

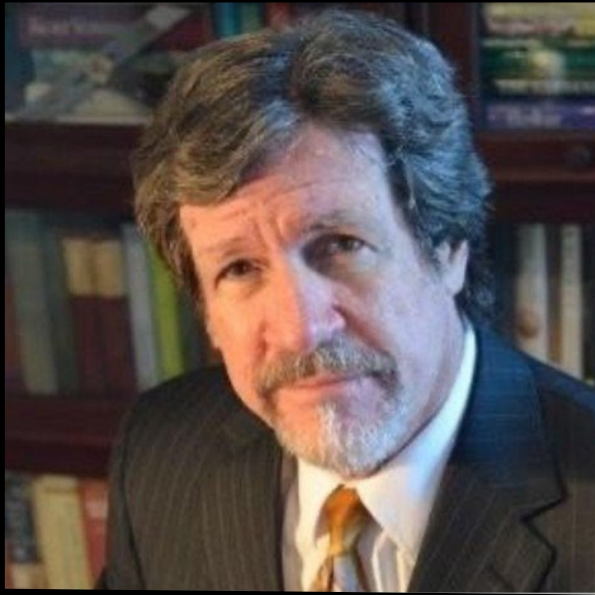
Filling in the Gaps: Research Supporting Innovative Ways to Target Lifelong Learning

Seventh International Congress on Professional & Occupational Regulation
Dublin, Ireland
May 2023



**REGULATORY
RESEARCH
DAY**

May 3, 2023
Dublin, Ireland



Grady Colson Barnhill

**Retired/Freelance,
Public Board Member**

Blake Dobson

**Assistant Director for Revalidation,
Licensing and Specialist Applications,
General Medical Council (UK)**

Tom Granatir

**Senior Vice President for Policy and
External Relations
American Board of Medical Specialties**

What problem?

[Not just
healthcare...]

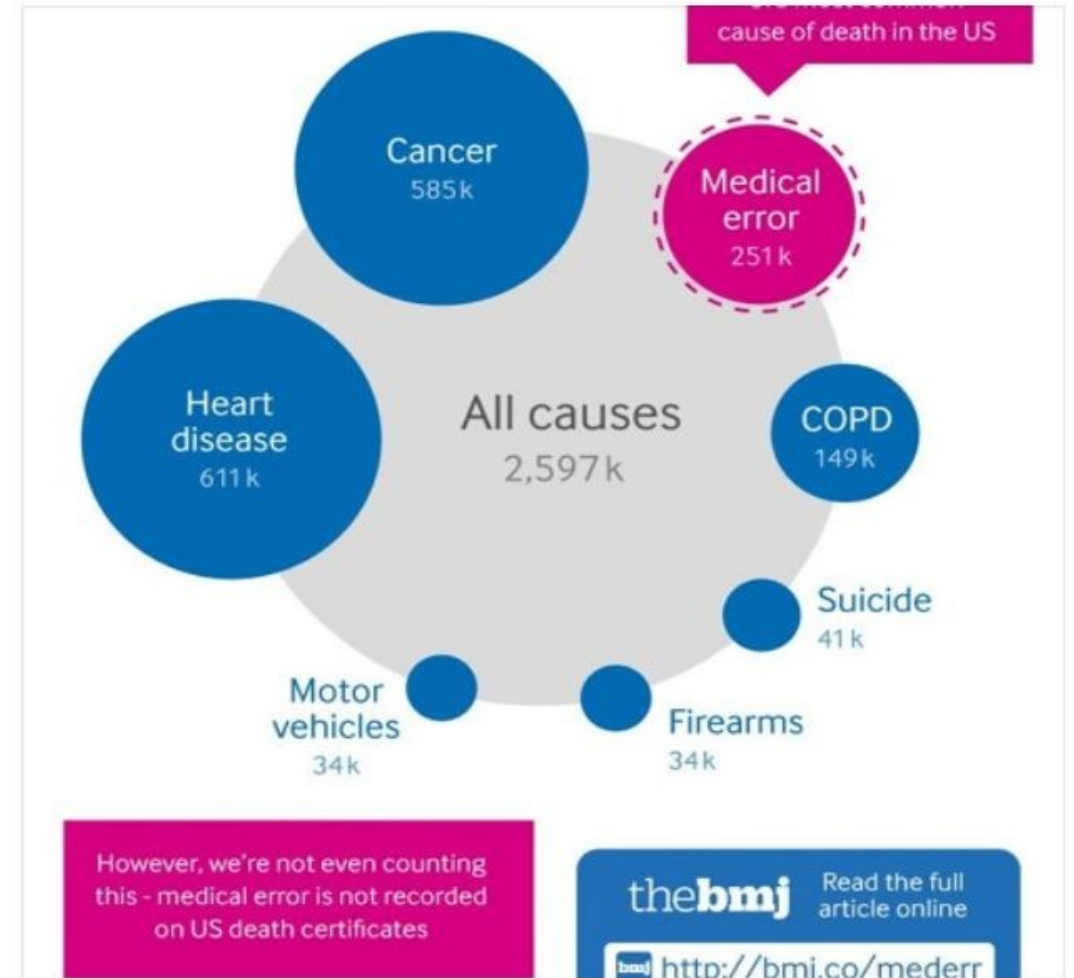


Recertification Redesign – Why?

1. “Trust us – everything’s ok...”

- Perhaps not –
 - IOM – To Err is Human
 - BMJ Article
May 2016
- 25-year study of US malpractice claims:
“Among malpractice claims, diagnostic errors appear to be the most common, most costly and most dangerous of medical mistakes.”
[BMJ Qual Saf. 2013](#)

Medical error—the third leading cause of death...



