

# Perioperative Surgical Home: Improving Surgical Outcomes and Reducing Costs

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**Surgery patients are a frequently overlooked opportunity for hospitals focused on improving outcomes, enhancing patient satisfaction and increasing efficiency.**

Community hospitals are acutely affected by high-risk, high-cost surgical patients. Increasingly, sicker patients are choosing the hospital setting for surgery, while lower acuity, “easier” cases move to ambulatory sites like free-standing surgery centers. By focusing improvement efforts on inpatient surgery, hospitals have a chance to address many of the high-risk cases that account for 50 percent of annual health care expenditures.<sup>1</sup>

Hospitals can take care of these patients more efficiently—and improve outcomes and satisfaction—by making a concerted and coordinated effort to avoid costly complications and help more of these patients return to their homes after discharge. This white paper explores a new model for surgical care—the Perioperative Surgical Home (PSH)—which is helping hospitals achieve these goals.

## **CHALLENGE**

Traditional perioperative care tends to follow a linear pathway. That is, there is a sequence of events that must occur in a specific order for a patient to move from diagnosis to pre-operative care, surgery and then post-operative care and discharge. Although this



conventional model addresses surgical care needs, it can be long and costly both to the facility and the patient.

For example, a patient who presents to the emergency department with a hip fracture may experience a care process that looks something like this:

1. Emergency department physician diagnoses hip fracture and notifies hospital medicine team.
2. Hospitalist admits the patient, conducts an assessment and requests a surgical consult.
3. Surgeon assesses the patient and determines if she is eligible for surgery.
4. Surgeon consults with the anesthesia department and schedules the procedure.

5. Anesthesiologist conducts pre-operative risk assessment.
6. Patient undergoes surgery.

In this scenario, it can take up to 36 hours before the pre-surgical process begins. During that time the hospital and patient incur more than a day's worth of hospital costs while facing increased risks for infection and other complications that could be avoided with a more streamlined path to surgery and recovery.

## DESIGNING THE PSH

Recognizing opportunities for improving conventional surgical care processes, several years ago the American Society of Anesthesiologists (ASA) began developing the PSH, a new, more coordinated and efficient model for perioperative care.

The ASA defines the PSH as “a patient-centric, team-based system of coordinated care that guides patients through the entire surgical experience, from the decision to undergo surgery to discharge and beyond.” It is a model that rethinks traditional surgical care pathways to identify ways they can be improved in order to:

- Increase adherence to evidence-informed guidelines.
- Improve quality and safety of perioperative care.
- Reduce complication and readmission rates.
- Reduce surgical costs and provide superior value.
- Enhance patient and family experience.

In 2014 the ASA brought together 44 healthcare organizations from across the country in a learning collaborative<sup>ii</sup> to define, pilot and evaluate the PSH model relative to conventional perioperative care. When the collaborative completed its work in November 2015, the ASA said the effort demonstrated the PSH to be “an innovative care model with the potential to drive meaningful and lasting change in perioperative costs, outcomes and experience for patients nationwide.”

To build on those successes, the ASA launched a second iteration of the learning collaborative in April 2016 with 59 participants working on PSH strategies that are compatible with alternative payment models. The two-year collaborative is expected to complete its work in March 2018.

## PSH IN ACTION

Under the PSH model, a multidisciplinary team of clinicians — typically led by anesthesiology — work together to implement new, standardized care pathways for surgical patients with the goal of providing better-coordinated and more efficient care that minimizes complications and speeds recovery.

To illustrate the PSH, consider the hip fracture case discussed above. In a PSH model, the patient may follow a care pathway that looks more like this:

1. Emergency department physician confirms a hip fracture and immediately consults with the anesthesia and hospital medicine teams.
2. Hospitalist admits the patient while the anesthesiologist notifies the orthopedic surgeon and schedules the surgery.
3. Anesthesiologist conducts preoperative risk assessment.
4. Patient undergoes surgery.

In this “rapid hip protocol,” early and increased coordination among clinicians allows for much faster time to surgery, often the same day. This equates to a lower overall length of stay, reduced risk for post-operative infection, and shortened rehabilitation time—all of which are associated with lower costs, better outcomes and improved satisfaction.

