Joint Conference of

IPAC

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4th – 6th September 2014

Druids Glen Resort, Co. Wicklow, Ireland

2014 Joint Conference of IPAC & CPE

Remediating Performance

From Theory to Practice

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UC San Diego Physician Assessment and Clinical Education (PACE) Program

Personal Experience: History

- **Context**- Plastic Surgery Residency Program;few faculty and few residents. Usually trainees have completed a residency in another surgical field and they are "assumed" to have knowledge, skills and judgment of a physician/surgeon "capable" of entering independent practice.
- **Major Problem-** Despite being in his 6th year of surgical training(1st PS) he was unable to make sound and timely surgical and medical therapeutic decisions ;"360"assessments q 3 months X 2. (25% of the residency program).

Personal Experience: History

- **Legal Assistance**: Asst. AG assigned to institution due process; discussed problem and solution with resident and allowed his input.
- Legal Context For Evaluating and Dismissing Medical Students and Residents*

Irby and Milam, Academic Medicine 64:639-643, 1989

Personal Experience: Treatment

- **Contractual Remediation and Evaluation program:**
  - Over 3 months;q 2-3day intervals-
    1-2 hrs per session;
  - Inclusive of range and scope of specialty;
  - Given explicit information regarding topics to be discussed at each session and explicit expectations of performance and feedback in real time.
- **Faculty:**
  - Full time and some senior clinical faculty;
  - One on one basis.

Personal Experience: Treatment

- **Process:**
  - Case-based and iterative similar to Oral Board Exams;
  - What would you do? Why would you do it? What if a complication arose? Decision making was measurable outcome.
  - Minimized clinical duties for resident.
- **Outcome:**
  - Self recognition of poor performance even after remediation and resignation: Critical (No substitute hired for empty slot)

Analysis of Personal Experience: Why Did it Occur?

- **Errors in my judgment: Selection/ Assessment**
  - Reliability and validity of letters of recommendation; acceptance at face value.
  - Halo effect based on having a brother successfully participating in one of our surgical programs.
  - Late identification of problem (25% of the residency was completed)

Analysis of Personal Experience: Why Did it Occur?

- **System errors: Communication**
  - Under the radar-large numbers of residents and fellows
  - Recommendation based on exposure of the faculty at the mother institution less than 1 year out of 5 years of training.
  - Recommendation primarily based on "in-service" exam scores, rather than progressive ability to perform as a surgeon.
- **Potential Solution: Integrated Programs**
  - **6 yrs of integrated surgery/PS training**

Definition of Remediation:
Based on Failure/Deficit(s)

- **Remediate**
  - **(L) remediare**= to heal or cure; to make better; to bring **underprepared** students to expected competency/ performance.

Remediation: Personal Philosophy

"We cannot solve our [medical education] problems with the same thinking [and processes] we used when we created them."

Albert Einstein

Variation-Doing the same thing over and over and expecting a different outcome is insanity

Definition of Remediation:
Prevention/Minimization

- **Remediate**
  - **remediare**= to make better; to bring **underprepared** students **(aren't we all, medical students, residents/fellows and practitioners to some degree, underprepared students)** to expected competency/ performance **(changing standards,practice and expectations in medical school, residency/ fellowship, practice).**

Definitions

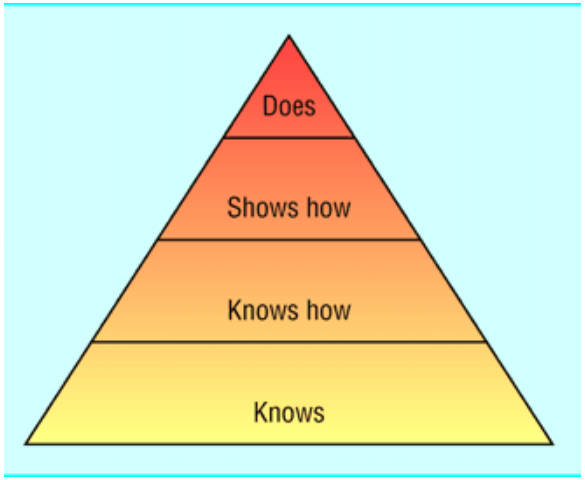
- **Clinical Competence***

"Habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflection in daily practice for the benefit of individuals and communities being served."

