#### REPORT 1 OF THE COUNCIL ON MEDICAL EDUCATION

Guiding Principles and Appropriate Criteria for Assessing the Competency of Physicians Across the Professional Continuum (CME Report 01-N-21) (Reference Committee C)

#### **EXECUTIVE SUMMARY**

Older physicians remain an essential part of the physician workforce as they continue to practice into their 70s and 80s. 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. The call for increased accountability by the public has led regulators and policymakers to consider implementing some form of age-based competency screening to assure safe and effective practice. In addition, some hospitals and medical systems have initiated age-based screening, but there is no national standard. 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. Physicians must lead in developing standards for monitoring and assessing their own personal competency and that of their peers. Otherwise, other entities may take action, without evidence, to implement national guidelines and a mandatory retirement age.

The Council on Medical Education studied this issue and submitted reports on this topic in 2015 and 2018. The second report, "Competency of Senior Physicians" (I-18) was referred for further study due to concerns among the House of Delegates that the AMA was advocating for a screening process for senior/late career physicians. This report is in response to that referral. Due to the impact of COVID-19, this report was deferred for business until the N-21 Meeting of the HOD.

The 2015 report led to AMA Policy D-275.956, "Assuring Safe and Effective Care for Patients by Senior/Late Career Physicians," which charged the Council, in collaboration with the Senior Physicians Section, to identify organizations to work together to develop guidelines for screening and assessing the competency of the late career physician. The AMA Work Group on Assessment of Senior/Late Career Physicians included key stakeholders that represented physicians, medical specialty societies, accrediting and certifying organizations, hospitals and health systems, and patients' advocates as well as content experts who research physician competence and administer assessment programs.

The work group concurred that it was important to investigate the current screening practices and policies of the state medical and osteopathic boards, medical societies, large U.S. health systems, and remediation programs as well as to collect data and review the current literature to learn more about age and risk factors associated with the assessment of late career physicians in the United States and internationally. This report summarizes the activities of the work group and additional research findings on this topic.

This report does not mandate an assessment. The intent of this report is to outline a set of guiding principles that have been developed by the Council with extensive feedback from members of the work group as well as from other content experts who research physician competence and administer assessment programs. The guiding principles provide direction and serve as a reference for guidelines for screening and assessing late career physicians. The underlying assumption is that guidelines must be based on evidence and on the principles of medical ethics. Furthermore, guidelines should be relevant, supportive, fair, equitable, and transparent, and not result in undue cost or burden to physicians. The primary driver for the establishment of guidelines should be to fulfill the ethical obligation of the profession to the health of the public and patient safety.

#### REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 01-N-21

Subject: Guiding Principles and Appropriate Criteria for Assessing the Competency of

Physicians Across the Professional Continuum

Presented by: Niranjan Rao, MD, Chair

Referred to: Reference Committee C

At the 2018 Interim Meeting of the American Medical Association (AMA) House of Delegates, the AMA Council on Medical Education presented Report 1-I-18, "Competency of Senior Physicians," which was in response to AMA Policy D-275.956, "Assuring Safe and Effective Care for Patients by Senior/Late Career Physicians," which directs the AMA to: "1) identify organizations that should participate in the development of guidelines and methods of screening and assessment to assure that senior/late career physicians remain able to provide safe and effective care for patients; and 2) convene organizations identified by the AMA to work together to develop preliminary guidelines for assessment of the senior/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." 

The HOD referred the report for further study. This report is in response to that referral. Due to the impact of COVID-19, this report was deferred for business until the N-21 Meeting of the House of Delegates.

It is important to note that this report does not mandate an assessment. The intent of this report is to outline a set of guiding principles to provide direction and serve as a reference for guidelines for screening and assessing late career physicians.

## BACKGROUND: SCOPE OF THE ISSUE

The total number of physicians 65 years and older has increased greatly, from 50,993 in 1975 to 343,694 in 2019. Physicians 65 and older currently represent 29.8 percent of all physicians in the United States. Within this age group, two-fifths (43.6 percent) are actively engaged in patient care, while nearly half (49.3 percent) are listed as inactive in the AMA Physician Masterfile. The remainder are involved in teaching, administration, medical research or non-patient care. Additionally, more than a quarter of physicians practicing in rural communities are age 60 years or older. Many physicians are hesitant to retire and may continue to practice into their 70s and 80s due to professional satisfaction, increased life expectancy, and concerns regarding financial security.

There is evidence that physical health and some cognitive abilities decline with aging.<sup>5</sup> For example, recent studies have associated hearing loss, which is one of the most prevalent disorders of aging, with dementia and decreasing cognition.<sup>6-7</sup> Research also shows that cognitive dysfunction is more prevalent among older adults, although aging does not necessarily result in cognitive impairment.<sup>8</sup> The effect of age on any physician's competence can be highly variable, and aging is just one of several factors that may impact performance.<sup>4,9</sup> Other factors may influence

clinical performance, e.g., practice setting, lack of board certification, high clinical volume, certain specialty practices, etc. <sup>10, 11</sup> Fatigue, stress, burnout, and health issues unrelated to aging are also risk factors that can affect clinical performance. <sup>11</sup> Performance also may be broadly determined by characteristics ranging from intelligence to personality. <sup>5</sup> However, some attributes relevant to the practice of medicine—such as wisdom, resilience, compassion, and tolerance of stress—may actually improve as a function of aging. <sup>9, 12-15</sup>

Although age alone may not be associated with reduced competence, the variation in cognitive abilities as physicians age suggests that the issue cannot be ignored. While physicians may retain expertise from years of experience, in some specialties (especially in procedurally oriented disciplines), the accuracy and precision of a practitioner's skills tend to deteriorate without continued practice and repeated training. When a performance issue becomes apparent, the physician and health care system must ensure that the physician can demonstrate the necessary competence for practice skills or procedural expertise, retrain for the necessary skills, or retire that procedural expertise from their practice. <sup>16-17</sup>

There are a limited number of validated tools for measuring competence/performance, but these tools are primarily used when a physician is "referred for cause." In addition, physicians' practices vary throughout the United States and from specialty to specialty. A few hospitals have introduced mandatory age-based evaluations, but there is no national standard. Furthermore, there is cultural resistance among physicians to externally imposed assessment approaches and concern about discriminatory policies and procedures.

