

Impact of Specialty Pharmacy: A Study in Inflammatory Conditions

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BACKGROUND

Patients with complex medical conditions, such as rheumatoid arthritis or inflammatory disorders, often require specialty medications. For patients to get the most benefit from their treatment, they must take these medications as directed and maintain optimal long-term adherence.

Condition-specific Therapeutic Resource Centers (TRCs) at the specialty pharmacy level connect patients with specialty-trained pharmacists and nurses 24 hours a day, seven days a week. Patients receive individualized care from clinicians who specialize in their condition and who take the time to understand their personal circumstances.

Use of a designated specialty pharmacy, organized by condition-specific TRCs, within a health plan can improve adherence and clinical outcomes while also reducing adverse events and overall health care cost. Services include counseling and education from pharmacists, nurses or social workers through one-on-one care sessions at the start of care and as needed during the treatment journey.

OBJECTIVE

To evaluate whether the use of a specialty pharmacy, organized by condition-specific Therapeutic Resource Centers and housed within a health plan, improves adherence and outcomes in inflammatory conditions while reducing overall health care costs when compared to alternate pharmacy channels of care.

METHODS

A retrospective, matched cohort study was conducted for members receiving inflammatory condition specialty medications from a TRC-aligned specialty pharmacy, compared to alternate pharmacy channels. Pharmacy and medical claims from 2021 and 2022 were evaluated. Each member was tracked for one year using their most recent year of activity.

Due to inherent differences in the populations, coarsened exact matching (CEM) methods were used to match members using confounders, including demographics, Optum Episode Risk Group scores, claim year and prior specialty therapies.

The matched cohorts were compared for differences in adherence (proportion of days covered [PDC]) and total medical cost. Secondary outcomes included member use of digital platforms and breakout medical costs incurred (office/outpatient facility/urgent care/emergency room visits or inpatient hospitalizations).

Statistically significant differences were evaluated using t-tests and chi-squared tests.

Inclusion criteria

- + Individuals between 18 and 65 years old throughout measurement period.
- + 24 months of continuous medical and pharmacy coverage - 12 months baseline and 12 months measurement period.
- + Members with at least two pharmacy specialty-medication drug fills for rheumatoid arthritis or inflammatory conditions.
- + Members who filled 70% or more of their specialty prescriptions from the TRC-aligned specialty pharmacy were identified as specialty pharmacy members. All other qualifying members were assigned to the alternate pharmacy cohort.
- + A minimum of 150 days of potential drug coverage in the outcome year.

Pre- and Post-matching

	Pre-matching			Post-matching		
	TRC-Aligned Specialty Pharmacy	Alternate Pharmacy	Difference	TRC-Aligned Specialty Pharmacy	Alternate Pharmacy	Difference
N	24,813	3,577		20,186	3,379	0.0%
Age: 18 to 24	5.3%	4.9%	0.4%	3.2%	3.2%	0.0%
Age: 25 to 34	12.4%	14.9%	-2.5%	10.8%	10.8%	0.0%
Age: 35 to 44	21.9%	24.0%	-2.1%	22.1%	22.1%	0.0%
Age: 45 to 54	29.4%	28.0%	1.4%	30.9%	30.9%	0.0%
Age: 55 to 65	31.0%	28.2%	2.8%	33.2%	33.2%	0.0%
Female	55.0%	56.3%	-1.3%	56.0%	56.0%	0.0%
Prospective ERG Risk Score	4.18	4.12	0.06	4.37	4.35	0.02
Therapy Naive	21.3%	28.5%	-7.3%	18.8%	18.8%	0.0%

