

# MANAGING CARE VARIATION IN THE MIDST OF CHANGE

YALE NEW HAVEN HEALTH SYSTEM IMPROVES QUALITY, SAVES MONEY

“Quality has to be one of the primary drivers of care variation management efforts.”

**DIANE KARAGORY**  
MANAGING DIRECTOR  
HURON

Care variation management is a healthcare buzz phrase — for good reason. It could be a solution to reimbursement and quality measurement pressures. Payers and regulators are tying hospital reimbursement to reduced readmissions and hospital-acquired infections — all while providing patients with a positive customer experience. When clinicians adhere to evidence-based order sets and clinical pathways, it leads to improved outcomes, shorter lengths of stay, more-efficient use of tests and medications and the opportunity to lower the cost per encounter.

Yet, care variation management is hard to sustain. Many organizations have embedded care pathways or protocols in their electronic medical records (EMRs), but behavior — and outcomes — have not improved. One potential problem: Organizations may have attempted care variation management, but were unsuccessful because of a lack of clinical accountability or an established ongoing monitoring process.



## Yale New Haven Health System

TALKED TO ITS ORTHOPAEDIC SURGEONS ABOUT TWO BIG CHANGES:

1. Reducing number of orthopaedic implant vendors from seven to two
2. Sharing cost savings with surgeons who follow a proven protocol

### RESULTS:

1. By the end of 2017 implant cost savings will amount to at least \$2.7 million.
2. Incidence of postoperative inpatient blood clots has been reduced 33 percent.

In 2016 Huron worked with more than 800 health systems, hospitals and medical groups on strategic performance improvement projects that drove sustainable clinical, operational and financial results. We have found that hospitals can benefit from a broader perspective in clinical variation management, supported by three actions:

1. Looking at diagnosis related group (DRG)-specific data to understand the greatest opportunities for reducing costs and improving quality,
2. Engaging an interdisciplinary team — including clinical and financial — to design the optimal clinical care delivery plan coupled with the ability to measure cost changes, and
3. Hard-wiring the new approach into the EMR through standard order sets and guaranteeing that the protocol is followed through a solid governance structure and ongoing monitoring.

## Quality Helps to Manage Care Variation

One organization that has used a similar approach is Yale New Haven Health System (YNHHS)\*. In 2012, its leaders anticipated reimbursement cuts from Medicare and Medicaid, and set a goal of cutting USD 125 million from the system's operating budget over the next three years. They knew, however, that cost-cutting alone could backfire if it reduced quality and damaged the institution's reputation.

Instead, the idea of generating value for patients — better care at a lower cost — became the focus, with a spotlight on eliminating unnecessary clinical variation. However, clinicians were wary of financial managers' calls to cut costs. Financial controllers distrusted that quality improvements would net financial results.

"Quality has to be one of the primary drivers of care variation management efforts," said Diane

Karagory, Huron healthcare managing director. "If you meet with clinicians, and you say, 'We are here to help reduce the cost of care,' they often interpret it as, 'We are going to make you really cut corners and this will impact the care of our patients.' That's not the case. We want to approach this with a patient-centered focus, with the goal of reducing complications and readmissions, improving patient and physician satisfaction, and being efficient in the delivery of that care."

Nurses and clinical leaders at YNHHS spent six months looking at a list of hospital-acquired conditions, patient safety indicators and other events that led to poor patient outcomes and were associated with significant care variation across the organization. Their work resulted in a set of "quality variation indicators" (QVIs™), or potentially preventable complications and adverse events that, when tied to their financial impact, represent a common language between the teams, finance and medicine. Each instance of a QVI™ worsens a patient's chance for a good outcome and increases utilization and costs three- or four-fold.

---

"We always want to be driving value, which is quality, outcomes and satisfaction divided by cost."

MARY O'CONNOR, M.D., ORTHOPAEDIC SURGEON AND  
DIRECTOR OF THE CENTER FOR MUSCULOSKELETAL  
CARE AT YALE NEW HAVEN HEALTH SYSTEM

---

Now, YNHHS' robust cost accounting system opens a window into patient level variation related to clinical processes, outcomes and cost of care. As a result, service line clinical managers at YNHHS have initiated a wide variety of clinical redesign and care variation projects to improve care related to abdominal surgery, total joint replacement and emergency room admissions. Systemwide, leaders are focusing on redesign in areas such as blood utilization management, palliative care and ICU care.

