

Optimizing Infusion Operations to Unlock Capacity and Improve Patient Access

Transforming Infusion Operations Across:

800+
Infusion Centers

16k+
Infusion Chairs

720k
Additional Treatments/Year





Optimizing Infusion Operations to Unlock Capacity and Improve Patient Access — Without Adding Chairs or Staff

Infusion centers today face extraordinary pressure: rising patient demand, limited nursing staff, and increasingly complex treatments — all against the backdrop of shrinking margins. What makes infusion uniquely challenging is the extreme variability in treatment lengths, the complexity of assigning patients to appropriately skilled nurses, and the constant disruptions of late arrivals, unsigned orders, or unexpected reactions. Traditional chair-based scheduling methods simply cannot keep up, often creating bottlenecks that lead to long wait times, staff burnout, and patient leakage while making it difficult to consistently align staffing with demand.

[iQueue for Infusion Centers](#) was purpose-built to solve these challenges. By applying advanced optimization, predictive analytics, and AI-driven workforce intelligence, iQueue generates mathematically precise, pooled duration-based templates that reflect each center's unique "fingerprint." This enables infusion leaders to balance patient demand with available staff and chair capacity, align staffing to real-world availability and constraints, proactively identify potential bottlenecks, and make real-time adjustments that keep operations flowing smoothly — even on the busiest, most unpredictable days.

Instead of relying on static templates or manual workarounds, infusion centers using iQueue gain visibility into potential bad days weeks in advance, receive prescriptive recommendations to fix issues before they arise, and benefit from automated adjustments throughout the day. The platform not only improves patient flow but also protects nurses' ability to take breaks, leave work on time, and deliver care at the top of their license — creating a better experience for both staff and patients.

The result is a stronger, more resilient infusion center that can expand access without additional chairs, staff, or space. Across leading health systems, iQueue for Infusion Centers has increased daily treatment capacity by up to 15%, reclaimed valuable nursing hours, decreased overtime, reduced patient leakage, and accelerated new patient starts while improving staff satisfaction and reducing administrative burden.

This case study collection showcases the proven results of iQueue for Infusion Centers. Together, these stories demonstrate what's possible when data science, workforce intelligence, and deep operational expertise come together to tame infusion complexity, reduce gridlock, and deliver more timely, compassionate care.

Proven Results

\$20K
Infusion Chair/
Year in ROI

15%
Patient volume
growth

30%
Lower patient
wait times

50%
Less overtime

Jump to a Story

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Community Health Network Reduced Variability in Infusion Wait Times by 30%



Miami Cancer Institute Achieved \$10.9M ROI by Optimizing Infusion Center Operations



AI Scheduling and Port Draw Fast Track Boost Appointment Volume by 44% and Nurse Productivity by 46%

Mays Cancer Center Decreased Average Chair Wait Times by 33%



Rush University Medical Center Expands Capacity to Achieve 26% Increase in Daily Completed Appointments



NewYork-Presbyterian Reduced Average Wait Times by 40%



Wake Forest Baptist Health Reduced Days Over Capacity by 27%



SSM Health Increased Patient Volume by 18% Without Adding Infusion Chairs



Vanderbilt-Ingram Cancer Center Slashed Patient Wait Times by 30%





Community
Health Network

CUSTOMER SUCCESS STORY

Community Health Network Reduced Variability in Infusion Wait Times by 30%

Top 3 Key Results:

30% ↓

reduction in infusion
wait time variability

3% ↑

increase in average daily
completed infusion volume

9% ↑

increase in nurse productivity, with
0.5 more appointments completed
per nurse per day



Summary

Community Health Network is a community-based health system serving patients across Indiana, operating seven infusion centers with 109 chairs systemwide and using Epic® as its EHR. At the North Infusion Center, a 38-chair facility, leaders partnered with LeanTaaS to reduce day-to-day variation and improve operational efficiency — supporting a more consistent patient experience and a more sustainable workflow for staff, without adding chairs or staff.

Problem

Community Health Network's North Infusion Center, a 38-chair facility, faced day-to-day operational variability that made it difficult to balance patient flow and nurse workloads. Pod-based scheduling and pre-assigned nurse lists often led to uneven conditions across the day, particularly during high-variability periods. As disruptions accumulated, charge nurses spent significant time reworking schedules, patient wait times became inconsistent, and staff raised concerns about workload equity and preparedness. The center needed a way to smooth daily operations and improve nurse satisfaction without adding chairs or staff.

