and 0.0032 for obese men. Using overweight men as an example, the risk of death in this group was higher for diabetics than non-diabetics and increased with age and BMI. CONCLUSIONS: Our results showed that women had a higher risk of diabetes but a lower risk of death for both diabetics and non-diabetics than men. Moreover, both risks increased with BMI and age. This joint estimation of the transition probability in the Markov model overcomes the problem of negative probabilities resulting from separate estimations.

PROM56

TREE-BASED CLAIMS ALGORITHM FOR MEASURING PRE-TREATMENT QUALITY OF CARE IN MEDICARE DISABLED HEPATITIS C PATIENTS

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OBJECTIVES: To develop quality of care (QC) metrics using claims data in hepatitis C (HCV) patients with disability, a vulnerable population facing financial access barriers and representing the majority of HCV patients in Medicare, and quantify metrics’ correlation with treatment receipt. METHODS: We adapted 14 Veterans Affairs-developed quality metrics (QMs) for measurement in a cohort of 1,586 disabled HCV patients (2006-2009) with 6 months continuous Medicare parts A, B, D enrollment before diagnosis and no previous treatment. Based on the machine-learning principle of recursive partitioning, the proposed algorithm implements a random forest model of conditional inference trees, identifies the forest’s representative tree, and aggregates its terminal nodes into QC patient groups.

Using linked county-level data from the Area Health Resources File, we compared contextual characteristics across QC groups. RESULTS: On average, 10.4% receiving peg-interferon was the cost-effective strategy in moderate to severe psoriasis. As part of this review, we identified manufacturer submissions to health technology assessment (HTA) bodies and HTA responses/critiques of the submissions. The review showed that many previous models focused on one line of biologic therapy followed by standard of care. Additionally, Psoriasis Area Severity Index (PASI) response was limited in respect to both time periods considered and the categories of response modeled. RESULTS: A lifelong Markov model was developed to estimate long-term costs and outcomes. As new drugs allow some patients to achieve complete psoriasis clearance, we included a PASI 100 health state. Finally, we model disabilities related to severe adverse events to distinguish drugs with better safety profiles. CONCLUSIONS: This new framework will help decision makers by better differentiating promising treatments and determining the optimum biologic therapies in the psoriasis treatment pathway.

PROM57

COST-EFFECTIVENESS EVALUATION OF GENOTYPE-GUIDED ANTIPLATELET THERAPY VERSUS UNIVERSAL NEW ANTIPLATELET THERAPY IN PATIENTS WITH ACUTE CORONARY SYNDROME

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OBJECTIVES: Polymorphism of CYP2C19 affects metabolism and drug response of clopidogrel. New antiplatelet drugs such as prasugrel and ticagrelor are not affected by CYP2C19 polymorphism. CYP2C19 genetic testing could guide the selection of clopidogrel to patients (genotype-guided therapy), improving cost-effectiveness analyses of universal prasugrel or ticagrelor treatment versus genotype-guided therapy for patients with acute coronary syndrome (ACS) and planned percutaneous coronary intervention (PCI). METHODS: Higher quality of care correlated with higher treatment rates. Limited healthcare access among Medicare disabled patients with HCV was not associated with lower quality. Future research is needed to assess pre-treatment QM with newer HCV therapies.

PROM61

NATIONAL BURDEN OF HOSPITALIZATIONS FOR NECROTIZING ENTEROCOLITIS: RESULTS FROM THE 2009 KID’S INPATIENT DATABASE

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OBJECTIVES: To calculate national estimates of Necrotizing Enterocolitis (NEC)-related hospitalization and associated use of health care resources to explore the effectiveness and cost-effectiveness of intravenous immunoglobulin and dexamethasone. We aimed to evaluate the cost-effectiveness of the new class of antiplatelet drugs versus genotype-guided therapy. METHODS: A lifelong Markov model was developed to compare universal new antiplatelet drugs treatment and genotype-guided therapy from the perspective of healthcare provider in genotype-guided therapy arm, patients without CYP2C19 loss-of-function (LOF) allele would receive generic clopidogrel, while patients with at least one LOF allele would receive a new antiplatelet agent. All clinical inputs were derived from published meta-analysis and clinical trials. Direct medical costs and quality-adjusted life-year (QALY) gained were the primary model outcomes. RESULTS: Base-case results showed that genotype-guided therapy cost $73,131 with 8.068 QALYs, while universal new antiplatelet therapy cost $79,179 with 7.946 QALYs. With a threshold of willingness-to-pay of $50,000 per QALY, no threshold values were identified in one-way sensitivity analysis. CONCLUSIONS: Compared with universal use of new antiplatelet drugs, genotype-guided therapy seems to be a less costly and more effective clinical strategy for patients with ACS undergoing PCI.

PROM9

REAL-WORLD DATA UTILITY FOR HEALTH ECONOMIC MODELING: AN ASSESSMENT OF CURRENT DATA SOURCES

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OBJECTIVES: Direct medical costs averaged for 2009 were calculated with a total matching of $213 billion in inpatient hospitalization costs. Mean hospital costs and LOS were $110,951 and 51 days, respectively. Treatment type, died or not during hospitalization, comorbidities, complications, hospital type and hospital region, were significantly associated with higher total costs and length of stay. CONCLUSIONS: For an infant disease with a rather low prevalence rate, the estimated annual infantile pediatric burden of NEC is a sizeable $213.3 million (2009 US$). As surgery treatment significantly influenced cost and length of hospital stay, our study found a community for reduction in infantile burden if medications and outpatient treatments would improve for the treatment of NEC.

PRM62

REDUCTION OF INFLUENZA DISEASE COST WITH SUBOPTIMAL VACCINATION

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OBJECTIVES: The burden of disease due to seasonal influenza in the United States (US) remains high, despite vaccination efforts. In 2003 it was estimated that the direct medical costs of influenza were $7.7 billion. This is now estimated at $8.7 billion. Although the seasonal influenza vaccination is not always a con- summate match, we suggest that the burden of disease is still greatly reduced even when vaccine strain matching is suboptimal. This study aimed to examine the decreased cost burden associated with the seasonal influenza vaccine, even in seasons of suboptimal match, by comparing historic published trends to large claims data. METHODS: Previously published data were compared to seasonal influenza records, queried from a claims database containing over 55 million unique patients. Regression modeling was used to compare cost burden of persons...