Trends in Hepatitis C Direct-Acting Antiviral Utilization in a State Medicaid Population Following the Removal of a Minimum Fibrosis Score Requirement

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Background

- Medicaid programs have limited hepatitis C virus (HCV) direct-acting antiviral (DAA) access to patients with advanced liver fibrosis, citing regimen costs, limited state budgets, and a large burden of HCV patients as a necessity to prioritize patients.[1]
- The Meta-analysis of Histological Data in Viral Hepatitis (METAVIR) is an ordinal scale for quantifying the amount of scar tissue and inflammation in the liver. The METAVIR scale is commonly used in HCV clinical trials to delineate patient cirrhosis status and determine optimal treatment regimens. Fibrosis scores can range from 0 to 4 with 0 representing no fibrosis and 4 representing cirrhosis.[2,3]
- For Oklahoma, the minimum METAVIR fibrosis score requirement was lowered from F2 to F1 effective July 1, 2017 and from F1 to F0 effective January 1, 2018.[4]

[1] Canary LA, Klevens RM, Holmberg SD. Limited access to new hepatitis C virus treatment under state Medicaid programs. Ann Intern Med 2015;163:226-8.
[2] American Association for the Study of Liver Diseases (AASLD) – Infectious Diseases Society of America (IDSA). Recommendations for testing, managing, and treating hepatitis C. Available online at: https://www.hcvguidelines.org/. Last revised 05/24/2018. Last accessed 01/10/2019.
[3] Ghany MG, Strader DB, Thomas DL, Seeff LB. American Association for the Study of Liver Diseases. Diagnosis, management, and treatment of hepatitis C: an update. *Hepatology* 2009; 49:1335-74.
[4] Oklahoma Health Care Authority Drug Utilization Review Board Packet. Fiscal Year 2018 Annual Review of Hepatitis C Medications. Available online at: http://www.okhca.org/about.aspx?id=9728. Issued 11/2018. Last accessed 01/10/2019.

Objectives

- The objective of this analysis was to assess trends in HCV DAA utilization following the removal of a minimum METAVIR fibrosis score requirement.

Methods

- Since July 2014, Pharmacy Management Consultants (PMC), the pharmacy benefit manager for Oklahoma Medicaid has administered a high-touch, HCV prior authorization management program (PAMP).
- This analysis used administrative claims data from Oklahoma Medicaid for members with a submitted prior authorization for a DAA during the study period January 1, 2016 to October 15, 2018.
- The HCV PAMP for DAAs requires clinicians to provide additional clinical data (e.g., fibrosis scores, start dates), and the PAMP data was merged with the claims data.

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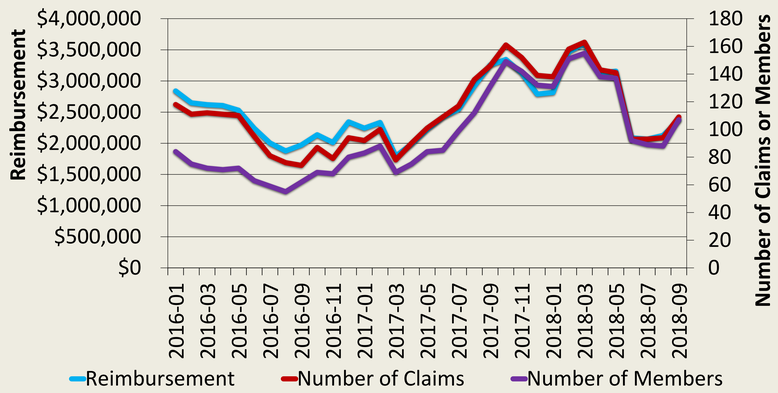
Results



Reimbursement, Number of Claims, Number of Members

- Above is a line graph representing the monthly trend in reimbursement, number of claims, and number of members utilizing HCV medications from January 2016 to October 2018.
- A steep increase in all parameters can be seen following the minimum METAVIR fibrosis score change of F2 to F1 (July 1, 2017), and again following the change to F0 (January 1, 2018).
- Totals for January and February 2017 in comparison to January and February 2018 resulted in a 38.28%, 55.21%, and 66.08% increase in reimbursement, the number of DAA claims, and members utilizing DAAs, respectively.
- In the 2nd and 3rd quarters of 2018, reimbursement, claims, and members declined to similar totals experienced in June 2017, just prior to the initial fibrosis score change.

Parameter	F2 Period	F1 Period	F0 Period
Cost per Member	$31,317.75	-$7,603.47 (P<0.0001)	-$8,465.88 (P<0.0001)
Average Number of Members per Month	73	+54.5 (P<0.001)	+47.9 (P<0.001)

*F1 and F1 period in comparison to the pre-period (F2 period).

Compliance

Parameter	F2 Period	F1 Period	F0 Period
Compliance	97.7%	-1.3% (P=0.2502)	-3.1% (P=0.0041)

*F1 and F1 period in comparison to the pre-period (F2 period).

- The difference in the percentage of members noncompliant to therapy was statistically significantly greater in the F0 period compared to the F2 period.

Results

Treatment Length and Fibrosis Score

Parameter	F2 Period	F1 & F0 Periods
Average Treatment Length	11.40 weeks	10.47 weeks
Average Fibrosis Score	2.95	1.98

- Average treatment regimen length decreased from 11.40 weeks in the F2 period to 10.47 weeks in the F1 and F0 periods.
- Average fibrosis score decreased from 2.95 in the F2 period to 1.98 in the F1 and F0 periods.

Conclusions

- Removal of fibrosis score requirements resulted in increases in reimbursement, claims, and members in the months immediately following the change.
- Roughly 7 months after removal of minimum fibrosis score requirements, reimbursement and utilization returned to levels similar to the pre-period.
- The percentage of noncompliant members increased in the F0 period as compared to the F2 period but not in the F1 period.
- The average DAA treatment regimen length decreased following removal of fibrosis score requirements resulting in a decrease in the cost per member.
- Similar trends might be expected for other states considering removal of minimum fibrosis score requirements.

Disclosure Statement

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