PsA diagnoses (ICD-9 codes: 696.1). One PsA-free patient (i.e., without PsA or psoriatic arthritis diagnosis) was randomly selected to match each PsA patient by age and gender. Patient demographic characteristics and comorbid conditions were the same for both patients, including the Charlson comorbidity index (CCI) score, the prevalence of auto-immune diseases, and an exhaustive list of other comorbidities were compared between PsA and PsA-free patients using Wilcoxon rank tests or McNemar tests. The mean age of PsA patients was 52 years (SD = 15 years). In the PsA population, 77% had mild PsA (i.e., patients who did not use any systemic therapies) and 23% had moderate-to-severe PsA (i.e., patients receiving phototherapy, conventional systemic therapies, or biologics). PsA patients had a significantly high prevalence of autoimmune diseases, including psoriatic arthri- tis (10.2% vs. 0.0%), rheumatoid arthritis (5.4% vs. 1.4%), ankylosing spondylitis (3.3% vs. 0.5%), Crohn’s disease (0.1% vs. 0.4%) and other chronic diseases (1.0% vs. 0.4%) (all p < 0.05). As shown in other studies, PsA 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%), hypercholesterolemia (12.0% vs. 9.9%), and cardiovascular diseases (7.8% vs. 5.6%) compared to PsA-free patients (7.2% vs. 5.8%, psychoses (6.5% vs. 4.2%), and peripheral vascular disease (6.4% vs. 4.3%) when compared to PsA-free patients (all p < 0.05). CONCLUSIONS: PsA was associated with a substantial comorbidity burden, including a significantly high prevalence of autoimmune diseases and other physical and mental comorbidities.

**PSY6**

**THE IMPACT ON SLEEP QUALITY OF BUTRANSSE (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**

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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 arms 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 (P < 0.05). Improvements in 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 exhibit further 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**

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OBJECTIVE: To assess appropriateness of anemia management in order to optimize BT during MOS: 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 elective hip and knee arthroplasty undergone by patients with a pre-operative diagnosis of BT: were treated with either 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 tranexamic 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 patients charts were documented to be available. 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 these patients, 32 had 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 in elective 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 IV 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**

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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 claim for AS using data visualization techniques. 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, 15.15% switched to another TNF, and 3.03% switched to a non-TNF. A total of 532 AS patients initiated therapy with a TNF-1. 5.50% of these patients switched to another TNF. 2.76% 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, 28.7% 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 many drug switch. 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**

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OBJECTIVE: This retrospective cohort study evaluated the prevalence, characteristics, healthcare resource utilization (HCRU) and costs of patients with diagnosed opioid abuse (OpA) using claims from the Thomson MarketScan Commercial and Medicare Supplemental research databases (44.9 million lives). METHODS: Patients aged ≥12 years with OpA (ICD-9 codes: 304.0, 304.7, 305.5, 965.0 excluding 965.01) during OCT2008–SEPT2009 were identified. OpAers (cases) were matched 1:3 with controls (controls) using propensity scores. The matched sample was analyzed using 100% national Medicare data with Part D information, we selected patients over the age of 65 with at least one claim for AS using data visualization techniques. 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, 15.15% switched to another TNF, and 3.03% switched to a non-TNF. A total of 532 AS patients initiated therapy with a TNF-1. 5.50% of these patients switched to another TNF. 2.76% 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, 28.7% 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 many drug switch. Data visualization tools can help present these complicated flows effectively to researchers.