Knowing when to give up practice remains an important decision for most doctors and a critically difficult decision for some. Older physicians have decades of experience and contributions to medicine and to their patients. So, as they experience health changes that may or may not allow continued clinical practice, they deserve the same sensitivity and respect afforded their patients. Shifting away from procedural work, allocating more time with individual patients, using memory aids, and seeking input from professional colleagues may help physicians successfully adjust to the cognitive changes that accompany aging yet continue providing valuable health care services for years to come. 9, 20

#### PHYSICIANS' PROFESSIONAL RESPONSIBILITIES

Council on Ethical and Judicial Affairs (CEJA) Report 1-I-19, "Competence, Self-Assessment and Self-Awareness" notes that, "to fulfill their ethical responsibility of competence, physicians at all stages in their professional lives should cultivate and exercise skills of self-awareness and active self-observation; take advantage of tools for self-assessment that are appropriate to their practice settings and patient populations; and be attentive to environmental and other factors that may compromise their ability to bring their best skills to the care of individual patients." In its report, CEJA recommends that "individual physicians and physicians in training should strive to: recognize that different points of transition in professional life can make different demands on competence; and maintain their own health, in collaboration with a personal physician, in keeping with ethics guidance on physician health and wellness."

The AMA *Code of Medical Ethics* has always stated that physicians of all ages must maintain their health and wellness, and, if a health issue arises, they must seek appropriate help from a personal physician whose objectivity is not compromised to honestly assess their ability to continue practicing safely.<sup>22</sup> The prohibition of self-treatment is imperative. However, a recent review of studies associated with self-diagnosis, self-referral, and self-treatment among physicians showed that self-treatment is strongly embedded within the culture of physicians and medical students as an

accepted way to enhance/buffer work performance.<sup>23</sup> This may be due to a culture in medicine that physicians do not expect themselves or their colleagues to be sick.<sup>23</sup> In response, many hospitals are beginning to establish health and wellness committees to confidentially address concerns regarding practitioners' health.

It is also in physicians' best interest to proactively address issues related to aging in order to maintain professional self-regulation. Since its adoption at the founding meeting of the AMA in 1847, the AMA *Code of Medical Ethics* has articulated the values to which physicians commit themselves as members of the medical profession. Chapter 9, Opinions on Professional Self-Regulation, states, "Society permits medicine to set standards of ethical and professional conduct for physicians. In return, medicine is expected to hold physicians accountable for meeting those standards and to address lapses in professional conduct when they occur." Self-regulation is an important aspect of medical professionalism, and helping colleagues recognize their declining skills is an important part of self-regulation. Furthermore, contemporary methods of self-regulation (e.g., clinical performance measurement; continuing professional development requirements, including novel performance improvement continuing medical education programs; and continuing board certification programs) have been created by the profession 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—particularly among those physicians who are less competent.<sup>26</sup> In the literature, 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.<sup>27</sup> 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

Health care entities that credential or employ physicians have an obligation to assess physicians' health in the hiring and privileging process. The Joint Commission standard MS.11.01.01 is specifically written to encourage medical staff to identify and manage matters of individual health for licensed independent practitioners which are separate from actions taken for disciplinary purposes. The standard focuses on the education of physicians to recognize issues in others and encourages self-referral 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 practice safely, The Joint Commission standard calls for the matter to be reported to the medical staff leadership for appropriate corrective action.<sup>28</sup>

#### WORK GROUP MEETINGS

To fulfill the directive of Policy D-275.956, the Council on Medical Education, in collaboration with the Senior Physicians Section, identified organizations to participate in a joint effort to develop guidelines for screening and assessing the late career physician. As summarized below, a work group meeting and two conference calls were convened to develop a research agenda that could guide those interested in this field and serve as the basis for guidelines supported by research.

March 16, 2016 Work Group Meeting

 The work group meeting, held March 16, 2016, brought together key stakeholders that represented physicians, medical specialty societies, accrediting and certifying organizations, hospitals and other health care institutions, and patient advocates as well as content experts who research physician competence and administer assessment programs. Work group participants concurred that this first meeting raised important issues related to the rationale for developing guidelines to screen and assess the competence and practice performance of late career physicians, which is challenging for a number of reasons. Discussion centered around the evidence and factors related to competency and aging physicians, existing and needed policies, screening and assessment approaches, and legal requirements and challenges. Although current evidence and initial research pointed toward the need for developing guidelines, most work group participants felt that additional information/data should be gathered on aging physicians' competence and practice performance. In addition, the participants felt that a set of guiding principles should be developed to reflect the values and beliefs underlying any guidelines that may be developed for screening and assessing late career physicians.

July 19, 2016, Work Group Conference Call

 The purpose of this conference call was to convene a smaller group of participants to develop guiding principles to support the guidelines to screen and assess late career physicians. During the call, the conversation focused upon the thresholds at which screening/assessment should be required. Although physicians of all ages can be assessed "for cause," the group discussed whether age alone is a sufficient rationale for monitoring beyond what is typical for all physicians. Other factors discussed included the influence of practice setting and medical specialty, as well as the metrics and standards for different settings that would have to be developed to determine at "what age" and "how do you test," etc. The need for surveillance, associated risk factors, and the ability to take appropriate corrective steps, if needed, were also discussed. It was noted that there is a need to be able to fairly and equitably identify physicians who may need help while assuring patient safety. It was also noted that very few hospitals have specific age guidelines, and evidence shows that the number of disciplinary actions increases between ages 65 and 70. The cost of and who will pay for screening/assessments were also discussed.

The group felt that more information and data were needed before the guiding principles could be finalized and agreed to reconvene after gathering more information and studying evidence-based data from the United States and other countries related to age and risk factors.

December 15, 2017, Work Group Conference Call

The purpose of this conference call was to reconvene the same smaller group of participants to review the literature and data that had been gathered and finalize guiding principles to support the guidelines to screen and assess late career physicians. Background information to help guide the guiding principles included:

1. Results from a survey of members of the Federation of State Medical Boards (FSMB), Council of Medical Specialty Societies (CMSS), and International Association of Medical Regulatory Authorities (IAMRA) regarding the screening and assessment of late career physicians.

- 2. A literature review of available data related to late career physician screening and assessment, focusing on international work in this area.
- 3. Data from large health systems regarding their screening and assessment policies and procedures.

