



Best Practices

The Health System Specialty Pharmacy Integrated Care Model: Delivering Patient-Centric Care

Introduction

Defining best practices within healthcare is of the utmost importance to providing every patient both high quality and efficient care. However, the methodology through which best practices are determined varies across the continuum of healthcare specialties. Within the Health System Owned Specialty Pharmacy Alliance (HOSP) and its Health Economics Research and Outcomes (HERO) Committee, we focus these best practices on the real-world presentation



of what we believe to be the critical, high-value pillars of our owned specialty pharmacy programs. To date, there have been numerous industry performance metrics defined for specialty pharmacies.^{1,2} HOSP aims to elevate the discussion by challenging these established standards with a number of real-world, high value metrics that accurately reflect the value of the local-regional integrated care model.

In addition, the HERO Committee aims to address the gaps in specialty pharmacy improvement initiatives through a collaboration of expertise across multiple sectors. Subject areas of interest include quality of care and provider engagement as measured by Net Promoter Scores® (NPS®), access to specialty therapies, time to initiation of therapy, and the impact on patient health outcomes and cost of care.

High Quality of Care

Health system owned specialty pharmacies achieve and maintain single and, in some instances, dual accreditation.^{1,2} This achievement is recognition of the high-quality program that is offered to patients. In addition, a high NPS score reflects the increased likelihood the patient would recommend the specialty pharmacy to a friend or colleague. Despite abysmal NPS scores widely reported across many non-healthcare industries, integrated health system specialty pharmacies (HSSPs) achieve high NPS scores, typically in the 80s, indicating “excellent” customer satisfaction. This is due to the result of one-on-one patient-pharmacy relationships, face-to-face communications with clinicians, patients, and caregivers, genuine human connections with commitments to follow through, and a true high-touch, white-glove service throughout each patient interaction.

Measurable Health Outcomes

Health system specialty pharmacies are generating truly **world-class** clinical and operational outcomes metrics. Integration of specialty pharmacy information technology infrastructure within the electronic medical record (EMR) and access to pertinent patient laboratory data is unique to health system specialty pharmacies. Integration facilitates communication with primary and specialty care clinicians in real-time, pharmacist review of lab and imaging data, and up-to-date knowledge of patient appointment schedules. These unique capabilities enable the specialty pharmacy team to **defragment care** and to elevate the HSSP model to a **gold standard**.

Faster Time to Therapy

The industry measure of **time to treatment** (TTT), with an average noted in many papers at 22 days is frequently discussed and cited as some specialty pharmacies achieve a much faster 24-to-48-hour TTT.³ The significance of TTT is underscored by the importance of quickly starting oral chemotherapies, as this can mean life or death in some types of cancer diagnoses. The dialogue between oncologists and pharmacists integrated within a health system specialty pharmacy can expedite prior authorizations and provide financial assistance to reduce the risk of treatment delays when initiating therapy.

Breaking Down Barriers

A fierce dedication to breaking down barriers to **health care inequities** has also emerged as a trademark of HSSPs. Creative sourcing of financial assistance, especially through identification of external grants and foundation funding, is often supplemented by food, nutrition, and transportation assistance. With unique programs in place that extend their reach throughout the communities they serve; health system specialty pharmacies display a keen focus on reducing social and economic barriers that are specific to local patient populations. These programs allow patients to overcome barriers to care and medication adherence, thus improving clinical outcomes and quality of life.

This white paper aims to highlight and share important evolving **best practices** at HSSPs today, fulfilling in part our commitment to identifying, implementing, and sharing our work more widely with the U.S. healthcare ecosystem.

Patient and Provider Satisfaction



It is broadly accepted that the innate model driven by HSSPs allows for an increase in communication and collaboration across care teams and patients which may enforce not only better medication adherence and patient outcomes but also greater patient and provider satisfaction.^{4,5,6,7} Specifically, a survey of health care providers identified four main areas where providers perceive integrated specialty pharmacies to be superior to external specialty pharmacies: streamlining clinic workflow and reducing provider burden, increasing medication access, improving communication, and enhancing patient care.⁶ These benefits translate to significantly greater provider satisfaction ratings for integrated specialty pharmacies compared to external specialty pharmacies [mean satisfaction score (SD): 4.72 (0.58) vs. 2.97 (1.20), respectively; $p < 0.001$]. Integrated specialty pharmacies have the advantage of consistent relationships with healthcare teams throughout their organizations. As a result, they can regularly assess provider satisfaction, whether formally through surveys or informally through meetings and casual interactions. This open dialogue and assessment of satisfaction aids in continuous process improvements to catalyze efficiencies and improve care quality and communication.

