REPORT 5 OF THE COUNCIL ON MEDICAL EDUCATION (A-15)
Competency and the Aging Physician
(Reference Committee C)

EXECUTIVE SUMMARY

The increasing numbers of older physicians, as well as the call for increased accountability by the public, have led regulators and policymakers to consider implementing some form of age-based competency screening of physicians. All physicians must meet state licensure requirements to practice medicine in the United States. In addition, some hospitals and medical systems have initiated age-based screening, but there is no national standard, and older physicians are not required to pass a health assessment or an assessment of competency or quality performance in their area or scope of practice. Although some studies of physicians have shown decreasing practice performance with increasing years in medical practice, the effect of age on any individual physician's competence can be highly variable. In response to Policy D-275.959, Competency and the Aging Physician, this report explores whether there is a need to establish guidelines for the testing for and judgment of an aging/late career physician's competence to care for patients.

The literature shows that assessment of practicing physicians is challenging because there are a limited number of valid tools that may be applied to measuring competence and/or practice performance; other challenges include the variable nature of physician practices and cultural resistance to externally derived assessment approaches. Assessment of aging physicians poses unique challenges related to the uncertain and variable influence of aging on clinical competence and performance in practice. In addition, policy decisions regarding assessment of older physicians must balance the higher index of concern regarding potential competence deficits due to the effect of aging on physical health and cognitive function with a need to avoid implementation of discriminatory regulatory policies and procedures. Although age is a factor in predicting the prevalence of dyscompetence, other individual and practice factors may influence clinical performance, i.e., practice setting, lack of board certification, high clinical volume, certain specialty practices, etc. Fatigue, stress, burnout, and health issues unrelated to aging are also risk factors that can affect clinical performance.

It is part of a physician's professional duty to continually assess his or her own physical and mental health, as well as report all instances of significantly impaired or incompetent colleagues to hospital, clinic or other relevant authorities. Contemporary methods of self-regulation (e.g., clinical performance measurement; continuing professional development requirements, including novel performance improvement continuing medical education programs; and new and evolving maintenance of certification programs) have been created by the profession to meet shared obligations for quality assurance and patient safety.

It is the opinion of the Council on Medical Education that physicians should be allowed to remain in practice as long as patient safety is not endangered and that, if needed, remediation should be a supportive, ongoing and proactive process. Self-regulation is an important aspect of medical professionalism, and helping colleagues recognize their declining skills is an important part of self-regulation. Therefore, 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. It should be noted that the development of guidelines/standards for appropriate mechanisms to assess aging/late career physicians will require significant resources, and would have to be consistent with state regulations at a number of levels.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 5-A-15

Subject: Competency and the Aging Physician

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Referred to: Reference Committee C
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Policy D-275.959, Competency and the Aging Physician, directs our American Medical Association (AMA) to: 1) study the issue of competency in aging physicians and develop guidelines, if the study supports such a need, for appropriate mechanisms of assessment to assure that America's physicians remain able to provide optimal care for their patients; and 2) report back to the House of Delegates.

INTRODUCTION

The process of becoming a practicing physician in the United States requires a substantial commitment of time, money, energy, and emotion on behalf of each physician. Throughout their careers, physicians are recognized as professionals who practice a complex "craft" which requires them to maintain their skills and education, as well as make difficult, often quick and sometimes life-and-death decisions that demand high and complex levels of cognitive functioning.[1,2] The state medical boards grant physicians the authority to provide services that other health care professionals cannot provide.

As the demands of medical practice and the quantity of patients continue to grow, older physicians remain an essential part of the physician workforce.[3] The total number of physicians 65 years and older more than quadrupled from 50,993 in 1975 to 241,641 in 2013. Physicians 65 and older currently represent 23 percent of physicians in the United States. Within this group, two-fifths (39.3 percent) are actively engaged in patient care, while half (54 percent) are listed as inactive in the AMA Physician Masterfile.[4] The increasing numbers of older physicians, as well as the call for increased accountability by the public, have led regulators and policymakers to consider implementing some form of age-based competency screening.[5] All physicians must meet state licensing requirements to practice medicine in the United States. In addition, some hospitals and medical systems have initiated age-based screening, but there is no national standard, and older physicians are not required to pass a health assessment or an assessment of competency or quality performance in their area or scope of practice.[6,7]

Although some studies of physicians have shown decreasing practice performance with increasing years in medical practice, the effect of age on any individual physician's competence can be highly variable.[8] Many issues affecting late career physicians also affect those with a lapse in practice; assessment and remediation services for these physicians may be similar. However, there is a distinction between those seeking to reenter practice and the aging/late career physician. This report explores whether there is a need to establish guidelines for the testing for and judgment of an aging/late career physician's competence to care for patients.

DETERMINING IF AN OLDER PHYSICIAN IS CLINICALLY COMPETENT

Assessment of practicing physicians is challenging because of the limited number of valid tools that may be applied to measuring competence and/or practice performance, the variable nature of physician practices, and cultural resistance to externally derived assessment approaches. Assessment of aging physicians poses unique challenges related to the uncertain and variable influence of aging on clinical competence and performance in practice. In addition, policy decisions regarding assessment of older physicians must balance the higher index of concern regarding potential competence deficits due to the effect of aging on physical health and cognitive function with a need to avoid implementation of discriminatory regulatory policies and procedures.