# Survey Results Related to Screening and Assessing Late Career Physicians

To support the development of guiding principles, data were gathered through surveys of professional associations (CMSS), state medical boards (FSMB), and international regulatory authorities (IAMRA). The goal was to learn if these organizations had processes in place to screen and assess late career physicians for clinical or cognitive competence and, if not, whether they had considered developing such processes.

The survey data showed that most respondents were not screening or assessing late career physicians, although a slightly larger number of respondents have thought about the issues around doing so.

Most respondents did not have clinical or cognitive screening/competence assessment policies in place. In addition, most did not know (42, or 46.7 percent) or were unsure (26, or 28.9 percent) whether other organizations had age-based screening in place. Regarding whether age-based screening should be included within physician wellness programs, only 28 (32.9 percent) said yes and nine (10.6 percent) no, while more than half, or 48 (56.5 percent) were unsure.

Respondents were asked if their organizations/boards offered educational resources regarding the effects of age on physician practice; eight (9.2 percent) said yes, 72 (82.8 percent) said no, and seven (8.0 percent) were unsure. The survey also asked organizations if they were interested in resources that promoted physician awareness of screening aging physicians in practice. Very few groups offered these types of resources, but 100 percent (11) of IAMRA respondents, 60.8 percent (31) of FSMB respondents, and 25 percent (3) of CMSS respondents were interested in offering them.

#### HIGHLIGHTS FROM THE LITERATURE REVIEW

As summarized below, the current literature on age and risk factors associated with the assessment of late career physicians (in the United States and internationally) is significant and offers some direction for appropriate solutions to this challenge.

Recently published peer-reviewed studies focus on institutional policies related to cognitive assessment of late career physicians. Dellinger et al. concluded that as physicians age, a required cognitive evaluation combined with a confidential, anonymous feedback evaluation by peers and coworkers, including a focus on wellness and competence, would be beneficial both to physicians and their patients.<sup>29</sup> The authors also recommended that large professional organizations identify a range of acceptable policies to address the aging physician, while leaving institutions the flexibility to customize the approach.<sup>29</sup> Hickson et al. suggested that evaluation tools be integrated into an evidence-based longitudinal assessment of cognitive and behavioral skills that allows for reliable determination of a physician's ability to practice.<sup>30</sup> However, the process of identification of physicians with declining cognitive and clinical skills must be done with an awareness of laws protecting colleagues from discrimination.<sup>30</sup> Institutions such as Cooper University Health Care in Camden, New Jersey, are developing late career practitioner policies that include cognitive assessment along with peer review and medical assessment to assure both the hospital and

physicians that physician competency is present and that physicians can continue to practice with confidence.<sup>31</sup>

Studies related to the utility of professionalism, self-reporting, and peer review in heading off competency issues indicate that these methods are not always reliable. For example, DesRoches et al. found that more than one-third of physicians were not clear on their obligation to report a colleague who is impaired or incompetent, one-third were unprepared to deal with such colleagues, and many appeared to not take action. Among the 17% of physicians who reported being aware of an impaired or incompetent colleague, one-third said that they did not report that individual. <sup>25, 32, 33</sup> Since early "red flags" of cognitive impairment may include prescription errors, billing mistakes, irrational business decisions, skill deficits, patient complaints, office staff observations, unsatisfactory peer review, patient injuries, or lawsuits, Soonsawat et al. encouraged improved reporting of impaired physicians by patients, peers, and office staff.<sup>4</sup>

A study that utilized the national Patient Advocacy Report System (PARS®) database showed that patients may provide an important source of information for health care organizations interested in identifying professionals with evidence of cognitive impairment.<sup>34</sup> LoboPrabhu et al. suggested that either screening for cognitive impairment be implemented at a certain age or that rigorous evaluation after lapses in standard of care be the norm, regardless of age.<sup>35</sup>

Any screening process needs to achieve a balance between protecting patients from harm due to substandard practice while ensuring fairness to physicians and avoiding any unnecessary reductions in workforce.<sup>5</sup> A recent study of U.S. late career surgeons showed that a steady proportion of surgeons, even in the oldest age group (>65), are still learning new surgical innovations and participating in challenging cases.<sup>36</sup> Individual and institutional considerations require a dialogue among the interested parties to optimize the benefits while minimizing the risks for both.<sup>37-38</sup>

In 2018, the Society of Surgical Chairs (SCS) conducted an anonymous survey of its membership. The survey respondents defined an age for an aging surgeon as follows: 25 (53 percent) selected 65 years of age and 14 (30 percent) selected 70 years of age, while none believed that surgeons younger than 60 years would be considered an aging surgeon.<sup>39</sup> These results are consistent with a 2013 Report from the Coalition for Physician Enhancement Conference in which 72 percent of their respondents recommended screening beginning at ages 65 to 70 years.<sup>9, 39</sup> In 2019, the SCS released transition recommendations for the senior surgeon which include mandatory cognitive and psychomotor testing of surgeons by age 65, possibly as part of regular professional practice evaluations; discussions with surgeons about career transition starting early in their careers; careful consideration of the financial needs, work commitments, and various concerns of retiring surgeons; and creation of opportunities for senior surgeons in modified clinical or nonclinical roles (e.g., teaching, mentoring, or coaching and/or administrative).<sup>72</sup>

The international community continues to address this topic. In Canada, the aging medical workforce presents a challenge for medical regulatory authorities charged with protecting the public from unsafe practice. However, Adler and Constantinou argued that normal aging is associated with some cognitive decline as part of the aging process, but physicians, as highly educated individuals with advanced degrees, may be less at risk.<sup>20</sup>

A review of the aging psychiatric workforce in Australia showed how specific cognitive and other skills required for the practice of psychiatry vary from those applied by procedural specialists. <sup>40</sup> In 2017, the Medical Board of Australia proposed requiring physicians to undergo peer review and health checks at age 70 and every three years thereafter. <sup>41</sup> There is some uniformity in the way that Australian regulatory bodies deal with impairment that supports the dual goals of protecting the

public and rehabilitating the physician. <sup>42</sup> However, there are no agreed-upon guidelines to help medical boards decide what level of cognitive impairment in a physician may put the public at risk. <sup>20</sup> In Australia, the primary approach to dealing with older physicians (age 55 and older) is individualized and multi-level, beginning with assessment, and followed by rehabilitation where appropriate; secondary measures proposed for older impaired physicians include early notification and facilitation of career planning and timely retirement. <sup>42</sup>