*Epstein and Hundert-JAMA 2002

Definitions

- **Competence:**
  - Having the capability or ability to do something. (Potential)
- **Performance:**
  - Activity or process to accomplish an action task or function (Doing successfully)



Definitions

- **Dyscompetence:**
  - (less than fully competent), failure to maintain acceptable standards in one or more areas of clinical practice
- **Incompetence:**
  - lacking in the abilities, (cognitive, non-cognitive and communicative), and qualities needed to perform effectively within the scope of clinical practice

Classical Medical Education/ Training in the US:
Medical School

- Learning:
  - Knowledge-lectures, texts and journals
  - Skills-laboratory exercises
- Assessments (external values):
  - tests to assess recall and understand data,
  - minimal observation of "doing"

Classical Medical Education/ Training in the US:
Medical School (cont.)

- Issues
  - Faculty overload and priorities; few role models
  - Inadequate observation and assessment of student performance
  - Inadequate feedback to students
  - Inadequate teaching how to learn
  - Primary measure is time served
    - Behavioral/Health issues
- **Outcomes: passing to next level, repeat course/year, tutoring, failure and dismissal.**

Classical Medical Education/ Training in the US:
Residency and Fellowship

- Learning:
  - Knowledge-rounds, lectures, books and journals
  - Skills-See One, Do One, Teach One" approach; learn directly on patients
- Assessments (external values):
  - subjective evaluations, in-training exams, minimal observation of performance

Classical Medical Education/ Training in the US:
Residency and Fellowship (cont.)

- Issues
  - Small program(s), faculty limitations (numbers, time, costs,)
  - Faculty overload and priorities; conflicts of interest
  - Primary measure is time served not acquisition or demonstration of competence/performance
  - Problems with Workforce/Student numbers per year in accord with accreditation standards of ACGME and costs for trainees
  - Behavioral/Health issues

Classical Medical Education/ Training in the US:
Residency and Fellowship (cont.)

- **Outcomes: passing to next level or new program, repeat year?, tutoring, failure in the sense of never practicing that specialty.**

Classical Medical Education/ Training in the US:
Physicians in Practice

- Learning:
  - Knowledge-journals,texts,lectures,meetings and conferences.
  - Skills-short courses-often by manufacturers, meetings
- Assessments (weak external values, variable internal values)
  - CME credits,
  - re-licensure ,
  - re-credentialing,
  - re-certification,
  - self assessment and quality improvement

Classical Medical Education/ Training in the US:
Physicians in Practice (cont.)

- Issues
  - CME quality varies, documentation of learning and behavior change not necessary for credit
  - Technical skills-qualifications dubious
  - Licensure/Re-Licensure- minimal standards
  - Re-credentialing-basis for institutional privileges- minimal standards
  - Recertification-limited scope of evaluation - knowledge primarily
  - Peer Evaluation- conflicts of interest; legal issues

Classical Medical Education/ Training in the US:
Physicians in Practice (cont.)

- Issues (cont.)
  - Malpractice- post hoc assessment and may have little to do with safety and quality
  - Concern about oversight by payers, governments, society/patients
  - If remedial training is necessary-medical school/residency-not generally available
  - Behavior and Health issues
- **Outcomes**
  - **licensure difficulties, malpractice awards, frustration and burnout.**

