Enhanced Recovery After Thoracic Surgery - It All Starts with You!!

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Faculty Disclosure

- Christy Schatz - No Disclosures
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Objectives -

1. Discuss the interventions provided by the thoracic team to deliver comprehensive patient care.
2. Describe patient outcomes achieved by utilizing this team-based model.
Polling Question #1

In your current program when are patients typically ambulatory after thoracic surgery?

A. In the PACU
B. On the floor, night of surgery
C. POD #1
D. POD #2
E. When ever the patient feels up to it
You have to know where you came from in order to go a different direction...
Culture...

- The beliefs, customs, arts, etc., of a particular society, group, place, or time
- A way of thinking, behaving, or working that exists in a place or organization
Historical Culture of Medical Teams...
Raised in Different Cultures...

- **Medical Model**
  - Focuses on the defect or dysfunction
  - Medical hx, physical exam, diagnostic tests → Tx for specific illness
  - Focuses on physical and biologic aspect of specific disease/condition
Doctors do things...

“Time changes everything. That’s what people say. It’s not true. Doing things changes things. Not doing things leaves things exactly as they were.”

--Dr. House
Raised in Different Cultures...

Nursing Model

- Patient perceived as a person relating to the environment holistically
- Care based on assessment of all dimensions of the patient
  - Physical
  - Emotional
  - Mental
  - Spiritual
Medical Model vs Nursing Model

- Two sides of the same coin...
- Ideas that are different
- Very closely related
- Complementary to one another
Successful Teams...

- Need both perspectives
- Driven by multiple factors in today's healthcare environment
  - Consumer access to information/data
  - Payors
  - Regulatory changes in medical training
- The "Right Thing to Do"
Traditional Reimbursement Model
Evolution in Health Care...

- Reimbursement now increasingly tied to quality and use of best practices
- Impetus on returning patients to full functional status
- Innovative strategies implemented to ↑ quality while ↓ cost
- Increased transparency
  - Public reporting of outcomes/complications
- Shift to use of multidisciplinary teams for patient care delivery
Traditional Culture in Care of the Surgical Patient...
Traditional Culture in Postoperative Care

- Deep Vein Thrombosis
- Pulmonary Emboli
- Atelectasis/Pneumonia
- Ileus
- Skin Breakdown
- Muscle Atrophy
- Increased Pain
- Deconditioning
Enhanced Recovery After Surgery (ERAS)

- Introduced in late 1990’s by Professor Henrik Kehlet M.D., Ph.D.
- Multi-modal approach ↓ perioperative stress response
- ↓ potential complications
- ↓ hospital length of stay
- Enables patients to return more quickly to their baseline functional status
- First described in the open colorectal population
Early Ambulation...

- “Indispensable to the well-being and safety of the surgical patient”

- “It has been found to save lives by hastening recovery, thereby preventing many fatal complications. It acts by rapidly restoring normal function of vital organs which have become crippled by surgical trauma.”

- D.J. Leithauser, M.D., F.A.C.S, F.I.C.S

  Journal of the international College of Surgeons

  1949
A Successful Journey

Occurs with extensive planning from the start...
Evolution of Care Across the Perioperative Continuum...
Ambulation

- Promotes Lung Expansion
  - ↑ ability to perform pulmonary toilet
  - ↓ atelectasis
  - ↓ pneumonia
- Decreases Pain
  - Chest in anatomic position
  - Less stress on intercostal muscles
- Increases venous return
  - ↓ Risk of DVT
- Increased sense of normalcy and well-being
Everyone needs goals...

- PACU Goals
  - Ambulate 250 feet within 1 hour of extubation
  - Discharge to home
    - Wedge resections
      - Clinically stable
      - Able to ambulate without difficulty
      - Pain controlled with oral meds
      - Nausea/Vomiting controlled
      - VS stable
      - Chest tube removed or occasionally sent with tube
Barriers...

- Nursing Safety Concerns
  - Fall risk/Legal ramifications
  - Hypotension in early postoperative period
  - Nausea/vomiting

- Staffing
  - ↑ workload
  - More staff needed to ↓ nurse/patient ratios

- Patient/Family Concerns
  - Safety
  - Pain Control

- Requires “Buy In” from all parties
Proof is in the pudding...
TIMES HAVE CHANGED
Barbaric??
So is this...
This is better
We have failed to reach our potential
Surgical intervention is the gold standard but is not always smooth...
Our Program

- Began in 2008
- Service line focused team development
- Capital investment for infrastructure
- Administrative commitment to hire the “right people”
2893: Early post operative ambulation after thoracic surgery is feasible and safe
3 year results...

July 2010 - July 2013
- 750 patients
- 579 patients made the distance while in PACU (77%)
- 347 patients made the distance within 1 hour (46%)
- 46 patients just couldn’t walk (6%)
- No adverse events (0%)
Length of Stay for Lobectomy

- **Length of Stay** for lobectomy procedures over the years 2008 to 2014.
- The graph shows the number of patients (y-axis) staying from POD#1 to >POD#5 (x-axis) across the years.
- Noticeable variations in the number of patients for each POD# and year, with 2014 showing a significant increase in stay durations.
VATS Lobectomy

July 2010 - December 2014 : 208 consecutive patients

- **Ambulation results**
  - 129 patients walked within 1 hour (62%)
  - 114 walked >250 feet (88%) - 55% overall
  - 169 patients walked >250 feet within 4 hours (81%)
  - 9 patient just couldn’t walk in the PACU (4%)
  - No adverse events

- **Outcomes (IFH vs. STS)**
  - LOS median 1 day vs. 5 days
  - Atrial arrhythmia 4.3% vs. 10.9%
  - Pneumonia 0.5% vs. 4.2%
  - No difference in PE, DVT - although we used no chemical prophylaxis
  - No difference in readmission rates nor mortality
How we define success
Stakeholders - YOU are building a team
Evidence-based References

Evidence-based References


