Pso diagnoses (ICD-9 codes: 696.1). One Pso-free patient (i.e., without Pso or psoriatic arthritis diagnosis) was randomly selected to match each Pso patient by age and gender. Patient demographic characteristics and comorbidity profile information, including the Charlson comorbidity index (CCI) score, the prevalence of autoimmune diseases, and an exhaustive list of other comorbidities were compared between Pso and Pso-free patients using Wilcoxon signed rank tests or McNemar tests. **RESULTS:** Among the 106,128 selected matched pairs, 52% were female and the mean age was 52 years (SD=15 years). In the Pso population, 77% had mild Pso (i.e., patients who did not use any systemic therapies) and 23% had moderate-to-severe Pso (i.e., patients receiving phototherapy, conventional systemic therapies, or biologics). Pso patients had a higher mean CCI score compared to Pso-free patients (1.06 vs. 0.74; p<.01). Compared to Pso-free patients, Pso patients had a significantly higher prevalence of autoimmune diseases, including psoriatic arthritis (10.2% vs. 0.0%), rheumatoid arthritis (5.4% vs.1.4%), ankylosing spondylitis (1.5% vs. 0.8%), ulcerative colitis (1.0 vs. 0.5%), and Crohn's disease (0.8% vs. 0.4%) (all p<.01). As shown in other studies, Pso patients also had higher prevalence of other comorbidities, including hypertension (41.8% vs. 34.5%), chronic pulmonary diseases (17.7% vs. 12.6%), diabetes (16.4% vs. 12.6%), hypothyroidism (12.0% vs. 9.0%), deficiency anemias (9.3% vs. 6.7%), valvular diseases (7.8% vs. 5.6%), solid tumor without metastases (7.2% vs. 5.8%), psychoses (6.5% vs. 4.2%), and peripheral vascular disease (6.4% vs. 4.3%) when compared to Pso-free patients (all p<.01). **CONCLUSIONS:** Psoriasis was associated with a substantial comorbidity burden, including a significantly higher prevalence of autoimmune diseases and other physical and mental comorbidities.

PSY5

COMPARISON OF USTEKINUMAB WITH OTHER BIOLOGIC AGENTS FOR TREATMENT OF MODERATE-TO-SEVERE PSORIASIS: A BAYESIAN MIXED TREATMENT COMPARISON APPROACH

Lin V[1], Ringold S[2], Devine B[1]
[1]*University of Washington, Seattle, WA, USA,* [2]*Seattle Children's Hospital, Seattle, WA, USA*

OBJECTIVES: To compare efficacy of ustekinumab with other biologics using the Psoriasis Area and Severity Index (PASI) in adult patients with moderate-to-severe psoriasis in the induction phase. **METHODS:** A systematic literature review was conducted for randomized controlled trials (RCTs) of biologics for moderate-to-severe psoriasis. PASI 75 was used as the primary outcome. Bayesian mixed treatment comparison (MTC) was employed by fitting three models-a fixed effect, a random-effects, and a random-effects with meta-regression model. Sensitivity analyses were conducted by including supra- and sub-therapeutic doses, by excluding studies with only biologic naïve patients, and by changing initial values for Markov Chain Monte Carlo (MCMC) simulation. **RESULTS:** Seventeen studies were selected. The random-effects model was the best fit for the data. For PASI 75, all biologics were significantly more efficacious than placebo, with rank order: infliximab (odds ratio (OR)=155.70), ustekinumab (OR=56.53), adalimumab (OR=30.85), etanercept (OR=27.11), and alefacept (OR=5.48). In the therapeutic class comparison, the IL-12/23 inhibitor (ustekinumab) had the highest odds of PASI 75 compared to placebo (OR=69.48), followed by TNF-Is (adalimumab, etanercept, and infliximab) (OR=42.22), and the T- cell inhibitor (alefacept) (OR=5.63). In the pair-wise comparison, ustekinumab appeared to have statistically significantly higher odds of achieving the PASI 75 than adalimumab (OR=1.84), alefacept (OR=10.38), and etanercept (OR= 2.07), but a lower odds compared to infliximab (OR=0.36). **CONCLUSIONS:** Ustekinumab appeared to be more efficacious than adalimumab, etanercept, and alefacept, but not infliximab. In the therapeutic class comparison, the decreasing rank orders were anti-IL 12/23 agents, anti-TNF-α agents and T-cell targeted agents.

