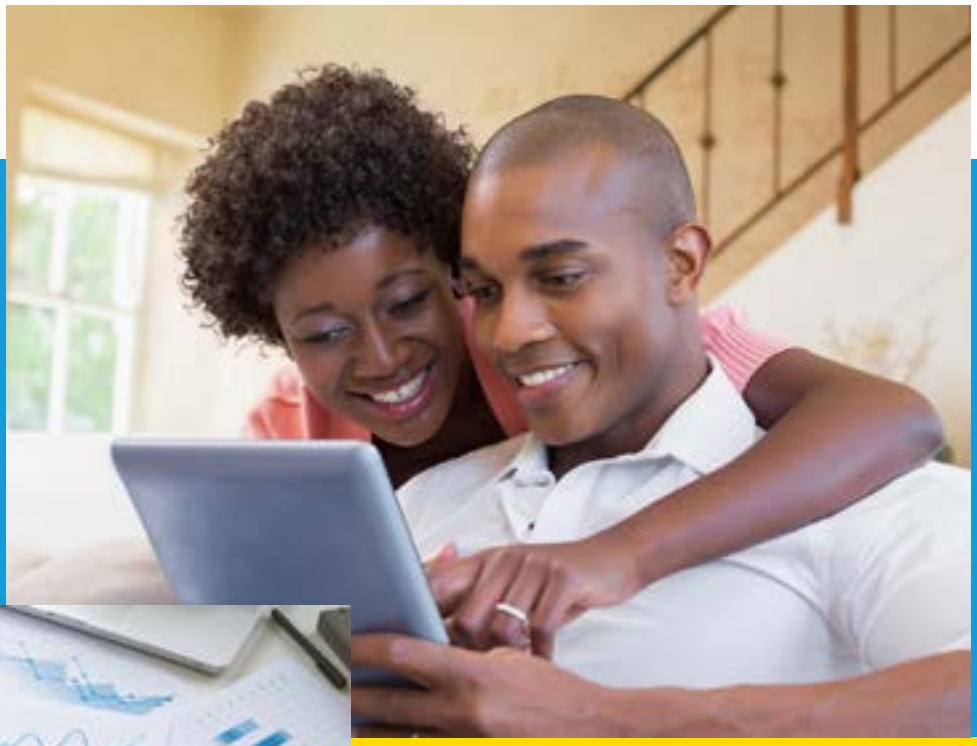


Study: Digital Patient Engagement and Improved Biosimilar Adoption Outcomes in Specialty Pharmacy

Written by:

Miranda Fortier, *PharmD*
Georgina Masoud, *RPh, MSc*
Eric Huckins, *PharmD, MBA, CSP*
Albert Wertheimer, *PhD, MBA*
Chelsea Hustad, *PharmD, CSP*
Collin Wolf, *PharmD*

Lumicera™ Health Services | Cassian Solutions Inc.

Abstract

This study presents an analysis of the methods and outcomes of patient engagement strategies for biosimilar adoption within a specialty pharmacy setting. The study compares two distinct cohorts: Cohort 1, where standard call-center conversion strategies were employed, and Cohort 2, where a digital patient engagement program was implemented. The analysis demonstrates significant improvements in patient conversion rates and realizes substantial cost savings with reduced FTE (Full-Time Equivalent) burden in Cohort 2. The goals of this study are to assess:

1. The success of biosimilars adoption process
2. The potential generation of cost savings
3. The potential reduction in FTE burden associated with introducing digital biosimilar uptake methods alongside standard biosimilar uptake methodologies in the specialty pharmacy setting

Introduction

The share of US prescription drug spending dedicated to biologics is steadily increasing. The projected US savings from biosimilars are estimated to be $38.4 billion from 2021 to 2025. One of the largest contributors of biologic drug spend is the adalimumab reference product which generated $21 billion in global sales in 2021. Similarly, the estimated total savings generated by adalimumab biosimilars between 2021 and 2025 can be as high as $19.1 billion.[1] Despite the large savings potential, barriers to the supply and uptake of biosimilars have the potential to negate realized savings. Among these barriers include a highly competitive rebates offered by originator products which reduce the incentive to add biosimilars to pharmacy benefit manager formularies, patient & physician brand allegiances and the large administrative burden placed on specialty pharmacies and physicians to identify and switch patients to other cost-effective biosimilars.

