Optimizing Patient Logistics as Part of Hospital Business Strategy

An important part of coordinated patient care in a new healthcare environment

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ABSTRACT

Healthcare institutions are seeking ways to drive optimal patient outcomes and improve operational and financial performance, from both internal and outsourced approaches. Patient transfer and logistics is an important improvement area. A formalized program approach can best enable hospitals to meet overall, top-of-mind goals for the C-suite, including quality of care and the bottom line. Leveraging an outsourced partner for the patient transfer process can bring many benefits, including best practices gleaned from a spectrum of healthcare situations and environments, speed to market, and a disciplined approach that generates new data-driven insights and further drives organizational and market strategy effectiveness. By using an experienced partner, in many cases, a higher return-on-investment of the transfer process can be achieved. Overall, optimizing patient logistics as part of hospital business strategy is an important part of coordinated patient care in a new healthcare environment and supports revenue management and growth.

A TIME OF CHANGE IN HEALTHCARE

The US healthcare system is in the midst of significant change that is dynamically altering the environment for providers. Increased digitization is occurring at progressive levels since the stimulation of electronic health records (EHR) deployment via $19 billion in incentives as part of the Health Information Technology for Economic and Clinical Health (HITECH) Act. Centers for Medicare and Medicaid Services (CMS) continues to push forward with changing business models and leveraging value-based payments as part of more outcomes-focused care. Overall, the U.S. Department of Health & Human Services aims to link 85% of Medicare fee-for-service to value-/risk-based care by 2016 (and 90% by 2018). Health systems, hospitals, and physician practices also face continued pressures from mergers and acquisitions (M&A) and consolidation that are further creating need to integrate data, manpower, and resources and search for opportunities to optimize financial performance and focus on new goals tied to healthcare’s future.

WHAT ARE THE END GOALS FOR HOSPITALS IN THIS NEW ENVIRONMENT?

With the changes in healthcare business and care models, it is important to focus on optimizing and lowering costs, improving the patient experience, and driving positive patient outcomes. The three facets of the “Triple Aim” concept, if fully implemented and successful in a health system, can be part of successful provider business strategies and drive positive change in how care is delivered. Many important business objectives are top of mind for senior health systems executives, given the current challenges and complexity of change.

According to the 26th Annual HIMSS Leadership Survey, the top-5 business objectives of providers in 2015 include (Exhibit 1): improving patient satisfaction, improving quality of patient care, sustaining financial viability, improving care coordination, and improving operational efficiency.
Exhibit 1: Business Objectives

- Improve Patient Satisfaction
- Improve Patient Care/Quality of Care
- Sustain Financial Viability
- Improve Care Coordination
- Improve Operational Efficiency
- Improve Physician Satisfaction
- Achieve Meaningful Use
- Increase Market Share
- Achieve Secure Interoperability of Data
- Facilitate Mandated Quality Metrics Improvement
- Position Organization as ACO
- Growth Through Acquisition
- Supply Chain Optimization

Source: 26th Annual HIMSS Leadership Survey

These leading objectives touch on some of the most important issues currently facing hospitals, including more coordinated care, financial and operational improvements, and ways to achieve positive patient impact.

To meet these goals, providers must look for opportunities to optimize processes, workflows, and hospital operations across the board, identifying areas of possible inefficiency, and seeking solutions to drive optimal performance and margin.

INEFFICIENCIES IN PATIENT TRANSFER PROCESSES – AN AREA OF OPPORTUNITY

Patient transfer is an important component of provider workflows in today’s hospital environment. This includes in-patient internal transfers, referral transfers from clinician offices, emergency department transfers, and intra-system transfers. However, many challenges can arise in this process, including communication ineffectiveness, redundancy in communication and documentation, information silos, patient leakage, and slow speed of transfer timelines. Many of these issues can impact not only providers in terms of less coordinated care, workflow challenges, and financial ramifications, but also patients, in terms of impact on optimal patient outcomes and their care experiences.

