Back to Basics: The Perioperative Surgical Home 0.9 CE www.aorn.org/CE

LISA SPRUCE, DNP, RN, ACNS, ACNP, ANP, CNOR, CNS-CP

Continuing Education Contact Hours

CE indicates that continuing education (CE) contact hours are available for this activity. Earn the CE contact hours by reading this article, reviewing the purpose/goal and objectives, and completing the online Examination and Learner Evaluation at *http://www.aorn.org/CE*. A score of 70% correct on the examination is required for credit. Participants receive feedback on incorrect answers. Each applicant who successfully completes this program can immediately print a certificate of completion.

Event: #15533
Session: #0001
Fee: Members $7.20, Nonmembers $14.40

The contact hours for this article expire September 30, 2018. Pricing is subject to change.

Purpose/Goal

To provide the learner with knowledge of best practices related to caring for patients using the Perioperative Surgical Home (PSH) model.

Objectives

1. Discuss common areas of concern that relate to perioperative best practices.
2. Discuss best practices that could enhance safety in the perioperative area.
3. Describe implementation of evidence-based practice in relation to perioperative nursing care.

Accreditation

AORN is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

Approvals

This program meets criteria for CNOR and CRNFA recertification, as well as other CE requirements.

AORN is provider-approved by the California Board of Registered Nursing, Provider Number CEP 13019. Check with your state board of nursing for acceptance of this activity for relicensure.

Conflict-of-Interest Disclosures

Lisa Spruce, DNP, RN, ACNS, ACNP, ANP, CNOR, CNS-CP, has no declared affiliation that could be perceived as posing a potential conflict of interest in the publication of this article.

The behavioral objectives for this program were created by Helen Starbuck Pashley, MA, BSN, CNOR, clinical editor, with consultation from Susan Bakewell, MS, RN-BC, director, Perioperative Education. Ms Starbuck Pashley and Ms Bakewell have no declared affiliations that could be perceived as posing potential conflicts of interest in the publication of this article.

Sponsorship or Commercial Support

No sponsorship or commercial support was received for this article.

Disclaimer

AORN recognizes these activities as CE for RNs. This recognition does not imply that AORN or the American Nurses Credentialing Center approves or endorses products mentioned in the activity.

http://dx.doi.org/10.1016/j.aorn.2015.06.012

Back to Basics: The Perioperative Surgical Home 0.9 CE www.aorn.org/CE

LISA SPRUCE, DNP, RN, ACNS, ACNP, ANP, CNOR, CNS-CP

ABSTRACT

The Patient Centered Medical Home (PCMH) is designed to improve care for patients, decrease health care costs, and transform the way in which clinicians deliver primary care. The PCMH is a model for primary care delivery that encompasses comprehensive patient-centered care that is coordinated across all settings and provides accessible services and community support as needed with shorter wait times, enhanced hours, and around-the-clock telephone or electronic access for patient needs. In addition, providers use evidence-based practice and clinical decision support tools to provide the best possible care to patients. This article discusses how the model originated and provides a how-to guide and strategies for success in implementing this model of care. *AORN J 102 (September 2015) 263-266. © AORN, Inc, 2015. http://dx.doi.org/10.1016/j.aorn.2015.06.012*

Key words: *Patient Centered Medical Home, PCMH, evidence-based care, access to care, holistic care.*

Perioperative nurses may be familiar with the Patient Centered Medical Home (PCMH), which was designed to improve care for patients, decrease health care costs, and transform the way in which clinicians deliver primary care.[1] A wealth of resources on this topic resides at the Agency for Healthcare Research and Quality web site.[2] The PCMH is a model for primary care delivery that encompasses five functions and attributes.

