

## Perioperative Surgical Home: A Roadmap for Implementation in Anesthesia Residency Training

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## Goals and Objectives

- Describe a Roadmap for implementation of PSH Training in Residency
- Define what a Perioperative Surgical Home is
- Importance of PSH in Future Anesthesia Models
- Explain Implementation and Results of PSH within a Multidisciplinary Teaching Hospital
- Evolution of PSH Resident Rotation in Same Hospital
- PSH Resident Rotation Competencies

## 2006 Task Force- Future Paradigms in Anesthesia Practice

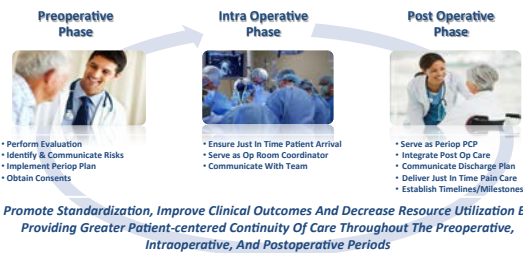
- Advised Anesthesiology training programs to “expand focus beyond the OR to include Perioperative mgt”<sup>1</sup>
- Patient Protection and Affordable Care Act 2010:
  - included promotion of Accountable Care Organizations- multiple providers jointly accountable for **achieving targeted quality and reduction in cost for patient population**
  - 2/3 of hospital costs being related to surgical care
  - **anesthesiologists must assume responsibility of preop/postop process**<sup>3</sup>
- 2012 ASA reaffirmed commitment to perioperative care

## Perioperative Surgical Home

- Evolving Concept
- Proactive, coordinated, team based approach to patient care
- Patient involvement key
- Supported by ASA :
  - March 2015 ASA Board of Directors Cmt on Future Models of Anesthesia Practice : Rec ASA & ABA to “appoint committee to critically examine and redesign residency training, with intention of preparing trainees to meet healthcare needs of future through expanded education and training in perioperative medicine”<sup>2</sup>

## Perioperative Surgical Home

*Broaden The Scope Of Practice & Expand The Role Of The Anesthesiologist To “Perioperativist” For Surgical Care*



## Ochsner PSH Implementation

- Primary Total Hip Arthroplasties Chosen as Patient Population
    - Healthgrades identified THA not meeting Milleman Benchmark LOS criteria
    - Acute Pain Service Involvement- includes acute pain anesthesiologist, resident, nurse
    - Acute Pain Resident Involvement
- ASA Perioperative Surgical Home Review June 2014<sup>4</sup>

## Ochsner Implementation of PSH

- Preoperative, intraoperative, postoperative stakeholders identified & met
- Care pathways of all phases were drawn out
- Collaborative Leadership Team Weekly meetings held for continual process improvement
- 3 month process
- ASA Perioperative Surgical Home Review June 2014<sup>4</sup>

## Ochsner Team Members

- **Preoperative Clinic:** Anesthesiologist, Internal Medicine Physician, **Anesthesiology Resident;** Social Work, PT, OT, Nursing, Discharge Planners
- **Intra-operative Team:** Regional Anesthesiologist and **Regional Anesthesia Resident;** Orthopaedic Surgeon and Resident
- **Postoperative Team:** Acute Pain Anesthesiologist, **Anesthesiology Acute Pain Resident,** Acute Pain Nurse, Orthopaedic Surgeon and Resident, Social Work, Nursing

## Pathway Driven Team Based Approach

The screenshot displays a complex care map with multiple rows for different care domains (e.g., Assessment, Activity, Medication, Treatment, Discharge Planning) and columns for time points (Pre-op Clinic, Day of Surgery, Post-Op Day 1, Post-Op Day 2, Discharge Goals). Each cell contains specific tasks, responsibilities, and icons representing various clinical interventions.

## Pre-op Process

- Ortho Clinic-patient scheduled for surgery
- Joint Class - to learn about the surgical procedure as well as expectations during the perioperative period.
- All patients seen in Anesthesiologist Directed Preoperative Center
  - **Risk Stratification**: Decrease testing<sup>5</sup>, decreased LOS<sup>6</sup>
  - **High Frailty scoring**<sup>8</sup>: direct patients toward "prehabilitation" therapies designed to improve strength and functioning going into surgery with physical therapy, nutritional support and anemia correction
- Emphasis is placed on setting expectations for early discharge (as early as post-op day #1).