A large body of research demonstrates that cognitive dysfunction is more prevalent among older adults, although aging, per se, does not necessarily result in cognitive impairment.[3] Wide variations are seen in cognitive performance with aging,[9,10] and the ability to clearly demonstrate an association between specific cognitive deficits and physician occupational performance is challenging.[5] Furthermore, some attributes relevant to health care—such as wisdom, resilience, compassion, and tolerance of stress—may actually increase as a function of aging.[5,11,12,13,14]

In terms of specific research findings that may have a significant impact on patient care, there is a tendency for physicians to rely more on non-analytic processes (such as pattern recognition and "gist"-based processes), as opposed to more active and controlled processes, as they age.[5,9] With aging, fluid intelligence ("mental efficiency") decreases while domain-specific, experientially-based knowledge remains stable.[3] Non-analytic processes may lead to more accurate diagnoses by experienced physicians, particularly when based primarily on contextual information, but may result in unrecognized diagnostic errors when analytic processes cannot intervene during evolving or complex clinical situations.[9] This may result in premature closure and diagnostic errors, and a compromise in the ability to care for more complex patients.[5,9] Eva described several factors associated with aging that may either negatively impact the accuracy of non-analytical approaches or limit the ability to engage in analytical processes. These factors include:

- Decreasing working memory and the ability to store and process information;
- Decreasing processing speed of mental operations limiting the ability to complete complex tasks;
- Increasing difficulty in inhibiting irrelevant information and inappropriate responses, including the tendency to be overly influenced by the order in which information is received (primacy effect) and to be biased by personal experience; and
- Declining hearing and visual acuity, which in and of themselves may significantly contribute to age-related intelligence decline.[9,10]

In addition to cognitive effects, relevant to maintenance of procedural competence, research shows that manual dexterity and visuospatial ability decrease with age.[15,16,17]

Related to the influence of aging on the actual assessment of physicians, published data demonstrate a negative impact of increasing age on physician assessment results. Physician performance on knowledge examinations declines as a function of aging regardless of whether the examination assesses general medical or surgical knowledge or more practice-specific knowledge, such as blood product transfusion or emergency contraception.[18] Important differences in performance may become more apparent after age 60.[19] Although most physicians over age 60 will score significantly lower than their younger colleagues, higher variability among older test-takers results in some physicians over 60 performing as well as those younger than 40.[19] Research

suggests that the lower score obtained by older physicians represents failure to acquire new or changing knowledge rather than the loss of their more stable knowledge base.[20] Among physicians referred to an assessment center because of concerns regarding their clinical competence, older age and lack of board certification predicted a lower score on a computer-based clinical simulation designed to assess patient management skills.[21] Detection of competence deficits among referred physicians is associated with an increased risk of underlying cognitive dysfunction, which may be more pronounced in elderly physicians.[22,23,24]

When broader, multifaceted assessment approaches are deployed (including chart-stimulated recall, standardized patients, multiple-choice question tests, and oral examinations), physician age and time since graduation predict overall poorer performance.[25,26] Of note, performance deficits may be identified across multiple competence domains such as history taking, physical examination and communication skills, problem solving, patient management, and record keeping.[26] The negative impact of aging on performance was seen in both physicians referred for assessment because of concerns about their competence and in the physicians who served as a normative criterion (comparison) group.[9] Data from the Peer Assessment Program in Ontario show that detection of gross deficiencies increases with age, occurring in nine percent of physicians under age 49, 16 percent of those ages 50 to 74, and 22 percent over age 75.[27] In a sample of physicians referred from U.S. licensing authorities, assessment outcomes of older physicians are significantly more likely to be interpreted as unsafe for clinical practice.[28] A neuropsychological analysis of physicians receiving adverse actions by a state medical board identified deficits in attention, sequential processing, logical analysis, eye-hand coordination, and verbal and non-verbal learning.[5,29]

The relationship between the results from competence assessment and the eventual quality of care provided and patient outcomes is complex and does not necessarily allow for predictions at the individual practitioner level. Consistent with the research cited above showing declining knowledge and failure to acquire new knowledge over time, research shows that older primary care physicians are less likely to prescribe appropriate medications or incorporate new treatment strategies into their practices.[17,30,31] A review of 62 studies found that increasing years in practice is associated with decreasing knowledge; lower adherence to evidence-based standards of care for diagnosis, prevention and treatment; and worse patient outcomes.[18] A large majority (73 percent) of the studies showed an age-related decline in all or some of the parameters assessed, while only four percent showed an age-related improvement in all or some of the parameters assessed. Another study demonstrated that inpatients cared for by physicians who were practicing longer had longer stays and higher mortality rates.[32] The peer review program in Ontario found age to be an independent predictor of poor quality of care and record keeping.[27,33] In the United Kingdom, physician practices that are consistently classified as poorly performing relative to their quality and outcomes are more likely to be staffed by elderly general practitioners.[34] However, not all research finds a negative association between age and quality. A large study of physician performance in Massachusetts, using publicly available claims data, did not find a relationship between quality and years of experience.[35]

Research on actions taken by state medical boards suggests that advancing age is a risk factor for adverse licensing actions, although malpractice incidents and claims may occur less frequently among older physicians.[36,37,38] Following a thorough practice review by Quebec licensing authorities, including medical record audit and assessment of prescribing habits and practice outcomes, physicians over age 70 were three times more likely to have their license cancelled than those under 70 years old, and were half as likely to successfully remediate. Physicians ages 65 to 97 were three times more likely to have inadequate continuing professional development (CPD) activity compared to their younger colleagues.[39]

Studies have shown that aging in surgeons is associated with increased morbidity and/or mortality in patients undergoing thyroidectomy,[40] carotid endarterectomy,[41] knee replacement surgery,[42] and coronary artery bypass grafting.[43] A study based on Medicare data found that older surgeons, particularly those with low procedural volumes, have higher mortality rates for selected procedures, such as segmental colon resection, pancreatectomy, and CABG,[17] but not for other complex procedures such as lung resection or abdominal aortic aneurysm repair. Older surgeons are less likely to integrate new modalities and recommendations for care into their practices; for example, they are less likely to perform breast reconstruction when indicated in breast cancer patients[44] and are more likely to have delayed adoption of and higher complications with laparoscopic techniques.[45,46,47]

