Teaching the Anesthesiologist of the Future the Perioperative Surgical Home

NAVID ALEM, MD
ASSISTANT CLINICAL PROFESSOR
DEPARTMENT OF ANESTHESIA & PERIOPERATIVE CARE
UNIVERSITY OF CALIFORNIA, IRVINE
DISCLOSURES: NONE

Learning Objectives

- Defining the Perioperative Surgical Home vs. Perioperative Medicine
- Identifying the proposed competencies needed to succeed as perioperative specialists
- Describing the inherent challenges in learning these competencies in perioperative care
- Illustrating one example of a curriculum in perioperative care

Discussion of Perioperative Medicine vs. the Perioperative Surgical Home

- Current anesthesiology educational curricula can proactively evolve to enlist future trainees with an enhanced professional identity as perioperative physicians
- While many components of the PSH care model are already included in the current resident curriculum[1-3], there are still opportunities for progression
- New educational perspectives can be described to ensure that training in the clinical, leadership and business aspects of this intricate approach to coordinated perioperative care is provided during residency training
- Better understanding of and training in overall perioperative *medicine* will be beneficial
- While "perioperative medicine" and the "perioperative surgical home" are not synonymous terms, they are related in that the PSH care model provides a forum for anesthesiologists to further implement perioperative medicine in the care they provide for patients
- An augmented foundation in perioperative medicine that enables future anesthesiologists to usher a surgical patient to longitudinal recovery is very valuable[4-5]
- Internationally, successful models such as enhanced recovery after surgery (ERAS) have positioned anesthesiologists as perioperative medical specialists[6-7]
- Perioperative Medicine aims to deliver the best possible pre-, intra, - and postoperative care to meet the needs of patients undergoing major surgery[4].

What are the distinct and diversified competencies that are needed in order to succeed as perioperative specialists?

- This was the question for a task force of the American Society of Anesthesia that was convened in spring of 2014[8] (Key Reference that includes listed Competencies)
- Ideally, the six core ACGME competencies of interpersonal and communication skills, knowledge for practice, patient care, practice-based learning, professionalism, and systems based practice must also be embedded in instructional designs in order to appropriately address educational milestones[9]
- Professional Identity as a "Perioperative Expert"
- Competencies designed to enhance communication & understanding across disciplines
- There are several tangible opportunities to improve perioperative patient

- Opportunity to unencumber others

Challenges of Teaching the PSH

- How does one teach something that is novel and still dynamically being defined?
- How does one teach something with certain elements at the edge of the scope of the original training that they had?
- How does one institute a new curriculum in the rigors of an existing anesthesiology residency?
- Who and where does one resource out to for the instruction of the competencies?
- How does one account for varying motivation for both learners and teachers to pursue broadened training?
- How does one broaden the scope of teaching without compromise of the quality of teaching that transpires in intraoperative care?

Illustrating one example of a curriculum in perioperative care

- **Figure 1-The PSH Rotations at UC Irvine Health**

	Clinical Base	CA-1	CA-2	CA-3
Rotation prior to PSH Implementation	Elective	Preoperative Clinic	Post Anesthesia Care Unit (PACU)	Elective
Rotation after PSH Implementation	Foundation in the PSH (PSH-0)	Perioperative Risk Reduction & Optimization (PSH-1)	Recovery after Surgery Principles & Pathways (PSH-2)	Design, implementation and management of PSH Pathways (PSH-3)
Rotation Length (weeks)	4	4	4	4

- An interactive & multimodal learning environment that was supportive and stimulates inquiry with active participation was ideal and would be valued by our adult learners[10]
- There was a diverse pool of innovative teachers such as physician subspecialists, case managers, nursing managers, physical therapists, IT specialists, pharmacists that we could resource out to
- Material taught should be evidence-based, best practice
- Not all of the competencies created by the ASA taskforce could realistically be covered
- Made a realistic "dream list" & started to network throughout the hospital for educational opportunities
- Took an unrestrained approach: Fundamental first question was, "who is ideal to recruit for teaching this unique experience?"
- Similar to other existing competencies, these new ones ultimately entailed direct patient care and rounding, focused didactic activities, independent required reading, seminars, project development, and research enterprises

- Experiences were carefully coordinated and clerical support was made readily available for the residents
- Often times in conjunction with the care specialist, learning goals and objectives were created
- Thus far has been promising as obtained through 360 evaluation[11] and via open forum discussion
- Ideally, as the rotation develops, it will transition to using a Kirkpatrick model of evaluation that incorporates an evaluation of reaction, learning, behavior and results[12]

New for this year

- Introduction of a foundations in PSH rotation in the PGY-1 Year
- Didactic Schedule (Figure 2)
- Further integration of Simulation Training
- More of a focus on design, implementation, and continued management of PSH clinical pathways
- Approved for a 4 week medical student rotation in PSH
- One year curriculum in Perioperative Medicine for Fellows

Figure 2- Didactic Topics on PSH Rotations

What is the PSH?	What is Enhanced Recovery After Surgery (ERAS)?	Perioperative Pain Management
Perioperative Smoking Cessation	Perioperative Nutrition Optimization/Carbohydrate Loading	Perioperative Acute & Chronic Hepatic Disease Management
Perioperative Adrenal Insufficiency	Perioperative TIA/CVA	Perioperative COPD Management
Acute Coronary Syndrome	Perioperative Heart Failure Management	Perioperative Diabetes & Glucose Management
Perioperative Acute & Chronic Kidney Disease	Postoperative Diarrhea	Perioperative Nausea/ Vomit
VTE Prophylaxis & Treatment	Skin & Wound infection/ Breakdown	Urinary Tract Infections
Anemia optimization, workup & management	Central Line Associated Infection	Malnutrition Therapy
Acute Delirium	Challenges in an Opioid Tolerant Patient	Postoperative Ileus
Perioperative Sepsis	Obstructive Sleep Apnea	Perioperative Pneumonia
Perioperative Cardiac Dysrhythmia	Perioperative Coronary Stent Management	Postoperative Fever Workup & Management

Summary

- Eventually, we will need a consensus-based and consistent curriculum for residency programs to follow[13]
- Taking advantage of new practice opportunities that have developed with the PSH model of care delivery will position future trainees to have fulfilling practices both now and in the future
- One prelude to this is a transparent alignment of resident educational content to further integrate competencies in perioperative care.

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