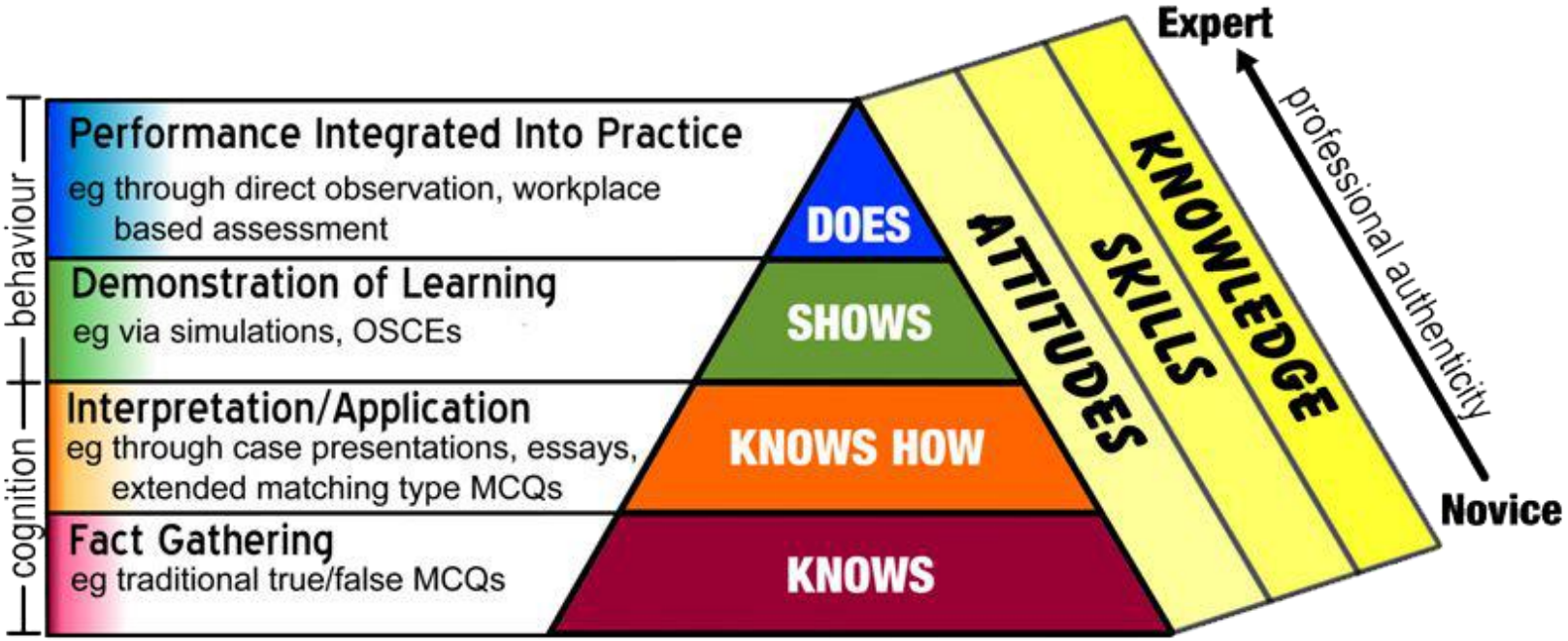
Modern Medical Education/ Training: Lessons from the Past

"I have been impressed with the urgency of doing. Knowing is not enough; we must apply. Being willing is not enough; we must do."

– Leonardo Da Vinci

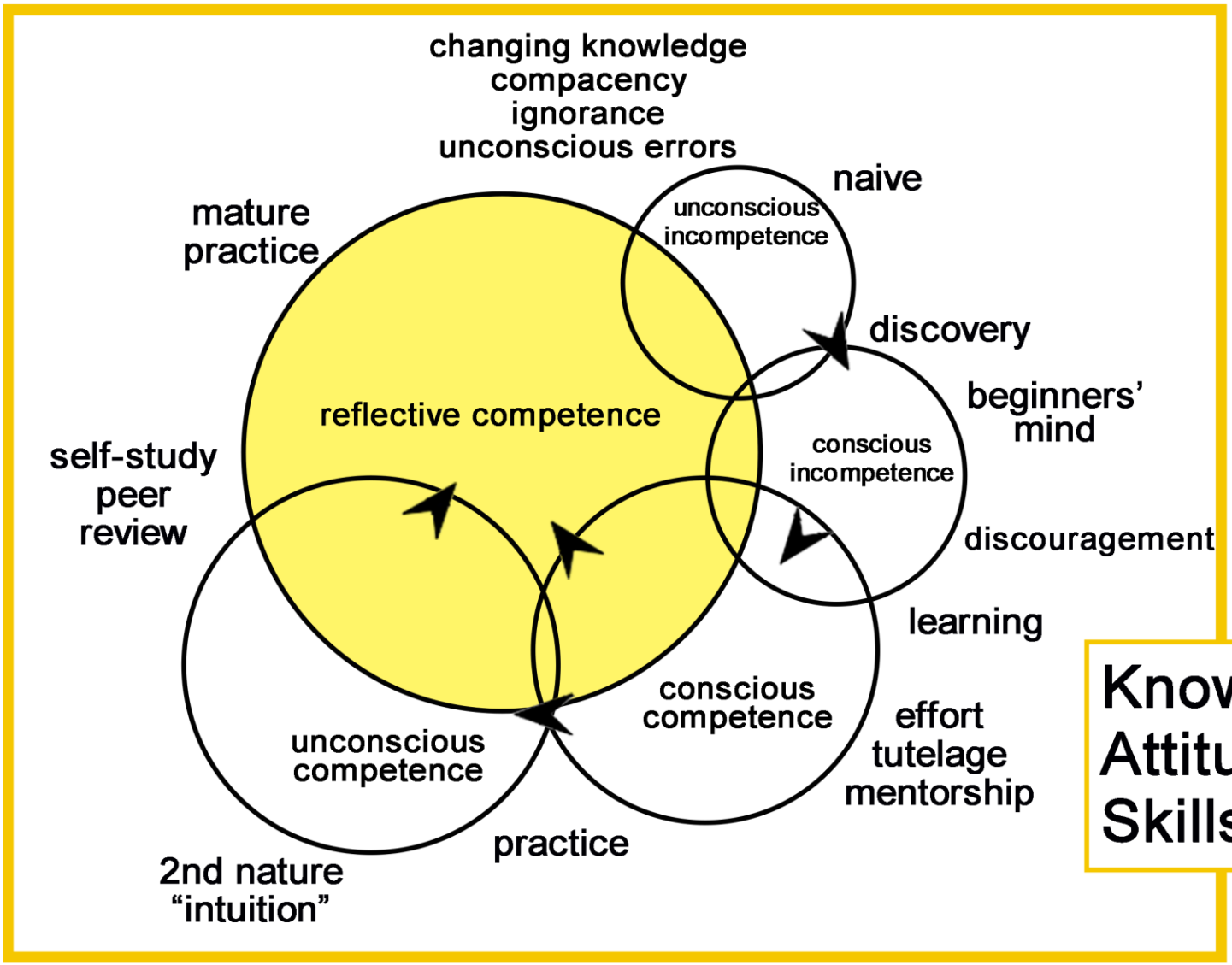
MILLER'S PRISM OF CLINICAL COMPETENCE (aka Miller's Pyramid)