Solution

The center implemented the Nurse Pull model using iQueue for Infusion Center's Patient Assignment feature and moved to a single pooled chair template to reduce waste created by pod silos. Change management was deliberate: leadership socialized the "why" months ahead of go-live, used a limited trial period, and created lightweight feedback loops (including a pros/cons whiteboard reviewed in staff meetings). During go-live week, leaders planned to remain on the floor to coach decision-making — yet by early afternoon on day one, nurses reported they were comfortable and the day felt smoother with fewer pileups.

Operationally, nurses began selecting patients when ready, enabling more focused chart prep ("one patient at a time" rather than prepping an entire day up front) and allowing the team to pause assignments appropriately when a nurse was managing a complex case. The center also strengthened teamwork using Epic secure chat to coordinate in real time — flagging when a pod needed to temporarily hold pulls and helping ensure equitable distribution across the day. Within the first 90 days, North reduced infusion wait time variability by 30% while improving productivity and freeing charge nurses to spend more time supporting staff and managing flow.

*Epic is a registered trademark of Epic Systems Corporation

Results

30% ↓

reduction in infusion wait time variability

3% ↑

increase in average daily completed infusion volume

9% ↑

increase in nurse productivity, with 0.5 more appointments completed per nurse per day

4% ↑

increase in chair utilization

7+ Hrs./Wk.

saved for charge nurses, allowing more time for staff support and flow management





“Seeing Nurse Pull live sold me. The unit felt calmer — nurses had more control and could pause when a patient needed extra one-on-one care. It’s been overwhelmingly positive, and our wait times are steadier for every patient.”

— Amy Dumitrescu-Matei, RN, BSN, OCN,
Nurse Manager, Community Health Network



CUSTOMER SUCCESS STORY

Miami Cancer Institute Achieved \$10.9M ROI by Optimizing Infusion Center Operations

Key Results:

15% ↑

increase in average daily
completed volumes

35% ↓

reduction in average daily
drug wait time

\$10.9 M

ROI since go-live (~15x the cost)



Summary

Miami Cancer Institute is a world-class cancer treatment and research destination in South Florida. In 2022, Miami Cancer Institute partnered with LeanTaaS to implement iQueue for their infusion centers at the Kendall location (60 chairs) and later the Plantation site (12 chairs) in 2023. This aimed to improve operational efficiency and unlock capacity to accommodate Miami Cancer Institute's growing patient volumes.

Problem

With increasing demand for infusion services, Miami Cancer Institute faced several challenges:

- Scheduling inefficiencies and inconsistent patient wait times
- Uneven utilization of key resources such as chairs and nurses
- Long wait times for drug preparation, impacting patient experience
- Need to accommodate higher anticipated volumes and a desire to more efficiently match patients to nurses
- Excessive time spent coordinating the nurse/patient schedule prior to the day of treatment and then additional time spent reworking the schedule on the day of treatment

Solution

Miami Cancer Institute partnered with LeanTaaS and implemented iQueue for Infusion Centers in June 2022 at the Kendall location. iQueue helped optimize infusion workload balancing, provided visibility into scheduling decisions, and identified operational areas for improvement such as how patients were being assigned to nursing staff.

Previously, patients were pre-assigned to specific nurses before their treatment. This process required extensive time from nurse leaders to manually allocate patients while considering factors like each nurse's existing workload, treatment complexities, and staffing constraints. If a nurse called out, their entire patient load had to be redistributed across the remaining nurses.

Miami Cancer Institute transitioned to a new methodology, which was introduced and supported by LeanTaaS's Process Optimization team, of dynamically matching patients to available nurses in real-time based on the appropriate workload mix and patient needs. This data-driven approach replaced the labor-intensive pre-assignment of patients to nurses.

Overall, the partnership with LeanTaaS and iQueue implementation allowed Miami Cancer Institute to increase operational efficiency through improved resource utilization, better aligned scheduling, and data-

driven insights.

The iQueue solution enabled more efficient resource utilization and provided valuable data insights to drive continuous improvement in operations. This partnership with LeanTaaS allowed Miami Cancer Institute to increase throughput, reduce wait times, better align scheduling with demand, and realize significant returns on their investment.