It is the responsibility of licensing bodies in New Zealand, Canada, and the United Kingdom to use reasonable methods to determine whether performance remains acceptable. <sup>43</sup> For example, the College of Physicians and Surgeons of Ontario (Canada) assesses all practicing physicians not assessed in the last five years at age 70 and then every five years as long as they are in active practice, via chart review. <sup>44, 45</sup> However, high performance by all physicians throughout their careers cannot be fully ensured, and so it is not clear that an age threshold is the best method of assessment

A better understanding of physician aging and cognition can inform more effective approaches to continuous professional development and lifelong learning in medicine—a critical need in a global economy, where changing technology can quickly render knowledge and skills obsolete.<sup>8</sup> The development of continuing board certification programs provides an opportunity to study the knowledge base across the professional lifespan of physicians.<sup>46, 47</sup> For example, a recent study of initial certification and recertification examinees in the subspecialty of forensic psychiatry, using a common item test question bank, compared two examinee groups' performance and demonstrated that performance for those 60 and older was similar to that of those younger than 50. Diplomates recertifying for the second time outperformed those doing so for the first time.<sup>48</sup>

The Royal Australasian College of Surgeons developed strategies to support late career surgeons over 65 years of age (expected to be about 25 percent of surgeons by 2050). It also wrote a position statement that provides clear guidelines to aging surgeons, with a focus on continuing professional development. <sup>49, 50</sup> An assessment of the competence of practicing physicians in New Zealand, Canada, and the United Kingdom showed that maintenance of professional standards by continuing education did not identify the poorly performing physician; rather, assessment of clinical performance was needed. <sup>43</sup> Therefore, the most common approach to assessment may be responsive—following a complaint—or periodic, either for all physicians or for an identified highrisk group. However, a single, valid, reliable, and practical screening tool is not available. <sup>43</sup>

A review of the European literature to explore the effects of aging on surgeons' performance and to identify current practical methods for transitioning surgeons out of practice at the appropriate time and age was completed. The reviewers suggested that competence should be assessed at an individual level, focusing on functional ability over chronological age; this may inform retirement policies for surgeons, which differ worldwide.<sup>36</sup> Research conducted in Canada suggested that some interventions (external support, deliberate practice, and education and testing) might prove successful in remediating older physicians, who should be tested more thoroughly.<sup>27</sup>

Careful planning, innovative thinking, and the incorporation of new patterns of medical practice are all part of this complex transition into retirement in the United States.<sup>37,51</sup> A literature review that looked at retirement ages for doctors in different countries found that most countries had no mandatory retirement age for doctors.<sup>52</sup> Anecdotal reports published in the *British Medical Journal* suggested that the decision to retire is getting harder for some physicians because requirements for reappraisal and other barriers are discouraging some from considering part-time work after retirement.<sup>53,54</sup> In Canada, Ireland, and India, the retirement age (65) is limited to public sectors

only, but older physicians can continue to practice in the private sector.<sup>52</sup> In Russia and China, the mandated retirement age is 60 for men and 55 for women.<sup>52</sup>

Studies show that doctors can mitigate the impact of cognitive decline by ceasing procedural work, allocating more time to each patient, using memory aids, seeking advice from trusted colleagues, and seeking second opinions.<sup>20</sup> Peisah et al. (Australia) proposed a range of secondary and primary prevention measures for dealing with the challenge of the older impaired doctor; these included educating the medical community, encouraging early notification, and facilitating career planning and timely retirement of older doctors.<sup>42</sup> Racine (Canada) suggested that physicians retire before health or competency issues arise.<sup>55</sup> Lee (Canada) suggested that older practicing physicians consider slowing down in aspects of practice that require rapid cognitive processing and listen carefully to the concerns of colleagues, patients, friends, and family.<sup>56</sup> The University of Toronto, Department of Surgery, has developed Guidelines for Late Career Transitions that require each full-time faculty surgeon to undergo an annual assessment of academic and surgical activity and productivity. As surgeons age, the University creates individual plans for a decrease in on-call surgical responsibilities and encourages late career surgeons to engage in greater levels of teaching, research, and administration.<sup>57</sup>

How Some U.S. Organizations Are Addressing the Screening and Assessment of Competency of Late Career Physicians

The public call for increased accountability led regulators and policymakers to consider implementing some form of age-based competency screening to assure safe and effective practice. The work group concurred that it was important to investigate existing screening practices and policies of state medical and osteopathic boards, medical societies, large U.S. health systems, and remediation programs. Some of the more significant findings are summarized below.

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, <sup>18, 19</sup> but there is no national standard. In many instances, 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.

The American College of Surgeons (ACS) explored the challenges of assessing aging surgeons. Recognizing that the average age of the practicing surgeon is rising and approximately one-third of all practicing surgeons are 55 and older, the ACS was concerned that advanced age may influence competency and occupational performance. In January 2016, the ACS Board of Governors' Physician Competency and Health Workgroup published a statement that emphasized the importance of high-quality and safe surgical care. The statement recognized that surgeons are not immune to age-related decline in physical and cognitive skills and stressed the importance of a healthy lifestyle. The ACS recommended that, starting at ages 65 to 70, surgeons undergo a voluntary and confidential baseline medical examination and visual testing for overall health assessment, with regular reevaluation thereafter. In addition, the ACS encouraged surgeons to voluntarily assess their neurocognitive function using confidential online tools and asserted a professional obligation to disclose any concerning findings, as well as inclusion of peer review reports, in the recredentialing process. Se

The American College of Obstetricians and Gynecologists (ACOG) recommends that when evaluating an aging physician, focus should be placed on the quality of patient care.<sup>59</sup> ACOG's recommendations regarding the late career obstetrician-gynecologist also state that: 1) it is important to establish systems-based competency assessments to monitor and address physicians'

health and the effect age has on performance and outcomes; 2) workplace adaptations should be adopted to help obstetrician-gynecologists transition and age well in their practice and throughout their careers; and 3) to avoid the potential for legal challenges, hospitals should address the provisions of the Age Discrimination in Employment Act, making sure that assessments are equitably applied to all physicians, regardless of age.<sup>59</sup>

At Kaiser Permanente, within its federation of contracted Permanente Medical Groups, physicians are classified as "in partnership" or "incorporated" based on how the Permanente Medical Group in the applicable geographic region has been established as a legal entity. In a region where a partnership exists, such as Southern California, the normal retirement age as a partner is at the end of the calendar year when one turns 65.