PSY6

THE IMPACT ON SLEEP QUALITY OF BUTRANS® (BUPRENORPHINE) TRANSDERMAL SYSTEM 5 MCG/HOUR (BTDS 5) AND 20 MCG/HOUR (BTDS 20) DOSAGES IN PATIENTS WITH MODERATE-TO-SEVERE CHRONIC LOW BACK PAIN

Yarlas AS[1], Miller K[1], Wen W[2], Shah R[2], Lynch SY[2], Dain B[2], Ripa SR[2]
[1]*QualityMetric Incorporated, Lincoln, RI, USA,* [2]*Purdue Pharma L.P., Stamford, CT, USA*

OBJECTIVES: To compare the impact of 12 weeks' BTDS 20 and BTDS 5 treatment on sleep among patients with moderate-to-severe chronic low back pain (CLBP), to examine changes in the burden of CLBP on sleep with 12 weeks of BTDS use, and to describe sleep outcomes over 12 months of continued BTDS treatment. **METHODS:** This post-hoc analysis used data from a double-blind (DB) randomized trial evaluating BTDS 20 against BTDS 5 for treatment of opioid-experienced patients with moderate-to-severe CLBP and its 12 month open-label treatment extension. During the course of BTDS treatment, patients completed the 12-item Medical Outcomes Study Sleep Scale, which measures several sleep domains, including Disturbance and overall Quality. ANCOVA models compared scores between treatment arms during the 12-week DB phase, and repeated measures mixed-models analysis compared scores across visits during the 12-month treatment. Burden was examined by comparing trial patients with an age- and gender-matched U.S. general population sample (GPS) at trial baseline and DB endpoint. **RESULTS:** BTDS 20 patients showed significantly less Disturbance and better overall Quality than BTDS 5 patients at week 12 DB (P<0.05), an advantage that emerged by week 4. Analyses of Disturbance and Quality scores across DB indicated statistically significant effects for treatment (P< 0.05), but not for visit or their interaction (P>0.05). No reduction from the end of DB Disturbance and Quality scores were observed following 12 months of BTDS 20 treatment. At baseline, patients' Disturbance and Quality scores were significantly worse than those of the GPS; by week 12 of the DB phase, BTDS 20 patients' average scores improved over the GPS, while BTDS 5 patients' did not. **CONCLUSIONS:** Moderate-to-severe CLBP patients receiving BTDS 20 exhibited larger improvements in sleep Disturbance and Quality than those receiving BTDS 5. Improvements in sleep were sustained during 12 months of continued BTDS treatment.

PSY7

BLOOD TRANSFUSION MANAGEMENT IN ELECTIVE MAJOR ORTHOPAEDIC SURGERY (MOS) IN FRANCE

Durupty D[1], Deshaires L[1], Mammar N[2], Zakin L[2], Lafuma A[3]
[1]*clinique Arago, paris, paris, France,* [2]*Vifor Pharma International, Neuilly-sur-Seine Cedex, Ile de France, France,* [3]*Cemka Eval, bourg la reine, hauts de seine, France*

OBJECTIVES: To assess appropriateness of anemia management in order to optimize BT during MO. **METHODS:** Hip (HA) and knee arthroplasty (KA) are frequently associated with high volumes of blood loss. When those surgeries are elective, it is possible, with adequate pre-operative management, to decrease blood transfusion (BT). A retrospective study was conducted in a single French centre on consecutive cases of patients undergoing elective MOS in 2009. Criteria to evaluate optimization of BT were: transfusion rate, BT or no BT, according to international guidelines, optimal BT rate according to potential adequate anemia treatment (ESA, oral or IV iron) and administration of tranexanic acid. **RESULTS:** Sixty cases of MOS patients were included with 38 females and 22 males. 40 and 19 patients had undergone HA and KA, respectively. 55 patient charts were sufficiently documented to be evaluable. The mean delay for pre-operative consult was 32 days with a minimum of 5 days. According to hemoglobin value recorded and potential blood loss estimated during this visit, it was possible to predict that (in the absence of pharmacological treatment) 18 patients over 55 would be transfused during surgery. Among the 37 patients with no predictable BT, 3 were nevertheless transfused. Among the 18 patients with predictable BT, 14 were not transfused (10 were treated with ESA and 14 with IV iron) and 4 patients (not treated with ESA or iron) transfused. **CONCLUSIONS:** Anemia management before MOS could decrease BT during hospitalisation. Current medical practice assessment in a single French centre showed that in 32% of the patients anemia should be treated prior to hospitalisation. Among these patients, one out of 5 was not adequately treated with ESA and/or iron and was finally transfused. Approximately half of the BT could be avoided in this centre, which has already a low blood transfusion rate (13%).