Cases of delayed, missed, and incorrect diagnosis - incidence of 10% to 20%

- Bringing Diagnosis Into the Quality and Safety Equations
- [Mark L. Graber, MD](#); [Robert M. Wachter, MD](#); [Christine K. Cassel, MD, MSc](#)
- JAMA. 2012;308(12):1211-1212.
doi:10.1001/2012.jama.11913

Our data suggest that as many as 40,500 adult ICU patients in USA may die with an ICU misdiagnosis annually

Systematic review - 276 screened abstracts, 31 studies describing 5863 autopsies

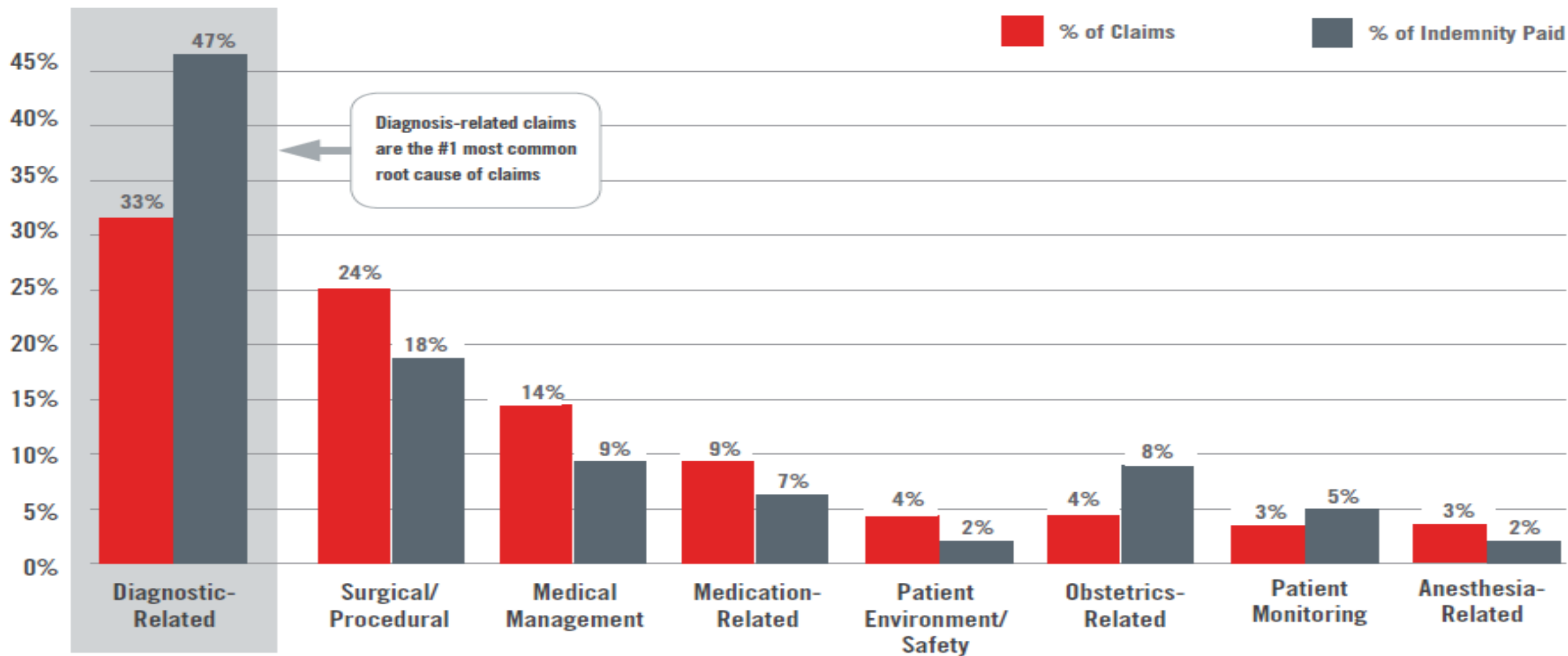
Bradford Winters, et al.

Diagnostic errors in the intensive care unit: a systematic review of autopsy studies

BMJ Qual Saf 2012;21:894-902

LEADING CAUSES OF CLAIMS

Diagnosis (Dx)-related failures are cited as the single largest root cause of claims, resulting in indemnity payments just slightly higher than the next five highest categories combined.



N = 10,618 closed claims between 2013-2017

Recertification Redesign – Why?

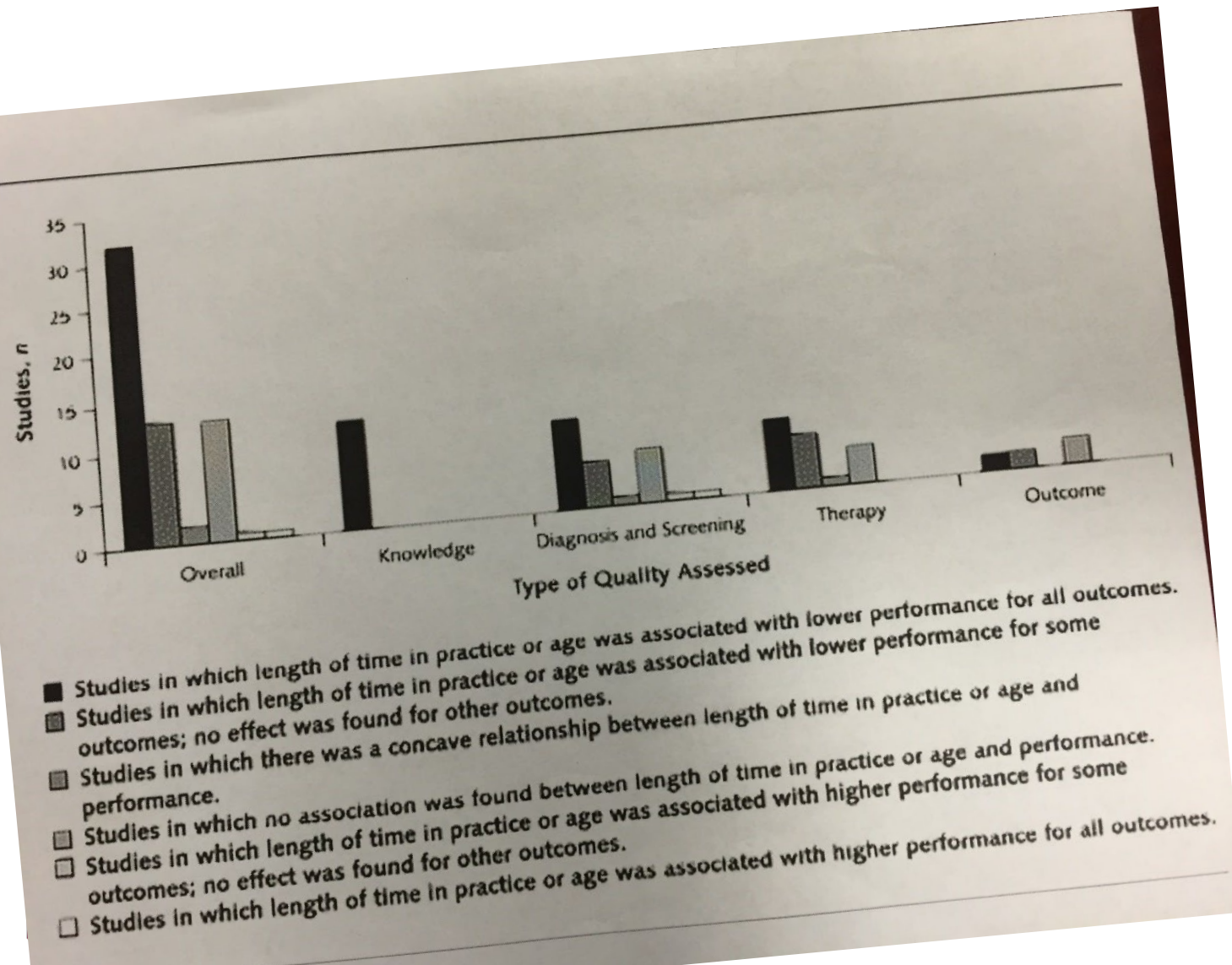
2. “I’m like a fine wine, getting better with age...”