OTHER FACTORS THAT AFFECT CLINICAL PERFORMANCE

Although age is a factor in predicting the prevalence of dyscompetence, there are other individual and practice factors that may influence performance. Physicians in solo practice (who have less contact with physician colleagues) and those who are in administrative positions (who have less patient contact) tend to score lower on knowledge-based examinations.[19] Physicians in solo practice score lower on knowledge examinations related to both the loss of stable knowledge and failure to acquire new and changing knowledge, suggesting that an isolated environment impacts one's abilities to maintain and acquire knowledge.[20] Broad, multifaceted assessment approaches identify solo practice, international training, lack of board certification, general practice and incongruence between training and scope of practice as additional risk factors predicting poor performance outcomes.[25,26,28] Board certification, female gender, and graduation from a domestic medical school, but not time in practice, were associated with better quality of care as identified by review of claims data in Massachusetts.[35] Similarly, the peer assessment program in Canada found that, in addition to increasing age, lack of board certification, male gender, and a rural practice location were associated with worse quality of care and documentation in the medical record.[27,33] Furthermore, multivariate analysis revealed a related and potentially additive impact of age, practice location, and lack of certification.[27] In addition, male gender, lack of board certification or hospital privileges, graduation from a foreign medical school, high clinical volume, physical and mental health issues, and certain specialty practices are also risk factors for adverse licensure action.[36,37] Of note, self-reported continuing medical education (CME) hours may be directly correlated with incompetence.[26] Fatigue, stress, burnout, and health issues unrelated to aging are also risk factors that can affect clinical performance.[5]

HEALTH SCREENINGS FOR PHYSICIANS

Moutier suggests that aging is but one of several risk factors for competence and performance problems and that a mandatory retirement age for physicians is not justified.[5] However, Moutier gives credit to hospitals and medical systems that have initiated age-based screening processes, and a broad professional initiative in developing age-based screening policy and procedures is recommended.[5] The majority of individuals surveyed during a conference of the Coalition for Physician Enhancement favored implementation of age-based screening of physicians' competence.[5] Among the respondents, which included staff from physician assessment centers, attorneys and state medical board members, 72 percent recommended that screening begin at age 65 or 70. Conference participants suggested the process should include peer review, practice evaluation, and assessments of physical and mental health, including a cognitive screening process.

Physicians' Professional Responsibilities

It is part of all physicians' professional duty to continually assess their own physical and mental health.[1,9,48] Currently, there is no national standard for screening physicians who have reached a certain age. In addition, the standards of professional behavior authorized and adopted by medical societies state that physicians' professional responsibilities should include reporting all instances of significantly impaired or incompetent colleagues to hospital, clinic or other relevant authorities.[48]

Peer Review and Practice Evaluation

Although individual peers reporting on each other is the prime mechanism for identifying physicians whose knowledge, skills, or attitudes are compromised, and most physicians agree that impaired or incompetent physicians should be reported to the appropriate authorities, this method is not always reliable.[1,48,49] A study by Campbell et al. showed that 45 percent of those with direct personal knowledge of a physician in their hospital group or practice who was impaired or incompetent did not always report that physician.[48] Contemporary methods of self-regulation (e.g., clinical performance measurement; CPD requirements, including novel performance improvement CME programs; and new and evolving maintenance of certification programs) have been created by the profession in part due to increasing recognition that sole reliance on individual physicians to report colleagues' performance, even if it were 100 percent reliable, still would not be enough to meet shared obligations for quality assurance and patient safety.

From a public protection perspective, the objective assessment option seems like an important intervention, given the strong impact of aging on performance, the extreme variability of cognitive function among older physicians, and the well-documented inability of physicians to self-assess, in particular those who are less competent.[50] Eva advised caution regarding the above interventions, with significant resource and administrative implications; they should not be universally mandated but implemented through a case-by-case, assessment-driven process, given the extreme variability of cognitive findings among older physicians.[9] External, objective assessment also seems essential given that non-analytic processes may be even less accessible to critical self-appraisal than the more conscious analytical processes.

The Joint Commission's Requirements

The Joint Commission's standard MS.11.01.01 is specifically written to encourage medical staffs to identify and manage matters of individual health for licensed independent practitioners that are separate from actions taken for disciplinary purposes. The standard focuses on the education of physicians to recognize issues in others and also encourages self-referral in an effort to facilitate confidential diagnosis, treatment and rehabilitation by assisting a practitioner to retain and regain optimal professional functioning consistent with the protection of patients. If it is determined, however, that a physician is unable to exercise safely the privileges that he or she has been granted, The Joint Commission's standard calls for the matter to be reported to the medical staff leadership for appropriate corrective action.[51]

Hospital/Health System Screening Programs

A growing number of hospitals and health care systems have adopted official policies that require physicians to undergo health assessments upon reaching a certain age in order to examine practice patterns and physician abilities to practice safely.[52] Examples of hospitals and groups that have such policies in place include the University of Virginia Health System, Driscoll Children's Hospital in Texas, and Stanford Lucille Packard Children's Hospital in California. The University

of Virginia screens physicians at age 70 and every year after age 75 and assesses physical and mental capacity. Driscoll screens physicians at age 70 and at reappointment thereafter, conducts physical and mental examinations and, if deemed appropriate, proctors clinical performance. Stanford screens physicians at age 75 and every two years thereafter, and screening includes peer assessment of clinical performance, history and physical assessments, and cognitive screening.[52,53]

US and Canadian Local Screening Programs

LifeGuard, conceptualized and supported by the Pennsylvania Medical Society, evaluates and assesses the neurocognitive status, physical status, and medical knowledge of referred physicians and provides an objective report describing assessment results and recommendations for remediation (if applicable).[54] LifeGuard is a resource for state medical boards, hospitals and health systems, medical staff, peer review boards, credentialing committees, physician group practices and physicians in Pennsylvania. The program includes the Aging Physician pathway for entities and organizations that need "ability to perform" assessments for senior physicians. This pathway measures clinical skills and health status; core components of the assessment can include an objective measurement of cognitive and physical functioning as well as fine motor skills. Additional assessment options are available based on the concerns identified by the requesting entity.[54]

