Association of a pharmacy center of excellence with medical outcomes in patients with rare diseases

Lane Beckes, Ph.D.[1]; Megan Winebrenner, PharmD, CSP[2]; Kali Sassack, PharmD, BCPS, CSP[2]
Ryan McDade, PharmD, BCOP[2]; Elias Assaf, Ph.D.[1]
1. Humana Pharmacy Analytics and Consulting 2. CenterWell Specialty Pharmacy

Background

- Specialty pharmacy clinical programs provide disease management through side-effect management strategies and adherence coaching to improve patient outcomes through personalized care.
- CenterWell Specialty Pharmacy (CWSP) has an established Rare Disease Center of Excellence (RDCOE) which provides dedicated clinicians, disease-specific disease assessments, evaluation of social determinants of health, and operational processes to provide holistic patient care.
- Clinical outcomes and quantification of value are increasingly important to showcase the impact of specialty pharmacy clinical programs.

Objectives

- Compare acute hospitalization rates and emergency department visits for rare disease patients engaging with a center of excellence versus those using other pharmacies or not engaging with the center of excellence.
- Measure the impact of engagement with CWSP clinical staff.

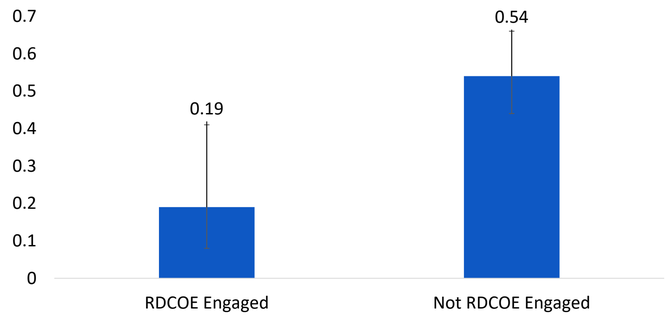
Methods

- This study was a retrospective analysis of Medicare Part D-insured patients using Medicare administered by a large national insurer.
- The primary test group included beneficiaries who used the insurer's affiliated specialty pharmacy and engaged with the pharmacy's Rare Disease Center of Excellence compared with a control group of those not engaged or using a different pharmacy.
- Those using rare disease medications in 2022 or 2023 (hospice and delegation excluded) were included.
- Predictors and covariates of interest were measured in a four-month window starting with their first qualifying rare disease medication fill.
- Outcomes, including acute hospitalization rates and emergency department visits, were measured in the 12 months after the pre-period.

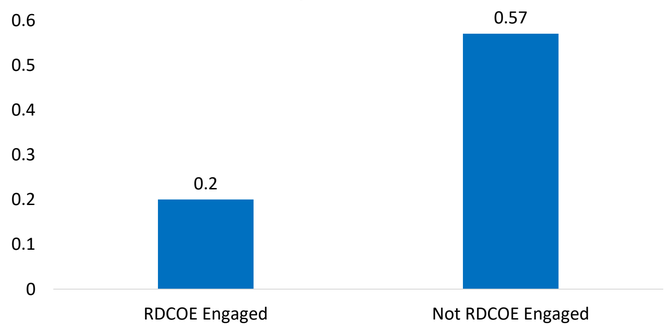
Results

A negative binomial regression was used, controlling for contract type, region of residence, age, sex, low-income subsidy status, number of drug classes, and number of distinct drugs prescribed.
N_t = 46 test subjects
N_c = 584 in the control group

Estimated Marginal Means of Acute Hospitalization



Unadjusted Incidence Rates of Acute Hospitalization



No significant differences were found for emergency department visits

RDCOE, Rare disease center of excellence

Conclusions

- High-touch clinical programs with dedicated resources are associated with fewer negative health events in the form of acute hospitalizations for rare disease patients with Medicare.
- Specifically, patients engaged with the affiliated pharmacy's RDCOE programming had fewer acute hospitalizations than those not engaged or using a different pharmacy after adjusting for contract type, region of residence, age, sex, low-income subsidy status, number of drug classes, and number of distinct drugs prescribed.

Limitations

- Clinical programming and patient engagement at non-affiliated pharmacies could not be assessed.
- Selection bias may have contributed to the observed outcomes. Results should be interpreted as associations rather than causal effects. However we attempted to ameliorate this by adjusting for contract type, region of residence, age, sex, low-income subsidy status, number of drug classes, and number of distinct drugs prescribed.
- External validity may be limited, as the study population consisted exclusively of Medicare beneficiaries covered by a single insurer.
- This is a small population with heterogeneous effects and different disease states.

Future Research

- Determine drivers for RDCOE engagement such as which contact points are most strongly associated with better outcomes.
- Investigate other specialty disease states and relevant centers of excellence and clinical programs.
- Develop better methods of reducing bias in small samples.

References

1. Vanscoy GJ. The Emergence of Specialty Pharmacy. J Manag Care Spec Pharm. 2020;26(3):229-233.
2. Patel K, Chim YL, Grant J, et al. Development and Implementation of Clinical Outcome Measures for Automated Collection Within Specialty Pharmacy Practice. J Manag Care Spec Pharm. 2020;26(7):901-909.

Disclosures

The authors of this presentation are employed by the affiliate pharmacy and parent company