Results

15% ↑

increase in average daily completed volumes

35% ↓

reduction in average daily drug wait time

\$10.9 M

ROI since go-live (~15x the cost)





CUSTOMER SUCCESS STORY

AI Scheduling and Port Draw Fast Track Boost Appointment Volume by 44% and Nurse Productivity by 46%

Top 3 Key Results:

44% ↑

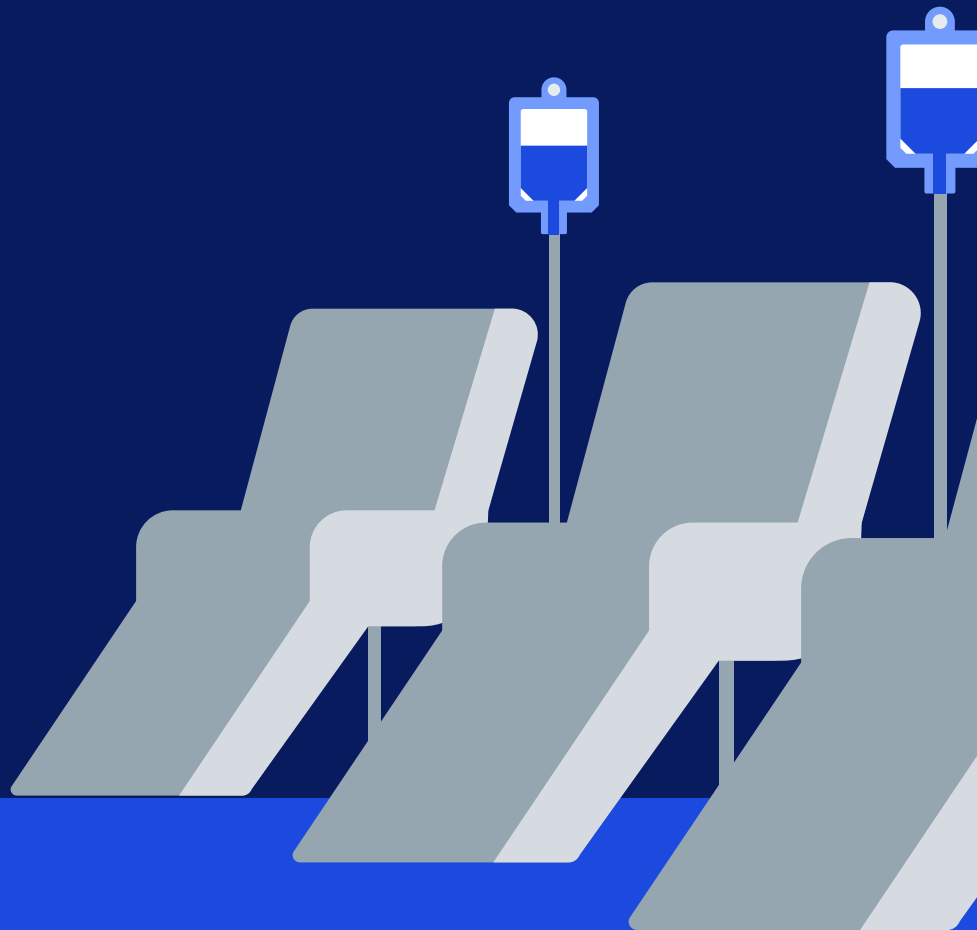
increase in daily scheduled appointment volume without adding chairs

46% ↑

increase in nurse productivity (average daily appointments per nurse)

21% ↑

increase in chair utilization



Summary

Texas Oncology-Round Rock, located in Austin, Texas, is a key healthcare provider in the Southwestern US. The center features 65 infusion chairs and manages over 100 appointments per day using the Athena EHR system. Texas Oncology-Round Rock faced operational challenges due to increasing patient volumes and expected continued growth. In order to maintain its status as a critical healthcare provider in the community, the Texas Oncology-Round Rock leadership team committed to enhancing operational efficiency to better serve patients and support their nursing staff.

Problem

Texas Oncology-Round Rock struggled with an imbalance in patient flow, characterized by extremely busy mornings and slow afternoons. This imbalance led to a shortage of infusion chairs during peak times, causing long wait times for patients and delays in pharmacy operations. Nurses were often unable to take lunch breaks due to unbalanced scheduling, and the process of conducting port draws in infusion chairs disrupted their workflow. Patients waited for lab results in the infusion chairs, which meant fewer available chairs for new patients, exacerbating the inefficiencies. Recognizing the need for a more sophisticated solution, the management team turned to LeanTaaS and iQueue for Infusion Centers in May 2022.