- Comprehensive care: a team of providers supplies all of a patient's health care needs, including chronic care, preventive care, acute care, and mental health.
- Patient-centered care: patients and families are partners in their health and are at the center of the model. The health care team understands individual patient needs, preferences, culture, and values.
- Care is coordinated: a team of providers coordinates care across all settings and provides community support as needed. Clear communication channels among providers, facilities, and patients and families are established.
- Accessible services: services are provided with shorter wait times, enhanced hours, and around-the-clock telephone or electronic access for patient needs.
- Quality and safety: a team of providers uses evidence-based practice and clinical decision support tools to provide the best possible care to patients. Performance improvement and data gathering are performed to continue to improve and enhance patient care.[3]

Clinicians may be unfamiliar with the Perioperative Surgical Home (PSH), which is an innovative clinical care delivery model that is similar to PCMH. Perioperative Surgical Home focuses on placing patients at the center of care and is a coordinated, physician-led, multidisciplinary team-based perioperative model of care.[1] The American Society of Anesthesiologists proposed this model of care as one way to help remedy the current costly and fragmented perioperative system of care by shared decision making between health care providers and patients and allowing a smooth transition between levels of care.[4] The PSH is defined by the American Society of Anesthesiologists as a

> *patient centered, innovative model of delivering health care during the entire patient surgical/procedural experience; from the time of the decision for surgery until the patient has recovered and returned to the care of his or her Patient*

http://dx.doi.org/10.1016/j.aorn.2015.06.012

Centered Medical Home or primary care provider. A comprehensive Perioperative Surgical Home provides coordination of care throughout all of the clinical microsystems of care and embeds all of the above strategic principles into its framework.[5(p2)]

Scant research exists on either of these models, but a study by Graham and colleagues[6] evaluated the PCMH model of care by comparing the use and costs of services, patient mortality, and levels of function and pain between two cohorts of patients with hip fractures. Patients experiencing hip fractures can have high rates of morbidity and mortality during the first year following surgery. Both groups in this study were managed using the same hip fracture protocols; however, one group was managed using the PCMH model and the other group received traditional care.[6] The results demonstrated that the patients who were cared for using the PCMH model showed reduced mortality at six months, although cost and functional outcomes were the same between both groups at 12 months. The authors concluded that PCMH benefits patients without affecting cost or function.[6]

HOW-TO GUIDE

There are five essential elements included in the PCMH model; these same elements ~~and~~ should be included in the PSH model.[1]

Patient-Centered Care

Patient values and preferences are at the center of the PSH model, and patients participate in all decision making. This model replaces the current model of perioperative physician-centered care. An example of this is patients' discussions with their physicians about pain management. In the PSH model, a discussion regarding pain management takes place as soon as the patient decides to undergo surgery. The physician discusses all available pain modalities with the patient and they make a shared decision based on the patient's needs and wishes. This discussion also includes other providers such as anesthesia professionals, nurses, and hospitalists if, for example, the patient was going to be hospitalized.[1]

Comprehensiveness

The PSH model of care should work similarly to the PCMH model and provide continuous patient care that transitions patients from the PCMH to the PSH and back (eg, receiving care from a primary care team before surgery and requiring primary care postoperatively) to help ensure that all issues of care are handled by each team. Team members should apply detailed, evidence-based, standardized plans of care to patients that include a risk assessment so that high-risk patients can be identified and their care can be optimized.[1]

Coordination of Care

The patient's care team should coordinate all phases of perioperative care, beginning in the surgeon's office, progressing to the preadmission testing and evaluation process, and through all three phases of surgical care. Postoperatively, caregivers continue the care process for all patients until they are discharged to either home or a skilled nursing facility. Clinicians continue to follow up with patients for 30 days. Caregivers typically provide independent care in every perioperative phase, at times with little coordination with the next level of care, which can be costly and duplicative. Cannesson and Kain[1] state that care coordination can be difficult, but applying improvement methodologies such as Lean Management or Six Sigma can help with improvement processes.[1] Perioperative surgical home teams ideally are led by anesthesiologists, but the authors state that other leaders could step forward to lead improvement processes.[1]

Accessibility to Care

Patients should be able to contact care providers at all times. While in the hospital, PSH providers should coordinate all of the patient's care and integrate this care through an electronic medical record. After discharge, care providers should monitor patients closely, and if problems arise, such as an emergency or the need for a clinic visit, PSH members should step in to coordinate the care for 30 days. After 30 days, patients resume care with their PCMH team.[1]

Commitment to Quality and Safety

The PSH is based on standardization to improve the quality and safety of care. Evidence-based clinical pathways or protocols (eg, for patients with sleep apnea) help to optimize patient care, reduce its variability, and improve outcomes. In areas for which evidence does not exist or is not clear, the PSH team should develop a multidisciplinary agreement for a standardized protocol.[1]