it is only in the "does" triangle that the doctor truly performs



Based on work by Miller GE, The Assessment of Clinical Skills/Competence/Performance; Acad. Med. 1990; 65(9); 63-67
Adapted by Drs. R. Mehay & R. Burns, UK (Jan 2009)

Medical Competency Model



Taylor, W National College of Natural Medicine, Portland, OR 2007

Modern Medical Education/ Training US

Prevention/Amelioration

- Basis is the 6 general ABMS/ACGME competencies (1999). CanMed (2000). Necessary, but not sufficient.
- We can improve what we measure- Leach
- Medical School: Clinical skills evaluation and Entrustable Professional Activity- EPA's (**Doing**) Use of focused/personalized feedback. Responsibility for Assessment- Faculty/USMLE

Modern Medical Education/ Training US

Prevention/Amelioration (cont.)

- Residency/Fellowship: Achievement of Milestones (**Doing**). Clinical Skills Performance-simulated and actual to include computer aided learning and evaluation prior to performance on patients. Focused feedback to trainees. Responsibility for Assessment-Faculty/USMLE/Boards

Modern Medical Education/ Training US
Prevention/Amelioration (cont.)

- Practicing Physicians: wider more interactive spectrum of CME/skills acquisition through academic/societies assumption of responsibility ; MOC/MOL?/Credentialing-Documentation of Competence/Performance thru QI efforts/MOC (**Doing?**). Little feedback. Responsibility for Assessment (Who,What,How): Is it meaningful for patient care outcomes?

Modern Medical Education/ Training US

Prevention/Amelioration (cont.)

- **Summary:**
  - **Explicitly define and measure continuous acquisition of and continuing progression of levels of competency and performance necessary to move to the next level and/or to provide quality, safe medical care and to assure the public of the achievement of these goals.**

Core Entrustable Professional Activities For Entering Residency (EPA's):AAMC

- Professional practice activities that students are entrusted to perform unsupervised on Day 1 of residency.
- 13 EPA's: explicit actions required of a student expected to graduate (e.g H&P, Diff. Dx, orders and interpret labs, etc.)

Core Entrustable Professional Activities For Entering Residency (EPA's):AAMC

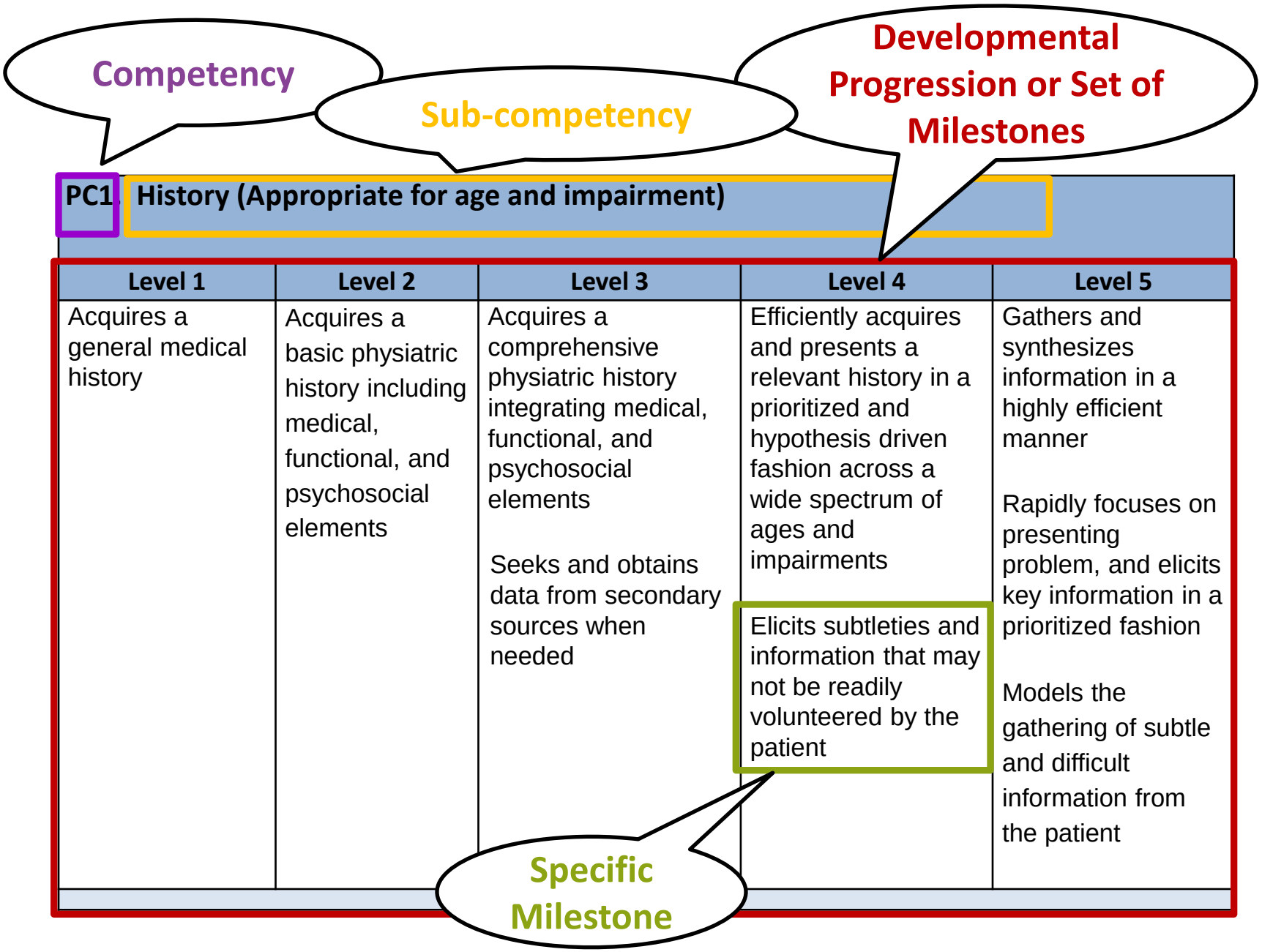
- Foundations for EPA's (Behaviors)
  - trustworthiness
  - self awareness of limitations leading to appropriate help seeking.
  - Are these assessed in a meaningful way?

Milestones: ACGME

- Specialty specific: iterative process for development-using experts, practicing physicians, trainees etc.
- Competency-based developmental outcomes (e.g., knowledge, skills, attitudes, and performance) that can be demonstrated progressively by residents and fellows throughout training leading to the unsupervised practice of their specialties. Dreyfus model (5 step)

Milestones: ACGME

- Aid in curriculum/faculty development and uniform set of assessment approaches for competency/performance
- Early identification of under performance/performers
- Enhance public accountability-program accreditation; board certification



MOC

- Initial Certification by ABMS Member Board
- Career-long process
- Based in the six ABMS/ACGME Competencies
  - Professionalism; Medical Knowledge; Interpersonal & Communication Skills; Patient Care and Procedural Skills; Practice-based Learning & Improvement; Systems-based Practice

MOC: Competencies

- Medical Knowledge:
  - Demonstrate knowledge about established and evolving biomedical, clinical, and cognate sciences, and the application of these sciences in patient care.
- Interpersonal & Communication Skills:
  - Demonstration of skills that result in effective information exchange and partnering with patients, their families, and professional associates (e.g.,, using effective listening skills with nonverbal and verbal communication; being mindful of health literacy; and working effectively in a team both as a team member and as a team leader).

MOC: Competencies

- Professionalism
  - Demonstration of a commitment to carrying out professional responsibilities, adhering to ethical principles, applying the skills and values to deliver compassionate, patient-centered care, demonstrating humanism, being sensitive to diverse patient populations and workforce, and practicing wellness and self-care.
- Practice-based Learning & Improvement
  - Ability to investigate and evaluate patient care practices, appraise and assimilate scientific evidence, and improve one's practice of medicine, the collaborative practice of medicine, or both.

MOC: Competencies

- Patient Care & Procedural Skills
  - Use of clinical skills and ability to provide care and promote health appropriately that incorporates evidence-based medicine, good clinical judgment, and fosters patient-centered decision-making.
- Systems-based Practice
  - Awareness of, and responsibility to, population health and systems of health care; should be able to use system resources responsibly in providing patient care (e.g., good resource stewardship, coordination of care).

MOC

- Four Components:
  - Professionalism and Professional Standing
  - Lifelong Learning and Self Assessment
  - Assessment of Knowledge, Judgment and Skills
  - Improvement in Medical Practice

Practice Improvement Modules (PIMs)

- Practice improvement modules (PIMs) are self-directed, quality improvement activities that require a physician to assess and measure practice performance, develop a plan for improvement, and re-measure results.
- 8 Boards require 2 per 10 yrs; 9 require 3 per 10 yrs. and 7 require 1.
- Several Boards have developed a point system which includes II (LLSA-Medical Knowledge) and IV (IMP-QI) that must be fulfilled in a specified time .

American Board of Orthopedic Surgery

- References for Candidates for initial certification and re-certification exam (MOC)
- Initial=Program Director/Chair of Residency; MOC-7 references(360 degree looking at performance/behavior issues)
- Red Flag: confirm with references-may deny application, defer application, site visit requested (6 or so per year)
- Site visit: 2 respected Orthopedists with oral exam experience (not on Board), interview references, chart review of candidate, mock oral similar to their oral exam. Written report to Board. Costs are covered by Board.

American Board of Orthopedic Surgery (cont.)

- Outcome=Deny, Allow participation in exam process or require re-certification by oral exam as opposed to choice of oral or written.
- Remediation: Personal counseling, no formal remediation

Continuing Certification – Updated Standards for Boards (12)

Examples

- General Standards **GS3**:
  - Monitor and improve its MOC Programs
- Professionalism and Professional Standing **PPS2**:
  - Allows former diplomates to regain certification
- Lifelong Learning and Self-Assessment **LLSA1**:
  - Be free of commercial bias.
- Assessment of Knowledge, Judgment, and Skills **KJS2**:
  - Provide feedback of performance on exams
- Improvement in Medical Practice **IMP1**:
  - Practice assessment and improvement activities

The Updated Standards can be downloaded at www.abms.org

UC San Diego PACE Program

- Founded in 1996 by William Norcross, M.D.
- Provides assessment of physician competencies and remediation of deficiencies
- Competency assessment of more than 1550 physicians through 2014
- Fitness for Duty assessment for 30 physicians since (2011)
- Educational services to more than 3400 physicians

Competency Assessment vs. Fitness For Duty (FFD) Evaluation

- Competency Assessment:
  - Evaluates a physician's clinical skills and abilities along the six core domains of competence as defined by the ACGME/ABMS (patient care, medical knowledge, professionalism, interpersonal and communication skills, practice-based learning and improvement, systems based practice)

Competency Assessment vs. Fitness For Duty (FFD) Evaluation

- Fitness for Duty (FFD) Evaluation:
  - The Fitness for Duty Program is an integrative, individualized, multi-faceted assessment of a physician's fitness for occupational functioning with the goal of determining whether an individual physician is fit to perform his or her tasks without risk to patients, self, or others

Referral Sources for Assessment/Education

- Medical Board of California = 59%/22%
- Other State Medical Boards = 10%/20%
- Hospitals and Medical Groups = 10%/16%
- California Dept of Corrections = 10%/8%
- Attorney = 5%/15%
- Self Referred = 4%/14%
- Other = 2%/5%

PACE CME Courses and Customized Education

- Small group CME Courses:
  - Medical Record Keeping, Prescribing, Anger Management, Professional Boundaries, Communication
- Custom Courses:
  - Behavioral/Communication, Specific Clinical Topics, Practice Management, Supervising Mid-Levels, Wrong Site Surgery, etc.
- Physician Enhancement Program (PEP)
- Physician Re-training and Re-entry (PRR)

Elective Follow Up/Monitoring

- PEP Follow Up

  -Chart reviews and site visits
- Disruptive Behavior Follow Up

  -360° workplace survey: baseline and post-follow up

  -Remote coaching sessions (phone or Skype®)

  -Report on success of action plan
- Medical Record Keeping Follow Up

  -Post-course chart audit at 3 and/or 6 months with longitudinal report

Ideal Model for Deficit Remediation*

- Initial assessment using multiple tools to identify deficiencies-OSCE, chart review, MCQ, peer assessment, physical and mental health evaluation, motivation of student etc.
- Diagnosis of problems and development of individualized learning plan- coaching ,explicit expectations and learning to realistically self assess

Hauer et al Acad Medicine 84: 1822-1832, 2009

Ideal Model for Deficit Remediation*

- Instruction- deliberate practice under the guidance of experienced teachers/coaches, feedback and reflection in real time ; behavioral approach may also be necessary using role models and mentored reflection
- Reassessment and certification of competence,but also needed is outcome assessment for behavioral change in performance as a student and or practitioner (Internalization and of Values).

Hauer et al Acad Medicine 84: 1822-1832, 2009

Remediation

- Why is it appropriate?
- What is appropriate remediation?
- How much and for how long??
- What are appropriate goals to measure?
- What are next steps after successful/ unsuccessful remediation?

Remediation: Why?

- Patient safety
- Quality of medical care
- Professional and personal satisfaction
- Costs of deficit medical practice
  - unsafe and poor quality clinical practice
  - physician burnout; chemical dependency
  - societal costs of loss of practitioners, malpractice, correcting errors

Remediation: What?

- Most important concept is to guide learners in ways which promote learning, not just for the moment, but as a lifelong skill.
- Contextual/experiential
- Knowledge, Skills-including judgment
- Behavior and Attitude-professionalism more difficult to assess and alter, but role models may help

Remediation: How Much? How Long?

- Individualize frequency and duration
- Based on measurable achievement (s)
- What are costs? Loss of trained professional vs when is it no longer cost effective to salvage the professional.

Remediation:
Appropriate Goals: Individual

- Personalized
- Explicit and measurable
- Contextual/Experiential
- Pragmatic, yet to some degree aspirational
- Opportunity to practice techniques
- Feedback on performance
- Timely

Remediation:
Appropriate Goals: Societal

- Optimize capabilities of all learners by providing motivation and direction for future learning.
- Protect the public
  - minimize errors
  - identify the dyscompetent and incompetent physician
- Provide a basis for choosing applicants for advanced training and when and where appropriate re-training.

Barriers to Remediation

- Medical Students: faculty priorities, time, cost, explicit expectations, honest evaluations
  - Potential Solutions- Motivation academic advancement, EPAs.
- Residency/Fellowship: faculty priorities and numbers,time (ACGME rules), conflicts of interest, cost
  - Potential solutions-Motivation, Milestones, ”Buckstops Here”

Barriers to Remediation

- Practice: culture, limited requirements-license, credentials; solo/ambulatory practice; identification of problems by what measures by whom and when, costs
  - Potential solutions-Document continuing competence for licensure and credentialing(MOL, MOC), document physical and mental health of practitioner; need to develop opportunities for training/retraining using medical schools/residency programs/ simulations

Remediation Research Questions

- What interventions work ,why do they work for whom and in what context? Expertise and experience of those who provide remediation. Number, duration and frequency of interventions.
- What are the theoretical underpinnings for the successful remedial interventions and are they generalizable?
- What constitute successful outcomes short term (i.e. pass the test) vs. long term outcomes (i.e) improvement in providing safe, quality clinical performance.

Cleland-Med Ed. 47,pp242-251;2013

Deficit Remediation : Next Steps

- To return to regular learning environment (medical school, residency program). Not an option for practicing physicians in the US.
- To continue in further remediation. Option for all 3 groups, but problems with residency positions; training/retraining for practicing physicians.
- To be placed on probation-close monitoring. Option for all 3 groups.
- To be dismissed from learning environment-in case of practicing physician-loss of group status or privileges/revocation of license
- Undesirable: Transfer without successful remediation and lack of communication to receiving institution.

Model for Preventive Remediation*

Medical Learning 101

- Mandatory for all students
- Experienced Facilitators/Guides
- Small Group sessions/Active learning
- Contextual/experiential
- Self Regulation: techniques for learning to learn(can be individualized to allow choices for differing learning styles); goal setting, strategy to achieve goal, timely assessment and good feedback

Model for Preventive Remediation*

Medical Learning 101

- Metacognition and reflection-learning to learn; awareness of ones thinking and or learning process
- Deliberate Practice and Feedback

Medical Learning 101

- Time management-when to study, how long to study.
- Organization and conceptual mapping and contextualization
- Terminology and meaning; re-phrasing
- Experienced teachers who are guides and participate in learning rather than teaching

Medical Learning 101 (cont.)

- Test taking skills
- Develop skills/techniques to assure continuous learning opportunities (learning club) throughout career-metaphor-journal club

Research: Can Learning to Learn Make a Difference?

- Can educational systems develop guides/teaching "courses for students throughout their educational experience to learn and inculcate efficient and effective learning techniques to assure future success in both formal and informal educational settings and "tools" to enable us to measure these efforts?
- Would they make a difference in measurable outcomes in higher education and adult learning including all levels of medical education?
- Will they be cost effective?

Those who say it cannot be done should not interrupt the person doing it.

-Chinese Proverb

Go raibh míle maith agaibh

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- Filler

- Filler

PACE Competency Assessment

- Phase 1: Two days of multilevel testing and assessment
- Phase 2: Five days of assessment and customized on-site, academic medical center specialty specific residency-based education and evaluation.

PACE Aging Physician Assessment (PAPA)

- PACE Demographic and Practice Questionnaire
- History & Physical Exam
- Vision, hearing screening
- Screen for substance abuse and depression
- MicroCog®

- PILOT STUDY in progress

Possible Measurable Outcomes

- Short term: ”pass” the examination or test
- Long term: do they successfully proceed with training and attain certification
  - do they become life learners
  - do they avoid later professional problems
  - are they competent in practice
  - do they maintain certification

Role of Coach

- Unfamiliar with case (real), examines information as the learners do, avoid lectures/pontification, accept that you do not have all the answers.
- Monitors learners questions and responses and guides them as to relevancy and accuracy- instant feedback.
- Reflection on one's thinking in real time (**metacognition**) to prevent or correct errors.

Kassirer,J.P., Teaching Clinical Reasoning:Case-Based and Coached. Acad Med. 85:pp 1118-1124,2010

Performance Assessment for Practicing Physicians

- Screening all physicians-Participation in Continuing Development-MOC,MOL
- Screening physicians thought to be at higher risk-age, illness, lapse of practice continuity
- Screening physicians for whom concerns have been raised

Modified for US from Finucane
Finucane-Acad. Med. 2003

General thoughts about Remediation

- Failure Model-Weak students become weak residents become weak practicing physicians and ultimately cause harm to patients.
- Medical education systems need to be developed/improved to promote continuous professional development at all levels of medical education.
- Can continuous professional development be based on internal value systems-inherent within the participants/profession and yet learnable or do they require societal involvement and oversight?

Possible Variables Achieving Positive Outcomes of Remediation

- Voluntary vs. mandatory attendance: depends on students
- Better performers
- Able to Self assess
- Experience of teachers involved
- Policy for dismissal

Behavioral (Affective) Remediation

- External value system is necessary for assurance to society and to fulfill the social contract as a profession.
- Internal value system is necessary for personal growth and behavior changes which become intuitive.

Theory for Interventions

- Clinical Cognition
- Metacognition and reflection
- Self regulation-needs to be taught and learned
- Giving and receiving feedback

Cognition vs Metacognition

- **Cognition** It is often referred to as information processing, applying knowledge, and changing preferences.
- **Metacognition** is a type of cognition; the scientific study of an individual's cognitions.

Self assessment vs. Self regulation

- Self Assessment-an evaluation of ones own performance
- Self Regulation-a technique for learning to learn; goal setting, strategy to achieve goal, timely assessment and good feedback

Remediation-When

- Prevention: learning to learn at an early age, social skills for learning, needs to be taught at all levels of education, need to be promoted as learning necessary for maintaining competence for all physicians and de-stigmatized.
- Always due to changing medical practice, but especially when performance is below that which is appropriate and acceptable for medical practice. (**RED FLAG**)

Problematic Remediation

- Narrow goals; Focus on Passing Exam(s)
- Failure to identify and/or act on underperformance
- Passing the Buck up the line
- The Boards will catch the underperformer
- Failure of fulfilling societal obligation as the educator also needs to be the evaluator of the future practitioner who is capable of providing safe quality medical care.