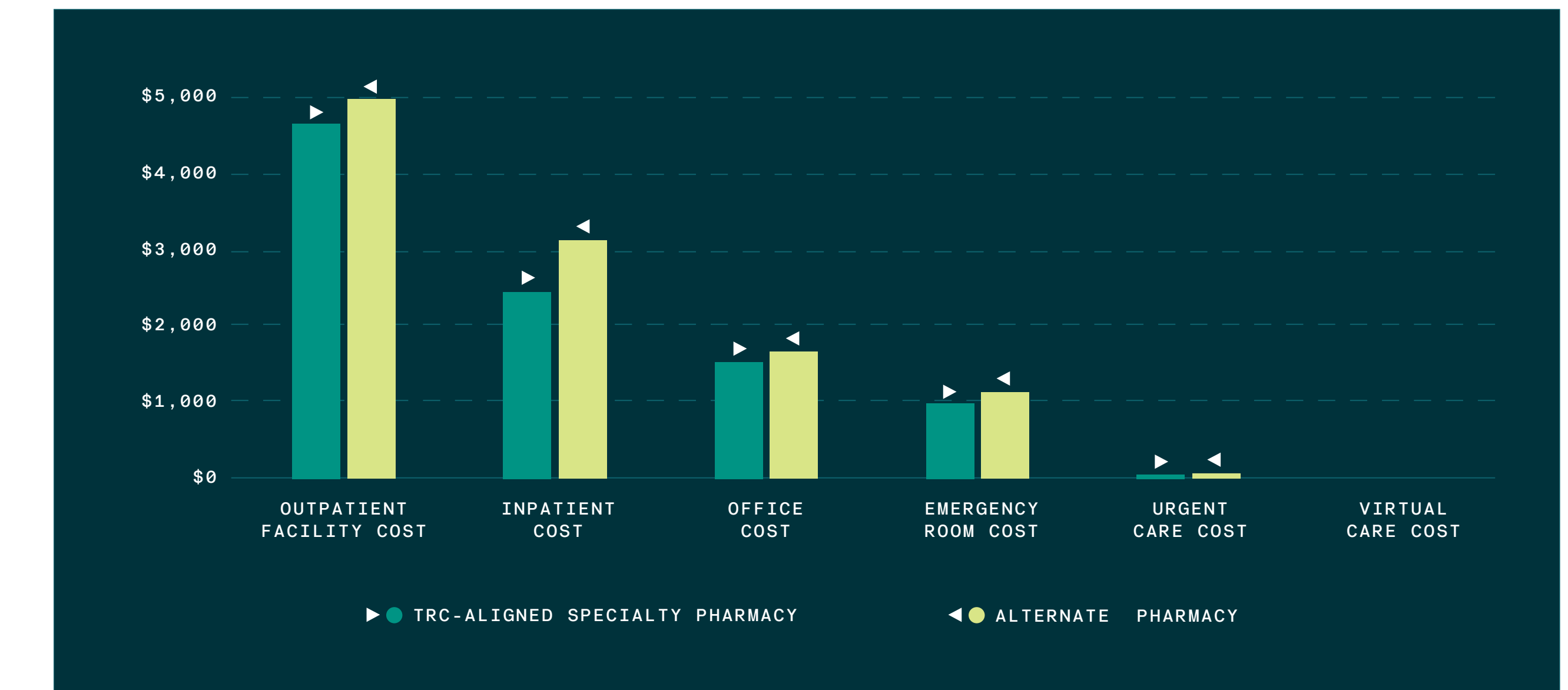
RESULTS

	TRC-Aligned Specialty Pharmacy	Alternate Pharmacy	Difference	% Difference	P-value
Cost Outcome					
Total Medical Cost	\$10,112	\$11,005	(\$893)	-8.1%	0.007
Health Plan Digital Platform Utilization	77.5%	72.6%	4.8%	6.7%	<0.0001
Average Digital Platform Sessions	24.7	17.5	7.3	41.1%	<0.0001
Inpatient Cost	\$2,465	\$3,146	(\$680)	-21.6%	0.06
Urgent Care Cost	\$64	\$74	(\$10)	-13.5%	0.008
Emergency Room Cost	\$1,007	\$1,143	(\$136)	-11.9%	0.06
Office Cost	\$1,546	\$1,672	(\$126)	-7.6%	<0.0001
Outpatient Facility Cost	\$4,674	\$4,998	(\$323)	-6.5%	0.24
Virtual Care	\$6.63	\$5.23	\$1.40	26.9%	0.16
Visits per 100 Members					
Virtual	10.3	7.3	3.0	41.1%	0.015
Office	900	940	-40	-4.3%	0.003
Urgent Care	33.4	38.1	-4.7	-12.3%	0.003
Inpatient	6.8	8.6	-1.8	-20.9%	0.004
Emergency Room	26.0	30.6	-4.6	-15.0%	0.002
Outpatient Facility	25.3	24.9	0.4	1.6%	0.7633
Adherence					
% Adherent (PDC >= 80%)	77.0%	76.7%	0.2%	0.4%	0.79
10-day adherence gaps	0.98	1.05	-0.07	-6.7%	0.0004
Adherence to medications administered infrequently (> monthly)	91.0%	89.6%	1.4%	1.6%	0.002

Based on retrospective analysis of the matched populations of 20,186 specialty and 3,357 alternate pharmacies:

- + Average annual medical cost per member was 8% lower for the TRC-aligned specialty cohort when compared to the alternate pharmacy (p-value = 0.007). Office (8%), urgent care (14%), inpatient (22%) and ER costs (12%) were also revealed to be lower.

Costs by Place of Service



- + The TRC-aligned specialty cohort had 7% higher utilization of health plan digital tools (p-value < 0.0001), with 32% more log-ins per utilizer (p-value < 0.0001), and virtual care visits were 41% higher (p = 0.015).
- + The TRC-aligned specialty cohort also had significantly fewer office, ER, urgent care and inpatient visits (p = 0.003, p = 0.002, p = 0.003 and p = 0.004 respectively).

The TRC-aligned specialty cohort trended toward higher optimal adherence, although the result was not statistically significant. The TRC-aligned cohort had 7% fewer significant gaps in medication therapy. When looking at utilizer behavior for drugs administered infrequently (at an interval greater than monthly), the TRC-aligned specialty pharmacy cohort showed a statistically significant 2% improvement in adherence (p = 0.002).