The Colorado Physician Health Program (CPHP), governed by the Colorado Peer Assistance Act, is independent of other medical organizations and the state government. The Denver Medical Society, the Colorado Medical Society and Copic Insurance Company were instrumental in establishing CPHP and continue their support of the program. CPHP provides confidential services in all areas required by law or regulation, including comprehensive clinical evaluation; treatment planning and referral; treatment monitoring and support; assessment of ability to practice safely; consultation to hospital administrators, medical executive committees and medical staff offices; education presentations on physician health and related issues; documentation of health status necessary for hospital credentialing; and neutrality, objectivity and confidentiality in the context of working with hospitals, partnerships, the Colorado Board of Medical Examiners, organizations, families and other systems with which the physician is involved.[55]

The California Medical Association, California Hospital Association's Center for Healthcare Medical Executives, and California Public Protection and Physician Health drafted guidelines and principles for medical staffs, medical groups, and other entities in California that have responsibility for decisions related to evaluating a practitioner's health and well-being as they impact the practitioner's ability to practice medicine safely. The draft guidelines include options for assessing physicians who choose to work late into their careers. The draft guidelines, available at https://cppphdotorg.files.wordpress.com/2011/02/assessing-late-career-practitioners-draft-26-wo-cma-1-14-15.pdf, are subject to periodic review and revision to incorporate new developments.

The College of Physicians and Surgeons of Ontario (CPSO) has established a formal system for assessing all physicians in Ontario. Duties of the College include issuing certificates of registration to doctors for the practice of medicine, monitoring and maintaining standards of practice through peer assessment and remediation, investigating complaints about doctors on behalf of the public, and conducting discipline hearings when doctors may have committed an act of professional misconduct or may be incompetent. Ontario physicians who reach age 70 are required to participate in the College-appointed peer assessment program (if the physician has not been randomly selected in the previous five years). These physicians are then assessed every five years thereafter. When a physician is selected to undergo assessment, a number of pre-assessment activities take place. Reviewing a physician's medical record-keeping system is perhaps most often associated with peer

assessment. A records review enables an assessor to develop a picture of the physician's practice and an understanding of his or her approach to patient care. Through the records review and discussion with the physician, assessors try to put together the "story of the patient." An assessor evaluates the physician's ability to take adequate histories, conduct appropriate examinations, order the necessary diagnostic tests, identify the appropriate course of action, conduct the necessary interventions and monitor patients, as necessary.[56]

FACTORS THAT MAY HAMPER ASSESSMENT OF OLDER PHYSICIANS' COMPETENCE

Factors that may make assessment of older physicians more challenging include the variability of cognitive dysfunction in older adults, uncertainty regarding how to interpret tests of cognitive or motor function in physicians, the confounding effects of other variables on physician competence and performance, and the uncertain predictive value of specific competence assessments on the actual quality of care and patient outcomes.

With regard to measurement of cognitive dysfunction, it is uncertain whether and how physician results should be compared to the general population and whether their results should be age-matched for interpretation purposes.[22] The nature of physician decisions, in terms of their difficulty, acuity and gravity, suggests that even minor changes in cognitive function may be impactful in patient care situations.[2,57] Results for cognitive testing that are interpreted as normal based on comparison to an age-matched, non-physician population could potentially represent a significant decline in highly intelligent individuals.[58,59] Turnbull and colleagues found that using an age-independent standard for neuropsychological performance was more sensitive in detecting cognitive problems among referred physicians, and it was more accurate in predicting assessment and remediation outcomes.[23]

Although there are currently no accepted criteria or guidelines for making judgments regarding acceptable cognitive or neuropsychological thresholds, there is a sentiment that public protection goals dictate the need for a high standard in judgments about cognitive ability in physicians.[58] Should "corrections" be made in expectations for cognitive performance when they are not made for performance on other assessment modalities, such as the multiple-choice question examinations?[22,23] Regardless of whether correction should be made for age-matching on physicians, the ultimate relationship between tests of cognitive function on clinical performance and outcomes is not well established.[60] Caulford notes that the failure to assimilate new knowledge identified in the American Board of Internal Medicine (ABIM) studies is not clearly related to physician performance problems.[26] Waljee points out that there is no evidence directly linking age-related decline in motor and visuospatial skills to worsening outcomes for patients.[17] In fact, commonly used diagnostic assessments that focus primarily on analytic approaches to clinical care may yield somewhat spurious findings in physicians who rely more on non-analytical approaches.[9] Yet, the identified relationship between cognitive performance level and prediction of assessment and remediation outcomes cannot be ignored.[23]

An increasingly prevalent perspective emerging from the CME community is the need to recognize the important influence of the system and practice environment on physicians in terms of their ability to learn and apply their learning in improving patient care and outcomes.[61] Physician performance in practice represents a complex interaction between personal characteristics of the physician (age, gender and certification status) and practice context (practice structure, location, workload and patient acuity). This suggests that competence or performance assessment models should take into consideration the broader environmental context in which a physician practices.[28,62] In fact, regression modeling suggests that incorporation of organizational and system factors substantially reduces the independent impact of age and other individual physician

characteristics on practice-based assessments of physicians.[62] Durning and colleagues applied situated cognition theory as a framework for understanding how a physician's thoughts and actions cannot be separated from the social context in which they practice.[3] In addition to physician factors such as age and cognitive function, patient factors (acuity and complexity) and practice factors (appointment lengths, setting, staffing and support systems) affect a physician's practice and influence patient care and outcomes. This phenomenon limits the ability of measures of cognitive function and knowledge, and perhaps measurement of other domains in an assessment center context, to explain or predict performance in the physician's actual practice setting.[3]

