UC DAVIS HEALTH SYSTEM

Second Annual
Integrating Quality Symposium:
Linking Clinical and Educational Excellence

Education Building, Lecture Hall 1222
March 6, 2012
Agenda

** To link to any lecture listed below, mouseover the lecture title and click**

7:30	**Poster Viewing and Continental Breakfast**
8:30	**Welcome and Introductions** Frederick J. Meyers, MD, Executive Associate Dean, School of Medicine
9:00	**Keynote** **Measuring Patient Outcomes for Performance and Learning** Brent James, MD, M.Stat, Chief Quality Officer, Intermountain Healthcare, Executive Director, Institute for Healthcare Delivery Research
9:45	**Collaborative Quality Improvement** Ulfat Shaikh, MD, MPH, Director of Quality Healthcare Integration, UC Davis Schools of Health
10:15	**Implementation of a Transformational Program to Integrate Quality and Safety Initiatives with Graduate Medical Education** Ann Madden Rice, CEO, UC Davis Medical Center, and Wendy Nugent, MSN, Medical Education Quality Improvement Coordinator
10:30	**Break**
10:45	**Addressing Medication Errors in a Just Culture** Jennifer Mattice, RN and Amy Doroy, RN, BSN
11:00	**Integrating Quality and Clinical Excellence: The Development of a Real-Time Intra-operative Surgical Skills Grading Scale** Thomas Powers, MD
11:15	**Improving Weekend Discharge Process for Patients Being Discharged on Oral Anticoagulation Therapy** S. Mayberg, PA-C, F. Tanner-Corbett, PA-C, S. Ganga, RN, F. Kromah, MD J. Sullivan, MD, J.N. Young, MD
11:30	**Association Between Surgical and Patient Characteristics and the Outcome of Patient Time in the Post Anesthesia Care Unit** Lawrence Ong, MD, Charandip Sandhu, MD, Harmeet Bhullar, MD, Rostam Bakhtari, MD, Matthew Stanich, MD

11:45 **Children's Asthma Care; Implementing Epic EMR Tools to Achieve 100% Adherence with Discharge Planning - ** Contact Kristy Trouchon for more information ****
Nicole Chao, MD, Pamela Mooney, RN, MSN

12:00-1:15 **Lunch and Poster Viewing on First and Second Floors**

1:20 **Keynote**
Achieving Clinical Integration: An Emerging Core Competency for American Healthcare
Kenneth W. Kizer, MD, MPH, Distinguished Professor, University of California Davis, School of Medicine and Betty Irene Moore School of Nursing and Director, Institute for Population Health Improvement, UC Davis Health System

2:00 **Department of Physical Medicine and Rehabilitation: Medication Reconciliation Quality Improvement Project**
Jeremy Wren, DO, Ryan Hoke, MD

2:15 **Teaching Internal Medicine Interns Lean Principles While Improving the Process of Obtaining Outside Medical Records**
Craig Keenan, MD, Raminder Gill, MD

2:30 **Identification of Stroke Risk Among Members of the Sacramento-Area Hmong Community and Outreach Programs for Primary Stroke Prevention**
James Ha, MD

2:45 **Break**

3:00 **Assessing the Quality of Diabetes Care at Paul Hom Asian Clinic (PHAC)**
Simon Wu, MS2

3:15 **Primary Care Physician Perspectives on Access to Mental Health Notes**
Jessica Ferranti, MD, Kristina Antonson, MD, Emily Porch, MD, Emily Dahod, MD, Rodney Yarnel, MD, Matthew Soulier, MD, Adnan Pakyurek, MD

3:30 **Building Strong Teams: Effects of a Medical Student/Nurse Shadowing Experience**
Amy Doroy, RN, BSN, Jann Murray-Garcia, MD, MPH, Tonya Fancher, MD, MPH, FACP

3:45 **Improving Compliance with National Guidelines for Epilepsy Management in Outpatient Clinic**
Sasha Duffy, MD

4:00 **Wrap-up**

Final Draft Agenda – March 5, 2012 - KB

Raising your I.Q.

Integrating Quality Symposium: Linking Educational and Clinical Excellence

Frederick J. Meyers, M.D., M.A.C.P.

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Welcome

- Second annual symposium
- Very proud of UC Davis Health System and YOU!
- Leading national efforts
- Importance of linking education with clinical projects
- Interprofessional teams

Welcome

- 2 keynote speakers
- 13 podium presentations
- 56 poster presentations
- Residents, School of Nursing, School of Medicine, Informatics and Public Health students, faculty, fellows, nurses, CSU Sacramento students, pharmacy… more?

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Symposium Committee

- Interprofessional
- Breadth of expertise
- What do we do?
  - Encourage and invite participation
  - Review all abstracts
  - Planning
  - Outcomes

Committee Co-Chairs

- Ulfat Shaikh, M.D., M.P.H., Associate Professor, Pediatrics, and Director, Healthcare Quality Integration
- Frederick J. Meyers, M.D., M.A.C.P., Executive Associate Dean, School of Medicine

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Committee Members

- John Drummer, Academic Coordinator, Office of Health Education
- Roy Rai, M.B.A., Chief Administrative Officer, Office of Health Education
- Wendy Nugent, M.S.N., Medical Education Quality Improvement Coordinator, Graduate Medical Education

Committee Members

- Allan Siefkin, M.D., Chief Medical Officer, UC Davis Medical Center
- Jacqueline Stocking, R.N., M.S.N., M.B.A., Director, Quality and Safety, Patient Care Services, UC Davis Medical Center
- Deborah Ward, Ph.D., R.N., Associate Dean, Betty Irene Moore School of Nursing

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Symposium coordinators

- Deb Patterson, Manager, Student Life, Office of Medical Education
- Kristy Bird Trouchon, Executive Analyst, School of Medicine

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How it all works

- 2 rooms – broadcast from this room
- Q & A times follow podium presentations
- If people in the broadcast room have a question, let your room monitor know

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How it all works

- Bathrooms are just outside the doors
- Please turn devices off or put them on mute

How it all works

- Agenda
- We must all keep on time
- Break mid-morning
- Lunch only for those who RSVP'd in advance

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How it all works

- Your feedback is very important to us
- Two short surveys – one for presenters and one for attendees
- Surveys will be emailed today or tomorrow
- Please make sure the registration table has your email address

Poster presentations

- Poster presenters on 1st and 2nd floors during lunch hour
- Each poster represents good research and a lot of hard work
- Encourage you to see as many posters as you can and ask questions

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So what does this all mean?

Educational Competencies	Quality of Care – IOM Definitions
Knowledge	Pt-Family Centered Care
Communication	Effective Care
Case Management	Efficient Care
Systems Based Practice	Safe Care
Practice Based Learning and Improvement	Timely Care
Professionalism	Equitable Care
Clinical Translational Research	(Population Health)

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Competencies

- **Institutional and programmatic resources must be aligned with education and quality programs**

Competencies of a health-care organization

- Knowledge:
  - Range of expertise
  - Dissemination of new knowledge
- Patient care:
  - Are standards of competency maintained?

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Competencies of a health-care organization

- Problem-Based Learning Initiative (PBLI) and Systems-Based Practice (SBP)
  - Are goals established and measured?
  - Are deficiencies acted upon?
  - Are resources allocated?
  - Are systems developed that support care: teams, eHR, work hours

Competencies of a health-care organization

- **Professionalism**
  - Are the needs of patients and region served?
  - Is everyone treated with respect and compassion?
  - Are professionalism, civility, non-harassment and principles of community upheld and enforced?

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An example we can do together:

Linking education, quality and organizational resources

Clinical Goal	Core Education Competencies
Palliative Care- End Of Life (EOL)	• Pain assessment • Opioid Pharmacology • Family conference • Foresee prognosis (triggers) and foretell (communication)

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Linking education, quality and organizational resources

Clinical Goal	Core Competencies	Quality Outcome	Organization Resources
Palliative Care and End of Life (EOL) care	• Pain assessment • Opioid Pharm. • Lead a family conference • Foresee and foretell prognosis	• Pain scores • Hospice LOS • 360 degree evaluation: Patient/ Family/Staff • Site of death	• PC consult service • IDT • CLAS • Interpreting services

Triple Aim: We're plugged in

- Better health-care quality
- Reduce costs
- Improve population/public health

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Integrating Quality Milestones at UC Davis Health System

- Dr. Shaikh - director in 2010
- Created network – all 5 University of California medical centers
- Support from UCOP Center for Health Quality and Innovation

Integrating Quality Milestones

- March 2011 – first Symposium at UC Davis Health System
- UC Davis Quality Improvement (QI) Student Interest Group created
  - Connects with Institute for Healthcare Improvement's Open School for Health Professions

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Integrating Quality Milestones

- Medical Student Orientation – focus on systems that provide patient-centered care
- School of Medicine and Betty Irene Moore School of Nursing faculty developed interprofessional study model in health-care quality improvement

Integrating Quality Milestones

- Graduate Medical Education program engages residents
- Led by Ann Madden Rice, CEO, UC Davis Medical Center, and Wendy Nugent, M.S.N., Medical Education Quality Improvement Coordinator

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Continuing Health Education also!

- UC Davis Health System achieved 100% compliance with VAP across all 7 ICUs (see poster)
  - Interdisciplinary team used Lean Six Sigma performance methods
  - 4 of 7 units decreased to zero zone at end of 2011
  - Emerging model for CME/CNE/CHE

(ref. Ann Intern Med 2012; 156:305-308)

Scholars are the most enduring form of technology and information transfer

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Keynote speakers

- Dr. Brent James – a.m. speaker
- Dr. Kenneth Kizer – p.m. speaker

Dr. Kenneth Kizer, M.D., M.P.H.

- Speaking after lunch
- Director, Institute for Population Health Improvement, and Distinguished Professor, School of Medicine and Betty Irene Moore School of Nursing

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Dr. Kenneth Kizer

- One of the '100 Most Powerful People in Healthcare'
- Previous professional experience: Undersecretary of Health, U.S. Department of Veterans Affairs
- Founder, National Quality Forum

Dr. Brent James, M.D., M.Stat.

- Chief Quality Officer and Executive Director, Institute for Healthcare Delivery Research, Intermountain Healthcare

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Dr. Brent James

- Known internationally for his work in clinical quality improvement, patient safety, and the infrastructure that underlies successful improvement efforts

Dr. Brent James

- Featured in the NY Times Magazine Article, "Making Health Care Better"
  - Nov. 3, 2009
    - "If health care is going to change, Dr. Brent James' ideas will change it."

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Dr. Brent James

- Welcome!

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Integrating Quality Symposium:

Linking Clinical and Educational Excellence

A HEALTHIER WORLD **THROUGH BOLD INNOVATION**

Implementation of a Transformational Program to Integrate Quality and Safety Initiatives with Graduate Medical Education

March 6, 2012

A HEALTHIER WORLD **THROUGH BOLD INNOVATION**

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Ann Madden Rice
Chief Executive Officer
UC Davis Medical Center
and
Wendy Nugent
Medical Education
Quality Improvement Coordinator
UC Davis Medical Center

Integrating Quality & Safety Initiatives with Graduate Medical Education

- *Contextual origin:*
  - **Genesis to address ACGME, TJC, & quality patient care requirements**
  - **Program to transform how quality education is integrated into GME**
  - **Engage all 23 Residency Programs in IQ initiatives through experiential learning**
  - **Produce quality-focused outstanding clinicians now and in the future**

A HEALTHIER WORLD THROUGH BOLD INNOVATION
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Integrating Quality & Safety Initiatives with Graduate Medical Education

- *Development*
  - **Focus on immediate needs and goals that could be accomplished by June 2012**
  - **Development basic framework for the pilot program**
- *Implementation and support*
  - **Define position expectations**
  - **Designate a quality improvement coordinator for graduate medical education**

Integrating Quality & Safety Initiatives with Graduate Medical Education

- *Guiding principles to transform culture from:*
  - **Association of American Medical Colleges (AAMC)**
    - **TEAMS model= Team training, Education, Analysis, Methods, Safety and quality principles**
  - **Lean Six Sigma**
    - **Use of Plan-Do-Check-Act (PDSA), templates & required metrics & analysis of outcomes**
  - **The Joint Commission: leaders provide opportunities for all to participate in quality & safety initiatives.**

A HEALTHIER WORLD THROUGH BOLD INNOVATION
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Integrating Quality & Safety Initiatives with Graduate Medical Education

- *Beginnings and determining approach:*
  - **Integrating quality initiative that was a choice of the residents in each residency program with guidance from the Residency Program Training Directors.**
  - **Required to submit abstract on IQ initiative for: "*Integrating Quality: Linking Clinical and Education Excellence*," March 6, 2012, Education Building**

Integrating Quality & Safety Initiatives with Graduate Medical Education

- *Framework and guidelines:*
  - **Developed templates and charters based on LEAN principles for standardized development and documentation for integrating quality initiatives**
  - **Met individually with all 23 residency training program directors**
  - **Developed timelines and deadlines**

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Integrating Quality & Safety Initiatives with Graduate Medical Education

- *Template and charter elements:*
  - **Identification & justification for project**
  - **Leader(s):**
  - **Residency Training Program Director**
  - **Resident champion(s)**
  - **Problem(s) or concern(s)**

Integrating Quality & Safety Initiatives with Graduate Medical Education

- *Template and charter elements, con't:*
  - **Objective(s)**
  - **Identification & justification for project**
  - **Definition & scoping**
  - **Metrics**
  - **Goals & benefits**

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Integrating Quality & Safety Initiatives with Graduate Medical Education

- *Status:*
  - **Integrating quality initiatives & abstract submitted to symposium committee by all 23 programs, & some multiple abstracts**
  - **Looking at lessons learned, future plans, & expanding experiential learning for all student learners for life-long learning**
  - **Increased collaboration throughout the Health System with resident-generated integrating quality initiatives as culture changes**

Questions?

