AMCP 2022 Assess Out of Pocket Cost to Impact Medication Adherence for Patients with Autoimmune Disease Conditions

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Background

- Autoimmune disease (AI) is a condition in which a patient's immune system mistakenly attacks the body. Common AI diseases include Rheumatoid Arthritis, Psoriasis, Lupus and Thyroid Disease. Common symptoms of AI disease include fatigue, joint pain and swelling, skin problems, abdominal pain or digestive issues, recurring fever, and swollen glands.
- Numerous drugs are available for the treatment of autoimmune anti-inflammatory conditions (AI); however, the effectiveness of these medications can be adversely impacted by not taking the medications as prescribed. Research has found that non-adherence to Al medications can impact patients' quality of life, by affecting their ability to function and has been associated with increased medical utilization and cost¹.
- Biologic specialty drugs, which are often used to treat AI conditions, are an expensive therapeutic classes to both health plan insurance payers and patients. However, they typically represent significant medical advances, either in the form of novel approaches for the treatment of complex conditions, or because they target diseases with few treatment options². The cost of AI specialty drugs can be a barrier that hinders a patient's ability to be adherent to their medication regimen.
- The reported AI adherence rates are highly variable (9.3% to 94%), due to many factors¹. Payers should understand how high out-of-pocket (OOP) cost can impact medication adherence (MA) to determine how much of the cost should be shared by the patient.

Objective

• This study seeks to understand the impact of OOP cost on specialty MA for AI conditions.

Methods

- De-identified pharmacy claims from a large national commercial population covering approximately 25 million lives in the United States were utilized.
- Claims with a date of service between 2017 and 2019 were extracted.
- To be included in the eligible sample, patients were required to be continuously enrolled for at least one calendar year, age 18 or older, and have two or more AI claims on two different dates of service.
- The proportion of days covered (PDC) was calculated annually for all patients included in the eligible sample according to the Utilization Review Accreditation guidelines.
- Patients were then classified as adherent or non-adherent based on an 80% PDC threshold.
- A logistic regression model was used to determine the predictors associated with binary adherence and binomial outcomes with n trials per patient (where n = treatment days).

Medication adherence to autoimmune medications can be a difficult road to navigate both for payers and patients due to many factors, in particular the cost of these therapies. When patient OOP exceeds \$30 per day, adherence drops off dramatically.

Results

• The eligible sample consisted of 125,118 AI patients. The market size of AI drug cost in the study grew significantly from 14.2% to 19.2% of total pharmacy cost between 2017 and 2019. The drug payment per member per year for AI patients increased by about \$5,000 (10%) annually. AI patients had an average non-adherence rate of 41.8%, 41.1% and 38.6% in 2017, 2018 and 2019, respectively. OOP per day cost was determined to be inversely associated with AI MA, where higher PDC, lowering OOP per day cost by 10% is estimated to increase AI PDC by 2.2%.

Table 1.1 Descriptive Statistics of Al Patients

	2017	2018	2019
Annual Enrollees	23,105,128	24,763,742	23,965,924
Pharmacy Cost (Millions)	\$23,182	\$25,496	\$27,163
Al Included Patients	65,493	75,039	82,458
%Al Patients	0.28%	0.30%	0.34%
AI Cost (Millions)	\$3,301	\$4,256	\$5,214
Al Cost Per Patient Per Month	\$3,867	\$4,299	\$4,698
Al Cost Percentage of Pharmacy Cost	14.2%	16.7%	19.2%
Average PDC	76.6%	77.1%	78.4%
% Adherent Al Members	58.2%	58.9%	61.4%

OOP per day cost posed a higher risk of AI non-adherence. Patients with an OOP cost greater than \$30 per day were 3.5 (95% CI 3.4 - 3.7) times more likely to be non-adherent to AI medications compared to the patient group with OOP per day cost of \$30 or less. Based on the logistics regression model for



Discussion

Limitations

Conclusion

conditions.

References

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Graph 1.1 Violin Plot of AI PDC Stratified by OOP per Day Categories

• Patients who have an OOP cost per day greater than \$30, or an estimated monthly cost of \$912 or greater will be 3.5 times more likely to be non-adherent compared to patients who have an OOP cost per day of \$30 or less. An OOP per day under \$30 could significantly increase the number of AI patients who meet the PDC threshold of 80%, which in turn could prevent greater health care utilization in the form of inpatient stays, outpatient services, and laboratory services.

• Current results may not be generalizable to other non-commercial populations.

• Higher OOP cost per day is negatively associated with adherence to medications for AI

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