Solution

AI-Optimized Scheduling to Unlock Capacity

Upon adopting iQueue, LeanTaaS collaborated closely with Texas Oncology-Round Rock's leadership, nursing staff, and scheduling team to create AI-driven scheduling templates tailored to the center's unique needs. These templates effectively balanced patient flow throughout the day, leading to a 44% increase in daily appointment volume while ensuring nurses could take their lunch breaks without stress.

Improving Port Draw Process Efficiency

Further efficiency efforts focused on the port draw process, where LeanTaaS identified a bottleneck — and solution. Fast Track is a methodology that utilizes a dedicated physical and clinical resource to cohort shorter treatments in the infusion suite. This approach works best for appointments that tend to be relatively short in duration and low in acuity, such as port draws. By establishing a separate port draw Fast Track area, Texas Oncology-Round Rock increased both infusion and port draw capacity. This adjustment led to a 12% increase in combined volume and a 10% boost in nursing productivity.

Managing Nurse Staffing Capacity

To address fluctuating nurse staffing levels, iQueue

provided a flexible solution that allowed for dynamic adjustments to scheduling templates based on available staff. This approach reduced scheduling stress and enhanced overall operational efficiency. Nurse productivity, which measures that average daily appointments per nurse, increased by 46%.

Results

44% ↑

increase in daily scheduled appointment volume without adding chairs

46% ↑

increase in nurse productivity (average daily appointments per nurse)