$38.4 B
Estimated, projected US savings from biosimilars from 2021 to 2025

As the patient management and administration performed by specialty pharmacies play a pivotal role in the realization of biosimilar savings, specialty pharmacies are exploring the use of digital patient engagement technology to mitigate the labor costs associated with specialty pharmacy care, improve patient satisfaction and lower the costs of pharmacy operations.

Lumicera Health Services (Lumicera), a national specialty pharmacy has demonstrated the value of digital patient engagement technology through the implementation of automated text, or short message service (SMS) and email communications that prompt patients to complete administrative, refill coordination and clinical activities through a secure patient portal. Early launch activities associated with the patient automation technology generated significant FTE reduction of $580,000. Lumicera anticipates full deployment FTE savings of $2,500,000 annually. These additional savings allow Lumicera to pass additional savings back to clients and allocate resources towards clinical care and improving health outcomes.

Because the implementation of adalimumab biosimilars adoption program places additional FTE strain on specialty pharmacies, the identification of methods that enable specialty pharmacies to facilitate patient conversion to biosimilars while mitigating FTE costs is warranted. This study investigates two methods deployed by Lumicera to examine the use of digital patient engagement technology as compared to conventional non-digital patient management.

Methods

Over a two-month timeframe, Lumicera deployed two methodologies for identifying patients interested in receiving education about adalimumab biosimilars administered to two patient cohorts. In Cohort 1, patients received standard call-center communication to identify and convert eligible patients to biosimilars. Cohort 2 utilized a digital patient engagement program to identify and convert eligible patients to biosimilars.

Cohort 1: Standard Call-center Methodology

In Cohort 1, Lumicera identified patients who are paying a high copay greater than $50 for the adalimumab reference product. The sample was gathered from May 1, 2023 to July 5, 202 via an internal analytics program. A total of 28 patients were identified, and the patient conversion activities were performed as follows:

A lower-cost FTE, such as a technician, was assigned the following tasks:

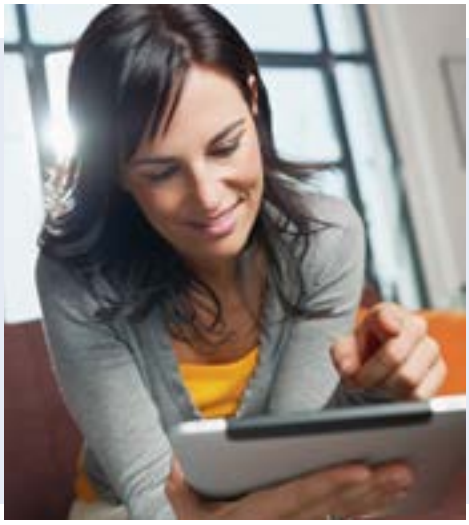
- Running a test claim to verify coverage for the potential biosimilar.
- Comparing the co-pay for the adalimumab reference product claims versus the biosimilar adalimumab after accounting for available manufacturer assistance programs.
- Calling the target patients to see if they would like to connect with a clinician regarding the cost savings opportunity.
- Requesting a new biosimilar prescription via facsimile from providers of patients desiring to transition to the biosimilar.

A higher-cost clinical FTE, such as a pharmacist, was assigned the following tasks:

- Educating the patient and addressing any concerns about safety, clinical efficacy and administration of potential biosimilars.
- Screening new biosimilar prescriptions for those successfully transitioned to a biosimilar product.

Cohort 2: Digital Patient Engagement Program

In Cohort 2, a digital patient engagement program was administered to patients receiving the adalimumab reference product and identified patients who were willing to switch to a lower cost biosimilar. All patients in this cohort received educational digital assessment communications that educated and identified potential candidates for conversion to biosimilars. Within this cohort, 40 patients were identified through the digital patient engagement program. Following the education and identification of candidate patients from the digital program, the pharmacy performed the following additional conversion activities:



A lower-cost FTE (such as a technician) was assigned the following:

- Running a test claim for 40 patients to verify coverage of the biosimilar
- If covered, faxing the provider for a new biosimilar adalimumab prescription.

A higher-cost FTE (such as a pharmacist) was assigned the following:

- Conducting patient education about the adalimumab biosimilars.
- Screening new biosimilar prescriptions.