OUTSOURCING PATIENT LOGISTICS AS PART OF OPTIMIZATION STRATEGY

Formalizing a patient transfer program can be beneficial for healthcare institutions as part of central logistics control and infrastructure development tied to patient flow and transfer management. This is also an important financial strategy for hospitals as part of growth in patient capture, retention, and referrals. An effective plan can be extremely beneficial to hospitals for increased market share and streamlining paths to bring patients into the institution, as well as supporting operational improvement and financial goals. Furthermore, the benefits of using a data-oriented process, less responsibility of hospital staff, and positive patient impact are all components of aligning with an external logistics partner.
Every 24 patients who leak from a health system represent a loss of $1 million annually.
Based on gross in-patient revenue. - Frost & Sullivan

An outsourced patient logistics approach brings many benefits to health systems

In many cases, outsourcing different non-clinical and clinical operations can bring improved financial and operational strength to hospitals. Outsourcing is an important trend being considered by hospital leadership to lower costs and improve margin.8

Rather than dealing with patient transfer as an in-house process, health systems can consider leveraging an outsourcing strategy with a strategic partner. The five key benefit areas of an outsourced patient logistics approach, as identified by Frost & Sullivan, include components in operations, finance, data value, outcomes, and team personnel (Exhibit 2).

Exhibit 2: Impact and Benefit Categories of Patient Logistics Outsourcing

Source: Frost & Sullivan
Having a comprehensive understanding of where the source of patient referrals are coming from is a competitive advantage for any healthcare organization. Keeping patients within a hospital system where appropriate is a strategic issue. Understanding why referrals move in and out of a hospital leads to insights regarding where clinical services may need to be added or enhanced, as well as trends at a physician level. Overall, a formalized and disciplined transfer process can yield insights, providing both economic and competitive value.

There are many facets of hospital operational benefits derived from leveraging a partner for logistics operations. This includes elimination of internal administrative burdens regarding patient navigation and movement, and enabling a more efficient and consistent approach to logistics operations. This also enables providers to better maintain focus on patient care versus processes. An optimized admission process for the transferred patient to a new location, streamlining the transfer process, and lowering potential confusion or issues for staff also support operational benefits.

The financial implications are paramount for hospitals in patient logistics outsourcing because patient retention and new patient capture directly impact revenue and financials. Post incorporation of a patient logistics service, hospitals can see dramatic increases in patient transfer, referral volume, and capture, and decreased system emigration, directly impacting the bottom line. It is estimated that hospital system per patient revenue loss from emigration is 51% of total available patient healthcare revenue capture. For a health system, 24 patients represent a $1 million USD revenue opportunity to be gained or lost via patient transfers (Exhibit 3). Furthermore, financial implications from the other segments for operational improvement and outcomes are also directly tied to revenue and margin points for executives, especially in the new, value-focused care environment.

### Exhibit 3: Patient Capture Opportunity per $1M USD

<table>
<thead>
<tr>
<th>Hospital Revenue Gain/Loss</th>
<th>$1,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Patient Gross Revenue per Admission (US)</td>
<td>$42,226</td>
</tr>
<tr>
<td>Patients per $1M USD</td>
<td>24</td>
</tr>
</tbody>
</table>

*Source: American Hospital Association and Frost & Sullivan*

Data is an important asset in healthcare and can be critical to enabling improved financial and operational performance for providers. Hospitals are seeking to better leverage data across the enterprise, as well as incorporating other data streams from the care continuum via Big Data and Internet of Things (IoT) concepts. A data-driven approach for hospitals and health systems can enable “advantages over organizations that take an ad hoc approach to information management.” Data analytics will provide hospital leaders with actionable intelligence to support strategic decision making and improved quality of care delivery. A formal patient transfer program can create a data-oriented process to best facilitate a new experience for all stakeholders involved. Data-driven insights regarding patient transfers can help hospitals make better strategic decisions given stakeholders are more deeply informed about the transfer process via accurate reporting, time-to-transfer, and patient status. Hospitals will also gain a far deeper understanding of their referral base than possible from ad-hoc approaches or paper-driven tactics. Overall, a data-driven transfer experience creates the best environment for patient safety, outcomes, and performance.
The handover process involving patients transferred between hospitals is not standardized. Our goal is to define what communication and processes lead to the best patient outcomes. One possible solution is to outsource patient logistics and refocus internal efforts on the handoff itself. - Dana Herrigel, MD, Assistant Professor-Division of General Internal Medicine, Rutgers-Robert Wood Johnson Medical School

