MEETING NEW CLINICAL QUALITY IMPERATIVES

THREE STRATEGIES TO ACHIEVE AND SUSTAIN SUCCESSFUL CARE VARIATION MANAGEMENT

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The transition to new payment models coupled with the need to deliver high-quality care at a reduced cost has increased concern over clinical variation in patient care management. As hospitals and health systems address care variation, they may encounter three common obstacles: a too-narrow focus on physicians, inadequate strategies for adopting new protocols, and variable or unsustained implementation strategies and practices. This paper explores these obstacles and presents strategies to overcome them, enabling organizations to meet new imperatives for clinical performance.

Thriving in the New Healthcare Environment

Healthcare reform and market pressures place new challenges on hospitals and health systems, particularly as payment models shift from fee-for-volume to fee-for-value. For most organizations, piecemeal or fragmented solutions lack the scope to deliver the fundamental changes needed to thrive in this new environment.

Organizations committed to high performance, now and in the future, are typically focusing in four interrelated areas:

1. Patient access and resource management, which has the potential to improve outcomes and maximize use of resources in the operational flow of the patient through the continuum;

2. Care management, which coordinates transitions of care, drives quality, and reduces readmissions;

3. Interdisciplinary care coordination, which fosters seamless patient transitions, and

4. Care variation management, which drives increased quality and safety, improving outcomes and ensuring medically appropriate care and resource utilization.
When successfully implemented together, initiatives in these four areas can transform clinical care delivery. Care variation management is a key component of this transformation.

**Addressing Long-Established Patterns of Care**

Medically unnecessary variation in care – and its impact on cost and quality – is not a new concern. For more than two decades, the *Dartmouth Atlas of Health Care* has documented differences in the cost, length of stay, and outcomes of care by selected DRGs across different geographic areas. Their data shows no correlation between costs and outcomes; in some cases, there is an inverse relationship between the amount spent and clinical outcome quality.

Similarly, a consortium that includes the Cleveland Clinic, Dartmouth-Hitchcock Medical Center, Denver Health, Intermountain Healthcare, and the Mayo Clinic recently found significant variation across these organizations in length of stay for total knee replacement patients, ranging from 2.8 to 4.4 days. Similar levels of variation were found for time spent in the OR, complications, and readmissions for this patient population.

Significantly, this type of variation is also found within organizations, reflecting different training, clinical experience, and preferences among physicians. In many cases, this approach—individual clinicians following different practice patterns for the same diagnosis – is deeply ingrained in an organization’s culture, reflecting historical deference to individual decision making and physician discretion.

What’s new is the increased scrutiny that payers and policy makers are focusing on care variation, stemming from continuing pressure to reduce the nation’s healthcare costs. In July 2013, to cite one example, the Institute of Medicine (IOM) issued a report requested by members of Congress and the U.S. Department of Health and Human Services titled *Variation in Health Care Spending: Target Decision Making, Not Geography.*

The report found that “variation in practice patterns among physicians working in the same group practice—such as primary care physicians referring individuals with knee pain to an orthopedist—is as great as variation among comparable specialists at a state level.” The IOM study found substantial variation in spending and utilization even in progressively smaller practice groups.

**Figure 2. Improving Care Delivery Through Care Variation Management**

Care Variation Management improves the reliability, quality, and safety of patient care by integrating medical, nursing, and ancillary practice while decreasing process variation.
Creating and Implementing New Care Pathways

To reduce variation, many organizations have already invested in the development of standardized care pathways, order sets, and protocols, but too often these new pathways have not been successfully operationalized at the point of care. In large part, this reflects the difficulty of altering ingrained patterns of care. This effort involves changing not only the components of care, but also the fundamental structure of the organization: breaking down silos that hinder communication and collaboration.

To succeed, clinical and organizational leaders must effectively synchronize the efforts of physicians, nurses, and ancillary departments in ways that increase communication and focus attention on providing evidence-based, medically appropriate care at the right time in the most appropriate setting.

Strategies to Achieve and Sustain Successful Care Variation Management

STRATEGY #1: FOCUSING ON ALL CLINICAL COMPONENTS

Physician choices and patterns obviously play a large role in determining care pathways, length of stay, and costs. As a result, organizations can fall into the trap of focusing too exclusively on physician behavior in order to reduce care variation. However, many other factors also affect care delivery.

