Trends for Healthcare Cost among Commercially Insured Individuals with Multiple Sclerosis
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Objective:
To estimate prescription drug cost for disease modifying therapy (DMT) and its impact on health care cost among individuals with Multiple Sclerosis (MS) enrolled in commercial insurance.

Background:
Despite more DMTs becoming available, the price of DMTs, including existing drugs, continues to rise.

Design/Methods:
This is a population based retrospective study using 2011-2015 Truven MarketScan data. We estimated prescription drug cost for DMT and its share of overall health care spending. Individuals aged <65 and with 12 month continuous enrollment for both medical and pharmacy benefits in any of measurement years were included. We identified individuals with MS who had at least three inpatient or outpatient claims with a diagnosis for MS with ICD-9-CM (340) /ICD-10-CM (G35) or one outpatient pharmacy claims for DMT during the measurement year. The cost was computed using total paid amounts by the insurance and patient and was inflation adjusted to 2015 dollars.

Results:
A total of 49,439 individuals in the 2011 database met the study criteria for MS, a prevalence of 165.0 per 100,000 individuals (95% CI 163.6-166.5). The average percentage of MS patients who were on DMTs was 78.5% annually growing from 77.3% to 80.0% over the 5-year study period. The annual DMT cost per MS patient increased from $26,772 to $43,606, a 13.0% average annual growth rate. During this period, inpatient and other outpatient costs remained steady or decreased. When comparing DMT users to non-DMT users, the annual health care cost per DMT user was 74% higher in 2011 ($50,352 vs $28,881), increasing to more than twice higher in 2015 ($70,683 vs $29,821).

Conclusions:
Health care costs for MS patients continue to increase rapidly due to the cost of DMTs. These trends were not only limited to MS patients on new DMT drugs approved by FDA but also applied to those on previously available DMT drugs.