ONE HEALTH SYSTEM'S TRANSFORMATION

This case study examines maximizing value while minimizing waste.

FROM CRISIS TO BREAKTHROUGH

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In June 2016, Red Triangle Health (RTH), a three-hospital nonprofit health system in the San Francisco Bay Area, had six weeks remaining before the Joint Commission's (TJC) return to one of their hospitals. Earlier that year, in February 2016, TJC cited serious recurring deficiencies in RTH's outsourced acute dialysis service. Insufficient improvement on the imminent TJC follow-up survey risked devastating consequences to RTH's accreditation and funding status with their largest payer; this could also tarnish their reputation for high quality among the medical community. Their challenges included:

- a combative contracted provider;
- lack of effective program and clinical leadership at the helm; and
- misalignment between service operations, RTH leaders' performance expectations, and the contracted provider's ability and willingness to deliver.

The high stakes compelled RTH executives to focus resources on their top priority: successful completion of the impending survey. With urgency and clarity, RTH leadership embarked on a mission to restore quality and safety standards in acute dialysis. Six weeks later, and against the odds, RTH earned a no deficiency survey outcome.

After survey completion, RTH leaders continued building on their success. Seeking to maximize the benefit to their organization and patients, they achieved a holistic transformation of their dialysis service that saved the health system more than $7.9 million in cost avoidance over three years.

This case study highlights the conditions critical to RTH's quality turnaround and dialysis transformation. Although RTH had

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not adopted lean when they undertook the transformation, their approach embodies the lean management core concept of maximizing value while minimizing waste.

Problems

Acute dialysis at RTH was a multi-campus service provided on-site by a contracted service provider, Kidney Care Company (KCC). The service had been running unchanged for nearly a decade under a legacy service agreement that had not evolved even with market changes and program growth. A data and operations review and the 2016 TJC survey illuminated significant performance and quality gaps that both the hospital and the contracted service provider had failed to mitigate or correct.

Lack of management oversight. KCC supplied an operations manager and charge nurse to the hospital as part of their service agreement, while an RTH nursing director was accountable for the contractor's performance. However, as a result, there was no program oversight or day-to-day operational management. The contracted KCC nurse manager oversaw 13 hospitals spread across a 110 square mile territory and allotted only two hours of support per week to each hospital. The KCC charge nurse managed daily scheduling and treatment assignments but had little power over program or operational management. RTH's nursing director only managed the administrative aspects of the service due to a lack of familiarity with dialysis clinical care.

With no effective program management, individual physician preferences dictated service operations and cost the health system millions in avoidable expenses. For example, the average duration of dialysis treatment was 25 percent longer at RTH compared to the industry average for acute treatments. Additionally, day of discharge dialysis (DODD), which measures the percent of patients receiving treatment on the day they are discharged from the hospital, averaged 80 percent, a $1.46 million annual expense, whereas the industry aims for DODD close to zero.

As the program had doubled in three years, unsustainable growth worsened underlying inefficiencies and strained resources. Overwork and low morale led to dialysis nurse attrition. The number of full-time, part-time, and per diem dialysis nurses supplied by KCC dropped by 40 percent between December 2015 and June 2016. The remaining staff compensated by working longer shifts — 13–17 hours on average — which risked increased clinical errors, staff burnout, and cost.

Disengaged clinical leadership. The dialysis medical director oversaw clinical oversight of quality of care and outcomes of patients served, while serving as the conduit to the rest of the medical community including other nephrologists prescribing dialysis treatments. KCC supplied the medical director as part of their service agreement. Prior to the poor survey outcomes, the medical director was unaware that he was accountable to the hospital for any aspect of the dialysis service.

Strained contractor relationship. The relationship with KCC became strained following the 2016 TJC survey. KCC responded combatively to RTH leaders' repeated requests for performance and quality improvements. The partnership had become unprofitable for the contractor due to their outdated pricing schedule that had not kept pace with the market, and they were eager to exit the relationship. In July 2016, KCC issued a 30-day notice of service termination that coincided with TJC's follow-up survey window.