Patient satisfaction has been suggested as a quality measure for specialty pharmacies, both from the vantage point of individual disease types and with regard to URAC accreditation.^{8,9,10} This metric can be useful within payer contracting negotiations.¹¹ Generally, specialty pharmacies have high patient satisfaction scores. Unpublished data from MMIT indicates that, overall, specialty pharmacies have a Net Promoter Score (NPS) of 59, while HSSPs lead among the specialty pharmacy subtypes with an NPS of 84. (unpublished MMIT 2021 data) Integrated specialty pharmacies have demonstrated that implementing patient-centered programs, such as centralizing prior authorizations, integrating therapy management into

specialty clinics, and creating health coaching options for specialty pharmacy patients all increase patient satisfaction.^{4,12,13}

Health systems, in general, have begun to view patients as customers, who have a role and responsibility in their healthcare decision-making.¹⁷ As a result, as HSSPs work to best understand their patients' and providers' wants and needs, they are able to better capture and maintain patient populations who necessitate their high-quality services and retain relationships with specialty providers who seek optimal care for their patients. The health system specialty pharmacy is particularly well-situated to instantly respond to these unique and individual needs due to their continual formal and informal satisfaction assessments from close interactions with both patients and providers. Some challenges for health systems include finding appropriate and valid methodologies of measuring successes and failures, both of individual disease-state programs and more broadly within and between organizations. It is also important to ensure that an unbiased and generalizable viewpoint is being measured to incite positive change with respect to all who are being served within specialty pharmacy. With all of this in mind, health systems are well equipped to achieve their ultimate goals of equitably improving patient quality of life, increasing team-based collaboration, enhancing patient participation in their care and decision-making, and proliferating efficiencies throughout care processes.

Ultimately, understanding how patients and providers perceive integrated specialty pharmacies across multiple domains will aid both in identifying creative process improvement solutions as well as understanding the pharmacist-driven initiatives that best invite patients and their care teams to collaborate. However, many satisfaction surveys suffer low response rates and, as such, may have biased and ungeneralizable results.^{14,15,16} These low response rates have the potential to misdirect effective and patient-centered improvement initiatives and programs. It is crucial to understand the needs and opinions across all patient- and provider-types in order to steer quality improvement initiatives toward engaging more people in the care spectrum, thereby increasing outcomes and satisfaction overall. Some integrated specialty pharmacies are rethinking their engagement initiatives to include multimodal, text messaging, or web-based surveys and communication tools. Furthermore, many systems are

Last week I spoke with the mother of a Pediatric Endocrine patient who will be restarting her son on growth hormone therapy after being off the medication for about a year. I explained to mom that with the insurance they have now they would be able to use our specialty pharmacy services at Baystate and she was very excited because she liked using our pharmacy when he was on therapy before and did not like when they had to change pharmacies with their previous insurance. Mom liked how our courier would be able to follow detailed delivery instructions and she acknowledged how this was not a service that any other pharmacy could provide. Mom stated repeatedly how thankful she was for our services.

"I'm the mother of a patient who has received growth hormone treatment under her care. Jonathan was our pharmacy liaison, and I cannot speak more highly of him. Not only was liaison incredibly responsible in calling with plenty of time to order medication, but he conveyed kindness, care, and patience in our interactions over the phone. I was impressed and greatly appreciated that he always made an extra effort."

The gratitude of patients and their caregivers when a HSSP helps alleviate unneeded stress when dealing with chronic medical conditions is 100% the reason why HSSPs do what we do.

shortening or rearranging satisfaction surveys to capture greater response rates to questions that may drive change or add value to their services.

Health Outcomes

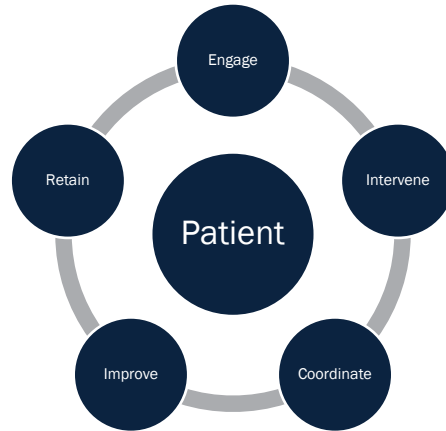


Fig. 1

There are five key components within the specialty pharmacy domain that drive care and improve health outcomes: patient engagement, intervention, coordination, improvement, and retention (Figure 1: Clinical Flywheel). A HSSP is distinctively positioned to generate exemplary patient outcomes through personalized methods to interact with the components of this domain. The HSSP team provides direct care through personalized medication management services which is feasible by access to the EMR and integration within the health care team. Through the comprehensive care model, pharmacists increase medication adherence, address health inequities and identify medication interventions, which contribute to improved quality of life and lower disease severity.

