imbalance. **Results:** A total of 9,066 Medicare beneficiaries were included – 4,533 MM patients and 4,533 matched non-cancer beneficiaries. Joinpoint regression estimated the initial phase to be the first 4 months post diagnosis, and the terminal phase to be the last 3 months prior to death. Mean lifetime costs attributable to MM were $184,494. Mean PMPM phase-specific costs of MM were estimated to be $1,244, $11,181, $5,634, and $6,280 for the pre-diagnosis, initial, continuous, and terminal phases respectively. Across all phases, outpatient and inpatient costs were the major cost drivers, followed by pharmacy costs. **Conclusions:** This study highlights the substantial economic burden associated with MM in the US, and cost variation by phase of care. These estimates will help inform future resource allocation and policy decisions.

CR2
IMPACT OF PERSISTENCE WITH INITIAL ORAL ANTIDIABETIC TREATMENT REGIMENS ON RISK OF CLINICAL EVENTS AND HEALTH CARE COSTS AMONG ADULT PATIENTS WITH TYPE 2 DIABETES: A NATIONWIDE RETROSPECTIVE COHORT STUDY

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Objectives: Persistence with initial antidiabetic treatment regimens is critical for reducing the risk of adverse clinical events and costs. This study estimated the impact of persistence on clinical and cost outcomes among patients with type 2 diabetes (T2D). **Methods:** We identified adults aged over 26 years with T2D who initiated treatment with oral antidiabetic therapy using Optum's De-identified Clinformatics® Data Mart database [2007-2018]. Patients were required to have continuous enrollment >=12 months before and >=12 months after the index pre-scription. Persistence was measured using duration of initial therapy, which was calculated as the days between the index date and end of the day's supply prior to discontinuation [indicated by a gap in all therapy >=60 days] or last available fill date, whichever occurred first. The associations between persistence and the risk for stroke, acute myocardial infarction (AMI), and all-cause or cardiovascular disease-related hospitalizations were estimated using time-varying multivariable Cox proportional hazards models to capture the temporal relationship between discontinuation and adverse events. The impact of persistence on health care costs was estimated using generalized linear models (GLM). **Results:** A total of 229,485 patients met study selection criteria. Among them, 41.5% of patients discontinued their initial therapy. One month increase in the duration of initial therapy was associated with significant reductions in cardiovascular event risk (6%), all-cause hospitalization (2.4%), and cardiovascular disease-related hospitalization (1.6%). One month increase in the duration significantly decreased total healthcare costs per patient in the first year by $12.15 per month. This effect consisted of significant decreases in medical costs ($12.48), outpatient costs ($6.43), and inpatient costs ($15.88) which were partially offset by a small but non-significant increase prescription drug costs ($0.91, p=0.078). **Conclusions:** Patients who are persistence on their initial antidiabetic medications enjoyed significantly reduced risks of adverse health outcomes and lower healthcare costs.

CR3
TRENDS IN HEALTHCARE RESOURCE UTILIZATION AND MORTALITY AMONG HOSPITALIZED PATIENTS WITH SICKLE CELL DISEASE, 2010-2016

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Objectives: The purpose of this study was to assess trends in healthcare resource utilization (HRU) and mortality outcomes among hospitalized patients with sickle cell disease (SCD) between 2010 and 2016. **Methods:** We conducted a cross-sectional study of hospital admissions with an ICD-9/10 diagnosis for SCD in any position using the Nationwide Readmissions Database. Resource utilization outcomes were length of stay, total charges, and costs, adjusted for inflation to 2016 USD. We utilized Tweedie regression to model trends in resource utilization. The trends in inpatient mortality rate (logit) and median age at death were evaluated with linear and Poisson regression models, respectively. Mortality risk factors were assessed with a multi-level logistic regression model to account for interhospital variability. **Results:** The total sample consisted of 414,046 hospitalizations; 43% occurred among males and 36% were young adults 18-29 years of age. The average length of stay decreased from 2010 to 2016 (p < 0.0001) while costs and total charges increased significantly over the seven-year period (p < 0.0001). Inpatient mortality rates varied from 0.58% to 0.68% with an overall increasing trend (p = 0.1965). Median age at death also increased non-significantly in both males (p = 0.5215) and females (p = 0.7607). Number of diagnoses on the record [OR 1.035 (95% CI 1.027, 1.044)], visits that originated in the emergency department [OR 1.207 (95% CI 1.065, 1.368)], and admissions occurring in medium-sized hospitals compared to large hospitals [OR 1.133 (95% CI 1.016, 1.264)] significantly increased risk of in-hospital death. **Conclusions:** Hospitalizations for SCD contribute to an increasing cost burden despite improvements in length of stay. The rise in median age at death from 2010 to 2016 may

be indicative of improved disease management, however, increasing rates of mortality raise potential concerns over the quality of inpatient care.

