REPORTS OF THE COUNCIL ON MEDICAL EDUCATION

The following reports were presented by Krystal Tomei, MD, MPH, Chair:

1. MEDICATION RECONCILIATION EDUCATION

Reference committee hearing: see report of Reference Committee C.

HOUSE ACTION: RECOMMENDATIONS ADOPTED IN LIEU OF RESOLUTION 805-I-23, RESOLVE 2 REMAINDER OF REPORT FILED
See Policies D-120.965 and H-160.902

Resolution 805-I-23, "Medication Reconciliation Education," was introduced by the Michigan delegation at the 2023 Interim Meeting of the American Medical Association (AMA). While Resolve 1 was adopted into AMA Policy D-300.973, Medication Reconciliation Education, thus encouraging external parties to more broadly study medication reconciliation separate from this report, the language of Resolve 2 was referred for study. The referred clause asked that our AMA:

> work with other appropriate organizations to determine whether education for physicians-in-training is sufficient to attain the medication reconciliation core competencies necessary to reduce medical errors and ensure patient safety and quality of care and provide recommendations for action as applicable. (Directive to Take Action)

Testimony within Reference Committee J emphasized the importance of the spirit of the resolution and how vital appropriate medication reconciliation is to patient safety. Additionally, testimony indicated that this is not an issue around the education of physicians, but rather the other challenges that can occur even for well-trained physicians working toward medication reconciliation, such as the burdens of dissimilar electronic health records (EHR). The testimony discussed the involvement of many non-physicians in medication reconciliation as well. Council on Medical Education testimony also noted that the AMA as an organization does not make determinations of the adequacy of training as this lies solely with the accrediting body and as such the original language would be inappropriate. Reference Committee J proposed amending language to offer generalized educational support for all relevant health care providers.

The House of Delegates (HOD) rejected this proposed wording. Testimony at full HOD deliberations centered around differing opinions on the adequacy of existing training for medical learners: some academic physicians felt training was sufficient, while some residency program educators felt training was not effective. Other concerns included differing opinions about the potential impacts of additional EHR and medication reconciliation regulations on physicians and patients and uncertainty regarding who bears the responsibility for medication reconciliation. Due to varying and sometimes contradictory concerns, the HOD felt that the language of the directive warranted further study before a decision was made. This report is in response to this referral.

BACKGROUND

Medication Reconciliation: Definitions, Importance, and Existing Policy

The Centers for Medicare & Medicaid Services (CMS) define medication reconciliation as follows: "The process of identifying the most accurate list of all medications that the patient is taking, including name, dosage, frequency, and route, by comparing the medical record to an external list of medications obtained from a patient, hospital, or other provider."[1] Adverse drug events are a leading cause of injury and death for patients,[2] and medication reconciliation is one intervention intended to alleviate some of the risks of this potential harm. Medication reconciliation, when compared to usual care, has the potential to reduce dangerous discrepancies, although it is likely insufficient on its own[3] and creates inconsistent results due to being subject to a variety of barriers in resource-limited settings.[4] A reconciled list may also not necessarily be the correct medication list, and understandings of what constitute medication reconciliation and when it has been achieved vary.[5] Though important, evidence indicates medication reconciliation must be paired with a larger set of interventions to improve safety.[6] However, the correct medication list, when achieved, significantly improves patient outcomes.[5]

Existing AMA policy supports medication reconciliation as a means to improve patient safety (Pharmacy Review of First Dose Medication D-120.965), supports implementation of medication reconciliation as part of the hospital discharge process (Hospital Discharge Communications H-160.902), and offers suggestions within these policies to optimize medication reconciliation. AMA also "supports medication reconciliation processes that include confirmation that prescribed discharge medications will be covered by a patient's health plan and resolution of potential coverage and/or prior authorization (PA) issues prior to hospital discharge" (Continuity of Care for Patients Discharged from Hospital Settings H-125.974) and encourages further study of a broad number of issues related to medication reconciliation (Medication Reconciliation Education D-300.973).

