PSY33
HOSPITAL-BASED RESOURCE UTILIZATION AMONG WEGENER’S GRANULOMATOSIS PATIENTS
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OBJECTIVES: This retrospective analysis is to examine hospital-based utilization in Wegener’s granulomatosis (WG), a form of autoimmune disease characterized by necrotizing granulomas and vasculitis affecting approximately 3 out of every 100,000 people in the US. METHODS: A retrospective cross-sectional analysis examined inpatient (N=7,202) and outpatient visits (N=24,971) in the MedAera health system data from 2009 to 2013. In addition to patient and hospital characteristics, the Charlson comorbidity index and its individual comorbidities were evaluated. Analysis of prevalent procedures and their consequences on utilization was explored. Measures of utilization included number of visits and length of stay (LOS). RESULTS: Negative binomial multivariate regression was used to identify significant LOS drivers. Hosmer-Lemeshow goodness of fit test was used to validate the model. CONCLUSIONS: Significant LOS drivers are significant predictors of ABR; individuals with poor adherence on the VERITAS-Pro are more likely to have at least 1 bleed per year versus those with good adherence. However, the high percentage of patients experiencing one or more bleeds in both groups indicates that factors other than adherence may impact annualized bleed rates.

PSY34
INDIRECT COMPARISON OF THE EFFICACY OF RECOMBINANT FACTOR VIIa FUSION PROTEIN AND OTHER FACTOR IX PRODUCTS FOR PROPHYLAXIS MODELING THE EFFECT OF COMPLIANCE
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OBJECTIVES: For people with hemophilia A, factor VIII (FVIII) prophylaxis is burdensome, potentially leading to poor compliance. Treatment adherence and outcomes may be improved with drugs requiring less frequent infusions. In the absence of head-to-head direct comparative evidence from clinical trials, this analysis indirectly compared the prophylactic efficacy of recombinant FVIII fusion protein (rFVIIIFc) with the published results of current rFVIII products and simulated effects of potential improvements in compliance. METHODS: rFVIIIFc and rFVIII were indirectly compared using data from previously treated subjects in the A-LONG phase 3 study (rFVIIIFc; individualized dosing) and the B-LONG phase 3 study (rFVIII; identified by literature search). Efficacy was compared using reported differences in mean annualized bleed rates (ABR) for individual and pooled results using meta-analysis with random effects. Unreported standard deviations of ABR were estimated using a Poisson distribution and adjusted for over-dispersion. A model was developed to assess the effect of compliance changes on ABR. RESULTS: This analysis included published results from the A-LONG study (severe hemophilia; rFVIIIFc; Mahtali 2013), moderate/severe hemophilia (rFVIII; Sargent 2006), severe hemophilia (rFVIIIFc; Tamara 2011) and severe hemophilia (rFVIII; Windyga 2012). Infusion frequencies were once weekly for rFIXFc and rFVIIIFc and once every 2 to 3 weeks for rFVIII. Mean ABR for rFVIIIFc was 2.9; the pooled mean ABR estimate for rFVIII was 4.8 (I2 = 44.2%, IARR = 1.8, P = 0.003). Simulations showed that statistically significant improvements in mean ABR would result from improving compliance with rFVIIIFc by ≥ 12 percentage points. CONCLUSIONS: Results of this unadjusted indirect comparison of clinical studies with that of routine prophylaxis with rFVIII may result in a lower mean ABR than that of other rFVIII products examined. Moreover, potential improvements in compliance associated with less burdensome dosing regimens, as suggested by studies in other chronic diseases, may result in better effectiveness with rFVIIIFc.

PSY35
SYSTEMIC DISORDERS/CONDITIONS – Patient-Reported Outcomes & Patient Preference Studies
OBJECTIVES: This retrospective study used self-reported data from 69 years old. The mean Charlson score was 2.11 with renal disease (37.4%), chronic pulmonary disease (27.2%), diabetes (18.9%), congestive heart failure (11.1%), and rheumatic disease (10.8%) as the most prevalent comorbidities. The most common inpatient procedures were hemodialysis (26.3%), packed cell transfusions (18.0%), closed bronchial biopsy (8.1%), and closed renal biopsy (6.5%). Average LOS was 8.4 days. The most significant drivers associated with longer LOS included bronchial (RR = 1.72, p < 0.001) and renal (RR = 1.48, p < 0.001) biopsies, packed cell transfusions (RR = 1.41, p < 0.001), and therapeutic plasmapheresis (RR = 1.34, p < 0.001). CONCLUSIONS: Although a rare disease, WG patients consume significant amounts of health care resources in the hospital setting. Primary utilization occurs in the outpatient setting, however, when hospitalized LOS is often lengthy. Further research is required to understand the effect of interventions/treatments on mitigating progress of this disease.