Disparities in Cardiovascular Disease & Diabetes

CV1
FOOD INSECURITY, PARTICIPATION OF DIABETES SELF-MANAGEMENT EDUCATION AND SUPPORT, AND PHYSICAL ACTIVITY AMONG MEDICARE BENEFICIRES WITH TYPE 2 DIABETES

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Objectives: Being physically active and eating healthy food have many health benefits for those with type 2 diabetes (T2D). Individuals participating in Diabetes Self-Management Education and Support (DSMES) programs are encouraged to engage in regular physical activity and healthy eating behaviors. In this study, we examined the characteristics and associations between food insecurity, participation of DSMES, and physical activity engagement among Medicare beneficiaries with reported T2D. **Methods:** Using the nationally representative 2017 Medicare Current Beneficiary Survey Public Use File, we analyzed 1,263 Medicare beneficiaries aged ≥65 years with reported T2D. Based on the Physical Activity Guidelines for Americans 2nd edition, we created an outcome variable to reflect the engagement in recommended weekly physical activity (EIRWPA) (1=engaged, 0=not engaged). Additionally, a binary variable was created to represent food insecurity (1=food insecurity, 0=no food insecurity) with ≥ 2 affirmative responses based on established algorithm on 4 questions (of the USDA's food security questionnaire). A survey-weighted logistic model adjusted for socio-demographics and co-morbidities was performed to examine the characteristics and associations between food insecurity, DSMES, and EIRWPA. **Results:** Approximately 51.0% of Medicare beneficiaries with T2D reported EIRWPA. Among those with and without EIRWPA, 51.1% and 41.0% had DSMES (p=0.002). Furthermore, those with and without EIRWPA, 4.6% and 9.4% had food insecurity (p=0.005). Beneficiaries who attended DSMES were more likely to report EIRWPA than their counterparts (Odds ratio= 1.54; 95% CI = 1.11,2.16; p<0.010). Food insecurity was not associated with EIRWPA. Factors such as age, marital status, education level, BMI, instrumental and/or activities of daily living limitations, and general health status were associated with EIRWPA. **Conclusions:** Our findings reveal that participation of DSMES has a positive effect on EIRWPA for Medicare beneficiaries with T2D. However, many factors also affect EIRWPA; therefore, additional outreach efforts are needed to increase EIRWPA.

CV3
UNDERSTANDING MODIFIABLE FACTORS ASSOCIATED WITH FEWER DAYS AT HOME FOR SENIORS WITH HEART FAILURE

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Objectives: Despite recognized value in considering days at home (DAH) as a patient-centered outcome, few studies have evaluated factors associated with decreased DAH for patients with heart failure (HF). The objective of this observational, retrospective study was to develop a model for identifying modifiable factors associated with fewer DAH for patients with HF. **Methods:** Patients age ≥65, enrolled in a Humana Medicare Advantage Prescription Drug plan, and indexed on a claims-based HF diagnosis (first inpatient or second of two outpatient) were identified 7/2016 - 12/2017. Six months pre- and 12 months post-index continuous enrollment (or until death or hospice election) was required. The proportion of lost DAH was defined as the sum of assigned time the patient was in a non-home health care service setting over total eligible post-index days. Predictive models, three logistic regression and one random forest, including patient characteristics and modifiable factors were developed using machine learning techniques on a split sample to differentiate risk of ≥8% lost DAH post-index. This approximates to one month lost DAH per year. **Results:** A total of 205,223 patients met study criteria. At ≥8% cutpoint, lost DAH provided adequate signal (21.7%) and aligned closely with the top quintile of lost DAH for this cohort. The logistic regression main effects model with transformed covariates produced a parsimonious model demonstrating good predictive probability calibration. Modifiable factors predicting ≥8% lost DAH post-index were: lack of an outpatient visit within 10 days of an index inpatient HF discharge and fewer prescribed HF therapies within 30 days post-index. Other baseline factors included: index inpatient HF admission, higher frailty, loop diuretic use, pre-index acute lost DAH, comorbidity level and age. **Conclusions:** Predictive modeling that identifies modifiable factors associated with fewer DAH for patients with HF could