Well.... Perhaps not...

Over time, medical knowledge and clinical skills decline..

[a 62 study review, Annals of Intern Med., 2005]

- Decay
- Obsolescence



Recertification Redesign – Why?

3. “I know what i need to study...”

- The preponderance of evidence suggests that physicians have a limited ability to accurately self-assess.
- A number of studies found the worst accuracy in self-assessment among physicians who were the least skilled and the most confident.
- These results are consistent with those found in other professions.

[DA Davis, PE Masmanian – JAMA 2006 - Systematic Review - 17 studies met criteria]

- People in the lowest quartile, however, greatly overestimated their abilities and failed almost entirely to correct their self-assessments

[Kruger J, Dunning D. - J Pers Soc Psych. 1999 -Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments..]

Why do something instead of nothing (or CE only)?

- “..didactic presentations and printed materials alone have little or no beneficial effect on these outcomes.” [Bloom, B.S. (2005)]
- “..the CE ‘system,’ as it is structured today, is so deeply flawed that it cannot properly support the development of health professionals” [Institute of Medicine (IOM), 2010]
- “..didactic sessions do not appear to be effective in changing physician performance.” [Davis, D.A. (1999)]

Introducing ISACC

The International Society for the
Advancement of Continuing
Competence



**REGULATORY
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Dublin, Ireland

General
Medical
Council

Revalidation

Let's take a look at how revalidation works

Blake Dobson
Assistant Director, GMC
3rd May 2023, Dublin



License to practise

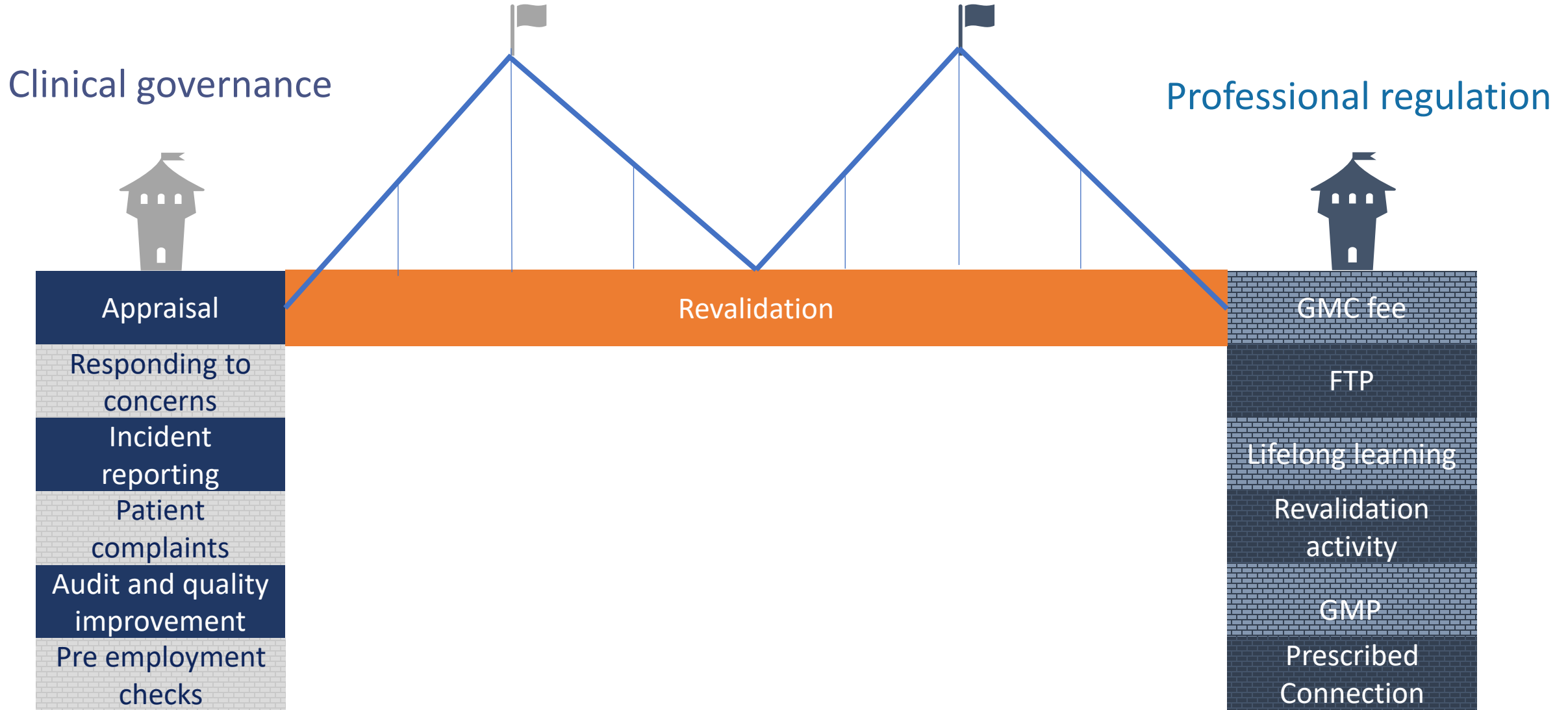
The basics

- GMC usually grants on first registration
- Required for UK practice as a Doctor
- Maintained through revalidation, failure to engage will result in loss of LtP
- Can give up voluntarily with no assessment
- Can normally restore without difficulty

