

ducted on the MedAssets health system data for inpatient and outpatient visits diagnosed with MCL for the January 2009 to December 2014 timeframe. Age and gender, clinical comorbidities and measures of utilization including number of visits and length of stay (LOS) were described. Multivariable regression was used to identify significant drivers of hospital-based utilization. **RESULTS:** The MCL population consisted primarily of males (70.8%) and had a mean age of 66 years. Of 35,762 visits 84.6% occurred in the outpatient setting. Infection (OR=7.4, $p < .0001$), fluid and electrolyte disorders (OR=6.3, $p < .0001$), plegia (OR=5.9, $p < .01$), myelosuppression (OR=5.2, $p < .0001$) and nutritional deficiencies (OR=3.3, $p < .0001$) were associated with inpatient admissions. The most common complications of treatment included myelosuppression (21.7%), gastrointestinal issues (GI, 7.3%), infection (4.9%) and renal deficiency (4.8%). Pharmacy (49.2%), room and board (12.8%), laboratory testing (10.2%), diagnostic services (7.8%), and surgery (5.8%) costs were the most common in this population. When patients were admitted the average LOS was 8.3 days with an average cost of \$18,291 and 5.0% in-hospital mortality rate. During inpatient hospitalizations 55.0% received chemotherapy, 26.1% had a blood transfusion, 5.2% had a bone marrow biopsy, 4.4% had a stem cell transplant, 2.3% had hemodialysis and 1.5% had radiotherapy. Nutritional deficiencies (IRR=1.55, $p < .0001$), plegia (IRR=1.51, $p < .0001$), infection (IRR=1.46, $p < .0001$), myelosuppression (IRR=1.34, $p < .0001$) and GI (IRR=1.3, $p < .0001$) were associated with longer LOS. Readmissions occurred within 30 days for 28.6% of inpatient admissions with 41.4% of readmissions having maintenance chemotherapy or radiotherapy as the primary diagnosis. **CONCLUSIONS:** MCL patients primarily use outpatient services. Inpatient services are required to treat complications of treatment such as myelosuppression and infections as well as to provide follow-up treatments and care.

PCN102

ASSESSING THE BURDEN OF ILLNESS AND HOSPITAL UTILIZATION OF POLYCEMIA VERA

Belk K¹, Craver C²¹MedAssets, Mooresville, NC, USA, ²MedAssets, Huntersville, NC, USA

OBJECTIVES: The objective of this analysis was to describe hospital-based resource utilization among a population of patients with polycemia vera (PCV). **METHODS:** A retrospective cohort analysis was conducted on a cross-section of patients using hospital-based inpatient (N=7974) and outpatient (N=47078) services between 2013 and 2014 with a diagnosis of PCV. Multivariate logistic regression was used to evaluate risk factors for readmission controlling for patient and hospital characteristics as well as patient comorbidities. **RESULTS:** The mean age for PCV patients was 64.4 years with 58.5% male. Utilization was highest in the OP setting (85.5%) with 68.3% of OP visits having a primary diagnosis of PCV. The primary diagnosis for IP admissions varied with the most common including infectious and parasitic diseases (6.6%), cerebrovascular disease (6.2%), chronic obstructive pulmonary disease (5.5%), heart failure (5.2%) and ischemic heart disease (5.2%). PCV patients were primarily treated in large (68.4%) and teaching (60.3%) hospitals. The mean Charlson comorbidity score was 1.6 with chronic pulmonary disease (18.4%), diabetes (16.7%), congestive heart failure (10.3%), cardiovascular disease (10.0%) and renal disease (10.0%) as the most common comorbidities. Readmissions occurred within 30 days for 9.0% of IP visits for a variety of diagnoses including rehabilitation services (10.9%), chest pain/shortness of breath (6.8%), infectious and parasitic diseases (4.9%), cerebrovascular disease (4.1%) and respiratory failure (3.9%). Chronic pulmonary disease (OR = 1.25, $p < .05$), hemiplegia or paraplegia (OR = 1.73, $p < .05$), renal disease (OR = 1.51, $p < .001$) and abdominal drainage procedures (OR = 2.60, $p < .01$) were associated with increased occurrence of readmission. **CONCLUSIONS:** PCV is primarily managed in the community or OP setting. As PCV-related complications develop patients are admitted for IP services. These patients are frequently readmitted within 30 days.