The University of California, San Diego, Physician Assessment and Clinical Education (PACE) Program is the largest assessment and remediation program for health care professionals in the country. Recently, PACE conducted a pilot screening project to assess physicians. Thirty volunteer physicians, aged 50 to 83, were recruited to participate in the screening regimen. Preliminary data analysis showed that some late career physicians performed less than optimally (seven of 30 participants). However, the pilot study did not have sufficient power to reach significance. Also, it did not include enough participants to provide a breakdown on specialties. <sup>60</sup>

How Some Hospitals are Addressing the Screening and Assessment of Competency of Late Career Physicians

Studies show that a more proactive and physician-friendly approach for evaluating physicians of all ages is to utilize multisource feedback or 360-degree survey screenings, either routinely as part of the recredentialling process or, alternatively, when significant risk factors occur, such as adverse events or patient complaints. <sup>17, 61-67</sup> For the 360-degree screening, physicians are invited to select raters such as colleagues and staff with whom they work, and the chief/leader of the department "validates" the list by ensuring the final rater pool is a comprehensive and representative sample. A 360-degree survey, validated against quality indicators such as malpractice claims and patient satisfaction, is sent to the selected raters so they can provide qualitative and quantitative feedback to the physician. Finally, comments and/or questions associated with cognitive impairment (e.g., seems forgetful about important information), irritability or compromised communication (e.g., overreacts to small mistakes), and competence (e.g., has sound clinical judgment) are scored and compared against national benchmarks for the physician's specialty. Physicians scoring in outlying ranges are referred for a second-line assessment, such as discussions with the clinical supervisor, peer review, practice evaluation, and/or cognitive screening. If that assessment is positive for significant findings, the physician may be referred for a third-line evaluation, including physical or mental health testing and/or a comprehensive neurocognitive assessment. The Medical Staff Peer Review Committee assesses the findings in terms of the potential to impair the physician's quality of care and makes a recommendation to the credentials committee. The assessed physician is encouraged to review the survey results with a trained coach.

Multiple studies show that a very small percentage (2 percent to 8 percent) of clinicians are associated with patterns of unprofessional behavior and performance. Of those physicians who receive awareness interventions, most respond (>75 percent), but some who do not change may be affected by some form of cognitive impairment.<sup>30</sup> The 360-degree survey process is currently used at hospitals such as Massachusetts General Hospital, Brigham and Women's Hospital, and University of Michigan to assess physicians on various core competencies.<sup>67</sup>

The Medical Executive Committee at Yale New Haven (Connecticut) Hospital elected to require a neurologic and ophthalmologic examination of all applicants for reappointment to the medical staff who are aged 70 years and older. <sup>68, 69</sup> From October 2017 through January 2019, 141 clinicians underwent a neuropsychological assessment. After completion of screening and/or full neuropsychological testing, the hospital's Medical Staff Review Committee determined that 18 (12.7 percent) of the clinicians were found to have impaired cognition, raising concerns about their clinical abilities. <sup>68</sup> None of these 18 clinicians had previously been brought to the attention of medical staff leadership because of performance problems. 68 These 18 clinicians elected to discontinue their practice or moved into a closely proctored environment. All of these physicians agreed to make changes in their practice voluntarily.<sup>68</sup> In early 2020, a lawsuit was filed by the U.S. Equal Employment Opportunity Commission (EEOC) on behalf of the medical staff alleging that Yale New Haven Hospital violated federal law by adopting and implementing a discriminatory "Late Career Practitioner Policy". 70

Another lawsuit was filed by the Equal Employment Opportunity Commission (EEOC) against Hennepin Healthcare System, Inc., a healthcare provider in Hennepin County, Minnesota, to resolve investigations conducted by the EEOC under the Age Discrimination in Employment Act of 1967, as amended (ADEA), and the Americans with Disabilities Act of 1990, as amended (ADA). The EEOC investigation determined Hennepin's "Late Career Practitioner Policy" discriminated against practitioners aged 70 and older which required them to participate in agerelated screenings. In January 2021, the EEOC announced a settlement which will provide monetary relief to affected staff for out-of-pocket costs not covered by insurance. For the next three years, Hennepin must report to the EEOC on formal complaints related to age discrimination, unlawful medical inquiries, and/or any such retaliations, and notify its employees of the resolution.<sup>71</sup>

# PROPOSED GUIDING PRINCIPLES

 The Council on Medical Education proposes a set of guiding principles as a basis for developing guidelines for the screening and assessment of late career physicians. The underlying assumption is that guidelines must be based on evidence and on the principles of medical ethics. Furthermore, guidelines should be relevant, supportive, fair, equitable, and transparent, and not result in undue cost or burden to late career physicians. The primary driver for the establishment of guidelines should be to fulfill the ethical obligation of the profession to the health of the public and patient safety.

The Council developed the following eight guiding principles with extensive feedback from members of the AMA Work Group on Assessment of Senior/Late Career Physicians, as well as feedback from other content experts who research physician competence and administer screening and assessment programs.

 1. *Evidence-based:* Guidelines for screening and assessing and physicians across the continuum should be based on evidence of the importance of cognitive changes associated with aging that may impact physician performance. Some physicians may suffer from declines in practice performance with advancing age, acquired disability, or other influences. Research also suggests that the effects of age on an individual physician's competency can be highly variable. Since wide variations are seen in cognitive performance with aging, age alone should not be a precipitating factor.

2. *Ethical:* Guidelines should be based on the principles of medical ethics. Self-regulation is an important aspect of medical professionalism. Physicians should be involved in the

- development of guidelines and standards for monitoring and assessing both their own and their colleagues' competency.
- 3. *Relevant:* Guidelines, procedures, or methods of assessment should be relevant to physician practices to inform judgments and provide feedback regarding physicians' ability to perform the tasks specifically required in their practice environment.
- 4. *Accountable:* The ethical obligation of the profession to the health of the public and patient safety should be the primary driver for establishing guidelines and informing decision making about physician screening and assessment results.
- 5. Fair and equitable: The goal of screening and assessment is to optimize physician competence and performance through education and modifications to a physician's practice environment or scope. Unless public health or patient safety is directly threatened, physicians should retain the right to modify their practice environment to allow them to continue to provide safe and effective care.
- 6. *Transparent:* Guidelines, procedures, or methods of screening and assessment should be transparent to all parties, including the public. Physicians should be aware of the specific methods used, performance expectations and standards against which performance will be judged, and the possible outcomes of the screening or assessment.
- 7. *Supportive:* Education and/or remediation practices that result from screening and /or assessment procedures should proactive, ongoing, and be supportive of physician wellbeing.
- 8. *Nonburdensome*: Procedures and screening mechanisms that are distinctly different from "for cause" assessments should not result in undue cost or burden to physicians. Hospitals and health care systems should provide easily accessible screening assessments for their employed physicians. Similar procedures and screening mechanisms should be available to physicians who are not employed by hospitals and health care systems.
- 9. *Due Process:* Physicians subjected to screening and assessment must be afforded due process protections, including a fair and objective hearing, before any action may be taken against the physician.