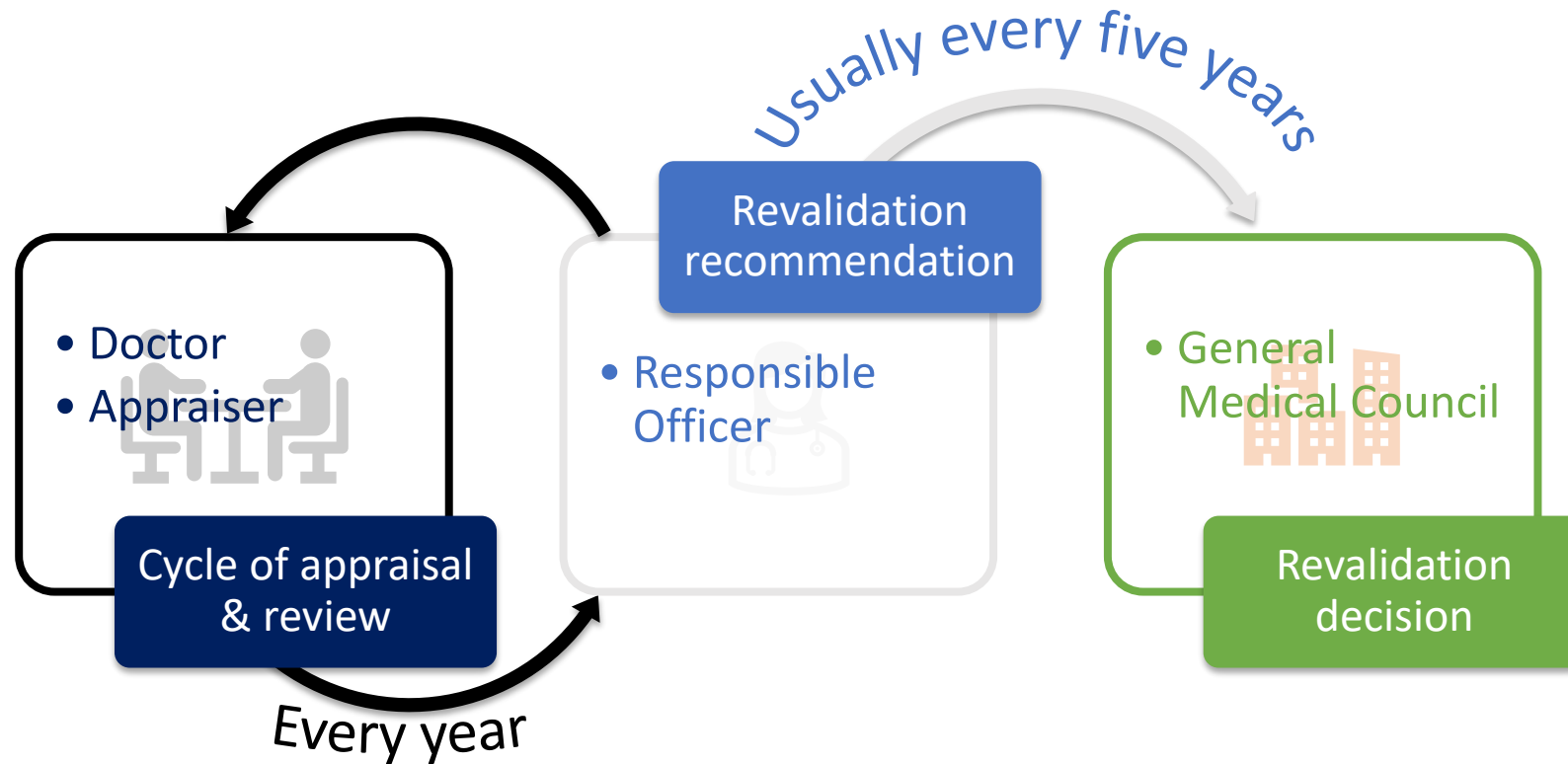
How many doctors hold a license?