Nationally, other major groups incorporate medication reconciliation guidance into their own policies. CMS, a federal agency, provides, regulates, and/or facilitates health coverage through Medicare, Medicaid, the Children's Health Insurance Program, and the Health Insurance Marketplace. They describe medication reconciliation within their Electronic Health Record Incentive Program documentation on Eligible Professional (EP) Meaningful Use Menu Set Measures,[1] with an objective of "The EP who receives a patient from another setting of care or provider of care or believes an encounter is relevant should perform medication reconciliation" and the qualifying measure of "The EP performs medication reconciliation for more than 50 percent of transitions of care in which the patient is transitioned into the care of the EP." Medication reconciliation is also part of CMS' Merit-Based Incentive Payment System (MIPS) measures for clinicians, listed as high priority under Quality ID #130, "Documentation of Current Medications in the Medical Record."[7] The Joint Commission, a non-profit organization that accredits more than 20,000 health care programs and organizations in the United States,[8] also provides newsletters and National Patient Safety Goals (NPSG) related to medication reconciliation. NPSG.03.06.01 states: "There is evidence that medication discrepancies can affect patient outcomes. Medication reconciliation is intended to identify and resolve discrepancies—it is a process of comparing the medications a patient is taking (or should be taking) with newly ordered medications. The comparison addresses duplications, omissions, and interactions, and the need to continue current medications. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected in order to reconcile current and newly ordered medications and to safely prescribe medications in the future"[9] and lists several elements of performance in this safety goal, including obtaining, documenting, and defining patient medications, comparing other lists and resolving discrepancies, providing appropriate parties with written medication information, and explaining the importance of medication management to patients/caregivers. The Agency for Healthcare Research and Quality also released a toolkit for medical reconciliation with tools for designing or redesigning the process.[10] Finally, globally, the World Health Organization provides a Standard Operating Protocol for "Assuring Medication Accuracy at Transitions in Care: Medication Reconciliation."[2]

Responsibility

Significant disagreement exists about who is responsible for each role within medication reconciliation, and workflow processes vary depending on the setting.[11] Although physicians are ultimately held legally accountable in the United States for medication and medication management[12] and AMA policy advocates that prescriptive authority include the responsibility to monitor the effects of the medication and to attend to problems associated with the use of the medication, including liability (Non-Physician Prescribing H-120.955), medication reconciliation, while physician-led, is a team-based interprofessional process, with an absence of shared understanding about the roles physicians, pharmacists, pharmacy technicians, nurses, and other professionals play to reconcile medication lists in any given setting.[13] In fact, pharmacist-based interventions may have a significant positive impact in preventing hospital readmissions.[14] Physician trainees rotate through many different clinical settings during their medical education making the trainees' roles in multiple medical reconciliation processes as transient care team members challenging in many circumstances. The perspectives of the patient and the patient's family also impact the practice of medication reconciliation.[5]

Responsibility for ensuring medication reconciliation takes place within health care is typically enforced via hospital accreditation bodies, although challenges such as difficulty demonstrating tangible positive outcomes and complexities and costs of the process have led to lack of standardization and scaling back of some requirements.[15]

The Role of Technology

Although EHR use can reduce medication errors,[7] EHR systems have interoperability gaps across different clinical settings that create additional conditions for errors.[5] AMA policy currently involves working with EHR vendors and other vendors to improve medication reconciliation within the systems (Reducing Polypharmacy as a Significant

Contributor to Senior Morbidity D-120.928). Other existing and emerging technologies also impact medication reconciliation—for instance, The Joint Commission warned of the potential dangers of voice recognition technology to patient safety within medication reconciliation.[16]

Medical Education Core Competencies and Specialty-Specific Competencies

The Accreditation Council for Graduate Medical Education (ACGME) endorses six core competencies expected of all residents. These are patient care, medical knowledge, professionalism, interpersonal and communication skills, practice-based learning and improvement, and systems-based practice.[17] Though medical reconciliation is not specifically delineated for all specialties in these broad categories, it applies to the requirements within several categories, including patient care, systems-based practice, and the interpersonal and communication skills requirement of communicating effectively with patients and other professionals as well as the need to "maintain comprehensive, timely, and legible medical records."[18] In addition, several specific specialties discuss medication reconciliation within their ACGME Milestones, including within "Patient Care 3: Assessing and Optimizing of Pharmacotherapy" in the Geriatric Medicine Milestones[19] and within "Patient Care 1: History" in the Internal Medicine Milestones.[20]

At the time of this writing, the ACGME, the Association of American Medical Colleges, and the American Association of Colleges of Osteopathic Medicine are engaged in a multi-year initiative to develop a common set of foundational competencies for use in undergraduate medical education programs.[21]