Lack of strategic alignment. Dialysis was an essential service supporting the RTH health system's major service lines including the cardiovascular and neuroscience centers of excellence. However, RTH failed to prioritize strategic planning and performance management of the outsourced service. As a result, service operations and outcomes were misaligned with the health system's expectations for quality, safety, and service, and KCC's ability and willingness to meet these expectations.

Process

Key stakeholders included the chief administrative officer, the chief nursing executive (who was also the engagement sponsor), the director of quality and safety, and the hospital director managing operations in the dialysis treatment units. In their first strategy and orientation meeting, it was clear the serious

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and recurring deficiencies cited by TJC were known to RTH nursing leaders for months, perhaps years. A facility tour, deep dive into data and operations, audits of dialysis treatments and documentation, participation in business meetings, and interviews with frontline hospital staff (nurses, case managers, unit secretary, and the hospital's infection prevention manager) were completed to assess what corrective actions had been taken and whether they had worked. Because the dialysis team knew their operations best, individual and group interviews with all 15 staff members helped name problem areas and source potential solutions and/or improvements on prior failed corrections.[1] Most importantly, RTH nursing and operations leaders became entrenched in the 24/7 dialysis service, perhaps for the first time, to fully understand it and its criticality to the health system.

Solutions

First things first: Delay partner separation. It was clear the health system needed a new dialysis partner. However, it would take more than 30 days to select, contract, and transition to a new partner. Additionally, the transition would not be possible with the imminent survey. With a clear definition of *value*, hospital leaders prioritized survey readiness and successfully negotiated a nine-month postponement of service termination. They achieved this feat by making a market adjustment to KCC's contract rates that equated to a 70 percent increase. As a result, tensions eased sufficiently, allowing for accountable survey preparation with the hospital assuming primary ownership in all areas except personnel files for the dialysis staff.

Achieve survey readiness. To jump-start the momentum through quick wins and to engender trust with the dialysis team, leadership tackled physical facility issues first:

- Decluttering, organizing, and cleaning the supply room and treatment rooms was accomplished through a 5S-like process, par levels and a *kanban*-like system for supply management was implemented to eliminate waste. These updates brought the physical space into compliance with infection control policies and standardized supply order and scheduling activities. Light cosmetic updates enhanced the environment and had the effect of uplifting the team's spirits, as they typically spent over 12 hours in those rooms.
- An auto-locking spring was installed in the medication storage door to minimize the possibility of noncompliance due to human error, as regulations require medications to be stored behind double locks.

Simultaneously, they addressed infrastructure issues (i.e., process and systems problems). A workflow analysis, or partial value stream map, was created with physicians, hospital operations leaders, and dialysis staff to identify root causes and design solutions. Where possible, RTH implemented systemic changes, which alleviated much of the day-to-day friction between hospital and dialysis teams and prevented new, undesirable habits from forming over time. For example, the electronic medical record physician order set used to order dialysis treatments was modified from free text format to numeric format to avoid overly general orders that were confusing and easy to misinterpret. Establishing daily huddles between hospital and dialysis staff opened the channels for regular communication and joint issue resolution. Huddles served as a forum where staff discussed needs, concerns, opportunities for improvement, and daily scheduling while also educating staff on policy, program, and hospital updates.

Plan for sustainability: Infrastructural integration. To sustain compliance, hospital leaders integrated dialysis operations with existing initiatives, processes, and systems. For example:

- Infection prevention leaders had been conducting rounding (i.e., the healthcare equivalent of *gemba* walks) throughout the hospital facility for months. Their goal was to remedy issues as they arose and to engage with frontline staff face-to-face in their work environments. RTH expanded rounding to encompass the dialysis treatment rooms to better integrate dialysis with the hospital's quality, safety, and service enhancement activities.
- RTH centralized personnel files for dialysis staff with the HR record-

keeping office that managed employee files for all other contract staff and had a well-established process for keeping records updated, a cited deficiency in the dialysis service.

