Medicare patients have low adherence to biologic drug therapy for psoriasis

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About half of Medicare patients who start taking biologic therapies for moderate to severe plaque psoriasis stop within a year, according to a new study led by researchers from the Perelman School of Medicine at the University of Pennsylvania.

Previous studies have found similar results among the privately insured in the United States. The new study is the first to explore this issue among the elderly and disabled who are covered under Medicare. Lack of data in this population has been a major research gap, given that such patients are often underrepresented in clinical trials.

Psoriasis is a common chronic inflammatory disorder, primarily of the skin. It has been associated with major physical and psychosocial health burdens, which increase proportionally with the severity of the condition. In the past decade, several targeted biologic therapies have been approved for the treatment of moderate to severe plaque psoriasis, greatly increasing the therapeutic options for this skin disorder, which has no cure.

"Such suboptimal patterns of biologic use warrant further investigation, however our findings do suggest that high out-of-pocket costs under Medicare Part D are a potential factor," said first author Jalpa A. Doshi, PhD, an associate professor of Medicine.

In the study, published online in the *Journal of the American Academy of Dermatology*, Doshi and her colleagues looked at national Medicare

claims data for patients with plaque psoriasis, and specifically at the 2,707 moderate to severe plaque psoriasis patients in the cohort who initiated treatment during 2010-2011 with the biologics infliximab (Remicade), etanercept (Enbrel), adalimumab (Humira), or ustekinumab (Stelara).

The team found that the patients' use of biologics during the year following initiation, on average, translated into medication coverage for only 61 percent of the days in that year. Those patients whose prescriptions covered at least 80 percent of the days were classified as "adherent" to their medication—but only 38 percent reached that threshold.

Nearly half of the patients (46 percent) discontinued their medication during the year. Relatively few patients (8 percent) switched to another biologic, and 9 percent restarted biologic therapy after a gap of at least 90 days.

"Given that prior research has shown interruptions in biologic treatment for psoriasis to be associated with poorer outcomes compared to continuous therapy, understanding the reasons for treatment non-adherence is critical," said senior author Joel M. Gelfand, MD, MSCE, an associate professor of Dermatology and of Epidemiology.

The team looked at several factors that might have affected adherence and identified higher out-of-pocket costs as a strong possibility: Patients who were ineligible for subsidies under Medicare Part D (and thus responsible for high cost sharing) were more likely to be non-adherent and discontinue their biologic treatment. Female patients also were more likely to be non-adherent.

"In addition, the analysis found differences in adherence depending on which biologic agent the patients were taking. Regardless, low adherence

and high discontinuation rates were observed for all four of the biologics," Doshi said.

The team now hopes to conduct studies of patient- and provider-reported reasons for such observed patterns in biologic treatment use. They also hope to explore the long-term health care costs associated with interruptions, discontinuations, and switches in moderate to severe plaque psoriasis biologic treatments.

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