DISCUSSION

The Agency for Healthcare Research and Quality offers a toolkit for medication reconciliation training,[22] emphasizing a multidisciplinary approach to education, as a multiplicity of disciplines are involved in the medication use process, including physicians, nurses, pharmacists, medical assistants, and others, and therefore, robust communication and cooperation across the continuum of care is required.[23] This multidisciplinary approach is especially highlighted by research that indicates involvement of pharmacists in medication reconciliation tends to lead to better patient outcomes and should therefore not be exclusively related to physician training.[24]

Current research[25] emphasizes the efficacy of using simulation, roleplay, and interactive, skills-based training in teaching interdisciplinary medication reconciliation skills.[26] One interprofessional education session including both pharmacy students and medical students from neighboring institutions elicited themes of: "1) increased awareness of barriers to medication adherence, (2) increased empathy towards adults with polypharmacy, (3) appreciation for the interprofessional team, and (4) realization of the importance of medication reconciliation and patient understanding of their medications."[27] One study found that even PowerPoint-based instruction within grand rounds improved perceived, self-reported knowledge of medication reconciliation among medical learners, though actual practices and patient outcomes were not assessed.[28]

One 2021 study of pediatric resident physicians in Canada revealed incomplete documentation for 40% of patient charts, with no reason for the incompleteness documented in 68% of these cases. Improved resident education at the institution level was one of the recommended quality improvement strategies, in addition to improved patient education and increased collaboration with pharmacy services.[29] A twice-monthly interactive educational intervention took place among internal medicine residents at the Washington DC VA Medical Center and significantly reduced medication discrepancies when compared to a control group not receiving the educational intervention, although there was no statistical difference between the amount of medication omissions across the two groups.[30] Most studied and effective interventions regarding medication reconciliation education for health care professionals take place at site-specific levels with the entire care team, such as nursing homes in a specific region.[31] Some sites also recommended urgent suggestions for improvement that were not focused around physician training on medication reconciliation specifically, but on improving communication mechanisms between staff and the need for pharmacy involvement, again emphasizing the interdisciplinary nature of the work.[15]

More broadly, away from local contexts, in addition to AMA policy related to medication reconciliation, the AMA also offers continuing medical education in medication reconciliation on the AMA Ed Hub, offering 36 modules at the time of this writing that incorporate mentions of medication reconciliation improvements.

There is an underlying infrastructure for medical learner training within medication reconciliation in several ACGME-accredited specialties, hospital system quality metrics, and wider medical education competencies. The AMA as an organization does not make determinations of the adequacy of training as this lies solely with the accrediting body, but AMA policy does provide robust support for medication reconciliation, including the possibility of additional training. In addition, as discussed above, physician training is only one component of medication reconciliation education, and medication reconciliation itself, though important, is insufficient for patient safety on its own. Each care setting has a unique context, and interventions are often conducted most effectively in the care setting with the entire interdisciplinary team and with the overall promotion of interprofessional communication, as well as improvement of EHR systems. Interventions must also focus on improvements to actual patient outcomes and receiving the correct medications, rather than simply to the completion of medication reconciliation, which may or may not be correct or helpful to the patient, even if accurately reconciled across multiple sources: "Primary care clinicians and hospitalists currently must attest that medication reconciliation has been completed, but this does not measure accuracy. Currently, no validated measures are available to assess the quality of medication reconciliation. More meaningful measures are needed, and studies can be built upon these measures to assess the value of medication reconciliation across a gradient of how comprehensively it was performed."[5] AMA policy D-300.973 already advocates toward this goal.

RELEVANT AMA POLICY

The AMA has extensive policy related to medication reconciliation and physicians-in-training. Some examples are as follows:

- D-300.973, "Medication Reconciliation Education," encourages the study of current medication reconciliation practices across transitions of care to evaluate the impact on patient safety and quality of care, including when there are dissimilar electronic health records, and to develop strategies, including the potential need for additional training, to reduce medical errors and ensure patient safety and quality of care.
- D-120.965, "Pharmacy Review of First Dose Medication," supports medication reconciliation as a means to improve patient safety and indicates that (a) systems be established to support physicians in medication reconciliation, and (b) medication reconciliation requirements should be at a level appropriate for a particular episode of care and setting.
- H-160.902, "Hospital Discharge Communications," supports implementation of medication reconciliation as part of the hospital discharge process.
- D-120.928, "Reducing Polypharmacy as a Significant Contributor to Senior Morbidity," works with other stakeholders and EHR vendors to address the continuing problem of inaccuracies in medication reconciliation and propagation of such inaccuracies in electronic health records.
- H-125.974, "Continuity of Care for Patients Discharged from Hospital Settings," supports medication reconciliation processes that include confirmation that prescribed discharge medications will be covered by a patient's health plan and resolution of potential coverage and/or prior authorization issues prior to hospital discharge.
- H-120.968, "Medication (Drug) Errors in Hospitals," encourages individual physicians to minimize medication errors by adhering to the following guidelines when prescribing medications: (a) Physicians should stay abreast of the current state of knowledge regarding optimal prescribing through literature review, use of consultations with other physicians and pharmacists, participation in continuing medical education programs, and other means.
- H-120.955, "Non-Physician Prescribing," advocates that prescriptive authority include the responsibility to monitor the effects of the medication and to attend to problems associated with the use of the medication. This responsibility includes the liability for such actions.
- H-310.929, "Principles for Graduate Medical Education," states there must be objectives for residency education in each specialty that promote the development of the knowledge, skills, attitudes, and behavior necessary to become a competent practitioner in a recognized medical specialty. Institutions sponsoring residency programs and the director of each program must assure the highest quality of care for patients and the attainment of the program's educational objectives for the residents.
- D-295.934, "Encouragement of Interprofessional Education Among Health Care Professions Students," recognizes that interprofessional education and partnerships are a priority of the American medical education system and encourages the development of skills for interprofessional education that are applicable to and appropriate for each group of learners.

These policies are listed in full detail in Appendix A.

SUMMARY AND RECOMMENDATIONS

While support and ongoing improvement can and should be ongoing in the education of physicians-in-training, aligned with the overall goal to reduce errors and improve patient safety, issues associated with medication reconciliation far exceed the domain of education for physicians-in-training, and even appropriate medication reconciliation practices alone[3] do not necessarily improve certain patient outcomes,[6] requiring attention to the full spectrum of medication-related practices. Accrediting bodies for both physician trainees and for hospitals and health systems currently provide guidance and frameworks around medication reconciliation as appropriate for each clinical setting and specialty. The AMA already works to remedy EHR-related medication reconciliation issues via D-120.928 and encourages additional study of medication reconciliation issues via D-300.973, which includes encouraging research on additional training opportunities. Current evidence suggests this training is best done in an interdisciplinary context, which D-295.934 also provides support and guidance for.

The Council on Medical Education therefore recommends that the following recommendations be adopted in lieu of Resolution 805-I-23, Resolve 2, and the remainder of this report be filed:

That our AMA:

1. Amend AMA Policy D-120.965 "Pharmacy Review of First Dose Medication" by addition of a new third clause to read as follows:
   3. Our AMA a) recognizes that medication reconciliation is a multidisciplinary process and b) supports education of physicians-in-training about the physician's role and responsibilities in medication reconciliation and management within a physician-led team in relevant clinical settings, to minimize medical errors and promote patient safety and quality of care.
2. Amend AMA Policy D-120.965 with a change in title to read as follows:
   Medication Reconciliation to Improve Patient Safety
3. Reaffirm AMA Policy H-160.902 "Hospital Discharge Communications"

APPENDIX A: RELEVANT AMA POLICY

Medication Reconciliation Education D-300.973
Our American Medical Association encourages the study of current medication reconciliation practices across transitions of care to evaluate the impact on patient safety and quality of care, including when there are dissimilar electronic health records, and to develop strategies, including the potential need for additional training, to reduce medical errors and ensure patient safety and quality of care.

Pharmacy Review of First Dose Medication D-120.965
1. Our AMA supports medication reconciliation as a means to improve patient safety.
2. It is AMA policy that (a) systems be established to support physicians in medication reconciliation, and (b) medication reconciliation requirements should be at a level appropriate for a particular episode of care and setting.