Operations and clinical leadership. While most operational issues can be resolved without the addition of more staff, given the 2016 survey experience, the health system felt it prudent to employ an experienced dialysis operations manager who was familiar with pertinent regulations and would appropriately represent and protect the health system's interests. A custom job description was created for the new role and RTH recruited a highly experienced certified nephrology nurse to lead the multi-campus dialysis operations. Similarly, the health system appointed an aligned and collaborative medical director to supply medical supervision and clinical oversight of dialysis services delivered across the health system.

New vendor partnership. Upon survey completion, RTH evaluated options to replace the contract service provider including keeping the status quo (i.e., continuing with KCC at the new contract rates), partnering with a different dialysis provider, and internalizing the service. A business case analysis indicated internalizing the service would be cost prohibitive and it would increase the health system's liability for supporting nurse education, training, and competencies in the niche specialty of dialysis. Partnering with the physicians of the dialysis steering group in the decision-making and transition process, RTH chose to contract with a new dialysis partner, a large, for-profit, dialysis provider that had attained TJC certification for its hospital business line. With a preeminent reputation and the advantage of scale, the new provider was positioned favorably for staff procurement and retention. RTH's new service agreement specified expectations for staffing support, performance improvement, professionalism, shared performance risk, and contingency planning.

Conditions for transformational success

Strategic clarity and alignment. Strategic clarity and alignment across the organization and physician engagement were conditions essential to RTH's long-term success of maximizing benefits for the organization and patients. In less than three years RTH transformed their dialysis service. The 2016 TJC survey irrefutably demonstrated that the dialysis service was essential and valuable to the RTH health system. Organizational leaders acted upon this clarity to strategically align the enterprise value chain such that improvements in dialysis performance were tied to the health system's strategic goals: In 2017, RTH provisioned adjunct health system and external resources to support the program, and in 2018, they added a dialysis key performance indicator to the system dashboard and linked it to annual performance incentives for all employees.

Key stakeholder engagement. Hospital executives, including the chief nursing officer, remained engaged with dialysis operations throughout the post-survey transformation period. Health system leaders also stayed abreast of progress via monthly executive reports.

Involving independent physicians in performance improvement, however, required creativity. After multiple failed attempts to engage mission-critical nephrologists — the physicians most impacted by programmatic challenges — physician participation was secured by creating the dialysis steering group. This group constituted a strategic planning and advisory council that would guide RTH's dialysis strategy and strategy execution. It included representatives from all the nephrology medical groups, hospital operations, the dialysis medical director, and RTH executive leadership. Leading with transparency, RTH leaders used the forum to share knowledge about business performance and strategic priorities that:

- helped dispel misconceptions of profitability;
- increased awareness of the impact of nonstandard process and procedure, which often occurred at the request of physicians;
- involved physicians in performance improvement tactics to regulate projected financial losses; and
- facilitated joint accountability and planning for the future of acute dialysis.

Conclusion

In June 2016, RTH was at risk of losing their accreditation status, funding, and untar-

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nished reputation if they did not correct serious noncompliance issues in their outsourced acute dialysis service. RTH executives placed paramount importance and urgency on restoring quality and safety standards to achieve successful completion of the impending TJC follow-up survey. With this clarity, RTH leaders at all levels of the organization acted to support a common objective and, against the odds, overcame significant systemic challenges to achieve a "no deficiency" survey outcome in six weeks.

The 2016 survey experience granted RTH the gift of clarity on the value of the acute dialysis service to the health system. To their credit, RTH executives built on their momentum by strategically investing in infrastructure and continuous improvement that contributed $7.9 million in savings to the health system in less than three years.

Lean management is ubiquitous in health care. However, to reap full benefit from its application, organizations must have and communicate unequivocal clarity in defining *value*, a foundational principle of lean management. Only with such clarity can leaders at every level of an organization take action to maximize it directly or contribute toward maximizing it.

Today, RTH's acute dialysis service maintains high quality, and safety continues to receive accolades from third-party surveyors. RTH continues to pursue performance improvements that maximize value. ■

NOTES

[1] Galpin, T., Connecting culture to organizational change, *Human Resources Magazine* (Mar 1996): 84–90.