Impact of Diabetes on Hospitalized Patients With Chronic Medical Conditions
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Background
The number of people with type 1 or type 2 diabetes continues to trend upward in the United States. According to the American Diabetes Association, 30 million Americans, or about 9.4% of the population, have diabetes. Diabetes remains the seventh leading cause of death and costs the United States $327 billion annually in health care spending, with a majority of the health care dollars spent on hospitalizations.

Specific Aims
The objective of this study was to measure the cost of index admission, defined as the initial hospital admission for a specific condition or diagnosis, and LOS in patients with and without a diagnosis of type 1 or type 2 diabetes who were admitted with cardiovascular, pulmonary, or cerebrovascular disease.

Design and Methods
Charts were reviewed from 1 October 2015 to 31 March 2018 for all admitted patients 18 years of age. Annual hospitalization data could not be utilized because individuals may have had multiple hospital admissions (15). Index admissions for cardiovascular, pulmonary, and cerebrovascular diagnoses were examined and compared for those with and without a diagnosis of type 1 or type 2 diabetes. Propensity score matches were based on age-group, sex, race (white non-Hispanic vs. other), insurance type (Medicaid, Medicare, commercial, or other), APR-DRG mortality risk (minor-moderate vs. major-extreme), and APR-DRG SOI (minor, moderate, major, or extreme). Patients were matched separately for each of the three Diabetes Impact on Chronic Conditions principal diagnoses. All results shown use the matched samples. Metrics measured included impact on LOS and cost of initial admissions.

Results
The study reviewed 48,572 subjects who met inclusion criteria. When compared with patients without diabetes of similar age, sex, race, risk of mortality, and severity of illness and controlling for length of stay, individuals with diabetes had similar total admission costs. Lengths of stay were similar for individuals with and without diabetes admitted with a diagnosis of cerebrovascular disease or respiratory infection. However, patients with a primary diagnosis of congestive heart failure and a secondary diagnosis of diabetes incurred longer lengths of stay.

Conclusion
Individuals with diabetes and congestive heart failure have longer lengths of stay than those without diabetes. To decrease the economic burden of diabetes and chronic conditions, primary care providers and hospitals need to implement guidelines regarding the management of care for individuals with two or more chronic conditions.

References