BENEFIT

Berwick et al[7] and Stange[8] state that the general health care system in the United States is costly, fragmented, driven by reimbursement, and based on tradition rather than evidence. Perioperative care is no different. Perioperative services must move from practice based on tradition to practice that is based on evidence with a focus on quality and safety. The PSH is a model that strives to do that and is beneficial because it emphasizes the patient and coordination of care from the

moment the patient makes the decision to undergo surgery until 30 days after discharge. During that time, the PSH team implements standardized evidence-based protocols that have been shown to be effective.[9] Those in the US health care system hope that the PSH model will provide positive outcomes and decrease costs and patients' lengths of stay.[9]

STRATEGIES FOR SUCCESS

Vetter and colleagues[10] offer the following strategies to achieve a successful PSH.

- Standardize clinical assessment and management plans and design plans that are relevant to individual patient and population differences. Some examples are protocols focused on obstructive sleep apnea, prevention and treatment of nausea and vomiting, multimodal analgesia, and goal-directed (ie, only when coagulation studies show that it is needed) blood transfusion.
- Promote teamwork among clinicians.
- Encourage strong communication to develop trust between patients, families, clinicians, and health programs.
- Allow all stakeholders to develop and evaluate proposed PSH models.
- Apply value-based purchasing at the local level.
- Demonstrate that the facility is providing high performance and quality when adapting a PSH model.[10]

The role of a given PSH health care provider should be to lead the team and to recognize and promote the value that this model brings to the institution in improving patient-centered care, access to care, higher care quality, and better outcomes that help to keep costs down. Institutionally, three conditions must be met to achieve a successful outcome. An institution's administrators and personnel should have the

- need or desire to improve care processes and
- ability to capture electronic data to monitor outcomes and benchmarks, and
- anesthesia professionals must be willing to align their practice financially with the institution (eg, mutually agreed upon payment plans).

In addition, the PSH practice model must be fully used by personnel, or the anesthesia professionals and the institution's administrators must develop an integrative funds flow model that aligns with both the institution's and the anesthesia professionals' goals and objectives, or they must develop comanagement contracts. Anesthesia professionals, nurses, hospitalists, surgeons, and primary care providers working with pharmacists, rehabilitation specialists, and social workers in institutions that use a PSH model must establish and maintain close clinical collaboration. It is important for patient care that all professionals participating in the PSH communicate and collaborate on all aspects of patient care.

Garson and colleagues[11] implemented a successful total joint surgery PSH model by forming a steering committee that included eight anesthesiologists, two surgeons, three nurses, two pharmacists, one physical therapist, one case manager, one social worker, and two information technology experts. The group underwent Lean Management training and met every week during the planning and implementation phases of the project, and they completed the following steps to successfully implement the program.[11] The team members

- developed evidence-based clinical care pathways using Level 1 evidence when available and came to consensus when using lower levels of evidence. The clinical care pathway begins with the presurgery period and continues through every phase of surgical care to discharge;
- developed patient outcomes to determine the success of the implementation. Specific outcomes that this PSH team reviewed and wanted to improve were
  - readmission rates,
  - emergency visits before 30 days after surgery,
  - mortality,
  - major complications, and
  - minor complications such as nausea and vomiting;
- educated patients preoperatively about the PSH. The education and the management of the preoperative clinic were handled by nurse practitioners with anesthesiologists' oversight of the clinic and practitioners. Patients attended a mind-body surgical preparation class. Nurse practitioners educated patients about total joint surgery and ensured that necessary preoperative testing occurred in this phase;
- delivered standardized evidence-based pain and fluid management care to all patients undergoing total joint procedures. The team also standardized nursing care, equipment use, and procedures while maintaining consistent care by forming a PSH Total Joint Team, whose members were the only ones who participated in these procedures;
- used standardized protocols in the postoperative phase of care. For example, the team used pain management and thromboembolism prevention protocols that were led by pharmacy team members and physical therapy protocols that began on the day of surgery led by physical therapists; and
- prevented patient readmission by following discharge protocols that included discharge orders, medications, education, wound care protocols, and follow-up visits. Patients

were also required to attend anticoagulation clinics to prevent deep vein thrombosis.