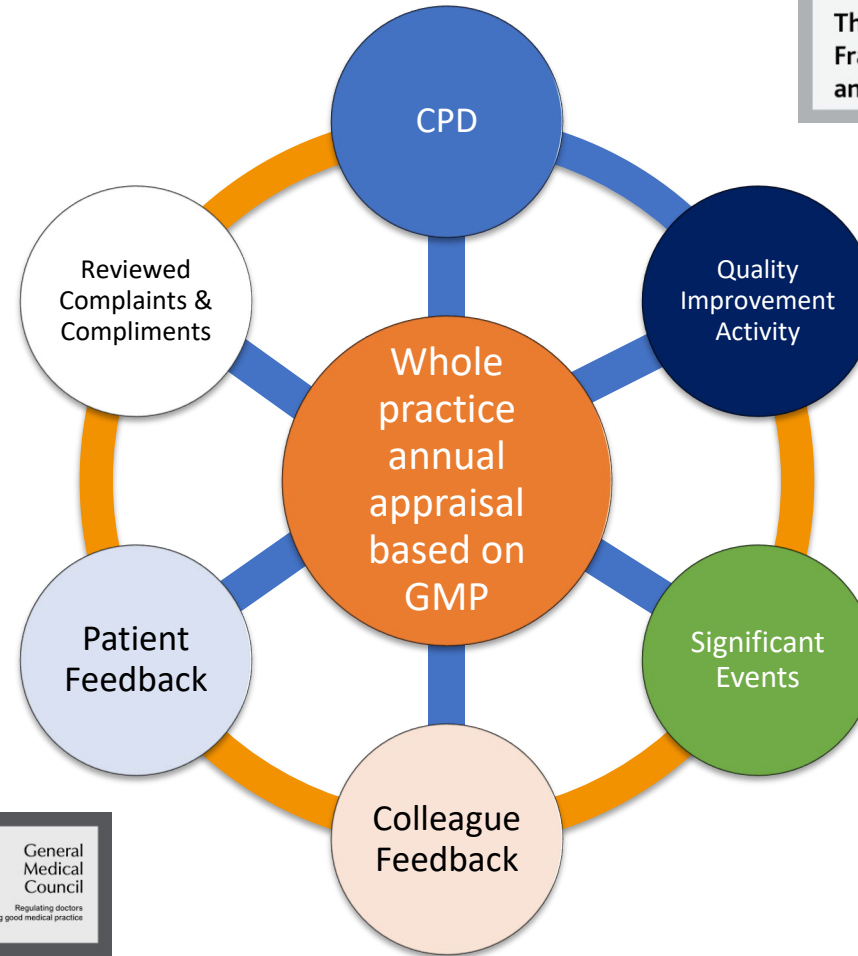
What is revalidation? Bridging the regulatory gap



How does it work?



Supporting information



The Good Medical Practice
Framework for appraisal
and revalidation

General
Medical
Council
Regulating doctors
Ensuring good medical practice

Supporting information
for appraisal and
revalidation

General
Medical
Council
Regulating doctors
Ensuring good medical practice

General
Medical
Council

Additional sources of information

ROs need to consider the whole range of **clinical governance** information when considering their recommendations for revalidation

What sources of information should an RO consider before making a recommendation?



Clinical governance information

- Local records of complaints and incidents
- Performance management info from departments – availability, performance, any concerns etc
- HR information – performance, conduct
- Info from other workplaces
- Concerns
- Clinical activity data benchmarked if poss
- (Mandatory) training data
- Research activity
- Incidents, complaints
- Audit activity
- Litigation

■ Recommendation

Revalidation

Request for more time (defer)

Failure to engage

Responsible Officer recommendation

ongoing local governance process ...
OR
incomplete information as follows:

- Appraisal activity
- Colleague feedback
- Compliments and Complaints
- CPD
- Interruption to practice
- Patient feedback
- QIA
- Significant events

Concerns about Fitness to Practise must be raised when they arise

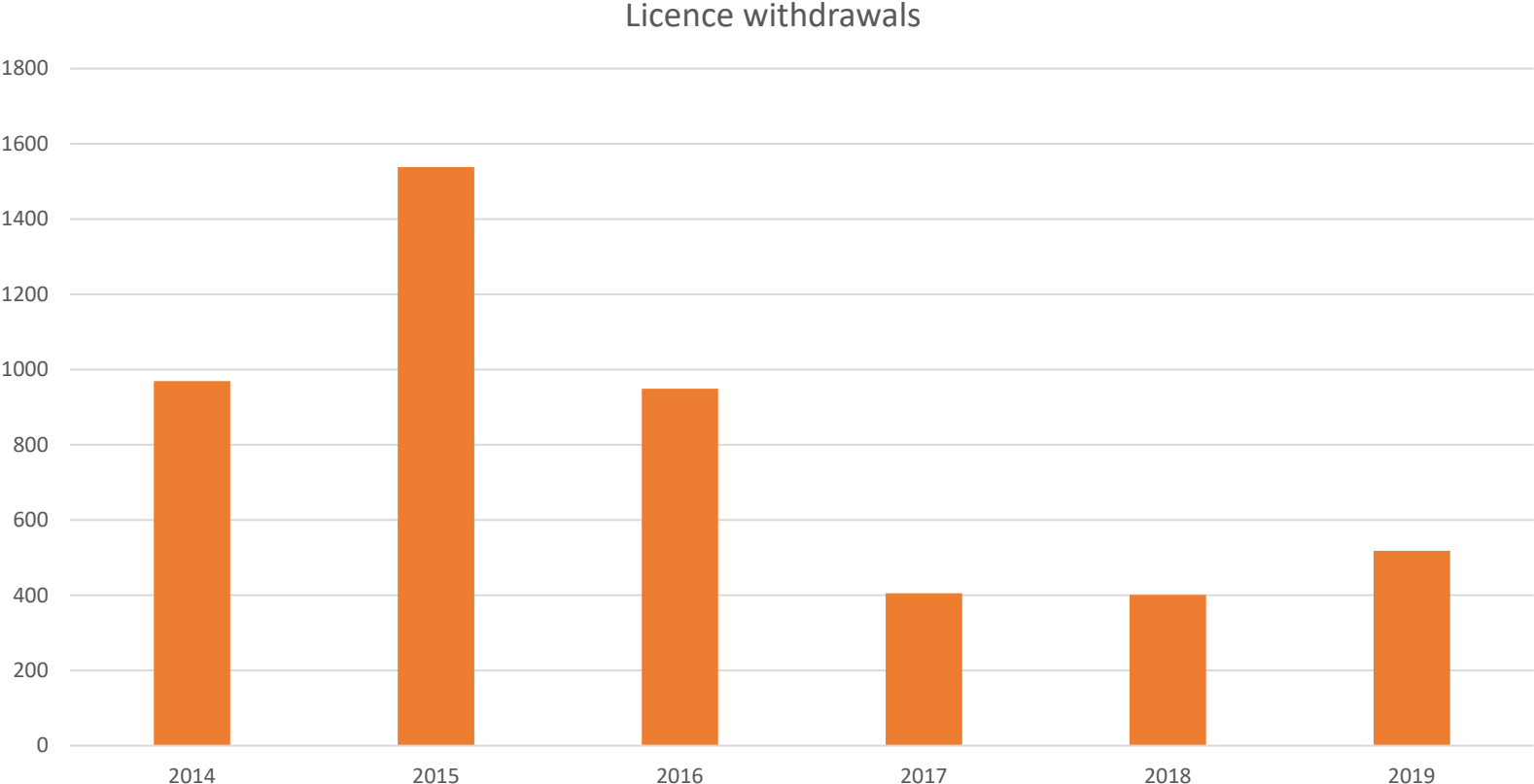
Revalidation is not ...