## **AMA POLICY**

AMA policy urges members of the profession to discover and rehabilitate if possible or exclude if necessary, 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, are in need of 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 shown in the Appendix.

# SUMMARY AND RECOMMENDATIONS

The Council on Medical Education concurs that physicians should be allowed to remain in practice as long as patient safety is not endangered and they are providing appropriate and effective care. However, data and anecdotal information support guidelines for the screening and assessment of late career physicians. The variations in cognitive skills as physicians age, as well as the changing demographics of the physician workforce, are key factors contributing to this need. Physicians must lead in developing standards for monitoring and assessing the competency of themselves and their peers; otherwise, other entities, may move for nationally implemented guidelines and a mandatory retirement age that lack a solid evidence base. The guiding principles outlined in this report provide direction and serve as a reference for setting priorities and standards for further action.

It is important to note that this report does not mandate an assessment. Its intent, rather, is to outline a set of guiding principles to provide direction and serve as a reference for guidelines for screening and assessing late career physicians.

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

- 1. That our American Medical Association (AMA) support the following Guiding Principles on the Assessment of Physicians Across the Professional Continuum:
  - a) Evidence-based: Guidelines for screening and assessing and physicians across the professional continuum should be based on evidence of the importance of cognitive changes associated with aging that may impact physician performance. Some physicians may suffer from declines in practice performance with advancing age, acquired disability, or other influences. Research also suggests that the effect of age on an individual physician's competency can be highly variable. Since wide variations are seen in cognitive performance with aging, age alone should not be a precipitating factor.

b) Ethical: Guidelines should be based on the principles of medical ethics. Self-regulation is an important aspect of medical professionalism. Physicians should be involved in the development of guidelines and standards for monitoring and assessing both their own and their colleagues' competency.

c) Relevant: Guidelines, procedures, or methods of assessment should be relevant to physician practices to inform judgments and provide feedback regarding physicians' ability to perform the tasks specifically required in their practice environment.

d) Accountable: The ethical obligation of the profession to the health of the public and patient safety should be the primary driver for establishing guidelines and informing decision making about physician screening and assessment results.

e) Fair and equitable: The goal of screening and assessment is to optimize physician competence and performance through education, remediation, and modifications to a physician's practice environment or scope. Unless public health or patient safety is directly threatened, physicians should retain the right to modify their practice environment to allow them to continue to provide safe and effective care.

f) Transparent: Guidelines, procedures, or methods of screening and assessment should be transparent to all parties, including the public. Physicians should be aware of the specific

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1 2		methods used, performance expectations, and standards against which performance will be judged and the possible outcomes of the screening and or assessment.
3		
4	g)	Supportive: Education and/or remediation practices that result from screening and /or
5	٠,	assessment procedures should be proactive, ongoing, and be supportive of physician
6		wellbeing.

 h) Nonburdensome: Procedures and screening mechanisms that are distinctly different from "for cause" assessments should not result in undue cost or burden to physicians. Hospitals and health care systems should provide easily accessible screening assessments for their employed physicians. Similar procedures and screening mechanisms should be available to physicians who are not employed by hospitals and health care systems. (Directive to Take Action)

i) Due Process: Physicians subjected to screening and assessment must be afforded due process protections, including a fair and objective hearing, before any action may be taken against the physician. (Directive to Take Action)

2. That our AMA encourage the Council of Medical Specialty Societies and other interested organizations to develop educational materials regarding decline of cognitive and psychomotor performance throughout a physician's career and the resulting impact on the quality and safety of physician practice. (Directive to Take Action)

3. That Policy D-275.956, "Assuring Safe and Effective Care for Patients by Senior/Late Career Physicians," be rescinded, as having been fulfilled by this report. (Rescind HOD Policy)

Fiscal note: \$1,000.

#### APPENDIX: AMA POLICIES

D-275.956, "Assuring Safe and Effective Care for Patients by Senior/Late Career Physicians"

Our American Medical Association: (1) will identify organizations that should participate in the development of guidelines and methods of screening and assessment to assure that senior/late career physicians remain able to provide safe and effective care for patients; and (2) will convene organizations identified by the AMA to work together to develop preliminary guidelines for assessment of the senior/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. (CME Rep. 5, A-15)

H-275.936, "Mechanisms to Measure Physician Competency"

Our AMA: (1) continues to work with the American Board of Medical Specialties and other relevant organizations to explore alternative evidence-based methods of determining ongoing clinical competency; (2) 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 (3) 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 Modified: Res. 309, I-16)

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 reregistration 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)

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 Reaffirmed: BOT Rep. 3, I-14)