Hospital Discharge Communications H-160.902
1. Our AMA encourages the initiation of the discharge planning process, whenever possible, at the time patients are admitted for inpatient or observation services and, for surgical patients, prior to hospitalization.
2. Our AMA encourages the development of discharge summaries that are presented to physicians in a meaningful format that prominently highlight salient patient information, such as the discharging physician's narrative and recommendations for ongoing care.
3. Our AMA encourages hospital engagement of patients and their families/caregivers in the discharge process, using the following guidelines:
a. Information from patients and families/caregivers is solicited during discharge planning, so that discharge plans are tailored to each patient's needs, goals of care and treatment preferences.
b. Patient language proficiency, literacy levels, cognitive abilities and communication impairments (e.g., hearing loss) are assessed during discharge planning. Particular attention is paid to the abilities and limitations of patients and their families/caregivers.

c. Specific discharge instructions are provided to patients and families or others responsible for providing continuing care both verbally and in writing. Instructions are provided to patients in layman's terms, and whenever possible, using the patient's preferred language.
d. Key discharge instructions are highlighted for patients to maximize compliance with the most critical orders.
e. Understanding of discharge instructions and post-discharge care, including warning signs and symptoms to look for and when to seek follow-up care, is confirmed with patients and their families/caregiver(s) prior to discharge from the hospital.
4. Our AMA supports making hospital discharge instructions available to patients in both printed and electronic form, and specifically via online portals accessible to patients and their designated caregivers.
5. Our AMA supports implementation of medication reconciliation as part of the hospital discharge process. The following strategies are suggested to optimize medication reconciliation and help ensure that patients take medications correctly after they are discharged:
a. All discharge medications, including prescribed and over-the-counter medications, should be reconciled with medications taken pre-hospitalization.
b. An accurate list of medications, including those to be discontinued as well as medications to be taken after hospital discharge, and the dosage and duration of each drug, should be communicated to patients.
c. Medication instructions should be communicated to patients and their families/caregivers verbally and in writing.
d. For patients with complex medication schedules, the involvement of physician-led multidisciplinary teams in medication reconciliation including, where feasible, pharmacists should be encouraged.
6. Our AMA encourages patient follow-up in the early time period after discharge as part of the hospital discharge process, particularly for medically complex patients who are at high-risk of re-hospitalization.
7. Our AMA encourages hospitals to review early readmissions and modify their discharge processes accordingly.

Reducing Polypharmacy as a Significant Contributor to Senior Morbidity D-120.928
1. Our AMA will work with other organizations e.g., AARP, other medical specialty societies, PhRMA, and pharmacists to educate patients about the significant effects of all medications and most supplements, and to encourage physicians to teach patients to bring all medications and supplements or accurate, updated lists including current dosage to each encounter.
2. Our AMA along with other appropriate organizations encourages physicians and ancillary staff if available to initiate discussions with patients on improving their medical care through the use of only the minimal number of medications (including prescribed or over-the-counter, including vitamins and supplements) needed to optimize their health.
3. Our AMA will work with other stakeholders and EHR vendors to address the continuing problem of inaccuracies in medication reconciliation and propagation of such inaccuracies in electronic health records.
4. Our AMA will work with other stakeholders and EHR vendors to include non-prescription medicines and supplements in medication lists and compatibility screens.

Continuity of Care for Patients Discharged from Hospital Settings H-125.974
Our AMA:
(1) will advocate for protections of continuity of care for medical services and medications that are prescribed during patient hospitalizations, including when there are formulary or treatment coverage changes that have the potential to disrupt therapy following discharge;
(2) supports medication reconciliation processes that include confirmation that prescribed discharge medications will be covered by a patient’s health plan and resolution of potential coverage and/or prior authorization (PA) issues prior to hospital discharge;
(3) supports strategies that address coverage barriers and facilitate patient access to prescribed discharge medications, such as hospital bedside medication delivery services and the provision of transitional supplies of discharge medications to patients;
(4) will advocate to the Office of the National Coordinator for Health Information Technology (ONC) and the Centers for Medicare & Medicaid Services (CMS) to work with physician and hospital organizations, and health information technology developers, in identifying real-time pharmacy benefit implementations and published standards that provide real-time or near-time formulary information across all prescription drug plans, patient portals and other viewing applications, and electronic health record (EHR) vendors;
(5) will advocate to the ONC to include proven and established real-time pharmacy benefit criteria within its certification program;

(6) will advocate to the ONC and the CMS that any policies requiring health information technology developers to integrate real-time pharmacy benefit systems (RTPB) within their products do so without disruption to EHR usability and minimal to no cost to physicians and hospitals, providing financial support if necessary; and
(7) supports alignment and real-time accuracy between the prescription drug data offered in physician-facing and consumer-facing RTPB tools.