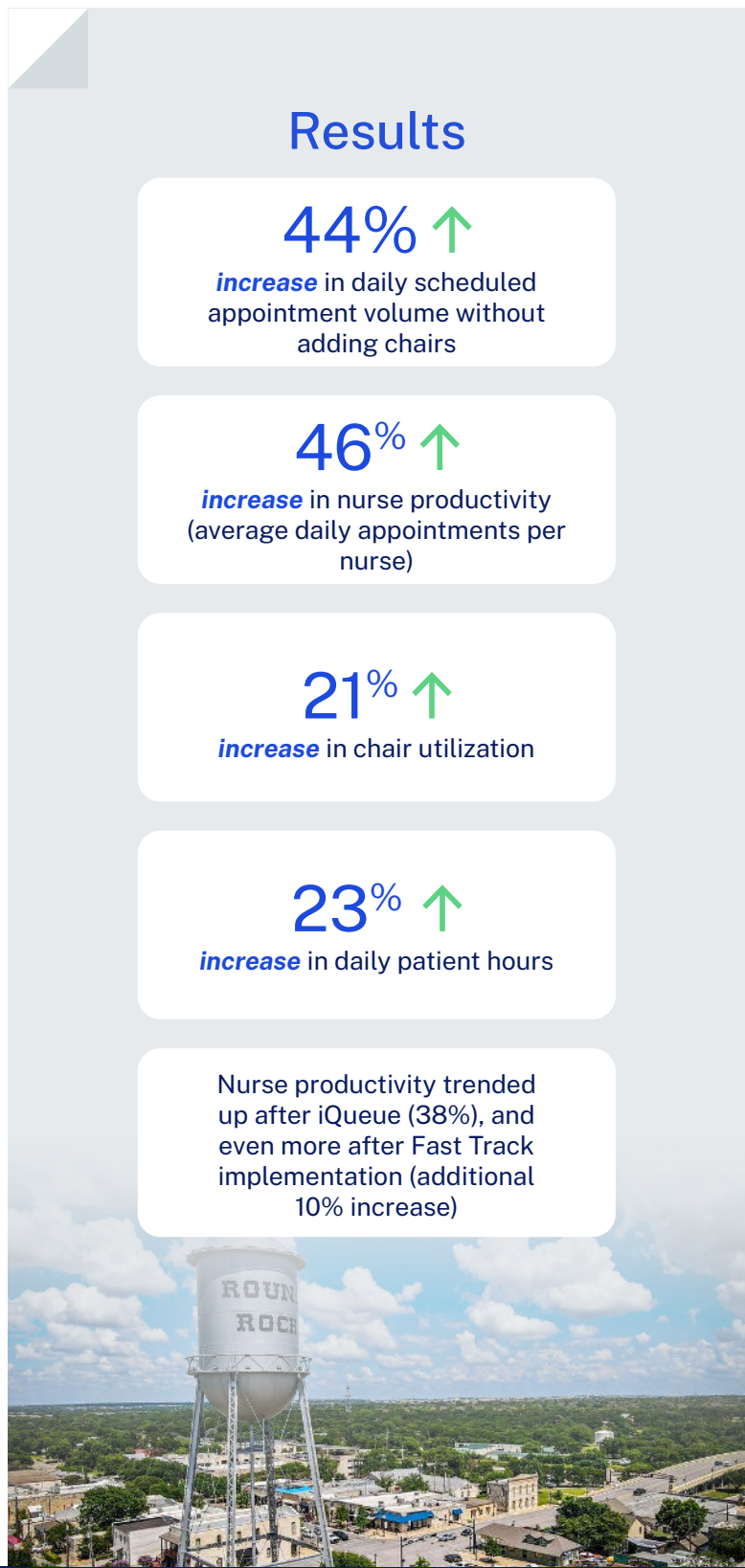
21% ↑

increase in chair utilization

23% ↑

increase in daily patient hours

Nurse productivity trended up after iQueue (38%), and even more after Fast Track implementation (additional 10% increase)





“We will be in trouble without iQueue. iQueue has been a success here and we love you guys.”

— Stephanie D,
Nurse Manager, Texas Oncology-Round Rock



CUSTOMER SUCCESS STORY

Rush University Medical Center Expands Capacity to Achieve 26% Increase in Daily Completed Appointments

Top 3 Key Results:

26% ↑

increase in daily completed appointments

16% ↑

increase in daily completed patient hours

50% ↓

reduction in infusion wait time



Summary

Rush University Medical Center (RUMC), a leading academic medical center in Chicago, Illinois, is well-known for its innovative approach to healthcare. In 2024, as part of its expansion efforts, RUMC opened a new infusion center on the 7th floor of their facility. The goal was to enhance patient throughput and resource efficiency while maintaining high-quality care. However, the opening of this new space demanded the need for precise capacity planning, efficient resource allocation, and seamless integration with the hospital's existing systems.

Problem

Opening a new floor in a busy hospital like RUMC presented several challenges. First, RUMC needed to accurately predict patient volume to ensure appropriate staffing levels and resource availability. Additionally, integrating data from the new floor with the hospital's existing systems was essential to ensure smooth operations and continuous performance monitoring. Without proper planning and real-time data integration, the hospital risked delays, inefficiencies, and underutilization of resources.

Solution

RUMC first partnered with LeanTaaS in 2018 to optimize infusion operations at two sites. In 2024, when it came time to ensure the successful launch of its new 7th floor and lay the groundwork for future expansions, RUMC once again turned to its longtime partner. LeanTaaS' iQueue for Infusion Centers solution and critical change management support provided:

Capacity Planning and Predictions: Rush used iQueue data to analyze appointment volumes shifting from 9th to 7th Floor. LeanTaaS then applied advanced predictive modeling to determine the optimal number of chairs and nurses required to meet the anticipated patient demand on the new 7th floor. This enabled RUMC to make data-driven decisions regarding resource and staff allocation that dramatically reduced wait times to improve the patient experience.

AI-Generated Templates: Prior to the launch, LeanTaaS developed AI-powered scheduling templates to optimize resource utilization. These templates helped balance appointment loads and support reduced patient wait times, allowing RUMC to handle a significantly higher number of daily appointments.

Seamless Data Integration with iQueue: LeanTaaS integrated the 7th floor's new data with RUMC's existing iQueue platform, allowing real-time data ingestion and analysis. This aligned the new floor's operations with the

rest of the hospital and supported precise scheduling and resource allocation.

Go-Live Support: LeanTaaS provided hands-on support during the go-live phase to ensure a smooth launch. This enabled the 7th floor to immediately reach its full potential, accepting volume from the busy 9th floor on the first day.

The integration of iQueue's analytics fostered continuous performance monitoring, enabling RUMC to make data-driven adjustments for ongoing operational improvement. Building on the success of the 7th floor launch, RUMC plans to replicate this model in future expansions, including at their Lisle location.

Results

26% ↑

increase in daily completed appointments

16% ↑

increase in daily completed patient hours

50% ↓

reduction in infusion wait time

29% ↓

reduction in drug wait time



CUSTOMER SUCCESS STORY

Mays Cancer Center Decreased Average Chair Wait Times by 33%

Top 3 Key Results:

33% ↓

decrease in average
chair wait times

25% ↓

decrease in average
drug wait times

34% ↑

increase in average
completed volume



Summary

The Mays Cancer Center, a part of The University of Texas Health Science Center San Antonio, provides leading cancer care in San Antonio and South Texas. Mays Cancer Center is one of only four National Cancer Institute (NCI)-designated Cancer Centers in Texas and the only in South Texas. As an academic medical center, Mays Cancer Center provides high quality care while pioneering new treatment options through clinical trials and research.