Interpretations and decisions based on diagnostic assessment of clinical competence are also challenged by the lack of clear standards for physician performance and an overall lack of normative assessment data on practicing physicians.[21] Even though physicians may be at increased risk for competence deficits as they age, the majority of older physicians most likely provide safe and effective patient care. While age is a risk factor for cognitive dysfunction among referred physicians, age in the absence of identified cognitive deficits does not necessarily have a negative impact on assessment or remediation outcomes.[23] The challenge is to devise a process that will be cost effective in identifying physicians who require remediation, or perhaps should retire from practice. Norman and colleagues suggest a process analogous to an epidemiologic approach to screening for a low prevalence disease in which a single testing method may not be cost effective.[25] A multifaceted approach would begin with an economical screening test with high sensitivity, followed by a more comprehensive diagnostic approach for those who are identified as a high risk for dyscompetence.[25] The diagnostic approach would need to include assessment methods that cover the range of competencies relevant to safe and effective patient care, as physicians who are diagnosed as "incompetent" may have deficiencies that span more than one competency domain.[26]

There remains some uncertainty about the value of results based on assessment of physician knowledge and skills in vitro for predicting their clinical performance and quality of care in vivo. It is difficult, in an assessment center setting, to account completely for practice and patient-related contextual factors that have a strong influence on physician performance. Work by Rethans and Kopelow suggests that physician behaviors in an assessment context may not accurately represent their actual clinical performance.[63,64] On the other hand, there are consistencies noted between assessment outcomes and practice performance results. For example, assessment of aging physicians demonstrates their failure to acquire new or changing knowledge over time, and clinical studies show they fail to integrate new clinical information or methods in their practices.[20,30,31] In response to potential concerns regarding relevance and predictability of competence assessments for actual performance in practice, the Physician Review Program (PREP) of the CPSO included medical records from physicians' actual practice and standardized patient-simulated cases typical of those seen in physicians' specific practice context.[25] It would seem appropriate, pending resolution of such questions by targeted research, to integrate methods focusing on assessment of knowledge and skills with those assessing actual clinical performance in a way that is sensitive to practice context.

IMPAIRED PHYSICIANS AND UNIFORM WAYS TO DEAL WITH THEIR COMPETENCE TO PRACTICE

The profession of medicine holds itself to the high ideals of caring and competency; the first tenet is *premum non nocere* or "first do no harm." Ethical guidelines state, "When health or wellness is compromised, so is the safety or effectiveness of the medical care provided. When failing physical or mental health reaches the point of interfering with a physician's ability to engage safely in professional activities, the physician is said to be impaired."[65]

Concern regarding the continuing competence of physicians has grown in recent years from the Institute of Medicine reports on patient safety as well as public concern with medical errors and inadequate practice oversight. Unlike commercial airline pilots who must undergo regular health screenings starting at age 40 and must retire at age 65, or FBI agents whose mandatory retirement age is 57, physicians are subject to no such rules.[66,67] However, physicians are regulated by state medical boards, professional organizations, hospitals, organized systems, and specialty certification boards.

The issue of who holds physicians accountable to a high standard of practice throughout their careers is one that has troubled licensing authorities, hospitals and clinical directors, as well as third party payers. The primary purpose of state medical boards is to protect the public by ensuring that those who practice medicine are able to do so safely. In most states, relicensure, the process by which physicians renew their licenses to practice, consists primarily of reporting CME activities and maintaining a record free of violation of legislative and professional statutes and guidelines.[67]

Hospitals have an obligation to retain only competent physicians on their staff. Some hospitals now require physicians over a certain age, usually starting between ages 70 to 75, to undergo periodic physical and cognitive exams as a condition of renewing their privileges. Other hospitals oppose setting a hard-and-fast-number for mandatory testing.[5,68] The Joint Commission has established guidelines for ongoing evaluation of the professional practice quality of physicians. These evaluations must be conducted on a regular basis and measure a practitioner's clinical and behavioral competence in six areas: patient care, medical/clinical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and system-based practice.[51]

Maintenance of certification (MOC) programs sponsored by the American Board of Medical Specialties (ABMS) and its 24 member boards promote CPD. The Member Boards require most medical specialists to seek recertification on a periodic basis, typically every 10 years, by successfully completing assessments designed to test medical knowledge, clinical competence and skills in communicating with patients. MOC's impact is limited, however, in that many older physicians are "grandfathered" or have time-unlimited board certifications. Furthermore, the process does not address those physicians who are not board certified.[67,69] Choudhry suggests that older physicians may need the quality interventions that are appropriate for all physicians and raises concerns that much of existing CME may not help them maintain their quality of care.[18] Many older physicians are exempt from MOC requirements that might provide a venue for helping to maintain their competence.[18]

When competency to practice safely is in question, the approach is individualized because there is a continuum of competency. If the physician is an immediate threat to the public welfare, or has an irreversible cognitive impairment or an untreatable condition, the state medical board can revoke the medical license. If the condition is potentially reversible, state medical boards and hospitals may refer physicians to specialized programs for competency to practice assessments and remediation. These programs evaluate a physician's clinical knowledge, reasoning, judgment, documentation and patient care as well as neuropsychological status. Organizations such as the Coalition for Physician Enhancement have a mission to support, develop and certify those with expertise in assessment and education enhancement for physicians and other health-care providers. There are approximately 10 remediation programs in the United States.[5]

RETRAINING MAY BE NEEDED TO ALLOW PHYSICIANS TO CONTINUE TO PRACTICE

It is the opinion of the Council on Medical Education that remediation should be a supportive, ongoing and proactive process and that physicians should be allowed to remain in practice as long as patient safety is not endangered.[70] Remediation programs offer many educational approaches including formal CME. Traditional CME courses developed for the average physician are often used as a resource for physicians needing remediation. Lobprabhu, et al. suggest that the remediation program should include remedial CME for the identified area of dyscompetence, as well as pre- and post-testing to determine whether the physician learned the material presented.[68] The type of testing and the criteria for successful remediation may differ according to specialty.