PSY36
TREATMENT PATTERNS HIGHLIGHT UNMET NEEDS IN THE MANAGEMENT OF FIBROMYALGIA IN THE UNITED STATES
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OBJECTIVES: Fibromyalgia is a disorder characterized by widespread chronic musculoskeletal pain. This study aims to understand the treatment patterns associated with currently available and commonly used medications in the management of fibromyalgia. METHODS: 544 retrospective patients were used to claim data base to identify patients who had a first fibromyalgia diagnosis code (ICD-9-CM: 729.1) in 2009-2011 with a repeat diagnosis within a year, were at least 18 years old, and had continuous enrollment for ≥12 months before and after the date of first diagnosis in the index year. The pain treatments assessed were: anticonvulsants (pregabalin, gabapentin), antidepressants (amitriptyline, cyclobenzaprine, venlafaxine), respectively; and the corresponding 1-year discontinuation rates were cyclobenaprine (27.4%), tramadol (17.9%), and gabapentin (16.3%). Duloxetine, propranolol, and milnacipran were also evaluated in this analysis. Duloxetine, propranolol, and milnacipran accounted for 13.6%, 8.9%, and 3.8% of treated patients, respectively. Adherence was suboptimal for all of these treatments: mean PDQs (% with high adherence) were 59% (39%), 47% (24%), 44% (22%), 43% (21%), 27% (9%), and 20% (5%) for duloxetine, pregabalin, gabapentin, milnacipran, tramadol, and cyclobenzaprine, respectively; and the corresponding 1-year discontinuation rates were 52%, 65%, 67%, 72%, 80%, and 90%, respectively. CONCLUSIONS: The majority of patients diagnosed with fibromyalgia were not treated with the assessed therapies in this study cohort: Adherence and persistence with the current pain medications were sub-optimal.

PSY37
ADHERENCE TO PROPHYLACTIC TREATMENT IN HEMOPHILIA AS MEASURED USING THE VERITAS-PRO AND ANNUAL BLEED RATE (ABR)
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OBJECTIVES: Few studies exist to support the hypothesis that nonadherence to prophylaxis in hemophilia leads to statistically significant differences. This study examined if a validated measure of adherence to prophylaxis, allows objective measurement of the relationship between adherence and patient outcomes. The study objective was to correlate patient adherence and annual bleed rates (ABR) defined as the number of bleeds a patient has in a given year. METHODS: The study sample was comprised of patients utilizing prophylaxis treatment who completed the VERITAS-Pro for the validation study published by Duncan et al in Haemophilia in 2007 (n=66). ABR was extrapolated from patient infusion logs and for, those patients with incomplete or missing logs, from electronic medical records. Pearson and Spearman correlational analyses were run between VERITAS-Pro scores and ABR. A cutoff analysis was done in which the 70th percentile was chosen as a clinically useful cutoff score and VERITAS-Pro scores dichotomized and coded as 0 (good adherence) if below the 70th percentile and 1 (poor adherence) if above the 70th percentile. ABR was stratified into 0 ABR, those with at least 1 bleed or >1 ABR. RESULTS: Reported ABR ranged from 0 to 54 (median 1). There was not a significant relationship between VERITAS-Pro score and ABR. There was a significantly greater percentage of patients experiencing one or more bleeds in the VERITAS-Pro group (63%) compared to the base (40%). CONCLUSIONS: VERITAS-Pro scores reflecting adherence are significant predictors of ABR; individuals with poor adherence on the VERITAS-Pro are more likely to have at least 1 bleed per year versus those with good adherence. However, the high percentage of patients experiencing one or more bleeds in both groups indicates that factors other than adherence may impact annualized bleed rates.

PSY38
INDIRECT COMPARISON OF THE EFFICACY OF RECOMBINANT FACTOR IX FUSION PROTEIN AND OTHER FACTOR IX PRODUCTS FOR PROPHYLAXIS SIMULATING THE EFFECT OF COMPLIANCE
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OBJECTIVES: Hemophilia B prophylaxis with factor IX (FIX) requires frequent infusions, potentially leading to poor compliance and reduced therapeutic effectiveness. In the absence of head-to-head direct comparative evidence from clinical trials, this analysis indirectly compared the prophylactic efficacy of recombinant FIX Fc fusion protein (rFIXFc) and other rFIX products, which require more frequent infusions. Additionally, we simulated the effects of potential differences in real-world compliance between regimens. METHODS: rFIXFc and rFIX were indirectly compared using data from clinical trials of previously treated subjects administered rFIXFc (B-LONG phase 3 study, weekly prophylaxis arm) or rFIX (published clinical studies of routine prophylaxis identified by literature search). Efficiency was compared using reported differences in mean annualized bleed rates (ABRs) for individual and pooled results using meta-analysis with random effects. Unreported standard deviations of ABR were estimated using a Poisson distribution and adjusted for over-dispersion. A model was developed to simulate the effect of compliance changes on ABR. RESULTS: This analysis included published results from the A-LONG study (severe hemophilia; rFIXFc; Mahtali 2013), moderate/severe hemophilia (rFIX; Sargent 2006), severe hemophilia (rFIXFc; Tamara 2011) and severe hemophilia (rFIX; Windyga 2012). Infusion frequencies were once weekly for rFIXFc and rFIX and once every 2 to 3 weeks for rFVIII. Mean ABR for rFVIIIFc was 2.9; the pooled mean ABR estimate for rFVIII was 4.8 (I2 = 44.2%, IARR = 1.8, P = 0.003). Simulations showed that statistically significant improvements in mean ABR would result from improving compliance with rFVIIIFc by ≥ 12 percentage points. CONCLUSIONS: Results of this unadjusted indirect comparison of clinical studies with that of routine prophylaxis with rFVIII may result in a lower mean ABR than that of other rFVIII products examined. Moreover, potential improvements in compliance associated with less burdensome dosing regimens, as suggested by studies in other chronic diseases, may result in better effectiveness with rFVIIIFc.