For example, if a heart failure patient stays in the hospital longer than the expected target, any number of care decisions and actions could be involved. If the physician didn’t adjust diuretic medication, it may have been because the nurse missed recording a daily weight or the daily intake and output measurement that would have signaled the need for a change. Or perhaps the physician entered a change order and the pharmacy was slow to fill it. Considered in this context, it is obvious that the care of the patient depends on the entire care team and is not solely the physician’s responsibility.

All clinical components – physicians, nursing staff, lab, pharmacy, and other ancillary services – play a role in determining patient care. For care variation management efforts to succeed, the scope must be broadened to coordinate all clinicians and clinical services.

This means clinicians must work together to develop patient-centered care pathways and hold one another accountable for adhering to them. Accountability metrics and processes are essential in establishing joint responsibility among medical, nursing, and other disciplines for executing the agreed-upon standard of care. This broader focus can make a substantial difference in reducing care variation.

STRATEGY #2: BUILDING NEW PATHWAYS INTO THE DAILY WORKFLOW

The development of care pathways is a crucial piece of any care variation management initiative. However, without a strategy to ensure adoption, the potential improvements in outcomes will not be fully realized.

Organizations that focus too exclusively on the pathway creation aspect will sometimes develop extremely effective care standards, adopting protocols from professional societies, universities, industry organizations, and condition-specific coalitions—without developing a plan for effectively operationalizing these pathways.

Another pitfall is developing guidelines or pathways that are too complex to be used at the point of care. Conversely, the pathway may be too general or abstract, rather than a series of action steps taken during care delivery.

Building new standards into the daily workflow requires a two-part approach. Successful organizations will develop action-oriented pathways and protocols that can be used to
manage the delivery and progression of care. The next step is to institutionalize interdisciplinary daily care team meetings, with discussion focused around the pathways. When the patient is not meeting agreed-upon milestones, the team is responsible for identifying follow-up actions based on the multidisciplinary interventions on the pathway. This approach is effective in improving outcomes and helps to ensure a safe and timely discharge for each patient.

**STRATEGY #3: SUSTAINING CHANGE THROUGH NEW STRUCTURES AND METRICS**

As organizations design and introduce new care pathways, enthusiasm and focus is typically high. Process and outcome targets are often met during this phase.

After the first few months, however, care teams can struggle to maintain focus on executing the pathways—particularly when other projects such as EMR implementation also demand their attention. Furthermore, development of a particular pathway is often seen as a discrete project; when the project ends, the developers move on to the next project and the pathway may no longer be seen as a priority. The organization may celebrate the achievement of initial performance targets but lose sight of the need to continue to improve. It may even fall back into former patterns because the culture hasn’t fundamentally changed.

The solution is to create structures, processes, and metrics that hardwire the new standards into the daily workflow and that hold the care team accountable. By doing so, leaders can create a fundamental, permanent change in the way care is delivered.

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**A SUCCESSFUL APPROACH TO CARE VARIATION MANAGEMENT: ADDRESSING CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)**

To take clinical performance to the next level, a 300-bed hospital engaged its clinicians in standardizing and synchronizing care for targeted DRGs, including chronic obstructive pulmonary disease (COPD). The hospital worked with Huron Healthcare to establish multidisciplinary, physician-driven initiative teams.

As an initial step, team members participated in a lean redesign workshop, taking apart care processes and participating in exercises such as experiencing treatment through the patient’s and each other’s eyes. After identifying opportunities to eliminate non-essential activities and studying current evidence-based care guidelines, the teams designed new care standards and processes.

The new pathways were constructed in a format designed to operationalize the standards and processes at the point of care. Team members created order sets, protocols, and screening tools based on the pathways. The new format enabled the pathways to be actively used in daily interdisciplinary meetings attended by the primary nurse, the case manager, physician representatives, and participants from ancillary services.

A focus on medical milestones – clinical outcomes the patient must achieve during the course of the hospital stay and at discharge – kept the discussion focused on problem (Continue on 5)
During the interdisciplinary daily care team meetings, inappropriate variation from the approved care standards on the part of any discipline should be identified. Variation that is not adequately documented as appropriate should be concurrently managed through an escalation process that involves the leadership of the appropriate discipline as necessary.