Patient outcomes are tied to the patient transfer process, including optimizing where patients are going, how, and when they receive care, and the service approach by providers. For example, in a retrospective observational study of consecutive transfers directly to Rutgers - Robert Wood Johnson Medical School (MICU, SICU, and CCU between December 2011 through December 2012), it was found that complete information on transfer patients was a critical gap, and can directly impact care and outcomes for those patients, and, if viewed at scale, negatively impact hospitals. Transfer patients arriving with complete information included: discharge summary (35%), history/physical (80%), imaging performed (65%), and labs (61%). Only 15% of patients had nearly complete clinical documentation with only 1.5% of patients actually having full documentation, showcasing the extensiveness of the problem. Therefore, in the context of a process-driven approach to patient transfer which can address this type of outcomes-tied informational deficit, “improving the quality of patient hand-offs between facilities has the potential to improve patient outcomes and provide higher-value care.”

**Rutgers Inter-hospital Transfer Study (IHTS) - Completeness of Clinical Documentation of Transfer Patients**

<table>
<thead>
<tr>
<th>Information Category</th>
<th>Percent Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge Summary</td>
<td>35%</td>
</tr>
<tr>
<td>History and Physical</td>
<td>80%</td>
</tr>
<tr>
<td>Consults</td>
<td>68%</td>
</tr>
<tr>
<td>Labs</td>
<td>62%</td>
</tr>
<tr>
<td>Images</td>
<td>65%</td>
</tr>
<tr>
<td>Med-Rec</td>
<td>55%</td>
</tr>
<tr>
<td>Progress Notes</td>
<td>65%</td>
</tr>
<tr>
<td>Nearly Complete (90% intact documentation)</td>
<td>15%</td>
</tr>
<tr>
<td>100% Intact</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Given incomplete information, time components, and other gaps that can correlate with in-hospital mortality, adverse outcomes, and redundant triage or testing, ensuring a formal transfer process by leveraging an outsourced transfer program can help solve many points that impact patient outcomes.

A patient logistics partner is an extension of a health system’s team in a fully integrated capacity. This ensures a seamless and positive experience for providers as they deal with the patient transfer process, and actually lowers the burden on the internal hospital staff. Better internal workflow management for providers and hospitalists is created by leveraging a third-party provider of logistics services to manage the transfer process. Additionally, a shifting of the management weight outside the traditional brick-and-mortar team enables clinicians and other hospital staff to optimize tasks and responsibilities internally to focus on patients, while being confident that the chosen partner is a true extended part of the care team.
Analyst-identified Solution Provider Example: Direct Patient Logistics

One of the longstanding outsourced providers in the market is Direct Patient Logistics (DPL), formerly known as DirectCall. As a business division of Air Methods Corporation (NASDAQ: AIRM), DPL has been facilitating over 300,000 inter-facility patient transfers for more than 200 hospitals. Since its inception in 2002, it has developed protocol and processes that have consistently led to at least a 20% increase in hospital referral volume for its customers. DPL is considered one of the few specialist organizations in patient transfer logistics that has developed a proven (with several case studies demonstrating its process efficacy), best-practices standard for helping healthcare organizations optimize patient flows for measurable results. For more information on DPL, visit http://directpatientlogistics.com/

CONCLUSION

Healthcare institutions are seeking a myriad of ways to drive performance in a challenging environment at many levels. Patient safety, coordinated care, meaningful use, value-based reimbursement, population health, and many other points of focus are inundating hospital executives’ mindshare. Therefore, the identification of areas that can support hospital performance and viability is paramount, including both looking internally as well as to outsourced services. Instituting a formal patient transfer program and leveraging a leading partner to provide authoritative expertise to handle the patient logistics process can be a solid component of provider strategy for the C-suite. Given the benefits across financial, operational, staff, and patient lines, outsourcing patient logistics fully aligns with the key business objectives that hospital leadership are now trying to strategically achieve in an evolutionary time in US healthcare.

REFERENCES

1. Office of the National Coordinator for Health IT (ONC), www.healthit.gov.
8. Ron Shinkman, “The Outsourcing Explosion: Hospitals Turn to Outside Firms to Provide More Clinical Services, FierceHealthFinance, April 2015.
9. Based on CMS claims data analysis. Some portion of average may be attributed to intended emigration due to organization being unable to provide appropriate care required for a patient, Definitive Healthcare.
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