There are multiple models that specialty pharmacists can be integrated into the health system. A survey among 122 HSSPs across the country indicated that not only do 100% of HSSPs have access to electronic health records, but 64.5% have specialty pharmacists that are involved in treatment decisions and drug therapy selection prior to prescriptions being written.¹⁸ In addition, 39% of the health systems reported having pharmacists embedded in clinics to provide patient care visits. Specialty pharmacists are often credentialed by the health system or authorized by a collaborative practice agreement to have an advanced clinical role to prescribe or adjust medications, order laboratory tests, authorize medication refills, and administer vaccines. Regardless of whether the specialty

I wanted to let you know that this patient told me you changed his life by reaching out to get him home services. He is very grateful that you pro-actively reached out and got the ball rolling so that he could have VNA and PCA services due to his disability. You made a huge difference in his life. Amazing work!! You are an inspiration to us going above and beyond for patient care!

pharmacists are located in the HSSP or clinic, they can provide a myriad of clinical services including adverse effect management, adherence support, patient education, prior authorization and financial assistance support, and treatment/dose recommendations.

The journey of a rheumatoid arthritis (RA) patient through the specialty pharmacy domain is an example that demonstrates the key components that result in superior clinical outcomes in the HSSP model. Initial engagement of the patient by the clinical pharmacist can identify medication history, relevant past medical history, and other patient factors that will impact the treatment decision. Through the interdisciplinary relationship with the clinician and care team, the pharmacist intervenes to ensure that the appropriate medication, dose, and formulation is prescribed to the patient. HSSP staff work together with the pharmacist and clinicians to coordinate and facilitate prior authorization approval, financial assistance, and prescription delivery so the patient receives their medication within the shortest time possible. The clinical pharmacist continually interacts with the patient to ensure efficacy of the RA specialty medication through assessment of the RAPID3, a disease activity measure used in clinical practice to assess treatment response, severity of joint damage, and to facilitate guideline recommendations. Through this assessment, the pharmacist has an opportunity to improve the outcomes and quality of life for the patient by providing additional education to the patient to improve adherence or reduce adverse effects or by recommending therapy changes to the prescriber to optimize treatment efficacy. Finally, the HSSP practice model incorporates measures to retain and ensure optimal medication adherence through regular outreach calls and refill reminders.

Identifying and implementing evidence-based benchmarks for patient outcomes is one of the first steps in building a successful patient care program, however currently there is a lack of standardized clinical outcome benchmarks within specialty pharmacy to measure performance. For example, viral load suppression is a surrogate marker accepted by the healthcare community as a determinate of successful antiretroviral therapy (ART) for patients living with Human Immunodeficiency Virus (HIV). The goal of ART is to reduce the amount of HIV viral load to a very low or undetectable level which is referred to viral suppression, and defined as having <200 copies of HIV per milliliter of blood.^{18, 19, 21} While there is currently no cure for HIV, the combination of standardized medical care in collaboration with ART has proven to reduce health complications (e.g. diabetes) associated with HIV, increase life expectancy, and prevent disease transmission.^{20,21,23}

An integrated specialty pharmacy care model within the health system has been shown to exceed viral suppression national benchmark of 88% and national average of 65% as well as standards for clinical care for HIV patients.^{23,24,25,26} The improved patient outcome observed in the example of HIV illustrates how the integrated care model of HSSP demonstrates excellence in specialty patient care. Similarly, Hepatitis C has an established patient outcome of sustained virologic response to indicate successful treatment. However, several specialty disease states do not have an established standard to create a comparable benchmark throughout the health care industry.

The comprehensive and high-touch care model of HSSPs has demonstrated superior health outcomes for specialty patients as compared to national benchmarks and can contribute to

cost-avoidance from pharmacist clinical interventions. To fully appreciate the impact of the HSSP model on health outcomes, pharmacies must establish a systematic approach to defining and reporting the outcomes for specialty disease states. Furthermore, standardized clinical outcome benchmarks within the specialty pharmacy industry must be created for comparison.