#### **REFERENCES**

- 1. AMA Physician Masterfile Data from 1975 to 2019. Chicago, IL. American Medical Association.
- 2. Skinner L, Staiger DO, Auerback DI, Buerhaus PI. Implications of an Aging Rural Physician Workforce. N Engl J Med. 2019;381(4):299-301.
- 3. Armstrong KA, Reynolds EE. Opportunities and Challenges in Valuing and Evaluating Aging Physicians. JAMA. 2020;323(2):125-126.
- 4. Soonsawat A, Tanaka G, Lammando MA, et al. Cognitively Impaired Physicians: How do we detect them? *Am J Geriatr Psychiatry*. 2018;26(6):631-640.
- 5. Hawkins RE, Welcher CM, Stagg Elliott, VS, et al. Ensuring Competent Care by Senior Physicians. *J Contin Educ Health Prof.* 2016;36(3):226-231.
- 6. Golub JS, Brickman AM, Ciarleglio AJ, et al. Association of Subclinical Hearing Loss with Cognitive Performance. *JAMA Otolaryngol Head Neck Surg.* 2020;146(1):57-67.
- 7. Liu CM, Tzu-Chi Lee C. Association of Hearing Loss with Dementia. *JAMA Network Open.* 2019;2(7):e198112.
- 8. Durning SJ, Artino AR, Holmboe E, et al. Aging and cognitive performance challenges and implications for physicians practicing in the 21<sup>st</sup> century. *J Contin Educ Health Prof.* 2010(Summer):30:153-160.
- 9. Moutier CY, Bazzo DEJ, Norcross WA. Approaching the Issue of the Aging Physician Population (Data from the Coalition for Physician Enhancement Conference). *Journal of Medical Regulation*. 2013;99(1):10-18.
- 10. Morrison J, Wickerhsam JS, MApStat. Physicians disciplined by a state medical board. *JAMA*. 1998;279:1889-1893.
- 11. Kohatsu ND, Gould D, Ross LK, Fox PJ. Characteristics Associated with Physician Discipline. *Arch Int Med.* 2004;164:653-658.
- 12. Meeks TW, Jeste DV. Neurobiology of wisdom: A literature overview. *Arch Gen Psychiatry*. 2009;66:355-365.
- 13. Grossman I, Na J, et al. Reasoning about social conflicts improves into old age. *PNAS*. 2010;107:7246-7250.
- 14. Peisah C, et al. Secrets to psychological success: Why older doctors might have lower psychological stress. *Aging and Mental Health*. 2009;13:300-307.
- 15. Benbow SM, Jolly DJ. Burnout and stress amongst old age psychiatrists. *Int J Geriatr Psychiatry*. 2002;17:710-714.
- 16. Santen SA, Hemphill RR, Pusic M. The Responsibility of Physicians to Maintain Competency. *JAMA*. 2020;323(2):117-118.
- 17. Tracy CM, Crossley GH, Bunch TJ, et al. 2017 ACC/HRS Lifelong Learning Statement for Clinical Cardiac Electrophysiology Specialists. *JACC*. 2018;71(2):231-250.
- 18. Bazzo DEJ. Senior Physicians Section Educational Program. American Medical Association Annual House of Delegates Meeting. Chicago. June 7, 2014.
- 19. Miller SH. Coalition for Physician Enhancement Meeting. November 10-11, 2011.
- 20. Adler RG1, Constantinou C. Knowing or not knowing when to stop: cognitive decline in ageing doctors. *Med J Aust*. 2008 Dec 1-15;189(11-12):622-4.
- 21. Katlic MR, Coleman J. Balancing Safety with Dignity When Evaluating Aging Practitioners. American Association for Physician Leadership. March 1, 2018. Available at: https://www.physicianleaders.org/news/balancing-safety-with-dignity-when-evaluating-aging-practitioners (accessed 2-5-20).
- 22. AMA Code of Medical Ethics Opinion 9.3.1. Physician health and Wellness. American Medical Association. Available at: https://www.ama-assn.org/delivering-care/ethics/physician-health-wellness (accessed 1-31-20)

- 23. Montgomery AJ, Bradley C, Rochfort A, Panagopoulou E. A review of self-medication in physicians and medical students. *Occupational Medicine*. 2011;61:490-497.
- 24. AMA Code of Medical Ethics: Professional Self Regulation. American Medical Association. Available at: https://www.ama-assn.org/delivering-care/ethics/code-medical-ethics-professional-self-regulation (accessed 1-31-20).
- 25. Wynia MK. The Role of Professionalism and Self-regulation in Detecting Impaired or Incompetent Physicians. *JAMA*. 2010;304(2):210-211.
- 26. Kruger J, Dunning D. Unskilled and unaware of it: How difficulty in recognizing one's own incompetence lead to inflated self-assessments. *J Pers Soc Psychol.* 1999;77:1121-1134.
- 27. Eva KW. The Aging Physician: Changes in cognitive processing and their impact on medical practice. *Acad Med.* October 2002;77(10):S1-S6.
- 28. The Joint Commission 2019 Comprehensive Accreditation Manual for Hospitals: The Patient Safety Systems. Chapter MS.09.01.01.
- 29. Dellinger EP, Pellegrini CA, Gallagher TH. The aging physician and the medical profession: A review. *JAMA Surgery*. 2017;152(10):967-971.
- 30. Hickson GB, Peabody T, Hopkinson WJ. Reiter III CE. Cognitive Skills assessment for the Aging Orthopaedic Surgeon. J Bone Joint Surg Am. 2019;101Le7(1-5)
- 31. Heymann WR. Assessing the competence of aging physicians who are young at heart. *JAMA Dermatology*. 2018.
- 32. Campbell EG, Regan S, Gruen RI, et al. Professionalism in medicine; results of a national survey of physicians. *Ann Intern Med.* 2007;147:795-802.
- 33. DesRoches CM, Rao SR, Fromson JA, et al. Physicians' perceptions, preparedness for reporting, and experiences related to impaired and incompetent colleagues. *JAMA*. 2010;304:187-193.
- 34. Cooper WO, Martinez W, Domenico HJ, et al. Unsolicited Patient Complaints Identify Physicians with Neurocognitive Disorders. *Am J Geriatr Psychiatry*. 2018;26(9):927-936.
- 35. LoboPrabhu SM, Molinari VA, Hamilton JD, Lomax JW. The Aging Physician With Cognitive Impairment: Approaches to Oversight. *Am J Geriatr Psychiatry*. 2009;17:445–454.
- 36. Lee HJ, Drag LL, Bieliauskas LA, et al. Results from the Cognitive Changes and Retirement among Senior Surgeons Self-Report Survey. *J Am Coll Surg*. 2009 Nov;209(5):668-671.
- 37. Moss AJ, Greenberg H, Dwyer EM, et al. Senior Academic Physicians and Retirement Considerations. *Prog Cardiovasc Dis.* 2013 May-Jun;55(6):611-5.
- 38. Levinson W, Ginsburg S. Is it time to retire? *JAMA*. 2017;317(15):1570-1571.
- 39. Rosengart TK, Doherty G, Higgins R, et al. Transition Planning for the Senior Surgeon Guidance and Recommendations from the Society of Surgical Chairs. *JAMA Surgery*. 2019;154(7):647-653.
- 40. Wijeratne C, Peisah C. Accepting the challenges of ageing and retirement in ourselves: the need for psychiatrists to adopt a consensus approach. *Aust N Z J Psychiatry*. 2013 May;47(5):425-30.
- 41. White AA, Sage WM, Osinska PH, et al. Patient safety and the ageing physician: a qualitative study of key stakeholder attitudes and experiences. *BMJ Qual Saf.* 2018;0:1-8.
- 42. Peisah C, Adler RG, Williams BW. Australian pathways and solutions for dealing with older impaired doctors: a prevention model. *Internal Medicine Journal*. 2007;37:826-831.
- 43. St George I, Kaigas T, McAvoy P. Assessing the Competence of Practicing Physicians in New Zealand, Canada, and the United Kingdom: Progress and Problems. *Fam Med.* 2004;36(3):172-7.
- 44. College of Physicians and Surgeons of Ontario. Assessments. Available at: https://www.cpso.on.ca/Physicians/Your-Practice/Quality-in-Practice/Assessments (accessed 2-4-20).
- 45. Expert Advisory Group on Revalidation Final Report. Medical Board of Australia. August 2017.