PSY8

APPLICATION OF DATA VISUALIZATION TOOL: TREATMENT PATTERNS OF MEDICARE PATIENTS WITH ANKYLOSING SPONDYLITIS WHO INITIATED TUMOR NECROSIS FACTOR THERAPY

Baser O[1], Wang L[2], Xie L[1], Yuce H[3]
[1]*STATinMED Research/The University of Michigan, Ann Arbor, MI, USA,* [2]*STATinMED Research, Dallas, TX, USA,* [3]*New York City College of Technology-CUNY/STATinMED Research, New York, NY, USA*

OBJECTIVES: In recent years, methodologies used in outcomes research have advanced. In a field where many disciplines, such as clinicians, epidemiologists, economists and statisticians interact frequently, a tool to communicate information clearly and effectively through graphical means has become a necessity.To present treatment patterns among patients diagnosed with ankylosing spondylitis (AS) using data visualization techniques. **METHODS:** Using 100% national Medicare data with Part D information, we selected patients over the age of 65 with at least one AS diagnosis. We identified patients who initiated therapy with tumor necrosis factor (TNF) and non-TNF agents. For 2 years after the initiation, we examined switching to another TNF, a non-TNF, and discontinuation treatment patterns. Using a processing language, we created a data visualization tool to demonstrate changes in treatment patterns after the first and second switches. **RESULTS:** A total of 1,159 AS patients (1,159) initiated therapy with TNF. 5.69% of these patients switched to another TNF, 2.67% switched to a non-TNF, 55.91% discontinued therapy and 35.72% continued their initial therapy. Among patients who switched to another TNF, 53.03% remained on the switched therapy, 28.79% discontinued therapy, 15.15% switched to another TNF, and 3.03% switched to a non-TNF. A total of 532 AS patients initiated therapy with a non-TNF. 1.50% of these patients switched to a TNF, 0.94% switched to a non-TNF, 93.61% discontinued their therapy and 3.95% continued their initial therapy. **CONCLUSIONS:** Treatment patterns can be difficult to present, especially when analyzing several years of data and various drug switches. Data visualization tools can help present these complicated flows effectively to researchers.

PSY9

PREVALENCE OF OPIOID ABUSE AND ASSOCIATED HEALTH CARE RESOURCE UTILIZATION AND COSTS IN A MANAGED CARE POPULATION

Roland CL[1], Joshi AV[2], Mardekian J[2], Walden SC[3], Harnett J[2]
[1]*Pfizer, Inc., Cary, NC, USA,* [2]*Pfizer, Inc., New York, NY, USA,* [3]*Pfizer, Inc., Atlanta, GA, USA*

OBJECTIVES: This retrospective cohort study evaluated the prevalence, characteristics, healthcare resource utilization (HCRU) and costs of patients with diagnosed opioid abuse (OpA) using administrative claims from the Thomson MarketScan Commercial and Medicare Supplemental research databases (44.9 million lives). **METHODS:** Patients aged ≥12 years with OpA (ICD-9-CM codes: 304.0, 304.7, 305.5, 965.0 excluding 965.01) during OCT2008–SEPT2009 were identified. OpAers (cases) were randomly matched 1:3 on demographics and geographic region to controls (no OpA); OpA date being the index date. Unadjusted all-cause HCRU and total costs (inpatient, outpatient, emergency department (ED), and Rx) were calculated for the 6-month period before (pre-index) and the 12-month period after the index date (post-index). Opioid use was also examined during the pre-index period for OpAers and controls. **RESULTS:** The overall prevalence of OpA was 0.12% (average age 41.9 years). Among OpAers, 68% had prescriptions for opioids. Among OpAers