Integrating Quality Symposium

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Addressing Medication Errors in a Just Culture

Jennifer Noble Mattice, RN, BSN
Amy Doroy, RN, BSN

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NRS 206 Community Connections

- Project to address patient safety related to medication errors utilizing the principles of a Just Culture
- Root Cause Analysis
- PDSA Cycle (Plan-Do-Study-Act)

P is for PLAN

- Attend Just Culture Training
- Review the incident reports
- Observe staff work flow patterns
- Report our findings

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D is for DO

Just Culture

- Created by David Marx
  - Whack A Mole
- Safety-supportive System
- Shared Accountability
  - Administration
  - Staff
  - Visitors

Just Culture

- Create a Learning Culture
- Create an Open and Fair Culture
- Design Safe Systems
- Manage Behavioral Choices

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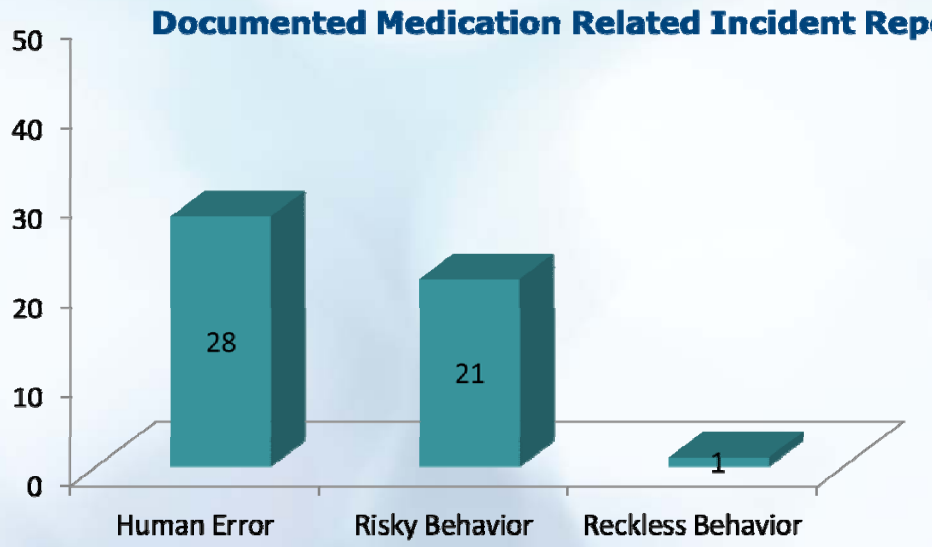
S is for STUDY

- Human Error
- Risky Behavior
- Reckless Behavior

Results N=50



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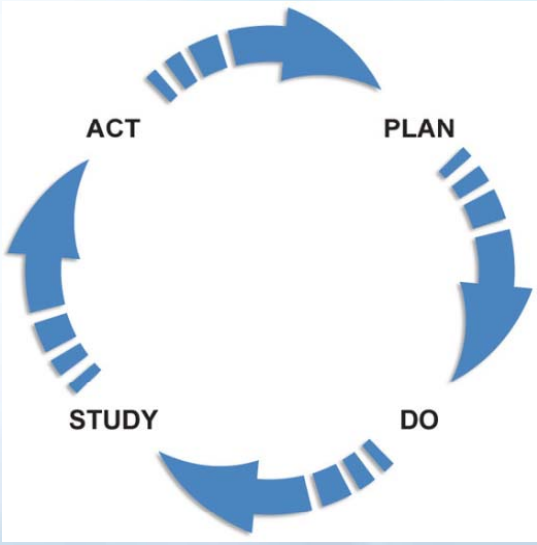
A is for ACT

- Report back to our preceptor
- Report back to QI
  - Detailed description of findings
  - Identified areas of risk
  - Provided recommendations
  - Included exemplary contributions

PDSA Model



- Plan
- Do
- Study
- Act

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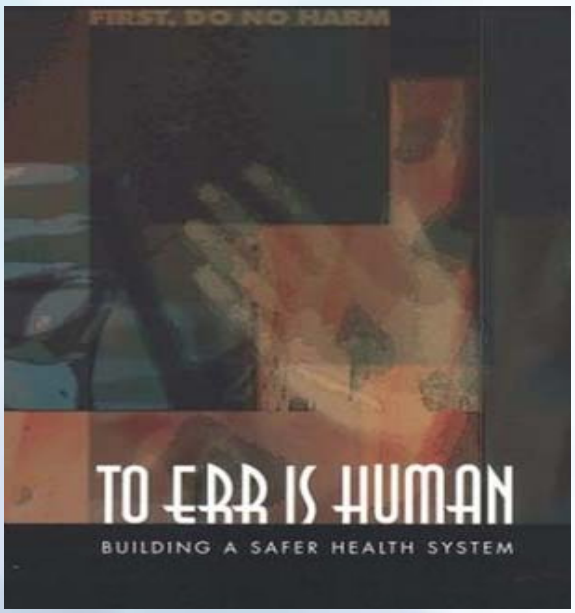
Summary



QUESTIONS...

Integrating Quality and Clinical Excellence: The development of a Real-Time Intraoperative Surgical Skills Grading Scale

Thomas W. Powers, MD
Resident, Orthopedic Surgery

Rolando Figueroa Roberto, MD
Associate Clinical Professor
Residency Director,
UC Davis Department of Orthopedics

Acknowledgments

- OMEGA and AOA
- Co-authors:
  - Jacob Gire, BS, UCD SOM MS2
  - Blythe Durbin-Johnson MPH,

    UC Davis School of Public Health and Clinical Translational Science Center
  - Margaret MacNitt, BS

    UC Davis Residency Program Coordinator

Disclosures:

- No relevant financial relationships exist related to this research project

Background

- Evolution of surgical education from:
  - "See one, do one, teach one"
- Demonstration of surgical proficiency during residency
  - Documentation of case volume
- External agency interest in "Core Competencies"

What are the Six Core Competencies & Do They apply to training of a Surgeon

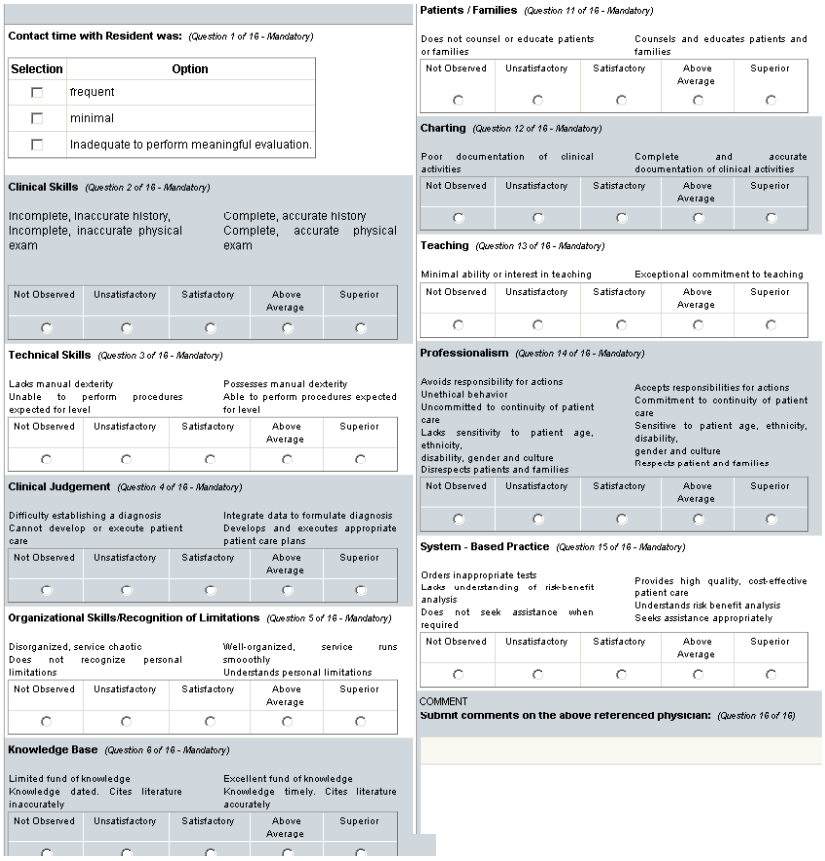
- Interpersonal & Communication Skills
- Medical Knowledge
- Patient Care
- Practice Based Learning & Improvement
- System Based Practice
- Professionalism

Why is there no Measure for Surgical Proficiency?

The Core Competencies were developed by non surgical educators

Surgeons have not critically evaluated teaching methods used to teach surgical skills

We strive to integrate and adapt to ACGME recommendations



Contact time with Resident was: *(Question 1 of 16 - Mandatory)*

Selection	Option
☐	frequent
☐	minimal
☐	Inadequate to perform meaningful evaluation.

Clinical Skills *(Question 2 of 16 - Mandatory)*

Incomplete, inaccurate history, Incomplete, inaccurate physical exam

Complete, accurate history Complete, accurate physical exam

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

Technical Skills *(Question 3 of 16 - Mandatory)*

Lacks manual dexterity Unable to perform procedures expected for level

Possesses manual dexterity Able to perform procedures expected for level

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

Clinical Judgement *(Question 4 of 16 - Mandatory)*

Difficulty establishing a diagnosis Cannot develop or execute patient care

Integrate data to formulate diagnosis Develops and executes appropriate patient care plans

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

Organizational Skills/Recognition of Limitations *(Question 5 of 16 - Mandatory)*

Disorganized, service chaotic Does not recognize personal limitations

Well-organized, service runs smooothly Understands personal limitations

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

Knowledge Base *(Question 6 of 16 - Mandatory)*

Limited fund of knowledge Knowledge dated. Cites literature inaccurately

Excellent fund of knowledge Knowledge timely. Cites literature accurately

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

Patients / Families *(Question 11 of 16 - Mandatory)*

Does not counsel or educate patients or families

Counsels and educates patients and families

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

Charting *(Question 12 of 16 - Mandatory)*

Poor documentation of clinical activities

Complete and accurate documentation of clinical activities

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

Teaching *(Question 13 of 16 - Mandatory)*

Minimal ability or interest in teaching

Exceptional commitment to teaching

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

Professionalism *(Question 14 of 16 - Mandatory)*

Avoids responsibility for actions
Unethical behavior
Uncommitted to continuity of patient care
Lacks sensitivity to patient age, ethnicity, disability, gender and culture
Disrespects patients and families

Accepts responsibilities for actions
Commitment to continuity of patient care
Sensitive to patient age, ethnicity, disability, gender and culture
Respects patient and families

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

System - Based Practice *(Question 15 of 16 - Mandatory)*

Orders inappropriate tests
Lacks understanding of risk-benefit analysis
Does not seek assistance when required

Provides high quality, cost-effective patient care
Understands risk benefit analysis
Seeks assistance appropriately

Not Observed	Unsatisfactory	Satisfactory	Above Average	Superior
○	○	○	○	○

COMMENT
Submit comments on the above referenced physician: *(Question 16 of 16)*

3/5/2012

Can we measure resident acquisition of surgical skills?

- If we would like to assess residency acquisition of surgical skills we need to have measures of performance
- Existing tools have been applied in General Surgery, OB/Gyn, Orthopedics in Britain and Canada

The American Journal of Surgery 193 (2007) 551–555
Scientific paper

A universal global rating scale for the evaluation of technical skills in the operating room

Jeffrey D. Doyle, M.D., Eric M. Webber, M.D., Ravi S. Sidhu, M.D.*

Department of Surgery, Faculty of Medicine, University of British Columbia, 910 West 10th Avenue, Vancouver, British Columbia, Canada V5Z 4E3

Manuscript received December 6, 2006; revised manuscript February 5, 2007

Presented at the 93rd Annual Meeting of the North Pacific Surgical Association, Spokane, WA, November 10–11, 2006

Assessing the educational environment in the operating room—a measure of resident perception at one Canadian institution

Jeanie Kanashiro, BSc, MD, MMEd,[a] **Sean McAleer, DPhil,**[b] *and* **Sue Roff, MA,**[b] *Calgary, Canada, and Dundee, Scotland, UK*

What we have done

- Operative competencies linked to departmental intranet (Web based)
- Intranet site has list of recommended cases for operative competency

Competencies and Skills

Starting January 2011, all residents should be looking to have proctored cases in the different cases competencies listed on the Operative Competencies in Orthopaedics index. This means that you should open up for your faculty member the **Intraoperative Skills Assessment Sheet pdf** and have them complete it at case completion. This should be done at all institutions; KPMG, UCD, SHNC, Mercy, and Sutter. Please archive your proctored cases on a flashdrive until a more permanent system is set up in E*Value.

****Please note that this does not replace the ACGME oplog, but supplements resident acquisition of practical case experience that will support the successful practice of Orthopaedic Surgery ***

If you have any questions about this process, please contact Margaret MacNitt or Dr. Roberto.

Operative Competencies in Orthopaedics

Intraoperative Skills Assessment Sheet

Intranet site has list of procedures for operative competency grading

Operative Competencies in Orthopedics

Hand Rotation
1. Trigger finger release
2. Carpal tunnel release
3. Distal radius fracture fixation
4. Tendon repair
5. Ganglion excision.
6. Pinning of a finger fracture
7. Scaphoid fracture fixation
8. Microsurgical nerve repair
9. Cubital tunnel release
10. Wrist arthroscopy

SPINE ROTATION
PG3 level
1.)Posterior exposure lumbar spine
2.) Laminotomy and discectomy lumbar spine
3.) lumbar laminectomy for spinal stenosis
4.) lumbar pedicle screw instrumentation
5.) Posterior exposure thoracic spine

PG4 level
1.) Anterior exposure cervical spine
2.) ACDF with plate cervical spine
3.) Cervical laminoplasty
4.) Closed /open reduction of cervical fracture or dislocation cervical spine
5.) Pedicle screw instrumentation for trauma or deformity, thoracic level

TRAUMA ROTATION
1. Distal radius
2. Ankle
3. BBFA
4. Hip Hemiarthroplasty
5. CRPP femoral neck
6. Tibial nail
7. Femoral nail
8. Proximal humerus/humeral shaft
9. Olecranon
10. Compartment release of the thigh, forearm, and calf

FOOT ROTATION
1. Simple ankle arthroscopy
2. Toe, Transmet and below knee amputation
3. Simple ankle fracture ORIF (lateral malleolus fx, bimal)
4. Steps for primary ankle fusion
5. Steps for primary subtalar fusion
6. Steps for mild/moderate bunion – Distal chevron type
7. Achilles repair
8. Lateral ligament stabilization

SPORTS ROTATION
PGY - 2
Diagnostic shoulder scope
Diagnostic knee scope
Arthroscopic shoulder debridement - labrum and rotator cuff
Arthroscopic meniscectomy
Knee chondroplasty
Arthroscopic biceps tenotomy
Shoulder manipulation under anesthesia
Knee loose body removal
Arthroscopic subacromial decompression
Open distal clavicle resection

PGY – 3
Biceps tenodesis or open
Repair small - medium rotator cuff tear, or open arthroscopic and open adhesions
Debride shoulder calcific tendonitis
Arthroscopic distal clavicle resection
Microfracture, knee
Open debridement lateral epicodylitis
Knee lateral release

PGY - 5
Patellar realignment (Fulkerson)
Arthroscopic superior labral repair
Elbow scope, loose body removal
Distal biceps repair
Repair large cuff tear, arthroscopic
Repair Bankart lesion arthroscopic
Shoulder arthroscopy, lysis of
Shoulder hemiarthroplasty
A-C reconstruction, open
ACL reconstruction
OATS

JOINTS ROTATION
PG3
Knee Arthroscopy
Primary Total Hip
Primary Total Knee
Cartilage Preservation Surgery on the Knee

PG5
Complex Total Hip
Complex Total Knee
Revision Total Hip
Revision Total Knee
Unicompartmental Knee Replacement
Hip Arthroscopy
Cartilage Preservation Surgery on the Hip

PEDS ROTATION
PGY2,3

1.)Complete wound closures from the fascia to the skin, with appropriate handling of soft tissue
2.)Closed treatment Pediatric Femur Fracture with spica cast
3.)Anterior Approach to hip
4.) Closed treatment Pediatric supracondylar fracture
5.)Operative Treatment of SCFE

(Peds): PG 4,5
1.) ORIF Medial Condyle fracture
2.) I and D pediatric septic hip
3.) Operative Treatment Pediatric femur fracture with flexible nail
4.)Operative treatment displaced physeal fracture tibia, femur
5.)Operative Treatment SUpracondylar humerus

Kaiser Operative Site Case List for Competency Grading

Operative Competencies in Orthopedics

KAISER ROTATION
PGY – 4
1. I & D and external fixation of open long bone fracture
2. Leg 4 compartment fasciotomy (either one incision or two incision)
3. Standard femoral nail for a shaft fracture
4. Femoral cephalomedullary nail for intertrochanteric or peritrochanteric fractures
5. Closed reduction and percutaneous screw fixation for femoral neck fracture
6. DHS for femoral neck fracture
7. Hemiarthroplasty for femoral neck fracture
8. Tibial intermedullary nail
9. Distal radius fracture ORIF
10. Both bone forearm fracture ORIF

Others high volume Kaiser procedures
11. Total knee arthroplasty
12. Total hip arthroplasty
13. Knee arthroscopy
14. Shoulder arthroscopy
15. Clavicle ORIF
16. Humerus ORIF - shaft and proximal humerus
17. Shoulder hemiarthroplasty

PG3 COMPETENCIES
1) ORIF Bi/Trimal
2) ORIF Distal Radius
3) ORIF Ulna/Olecranon
4) IMN Tibia
5) IMN Femur
6) Arthroscopy Knee (diagnostic/meniscectomy/chondroplasty)
7) Arthroscopy Shoulder (diagnostic/subacromial decomression/simple rotator cuff tear)
8) Biceps Tenodesis
9) THA/Hemi
10) TKA

Others
11) ORIF Clavicle
12) Carpal Tunnel Release
13) Trigger Finger Release
14) DHS or CRPP of Hip
15) ORIF Mid-Distal Femur

EMERGENCY ROOM COMPETENCIES
PGY-2 in ED:
1) Distal Radius Reduction, Hematoma Block, Long/Short Arm Splint
2) Ankle Reduction, +/-Ankle Block, Short Leg Splint
3) Digital Block
4) I+D foot or hand puss
5) Saline Arthrogram (Knee, Elbow, Ankle, Wrist)
6) Skeletal or Skin Traction
7) Long Leg Splint
8) Hip Reduction
9) Shoulder Reduction
10) BBFA Reduction

USSGS is available as PDF on intranet , via Survey Monkey

Global Rating Scale of Operative Performance

Evaluator: _____ Date: _____

Resident: _____ PGY 1☐ 2☐ 3☐ 4☐ 5☐

Operative Procedure _____ CPT Codes _____

1. Knowledge of patient's history and indications for surgery:

1	2	3	4
Not yet proficient - no knowledge of history or indications for surgery.	***Not yet proficient*** - unsatisfactory knowledge of history and/or surgical indications.	***At level of training*** - satisfactory knowledge of history and surgical indication.	***Above level of training*** - detailed knowledge of history and complete understanding for surgical indication.