Problem

With an increasing patient volume that was expected to continue trending upward, Mays Cancer Center experienced several problems that challenged the ability to accommodate anticipated growth. These included scheduling inefficiencies and long patient wait times, connected with consistent midday appointment bottlenecks that caused nurses to miss lunch breaks. Mays Cancer Center needed a solution to address these problems by addressing inefficiencies and creating schedules that balanced appointments throughout the day.

Solution

Leadership at Mays Cancer Center made the decision to deploy LeanTaaS' iQueue for Infusion Centers to optimize their infusion workload throughout the day, provide visibility into overall scheduling decisions, and identify operational detractors. As a result of this transparency, the center's chair wait time decreased by 33% despite seeing a 25% increase in volume. Patients are now being roomed within 6 minutes of check-in, a historic low for the cancer center.

In partnership with their dedicated iQueue customer success team, Mays Cancer Center's leadership also conducted an operational analysis, specifically examining chair utilization across departments. They discovered times of unused chair capacity despite patients waiting, and extended wait times for lab results and walk-in appointments. By mapping patient journeys and locating bottlenecks, they identified clear opportunities for improvement. For example, patients often waited in chairs for lab results when freeing up the chair quicker would allow intake of the next patient. Additionally, adjusting walk-in lab scheduling allowed for steadier patient flow. Through refinements focused on optimizing chair use and timing, the team increased chair usage effectiveness and reduced average patient wait times, improving the overall experience. Their analysis powered by iQueue's data and process improvement approach serves as a model for positively impacting efficiency across their system.

Results

33% ↓

decrease in average chair wait times

25% ↓

decrease in average drug wait times

34% ↑

increase in average completed volume

*Comparing 3/1/20 - 4/30/20, 3/1/24-4/30/24



CUSTOMER SUCCESS STORY

NewYork-Presbyterian Reduced Average Wait Times by 40%

Top 3 Key Results:

55% ↓

lower wait times during peak hours

40% ↓

lower average wait time overall

17% ↑

higher patient volumes



Summary

As part of one of the largest health systems within New York City, NewYork-Presbyterian is home to two of the nation's leading cancer centers. These include the NCI-Designated Herbert Irving Comprehensive Cancer Center of NYP/Columbia University Medical Center, the NYP/Weill Cornell Ronald P. Stanton Clinical Cancer Program, and the Weill Cornell Medicine Sandra and Edward Meyer Cancer Center.

Problem

Throughout its facilities, NewYork-Presbyterian treats some 7,500 adult and pediatric patients newly diagnosed with cancer each year. With its large patient population in a dense urban area, NewYork-Presbyterian needed to optimize the infusion capacity it had in a steady, manageable cadence. Infusion centers seemed to constantly operate at capacity but daily schedules were overloaded midday. This “peaky” utilization profile led to extended wait times for patients in the middle of the day, which negatively impacted patient experience and caused undue stress and inconsistent workloads for nurses.

Solution

NewYork-Presbyterian partnered with LeanTaaS to implement iQueue for Infusion Centers. iQueue's schedules are designed to continuously maximize patient flow and chair usage by predicting the likely mix and volume of appointments from day-to-day and suggesting the optimal schedule to smooth utilization and allow for adjustments. NewYork-Presbyterian began by implementing iQueue in one of its centers with 49 chairs to create optimized infusion scheduling templates there.

The center quickly saw results in the form of a flattened midday utilization peak, which allowed for better level-loading throughout the rest of the day. Wait times were reduced accordingly, and NewYork-Presbyterian was also able to accommodate a higher number of patients. NewYork-Presbyterian has now expanded its use of iQueue to five hospitals in its system.

Results

55% ↓

lower wait times during peak hours

40% ↓

lower average wait time overall

17% ↑

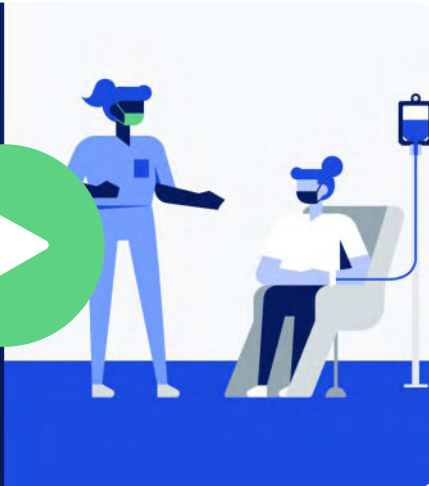
higher patient volumes



 LeanTaaS

Increasing Volumes and
Achieving Systemness Through
Shared Metrics at
NewYork-Presbyterian

 iQueue
FOR INFUSION CENTERS



BONUS CONTENT

On Demand Webinar

Duration: ~ 25 Minutes

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CUSTOMER SUCCESS STORY

Wake Forest Baptist Health Reduced Days Over Capacity by 27%

Top 3 Key Results:

