The 80th percentile subgroup (n were less likely to achieve goal on DPP4i combinations while patients with self-ropathy, cerebrovascular conditions, or higher total medication use at baseline were included. The predictive model showed that patients who had neu-
cose (FPG) levels, and incidence of hypoglycemia. A network meta-analysis using
included reduction in Hb1Ac levels, patients with HbA1c
tractions were conducted by two independent reviewers. The outcomes of interest
rank favored TZD/SUL followed by AGI/BGU, TZD/BGU, SUL/BGU, and DPP/BGU.
According to the probability ranking for reduction in HbA1c and FPG levels, the
non-significant differences were observed among the FDCs other than TZD/SUL for
the rate of 72.3%, mean age of 50.6 years old, 46.1% female, 53.9% on MET, 25.7% on
and TZD, and HbA1c = 8.96% at baseline. CONCLUSIONS: Predictive factors for reaching goal include: 1) use of self monitoring blood glucose, and 2) lack of neuropathy, cerebro-
vascular disease, or use of medications. Subgroups that might benefit the most from DPP4i treatment were identified. These patients exhibited a higher likelihood of having prior use of MET or TZD, and baseline HbA1c less than 9.0.

PD87 NETWORK META-ANALYSIS OF FIXED DOSE COMBINATION THERAPIES FOR THE FIRST-LINE TREATMENT OF TYPE 2 DIABETES MELLITUS
OBJECTIVES: To assess the relative efficacy and safety of fixed dose combinations (FDCs) of anti-diabetic drugs in treatment naive patients with type 2 diabetes mel-
itus (T2DM) using network meta-analysis technique. METHODS: Randomized controlled trials, evaluating FDCs in treatment naive patients with T2DM, were searched via Embase® and MEDLINE®. The abstracts were reviewed and data ex-
tractions were conducted by two independent reviewers. The outcomes of interest included reduction in HbA1c levels, patients with HbA1c≤7%, fasting plasma glucose level, weight loss, and incidence of hypoglycemia. A network meta-analysis using WinBUGS® was used to combine the reported direct and indirect evidence, and a probability ranking for the included combinations was generated. RESULTS: Eleven trials (n=5781 patients) comparing the following FDCs: sulfonylurea/biguan-
idines (SUL/BGU), thiazolidinediones/biguanidines (TZD/BGU), dipeptidyl peptidase-4 inhibitors (DPP4i)/biguanidines (DPP/BGU), alpha-glucosidase inhibitors/biguanidines (AGlu/ BGU), and thiazolidinediones/sulfonylureas (TZD/SUL) were included. Following network meta-analysis using BGU, TzD, and Sul as common comparators, TzD/S
was observed to be significantly better in terms of patients with HbA1c≤7% than other FDCs [relative risk; 95% credible intervals vs. SUL/BGU (1.16; 1.03-1.3), vs. TZD/BGU (1.12; 1.01-1.24), and DPP-4/BGU (1.18; 1.07-1.29)]. Statistically, however, no significant differences were observed among the FDCs other than TzD/SUL for this outcome. All FDCs achieved clinically meaningful reductions in HbA1c and FPG, though the differences between the FDCs were statistically non-significant. According to the probability ranking for probability in TzD/SUL and TzD/BGU, the ranked favored TzD/SUL followed by AGU/BGU, TzD/BGU, Sul/BGU, and DPP/BGU. The probability of occurrence of hypoglycemia was highest with SU/BGU (78.3%) followed by AGU/BGU, TzD/BGU (0.03%), and DPP-4/BGU (0.05%). Incidence of hypoglycemia was not reported for AGU/BGU. CONCLUSIONS: Clinically, all FDCs effectively achieved glycemic control in patients with T2DM, however, the risk ratios from network meta-analysis were inconclusive to determine the relative efficacy of these FDCs. The probability ranking suggested the potential use of TzD/SUL in treatment naive T2DM patients. PD88 BARIATRIC AND METABOLIC SURGERY IN INDIA – EFFICACY AND SAFETY OF MINIMALLY INVASIVE PROCEDURES
Wojciechowski P1, Metz L2, Mapati J2, Jain M2, Neoh K2, Caban A, Gawska M, Gomulka A, Pliko B1, Waliyan K, Yip S2
1HiTA Consulting, Kraków, Poland, 2Johnson & Johnson Medical Asia-Pacific, Singapore, Singapore, Johnson & Johnson Medical, New Delhi, India, Johnson & Johnson Medical Asia-
Pacific, Penang, Malaysia
OBJECTIVES: Obesity and type 2 diabetes mellitus (T2DM) are major health issues in developing countries contributing to increased morbidity and mortality. Bariat-
ric surgery is an effective procedure leading to durable weight loss in morbidly obese patients, while metabolic surgery aims at resolving T2DM. The objective of our study was to assess the long-term efficacy and safety of those procedures in Indians. METHODS: A comprehensive search was performed in PubMed and websites of Indian medical databases and journals (www.indmed.org, www.dmrini.in, www.nmji.in, www.japi.in). Studies met the inclusion criteria if they enrolled Indian obese patients with T2DM undergoing follow-up laparoscopic bariatric procedures: design, randomized controlled study is needed to ascertain this uncertainty.