The process should include a monthly review, using data presented in a performance dashboard, to show any areas that are falling short and set the agenda for continuous improvement. System-wide issues, even those that might seem minor, should be identified and resolved.

It is also important to involve the governance and management structures of medical, nursing, and ancillary disciplines in holding individuals accountable for their performance. Reporting outcome and accountability metrics formally in medical staff committees, nursing and ancillary committees, hospital steering teams, and with individual practitioners on a biweekly or monthly basis is key to changing practice patterns. Hospital employees should understand that their ability to meet metrics and benchmarks will be integrated into their performance evaluations. Performance targets can become an element in the physician re-credentialing process.

To ensure that pathways drive progression of care, they must be structured in a way that the care team can use them at the point of care. They must be concise and include expected length of stay, medical milestones, and multidisciplinary interventions. Below are three sample elements from the hospital’s pathway for COPD.

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solving to ensure clinical progression. Unnecessary deviations from the pathways and order sets by any discipline were addressed at the time they occurred or shortly after. Accountability metrics were established for all disciplines, such as percentage order set utilization for physicians and percentage of cases with documented oxygen weaning per the protocol for nursing and respiratory staff. (See Figure 4.)

The accountability and outcome metrics, such as LOS, were tracked in dashboards at the aggregate level and for each discipline. A monthly performance management process ensured sustainability through timely, consistent review of the dashboards, development of action plans, and monitoring to ensure follow-through. The performance management process also addressed systemic issues such as the availability of scales to take daily weights and held individual care providers accountable through governance-based processes such as physician re-credentialing.

Overall, the adjusted length of stay for COPD decreased by 31 percent from 4.90 to 3.37 days. In addition, the average cost per case for tests and treatments decreased by 14 percent. During this same period, quality metrics remained the same or improved. The readmission rate was 13 percent on average during the measurement period, compared with the 16 percent baseline. Through these efforts, the organization succeeded in meeting its goal and in moving clinical performance to the next level.
**Figure 3: Recommended Pathway Structure**

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### Figure 3: Recommended Pathway Structure

<table>
<thead>
<tr>
<th>DAY 1</th>
<th>DAY 2</th>
<th>DAY 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEDICAL MILESTONES / DISCHARGE CRITERIA</strong></td>
<td><strong>RESPIRATORY THERAPY</strong></td>
<td><strong>RESPIRATORY THERAPY</strong></td>
</tr>
<tr>
<td>- Oxygen saturation &gt; 90% with or without supplemental oxygen</td>
<td>- Initiate RT Bronchodilator Frequency Protocol—as ordered by admitting M.D.</td>
<td>- Inhaled beta2-agonist therapy is required no more frequently than every 4 hours</td>
</tr>
<tr>
<td>- Tolerating increased activity</td>
<td>- Oxygen titrate to obtain SpO2 90-92%</td>
<td>- O2 Sat &gt; 92% or home O2 arranged if O2 Sat &lt; 90%</td>
</tr>
<tr>
<td><strong>RESPIRATORY THERAPY</strong></td>
<td><strong>MEDS</strong></td>
<td><strong>RESPIRATORY THERAPY</strong></td>
</tr>
<tr>
<td></td>
<td>- RT Bronchodilator Frequency Protocol</td>
<td>- Patient tolerating baseline activity level</td>
</tr>
<tr>
<td></td>
<td>- Consider discontinuing oxygen if not on home oxygen, and if SpO2 ≥ 90%</td>
<td>- Patient is able to eat and sleep without frequent awakening by dyspnea</td>
</tr>
<tr>
<td></td>
<td>- Bronchodilator (MDI with a spacer if tolerated)</td>
<td>- Patient has been clinically stable for 12 to 24 hours</td>
</tr>
<tr>
<td></td>
<td>- Corticosteroid (PO Prednisone or Prednisolone)</td>
<td><strong>RESPIRATORY THERAPY</strong></td>
</tr>
<tr>
<td></td>
<td>- Antibiotics if symptoms indicate bacterial infection (PO preferred)</td>
<td>- Bronchodilator (MDI with a spacer)</td>
</tr>
<tr>
<td><strong>MEDS</strong></td>
<td><strong>RESPIRATORY THERAPY</strong></td>
<td><strong>RESPIRATORY THERAPY</strong></td>
</tr>
<tr>
<td></td>
<td>- Bronchodilator (if using nebulizer, consider switch to MDI with a spacer if tolerated)</td>
<td>- Corticosteroid (PO Prednisone or Prednisolone)</td>
</tr>
<tr>
<td></td>
<td>- Corticosteroid (PO Prednisone or Prednisolone)</td>
<td>- Antibiotics if symptoms indicate bacterial infection (with PO Prednisone or Prednisolone)</td>
</tr>
<tr>
<td></td>
<td>- Antibiotics if symptoms indicate bacterial infection (with PO Prednisone or Prednisolone)</td>
<td><strong>RESPIRATORY THERAPY</strong></td>
</tr>
</tbody>
</table>