Medication (Drug) Errors in Hospitals H-120.968
(1) Our AMA encourages individual physicians to minimize medication errors by adhering to the following guidelines when prescribing medications:
(a) Physicians should stay abreast of the current state of knowledge regarding optimal prescribing through literature review, use of consultations with other physicians and pharmacists, participation in continuing medical education programs, and other means.
(b) Physicians should evaluate the patient's total status and review all existing drug therapy before prescribing new or additional medications (e.g., to ascertain possible antagonistic drug interactions).
(c) Physicians should evaluate and optimize patient response to drug therapy by appropriately monitoring clinical signs and symptoms and relevant laboratory data; follow-up and periodically reevaluate the need for continued drug therapy.
(d) Physicians should be familiar with the hospital's medication-ordering system, including the formulary system; the drug use review (DUR) program; allowable delegation of authority; procedures to alert nurses and others to new drug orders that need to be processed; standard medication administration times; and approved abbreviations.
(e) Written drug or prescription orders (including signatures) should be legible. Physicians with poor handwriting should print or type medication orders if direct order entry capabilities for computerized systems are unavailable.
(f) Medication orders should be complete and should include patient name; drug name (generic drug name or trademarked name if a specific product is required); route and site of administration; dosage form (if applicable); dose; strength; quantity; frequency of administration; and prescriber's name. In some cases, a dilution, rate, and time of administration should be specified. Physicians should review all drug orders for accuracy and legibility immediately after they have prescribed them.
(g) Medication orders should be clear and unambiguous. Physicians should: (i) write out instructions rather than use nonstandard or ambiguous abbreviations (e.g., write "daily" rather than "qd" which could be misinterpreted as "qid" or "od"); (ii) not use vague instructions, such as "take as directed"; (iii) specify exact dosage strengths (such as milligrams) rather than dosage form units (such as one vial) (an exception would be combination products, for which the number of dosage form units should be specified); (iv) prescribe by standard nomenclature, using the United States Adopted Names (USAN)-approved generic drug name, official name, or trademarked name (if a specific product is required) and avoid locally coined names, chemical names, unestablished abbreviated drug names (e.g., AZT), acronyms, and apothecary or chemical symbols; (v) always use a leading "0" to precede a decimal expression of less than one (e.g., 0.5 ml), but never use a terminal "0" (e.g., 5.0 ml); (vi) avoid the use of decimals when possible (e.g., prescribe 500 mg instead of 0.5 g); (vii) spell out the word "units" rather than writing "u"; (viii) and use the metric system. Instructions with respect to "hold" orders for medications should be clear.
(h) Verbal medication orders should be reserved only for those situations in which it is impossible or impractical for the prescriber to write the order or enter it in a computer. Verbal orders should be dictated slowly, clearly, and articulately to avoid confusion. The order should be read back to the prescriber by the recipient (e.g., nurse, pharmacist); when read back, the recipient should spell the drug name and avoid abbreviations when repeating the directions. A written copy of the verbal order should be placed in the patient's medical record and later confirmed by the prescriber in accordance with applicable state regulations and hospital policies.
(2) Our AMA encourages the hospital medical staff to take a leadership role in their hospital, and in collaboration with pharmacy, nursing, administration, and others, to develop and improve organizational systems for monitoring, reviewing, and reporting medication errors and, after identification, to eliminate their cause and prevent their recurrence.

Non-Physician Prescribing H-120.955
1. Our AMA advocates that prescriptive authority include the responsibility to monitor the effects of the medication and to attend to problems associated with the use of the medication. This responsibility includes the liability for such actions.
2. Our AMA supports the development of methodologically valid research on the relative impact of non-physician prescribing on the quality of health care.

Principles for Graduate Medical Education H-310.929

Our American Medical Association urges the Accreditation Council for Graduate Medical Education (ACGME) to incorporate these principles in its Institutional Requirements, if they are not already present.