DISCUSSION

Members who use a TRC-aligned specialty pharmacy have higher utilization of the health plan website and higher rates of virtual visits initiated through the website accompanied by lower ER, urgent care and in-person office visits. However, the higher rate of virtual visits is not frequent enough to account for the higher rate of in-person office visits observed in the alternate cohort. Additional avoided care may be explained by the TRC-aligned specialty pharmacy team's proactive clinical engagement model and availability of clinicians for consultation 24/7. Patients in the TRC-aligned cohort received support for clinical education, disease management, gap in care screening and resolution, social determinants of health evaluation, adherence coaching, and/or adverse event management.

Relying on medical claims data alone has certain limitations in the context of an observational study. While these results show differences between the TRC-aligned specialty pharmacy and alternate pharmacy populations, we do not have additional information on the services offered by alternate pharmacies.

CONCLUSIONS

Members receiving medications for inflammatory conditions via the TRC-aligned specialty pharmacy had lower total medical costs. Overall, adherence trended higher in the TRC-aligned specialty pharmacy cohort. Examination of some adherence cohorts revealed statistically significant positive outcomes. Individuals utilizing TRC-aligned specialty pharmacy services did have a significantly lower number of substantial gaps in medication therapy and a higher rate of digital engagement. Our research demonstrated significantly fewer urgent/emergency visits, in-person office visits and hospitalizations in this specialty population. Although causation cannot be determined, the additional services offered by the TRC, such as counseling, ongoing education and engagement with nurses, pharmacists, or social workers, and 24/7 access to care, may have contributed to the overall reduced costs of care seen in this study population.

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2. Accredo by Evernorth Specialty Pharmacy, Memphis, TN, USA