COPD Target LOS: 3 Days  Expected LOS in absence of clinical documentation to support variance

- Anticipated clinical outcomes the patient must achieve during the course of their hospital stay and at discharge
- Evidence based multidisciplinary care interventions required to achieve the medical milestones, and their timing

Source: Huron’s Healthcare Practice
MEETING THE NEW IMPERATIVES

The ability to minimize medically unnecessary care variation is fundamental to success in the new healthcare environment. The strategies described here can help hospitals and health systems meet this goal while increasing reliability, quality, and safety.

Ultimately, a successful and sustained approach to care variation management will enable organizations to meet the new imperatives for high-quality, affordable, accessible care, no matter how the healthcare environment changes.

Figure 4: COPD Process Metrics

<table>
<thead>
<tr>
<th></th>
<th>BASELINE</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of cases using approved order set</td>
<td>56%</td>
<td>75%</td>
</tr>
<tr>
<td>Average duration of IV medications before switching to PO</td>
<td>85 hrs, 20 min</td>
<td>Less than 24 hrs</td>
</tr>
<tr>
<td>% of patients with daily ambulation documented as frequently as ordered</td>
<td>55%</td>
<td>90%</td>
</tr>
<tr>
<td>% of days with oxygen weaning documentation matching oxygen titration order</td>
<td>87%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Source: Huron Healthcare

Figure 5: COPD Outcomes Metrics

<table>
<thead>
<tr>
<th>APR DRG 140 COPD</th>
<th>METRIC</th>
<th>BASELINE (12 MONTHS)</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS</td>
<td>Length of Stay</td>
<td>4.90</td>
<td>3.37</td>
</tr>
<tr>
<td></td>
<td>LOS % Improvement from Baseline</td>
<td>N/A</td>
<td>31%</td>
</tr>
<tr>
<td>Charges/Costs* (Tests &amp; Treatments)</td>
<td>Average Cost per Case</td>
<td>$3,443</td>
<td>$2,976</td>
</tr>
<tr>
<td></td>
<td>Average Cost per Case Savings (Baseline - Meas. Period)</td>
<td>N/A</td>
<td>$467</td>
</tr>
<tr>
<td></td>
<td>Avg Cost/Case % Improvement from Baseline</td>
<td>N/A</td>
<td>14%</td>
</tr>
<tr>
<td>Readmission</td>
<td>Readmission Rate</td>
<td>16%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Mortality</td>
<td>Mortality Rate</td>
<td>1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>HAC</td>
<td>HAC Rate</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: Huron/Healthcare Practice

*Excludes Accomodations, Clinic Visit, Professional Fee Charges, and Other Miscellaneous Charges
ABOUT HURON HEALTHCARE

Huron’s healthcare practice is the premier provider of performance improvement and clinical transformation solutions for hospitals and health systems. By partnering with clients, Huron delivers strategy and solutions that improve quality, increase revenue, reduce expenses, and enhance physician, patient, and employee satisfaction across the healthcare enterprise. Clients include leading national and regional integrated healthcare systems, academic medical centers, community hospitals, and physician practices.

To see how Huron Healthcare solutions can empower your mission, contact us at 866-229-8700 or visit huronconsultinggroup.com/healthcare.

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1 http://www.dartmouthatlas.org/

2 Tomek et al., A Collaborative Of Leading Health Systems Finds Wide Variations In Total Knee Replacement Delivery And Takes Steps To Improve Value, Health Affairs, June 2012 vol. 31 no. 6 1329-1338