Norman comments that "physicians undergoing remedial education are at high risk for failure and conventional education may be unsuccessful."[25] In particular, cognitive dysfunction may negatively impact a physician's ability to remediate successfully.[2,22] Thus, assessment of neuropsychological function may be of value in supporting decisions about the potential utility (vs. futility) of further remediation and assessment, particularly if cognitive problems are identified in older physicians with significant competence deficits.[22,71] Kohatsu commented that their research findings had potential policy implications for use of board certification in credentialing, and they support the efforts of the ABMS to enhance the development and assessment of physician life-long learning and continuing competence.[37]

Barriers associated with remediation programs include the high cost of programs; the dispersed location of programs; the lack of a comprehensive database to inform physicians about assessment and remediation programs, such as structure, requirements, costs and outcomes; the lack of standardized curricula; and the lack of a sufficient monitoring process to assess program outcomes. Further, due to the relatively small number of assessment programs that address cognitive and other impairments, physicians are unlikely to be assessed within the context of their own practice.[68,70]

APPROPRIATENESS OF GUIDELINES FOR TESTING FOR AND JUDGMENT OF A PHYSICIAN'S COMPETENCE TO CARE FOR PATIENTS

Deciding when to give up practice is an important decision for any physician, and it is critically difficult for some. Normal aging is associated with cognitive changes; some are positive (e.g., accumulated wisdom), but most are usually associated with some decline. However, increased intelligence and greater educational achievement appear to be protective to some extent. Nonetheless, physicians, similar to non-physicians, are at risk of mild cognitive impairment and dementia, and physicians with either condition, often lack insight into their deficiencies. These physicians may be resistant to suggestions that it is time to retire from practice.[58]

Many wise physicians have asked trusted younger colleagues to tell them when it is time to stop. Self-regulation is an important aspect of medical professionalism, and helping colleagues recognize their declining skills is an important part of self-regulation. Therefore, physicians must develop guidelines/standards for monitoring and assessing both their own and their colleagues' competency. Clinical performance measurement and patient safety event reporting are used now for medical staff assessment of professional competency.[5]

In years past, local medical societies would perform this function for their members. More recently, medical staffs and department chiefs have dealt with the issue on an ad hoc basis, and with medical staff peer review processes on a more formal basis. With the recent shift away from hospital practice and the current competitive and litigious environment, formal guidelines on the timing and content of testing of competence may be appropriate. How often this testing should occur is not

well defined. Unfortunate outcomes may trigger an evaluation at any age, but perhaps periodic reevaluation after a certain age such as 70, when incidence of declines is known to increase, may be appropriate. This testing should include evaluation of physical and mental health, neurocognitive testing, and review of actual clinical care, either by direct observation or chart review. Physicians must generate and agree on the appropriate guidelines themselves. Following formal guidelines may head off a call for mandatory retirement ages, as pilots experience, or imposition of guidelines by others.[1]

SUPPORT FOR AGING PHYSICIANS

Some physicians are glad to move into a different phase of their lives when they reach age 70. For others, however, this transition is not easy, and it may require the guidance and support of peers. For this reason, it is important for medical staff leaders to understand how to support and respect long serving colleagues. Physicians with decades of experience and contribution deserve the same sensitivity and respect afforded their patients as they experience health changes that may or may not allow continued clinical practice.[72]

Shifting away from procedural work, allocating more time with individual patients, using memory aids and seeking input from professional colleagues might help physicians successfully adjust to the cognitive changes that accompany aging.[5,58] Eva suggests that findings from the literature may also identify ways that to alter the practice environment or tailor approaches to CPD to help mitigate the effects of age-associated cognitive changes.[9,10] These findings include:

- Increased environment supports, such as simplified documentation forms for recording data and thus decreasing the need for working memory, freeing cognitive resources for other activities;
- Decreased case load/decreased time demands;
- Narrowing or limiting scope of practice;
- Enhancing the clarity of various stimuli provided to older physicians, such as increasing the contrast and resolution of radiographic images; and
- Focus on analytic components of medical diagnosis in CPD.

The AMA also provides support for aging physicians through a special membership section that is the largest such group in the United States. The AMA Senior Physicians Section (SPS), which comprises all AMA member physicians age 65 and older, sponsors educational activities on topics of interest to the senior physician community. Recent programs included:

- "The Aging Physician: Opportunities and Challenges," held in June 2013, focused on understanding impairment in older physicians as well as facilitating the planning of prevention strategies. The session examined what role the AMA should play in determining competency measurements in an aging workforce. (www.ama-assn.org/ama/pub/about-ama/our-people/member-groups-sections/senior-physicians-section/education-programs.page)
- "Grow Healthier as You Grow Older," held in June 2014, focused on the challenges and opportunities physicians face in maintaining health and well-being and provided insights into how to improve health outcomes in the senior population. (www.ama-assn.org/ama/pub/about-ama/our-people/member-groups-sections/senior-physicians-section/meetings.page?)

AMA POLICIES

The AMA has policy in which it urges members of the profession to discover and rehabilitate if possible, or exclude if necessary, the physicians whose practices are incompetent, and to fulfill their responsibility to the public and to their profession by reporting to the appropriate authority those physicians who, by being impaired, need help, or whose practices are incompetent (H-275.998). AMA policy urges licensing boards, specialty boards, hospitals and their medical staffs, and other organizations that evaluate physician competence to inquire only into conditions that impair a physician's current ability to practice medicine (H-275.978[6]). AMA policy also reaffirms that it is the professional responsibility of every physician to participate in voluntary quality assurance, peer review, and CME activities (H-300.973 and H-275.996). These and other related policies are attached (see Appendix).