Time to Initiation of Therapy

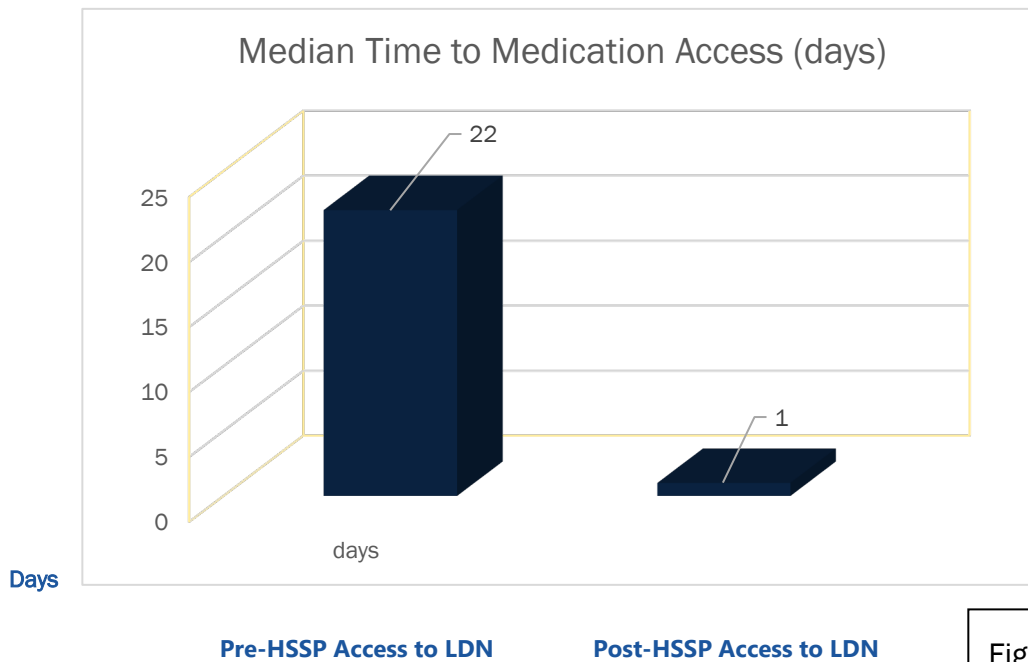


Fig. 2

Time to treatment (TTT), frequently defined as the period of time between when a prescription is written to when the patient takes their first dose, is a major focus and benefit of HSSPs. The optimal coordinated care experience allows patient choice of pharmacy at the time of diagnosis and prescribing for some of the most complex disease states. However, there are numerous potential factors that can delay or impede patient access to specialty medications, impacting TTT. One predominant barrier to medication availability and time to therapy is the pharmacy’s access to limited distribution drugs (LDDs). These are medications that are distributed through a limited network of pharmacies that is frequently dictated by the manufacturer or payor. This type of distribution model restricts medication access for smaller specialty pharmacies, including HSSPs, ultimately leading to inflated drug prices.

While HSSPs provide exceptional services and coordinated care to their patients, lack of access to limited distribution networks (LDNs) can also restrict access to critical therapies for health system patients and extend time to treatment initiation by forcing them to fill through external pharmacies. A study examining time to initiation of dalfampridine, an oral

LDD medication indicated for the treatment of MS walking difficulties, demonstrated significant difference (Figure 2) in time to drug access after a HSSP gained admission into the distribution network, compared to before LDD access (22 days (IQR: 11-45) vs. 1 day (IQR: 0-3), respectively).²⁸ In fact, a recent survey found that 82% of HSSPs reported that manufacturers refused to engage with them when the pharmacy tried to access LDD drugs, and 72% of respondents indicated that their pharmacy was restricted by payers.¹⁷ When payor mandated white bagging or brown bagging is required, the time to treatment may be further delayed.

It is critical that on-site, integrated HSSPs can dispense all LDDs to facilitate quick initiation to important therapies to their specialty pharmacy patients to delay or reduce disease progression, increase quality of life, and improve patient health outcomes. The association between prompt treatment initiation and optimal disease management has been demonstrated for a number of specialty pharmacy disease states.¹ Numerous studies also support the benefit of early treatment initiation in achieving disease remission and reduction of joint damage and disability for rheumatoid arthritis patients.²⁹ Furthermore, an analysis of data from the National Cancer Database for patients with early-stage breast, prostate, lung, colorectal, renal, and pancreas cancers showed that time to therapy initiation has lengthened significantly over time and is associated with an increased risk of mortality.³⁰

Health system specialty pharmacies are ideally positioned to ensure timely access to specialty medications in order to contribute to optimal health outcomes. However, HSSP inclusion within limited drug distribution networks is an essential component of the model and a critical factor in reducing time to therapy initiation.

Reducing Barriers to Access: Operational and Financial

Accessing specialty medications can be complex for patients and prescribers, and disruptions or delays in care can lead to worse health outcomes and increased morbidity and mortality. Integrated health system specialty pharmacies are well-equipped to address major barriers to medication access, including prior authorizations and financial barriers, through unique and individualized care plans, financial assistance coordination programs, and a collaborative relationship with medical care teams.

Specialty prescriptions often require a prior authorization, necessitating the submission of additional forms and clinical information to the payor for approval of the medication. The administrative burden associated with prior authorizations can lead to delays in therapy or can drive prescribers to pursue alternate therapies. In a 2020 physician survey completed by the American Medical Association, 94% of respondents noted a delay associated with prior authorization and 79% reported that prior authorization can lead to treatment abandonment.³¹ A majority of providers report that the prior authorization process leads to a heavy administrative burden, requiring an average of two business days a week to be dedicated to this task by office support staff. An integrated HSSP benefits from shared electronic medical record (EMR) with prescribers because it allows dedicated pharmacy support teams to complete prior authorization requests, ameliorating clinician administrative burden and decreasing the TTT for specialty medications. Access to a shared EMR contributes to faster PA approvals and thus, faster time for patients to start therapy when compared to pharmacies that do not have capability.