- A point in time assessment
- A record of historical achievement
- A substitute for raising and acting on concerns about practice
- A means of identifying criminal activity

Revalidation is ...

- Scrutiny by a senior leader across the current full scope of a practitioner's practice
- Informed by regular, planned medical appraisal conducted by a skilled and trained appraiser plus a review of locally held data
- Confirmation that the practitioner is competent, up to date and fit to practise
- Reassurance to patients that scrutiny is in place

Licence withdrawal



Impact on FTP cases

Enquiries received by type of enquiry by source

[Back to contents](#)

	Number of enquiries								
	2012	2013	2014	2015	2016	2017	2018	2019	Overall
Public, Complaint	5,589	5,985	5,864	5,639	5,650	5,018	4,794	5,001	43,540
Public, Not about FtP	512	568	669	645	896	747	753	927	5,717
Employer referral, Complaint	618	603	594	534	349	331	346	266	3,641
Employer referral, Not about FtP	675	142	13	17	16	7	6	7	883
Doctor self-referral, Complaint	296	380	552	568	487	658	519	615	4,075
Doctor self-referral, Not about FtP	35	17	19	15	23	30	23	59	221
Other doctor, Complaint	612	782	734	712	849	684	762	657	5,792
Other doctor, Not about FtP	76	79	57	48	72	64	101	80	577
Police, Complaint	164	163	147	120	96	87	112	106	995
Police, Not about FtP	21	19	35	45	30	17	28	30	225
GMC Media Scanning, Complaint	501	270	130	48	190	220	232	109	1,700
GMC Media Scanning, Not about FtP	29	6	4	7	24	34	40	21	165
GMC Other, Complaint	429	265	215	181	203	93	187	193	1,766
GMC Other, Not about FtP	14	6	9	7	22	5	44	13	120
Other, Complaint	555	716	686	526	533	478	451	451	4,396
Other, Not about FtP	275	93	63	43	69	47	60	43	693

Research

- 1. Interim report - Uk Medical Revalidation coLLaboration (UMbRELLA)
- 2. Evaluating the development of medical revalidation in England and its impact on organisational performance and medical practice (2018) -
- 3. Taking Revalidation Forward – (2017) Sir Keith Pearson



Taking revalidation forward

Improving the process of relicensing for doctors

Sir Keith Pearson's review of medical revalidation

January 2017

1. [UMbRELLA Shaping the future of medical revalidation Interim Report FINAL \(gmc-uk.org\)](https://www.gmc-uk.org/umbrella-shaping-the-future-of-medical-revalidation-interim-report-final)
2. [Final-report---the-development-and-impact-of-medical-revalidation---final.pdf \(manchester.ac.uk\)](https://www.manchester.ac.uk/research/evaluating-the-development-of-medical-revalidation-in-england-and-its-impact-on-organisational-performance-and-medical-practice-2018)
3. [Taking revalidation forward__Improving the process of relicensing for doctors.pdf_68683704.pdf \(gmc-uk.org\)](https://www.gmc-uk.org/taking-revalidation-forward-improving-the-process-of-relicensing-for-doctors.pdf_68683704.pdf)

Assessment of and for learning

Tom Granatir
Senior Vice-President
Policy and External Affairs
American Board of Medical Specialties



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Where I'm going

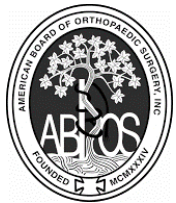
- Background on ABMS and Certification
- Research evidence to date
- The backlash
- New approaches
- Looking ahead

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 in **partnership** with Member Boards.

ABMS Member Boards

24 Independent Member Boards | 40 Specialties | 88 Subspecialties



Certification in 40 specialties and 88 subspecialties



940,000+

physicians and other specialists
certified by one or more
of 24 ABMS Member Boards

650,000+

diplomates currently
participating in
continuing certification

Evidence of the value of continuing certification


- Exam performance and program participation associated with disciplinary action against medical license
- Exam performance
 - better adherence to clinical guidelines
 - better performance on quality measures
 - lower total cost of care
 - improved patient outcomes
- Participation in quality improvement activities associated with enhancements in quality and patient outcomes

Knowledge matters

Open access

Original research


BMJ Open Associations between initial American Board of Internal Medicine certification and maintenance of certification status of attending physicians and in-hospital mortality of patients with acute myocardial infarction or congestive heart failure: a retrospective cohort study of hospitalisations in Pennsylvania, USA

John J Norcini ¹, Weifeng Weng,² John Boulet,¹ Furman McDonald,² Rebecca S Lipner²

DOI: 10.1111/jgs.17413

Journal of the
American Geriatrics Society

The association between physician knowledge and inappropriate medications for older populations

Jonathan L. Vandergrift MS  | Weifeng Weng PhD | Bradley M. Gray PhD

Open access

Original research

BMJ Open Association between primary care physician diagnostic knowledge and death, hospitalisation and emergency department visits following an outpatient visit at risk for diagnostic error: a retrospective cohort study using medicare claims

Bradley M Gray ¹, Jonathan L Vandergrift,¹ Rozalina G McCoy ², Rebecca S Lipner,¹ Bruce E Landon³

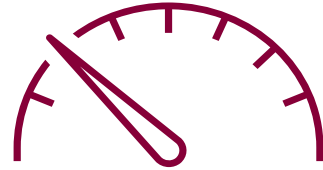
JAMA
Network | **Open**™

Original Investigation | Medical Education

Clinical Knowledge and Trends in Physicians' Prescribing of Opioids for New Onset Back Pain, 2009-2017

Bradley M. Gray, PhD; Jonathan L. Vandergrift, MS; Weifeng Weng, PhD; Rebecca S. Lipner, PhD; Michael L. Barnett, MD