PCN103

TIME AND MOTION STUDY FOR RITUXIMAB SC VS IV IN COLOMBIAN PATIENTS WITH NON-HODGKIN LYMPHOMA

Saenz Ariza SA

Productos Roche, Bogota, Colombia

OBJECTIVES: To estimate the economic impact in the treatment of Colombian patients with Non-Hodgkin lymphoma developing a time and motion study for the IV administration versus subcutaneous (SC) presentation of rituximab. **METHODS:** Time and motion study, observational, multicentric (two private hospitals, one public hospital), non-interventional describing costs and times from the admission of the patient until their discharge, recording healthcare professionals (HPC), drugs, consumables and procedures room. Population evaluated were patients in first chemotherapy with rituximab IV with diffuse large B-cell lymphoma and follicular lymphoma, in regular cycles and in maintenance phase. Finally, we calculated the time and cost differences of the treatment of patients with SC (drug still non approved in Colombia, therefore these data was obtained from Rule et al., 2014) instead IV rituximab from the perspective of the provider. **RESULTS:** Patients were treated with rituximab IV at doses between 520 mg and 700 mg. If they had been treated with SC, it estimated to cause net savings of \$360 USD per patient, which were represented in costs of healthcare professionals (HPC), drugs, consumables and procedures room and around 207 minutes of total time expenditure. The cost of rituximab SC is the most important savings factor to the provider because it is administered at constant doses non-weight depended. **CONCLUSIONS:** Rituximab SC was a cost-saving strategy for the providers compared with Rituximab IV. As results of the savings in cost of treatment, consumables, procedures room and total time expenditure, the actual resources of the health provider could be optimized.

PCN104

VALUING SURVIVAL GAINS IN MYELODYSPLASTIC SYNDROMES ATTRIBUTABLE TO NOVEL CANCER THERAPIES

MacEwan JP¹, Yin W², Khan ZM³, Kaara S³¹Precision Health Economics, Los Angeles, CA, USA, ²University of California Los Angeles, Los Angeles, CA, USA, ³Celgene Corporation, Summit, NJ, USA

OBJECTIVES: To estimate the value of survival gains in myelodysplastic syndromes (MDS) attributable to the introduction of azacitidine (2004), lenalidomide (2005), and decitabine (2006). **METHODS:** Using multivariate Cox proportional hazards models we estimated the increase in survival associated with the introduction of new therapies for MDS patients diagnosed from 2001–2011 in the Surveillance, Epidemiology, and End Results program registries. The key variable in the hazard model was the post-2006 indicator, which captured the increase in survival associated with the introduction of the 3 therapies relative to years 2001–2003. Importantly, we included flexible specifications of time trends to capture secular changes in survival over the study period. We estimated the cost and utilization of the 3 therapies from 2006–2012 using the Optum Touchstone commercial claims database. **RESULTS:** For 38,085 MDS patients diagnosed in 2001 or later we estimated that the introduction of these 3 therapies was associated with a hazard ratio of 0.901 ($p < 0.10$). Approximately 25% of MDS patients used at least 1 of the 3 treatments over this period, implying an increase in median survival from 33 to 57.5 months, conditional on treatment observed in the community. Using an existing economic model to value survival gains, we estimated that the annual value of survival gains associated with the new therapies—i.e., the amount patients would be willing to pay for the improved survival profile—equaled \$208,000 per year. Based on this, we estimate the net present value of the therapies to all future patients at \$101.5 billion. Net of treatment costs, 85% of the total value accrues to patients. **CONCLUSIONS:** This study measured the value of survival gains attributable to 3 novel therapies for MDS and found significant benefits. For current and future MDS patients, these therapies will generate \$101.5B in value from survival gains, with 85% accruing to patients.