SUMMARY AND RECOMMENDATIONS

Regulators and policymakers are considering some form of age-based competency screening due to the increasing number of older physicians, the call for increased accountability by the public and concerns for patient safety.[5] Although some studies among physicians have shown decreasing practice performance with increasing years in medical practice, the effect of age on any individual physician's competence can be highly variable.[8] Furthermore, assessment of competence among aging physicians poses unique challenges related to the uncertain and variable influence of aging on clinical competence and performance in practice.

It is part of a physician's professional duty to continually assess his or her own physical and mental health, as well as to report all instances of significantly impaired or incompetent colleagues to hospital, clinic or other relevant authorities. However, this method is not always reliable. Contemporary methods of self-regulation (e.g., clinical performance measurement; CPD requirements, including novel performance improvement CME programs; and new and evolving MOC programs) have been created by the profession to meet shared obligations for quality assurance and patient safety. Some hospitals and medical systems have initiated age-based screening, but there is no national standard, and older physicians are not required to pass a health assessment or an assessment of competency or quality performance in their area or scope of practice.

It is the opinion of the Council on Medical Education that physicians should be allowed to remain in practice as long as patient safety is not endangered and that, if needed, remediation should be a supportive, ongoing and proactive process. Self-regulation is an important aspect of medical professionalism, and helping colleagues recognize their declining skills is an important part of self-regulation. Therefore, 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.

It should be noted that the development of guidelines/standards for appropriate mechanisms to assess aging/late career physicians will require significant resources to convene meetings (live and virtual) of experts and stakeholders—especially in view of the limited and conflicting data available on this topic. Furthermore, if a uniform set of guidelines was to be identified, it would have to be consistent with state regulations at a number of levels.

The Council on Medical Education recommends that the following recommendations be adopted, and that the remainder of the report be filed.

1. That our American Medical Association (AMA) identify organizations that should participate in the development of guidelines and methods of screening and assessment to assure that aging/late career physicians remain able to provide safe and effective care for patients. (Directive to Take Action)

2. That our AMA encourage organizations identified by the AMA to work together to develop preliminary guidelines for assessment of the aging/late career physician and develop a research agenda that could guide those interested in this field and serve as the basis for guidelines more grounded in research findings. (Directive to Take Action)

3. That our AMA rescind Policy D-275.959, Competency and the Aging Physician, since this directive has been accomplished through this report. (Rescind HOD Policy)

Fiscal Note: $5,000

APPENDIX – AMA POLICIES

D-275.959, Competency and the Aging Physician
Our AMA will study the issue of competency in aging physicians and develop guidelines, if the study supports such a need, for appropriate mechanisms of assessment to assure that America's physicians remain able to provide optimal care for their patients and report back to the House of Delegates. (Res. 308, A-14)

H-275.998, Physician Competence
Our AMA urges: (1) The members of the profession of medicine to discover and rehabilitate if possible, or to exclude if necessary, the physicians whose practices are incompetent. (2) All physicians to fulfill their responsibility to the public and to their profession by reporting to the appropriate authority those physicians who, by being impaired, need help, or whose practices are incompetent. (3) The appropriate committees or boards of the medical staffs of hospitals which have the responsibility to do so, to restrict or remove the privileges of physicians whose practices are known to be incompetent, or whose capabilities are impaired, and to restore such physicians to limited or full privileges as appropriate when corrective or rehabilitative measures have been successful. (4) State governments to provide to their state medical licensing boards resources adequate to the proper discharge of their responsibilities and duties in the recognition and maintenance of competent practitioners of medicine. (5) State medical licensing boards to discipline physicians whose practices have been found to be incompetent. (6) State medical licensing boards to report all disciplinary actions promptly to the Federation of State Medical Boards and to the AMA Physician Masterfile. (Failure to do so simply allows the incompetent or impaired physician to migrate to another state, even after disciplinary action has been taken against him, and to continue to practice in a different jurisdiction but with the same hazards to the public.) (CME Rep. G, A-79; Reaffirmed: CLRPD Rep. B, I-89; Reaffirmed: Sunset Report, A-00; Reaffirmation I-03; Reaffirmed: CME Rep. 2, A-13)

H-275.978, Medical Licensure
The AMA: (1) urges directors of accredited residency training programs to certify the clinical competence of graduates of foreign medical schools after completion of the first year of residency training; however, program directors must not provide certification until they are satisfied that the resident is clinically competent; (2) encourages licensing boards to require a certificate of competence for full and unrestricted licensure; (3) urges licensing boards to review the details of application for initial licensure to assure that procedures are not unnecessarily cumbersome and that inappropriate information is not required. Accurate identification of documents and applicants is critical. It is recommended that boards continue to work cooperatively with the Federation of State Medical Boards to these ends; (4) will continue to provide information to licensing boards and other health organizations in an effort to prevent the use of fraudulent credentials for entry to medical practice; (5) urges those licensing boards that have not done so to develop regulations permitting the issuance of special purpose licenses. It is recommended that these regulations permit special purpose licensure with the minimum of educational requirements consistent with protecting the health, safety and welfare of the public; (6) urges licensing boards, specialty boards, hospitals and their medical staffs, and other organizations that evaluate physician competence to inquire only into conditions which impair a physician's current ability to practice medicine. (BOT Rep. I-93-13; CME Rep. 10 - I-94); (7) urges licensing boards to maintain strict confidentiality of reported information; (8) urges that the evaluation of information collected by licensing boards be undertaken only by persons experienced in medical licensure and competent to make judgments about physician competence. It is recommended that decisions concerning medical competence and discipline be made with the participation of physician members of the board; (9) recommends that if confidential information is improperly released by a licensing board about a physician, the board take appropriate and immediate steps to correct any adverse consequences to the physician; (10) urges all physicians to participate in continuing medical education as a professional obligation; (11) urges licensing boards not to require mandatory reporting of continuing medical education as part of the process of reregistering the license to practice medicine; (12) opposes the use of written cognitive examinations of medical knowledge at the time of reregistration except when there is reason to believe that a physician's knowledge of medicine is deficient; (13) supports working with the Federation of State Medical Boards to develop mechanisms to evaluate the competence of physicians who do not have hospital privileges and who are not subject to peer review; (14) believes that licensing laws should relate only to requirements for admission to the practice of medicine and to assuring the continuing competence of physicians, and opposes efforts to achieve a variety of socioeconomic objectives through medical licensure regulation; (15) urges