25% ↓

lower wait times during
peak hours

27% ↓

fewer days over capacity

74% ↓

fewer days where operating
hours needed to be extended



Summary

The Comprehensive Cancer Center of Wake Forest Baptist Health in Winston-Salem, North Carolina has been one of 72 elite NCI-designated Cancer Centers for over 40 years. Acknowledged as one of the nation's leaders in the fight against cancer, the Comprehensive Cancer Center has 35 infusion chairs & 8 private rooms.

Problem

Wake Forest Baptist Health was consistently operating at capacity, and the strained resources resulted in decreasing staff and patient satisfaction. They had a particular struggle with peak periods of high utilization for treatment chairs between 10am and 2pm.

Solution

Cancer Center leadership partnered with LeanTaaS to implement iQueue for Infusion Centers at one infusion location with 54 chairs and eight beds to improve infusion scheduling and utilization.

Using data science and machine learning, the team was able to distribute workload more evenly, enabling more predictable schedules and smoother patient flow.

By leveling demand and maximizing chair usage, the center unlocked capacity to better manage unexpected delays and accommodate add-on appointments without adding physical resources. This balanced scheduling approach reduced peak-time congestion while improving operational flexibility.

Chair utilization curve before (top) and after (bottom)



Results

25% ↓
lower wait times during peak hours

27% ↓
fewer days over capacity

74% ↓
fewer days where operating hours needed to be extended



CUSTOMER SUCCESS STORY

SSM Health Increased Patient Volume by 18% Without Adding Infusion Chairs

Top 3 Key Results:

18% ↑

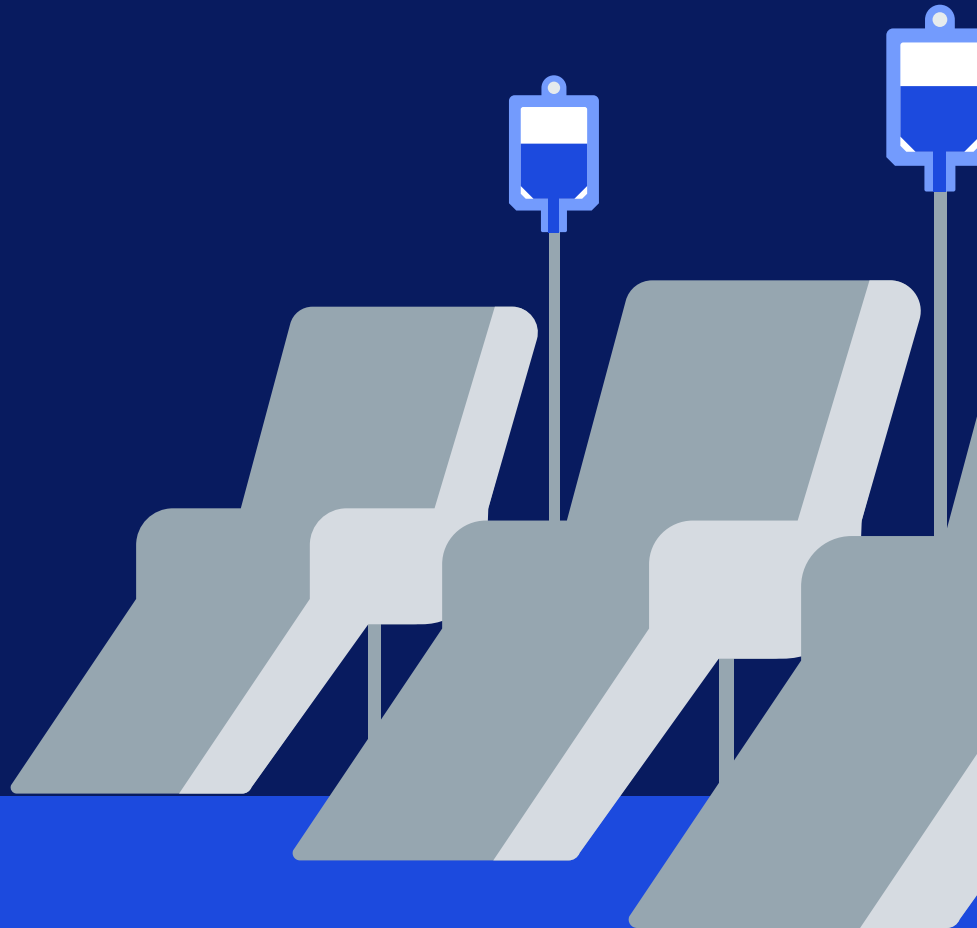
increase in patient volume
without adding chairs