Restrictively high insurance copays for medications can create a financial barrier to specialty medications. This is especially true towards the beginning of each year when insurance deductibles are unmet for many specialty medications that are very costly. Specifically, novel oral anticancer agents are increasingly prescribed for cancer treatment, however their high cost can lead to financial stress and impact the well-being and quality of life of patients and caregivers.³² Patient assistance programs (PAPs) can significantly reduce patient out of pocket costs for oral oncology therapies. Support through PAPs can be generous, potentially covering the entirety of coinsurance for patients receiving high-cost cancer therapies.³⁶

In order to promote quicker time to therapy start and adherence and decrease patient burden, health system-owned specialty pharmacies often have staff dedicated to obtaining copay assistance for patients.³⁴ HSSP pharmacy staff are trained in the nuances of copay assistance programs available through drug manufacturers and can complete enrollment forms on behalf of the patient and prescriber. Some HSSPs also have dedicated medication assistance program coordinators, who help patients apply for grants available through disease-specific foundations, track when grant funds will be depleted, and monitor for new grants that become available. As a final option, HSSP staff are well-positioned to help patients enroll in manufacturer patient assistance programs, which provide free drug to patients when other financial assistance options are not available.

A few weeks ago, one of my patients had reached out to update his insurance. He had departed his job and his commercial insurance recently ended. He enrolled in a Medicare plan with a high premium and deductible. We updated the insurance, and his copay was coming back well over \$1,000 for a 30-day supply. I reached out to my patient support advocate, who began looking into free medication from the drug manufacturer. While working through the application process the patient informed me that he had been waiting for an appeal date for his unemployment benefits ending. A few days after applying the drug manufacturer asked for a printout of his previous copays, as they require spending \$600 out of pocket before approving his application. The patient did not have high copays with his previous insurance and would not qualify for this program. I informed the patient of the small setback but assured him we would figure something out. He asked if there was a way the prescriber would be able to switch the medications to a cheaper drug or what would happen if he did not take the medication for a few months. After some searching and calculations, I was able to locate a foundation that he qualified for with his partner's income. The patient was excited and came down to the clinic to sign the application within an hour of me calling. By the next day I had an approval, and he was awarded \$7500 for the year with a \$15 copay. I called the patient first thing to tell him the good news. He was ecstatic, he even said he was tearing up, he was beyond thankful for everything we did for him.

This story is not unique, and instead highlights the dedication and patient advocacy that is widespread among HSSPs

Total Cost of Care & Readmission Rate

As noted, HSSPs are highly effective at coordinating patient care that begins with the intertwined relationship between the prescriber and pharmacy, leading to faster prior authorization turnaround time and access to financial assistance, thereby leading to faster access to medications by patients.³⁵ In addition, HSSPs have demonstrated improved adherence rates result in better outcomes, improved quality of life, fewer acute care visits, and faster alleviation of disease symptoms.^{36,37} Improved adherence rates are, in part, associated with the level and frequency of pharmacist and technician engagements with patients. These frequent touch points allow pharmacists to understand health and medication issues, allowing them to intervene and improve care. Although this comprehensive care has been demonstrated in the literature to improve patient outcomes, until recently no studies have correlated the HSSP model reduction in total medical expense and readmission.

In addition to improved health outcomes, the value of the HSSP clinical model has been demonstrated through pharmacist interventions and their associated cost avoidance. A retrospective, observational study of pharmacist interventions on specialty hematology/oncology patients was conducted within the Cleveland Clinic Specialty Pharmacy. During the study period, 547 interventions were identified with a total cost avoidance of \$1,508,131, with “discontinuation of therapy” representing the highest cost savings of all interventions.²⁶ Another retrospective, observational analysis of pharmacist interventions for patients on specialty medications during 2020 across 26 HSSPs was conducted to quantify the associated cost-avoidance.²⁷ A total of 56,772 patients on specialty medications were followed by a clinical pharmacist and 7,393 interventions were documented in the patient management program (PMP) during the evaluation period with a total cost avoidance of \$15,292,883.

A recent retrospective cohort study compared patients who utilized a HSSP to fill specialty medications (integrated care group) to those who used other specialty pharmacies (nonintegrated care group) and found that, after matching on age, sex, and level of care and adjusting for comorbidities, per member per month costs were similar at baseline across the two groups.³⁸ However, after two years of utilizing the integrated specialty pharmacy, per member per month costs decreased by \$267 (95% confidence interval [CI]: \$-1586 to \$1052), while the nonintegrated care group indicated an increase of \$1007 (95% CI: \$270 to \$1743) per member per month. This resulted in an average net savings of \$1274 (95% CI, -\$215 to \$2764) when utilizing an integrated pharmacy. While these findings do not meet statistical thresholds for significance, the magnitude of savings is notable, and future studies may be able to provide additional sample size for more robust analyses.

