MENTORING & PROCTORING

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Disclosure

- **DePuy Synthes**
  - Consultant
  - Speaker

- **Acute Innovations**
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- **ZimmerBiomet**
  - Consultant
4 Questions on Mentoring to Consider

1) Why should we mentor?

2) Whom should we mentor?

3) How do we mentor? And...

4) Seriously? We should really do this? Are you *kidding me*?!
Question #1: Why Should We Mentor?

◆ Over 300,000 patients with rib fractures were seen in U.S. EDs in 2009*

◆ 10% of trauma center admissions (for Methodist Hospital – Indiana University School of Medicine, that means 500 patients/year)

◆ In 50% of these (for us, 250 patients/year) the fracture pattern is complex:
  1) Significant displacement in one plane, or any degree of displacement in two planes
  2) Posterior fractures
  3) Flail segment
  4) Chest wall deformity
  5) Bilateral fractures
  6) Associated pulmonary contusion

◆ Estimated 30% (150 patients/year) will have some long-term disability, and many do not return to full-time employment. Ever.
  o High social and economic costs to system and individual
  o Substantial decrease in QOL for the individual.

*National Center for Health Statistics
But, There is a Problem: Can We Convince the Non-believer That Rib Fixation is Better Than Non-operative Management and Worth an Extra 5 Days added on to LOS?

They Want to be Shown a Prospective, Randomized Study, Etc., Etc...
If each rib can have 1 or 2 FXs, there is or is not a pulmonary contusion, and leave out 1, 11 and 12, then the number of possible rib FX patterns = $8^9 = 1.3 \times 10^8$

$\left(1 \text{ in } 1.3 \times 10^8\right)\left(1 \text{ in } 1.3 \times 10^8\right)\left(1 \text{ in } 1.3 \times 10^8\right) = 1 \text{ in } 2.4 \times 10^{24}$

Your chances of winning $70$ million in the Indiana State Lottery are $1 \text{ in } 2.4 \times 10^{24}$

Question #1
Becomes
Problem #1

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Question #2: Whom Should We Mentor?

Each year, an average size Level 1 Trauma Center in the U.S. will admit 84.4 patients with an ISS > 15 and multiple rib FXs (about one every 4 days).

There are 203 Level 1 Trauma Centers in the U.S., staffed with, say, 1,500 full-time trauma surgeons. If $\frac{1}{3}$ or 500 develop an interest in chest wall reconstruction and pursue training, that’s about 34 cases a year or roughly a case every 2 weeks per surgeon.

Each year, an average size Level 2 Trauma Center in the U.S. will admit 22 patients with an ISS > 10 and multiple rib FXs (about one every 2 weeks).

There are 271 Level 2 Trauma Centers in the U.S., staffed with maybe 2,000 part-time trauma surgeons/general surgeons. If 150 of these work up any kind of interest in this, that’s about 40 cases a year or $1\frac{1}{2}$ cases a week per surgeon.
Question #2: Whom Should We Mentor?

So, we train something, like, 650 surgeons in level 1 and level 2 trauma centers to plate ribs. Piece of cake, right?

Can will find 500 trauma surgeons in Level 1 centers that want to plate ribs 34 times a year?

An even bigger stretch is the 150 part-timers... you think they are going to want to do 1 or 2 cases a week?
Question #3: How Do We Mentor?
Learn from Dr. Thomas W. White on how to start a rib fracture program - DSUS/CMF/0615/0443
POSTERIOR APPROACH
FOR RIB FRACTURE FIXATION

TIMOTHY H. POHLMAN, MD, FACS
IU HEALTH METHODIST HOSPITAL
INDIANAPOLIS, IN

DePuy Synthes

Posterior Approach to Rib Fracture Fixation
Video, 07:26

Watch as Dr. Timothy Pohlman identifies key anatomical landmarks and demonstrates a posterior approach for rib fracture fixation in a cadaveric model.
Virtual Reality Wearable Technology ("VR Wearables")

By providing a multisensory experience, these virtual reality solutions can enhance students’ understanding of concepts and improve their ability to recall key information.

International Society for Technology in Education (ISTE)
http://www.iste.org/
Thoracic Trauma Technology Symposium

WHEN
April 15, 2016 - April 16, 2016
07:00 PM - 03:00 PM

WHERE
Atlanta, GA

DESCRIPTION
This course has been developed to update participants on the management of thoracic trauma involving rib fractures. Participants will learn about surgical techniques for thoracic stabilization from an outstanding faculty in both didactic and laboratory sessions.

LEARNING OBJECTIVES
- Identify appropriate patients for treatment
- Work within the anatomic anatomy as applicable to rib fracture fixation
- Exhibit proficiency in advanced approaches
- Demonstrate approved technique for utilization of the MatrixRib Fixation System

INTENDED AUDIENCE
This course is intended for practicing health care practitioners with an interest in rib fracture fixation.
Can We Work Around This?
Remote Proctoring

Indianapolis

Muncie

- Video
- Audio
- Data Feed
- Radiology
Question #4:

Should We Even Be Talking About This?

Or, Should We Think About a Different Direction Entirely for Surgical Management of Rib FXs?
A Hypothetical Weekly Chest Wall Injury/Reconstruction Conference

...in session

Surgeons
Pulmonologists
Anesthesiologists
Addiction Specialists
Social Workers
Rehab Specialists
Radiologists
PT/OT
Summary

The surgical management of rib fractures, although of clear superiority to traditional methods of management defies rigorous proof of efficacy.

Interest among surgeons in acquiring expertise in chest wall reconstruction can be expected to grow exponentially.

I have not provided you with a here’s-how-we-do-it plan to spread the Gospel according to Saint Tom, because...

I believe we should fundamentally change how we do things.