licensing jurisdictions to pass laws and adopt regulations facilitating the movement of licensed physicians between licensing jurisdictions; licensing jurisdictions should limit physician movement only for reasons related to protecting the health, safety and welfare of the public; (16) encourages the Federation of State Medical Boards and the individual medical licensing boards to continue to pursue the development of uniformity in the acceptance of examination scores on the Federation Licensing Examination and in other requirements for endorsement of medical licenses; (17) urges licensing boards not to place time limits on the acceptability of National Board certification or on scores on the United State Medical Licensing Examination for endorsement of licenses; (18) urges licensing boards to base endorsement on an assessment of physician competence and not on passing a written examination of cognitive ability, except in those instances when information collected by a licensing board indicates need for such an examination; (19) urges licensing boards to accept an initial license provided by another board to a graduate of a US medical school as proof of completion of acceptable medical education; (20) urges that documentation of graduation from a foreign medical school be maintained by boards providing an initial license, and that the documentation be provided on request to other licensing boards for review in connection with an application for licensure by endorsement; (21) urges licensing boards to consider the completion of specialty training and evidence of competent and honorable practice of medicine in reviewing applications for licensure by endorsement; and (22) encourages national specialty boards to reconsider their practice of decertifying physicians who are capable of competently practicing medicine with a limited license. (CME Rep. A, A-87; Modified: Sunset Report, I-97; Reaffirmation A-04; Reaffirmed: CME Rep. 3, A-10; Reaffirmation I-10; Reaffirmed: CME Rep. 6, A-12; Appended: Res. 305, A-13)

H-300.973, Promoting Quality Assurance, Peer Review, and Continuing Medical Education
Our AMA: (1) reaffirms that it is the professional responsibility of every physician to participate in voluntary quality assurance, peer review, and continuing medical education activities; (2) to encourage hospitals and other organizations in which quality assurance, peer review, and continuing medical education activities are conducted to provide recognition to physicians who participate voluntarily; (3) to increase its efforts to make physicians aware that participation in the voluntary quality assurance and peer review functions of their hospital medical staffs and other organizations provides credit toward the AMA's Physicians' Recognition Award; and (4) to continue to study additional incentives for physicians to participate in voluntary quality assurance, peer review, and continuing medical education activities. (BOT Rep. SS, I-91; Reaffirmed: Sunset Report, I-01; Reaffirmed: CME Rep. 2, A-11)

H-275.996, Physician Competence
Our AMA: (1) urges the American Board of Medical Specialties and its constituent boards to reconsider their positions regarding recertification as a mandatory requirement rather than as a voluntarily sought and achieved validation of excellence; (2) urges the Federation of State Medical Boards and its constituent state boards to reconsider and reverse their position urging and accepting specialty board certification as evidence of continuing competence for the purpose of re-registration of licensure; and (3) favors continued efforts to improve voluntary continuing medical education programs, to maintain the peer review process within the profession, and to develop better techniques for establishing the necessary patient care data base. (CME Rep. J, A-80; Reaffirmed: CLRPD Rep. B, I-90; Reaffirmed: Sunset Report, I-00; Reaffirmed: CME Rep. 7, A-02; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09; Reaffirmed in lieu of Res. 302, A-10; Reaffirmed in lieu of Res. 320, A-14)

D-295.325, Remediation Programs for Physicians
1. Our AMA supports the efforts of the Federation of State Medical Boards (FSMB) to maintain an accessible national repository on remediation programs that provides information to interested stakeholders and allows the medical profession to study the issue on a national level.
2. Our AMA will collaborate with other appropriate organizations, such as the FSMB and the Association of American Medical Colleges, to study and develop effective methods and tools to assess the effectiveness of physician remediation programs, especially the relationship between program outcomes and the quality of patient care.
3. Our AMA supports efforts to remove barriers to assessment programs including cost and accessibility to physicians.

4. Our AMA will partner with the FSMB and state medical licensing boards, hospitals, professional societies and other stakeholders in efforts to support the development of consistent standards and programs for remediating deficits in physician knowledge and skills.
5. Our AMA will ask the Liaison Committee on Medical Education and the Accreditation Council for Graduate Medical Education to develop standards that would encourage medical education programs to engage in early identification and remediation of conditions, such as learning disabilities, that could lead to later knowledge and skill deficits in practicing physicians. (CME Rep. 3, A-09)

H-275.936, Mechanisms to Measure Physician Competency
Our AMA (1) reviews and proposes improvements for assuring continued physician competence, including but not limited to performance indicators, board certification and recertification, professional experience, continuing medical education, and teaching experience; and (2) opposes the development and/or use of "Medical Competency Examination" and establishment of oversight boards for current state medical boards as proposed in the fall 1998 Report on Professional Licensure of the Pew Health Professions Commission, as an additional measure of physician competency. (Res. 320, I-98; Amended: Res. 817, A-99; Reaffirmed: CME Rep. 7, A-02; Reaffirmed: CME Rep. 7, A-07; Reaffirmed: CME Rep. 16, A-09; Reaffirmed in lieu of Res. 313, A-12)

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