODS: Each of five NHS vitreoretinal units recorded the indication for surgery and all procedure elements for a minimum of 30 consecutive PPVs, to include at least 10 cases of VMT, ERM, or MH. In-surgery bottom-up costing was undertaken prospectively for all cases, equipment and staff salaries associated with surgery, between March and September 2012. Out-of-surgery costs, namely before and after surgery between admission and discharge, were estimated based on accounting costs recorded in one site. RESULTS: Of 151 PPVs, 57 were for MH (16.6%), ERM (15.2%), or VMT (4%). The average surgical time was 1.22 hours [range 0.96-1.38], corresponding to an and a mean cost of £204.40 [€218.90-€237.70]. The average cost of complications (asthma, depression, cardiovascular diseases, cataract) and all-cause mortality of glaucoma patients to the general HMO population. RESULTS: A total of 26,196 prevalent glaucoma patients aged 40 or above were identified among active members of MHS in 2012 with an average prevalence of 35 per 1000. Prevalence was strongly associated with increasing age, ranging from 7 cases per 1000 at age 45-50 to 212 per 1000 at age 85+. The 4 main prevalent pathologies among MHS population aged 40 or above were open angle glaucoma, primary open angle glaucoma, unspecified glaucoma, and pseudo exfoliation with prevalence rates of 2%, 1.4%, 0.9% and 0.2%, respectively. A total of 11,512 incident glaucoma patients to the general HMO population. RESULTS: A total of 26,196 prevalent glaucoma patients aged 40 or above were identified among active members of MHS in 2012 with an average prevalence of 35 per 1000. Prevalence was strongly associated with increasing age, ranging from 7 cases per 1000 at age 45-50 to 212 per 1000 at age 85+. The 4 main prevalent pathologies among MHS population aged 40 or above were open angle glaucoma, primary open angle glaucoma, unspecified glaucoma, and pseudo exfoliation with prevalence rates of 2%, 1.4%, 0.9% and 0.2%, respectively. A total of 11,512 incident glaucoma patients, who were diagnosed between 2003 and 2010 were identified, with an average incidence of 2.5 per 1000 at 40+ year old members. Overall, 1.5% of the study patients have undergone glaucoma surgery, 3% were blind and 41% were diagnosed with cataract. CONCLUSIONS: The current study demonstrates the importance of vigilant medical databases to estimate the burden of glaucoma and its complications. The increased comorbidity and mortality among these patients has important implication for health authorities for prevention and delivery of health-care services.