44% ↓

decrease in chair wait time

25% ↓

decrease in drug wait time



Summary

SSM Health is a Catholic, not-for-profit health system serving the comprehensive health needs of communities across the Midwest through a robust and fully integrated health care delivery system. With care delivery sites in Illinois, Missouri, Oklahoma and Wisconsin, SSM Health includes 23 hospitals, more than 290 physician offices and other outpatient and virtual care services, and 12 post-acute facilities. It is one of the largest employers in every community it serves.

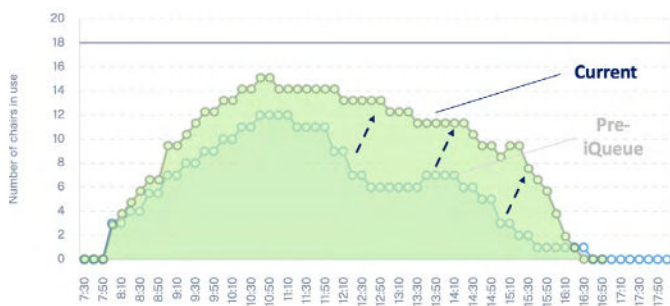
Problem

SSM Health struggled with extremely busy morning rushes that were followed by slow afternoons, which led to imbalanced nurses workloads and nurses missing their breaks. Efficiency and throughput was also hampered by major pharmacy bottlenecks and major constructions that constrained daily operations.

Solution

SSM Health partnered with LeanTaaS to implement iQueue for Infusion Centers at four SSM cancer centers during a difficult two years of COVID-19 surges. As a result, the system saw significant improvement in their operational agility, patient volumes, wait times, afternoon appointment utilization and overall nurse satisfaction. SSM had to close several chairs at their Kisker clinic due to a construction project, and successfully shifted appointments to a nearby site using iQueue templates to maintain patient care.

Median chair utilization before and after iQueue



Results

18% ↑
increase in patient volume without adding chairs

44% ↓
decrease in chair wait time

25% ↓
decrease in drug wait time

30% ↑
increase in afternoon median chair utilization





VANDERBILT-INGRAM CANCER CENTER

CUSTOMER SUCCESS STORY

Vanderbilt-Ingram Cancer Center Slashed Patient Wait Times by 30%

Top 3 Key Results:

30% ↓

decrease in chair wait time

27% ↓

decrease in drug wait time

8% ↑

increase in volumes utilizing the same number of chairs



Summary

Vanderbilt-Ingram Cancer Center is one of 72 elite NCI-designated Cancer Centers in the entire country and the only adult center designation in Tennessee and one of 33 NCCN Member Institutions. VICC is dispersed between 11 cancer locations in the middle TN region consisting of 126 total infusion chairs and serviced by 180 physician providers with a comprehensive representation of hematology and oncology subspecialties.

Problem

Vanderbilt-Ingram Cancer Center had a desire to increase capacity but were unable to do so because midday peaks were already leading to their nurses frequently missing lunches. They were also unable to balance capacity between oncology and non-oncology infusions.

Solution

Prior to implementation, Vanderbilt-Ingram Cancer Center had a desire and need to increase capacity with the inability to do so on their own. After partnering with LeanTaaS to implement iQueue for Infusion Centers, they were able to unlock additional capacity utilizing the same number of chairs. Scheduling leaders are able to strategically steer add-ons to level-load the day and leadership analyze data in the tools to see how the month will unfold in order to balance capacity.

Results

30% ↓

decrease in chair wait time

27% ↓

decrease in drug wait time

8% ↑

increase in volumes utilizing the same number of chairs





“It’s a very impressive amount of growth, and amount of volume we’ve added at this one infusion center, thanks to having the iQueue system in place.”

—Cody Stansel,
Administrative Director – Nursing,
Vanderbilt-Ingram Cancer Center