- 46. Shen L, Juul D, Faulkner LR. Performance of Certification and Recertification Examinees on Multiple Choice Text Items: Does Physician Age Have an Impact? *J Contin Educ Health Prof.* Spring 2016;36(2):119-122.
- 47. Hess BJ, Weng W, Holmboe ES, Lipner RS. The Association Between Physicians' Cognitive Skills and Quality of Diabetes Care. *Acad Med.* 2012 Feb;87(2):157-63.
- 48. Juul D, Vollmer J, Shen L, Faulkner LR. Comparison of Certification and Recertification Examinee Performance on Multiple-Choice Items in Forensic Psychiatry. *J AM Acad Psychiatry Law.* 2016;44(90):91-95.
- 49. Waxman BP. The Ageing Surgeon. Med J Aust. 2012; 196 (8): 498.
- 50. Royal Australasian College of Surgeons, Research & Evaluation, incorporating ASERNIP-S. Age, Performance and Revalidation Report. Available at: https://umbraco.surgeons.org/media/1626/rpt\_2017-07-17\_age\_performance\_and\_revalidation.pdf (accessed 2-5-20).
- 51. Blasier RB. The Problem of the Aging Surgeon: When Surgeon Age Becomes a Surgical Risk Factor. *Clin Orthop Relat Res.* 2009;467:402-411.
- 52. Bhatt NR, Morris M, O'Neil A, et al. When should surgeons retire? Br J Surg. 2016;103:35-43.
- 53. Godlee F. We need to separate "old" and "age." BMJ. 2013;347:f6823.
- 54. Jessop JR. We need to get another life after retirement. *BMJ*. 2013;347:7173.
- 55. Racine M. Should older family physicians retire? Yes. *Can Fam Physician*. 2012 Jan;58(1):22, 24.
- 56. Lee L, Weston W. The Aging Physician. Can Fam Physician. 2012;58(1):17-8.
- 57. Richards R, McLeod R, Latter D, et al. Toward late career transitioning: a proposal for academic surgeons. *Can J Surg*. 2017;60(5):355-358.
- 58. American College of Surgeons Board of Governors Physician Competency and Health Workgroup: Statement on the Aging Surgeon. January 1, 2016. Available at: https://www.facs.org/about-acs/statements/80-aging-surgeon (accessed 2-4-20).
- 59. The Late-Career Obstetrician-Gynecologist. The American College of Obstetricians and Gynecologists. June 2018. Available at: https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Patient-Safety-and-Quality-Improvement/The-Late-Career-Obstetrician-Gynecologist (accessed 2-5-20).
- 60. University of California San Diego Late Career Health Screening for Physicians and Healthcare Professionals (LCHS), UC San Diego School of Medicine. Available at: http://www.paceprogram.ucsd.edu/Assessment/LCHS/LCHS Main.aspx (accessed 2-3-20)
- 61. Gregory P J, Ring D, Rubash H, Harmon L. Use of 360° Feedback to Develop Physician Leaders in Orthopaedic Surgery. *Journal of Surgical Orthopaedic Advances*. 2018;27(2):85–91
- 62. Brinkman WB, Geraghty SR, Lanphear BP, et al. Effect of multisource feedback on resident communication skills and professionalism: a randomized controlled trial. Archives of Pediatrics & Adolescent Medicine. 2007;161(1):44-49.
- 63. Hageman MG, Ring DC, Gregory PJ, et al. Do 360-degree feedback survey results relate to patient satisfaction measures? *Clinical Orthopaedics and Related Research*<sup>®</sup>: 2015;473(5): 1590-1597.
- 64. Lagoo J, Berry WR, Miller, K, et al. Multisource evaluation of surgeon behavior is associated with malpractice claims. *Annals of Surgery*. 2019:270(1):84-90.
- 65. Nurudeen SM, Kwakye G, Berry WR, et al. Can 360-degree reviews help surgeons? Evaluation of multisource feedback for surgeons in a multi-institutional quality improvement project. *Journal of the American College of Surgeons*. 2015;221(4):837-844.
- 66. Lockyer J. Multisource feedback in the assessment of physician competencies. *J Contin Educ Health Prof.* 2003;23(1):4-12.

- 67. Harmon L. Using 360-Degree Feedback as a First-Line Evaluation for Aging Physicians: Patient Safety First. *SYNERGY The National Association of Medical Staff Services*, 2011;39(5):16-19.
- 68. Cooney L, Balcezak T. Cognitive Testing of Older Clinicians Prior to Recredentialing. *JAMA*. 2020;323(2):179-180.
- 69. Saver JL. Best practices in Assessing Aging Physicians for Professional Competency. *JAMA*. 2020;323(2):112-129.
- 70. EEOC Sues Yale New Haven Hospital for Age and Disability Discrimination. U.S. Equal Employment Opportunity Commission. February 11, 2020. Available at: https://www.eeoc.gov/eeoc/newsroom/release/2-11-20a.cfm (accessed 2-14-20).
- 71. EEOC and Hennepin Healthcare System Agree to Settle Class Discrimination Investigation. January 07, 2021. Available at: https://www.eeoc.gov/newsroom/eeoc-and-hennepin-healthcare-system-agree-settle-class-discrimination-investigation (accessed 2-4-21).
- 72. Rosengart TK, Doherty G, Higgins R, et al. Transition Planning for the Senior Surgeon Guidance and Recommendations From the Society of Surgical Chairs. *JAMA Surg*. 2019;154(7):647-653.