2. Time and motion:

1	2	3	4
Not yet proficient - inefficient time/motion and many unnecessary moves.	***Not yet proficient*** – needs improvement with efficient time/motion and/or some unnecessary moves.	***At level of training*** - efficient time/motion and appropriate number of moves.	***Above level of training*** - clear economy of movement and maximum efficiency.

3. Instrument handling:

1	2	3	4
Not yet proficient - repeatedly makes tentative or awkward moves with instruments/ inappropriate use of instruments.	***Not yet proficient*** - competent use of instruments but occasionally appeared stiff and awkward.	***At level of training*** - competent use of instruments.	***Above level of training*** - fluid moves with instruments and no awkwardness.

4. Knowledge of instrument:

1	2	3	4
Not yet proficient - frequently asked for wrong instrument or used inappropriate instruments.	***Not yet proficient*** - knew names of most instruments but occasionally used them inappropriately.	***At level of training*** – knew names of instruments and used them appropriately	***Above level of training*** – knew names of instruments and used them appropriately

5. Flow of operation:

1	2	3	4
Not yet proficient - frequently stopped operation and seemed unsure of next move.	***Not yet proficient*** - needs improvement on forward planning with reasonable progression of procedure.	***At level of training*** – planned course of operating and progression of procedure was satisfactory.	***Above level of training*** - Obviously planned course of operating with effortless flow from one move to the next.

6. Use of assistants:

1	2	3	4
Not yet proficient - consistently placed assistants poorly or failed to use assistants.	***Not yet proficient*** - remembered to use assistants but sometimes placed them poorly.	***At level of training*** – strategically used assistants to the best advantage.	***Above level of training*** - strategically used assistants to the best advantage at all times.

7. Knowledge of specific procedure:

1	2	3	4
Not yet proficient - deficient knowledge; needed specific instructions at most steps.	***Not yet proficient*** - knew some of the important steps of the operation but often needed specific instructions.	***At level of training*** - demonstrated familiarity with aspects of operation.	***Above level of training*** - demonstrated familiarity with all aspects of operation.

Form as it exists includes modifications to previously published versions

How many times has this resident participated in this procedure?

< 5 ◯ 5-10 ◯ 11-25 ◯ >25 ◯

Strengths: _____

Areas of improvement: _____

Based upon this proctored operative case I would grade this resident's proficiency as:

☐ Completely proficient ☐ Not yet proficient *

Based upon this resident's stage in training the training exercise is graded as

☐ Pass ☐ Fail *

** Note: a ranking of Not yet proficient requires a repeat grading of this operative skill.*

Page **2** of **2**

Assessment of faculty as educators

- Residents should also assess attending ability to serve as surgical educator

Assessing the educational environment in the operating room—a measure of resident perception at one Canadian institution

Jeanie Kanashiro, BSc, MD, MMEd,[a] Sean McAleer, DPhil,[b] *and* Sue Roff, MA,[b] *Calgary, Canada, and Dundee, Scotland, UK*

The OREEM allows residents to provide feedback on the teaching and personality style of their operative mentors

Please answer the following questions by indicating whether you:
SA – strongly agree
A – agree
U – unsure
D – disagree
SD – strongly disagree

1. My preceptor has a pleasant personality.
2. I get along well with my preceptor.
3. My preceptor is enthusiastic about teaching.
4. My preceptor has a genuine interest in my progress.
5. I understand what my preceptor is trying to teach me.
6. My preceptor's surgical skills are very good.
7. My preceptor gives me time to practice my surgical skills in the operating room.
8. My preceptor immediately takes the instruments away when I do not perform well.
9. Before the operation, my preceptor discusses the surgical technique planned.
10. Before the operation my preceptor discusses what part of the procedure I will perform.
11. My preceptor expects my surgical skills to be as good as his/hers.

Assessing the educational environment in the operating room—a measure of resident perception at one Canadian institution

Jeanie Kanashiro, BSc, MD, MMEd,[a] Sean McAleer, DPhil,[b] *and* Sue Roff, MA,[b] *Calgary, Canada, and Dundee, Scotland, UK*

Fundamental questions are provided regarding the structure of our operative teaching curriculum

12. My preceptor gives me feedback on my performance.
13. My preceptor's criticism is constructive.
14. The operations performed on this rotation are too complex for my level.
15. The elective operating room list has the right mix of cases to suit my training.
16. There are too many cases on the elective list to give me the opportunity to operate.
17. I get enough opportunity to assist.
18. There are enough operating room days per week for me to gain the appropriate experience.
19. More senior residents or fellows take away my opportunities to operate.
20. The number of emergency procedures is sufficient for me to gain the right operative experience.
21. The variety of emergency cases gives me the appropriate exposure.
22. My preceptor is in too much of a rush during emergency cases to let me operate.
23. I miss out on operative experience because of restrictions on working hours.
24. I have the opportunity to develop the skills required at my stage.
25. The atmosphere in the operating room is pleasant.

Do residency duty hours affect your residents acquisition of operative experience

Assessing the educational environment in the operating room—a measure of resident perception at one Canadian institution

Jeanie Kanashiro, BSc, MD, MMEd,[a] Sean McAleer, DPhil,[b] *and* Sue Roff, MA,[b] *C*
Dundee, Scotland, UK

Please answer the following questions by indicating whether you:
SA – strongly agree
A – agree
U – unsure
D – disagree
SD – strongly disagree

26. In the operating room, I don't like being corrected in front of medical students, nurses and residents.
27. The nursing staff dislike when I operate as the operation takes longer.
28. The anesthetists put pressure on my preceptor to operate him/herself to reduce anesthetic time.
29. The staff in the operating room are friendly.
30. I feel discriminated against in the operating room because of my sex.
31. I feel discriminated against in the operating room because of my race.
32. I feel part of a team in the operating room.
33. I am too busy doing other work to go to the operating room.
34. I am often too tired to get the most out of teaching in the operating room.
35. I am so stressed in the operating room that I do not learn as much as I could.
36. I am asked to perform operations alone that I do not feel competent at.
37. When I am in the operating room, there is nobody to cover the ward.
38. I get paged during operations.
39. The level of supervision in the operating room is adequate for my level.
40. The operative cases are too long.

Questions are posed which expose system issues that may affect resident performance and the capacity to perform operations.

Early Results

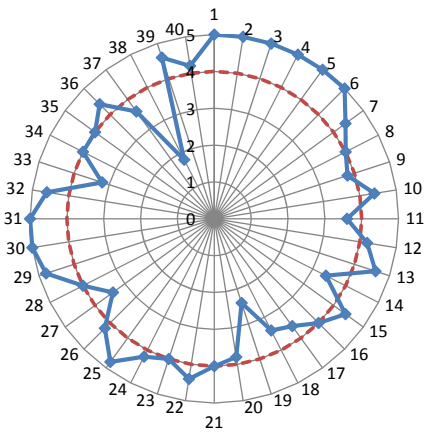
Each resident was assigned 5 faculty members to grade

For purposes of resident anonymity, residents were de-identified (assigned code, same has been done to protect faculty privacy)

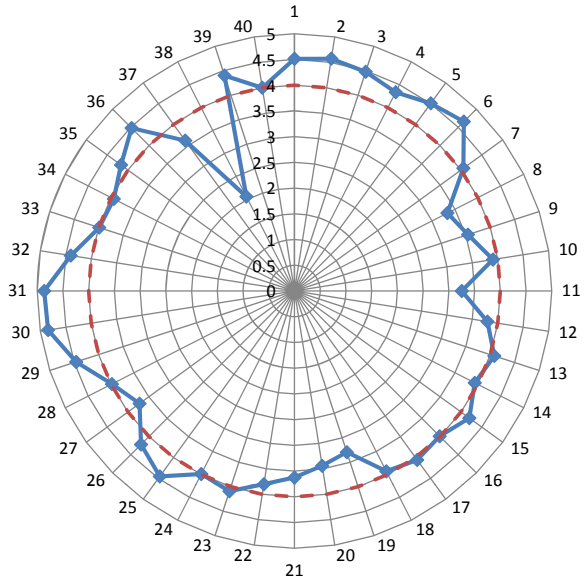
Responses to negative questions were reversed so that a score of 5 corresponded to a positive (eg. I feel discriminated against because of my sex)

Q37 No one to cover the ward when I am in the OR
Q38: I get paged during operations

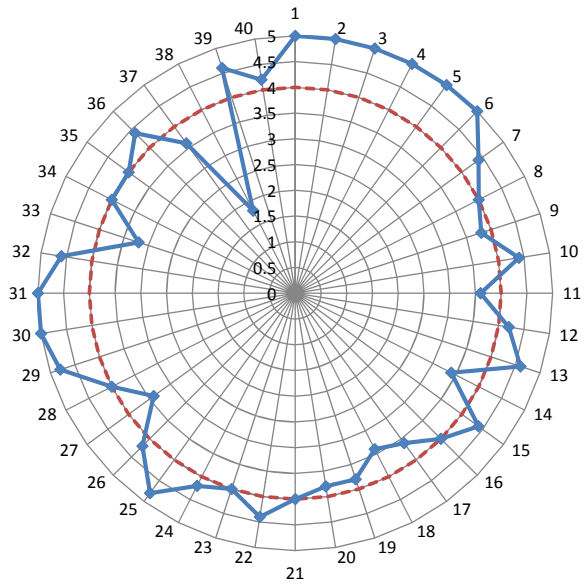
Target score >4.



OREEM has been administered as pre intervention measure of OR environment and faculty eval as teachers

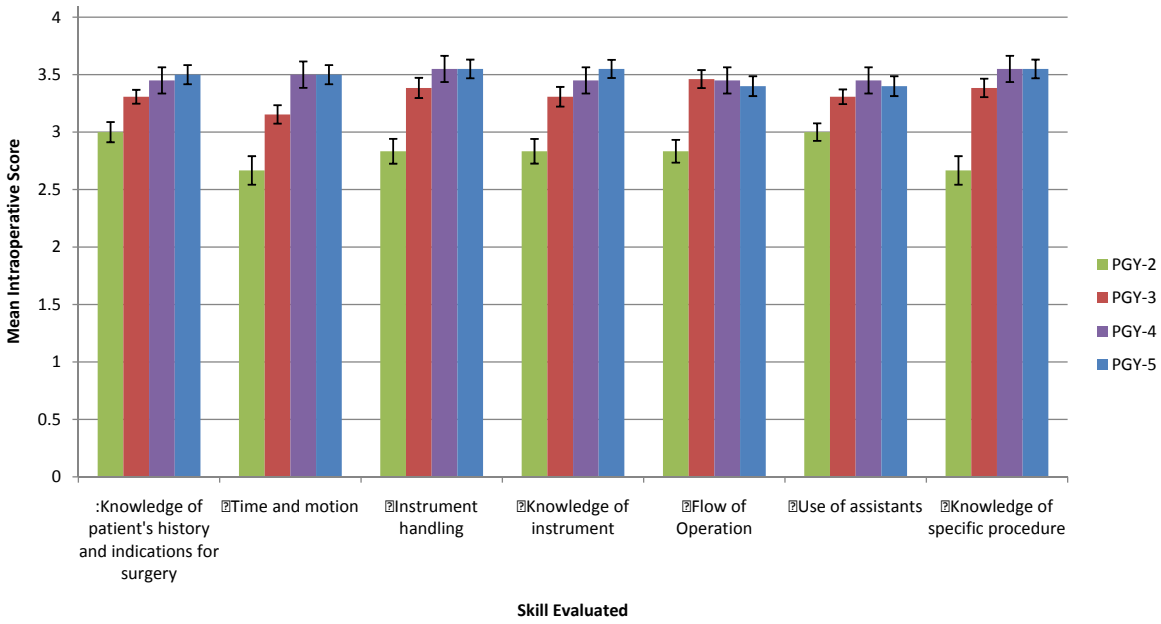


Department of Orthopaedics



Individual Data

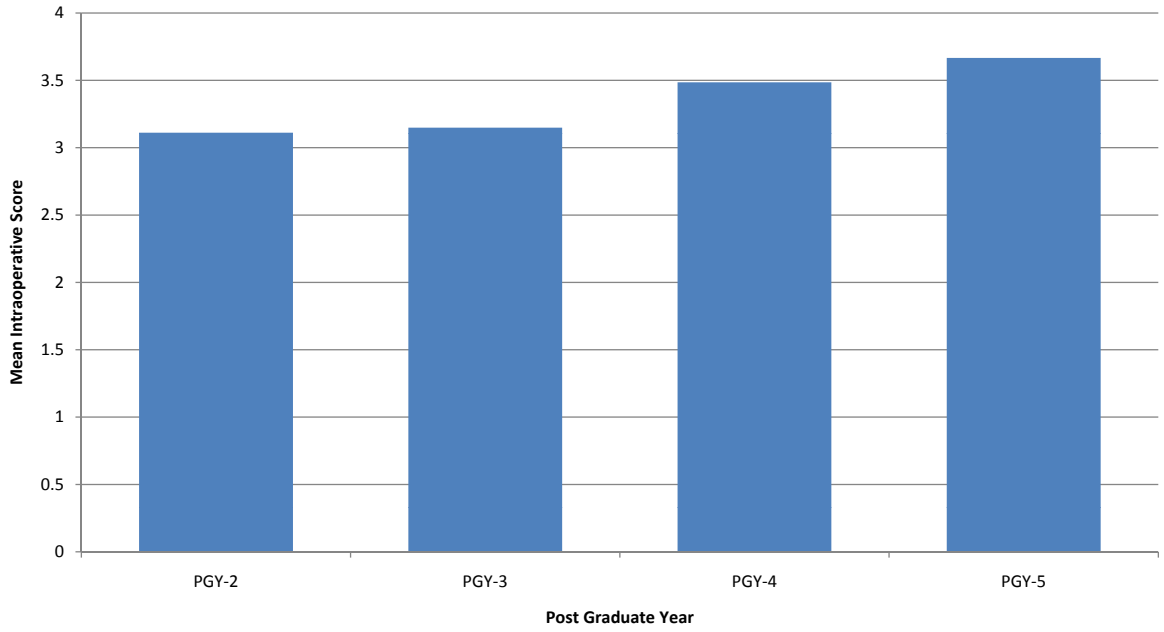
Preliminary Intraoperative Skill Assessment Scores



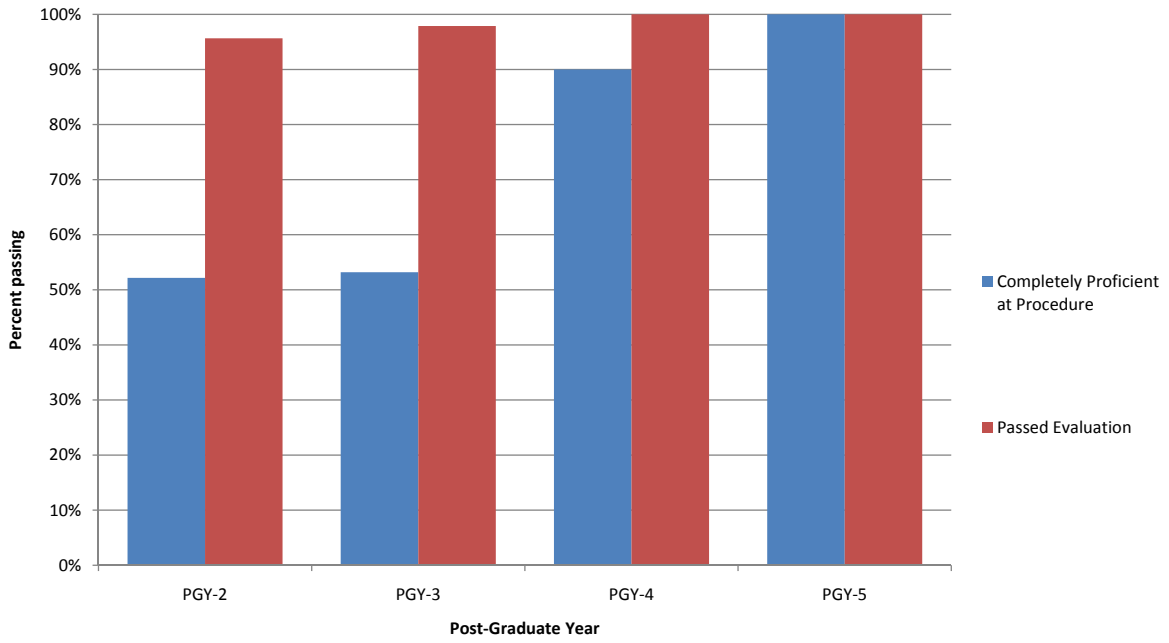
Where does this fit in?