## Intra-operative Phase

- Standardized anesthetic management with neuraxial anesthesia and analgesia
- Standardized fluid mgt
- Standardized multimodal pain management

### Postoperative Phase

- Standardized Total Joint Arthroplasty Order sets Utilized
- Coordination of care between Ortho, PSH resident/staff, PT, OT, Case Manager, Social Worker
- First PT session in PACU, then twice daily thereafter
- Daily rounds are made by the PSH team to medically manage and coordinate the patient's postoperative care.
- Low frailty patients who perform well in physical therapy are eligible for discharge on POD 1

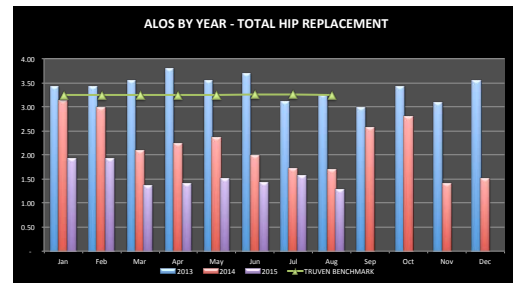
### Resident Involvement in PSH

- Acute Pain Resident
  - Rounding on all total joint patients already
  - natural flow to expand to include postoperative management
  - Integral part of successful PSH implementation
  - Ease of participation –expanded role of already assigned Acute Pain Resident

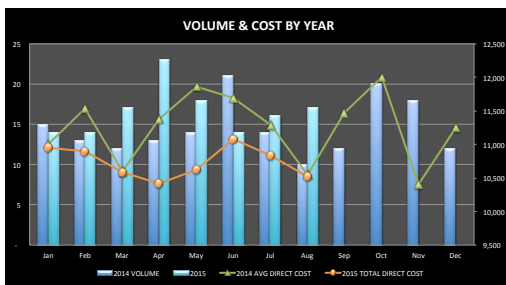
### Workflow for Resident

- Monday meeting- discuss patients for the week with all team members present
- Day of Surgery
  - patient seen in preoperative area
  - Standardized intraoperative protocol
  - standardized postoperative order sets
- Daily AM rounding and medical management with Regional Anesthesia/Acute Pain Attending
- Discharge planning coordination

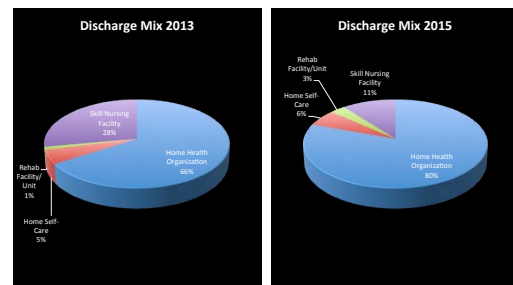
### Results of PSH THA



### PSH THR Decreased Cost



### Discharge Mix Comparison



### PSH Success

- In 2014 our institution realized an additional net income of \$201,921 through the additional hospital capacity created from length of stay reduction in the THA patients.
- In 2015, \$49,296 of additional net income is estimated for the THA patients.
- In 2015, the addition of the TKA patients to the PSH program is estimated to produce \$259,440 of new net income.

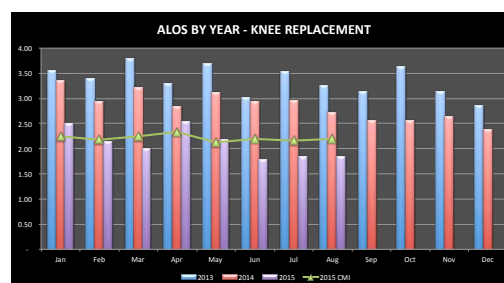
### AQI Scores

- 86% Top Box Score Recommend
- 87% Top Box Score Anesthesia Care
- 74% Pain < 5
- 63% PONV Free
- Utilization of AQI data for Resident Quality Improvement Projects

### Expansion of Ochsner PSH

- Expanded to TKR-Incorporation of nurse practitioner model unsuccessful
- PSH Rotation became formalized for resident assigned to Acute Pain Service
  - Importance of PSH Rotation & alignment with ASA Vision as Anesthesiologists being peri-operative physicians
  - Attractive selling point in job market

### PSH Results TKR



### PSH Rotation Now

- Encompasses 2 week period
- CA1
- CA 3
- Weekly lecture with Hospitalist, Surgeon
- Keyword presentation at end of rotation
- Integration of PSH Rotation with Preoperative Rotation

### Preoperative Clinic Rotation

- One month
- Standardized pre-op risk stratification process for total joint arthroplasties<sup>3</sup>
- Included in Pre-op Rotation
  - Sleep clinic: OSA, CPAP, sleep reports
  - Blood bank: matching, typing, etc
  - Pulmonary Function Lab
  - Cardiac Testing: EKG Course, Non Invasive Cardiac Testing Center ( stress tests)

## Ochsner PSH Resident

- On Day of Surgery:
  - Ensures continuity with preop plan
  - Ensures standardized intraop clinical pathways are followed
- Standardized postoperative orders in PACU

## PSH Resident Postoperative Care

- Postoperative Care
- SCAMPS** – Standardized Clinical Assessment and Management Plans<sup>7</sup>
- OSA, Chest Pain, Acute Renal Injury, Fever
  - Protocols placed in EMR
  - expanded as medical issues arise

## Competency Based

- Professionalism
  - Accountability to Patients
- Communication Skills
  - Interaction between different providers
- Patient Care
  - Apply SCAMP
- Medical Knowledge-
  - Weekly lectures, resident keyword presentation
- Practice Based Learning and Improvement
  - Refine SCAMP
- Systems Based Practices
  - Future Clinical Pathways-OB, Urology

## PSH Rotation Summary

- Arthroplasty Model very successful
- Expansion to other service line- OB begun, Urology next
- Ease of Implementation within Existing Residency Program

## References

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