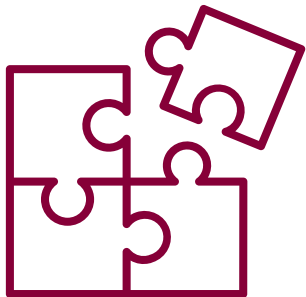
WHAT WE HEARD



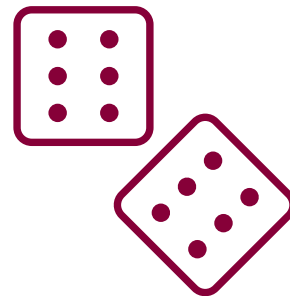
Not Meeting Learning
and Improvement Needs



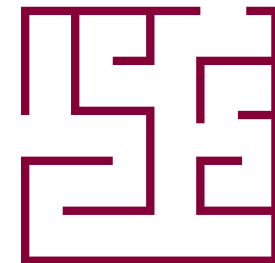
Not Integrated
into Practice



Not Relevant to Practice



High Stakes Exam



Difficult to Navigate

New Standards 2022

- Integrate professionalism, learning, assessment, and improvement
- Longitudinal assessment formats
- Remediation and re-entry pathways
- Summative decision over five years if standards are not met
- Independent research on program effectiveness

EVIDENCE-BASED APPROACH

- Cognitive skills need to be kept current
- Self-assessment is not enough due to biases
- Testing enhances learning and retention
- Goals and consequences motivate



<https://www.abim.org/Media/yszbx0au/conceptual-foundations-continuing-certification-assessments-for-physicians.pdf>

Longitudinal Assessment

Longitudinal Assessment



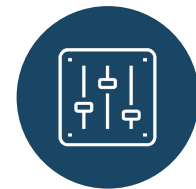
Frequent short, assessments with spaced repetition to verify learning

- Results accumulated over time to inform summative decisions
- Real time inclusion of current/emerging content



Emphasis on targeted feedback to help close knowledge gaps

- Supports learning and improvement
- Immediate and detailed critiques/rationales
- Dashboard displays areas of strength and weakness



Practice relevance

- Individualized user customization
- Ratings of confidence and relevance
- Reflect how knowledge is applied in practice



Convenient administration

- Web and mobile
- Flexible anytime, anywhere access
- Users complete assessments at a time and place of their choosing

Evidence of Learning

- 51% of diplomates increase their performance on clones
- Average correct on primary administration is 78%
- Average correct on clone administration is 81%
- Diplomates tend to spend more time reviewing the critique and references when they answer the question incorrectly

CertLink Assessment Design

CL American Board of Medical Specialties Higher standards. Better care.® CertLink Assessment Platform

Home FAQ Support Profile Messages Readiness Sign Out

Your Assessment Design

The required Core content is assigned by your board. Electives are practice areas and content that you choose. For electives, choose from the list below and add to your assessment. Once added, you may select how much content from each concentration area appears in your assessment.

- Required:** Makes up 25% of your assessment content. Required Core content is assigned by your board. 25%
- Electives:** Makes up the remainder of your assessment's content. You choose and customize your Elective content.
 - CARDIOVASCULAR Add This +
 - MUSCULOSKELETAL Add This +
 - RESPIRATORY Add This +
- Articles:** Chosen by you and makes up 25% of your assessment. Two articles will be assigned per quarter. You will receive 2 questions for each article for a total of 4 new article-based questions per quarter. 0 of 2

You must select 2 articles from the list below to complete your assessment.

 - ALLERGENS AND MARKETING CLAIMS OF THE MOST POPULAR BABY MOISTURIZERS Add This +
 - APPRAISAL OF NEW TREATMENT APPROACHES Add This +
 - DIAGNOSTIC MODALITIES AND APPLICATIONS Add This +
 - MANAGING RISK OF INJURIES AND EXPOSURES Add This +
 - POORLY DIFFERENTIATED ECCRINE CARCINOMAS Add This +
 - SINGLE-QUESTION PARENT-REPORTED GLOBAL ATOPIC DERMATITIS Add This +

25%

- REQUIRED 25%
- ELECTIVES 0%
- ARTICLES 0%

You must add 2 Articles.

Your Assessment design must add up to 100% before you can lock and save it.

Lock & Save

CertLink Question

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Home FAQ Support Profile Messages Readiness Sign Out

DASHBOARD ASSESSMENT DESIGN ASSESSMENT QUESTION HISTORY RESOURCES

CALCULATOR

04:40 TIME REMAINING QUESTION 1 OF 1

Q: A 3-day-old male infant is brought to the pediatrician by his mother because of concern about a rash that seems to be spreading. She states that she first noticed that he had a rash on his face yesterday and that it has now spread to his chest. A photograph is shown in the Exhibit. The patient otherwise appears well.



Which of the following is the most appropriate next step in management?

- Allergy evaluation
- Low-dose antihistamine
- Hydrocortisone cream 0.5%
- Intravenous acyclovir
- Observation only (CA)

Choose An Answer Above

CertLink Critique

The screenshot displays the CertLink Assessment Platform interface. At the top, the American Board of Medical Specialties logo and the text "CertLink Assessment Platform" are visible. The top navigation bar includes links for Home, FAQ, Support, Profile, Messages, Readiness, and Sign Out. Below this, a secondary navigation bar contains icons for Favorite, Feedback, Notes, Return, and Reattempt. The main content area shows a question with the following text:

Your Answer: Hydrocortisone cream 0.5%

This is incorrect. *The correct answer will be displayed after the 2nd attempt. Please reattempt the question.*

Key Point: Management of erythema toxicum neonatorum

Rationale:
This infant has findings consistent with erythema toxicum neonatorum, which usually resolves in the first week or two of life (SOR A). No testing is usually necessary because of the distinct appearance of the lesions. The cause is unknown. Allergic exanthems do not usually manifest at this age, therefore allergy evaluations or treatments such as antihistamines or topical corticosteroids are not appropriate. Intravenous acyclovir is indicated for congenital herpes infections. Dermatologic signs of congenital herpes usually arise within the first three weeks of life, but the exanthem is typically vesicular in nature.