CANCER – Patient-Reported Outcomes & Patient Preference Studies

PCN105

ADHERENCE TO TAMOXIFEN AND ARMOATASE INHIBITORS AMONG WOMEN ENROLLED IN MEDICAID PROGRAM

Khanna R, Joshi N, Pace P, Banahan III B

University of Mississippi, University, MS, USA

OBJECTIVES: Comprehensive Medicaid population based studies of adherence and persistence to tamoxifen and aromatase inhibitors (AIs) including anastrozole, exemestane, and letrozole among women with breast cancer are currently lacking. The purpose of this study was to estimate the adherence and persistence to tamoxifen and AIs among women with breast cancer enrolled across 38 state Medicaid programs. Factors predicting adherence and persistence to tamoxifen and AIs were also determined. **METHODS:** Study population included women aged 18–64 years who were continuously enrolled for a period of three years (2006–2008) in Medicaid managed care program across 38 states. Incident users of tamoxifen and AIs in 2007 were identified. To assess adherence (proportions of days covered) and persistence (gap between prescription refills) to tamoxifen and/or AIs among the final sample of women recipients with breast cancer, prescription drug claims from index date to 12-month post index date were studied. Logistic regression was used to identify predictors of adherence and persistence, respectively. **RESULTS:** Roughly 56% of women with breast cancer were adherent with tamoxifen and/or AIs therapy. Higher age, white race (versus black), geographic location in Northeast region (versus South, Midwest, and West region), stage II or III/IV (versus stage 0), and higher number of outpatient visits were associated with higher adherence in the regression model. More than three-fourths (~77%) of women with breast cancer were persistent with tamoxifen and/or AIs therapy. Regression analysis revealed that women with breast cancer residing in Northeast region (versus South and West region) and with stage I or III/IV cancer (versus stage 0) were more likely to be persistent with therapy. **CONCLUSIONS:** Adherence and persistence to tamoxifen and AIs was less than optimal among women with breast cancer enrolled in Medicaid programs. Policy makers should consider implementing interventions aimed at increasing treatment adherence and persistence among this population.

PCN106

THE EFFECTIVENESS OF CAREPAK® ADHERENCE PACKAGING IN INCREASING LENALIDOMIDE THERAPY DURATION

Rice G, Nolan R, Grigorian M

Diplomat Specialty Pharmacy, Flint, MI, USA

OBJECTIVES: Lenalidomide is a disease-modifying oral medication approved for the treatment of multiple myeloma as well as other myelodysplastic syndromes. A CarePak® is a drug regimen packaging tool that simplifies complex drug regimens for patients. This tool is frequently used for patients receiving drug regimens containing lenalidomide. The impact of this tool on duration of therapy has previously not been studied. **METHODS:** This study was a retrospective review of pharmacy claims data. Eligible patients included those who filled a lenalidomide prescription more than once, did not have a gap between fills longer than 60 days. Patients receiving a CarePak® must have received one with all of their dispenses and for at least 6 consecutive months. Duration of therapy was calculated as the time between a patient's first and last fill, including the most recent day's supply. **RESULTS:** A random sample of patients filling between 2009 and 2014 was used for this analysis. To assess differences in duration of therapy, 225 patients receiving CarePaks® and 225 patients not receiving CarePaks® were identified. Duration of therapy for patients utilizing CarePaks® and for patients not utilizing CarePaks® was 10.5 months and 8.4 months respectively, representing a difference of 2.1 months ($p = 0.001$). **CONCLUSIONS:** The use of CarePaks® significantly improved duration of therapy in patients receiving lenalidomide compared to patients not using CarePaks®. The result of this analysis suggests a need for further investigation into the impact of CarePaks® on patient outcomes.