Results

The results of the labor associated with achieving one successful conversion in Cohort 1 and Cohort 2 are provided below:

TABLE 1: Differences in Labor & FTE Cost for Successful Conversion to Biosimilars

Group	Low-cost Labor	High-cost Labor	Total Labor	Total FTE/ Conversion*
Cohort 1	9.3 Hours	0.3 Hours	9.6 Hours	$194.80
Cohort 2	1.1 Hours	0.9 Hours	2 Hours	$77.60
Improvement	8.2 Hours	-0.6 Hours	7.6 Hours	$117.2

**FTE costs for lower-cost labor are estimated to be $18.17/hr and $63.84/hr for higher-cost labor.[2,3]*

The results of this study comparing Cohort 1 and Cohort 2 as normalized to 100 patients are summarized in the table below:

Normalized Conversions and Savings Compared Between Cohort 1 (Non-digital) and Cohort 2 (Digital)

Group	Low-cost Labor	High-cost Labor	Total Labor
Conversions (out of 100)	3.6	7.5	109.5%
Savings** *(High Concentration adalimumab reference product)*	$433,498	$910,711	$477,212
Savings** *(Low Concentration adalimumab reference product)*	$156,509	$328,800	$172,291
Cost per Conversion	$194.80	$77.60	251%
Estimated FTE Time Savings *(scaled to 100 patients)*	-	$11,720	-

***Results are based on actual WAC prices for adalimumab reference product and biosimilar for high and low concentrations.*

Biosimilar Adoption Rates

Cohort 2 exhibited a remarkable 109.5% increase in patient conversion rates compared to Cohort 1. The significant improvement in this critical metric shows that the digital patient engagement program effectively identified and educated potential candidates for biosimilar therapy transition to generate increased successful conversions.

Cost Savings

In terms of cost savings, Cohort 2 outperformed Cohort 1 by a substantial margin. The total net savings in Cohort 2 amounted to $477,212 for high concentration adalimumab reference product and $172,291 for low concentration adalimumab reference product. The cost-effectiveness was further emphasized by the reduction in the cost per conversion of $11,720.

Reduced FTE Burden

One of the key findings of this study is the significant reduction in FTE burden in Cohort 2. Converting one patient from adalimumab reference product to a biosimilar therapy in Cohort 1 incurred an average cost of $194.80 in pharmacy labor, which was reduced to just $77.60 in Cohort 2. When scaled to 100 patients, this translates to potential FTE time savings of $11,720 representing 760 labor hours or an improvement of 251% over baseline.

Discussion

The results of this study underscore the transformative impact of digital patient engagement strategies on biosimilars adoption within specialty pharmacies for the three goals of the study:

1. **Improve Biosimilars Adoption Rates:** The digital patient engagement service in Cohort 2 achieved a substantial increase in patient conversion rates, demonstrating its efficacy in identifying and engaging patient interested in transitioning to biosimilar therapy.
2. **Generate Significant Cost Savings:** Cohort 2 realized substantial cost savings, driven by reduced costs per conversion. This not only benefits patients but also enhances the financial health of healthcare systems and industry stakeholders.
3. **Reduce FTE Burden:** The reduction in FTE burden in Cohort 2 highlights the efficiency gains associated with digital patient engagement. By automating and streamlining patient conversion processes, specialty pharmacies can allocate resources more effectively.

Conclusion

The deployment of digital patient engagement services, has a profound impact on patient conversion rates, cost savings and FTE burden within specialty pharmacies. The results of this study clearly demonstrate that leveraging the digital engagement program for patient identification and education, achieved significantly higher biosimilar conversion rates, cost savings and efficiency gains compared to conventional non-digital methods. These findings emphasize the critical role of technology-driven, patient-centric approaches in optimizing patient conversion to biosimilar therapies, ultimately benefiting both patients and the healthcare industry stakeholders.

References

1. Projected US Savings from Biosimilars, 2021-2025. Am J Manag Care. 2022;28(7):329-335. doi.org/10.37765/ajmc.2022.88809
2. "Pharmacy Technicians". Occupational Outlook Handbook, Bureau of Labor Statistics, Department of Labor, United States, 6 Sep. 2023, www.bls.gov/ooh/healthcare/pharmacy-technicians.htm
3. "Pharmacists". Occupational Outlook Handbook, Bureau of Labor Statistics, Department of Labor, United States, 6 Sep. 2023, www.bls.gov/ooh/healthcare/pharmacists.htm.

For questions and comments please email: **Eric.Huckins@lumicera.com** or **Collin.Wolf@CassianRx.com**