After implementing this care model, the team observed the following outcomes:

- The emergency department visit rates within 30 days of discharge were 3.9% for total hip arthroplasty (THA) surgery and 4% for total knee arthroplasty (TKA).
- The 30-day hospital readmission rates were 0% percent for THA and 1.1% for TKA.
- The overall 30-day mortality was 0% for TKA and THA surgeries, and patients experienced no major complications.
- The overall minor complication rate was 10.5%.[11]

WRAP-UP

Perioperative care must change from the current fragmented physician-centered model to a patient-centered model of care. The PSH model of care provides perioperative team members the opportunity to provide care that is based on evidence, standardized, and patient centered. Regardless of who leads the PSH model (eg, surgeon, anesthesia professional, advanced practice nurse), changing to a care model that is planned, patient centered, and used during all phases of care and 30 days after discharge should improve patient outcomes and reduce costs. Perioperative nurses have an opportunity to participate in the PSH model by becoming integral members of the PSH team, helping to create the facility-specific PSH process, working in the preoperative clinic, providing patient education, being part of the PSH surgical team, and being instrumental in successful discharge education and planning. Nurses have the opportunity to implement this model in practice and disseminate the research about its effectiveness. For more detailed information on the PSH, visit the American Society of Anesthesiologists web site.[12]

References

1. Cannesson M, Kain Z. The perioperative surgical home model: an innovative clinical care delivery model. *J Clin Anesth.* 2015;27(3):185-187.
2. Patient Centered Medical Home Resource Center. Agency for Healthcare Research and Quality. http://pcmh.ahrq.gov/. Accessed June 4, 2015.
3. Patient Centered Medical Home. Defining the PCMH. June 5, 2015. Agency for Healthcare Research and Quality (AHRQ). https://pcmh.ahrq.gov/page/defining-pcmh. Accessed June 8, 2015.
4. Kain ZN, Vakharia S, Garson L, et al. The perioperative surgical home as a future perioperative practice model. *Anesth Analg.* 2014;118(5):1126-1130.
5. Perioperative Surgical Home vision, strategic principles, and definition 2013. American Society of Anesthesiologists. https://www.asahq.org/resources/perioperative-surgical-home. Accessed June 4, 2015.
6. Graham J, Bowen TR, Strohecker KA, Irgit K, Smith WR. Reducing mortality in hip fracture patients using a perioperative approach and "Patient- Centered Medical Home" model: a prospective cohort study. *Patient Saf Surg.* 2014;8(1):7.
7. Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Affairs.* 2008;27(3):759-769.
8. Stange KC. The problem of fragmentation and the need for integrative solutions. *Ann Family Med.* 2009;7(2):100-103.
9. Cannesson M, Kain Z. Enhanced recovery after surgery versus perioperative surgical home: is it all in the name? *Anesth Analg.* 2014;118(5):901-902.
10. Vetter T, Boudreaux AM, Jones KA, Hunter JM Jr, Pittet JF. The perioperative surgical home: how anesthesiology can collaboratively achieve and leverage the triple aim in health care. *Anesth Analg.* 2014;118(5):1131-1136.
11. Garson L, Schwarzkopf R, Vakharia S, et al. Implementation of a total joint replacement-focused perioperative surgical home: a management case report. *Anesth Analg.* 2014;118(5):1081-1089.
12. Perioperative Surgical Home. American Society of Anesthesiologists. http://www.asahq.org/psh. Accessed June 8, 2015.

Lisa Spruce, DNP, RN, ACNS, ACNP, ANP, CNOR, CNS-CP, is the director of evidence-based perioperative practice at AORN, Inc, Denver, CO. *Dr Spruce has no declared affiliation that could be perceived as posing a potential conflict of interest in the publication of this article.*

print & web 4C/FPO

Continuing Education: Back to Basics: The Perioperative Surgical Home 0.9 CE

www.aorn.org/CE

PURPOSE/GOAL

To provide the learner with knowledge of best practices related to caring for patients using the Perioperative Surgical Home (PSH) model.

OBJECTIVES

1. Discuss common areas of concern that relate to perioperative best practices.
2. Discuss best practices that could enhance safety in the perioperative area.
3. Describe implementation of evidence-based practice in relation to perioperative nursing care.