- Can we propose minimal expectations for Board Certification in General Orthopedics ?
- Can we shorten residencies ?
- Can we move to proficiency based training ?

Mean Intraoperative Skills Assessment Score by Post-Grad Year



Percentage of Residents receiving Satisfactory Grading by Post-Grad Year



Next Steps

- Establishment of requirement for all core surgical skills to be graded prior to completion of residency program
- Feedback to individual faculty regarding participation in grading and negative OREEM subscore grades and negative narrative commentary

What is holding us up?

- Culture shift/inertia: What another compliance form ? Faculty and residents

UCDAVIS HEALTH SYSTEM

A HEALTHIER WORLD THROUGH BOLD INNOVATION

Improving Weekend Discharge Process for Patients Being Discharged on Oral Anticoagulation Therapy

S. Mayberg, PA-C, F. Tanner-Corbett, PA-C, S. Ganga, RN, F. Kromah, MD, J. Sullivan, MD, J.N. Young, MD

UCDAVIS HEALTH SYSTEM

A HEALTHIER WORLD THROUGH BOLD INNOVATION

Background

- The Joint Commission of Accreditation of Healthcare Organizations (JCAHO) has identified anticoagulation therapy as one of the national patient safety initiatives
- Use of standardized protocols when prescribing and administering anticoagulation therapy
- Calls for education of patient, staff and trainees related to anticoagulation therapy

Goals

- We set out to improve weekend discharge processes related to patients being discharged on oral anticoagulation therapy with warfarin
- This quality improvement project was focused on inpatient discharges in cardiac surgery patients

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A HEALTHIER WORLD THROUGH BOLD INNOVATION

Assessment

- Discharging patients on oral anticoagulation therapy includes many steps
  - Failure to complete each of these steps can result in incorrect dosing of oral anticoagulant, improper patient education, incorrect follow up date, or failure to notify the follow-up clinic
- Discharges were being completed by trainees with limited experience and no formal training in regards to the steps required to discharge patients on oral anticoagulation therapy

Intervention

- Developed a check-list of each step required in the discharge process
- Distributed a card-sized laminated “badge-buddy” to each resident on our team
- Implemented a 5-minute power point educational session detailing each of the steps involved in discharging a patient on oral anticoagulation therapy
- Developed a patient-education “Smart-phrase” in EMR which was to be included in the anticoagulation discharge process

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A HEALTHIER WORLD THROUGH BOLD INNOVATION

Discharge Check List

- Anticoagulation clinic referral ordered
- Anticoagulation pharmacist consulted #762-CLOT
- Coumadin Rx done for 2mg tablets, quantity of 60
- Pill divider ordered
- Patient education video ordered (code #128)
- Dot phrase (.ctsdischargecoumadin) added to discharge instructions and completed

Methods

- Chart review of patients discharged on weekend day with oral anticoagulation therapy with coumadin before and after intervention
- Evaluated 6 parameters
  - Anticoagulation clinic referral ordered
  - Anticoagulation pharmacist consulted
  - Coumadin Rx done for 2mg tablets, quantity of 60
  - Pill divider ordered
  - Patient education video ordered
  - Dot phrase added to discharge instructions

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A HEALTHIER WORLD THROUGH BOLD INNOVATION

Results

PARAMETER	PRE-INTERVENTION (n=15)	POST-INTERVENTION (n=12)
Anticoagulation clinic referral	11	12
Contacted Pharmacist	2	10
2 mg pills #60	1	12
Pill Cutter	2	12
Video	10	12
Dot Phrase	11	12

Resident Education

- Resident self-evaluation of understanding of process after power-point educational session

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A HEALTHIER WORLD THROUGH BOLD INNOVATION

Resident Self Evaluation Tool

COUMADIN DISCHARGE EDUCATION RESIDENT SURVEY

Date of Inservice:

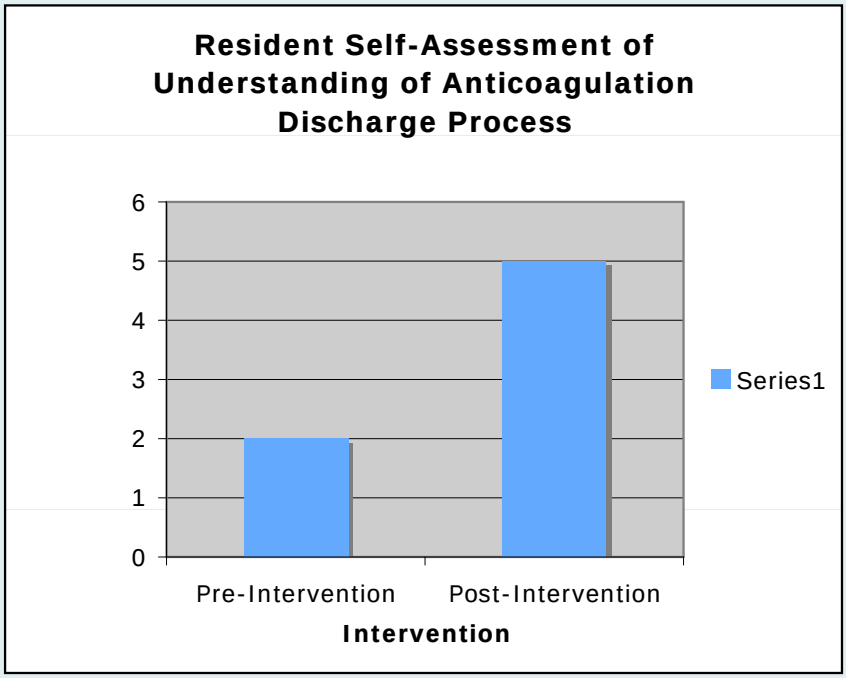
Training level:

For each item identified below, circle the number to the right that best fits your judgment of its quality. Use the scale above to select the quality number.

The following questions will be used to help improve the session you just attended	**Scale** Poor		Good		Excellent
1. Rate the usefulness of this session	1	2	3	4	5
2. Rate the overall quality of the information provided	1	2	3	4	5
3. Rate the organization of the information provided	1	2	3	4	5
4. Rate your understanding of the discharge process before the session	1	2	3	4	5
5. Rate your understanding of the discharge process after the session	1	2	3	4	5

Please return your survey to Melissa Garcia in the CT Surgery division office Cypress 2112

Results



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A HEALTHIER WORLD THROUGH BOLD INNOVATION

Conclusion

- Complicated discharge processes can lead to patient safety concerns related to incorrect or incomplete discharge orders
- Simplifying these processes and implementing a formal educational session is one method to improve improve patient safety
- A brief educational session is effective in improving resident understanding of complicated discharge processes
- This can be applied to other complicated discharge processes

Association between surgical and patient characteristics and the outcome of patient time in the post anesthesia care unit

March 6, 2012

Rostam Bakhtari, MD
Harmeet Bhullar, MD
Lawrence Ong, MD, MEng
Matthew Stanich, MD, MPH

Background

- Post-anesthesia care unit (PACU) monitoring reduces morbidity and is the standard of care for postsurgical patients
- PACUs contribute to health care expense by providing continuous evaluation and specialized care
- Despite this standard of care and expense, few studies describe outcomes of patient time spent in the PACU before discharge

Purpose

- To describe the relationship between surgical and patient characteristics and the outcome of patient time in the PACU in order to:
  - Serve as a pilot study for future projects that expand qualitative and quantitative analysis
  - Optimize patient care in the PACU
    - Improve and maintain patient safety
    - Working efficiently

Methods

- Random sampling (N=100) of 4,827 patients transferred from UC Davis pavilion operating rooms to the pavilion PACU between July 1, 2011 and September 28, 2011.
- Cross sectional analysis of the following variables: age, gender, body mass index, initial body temperature in PACU, surgical time, PACU time (measured from arrival until discharge), location of transfer, and admitting service.
- Exclusion criteria: patients transferred to the intensive care unit or those who had missing data.
- Data were analyzed using SPSS (Version 20, IBM Corporation). $P < 0.05$ was considered statistically significant.

Table 1: Characteristics of a random sample of patients (N=100) transferred from the pavilion operating rooms to the post anesthesia care unit between July 1, 2011 and September 28, 2011.

Characteristic	n (%)	Mean (95% CI)*
Age (years)		53.4 (49.7 – 57.1)
< 65	70 (70)	
≥ 65	30 (30)	
Gender		
Male	41 (41)	
Female	59 (59)	
Body mass index[1]		29.0 (27.6 – 30.3)
< 25	29 (29)	
25 – 29.9	31 (31)	
≥ 30	40 (40)	
Temperature (°C)		36.4 (36.3 – 36.5)
< 36	4 (4)	
≥ 36	96 (96)	
Surgical Time (minutes)		132.0 (112.4 - 151.5)
< 60	25 (25)	
60 – 119	29 (29)	
≥ 120	46 (46)	
PACU[2] Time (minutes)		143.3 (125.7 – 161.0)
< 120	52 (52)	
≥ 120	48 (48)	
Discharged		
Home	38 (38)	
Floor	62 (62)	

Table 1: Characteristics of a random sample of patients (N=100) transferred from the pavilion operating rooms to the post anesthesia care unit between July 1, 2011 and September 28, 2011.

Characteristic	n (%)
Service	
Orthopedics	15 (15)
Oncology	4 (4)
Gynecology	18 (18)
Cardiothoracic	2 (2)
Plastics	7 (7)
Urology	8 (8)
Radiology	2 (2)
Neurosurgery	8 (8)
Gastrointestinal	7 (7)
Trauma	4 (4)
Transplant	7 (7)
ENT	4 (4)
Orthopedic Trauma	9 (9)
Pediatric	1 (1)
Ophthalmology	3 (3)
Vascular	1 (1)

Table 2: Patient time spent in post anesthesia care unit before discharge or transfer to hospital floor by patient characteristics between July 1, 2011 and September 28, 2011 (N=100)

Characteristic	PACU Time (minutes)		P
	< 120 (n=52)	≥ 120 (n=48)	
Age (years)	49.83	57.31	0.049[1]
Gender			0.59[2]
Male	20	21	
Female	32	27	
Body Mass Index[3]	29.1	28.8	0.817[1]
Temperature (°C)	36.5	36.4	0.171[1]
Surgical Time (minutes)	109.1	156.8	0.016[1]
Transferred			
Home	23	15	0.182[2]
Floor	29	33	

[1] Analysis of variance
[2] Chi Square
[3] Body mass index = mass (kg) / height (m^2)
P < 0.05 considered significant
Continuous variable values are shown as mean

Table 3: Binary logistic regression analysis showing odds of patients spending 120 minutes or more in the post anesthesia care unit before discharge or transfer to the floor between July 1, 2011 and September 28, 2011 (N=100)

Characteristics	N	Odds Ratio (95% CI)	P
Age (years)			
< 65	70		
≥ 65	30	1.48 (0.56 – 3.89)	0.427
Gender			
Male	59		
Female	41	1.28 (0.52 – 3.16)	0.595
Body Mass Index[1]			
< 25	29		
25 – 29.9	31	1.80 (0.55 – 5.94)	0.335
≥ 30	40	1.20 (0.41 – 3.53)	0.737
Temperature (°C)			
≥ 36	96		
< 36	4	3.5 (0.27 – 44.60)	0.335
Surgical Time (minutes)			
< 60	25		
60 – 119	29	4.25 (1.16 – 15.55)	0.029
≥ 120	46	6.35 (1.86 – 21.73)	0.003
Transferred			
Home	38		
Floor	62	1.22 (0.46 – 3.25)	0.686

[1] Body mass index = mass (kg) / height (m^2)
P < 0.05 considered significant

Limitations

- Limited sample size
- Cross sectional analysis
- Other variables not analyzed
  - ASA status / comorbidity
  - Type of surgery
  - Type of anesthetic
  - Time of PACU admission versus staffing
- External validity
  - ICU patients and other operative sites excluded
  - Large tertiary hospital

Conclusion

- Patient time in the PACU is significantly associated with length of surgical time
- Patients with increased surgical times tend to spend more time in the PACU
- Future studies
  - Population based approach
  - Consolidate and expand covariates
  - Target specific strata of patients

UC Davis Health System
Physical Medicine & Rehabilitation:

Medication Reconciliation
Quality Improvement Project

Residents
Jeremy Wren, DO
Ryan Hoke, MD

Program Director
Carol Vandenakker, MD

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Introduction

- Medication errors cause significant morbidity and mortality
- Costs the health care system millions of dollars each year in potentially preventable costs
- Accurate & consistent medication reconciliation is a key component for quality and continuity in patient care
  - Decrease medication errors
  - Decrease chance for adverse drug events

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Outline

- Problem
  - Inconsistent performance of medication reconciliation by residents during outpatient clinic visits.
  - Neglecting to reconcile home medications is a potential safety concern
- Goals
  - Increase consistency of medication reconciliation by residents
  - Improve documentation of this action
  - Implement a patient-clinician partnership for intervention & improvement
- Context
  - PM&R outpatient clinics (ACC, Spine Center, and J Street Sports Medicine Clinic)

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Problem Analysis

- How did we quantify problem?
  - EMR analysis requested to demonstrate current compliance rates
- How did we assess cause of problem?
  - Discussion held at quarterly PM&R CQI meeting and at multiple resident meetings with the program director

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Methods

- Data collection
  - Retrospective data obtained from patient encounters for each current resident (8) in the department of PM&R
  - Request submitted to UCD EMR dept. Report assessed whether the 'Mark as Reviewed' button was clicked within the 'Review Home Medications' section of the rounding navigator.
  - 6 encounters reviewed for 8 residents = 48 (9 encounters excluded for 2 residents) ➔ 39 total encounters included
- This data was then analyzed according to the performing resident as well as analysis of the entire collection of these patient encounters to ascertain an overall compliance rate.