PURPOSE OF GRADUATE MEDICAL EDUCATION AND ITS RELATIONSHIP TO PATIENT CARE. There must be objectives for residency education in each specialty that promote the development of the knowledge, skills, attitudes, and behavior necessary to become a competent practitioner in a recognized medical specialty. Exemplary patient care is a vital component for any residency/fellowship program. Graduate medical education enhances the quality of patient care in the institution sponsoring an accredited program. Graduate medical education must never compromise the quality of patient care. Institutions sponsoring residency programs and the director of each program must assure the highest quality of care for patients and the attainment of the program's educational objectives for the residents.

RELATION OF ACCREDITATION TO THE PURPOSE OF RESIDENCY TRAINING. Accreditation requirements should relate to the stated purpose of a residency program and to the knowledge, skills, attitudes, and behaviors that a resident physician should have on completing residency education.

EDUCATION IN THE BROAD FIELD OF MEDICINE. GME should provide a resident physician with broad clinical experiences that address the general competencies and professionalism expected of all physicians, adding depth as well as breadth to the competencies introduced in medical school.

SCHOLARLY ACTIVITIES FOR RESIDENTS. Graduate medical education should always occur in a milieu that includes scholarship. Resident physicians should learn to appreciate the importance of scholarly activities and should be knowledgeable about scientific method. However, the accreditation requirements, the structure, and the content of graduate medical education should be directed toward preparing physicians to practice in a medical specialty. Individual educational opportunities beyond the residency program should be provided for resident physicians who have an interest in, and show an aptitude for, academic and research pursuits. The continued development of evidence-based medicine in the graduate medical education curriculum reinforces the integrity of the scientific method in the everyday practice of clinical medicine.

FACULTY SCHOLARSHIP. All residency faculty members must engage in scholarly activities and/or scientific inquiry. Suitable examples of this work must not be limited to basic biomedical research. Faculty can comply with this principle through participation in scholarly meetings, journal club, lectures, and similar academic pursuits.

INSTITUTIONAL RESPONSIBILITY FOR PROGRAMS. Specialty-specific GME must operate under a system of institutional governance responsible for the development and implementation of policies regarding the following; the initial authorization of programs, the appointment of program directors, compliance with the accreditation requirements of the ACGME, the advancement of resident physicians, the disciplining of resident physicians when this is appropriate, the maintenance of permanent records, and the credentialing of resident physicians who successfully complete the program. If an institution closes or has to reduce the size of a residency program, the institution must inform the residents as soon as possible. Institutions must make every effort to allow residents already in the program to complete their education in the affected program. When this is not possible, institutions must assist residents to enroll in another program in which they can continue their education. Programs must also make arrangements, when necessary, for the disposition of program files so that future confirmation of the completion of residency education is possible. Institutions should allow residents to form housestaff organizations, or similar organizations, to address patient care and resident work environment concerns. Institutional committees should include resident members.

COMPENSATION OF RESIDENT PHYSICIANS. All residents should be compensated. Residents should receive fringe benefits, including, but not limited to, health, disability, and professional liability insurance and parental leave and should have access to other benefits offered by the institution. Residents must be informed of employment policies and fringe benefits, and their access to them. Restrictive covenants must not be required of residents or applicants for residency education.

LENGTH OF TRAINING. The usual duration of an accredited residency in a specialty should be defined in the "Program Requirements." The required minimum duration should be the same for all programs in a specialty and should be sufficient to meet the stated objectives of residency education for the specialty and to cover the course content specified in the Program Requirements. The time required for an individual resident physician's education might be modified depending on the aptitude of the resident physician and the availability of required clinical experiences.

PROVISION OF FORMAL EDUCATIONAL EXPERIENCES. Graduate medical education must include a formal educational component in addition to supervised clinical experience. This component should assist resident physicians in acquiring the knowledge and skill base required for practice in the specialty. The assignment of clinical responsibility to resident physicians must permit time for study of the basic sciences and clinical pathophysiology related to the specialty.

INNOVATION OF GRADUATE MEDICAL EDUCATION. The requirements for accreditation of residency training should encourage educational innovation and continual improvement. New topic areas such as continuous quality improvement (CQI), outcome management, informatics and information systems, and population-based medicine should be included as appropriate to the specialty.
THE ENVIRONMENT OF GRADUATE MEDICAL EDUCATION. Sponsoring organizations and other GME programs must create an environment that is conducive to learning. There must be an appropriate balance between education and service. