Dr. Tanoue is Professor of Medicine at Yale School of Medicine. She received her undergraduate degree from Harvard University, her medical degree from Yale School of Medicine, and her internal medicine and pulmonary/critical care training at Yale-New Haven Hospital. Dr. Tanoue is Co-Director of the Yale Cancer Center Thoracic Oncology Program, Director of the Yale Lung Screening and Nodule Program, Clinical Chief in the section of Pulmonary, Critical Care, and Sleep Medicine, and Vice-Chair for Clinical Affairs in the Department of Internal Medicine. She lives near the Yale campus with her husband. In her spare time enjoys playing violin in the Yale Medical Symphony Orchestra.

OBJECTIVES:
Participants should be better able to:

1. Understand the current and potential future processes of ABIM credentialing;

2. Identify the challenges of assessing competency in general and at individual institutions;

3. Assess the implications of the assessment of competency for individual clinical practice.
DISCLOSURE

Dr. Tanoue has declared no conflicts of interest related to the content of her presentation.

Assessing Competency in Medicine
The ABIM and Beyond

Lynn Tanoue, MD
Professor and Vice-Chair for Clinical Affairs, Department of Medicine
Clinical Chief, Section of Pulmonary, Critical Care and Sleep Medicine
Yale School of Medicine
Disclosures:

Chair, ABIM Pulmonary Examination Committee

President, Yale-New Haven Hospital Medical Staff

Outline

• Board Certification
  – How did we get here?
  – What does it mean?
• Competency
  – How do we define this in medicine?
  – How do we measure competency?
  – What processes do we have to ensure physicians are competent to provide safe, high quality care?
  – AMA late career practitioner evaluation recommendation
Question 1

Oversight and credentialing for graduate medical education (residency and fellowship) was originally designated to local institutions by which of the following organizations:

1. ACGME (Accreditation Council for Graduate Medical Education)
2. CMS (Centers for Medicare and Medicaid Services)
3. ABMS (American Board of Medical Specialties)
4. LCME (Liaison Committee for Medical Education)

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3. ABMS (American Board of Medical Specialties)
4. LCME (Liaison Committee for Medical Education)
Question 2

Is your ABIM Pulmonary Diseases Board Certificate

1. Lifetime

2. Time limited (10 years)
Question 3

The AMA currently recommends that guidelines and standards be developed for assessing the competency of senior/late career physicians

1. True

2. False
Question 4

Does your practice or institution have a process or policy for competency evaluation of senior/late career practitioners?

1. Yes
2. No
3. In process of development
4. I don’t know

Does your practice or institution have a process or policy for competency evaluation of senior/late career practitioners?

1. Yes
2. No
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4. I don’t know

3%  67%  12%  18%
Timeline: standardization of medical education

1847 American Medical Association (AMA) created
    Goals: Scientific advancement, standards for medical education, establish medical ethics, improve public health
1876 Association of American Medical Colleges (AAMC) founded

Flexner Report - 1910

Conclusions
• Physicians poorly educated
• Medical schools unregulated and inconsistent
• Requisites for entry to medical school minimal
• Physicians not trained with scientific rigor

Consequences
• Medical education in the US typically requires 8 years
• Medical education is grounded in science
• Physician quality higher and better standardized
• Medicine in the US is a highly respected profession
Timeline: standardization of postgraduate physician training

1889  Johns Hopkins Hospital offers first “residency” program in US
1900s  
   – Residency training on the Hopkins model established nation-wide
   – Technical advances in surgery, ophthalmology, obstetrics encourage specialization
1908  Concept of a specialty board proposed at the American Academy of Ophthalmology and Otolaryngology
1917  American Board for Ophthalmic Examinations
1924  American Board of Otolaryngology
1936  American Board of Internal Medicine
1937  American Board of Surgery

American Board of Medical Specialties (ABMS)

1933 - ABMS chartered by Boards of Otolaryngology, Ophthalmology, OBGYN, Dermatology

- **Establish Standards for Physician Certification**
  - Education and training requirements
  - Develop national system of standards for certifying specialists
    - Uniformity in administration of specialty examinations
  - Establish standards of excellence
  - Provide information to the public.
ABMS Mission Statement

The mission of the American Board of Medical Specialties (ABMS) is to serve the public and the medical profession by improving the quality of health care through setting professional standards for lifelong certification.
Specialty Boards - of the profession, for the people

Purpose

• Establish standards of clinical practice
• Establish requirements for education and training
• Provide oversight of examination processes that endorse qualifications and grant certification
• Protect public from unqualified practitioners

Timeline: Standardization of post-graduate medical education

1937 American College of Surgeons publishes standards for surgical education
1940 AMA, ABIM, ACP form Conference Committee on Graduate Training in Internal Medicine (eventually the Residency Review Committee for Internal Medicine)
1965 Medicare Bill approved by Congress
  – Public support for Graduate Medical Education
  – Requirement for focused oversight of residency and fellowship training
1972 AMA, ABMS, AHA, AAMC, Council of Medical Specialty Societies create Liaison Committee for Graduate Medical Education (LCGME) to oversee RRC; this eventually becomes the Accreditation Council for Graduate Medical Educations (ACGME)
  – Determination of Board Eligibility designated to local ACGME accredited programs
Specialty Board Certification

- What does Board Certification mean?
  - Validation of physician competency

- How is it used?
  - Proxy for physician quality
    - Used often as a testament to the quality of a physician practice
    - Required by many hospitals for medical privileges
    - Required by many payor networks, directly or indirectly
Bylaws of Yale-New Haven Hospital

Article IV. The Medical Staff

- The Active Staff shall be divided into Attending, Associate, and Refer and Follow Physicians, Dentists and Podiatrists as follows:
  - A. Attending Physicians, Dentists and Podiatrists shall be diplomates of U.S. specialty certifying boards identified below, as applicable for his/her practice or shall be approved under one of the exceptions described.
  - Physicians
    - American Board of Medical Specialties (ABMS) certifying board
    - American Osteopathic Board

What does it mean to be “competent”

Webster-Merrill and Dictionary.com

**competent**

*adjective* com-pě-tent \\ˈkäm-pə-tənt\

1. Having suitable or sufficient skill, knowledge, experience, etc., for some purpose; properly qualified:
2. Adequate but not exceptional.
3. Law. (of a witness, a party to a contract, etc.) having legal **competence**, as by meeting certain minimum requirements of age, soundness of mind, or the like.
4. Geology. (of a bed or stratum) able to undergo folding without flowage or change in thickness.
Measuring physician competency during training

- Competency evaluation during training
  - Uniformly accepted
  - ACGME milestones
  - Residency and fellowship training programs standardized by credentialing boards

- Competency evaluation at the beginning of independent practice
  - State licensure by individual Departments of Health
  - Board certification by specialty
    - Uniformly accepted
    - Certification of completion of medical school
    - Certification of completion of training by program

How do we measure or monitor competency during the life of a physician?
Timeline - ?

- Competency after initial credentialing:
  - Should practicing physicians have ongoing evaluation of competency?
    - Does your institution or practice monitor competency?
      - If so, what are the measures used?
      - If not, what are the processes in place to ensure physicians who are practicing remain competent?
Measures of competency

- Institutional re-credentialing
- Continuing Medical Education (CME)
- Specialty Board re-certification
- Self-assessment
- Other?

Measures of competency: Institutional Re-credentialing

Hospital or Institutional re-credentialing – often subjective
- Attestation by chief or chair as to ability to provide care and perform procedures
  - Formal review of cases typically not done for Internal Medicine
  - Proctoring – usually in situations of new procedural skill acquisition or in situations where procedural competency has been questioned
- Peer Review
  - Historically done primarily in situations of concern, not as routine
    - Professionalism issues
    - Track record of adverse outcomes or serious safety events
    - Impaired physician
- Patient satisfaction scores
Continuing Medical Education

• “Specific forms of continuing education that help those in the medical field maintain competence and learn about new and developing areas of their field”
  – Live events (Grand rounds, conferences, symposia, etc.)
  – Written publications (journals)
  – Electronic media (video, audio, DVD, etc.)
• Appropriate scrutiny to minimize industry bias and influence
• Most states require CME for medical licensure, but little else
  – Indiana, Montana, South Dakota – none
  – Kentucky, Oregon, and others – 20 hours/year
  – California, Connecticut and others – 50 hours in 2 years
  – West Virginia – 50 hours in 2 years, of which 30 must be in area of specialty

Objective measures of competency: Board recertification

• Board recertification as defined by ABMS is a multi-part process
• Maintenance of certification
  – Part 1 = physician in good standing
  – Part 2 = “Maintenance of certification” points (Medical Knowledge)
  – Part 3 = Recertification examination
  – Part 4 = Practice Assessment, Patient Safety, and Patient Voice requirements
ABIM Re-certification

- Board Exam (Part 3)
  - Many physicians “grandfathered” into lifetime exam certification
    - Most “grandfathers” do not take recertification examinations
  - Re-examination required only for physicians initially board certified after 1990 (except Geriatrics and Critical Care)
  - Growing number of physicians with required re-examination
    - If you finished residency in 1990 at age 29, you would be 56 in 2017, and would already have recertified twice
Maintenance of Certification, the next 10 years?

- Physician community questioning validity of requirements for MOC
  - Part 4 (Practice Assessment, Patient Safety, and Patient Voice) - on hold until 12/31/18
  - Part 3 (Examination) planned modifications
    - Relevance – exam blueprint survey sent to all diplomates for broad input
    - Real-life – incorporation of electronic resources
    - Timing of exam – option for short 2 year cycle exams as well as 10 year cycle
    - Convenience – option for examination in settings other than testing centers
- Alternative certification
  - eg. National Board of Physicians and Surgeons
    - Previous certification by an ABMS or AOA member board
    - Medical license
    - 50 CME hours within the past 24 months
Self assessment of competency – do we do it?

- Physicians have limited opportunity to formally assess each other
  - Physicians in training routinely receive feedback on benchmark measures of competencies
    - Comparative feedback may help trainees self-assess more accurately
  - Practicing physicians typically do not actively observe each other
    - Indirect assessment via quality of communication and documentation, more readily accessible for specialists
- Physicians have limited general external assessment
  - 1 out of 3 physicians do not have a primary care doctor
  - Little opportunity for external observer to purposefully and objectively assess cognitive performance over time

Self Assessment and Lifelong Learning – how good are we?

*Davis DA et al. Accuracy of Physician Self-assessment Compared with Observed Measures of Competence. JAMA 2006; 296:1094*

- Systematic review of medical literature yielded 17 studies evaluating physician self-rated assessments compared to external, quantifiable measures.
- Content areas very broad: surgical teaching skills, tests of critical appraisal, concepts of evidence-based medicine, cultural and linguistic competencies, etc.
- External objective measures: objective structured clinical examinations, standardized patients, simulations, chart audit, ability to explain evidence-based medicine to trained interviewer
- Conclusions:
  - Weak or no associations between physicians’ self-rated assessments and external assessments
  - Those who perform least well also self assess least well
Physician assessment of each other


- AMA survey administered 2003-2004. 1662 surveys (internal medicine, family practice, pediatrics, surgery, cardiology, anesthesiology)
  - 96% of physician responders agreed that impaired or incompetent physicians should be reported to the hospital, clinic, or appropriate authorities
  - Of those who indicated they had direct knowledge of an impaired or incompetent physician within the past 3 years, only 50% reported that they always report.

Neurocognitive screening for physician competency

- Small but growing number of institutions implementing policies to perform routine neurocognitive screening
  - Focus is on the senior or late career practitioner
The teacher’s life should have three periods: study until twenty-five, investigation until forty, profession until sixty, at which age I would have him retired on a double allowance.

Sir William Osler

Age discrimination in the workplace is illegal, except...

- Age discrimination is prohibited by law EXCEPT when physical and cognitive decline associated with age may affect public safety.
- Mandatory retirement age is stipulated for:
  - Airline pilots 65
  - Air traffic controllers 56
  - FBI agents 57
  - California Highway Patrol 60
Could or should physicians be regulated based on age?

- The medical profession is unique among other professions where public safety is a concern in the absence of a mandatory age of retirement.
- In return for this societal privilege, physicians are expected to set standards for:
  - Entering practice
  - Sustaining privilege to practice
  - Removing from practice physicians who are not competent to practice.

Competency evaluation of the late career practitioner

- AMA – June 2015 Report: Assuring Safe and Effective Care for Patients by Senior/Late Career Physicians
  - *Physicians must develop guidelines/standards for monitoring and assessing both their own and their colleagues’ competency.*
  - *Formal guidelines on the timing and content of testing of competence may be appropriate and may head off a call for mandatory retirement ages or imposition of guidelines by others.*

- California Medical Association, California Hospital Association, and California Public Protection and Physician Health group, November 2015
  - Guideline: Addressing Late Career Practitioners: Policies and Procedures for Age-Based Screening
Aging of United States Physicians, 1985-2011

<table>
<thead>
<tr>
<th></th>
<th>Active physicians in practice</th>
<th>Age 65 or older</th>
<th>Mean age (yrs)</th>
</tr>
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<tbody>
<tr>
<td>1985</td>
<td>476,683</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>672,531</td>
<td>11.7%</td>
<td>50</td>
</tr>
<tr>
<td>2011</td>
<td>697,340</td>
<td>15.1%</td>
<td>52.5</td>
</tr>
</tbody>
</table>

Data from AMA Physician Masterfile

Aging and neurocognitive decline

- General population > 65 years of age:
  - Prevalence of dementia ~13%
  - Prevalence of mild cognitive impairment ~10-20%
- Neurocognitive decline is inevitable; decline is steeper after age 65-70

- Should we be screening physicians for neurocognitive function?
  - Most people and most physicians at age 70 are unimpaired
  - The levels of neurocognitive loss that preclude safe practice are not known.
    - How much cognitive impairment is too much?
Aging physicians