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Pre-Intervention Data

- Wide variance in compliance
  - 0% - 100% compliance
- Medications were reviewed in 23 of 39 encounters
- Compliance rate of 59%

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Identified Intervention #1

- Discussion with residents/faculty regarding potential system changes
  - Concerted effort for compliance and encouragement for the entire department to maintain consistency with the medication reconciliation process
  - Ownership encouraged

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Identified Intervention #2

- Provide Printed medication reconciliation sheet to ALL patients prior to clinic encounter
- How
  - Nursing/MA staff: Print medication reconciliation sheet provided to each patient at clinic check-in
    - Encouraged sheet be filled out prior to physician encounter
  - Patient: reviewed med reconciliation sheet and updated with corrections
  - Resident: Discussed with patient as indicated, updated EMR and clicked 'review home medications' tab

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Identified Intervention #3

- Changed refreshable link within clinic progress note template
  - Dotphrase changed to '.actmed'
  - Only imports those medications marked as 'taking' during the medication reconciliation review
  - Med list remains blank within the progress note until medications are reviewed and note is refreshed
- Previous dotphrase would import all outpatient medications active within EMR whether reviewed or not
- Improves resident compliance and accuracy of documentation

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Results

- Timeline: 6 wks
- Analysis was performed on the same clinics as previously analyzed
  - EMR analysis requested to demonstrate current compliance rates
- Due to resident rotation schedule and short time frame for analysis, data was limited to evaluation of only 26 encounters for 3 of the 8 residents
- Medication reconciliation was performed in 25 of 26 patient encounters
- After intervention the compliance rate improved from 59% to 96%.

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Limitations

- Not all residents (3 of 8) were analyzed in post-intervention analysis
  - Pre-intervention compliance for these 3 residents was 50% (9 of 18)
  - Unclear if these results can be extrapolated to the entire group of residents.
- This study was an assessment of *short term* compliance with the goal of consistent medication reconciliation.
  - Analysis further out from implementation (~6 months) may provide a more accurate assessment of efficacy.

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System Analysis

- Could this be a system level change to encourage greater compliance?
- What systems have others enacted which may be of utility?
  - Jt Comm J Qual Patient Saf. 2007 May;33(5): 286-92
    - 104 pt's at Mayo primary care clinics
    - Phase 1 - standard care
    - Phase 2 - Mailed reminder letters before appointment for pt to bring medication bottles and/or updated lists
    - Results - Avg # of discrepancies per pt decreased > 50%, from 5.24 (phase 1) to 2.41 (phase 2)
  - Jt Comm J Qual Patient Saf. 2007 Dec;33(12):750-7.
    - Prospective analysis from 2005-2007 at Dana-Farber Cancer Institute (Boston)
    - Provided printed med list to pt prior to clinic to review. Pt returned to clinic with updated list. EMR was updated.
    - Results - At baseline 81% med lists had errors. With intervention 90% were corrected vs. 2% of patients who received "usual" care

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Conclusions

- System interventions appear effective in improving the resident physicians compliance and accuracy in performing medication reconciliation in the outpatient setting.
- Incorporating '.actmeds' into progress note templates improves sustainability
- Resident awareness of CQI project may have influenced post-intervention outcomes. Cannot differentiate which intervention contributed most.
- Multifaceted approach to improve clinical practice interventions to make the process more efficient and cues to remind providers that this was an important and necessary portion of the clinic visit.
- Our limited data is in line with improvements seen in larger samples sizes

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Teaching Internal Medicine Interns Lean Principles While Improving the Process of Obtaining Outside Medical Records

Integrating Quality Symposium
March 6, 2012

Craig Keenan, MD FACP
Raminder Gill, MD
Internal Medicine Intern Class
Department of Medicine

Outline

- Educational component
- Project development
- Project implementation and results
- Final thoughts

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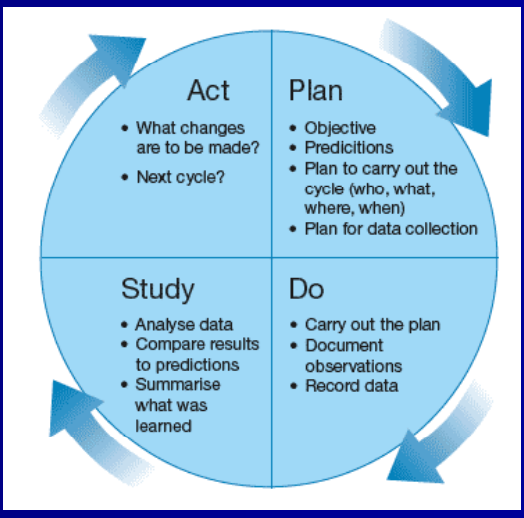
Intern Education

- Monthly Ambulatory block – 5-6 interns/month
- 2 hour seminar covering basics of quality assurance and quality improvement
  - What is quality?
  - Types of quality measures
  - How are the defined and by whom?
  - Limitations on measures
  - What are they used for?
  - Where are they reported? Examples shown...

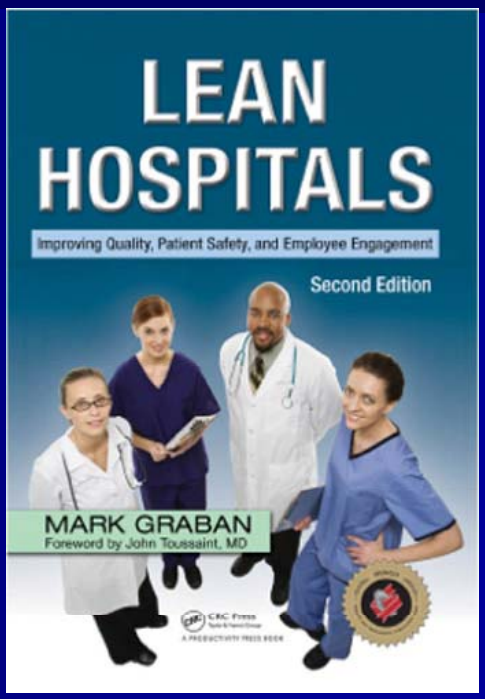
Intern Education: Quality Improvement Methods

- "Every system is perfectly designed to achieve the results that it achieves."
- You see a problem, you want to fix it. Now what.
- Cover PDSA methodology (old school....)



Intern Education: Quality Improvement Methods

- Lean methodology (new school....)
  - Lean principles
  - Waste



Lean principles

1. Specify value from the customer's perspective (patient)
2. Identify the value stream for each product and remove the waste
3. Make value flow without interruptions from beginning to end
4. Let the customer pull value from the process
5. Pursue perfection – continuous improvement

Lean principles

1. Specify value from the customer's perspective (patient)
   - What do we want to achieve for the patient?
2. Identify the value stream for each product and remove the waste
   - Make a flow diagram of current practice -- every step
3. Make value flow without interruptions from beginning to end
   - Remove wasteful steps and make the new flow diagram
4. Let the customer pull value from the process
   - See how the patients do with the new flow
5. Pursue perfection – continuous improvement
   - Assess the new flow, redesign it until best outcome with least waste.

Lean Waste

Intern Education: Applying lean principles

- Done during the final 20 minutes of seminar:
  - Interns pick a problem
  - Flow out process as a group
  - Identify waste
  - Determine cause of waste
  - Redesign the flow

Intern Education: Applying lean principles

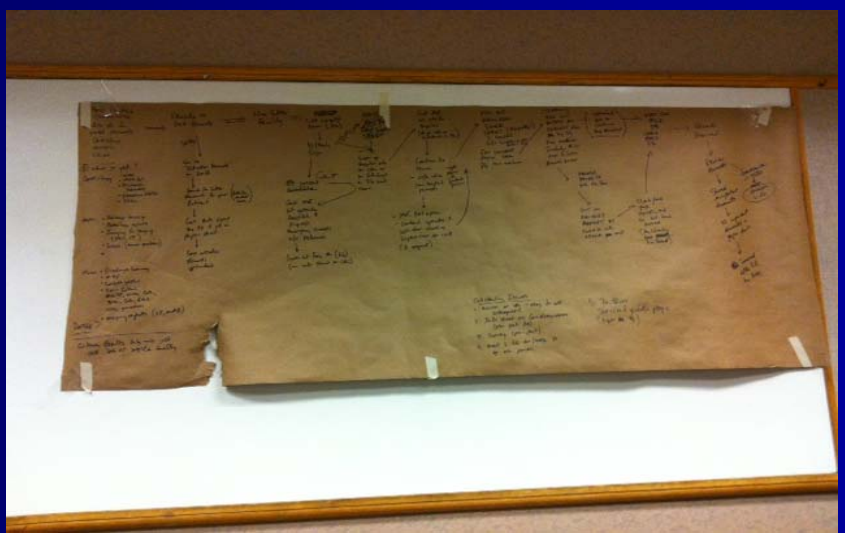
- After all interns completed seminar
- December – large group of interns selected a single daily, real-world problem to develop as a lean project
- Getting outside records when on inpatient services
  - Done very frequently
  - Very inefficient
  - Everyone does differently
  - Time-consuming

Lean Project: Outside Records

- January – session 1, all interns
  - Created flow diagram of current process.
  - Identified waste, discussed root causes

Lean Project: Outside Records

- January – session 2, all interns
  - Created new flow diagram with elimination of waste



Lean Project: Outside Records

- **Key interventions**
  - Contact info for 20 commonly used hospitals
  - Info on CareEverywhere for Sutter records
  - Centralized location
  - New fax machine for resident workroom
  - Records release forms put in room
  - New Fax coversheet to streamline request
  - Request/receipt log with contact info
  - Repository for records once received

Lean Project: Outside Records

Lean Project: Outside Records

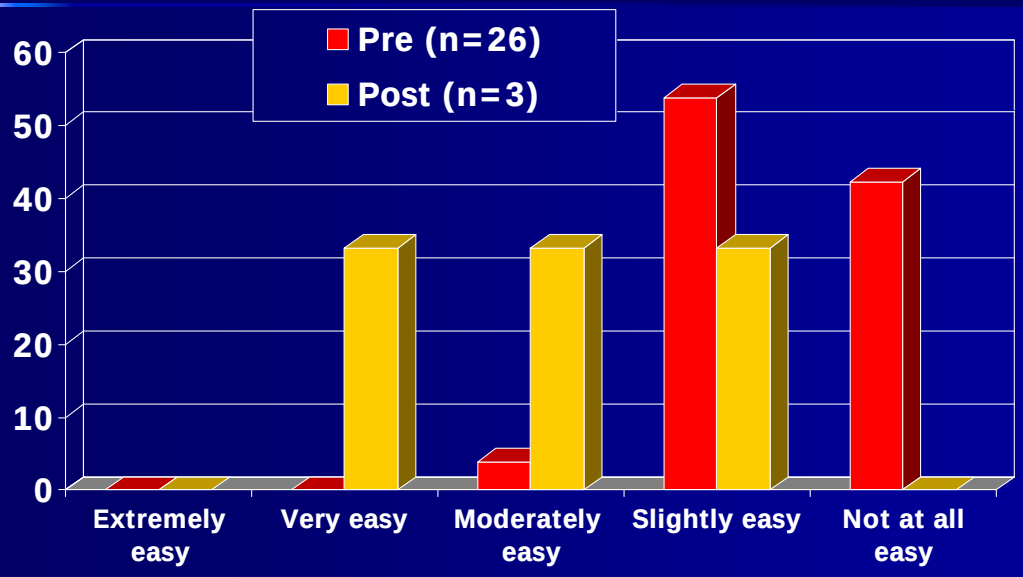
- Data Collection (January)
  - Developed brief survey for interns
  - Collected baseline satisfaction with process and average time needed to request records
- Implementation began Feb 6th
- Reassess via survey out Feb 26th

Lean Project: Outside Records

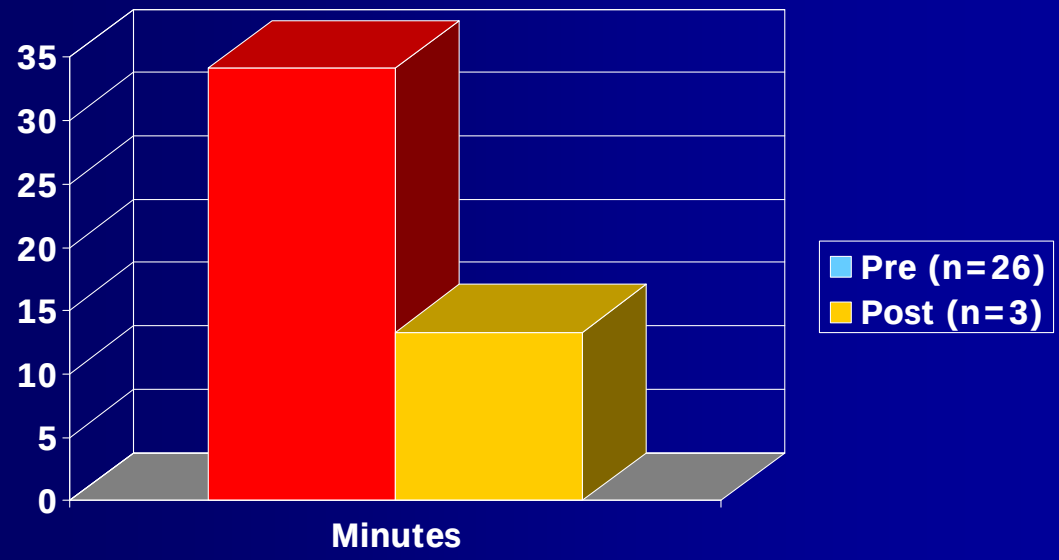
1. How easy do you find the process involved to get outside records

- Extremely easy
- Very easy
- Moderately easy
- Slightly easy
- Not at all easy

Results



Results: How much time on average do you spend doing the work to get the records?



Conclusions

- Residents are knowledgeable, invested, and very willing to participate in quality improvement projects
- Using residents fits in with lean principles of getting line workers to devise the process improvements
- Lean principles and processes are “easy” to teach and implement with residents where time is a limiting factor

Conclusions

- New lean process may make getting outside records easier and more efficient for busy interns.
  - Caveat – response rate 61% on follow up, and only 3 interns have used the new system
- If we were truly lean, physicians would not be responsible for this.

Next Steps

- Continue gathering follow-up data to complete the project
- Incorporate feedback from follow-up survey to further improve the process
  - Apply process to getting outpatient records
- Develop our next lean project !

Identification of Risk of Stroke Among Members of the Sacramento-area Hmong Community and Development of Outreach Programs for Stroke Prevention

James Ha, M.D.

PGYIII Department of Neurology

March 6, 2012

Integrating Quality: Linking Clinical and Educational Excellence Symposium

UCDAVIS MEDICAL CENTER

OUTLINE

- Introduction
  - Hmong People
  - Context/Problem
- Personal Experiences
- Strategy for Change
- Conclusion
- Questions

Introduction

- The Hmong are an Asian ethnic group from the highland regions of China, Vietnam, Laos and Thailand. Thousands of political refugees have fled to Western countries since the 1970's
- Approximately 250,000 people of Hmong descent live in the United States, 90,000 in California, 27,000 in Sacramento according to recent US census data.

Description of Problem

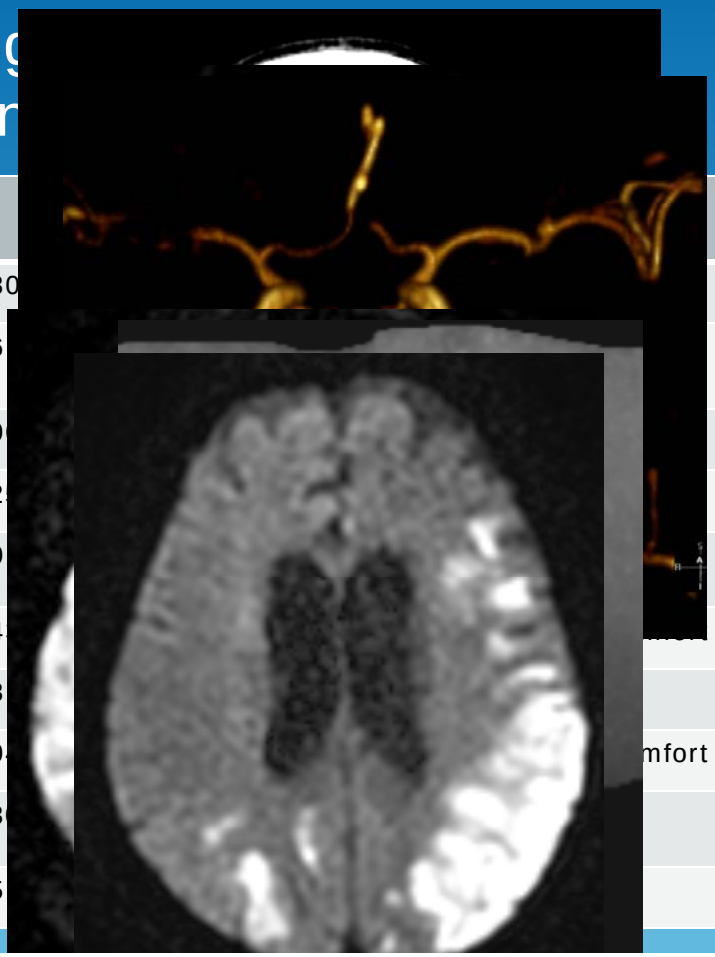
- The UC Davis Stroke Team suspected an excess rate and severity of strokes, and the presence of uncontrolled risk factors among members of the Hmong Community
  - There is no word for "stroke" in the Hmong language.
  - No published literature exists regarding this UCDMC "institutional memory" of Hmong stroke risk.
  - No known specific efforts in primary stroke prevention in the Hmong community were known to exist in the Sacramento area.