The top five likely intervention outcomes reported across all disease states were improved therapy adherence, prevented therapy complications, resolved side effect challenge, elimination of therapy inappropriateness, and prevented premature discontinuation.

Similarly, a 2021 study of Medicare Advantage members receiving an oral oncolytic medication compared patients who filled medications at a HSSP compared to those who filled at non-health system specialty pharmacies in the same geographic regions found similar trends of cost savings.³⁹ At baseline, HSSP and non-HSSP groups had similar per member per month costs; however, a year later the HSSP group demonstrated a \$911 per member per month improvement in total medical expenses compared to the non-HSSP group (\$3738 vs \$4649; $p=0.01$). Lower per member per year costs in the HSSP was driven by fewer hospital outpatient (mean: 6.6 vs. 9.1), emergency department (mean: 0.2 vs. 0.4) and physician office (mean: 14.3 vs. 17.5) visits compared to the non-HSSP group ($p<0.05$ for all comparisons). These two studies' results indicate a promise of cost savings, and reduction in acute care visits for patients utilizing HSSPs. This reduction in acute care utilization may be due to reduced drug therapy problems, closer monitoring of treatment efficacy and safety, and collaboration with medical care teams due to frequent therapy management assessments of patients in HSSPs.

Most recently, a retrospective cohort analysis of medical and pharmacy Medicare Advantage beneficiary claims was conducted, comparing members who filled a specialty prescription with a HSSP to those members who did not. Of the 9,780 members of the members included in the study, 208 (2.1%) utilized a HSSP for filling a specialty medication. The primary outcome, defined as total medical and pharmacy health care costs on a per-patient per-month basis, was lower in the HSSP user group compared to the provider benchmark and network benchmark groups (\$7,060 vs. \$7,683, and \$8,152, respectively).⁴⁰

The results of this emerging research suggest that the use of a HSSP is associated with a lower total medical expense compared to use of other pharmacies. Future studies with larger sample sizes of patients utilizing the HSSP model are necessary to demonstrate statistical significance of cost-savings and to analyze the impact on this model on a disease-specific level.

Conclusion

In conclusion, health system owned specialty pharmacies are well positioned to provide superior patient care because of the integrated care model, collaboration with the healthcare team, and access to information pertinent for the care plan. Satisfaction surveys indicate that patients and providers rate HSSP services as excellent. This is likely related to the high touch approach and ability to seamlessly address barriers to specialty medications. Studies have shown that HSSPs meet or exceed national benchmarks for outcomes. Additionally, HSSPs are associated with lower total cost of care. Thus, it is critical for health systems to retain their patients and provide this high-quality care. Pathways to access LDD and payors are essential for HSSPs to care for more of their patients and a collaborative effort across the healthcare eco-system is needed to address access challenges.

References:

1. Pharmacy Archives. URAC. Accessed August 15, 2022. <https://www.urac.org/product-category/pharmacy/>.
2. ACHC. Accessed August 15, 2022. <https://www.achc.org/>.
3. Khorana AA, Tullio K, Elson P, et al. Time to initial cancer treatment in the United States and association with survival over time: An observational study. *PLoS One*. 2019;14(3):e0213209. doi:10.1371/journal.pone.0213209
4. Bagwell A, Kelley T, Carver A, Lee JB, Newman B. Advancing patient care through specialty pharmacy services in an academic health system. *Journal of managed care & specialty pharmacy*. 2017;23(8):815-820.
5. Zuckerman AD, Carver A, Cooper K, et al. An Integrated Health-System Specialty Pharmacy Model for Coordinating Transitions of Care: Specialty Medication Challenges and Specialty Pharmacist Opportunities. *Pharmacy (Basel)*. Dec 3 2019;7(4):10.3390/pharmacy7040163.
6. Anguiano RH, Zuckerman AD, Hall E, et al. Comparison of provider satisfaction with specialty pharmacy services in integrated health-system and external practice models: A multisite survey. *Am J Health Syst Pharm*. May 24 2021;78(11):962-971. doi:10.1093/ajhp/zxab079
7. Gu NY, Gai Y, Hay JW. The effect of patient satisfaction with pharmacist consultation on medication adherence: an instrumental variable approach. *Pharm Pract (Granada)*. Oct 2008;6(4):201-10. doi:10.4321/s1886-36552008000400006
8. Crothers G, Shah NB, Kim M, Zuckerman AD. Development of a quality measures tool for the utilization of tyrosine kinase inhibitors in non-small cell lung cancer: An integrated specialty pharmacy initiative. *J Oncol Pharm Pract*. Sep 2020;26(6):1441-1451. doi:10.1177/1078155220937754
9. Shah NB, Jolly JA, Horst SN, Peter M, Limper H, Zuckerman AD. Development of quality measures for use of self-injectable biologic therapy in inflammatory bowel disease: An integrated specialty pharmacy initiative. *Am J Health Syst Pharm*. Sep 1 2019;76(17):1296-1304. doi:10.1093/ajhp/zxz142
10. URAC. URAC: Specialty Pharmacy Accreditation. URAC. Accessed July 27, 2021. <https://www.urac.org/accreditation-cert/specialty-pharmacy/>
11. Shay B, Loudon L, Kirschenbaum B. Specialty Pharmacy Services: Preparing for a New Era in Health-System Pharmacy. *Hosp Pharm*. Oct 2015;50(9):834-9. doi:10.1310/hpj5009-834
12. Rim MH, Thomas KC, Barrus SA, et al. Analyzing the costs of developing and operating an integrated health-system specialty pharmacy: The case of a centralized insurance navigation process for specialty clinic patients. *American Journal of Health-System Pharmacy*. 2021;78(11):982-988.
13. Simonson D, Wittenborg M, Snyder M, Wiest H, McNamara A. Evaluation of a specialty pharmacy health coaching program. *Journal of Drug Assessment*. 2019;8(sup1)