Another key PSH care pathway is called Enhanced Recovery After Surgery (ERAS). ERAS programs are designed to help surgical patients recover from surgery more quickly, safely shortening their hospital stay and helping them return to their normal routines faster.

Under ERAS, the multidisciplinary care team works together, following a set of evidence-based guidelines designed to speed recovery. Those guidelines include steps such as:

- Clear and consistent communication with patients about expectations regarding activity, diet and pain management before, during and after their hospital stay.
- Minimal IV fluids, drains and nasogastric tubes.
- Minimal use of narcotics
- Early reintroduction of diet.
- Early ambulation.

By focusing on streamlining surgery so patients recover more quickly, ERAS pathways have been shown to significantly reduce care time and post-operative complications.

## RESULTS

Although the PSH is a relatively new concept, some hospitals have already experienced success under the model. For example, Ascension All Saints Hospital in Racine, Wisconsin, recently implemented both the rapid hip and ERAS protocols under the PSH model.

Through ERAS, All Saints' elective colorectal surgery patients experienced:

- 375 Percent reduction in the use of opioids postoperatively.
- 50 Percent reduction in post-operative pain scores for first 2 days after surgery (2.6 vs. 3.9).
- 1 Day reduction in length of stay (3.3 vs. 4.1).
- 1 Day reduction in time to ambulation (0.9 vs. 1.8).

Similarly, results in the hospital's hip fracture population included:

- 77 Percent reduction in pain medication administration (narcotic and non-narcotic) within first 12 hours post operatively (36 vs. 156).
- 51 Percent reduction in post-operative pain scores within first 12 hours after surgery (3.3 vs. 6.53).

On the other side of the country, Legacy Good Samaritan Medical Center in Portland, Oregon, saw a remarkable 3-day reduction in length of stay (6.7 days to 3.7 days) by implementing ERAS for elective colorectal surgery patients, resulting in an estimated cost savings of \$4,803 per patient. And despite the dramatic reduction in length of stay, there was no increase in the rates of post-operative complications or 30-day readmissions.

## ADOPTING PSH AT YOUR HOSPITAL

Because the PSH model redefines the delivery of perioperative care, hospitals must secure participation and "buy-in" from all departments that will participate in this new approach to delivering surgical care. That includes clinicians in the emergency department, hospital medicine, anesthesia and surgery.

Together, these departments can begin to identify the specific cases or diagnoses that would most benefit from the PSH model (such as hip fractures and colorectal surgery) and begin re-engineering and implementing new protocols. This can be a challenging process on several levels:

- It typically requires dedicated physician leaders who will champion the new approach to care.
- The new care processes must become part of the hospital's formal policies and procedures.
- Operationalizing the new model of care requires formerly independent departments and physicians to collaborate in new ways.

One way to overcome these challenges is through consolidated service lines. For example, hospitals that partner with a clinical outsourcing provider that has resources and



experience in integrated care models can create shared incentives for providers to work together. The hospital and clinical partner create a shared risk pool based upon mutually desirable metrics that are tied to quality and service performance outcomes. If the provider teams achieve those metrics, then all involved clinicians—emergency medicine, hospital medicine, anesthesia, etc.—would benefit from the shared savings. This approach helps ensure that all clinicians are sufficiently motivated to do their part, even if it requires additional effort, and hospitals and patients can experience the rewards of better outcomes and lower costs.

For facilities that are unsure whether they are ready to adopt the PSH model of perioperative care, clinical outsourcing company TeamHealth has built a comprehensive assessment tool to test hospital readiness. The assessment looks at all aspects of leadership, clinical care, quality assurance, performance improvement and data management throughout the perioperative continuum to determine a hospital's progress toward becoming a PSH. This tool serves as a guide for an organization to enhance integration of the physician leaders engaged in all perioperative care and to eventually prepare for the certification process to become a PSH when this accreditation process is fully developed.

## CONCLUSION

The PSH is a new model of perioperative care. For hospitals that can effectively collaborate across service lines to redesign care processes, the PSH can help lower costs, improve outcomes and enhance patient satisfaction for surgical cases.

If you would like more information concerning Perioperative Surgical Home, please contact:

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## Sources

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- <sup>ii</sup> ASA | Perioperative Surgical Home Overview. (n.d.). Retrieved January 11, 2017, from <https://www.asahq.org/psh/about%20psh/an%20overview>



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