Personal Experience

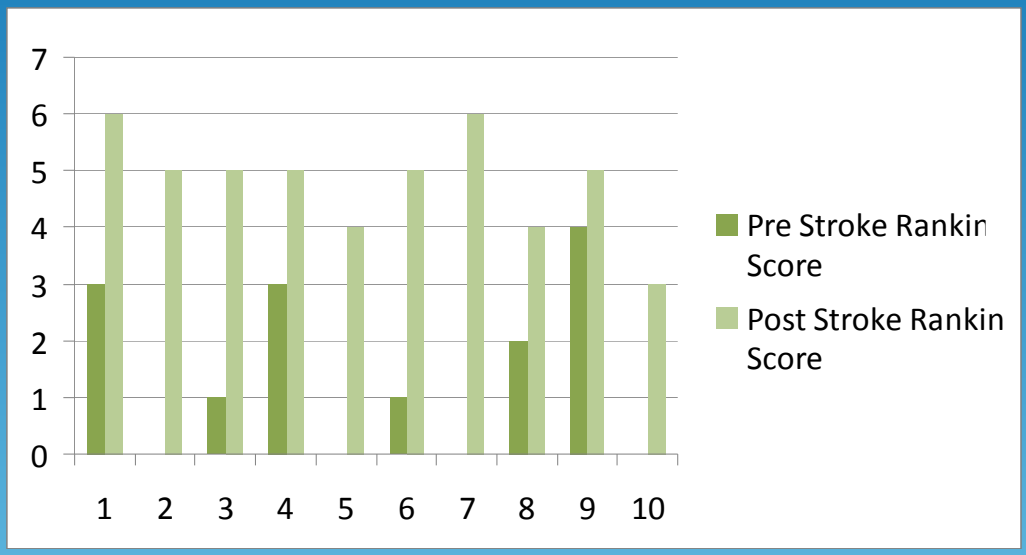
- Analysis of a convenience sample of 10 patients personally treated over 1.5 years was completed.
  - All had either undiagnosed or uncontrolled risk factors
  - Severity of strokes was significant based on modified rankin score analysis, ICU days and mortality.
- Goal to complete a systematic review of all Hmong Stroke cases at UCDMC.

Table 1: Hmong personally seen

Pt	Age & Sex	Stroke Type	Initial BP	
1	46 F	Hemorrhage	300/180	
2	47 M	Ischemic	107/56	mo
3	49 M	Hemorrhage	240/10	
4	54 M	Ischemic	198/12	
5	59 F	Ischemic	139/90	
6	62 M	Ischemic	180/14	care
7	68 M	Hemorrhage	170/98	
8	70 F	Ischemic	165/10	mfort care
9	78 F	Hemorrhage	250/13	
10	92 F	Ischemic	139/75	



Pre and Post Stroke Modified Rankin Scores



Strategy For Change

- Community Outreach Events
  - Collaboration with the Hmong Woman's Heritage Association of Sacramento
  - Health Fairs
  - Health classes in Hmong language
- Stop Hmong Stroke Website, www.stophmongstroke.org
- Hmong Newspaper and Radio education

Hmong Family Healthy Day 8/13/2011

Hmong Woman's Heritage Association Mini-Health Fair 10/10/2011

HTN and Stroke Workshop 1/18/2012

(media release forms obtained by HWHA)

Health Fair Outreach Findings

- Blood Pressure Findings:
  - 2 people > 230/120
  - 5 people > 170/100
  - Over 10 people > 150/90
- Referred to nearest ED, urgent care or primary doctor
  - Many lacked health insurance
  - Primary care physicians were established as possible
- 1 person found to have irregularly irregular heart beat

HTN/Stroke Workshop Findings

- Multiple reasons for medication non-compliance
  - Lack of health insurance/funds
  - Side effects and perception that medication is worse than disease
- Mistrust of Western Medicine
- Language barrier
- Use of practices such as blood letting

Conclusion/Summary

- Stroke is a devastating event in the lives of many members of the Hmong community
- There are preventable risk factors such as HTN, DM, dyslipidemia related to stroke in the Hmong population.
- Importance of communication, education and cultural awareness to address compliance, perception of western medicine, language barriers and access to care.
- Plan for future systematic review and analysis of Hmong stroke patients treated at UCDMC

SPECIAL THANKS TO:

- Hmong Woman's Heritage Association
- Dr. Vicki Wheelock, MD
- Dr. Patricia Zrelak, PhD, CNRN
- Dr. Piero Verro, MD

Questions?

Thank you for your attention

ADDENDUM

- MODIFIED RANKIN SCALE
  - 0: No symptoms at all
  - 1: No significant disability despite symptoms; able to carry out all usual duties and activities
  - 2: Slight disability; unable to carry out all previous activities, but able to look after own affairs without assistance
  - 3: Moderate disability; requiring some help, but able to attend to own bodily needs without assistance.
  - 4: Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance.
  - 5: Severe disability, bedridden, incontinent and requiring constant nursing care and attention
  - 6: Dead

Assessing the Diabetes Care at Paul Hom Asian Clinic: A Quality Improvement Study

Simon Wu, B.A. and Tonya L. Fancher M.D., M.P.H.
UC Davis School of Medicine, Internal Medicine

Learners

- Paul Hom Asian Clinic's (PHAC) medical volunteers, including:
  - 1 medical director
  - 12 first-year medical students
  - 11 undergraduate students

Background

Background

- Medical student-run free clinics are widespread
- Integral in the care of the poor and underserved
- Currently, not much known about their quality of care

Methods

Retrospective chart review (N=49)

Feb-May 2011

QI intervention: educating medical volunteers (6 months)

Jun-Dec 2011

Prospective chart review (ongoing with N=32)

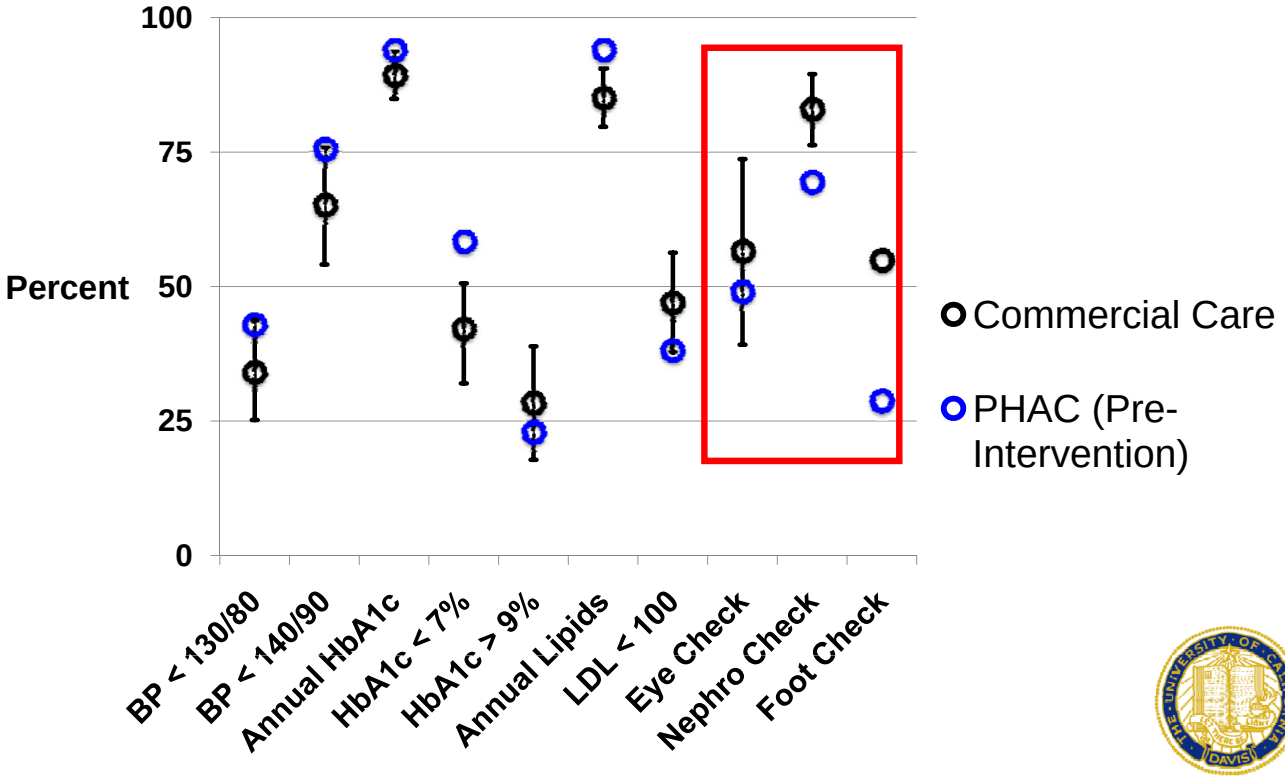
Jan 2012 - present

Compare to 2009 national HMO performance

Date/value of most recent HbA1c	Date/value of recent LDL	Value of most recent blood pressure
Date of most recent retinopathy screening	Date of most recent microalbumin test	Date/result of most recent foot exam

Pre-Intervention

(10th and 90th percentiles shown for commercial care)



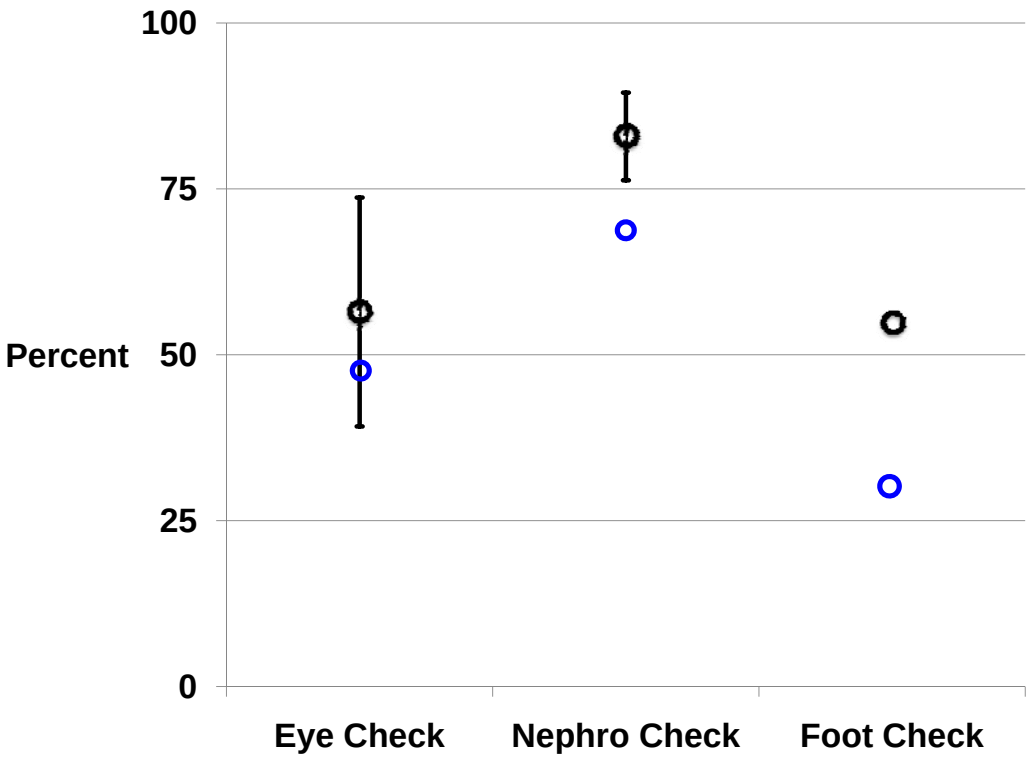
Intervention Phase

- Tailored QI based on where PHAC trailed national data
- Educated learners about pre-intervention results and their significance
- Reminded learners how to do proper screening

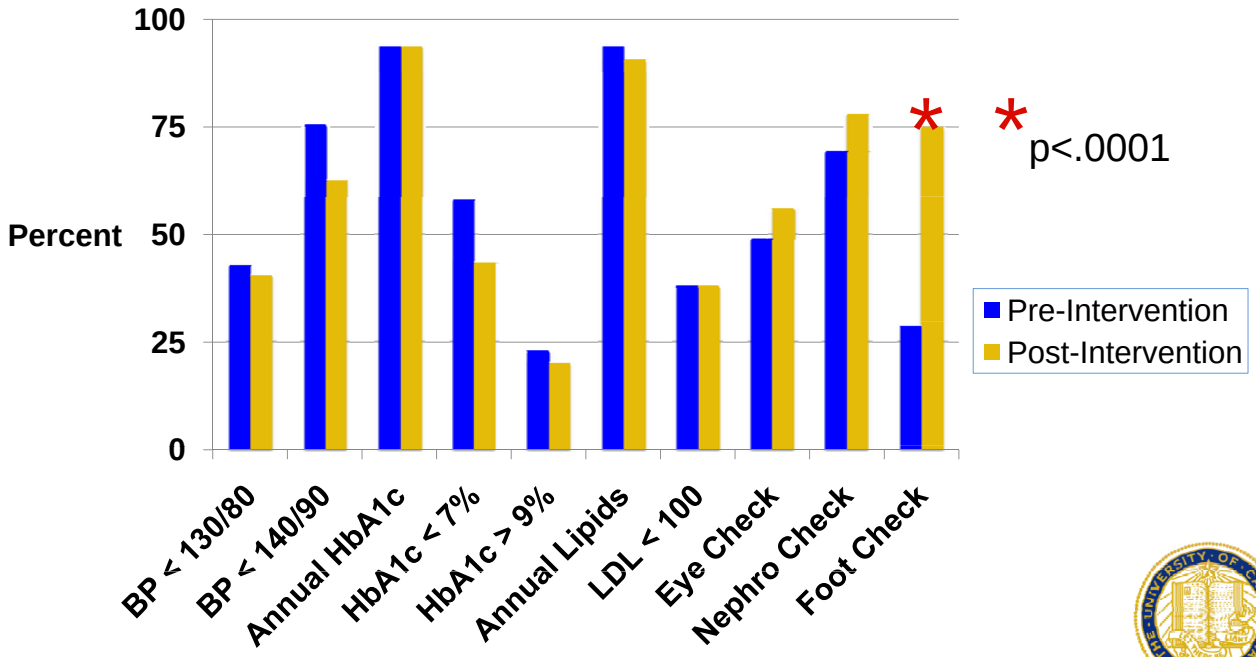
Specific Aim

- Improve our performance to exceed national mean values in screening for:
  - Retinopathy
  - Nephropathy
  - Neuropathy

From Pre- to Post-Intervention



Post-Intervention (Preliminary)



Discussion

- Education-based QI can improve diabetes management at student-run clinics
- Lessons learned:
  - Present data and goals succinctly
  - Be persistent and proactive with team

Challenges and Plans

- Sustainability and volunteer turnover
- Health record sheet
- Undergrad committee

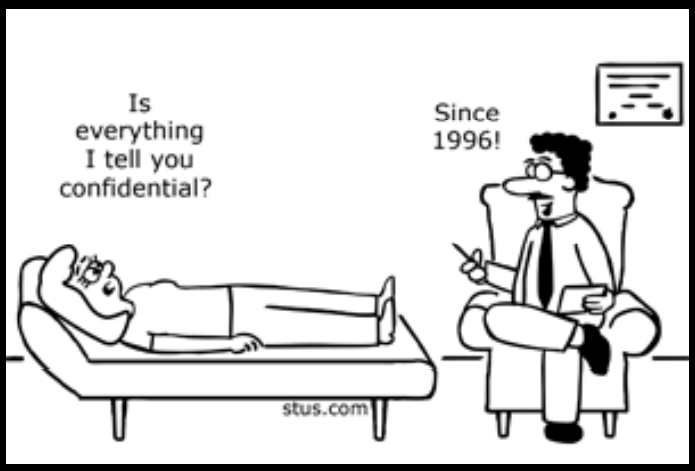
Thank you!