14. National Association of Specialty Pharmacy. Actionable Insights from the 2017/18 National Association of Specialty Pharmacy Patient Satisfaction Survey. National Association of Specialty Pharmacy,; 2018. Accessed July 23, 2021. https://naspnet.org/wp-content/uploads/2019/07/NASP-Survey-White-Paper-2017-18_FINAL.pdf
15. Godden E, Paseka A, Gnida J, Inguanzo J. The impact of response rate on Hospital Consumer Assessment of Healthcare Providers and System (HCAHPS) dimension scores. *Patient Experience Journal*. 2019;6(1):105-114.
16. Fincham JE. Response rates and responsiveness for surveys, standards, and the Journal. *Am J Pharm Educ*. Apr 15 2008;72(2):43. doi:10.5688/aj720243
17. Stamp B. How thinking of patients as customers can improve healthcare. 2018. October 23, 2018. Accessed July 23, 2021. <https://www.beckershospitalreview.com/patient-experience/how-thinking-of-patients-as-customers-can-improve-healthcare.html>
18. Stubbings J, Pedersen CA, Low K, and Chen D. ASHP National Survey of Health-System Specialty Pharmacy Practice- 2020. *Am J Health Syst Pharm*. 2021 Sep 22;78(19):1765-1791.
19. CDC. HIV Treatment as Prevention; HIV Risk and Prevention; HIV/AIDS. Available at: [HIV Risk and Prevention | HIV/AIDS | CDC](#) . Accessed February 14, 2022.
20. Primary Care Guidance for Persons with Human Immunodeficiency Virus: 2020 Update by the HIV Medicine Association of the Infectious Diseases Society of America. Clinical Infectious Diseases. Oxford Academic. Oup.com Accessed April 12, 2021.
21. Adult and Adolescent GL.pdf HIV.gov. Available at: [Recommendations for HIV Prevention with Adults and Adolescents with HIV | Guidelines | HIV/AIDS | CDC](#) Accessed June 9, 2021.
22. CDC. Treatment; Living with HIV; HIV Basics; HIV/AIDS. Available at: [Treatment | Living with HIV | HIV Basics | HIV/AIDS | CDC](#) Accessed June 9, 2021.
23. Harris NS, Johnson AS, Hu+C14ang YA, et al. Vital Signs: Status of Human Immunodeficiency Virus Testing, Viral Suppression, and HIV Preexposure Prophylaxis – United States, 2013–2018. *MMWR Morb Mortal Wkly Rep* 2019;68:1117–1123. Accessed June 9, 2021.
24. Barnes E, Zhao J, Giumenta A, Johnson M. The Effect of an Integrated Health System Specialty Pharmacy on HIV Antiretroviral Therapy Adherence, Viral Suppression, and CD4 Count in an Outpatient Infectious Disease Clinic. *J Manag Care Spec Pharm*. 2020 Feb;26(2):95-102. doi: 10.18553/jmcp.2020.26.2.95. PMID: 32011966.
25. Gilbert E, Gerzenshtein, L. Integration of outpatient infectious disease clinic pharmacy services and specialty pharmacy services for patients with HIV infection. *Am J Health Syst Pharm*. 2016;73(11):757-763.