PD96 PREDICTORS OF REACHING HBA1C GOAL IN T2DM PATIENTS USING DIPPEPTIDYL PEPTIDASE-4 INHIBITORS (DPP4IS) COMBINATION THERAPY: A SUBGROUP ANALYSIS
Chen N1, Mo C1, Chen D1, Sharma H1, Wu EQ1
1Analytiq Group, Inc., Boston, MA, USA, 2Taidea Pharmaceuticals, Inc., Deerfield, IL, USA
OBJECTIVES: To describe characteristics of T2DM patient subgroups who were more likely to achieve Hba1c goal – 7% with combination treatment of DPP4i with PiO or with MET using a predictive model. METHODS: Stepwise logistic regression was applied to MarketScan claims data to develop a predictive model that estimated the proba-
bilities of Hba1c goal achievement in patients receiving DPP4i combinations. Sam-
ple selection criteria included: 1) T2DM diagnosis, 2) treatment of DPP4i with PiO or with MET, 3) baseline Hba1c ≤ 7%, and 4) with one-year continuous enrollment. Patients were ranked by the probabilityof achieving Hba1c<7% and grouped into cumulative percentiles; baseline characteristics of the optimal subgroups identi-
fied and 25th percentile were compared. Subgroup analysis was performed for the

PD10 CLINICAL SURVEY TO ASSESS OUTCOMES IN DIABETES PATIENTS USING PEN NEEDLES OF DIFFERENT LENGTH
Chang H1, Feng SH1, Li YH1, Chen JY1, Liu SJ2, Yu NC1
1Neng-Chun Diabetes Clinic, Ilan, Taiwan, 2Lotung Pohai Hospital, Ilan, Taiwan
OBJECTIVES: Many studies have shown the distance from skin to muscle layer is shorter than imagined, it’s important to ensure insulin injections are consistently made into subcutaneous layer, without leakage/backflow or subject-reported in-
jection pain. The objective of this study was to assess clinical outcomes in T2DM patients switched from insulin injection with longer pen needles (PNs) to shorter PNs. METHODS: A retrospective study was conducted from July ’09 to Jan ’12 to compare hypoglycemia, bleeding, bruising, insulin leakage, pain, and bulge on skin in a clinic in Yilan, Taiwan. Eighty-two patients with diabetes who were pre-
scribed injectable insulin were included. Before ’09 all patients were prescribed 8 mm PNs. There was no limitation of insulin type, dosage, gender or education level. From July 2009 to August 2011, PN length was switched to 5mm, then (begin-
ning Jul ‘11) to 4mm. Injection techniques and injection areas were inspected by certified diabetes educators every 3 months for all subjects. Standard injection technique was taught and followed-up in patients. All statistical analyses were conducted using SAS software (vs. 9.3). RESULTS: Demographic characteristics: average 60.5±14.3 years, 58.5% males. 92.7% T2DM, diabetes duration 16.0±7 years and insulin injection duration 6.8±4 years. A1C: 8.3±1.5%, 8.1±1.2% and 8.1±1.1% (p=0.0138); BMI: 25.3±3.4kg/m², 25.1±3.4kg/m² and 25.4±3.5kg/m² (p=0.8565). The bleeding/bruising decreased from 64.6% to 56.1% to 54.9% (p=0.0094), lipohyp-
pertrophy formation decreased from 26% to 20% to 15% (p=0.1954). Reports of insulin leakage from tip or skin (p=0.8715, 0.5644), pain perception (p=0.1379) and bulge on skin (p=0.8039) were not statistically significant between 5mm and 4mm PNs. CONCLUSIONS: No significant changes in A1C and BMI associated with changes. The difference length from skin to muscle layer between 5mm and 4mm PNs was observed. There was no apparent increase in leakage of insulin. A trend towards less bleeding and pain was observed when using shorter needles.