- Physicians have the right to be free from discrimination based on race, color, gender, sexual orientation, national origin, age and disability
- Most older physicians are competent and should continue to practice
  vs
- Aging directly impacts cognitive and physiological functions
- Rapid expansion of medical knowledge and rapid advances require constant learning and application
- Hospitals and physician groups can be held directly liable for injuries to patients by physicians who are not competent
- Multiple studies demonstrate declining clinical performance with increasing age


- Systematic review of MEDLINE yielding 62 studies that provided empirical results about knowledge or quality outcome and included years since graduation or physician age
- 52% reported decreasing performance with increasing years in practice for all outcomes
- 21% reported decreasing performance with increasing experience for some outcomes
- 21% reported no association
- 2% reported increasing performance with increasing years for all outcomes
Keeping up

- Medicine is always evolving – Do we keep up?
  - Discovery and turnover of medical and surgical knowledge
  - Development of new treatments and techniques
- Cognitive aging
  - Crystallized intelligence = cumulative expertise and wisdom
    - Diagnostic skills requiring pattern recognition may be reasonably stable
    - Over-reliance on pattern recognition can result in diagnostic error
  - Fluid intelligence = capacity to process information and reason
    - Analytic reasoning tends to decline with age
    - Processing of information may take longer

Neurocognitive screening of the late career practitioner

<table>
<thead>
<tr>
<th>Institution</th>
<th>Screening age</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanford Health Care</td>
<td>75</td>
<td>Every 2 years: cognitive screening, H and P, peer assessment of clinical performance</td>
</tr>
<tr>
<td>University of Virginia Health System</td>
<td>70</td>
<td>Every year after age 75: cognitive screening and physical exam</td>
</tr>
<tr>
<td>Driscoll Children's Hospital</td>
<td>70</td>
<td>At every reappointment: cognitive screening and physical exam</td>
</tr>
<tr>
<td>Children's Hospital and Medical Center, Omaha</td>
<td>70</td>
<td>Every 2 years: Cognitive screening and physical exam; peer clinical skills assessment</td>
</tr>
<tr>
<td>Yale-New Haven Hospital</td>
<td>70</td>
<td>Every 2 years: Cognitive screening and ophthalmologic exam</td>
</tr>
</tbody>
</table>
**Why implement a late career practitioner policy?**

- **Benefits**
  - Patient safety
  - Objective
  - Endorse most physicians confidently
  - Opportunity for interventions to continue safe practice when appropriate

- **Drawbacks**
  - Overly inclusive
  - Controversial
  - Absolute level of abnormality that precludes safe practice unknown

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**Factors other than age affecting competence**

<table>
<thead>
<tr>
<th>Negative factors</th>
<th>Positive factors</th>
</tr>
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<tbody>
<tr>
<td>Physician factors</td>
<td></td>
</tr>
<tr>
<td>Solo practice</td>
<td>Female gender</td>
</tr>
<tr>
<td>Lack of hospital privileges</td>
<td>Having attended a US medical school</td>
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<tr>
<td>Lack of Board certification</td>
<td>Board certification in area of practice</td>
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<tr>
<td>Practicing outside the scope of training</td>
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<tr>
<td>Personal health issues</td>
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<tr>
<td>Patient factors</td>
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<tr>
<td>High complexity of disease</td>
<td></td>
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<tr>
<td>High acuity of decision making</td>
<td></td>
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<tr>
<td>Practice factors</td>
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<tr>
<td>Organizational or systems problems</td>
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What if there are concerns about competence?

• How do we retain and value the wisdom and experience of colleagues who might not practice at the level they did because of age or other factors, but can still contribute in significant ways to patient care or education?
• Investigate accommodations to practice that would allow safe, quality patient care
  – Consider site of practice (ie. consultative vs. MICU inpatient service)
  – Consider the pace of practice
    • Length of office visits
    • Length of workday or workweek
  – Ask for observation from trusted colleague(s)

My opinion

• The medical profession has been granted a societal right to self-regulate
• The medical community must seriously consider serial evaluation of physician competence to ensure safe practice, if we want to continue to self-regulate
  – Maintenance of Board certification
  – Institutional credentialing and Peer review
  – Age-related neurocognitive screening
    • Contribution of late career practitioners is substantial and valuable
      – Neurocognitive ability is more commonly preserved at age 70 than not
    • Age is a risk factor for neurocognitive impairment, among many other factors
    • Carefully consider development of appropriate processes of evaluation
When I graduated from Cornell University Medical College... I thought I was brimful of knowledge, ready to be a doctor and to bring my skills to patients. Little did I know that my learning had just begun...”

C. Everett Koop