## Reducing Variation in Orthopaedic Care

YNHHS' focus on orthopaedic care redesign and care variation management came just as the organization enrolled in the federal government's voluntary Bundled Payments for Care Initiative (BPCI).

"We always want to be driving value, which is quality, outcomes and satisfaction divided by cost," said Mary O'Connor, M.D., orthopaedic surgeon and director of the Center for Musculoskeletal Care at YNHHS. "And we want to get there through the 'triple win:' a win first and foremost for the patient, a win for the surgeon and a win for the hospital."

So in fall 2015, O'Connor and her colleague Steve Allegretto, CPA, MPH, system vice president of value innovation and strategic analytics, met with the orthopaedic surgeons who perform several thousand hip and knee replacements at YNHHS each year to introduce two big ideas:

1. Reducing the number of orthopaedic implant vendors from seven to two and saving as much as 16 percent in costs, and
2. Sharing the cost-savings with surgeons if they followed a protocol shown to reduce postsurgical blood clots.

Although they don't happen often, blood clots are a potential complication of orthopaedic surgery and can add thousands of dollars in costs. Pulmonary embolism — a blood clot's breaking free of the vein wall, traveling to the lungs and blocking some or all of the blood supply — is the most common cause of preventable death in postsurgical patients.

The BPCI allows hospitals to share with surgeons the cost-savings gained from care redesign efforts within a patient admission if the savings are linked to a clinical outcome at the patient level and are capped at 150 percent of surgeons' professional fees.

The blood clot protocol required surgeons to classify each patient as high or low risk, then administer certain medications before surgery. Initially, some physicians resisted.

"No one is happy with change," said O'Connor. "Some surgeons were already pretty much using the medications, so they were easy to convince. For those who weren't typically using what we felt were the appropriate medications, we said, 'Well, you don't have to participate in the program.'"

Over time, however, the majority of surgeons have signed onto the program, which is as transparent and data-driven as it is simple. If a doctor follows the protocol, the patient doesn't get a blood clot, and the implant used is at or below baseline costs. YNHHS shares up to half the savings on that particular patient, up to allowable limits. If any of those conditions aren't met — the physician is noncompliant, the patient gets a blood clot or the implant cost is high compared to the baseline — the surgeon doesn't get to share in the savings on that particular patient.

As physicians receive and review their quarterly patient quality score cards and related financial results, it reinforces the connection between clinical practice variation, costs and quality.

"You have to get clinicians aligned and engaged to improve quality," Allegretto said. "Then you need to be able to understand quality and cost at an individual patient level and produce a patient level profit and loss, so that you can measure how improving quality improves value."

By the end of 2017, YNHHS will have saved at least USD 2.7 million in implant costs. At the same time, the multihospital system has reduced the incidence of postoperative inpatient venous thromboembolism by 33 percent, improving patient care and saving thousands of dollars per patient in avoided services originating from complications over the 90-day bundle period.

## GOING FORWARD

Interdisciplinary teams will need to understand and analyze care variation management metrics so that they can prioritize strategies and tactics to improve performance. When healthcare organizations understand true costs, they can better balance the costs and quality demands of evolving payment models and more-demanding stakeholders. Finally, a foundation in care variation management will give providers the flexibility to make sound clinical and business decisions regardless of new federal and state regulations.



[huronconsultinggroup.com](http://huronconsultinggroup.com)

© 2017 Huron Consulting Group Inc. and affiliates. All Rights Reserved. Huron is a management consulting firm and not a CPA firm, and does not provide attest services, audits, or other engagements in accordance with standards established by the AICPA or auditing standards promulgated by the Public Company Accounting Oversight Board ("PCAOB"). Huron is not a law firm; it does not offer, and is not authorized to provide, legal advice or counseling in any jurisdiction.

MU 170273

---

\*Yale New Haven Health System is not a client of Huron Consulting Group.