The Examination and Learner Evaluation are printed here for your convenience. To receive continuing education credit, you must complete the online Examination and Learner Evaluation at *http://www.aorn.org/CE*.

QUESTIONS

1. The PSH model was developed to
   a. create postoperative homes for indigent patients.
   b. remedy the current costly and fragmented perioperative system of care.
   c. provide surgical services at home in an effort to reduce costs.
   d. provide a home-based postoperative care system.

2. A study by Graham et al evaluates the Patient Centered Medical Home (PCMH) model and its use of services, costs, patient mortality, and levels of function and pain between two cohorts of patients with hip fractures and demonstrated that patients in the PCMH model showed reduced mortality at six months; however, cost and functional outcomes were the same between both groups at 12 months.
   a. true b. false

3. The PSH home model strives to
   1. move perioperative services from traditional practice to one that is based on evidence with a focus on quality and safety.
   2. emphasize the patient and coordination of care.
   3. restrict access to care to reduce health care expenditures.
   4. provide care from the time the patient makes the decision to undergo surgery until 30 days after discharge.
   a. 1 and 3 b. 2 and 4
   c. 1, 2, and 4 d. 1, 2, 3, and 4

4. What are some strategies to achieve a successful PSH?
   1. Standardize clinical assessment and management plans that are relevant to individual patient and population differences.
   2. Promote teamwork among clinicians.
   3. Encourage strong communication to develop trust between patients, families, clinicians, and health programs.
   4. Allow all stakeholders to develop and evaluate PSH models.
   5. Apply value-based purchasing at the local level.
   6. Understand that the facility is providing high performance and quality when adapting a PSH model.
   a. 1, 3, and 5 b. 2, 4, and 6
   c. 2, 3, 5, and 6 d. 1, 2, 3, 4, 5, and 6

5. To achieve a successful PSH outcome, an institution's administrators and personnel should have the
   1. need or desire to improve care processes.
   2. ability to capture electronic data to monitor outcomes and benchmarks.
   3. willingness of anesthesia professionals to align their practice financially with the institution.
   4. regulatory pressure to comply with this model.

   a. 3 and 4 b. 1, 2, and 3
   c. 2, 3, and 4 d. 1, 2, 3 and 4

Continuing Education: Back to Basics: The Perioperative Surgical Home 0.9 CE www.aorn.org/CE

This evaluation is used to determine the extent to which this continuing education program met your learning needs. The evaluation is printed here for your convenience. To receive continuing education credit, you must complete the online Examination and Learner Evaluation at *http://www.aorn.org/CE*. Rate the items as described below.

PURPOSE/GOAL

To provide the learner with knowledge of best practices related to caring for patients using the Perioperative Surgical Home (PSH) model.

OBJECTIVES

To what extent were the following objectives of this continuing education program achieved?

1. Discuss common areas of concern that relate to perioperative best practices.
   Low 1. 2. 3. 4. 5. High

2. Discuss best practices that could enhance safety in the perioperative area.
   Low 1. 2. 3. 4. 5. High

3. Describe implementation of evidence-based practice in relation to perioperative nursing care.
   Low 1. 2. 3. 4. 5. High

CONTENT

4. To what extent did this article increase your knowledge of the subject matter?
   Low 1. 2. 3. 4. 5. High

5. To what extent were your individual objectives met?
   Low 1. 2. 3. 4. 5. High

6. Will you be able to use the information from this article in your work setting?
   1. Yes 2. No

7. Will you change your practice as a result of reading this article? (If yes, answer question #7A. If no, answer question #7B.)

7A. How will you change your practice? (*Select all that apply)*
   1. I will provide education to my team regarding why change is needed.
   2. I will work with management to change/implement a policy and procedure.
   3. I will plan an informational meeting with physicians to seek their input and acceptance of the need for change.
   4. I will implement change and evaluate the effect of the change at regular intervals until the change is incorporated as best practice.
   5. Other: _____

7B. If you will not change your practice as a result of reading this article, why? (*Select all that apply*)
   1. The content of the article is not relevant to my practice.
   2. I do not have enough time to teach others about the purpose of the needed change.
   3. I do not have management support to make a change.
   4. Other: _____

8. Our accrediting body requires that we verify the time you needed to complete the 0.9 continuing education contact hour (54-minute) program: _____