References:
Lewis ML. A comprehensive newborn exam: part II. Skin, trunk, extremities, neurologic. Am Fam Physician. 2014 Sep 01; 90(5):297-302. <http://pubmed.gov/25251089>

Below the main content, there is a "Troubleshooting" section with a "Content Area" dropdown menu showing "1.1 Integumentary".

CertLink Dashboard

NOTE A dashboard banner is available here to display additional information.

Community Comparison

YOU: 80%

MY PEERS: 75%

Community Comparison shows how well others have done on the questions you have answered. Because questions are answered at different times, you may see these numbers fluctuate.

YOU: 80%

PERFORMANCE GOAL: 60%

About this comparison: The Performance Goal is an approximation of the cut-score (minimum percent correct to be passing) based on the questions available for you to answer to date.

Your Performance

80% Correct

- 10 Total Questions
- 5 Remaining Questions
- 4 Correct Answer(s)
- 1 Incorrect Answer(s)

Progress

50%

Time Remaining: 74 Days

You must finish 5 questions by 6/30/2023 in order to complete your assessment.

Assessment Details

START OF ASSESSMENT PERIOD

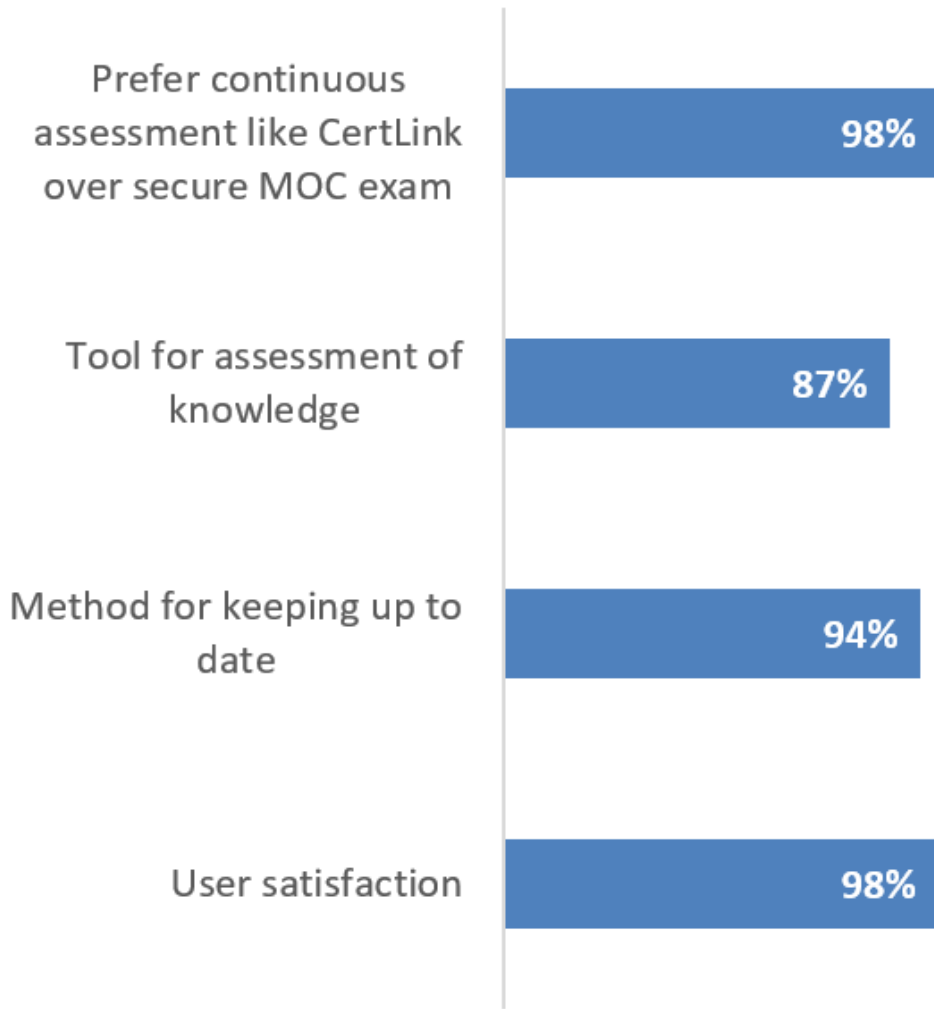
CURRENT JAN - JUN 2023

NOT STARTED JUL - DEC 2023

END OF ASSESSMENT PERIOD

Your Assessment Overview

USER FEEDBACK



“The questions were a **superb** learning experience... **I wished there were more...**”

“... the program has been **outstanding**. It is a good way of getting prompt feedback and **actually learning while taking a test.**”

35K+ users



4M+ answered questions

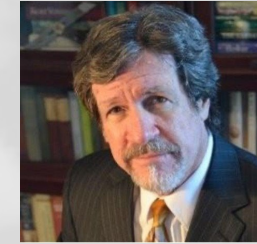


Looking ahead

- More personalized assessment
- Formative workplace assessment
- Surgical skills assessment
- Competency-based learning and assessment collaborative
- Collaborative on equity in assessment
- More attention to the science of learning and forgetting

Thank you for your attention...

Grady Colson Barnhill, Retired/Freelance, Public Board Member
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**Tom Granatir, Senior Vice President for Policy and External Relations,
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2. JAMA. 2006 Sep 6;296(9):1094-102. Accuracy of physician self-assessment compared with observed measures of competence: a systematic review. Davis DA1, Mazmanian PE, Fordis M, Van Harrison R, Thorpe KE, Perrier L.
3. J Pers Soc Psych. 1999;7:1121-34. [PubMed]; Kruger J, Dunning D. Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments
4. Institute of Medicine. (2000). To err is human: Building a safer health system. Washington, DC: National Academies Press. <https://doi.org/10.17226/9728>
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“Extra Slides”



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RESEARCH
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Standards of the Institute for Credentialing Excellence – National Commission for Certifying Agencies

- ***Commentary 12.*** If continuing education (CE) is the recertification requirement, then the certification program should address the typical limitations of CE (e.g., self-selected CE, focus on convenience and cost over need, points-oriented rather than learning-oriented, commercial or sponsorship bias) and document how it evaluates whether the CE activities support continuing competence (e.g., quality and relevance of content, effectiveness of delivery method).