OBJECTIVES: To assess the cost-effectiveness of ferric carboxymaltose (FCM) and iron dextran in the correction of iron-deficiency anemia (IDA) before elective major surgery in non-cardiac surgical patients and predict potential budget savings for the day care services and blood transfusions. METHODS: The pharmacoeconomic model was developed based on the data from multicentre prospective study in the United States (Lee et al., 2013) on the efficacy of FCM for correcting iron deficiency anemia in patients undergoing major elective non-cardiac surgery. The cost-effectiveness of two intravenous iron formulations was measured as total costs of medical resources used per transfusion (€) and incremental cost-effectiveness ratio (ICER) per one patient without IDA at the end of treatment. Budget impact analysis included expenses for the day care services and blood transfusion procedures during inpatient and/or postoperative period. Sensitivity analysis was performed by including in the model a range of values for various levels of ICER. It was considered that treatment with FCM is cost-saving when ICER is below 33,333 (€) per QALY gained in patients with iron deficiency anemia and one patient without IDA at the end of treatment. Budget impact analysis included expenses for the day care services and blood transfusion procedures during inpatient and/or postoperative period. Sensitivity analysis was performed by including in the model a range of values for various levels of ICER. It was considered that treatment with FCM is cost-saving when ICER is below 33,333 (€) per QALY gained.

RESULTS: The clinical efficacy of FCM was higher compared to iron dextran for the primary efficacy endpoint, and also included the determination of transfusion-saving and transfusion-risk reduction. The clinical efficacy of FCM was higher compared to iron dextran for the primary efficacy endpoint, and also included the determination of transfusion-saving and transfusion-risk reduction. The secondary analysis of FCM led to a transfusion reduction of 38% in the FCM group versus 23% in the iron dextran group. The secondary analysis of FCM led to a transfusion reduction of 38% in the FCM group versus 23% in the iron dextran group. The cost-effectiveness analysis showed that FCM is cost-saving compared to iron dextran for the primary endpoint.

CONCLUSIONS: Three times a week FCM prophylaxis could reduce 16% the total treatment cost of severe HA with inhibitor, saving up to €89,000/patient/year.

PSY17

RELATIONSHIP BETWEEN BODY MASS INDEX AND HEALTH CARE COSTS BY PLACE OF SERVICE IN EMPLOYED ADULTS

OBJECTIVE: While there are studies that show that obesity and overweight are associated with higher costs, less is known about health care costs by place of service (POS). The study measures the impact of BMI as a continuous variable on health care cost at different places of service. POS categories include: pharmacy, doctor’s office, inpatient hospital, outpatient hospital or clinic, emergency department, labor and delivery, and others. METHODS: Using 2003-2010 retrospective data from large employers throughout the United States, employees’ BMI values were calculated using health risk appraisal data. All study employees were age >18, had >12 months of health plan coverage after their index screening and had no medical claims indicating pregnancy over the index year. RESULTS: This study included 317,613 eligible employees, 32.6% were female. The average BMI, age and annual salary were 27.3, 39.8 years and $81,382, respectively. Costs increased significantly with BMI in each POS ($919 vs. $431, P < 0.001). Total annual per-employee health care costs at BMI values of 25, 30, 35, and 40 were $3043, $3932, $4537, and $7248, respectively. Cost estimates by POS at these BMI values were: Pharmacy ($706, $903, $1106, $1372), Inpatient ($719, $1057, $1115, $1516), Outpatient ($939, $1044, $1174, $1495), Emergency ($131, $150, $200, $186), Laboratory ($34, $38, $46, $43), and Other ($35, $53, $74, $196), respectively. CONCLUSIONS: Employees with a BMI <25 have the lowest perceived costs of the high prevalence of overweight and obesity, these costs represent a significant burden for US employers.

PSY18

CORPORATE HEALTH CARE COSTS ASSOCIATED WITH OBESITY AT VARIOUS PLACES OF SERVICE IN EMPLOYED ADULTS

OBJECTIVE: This study determines the distribution of health care costs by place of service (POS), pharmacy, doctor’s office, inpatient hospital, outpatient hospital or clinic, emergency department, labor and delivery, and others based upon body mass index (BMI). METHODS: Using 2003-2012 retrospective data from large employers throughout the US, employees’ BMI’s from health risk appraisal data defined three main cohorts (BMI <27 [normal weight], 27 <=BMI<30 [overweight] and BMI>=30 [obese]). The <27-BMI<30 cohort was further divided into 3 comorbidity subcohorts: those without diabetes, hypertension or dyslipidemia (NonT2DHtnDys), those with hypertension or dyslipidemia without diabetes (StnDys), and those with diabetes, hypertension and dyslipidemia (DiabHtnDys). Annual post-index costs were compared between cohorts and further compared to age, gender, marital status, race, salary, zip-code region and index year. RESULTS: This study included 39,696 (BMI<27), 14,281 (27 <=BMI<30), and 18,801 (BMI>=30) eligible employees, with total annual health care costs of $8,191, $39,32, and $4,844, respectively. Employees with higher BMI were significantly more likely to incur health care costs in every POS category. Obese employees (BMI>=30) had significantly higher health care costs compared to other cohorts, averaging twice the cost of the BMI<27 cohort ($919 vs. $431, P<0.05). Total costs among subcohorts of the BMI<27 cohort were $2,983 (NonT2DHNdnDys), $5,271 (StnDys), and $7,594 (T2D). NonT2DHNdnDys employees had significantly lower health care cost than other subcohorts in every POS category. The T2D subgroup had significantly higher pharmacy, inpatient, doctor’s office, laboratory and other health care costs when compared to HtnDys. CONCLUSIONS: Employees with higher BMI incurred higher average health care costs than other employees at all places of service. Comorbidities, particularly diabetes, exacerbate health care costs of overweight employees. This represents a significant economic burden for US employers given the high prevalence of overweight and obesity.

PSY19

HAEMOPHILIA A: ANNUAL COST COMPARISON BETWEEN FL-RFVIII AND BDD-RFVIII IN FRANCE: WE SHOULD COMPARE THE COST PER PATIENT INSTEAD OF THE PRICE PER UNE

OBJECTIVE: Haemophilia A is a rare bleeding disorder where patients have deficient or deficient levels of coagulation factor VIII (FVIII). Recombinant FVIII (rFVIII) are manufactured to treat the patients, either as a full-length rFVIII (FL-rFVIII) mol- ecule, or as a smaller, more convenient, subcutaneously administered FVIII (BDD-rFVIII). It has been suggested that Dasep 8 domain had been implemented to improve production productivity. However, this deletion has been shown to induce factor consumption by 32.8% in the US (Epstein 2011) and also may increase the risk of inhibitor treatment for up to 8.0 (Alderd 2011). Both differences can have an important impact on patient health and on the national health care budget. METHODS: A Excel-based decision tree model had been developed to compare the overall cost treat severe haemophilia A patients from a health care system perspective with the most used FL-rFVIII and...