Primary Care Physician Perspectives on Access to Mental Health Notes

Antonson, K. MD, Dahod, E. MD, Porch, E. MD, Yarnal, R., MD, Ferranti, J. MD, Pakyurek, M., MD, Soulier, M. MD.
University of California Davis Medical Center

Privacy and Psychiatry Documentation

1996: Jaffee v Redmond: Federal Psychotherapist-Patient Privilege

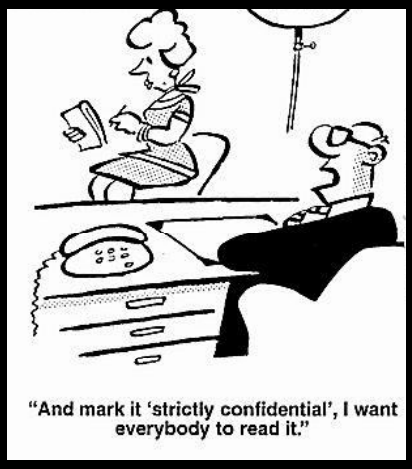


Privacy and Psychiatry Documentation

2000: HIPAA Medical Privacy Rule

Privacy and Psychiatry Documentation

2008: UCDMC psychiatry notes are included in EMR but are “sensitive”



Privacy and Psychiatry Documentation

July 2011: UCDMC psychiatry notes become accessible

What are the concerns?

- Patients: privacy, stigma/discrimination
- Psychiatrists: privacy, physician-patient relationship

Studies on the validity of concerns after implementation of EHR

- Patient satisfaction remained unchanged (Stewart)
- Majority of psychiatrists felt that open communication was preserved (Salomon)
- No studies found regarding stigma, discrimination, or privacy breaches

What about the benefits of psychiatry notes in the EHR?

- Patients recognize a potential benefit to their health (Simon)
- Can enhance alliance and understanding of mental illness (Lewis)
- No studies found examining PCP perspectives

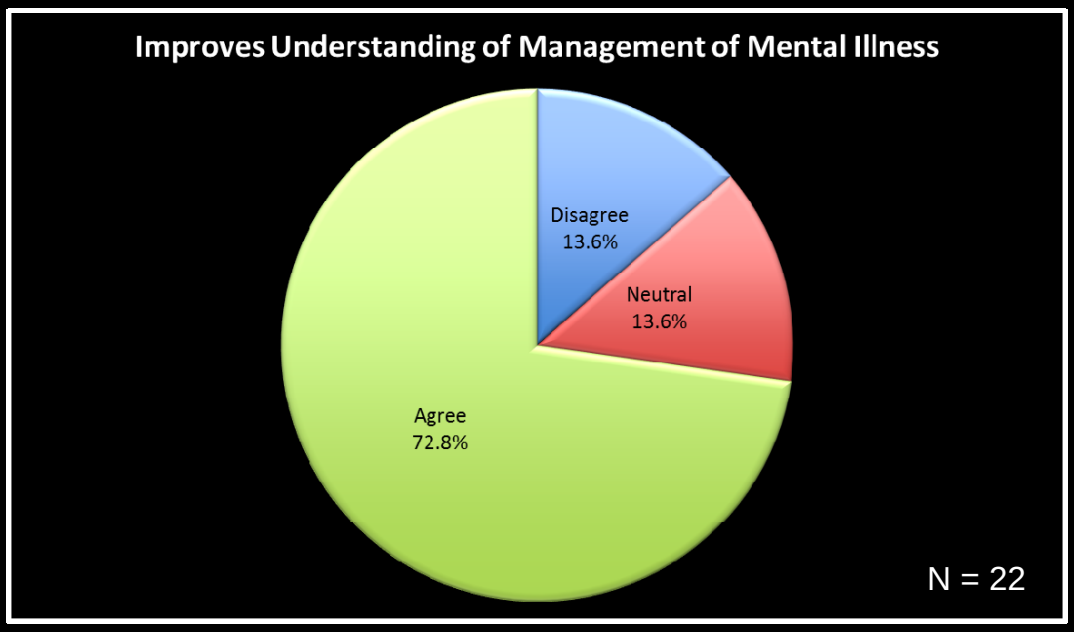
Methods

- A ten question Likert-scale survey was developed by a group of adult and child psychiatry residents and faculty.
- The survey was sent electronically to 100 physicians in the UCDMC primary care network.

- Thank you to Kurt Slapnik, MD for assisting with distribution of the surveys.

Results

Results



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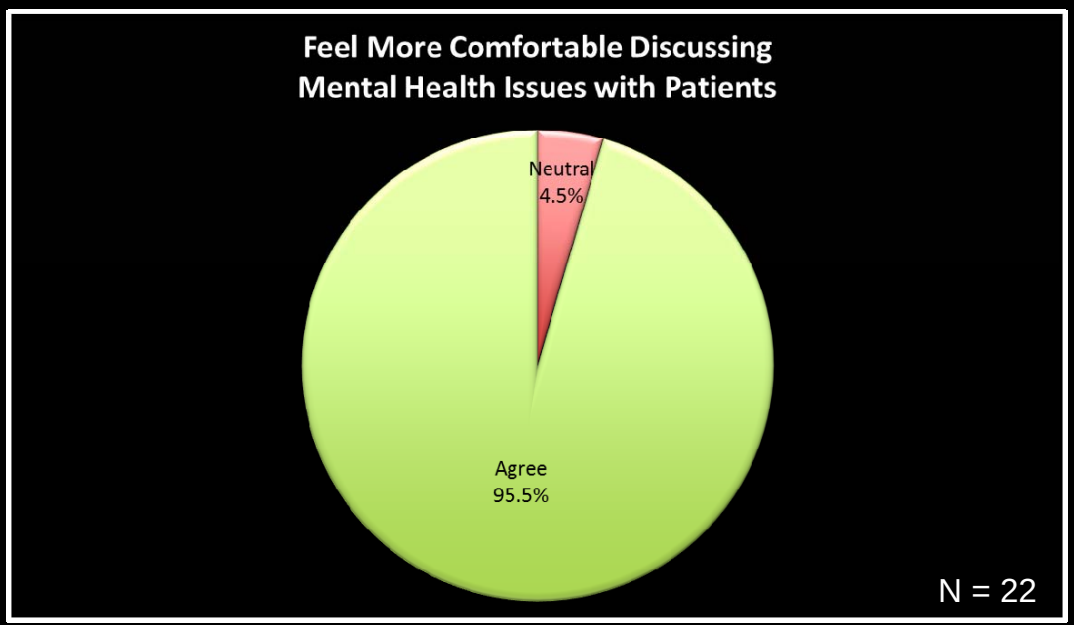

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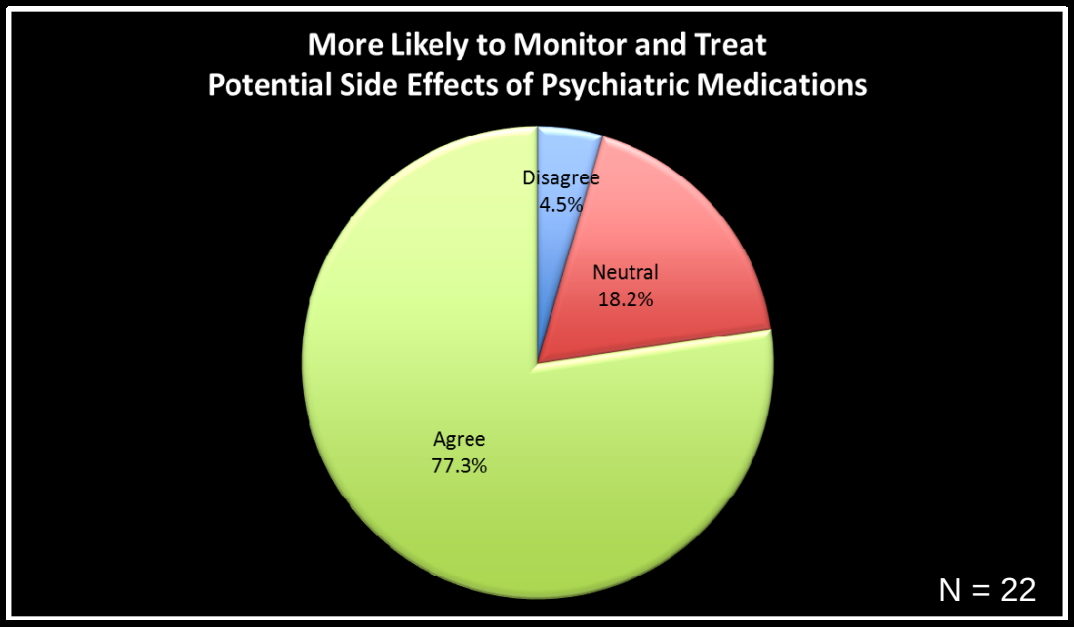

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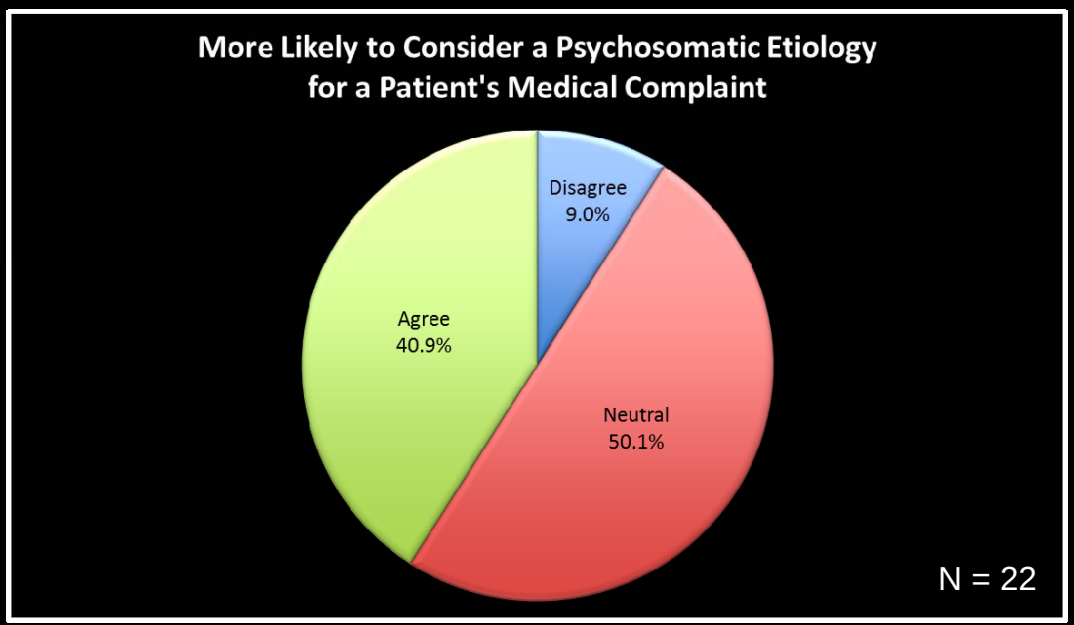

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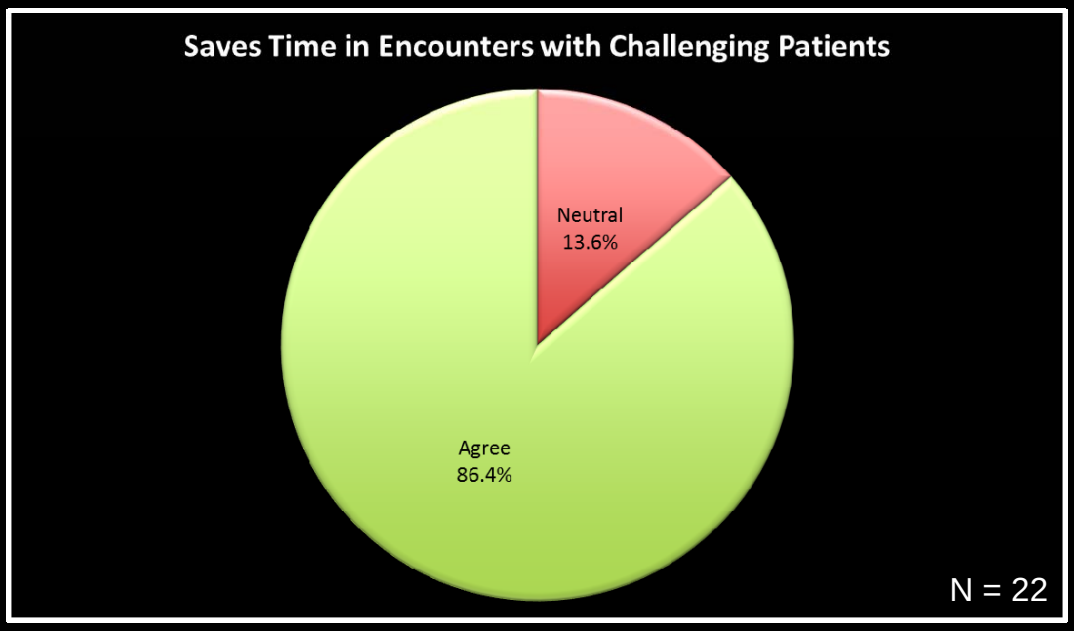

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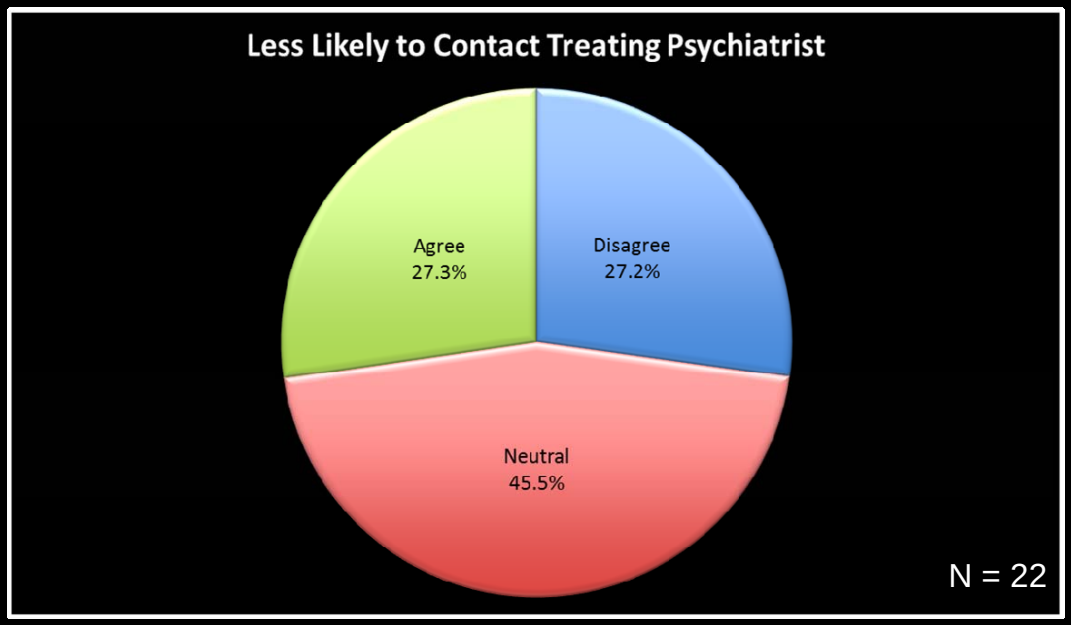