26. Health Resources and Services Administration. Ryan White HIV/AIDS Program Annual Client-Level Data Report 2019. Published December 2020. Available at hab.hrsa.gov/data/data-reports. Accessed June 9, 2021.
27. Lankford C, Dura J, Tran A, et al. Effect of clinical pharmacist interventions on cost in an integrated health system specialty pharmacy. *J Manag Care Spec Pharm*. 2021 Mar;27(3):379-384.
28. Ditch K, Smullen K, Donovan JL, Barr C. Pharmacist Interventions in Specialty Pharmacy. Poster presented at the NASP 2021 Annual Meeting. September 2021.
29. Peter ME, Markley B, DeClercq J, et al. Inclusion in limited distribution drug network reduces time to dalfampridine access in patients with multiple sclerosis at a health-system specialty pharmacy. *J Manag Care Spec Pharm*. 2021 Feb;27(2):256-262.
30. Demoruelle MK, Deane KD. Treatment strategies in early rheumatoid arthritis and prevention of rheumatoid arthritis. *Curr Rheumatol Rep*. Oct 2012;14(5):472-80. doi:10.1007/s11926-012-0275-1
31. 2020 American Medical Association. Prior Authorization Physician Survey. <https://www.ama-assn.org/system/files/2021-04/prior-authorization-survey.pdf>.
32. Coughlin SS, Dead LT, and Cortes JE. Financial Assistance Programs for Cancer Patients. *Curr Cancer Rep*. 2021;3(1):119-123.
33. Olszewski AJ, Zullo AR, Nering CR, Huynh JP. Use of Charity Financial Assistance for Novel Oral Anticancer Agents. *Journal of Oncology Practice*. 2018;14(4):221-228.
34. Espinosa AM, Chisholm JM, Kandah HM, et al. Expanding nonclinical roles in specialty pharmacy: How to grow a high-performance specialty pharmacy team. *Am J Health-Syst Pharm*. 2021;78:1004-1008.
35. Health System Specialty Pharmacies Provide Rapid Access to Medications. *Pharmacy Practice News*.
36. Kibbons AM, Peter M, DeClercq, et a. Pharmacist Interventions to Improve Specialty Medication Adherence: Study Protocol for a Randomized Controlled Trial. *Drugs: Real World Outcomes*. 2020. <https://doi.org/10.1007/s40801-020-00213-8>.
37. Autumn D Zuckerman, PharmD, BCPS, AAHIVP, CSP, Josh DeClercq, MS, Leena Choi, PhD, Nicole Cowgill, PharmD, CSP, Kate McCarthy, PharmD, BCACP, Brian Lounsbery, RPh, CSP, Rushabh Shah, PharmD, MBA, AAHIVP, CSP, Amanuel Kehasse, PharmD, PhD, Karen C Thomas, PharmD, PhD, MBA, Louis Sokos, BS Pharm, MBA, Martha Stutsky, PharmD, BCPS, Jennifer Young, PharmD, BCPS, CSP, Jennifer Carter, PharmD, BCPS, Monika Lach, PharmD, BCPS, Kelly Wise, PharmD, BCACP, Toby T Thomas, PharmD, BCPS, Melissa Ortega, PharmD, MS, Jinkyu Lee, PharmD, CSP, Kate Lewis, PharmD, BCPS, Jillian Dura, PharmD, Nicholas P

Gazda, PharmD, MS, BCPS, CSP, Lana Gerzenshtein, PharmD, BCPS, CSP, Scott Canfield, PharmD, CSP, Adherence to self-administered biologic disease-modifying antirheumatic drugs across health-system specialty pharmacies, *American Journal of Health-System Pharmacy*, Volume 78, Issue 23, 1 December 2021, Pages 2142–2150, <https://doi.org/10.1093/ajhp/zxab342> Z.

38. Soni A, Smith BS, Scornavacca T, et al. Association of Use of an Integrated Specialty Pharmacy with Total Medical Expenditures Among Members of an Accountable Care Organization. *JAMA Netw Open*. 2020;3(10):e2018772.

39. Fasching D, Donovan JL, Smullen K, et al. Improved Total Medical Expense Associated with the Use of Integrated Health System Specialty Pharmacy Care Model. Poster presented at the NASP 2021 Annual Meeting. September 2021.

40. Hellems SS, Apurv S, Fasching D, Smith BS, and McManus D. Association between health system specialty pharmacy use and health care costs among national sample of Medicare Advantage beneficiaries. *J Manag Care Spec Pharm*. 2022; 28(2)244-254.

The Health System Owned Specialty Pharmacy Alliance (HOSP) is a network of leading health systems and the businesses that support them who advocate for the better patient care and outcomes associated with fully integrated health system specialty pharmacies.

HOSP believes that health systems are best positioned to provide the highest quality care to their specialty patients in the outpatient setting. HOSP advocates for and develops industry best practices to ensure that onsite health system specialty pharmacy operations have gold standard care models of excellence.

For more information, visit hospalliance.org.