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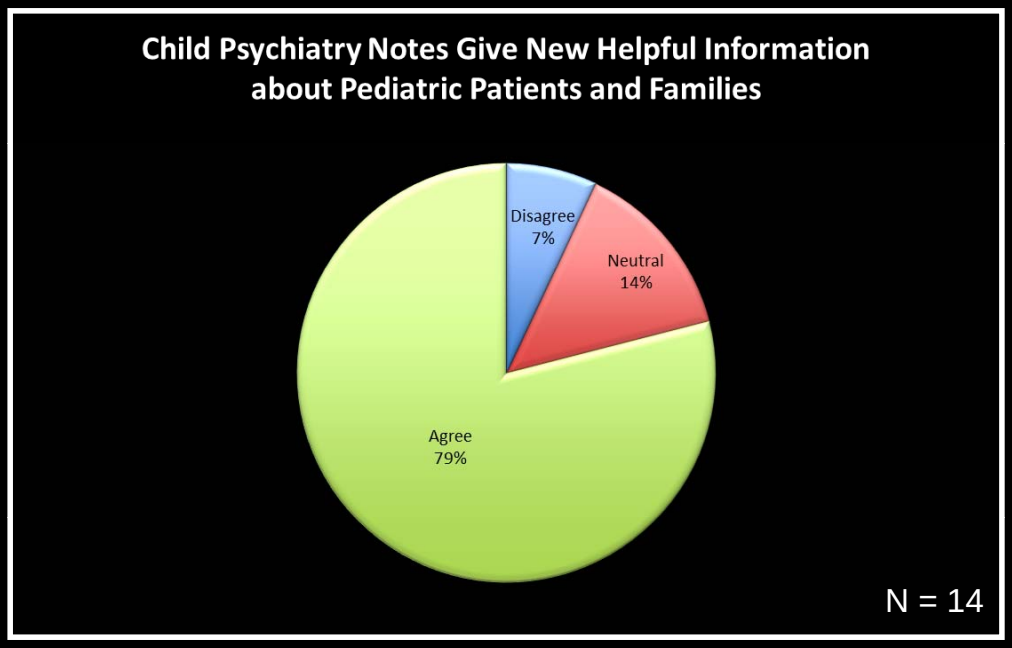


Conclusions

- Our data suggests that PCPs perceive that access to psychiatric records has:
  - improved our patient's care
  - improved communication between providers and patients
  - increased efficiency
- Limitations:
  - small sample size and response rate
  - lack of demographic information
  - potential for sample bias

Future Directions

- Expanding our data
  - Collecting demographic information
  - Collaborating with other medical centers
- Assessing the opinions of treating psychiatrists
- Assessing the opinions of our patients
- Further exploration of issues of stigma and bias that underlay controversies

Building Strong Teams:
Effects of a Medical Student/RN Shadowing Program

Integrating Quality: Linking Clinical and Educational Excellence at UC Davis Health System Symposium

Amy Doroy

March 6, 2012

Background

- **Institute of Medicine Report, 2010**
- **Association of American Medical Colleges Report, 2011**

Why IPE?

- Decrease in hospital LOS
- Improved patient outcomes
- Increased work satisfaction

deVries, et.al. (2010). New England Journal of Medicine
Woolf, Kuzel, Dovey, Phillips (2004). Annals of Family Medicine
Russell, Nyhoff-Young, Robinson (2006). Journal of Interprofessional Care
Shreve, et.al. (2010). The economic measurement of medical errors
Zwarenstein, Goldman, Reeves (2009). The Cochrane Library

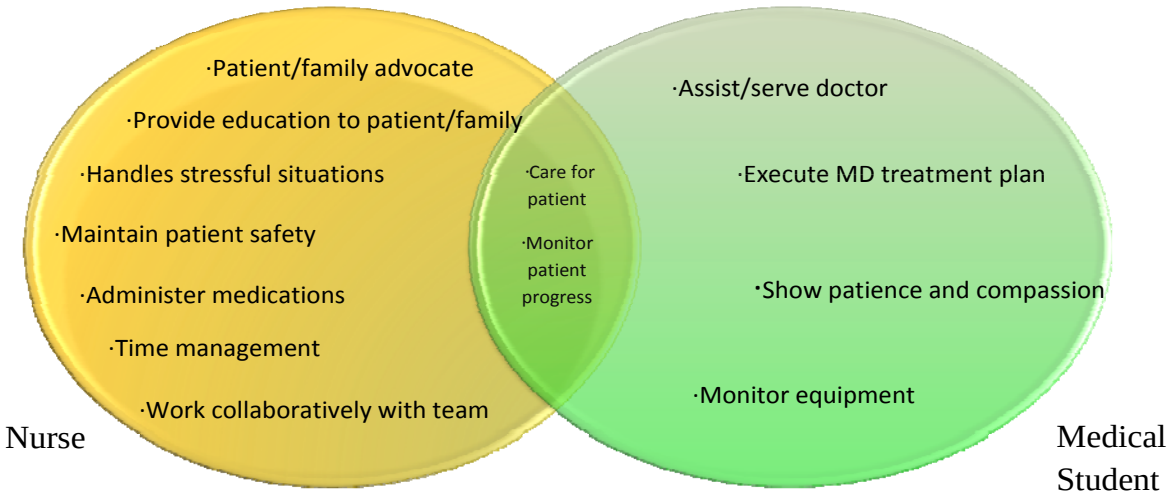
Description of Project

- Race and Health Institute
  - 6 medical students
- TEACH-MS
  - 4 medical students

Description of Project

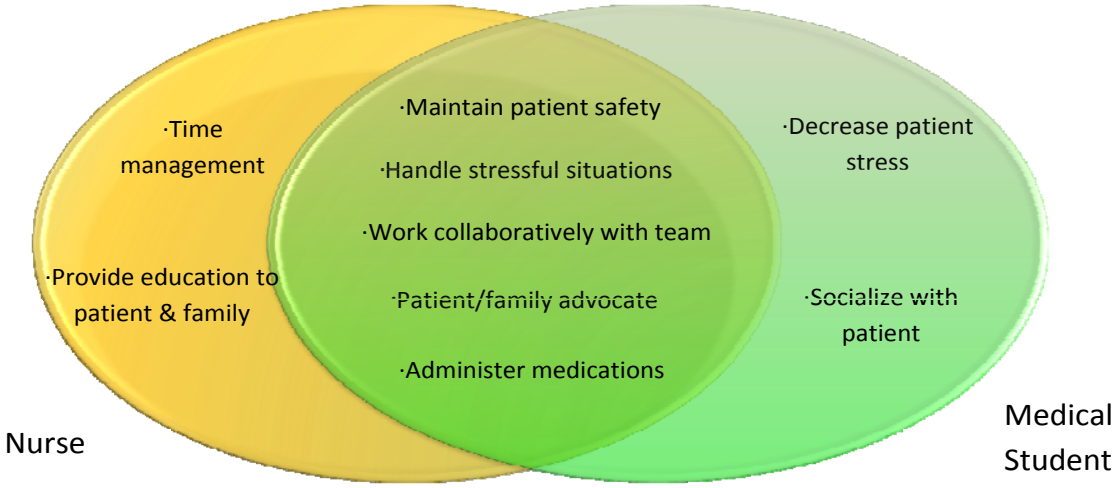
- 2 hour class on the history of medicine and nursing
- 6 hour RN shadowing
  - Location- SICU, BURN ICU, MICU
- Pre and Post questionnaires
  - Nurses and medical students

What are the 3 most important roles of a bedside nurse? (pre-shadowing)



Pre-shadowing

What are the 3 most important roles of a bedside nurse? (post-shadowing)



Post-shadowing

Nurse's Responses (post-shadowing)

- **Was there anything that seemed to surprise the medical student about the role of the bedside nurse?**
  - **"How knowledgeable we were about the patients"**
  - **"How much we do in the absence of the doctor"**
  - **"They seemed surprised that there wasn't more interactions between the nurses and MDs"**
  - **"Rapport we had with the family members"**

Nurse's Responses (post-shadowing)

- **Is there any way this experience has changed you as a bedside nurse?**
  - "Realized that med students are not taught what nurses do"
  - "I need to help educate and explain my role"
  - "Made me more empathetic to med students and interns"
  - "I have an appreciation of the fears and stressors of medical students"

Medical Student Responses (post-shadowing)

- **Was there anything that surprised you about the role of the bedside nurse?**
  - "How little doctors and nurses interact; mostly electronic"
  - "Nurses advocate for their patients to other departments, I thought it was MD role"

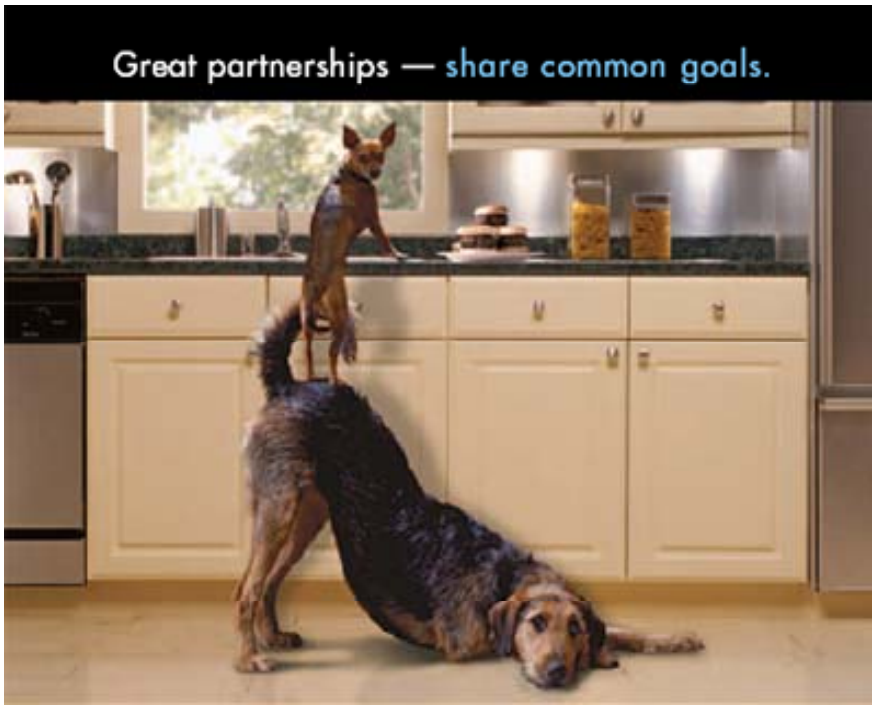
Medical Student Responses (post-shadowing)

- **What do you hope to never forget about what you learned about the bedside nurse?**
  - **"To speak to the nurses- don't rely on EMR"**
  - **"To appreciate the nurse and what they do for the patients"**
  - **"How professional and respectful the staff worked as a team during a crisis"**

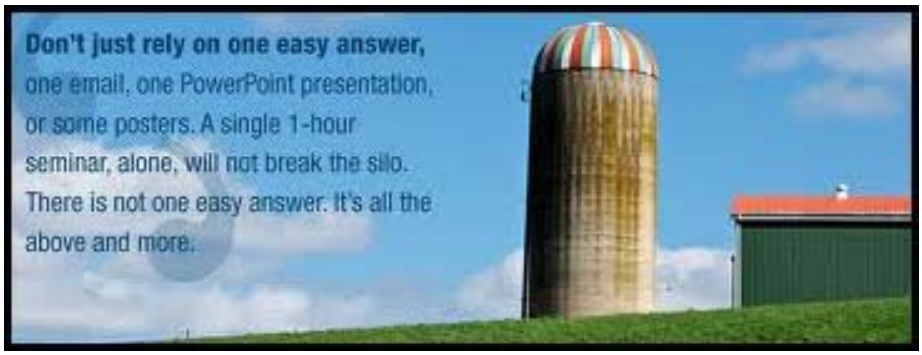
Medical Student Responses (post-shadowing)

- **How do you hope this has changed you as a future physician?**
  - **"I will never generalize about nurses being unskilled, unimportant, or aggressive"**
  - **"I hope to be more aware of the complete team taking care of the patient and to be active in that team"**
  - **"To be a physician that is respectful to the people I work with and remember their value"**

UCDAVIS HEALTH SYSTEM



UCDAVIS HEALTH SYSTEM



Improving Compliance With National Guidelines For Epilepsy Management In Outpatient Clinic

Dr. Sasha Duffy
Dr. Daniel Goldenholz
Dr. Lisa Bateman

Outline

- The Problem
- The AAN Solution
- How To Change
- Our Track Record
- Outcome
- Future Work

Epilepsy Disease Burden

3% of Americans will develop epilepsy by age 75

Annual direct + indirect costs per pt >$14,000

Disparities exist across racial, ethnic and socioeconomic line for access to care

Lack of specialty care = delayed treatment

1 out of 3 patients will not achieve seizure freedom with medication therapy alone

Problems to tackle

Patients who could potential get curative surgery can wait an average of 20 years (thus, more injuries, seizures, decreased QOL)

AED use during pregnancy is associated with 2-3x risk of major malformations

Safety - seizure associated injury (fall, fracture, burn, drowning, MVA, etc), status epilepticus and sudden death

Medication side effects, > 40% of patients had - issue for compliance, seizure control, quality of life

The Problem For Epilepsy Patients In Clinic

- Key items need to be addressed:
  - Details about seizures
  - Medication side effects?
  - Surgical candidate?
  - Safety counseling
  - Pregnancy concerns
- But we don't always have time or incentive
- Large gaps in quality currently exist

The AAN Proposal

- Evidence-based 8 Measures of Quality
- These can be used for:
  - billing
  - quality assessment
  - maintaining certification
- The good news:
  - improve quality of care
- The bad news:
  - financial consequences are coming!

The AAN Quality In Epilepsy 8 Measures

- Seizure type, frequency
- Etiology of epilepsy
- EEG ordered/reviewed
- MRI/CT ordered/reviewed
- Medication side effects
- Surgical referral if indicated
- Counseling for safety
- Counseling women on pregnancy

Fountain et al 2011

Our Intervention

- Email with Fountain et al. paper
- Noon didactic
- Periodic text pages prior to clinic
- Change in the EMR template
- Emailed personalize report cards
- Verbal reminders

How we did this test

- UCD Neurology resident clinic
- Primary ICD9 code: “seizure” or “epilepsy”
- Baseline: 7/1/2011-9/30/2011:
  - 40 patients,13 residents
- Test: 10/1/2011-1/9/2012:
  - 24 patients, 11 residents

Baseline Period

- All residents: 6.3 out of 8 measures (79%)
- Average resident: 6.2 of 8 measures (77%)
- Encounters with full compliance: 10 (25%)
- Worst compliance:
  - med side effects
  - safety counseling
  - pregnancy counseling

Test Period

- All residents: 6.2 out of 8 measures (78%)
- Average resident: 6.4 out of 8 measures (80%)
- Encounters with full compliance: 6 (26%)
- Worst compliance:
  - med side effects
  - safety counseling
  - pregnancy counseling
- Resident compared to him/her self:
  - 5 out of 11 show improvement

What Was Learned

- Reasons for non-compliance not fully understood
- Simple interventions made very small (not significant) improvement
- Time constraints for clinic encounters = major barrier to compliance
- Cumbersome documentation makes compliance less likely

Ways to Improve

- Further study into causes of non-compliance
- Introduce incentives for compliance
  - food, hall of fame, money
- Introduce dis-incentives for non-compliance
  - extra clinical duty, money
- Change EMR to REQUIRE certain fields
- Test residents and require 100% passing score on the 8 quality measures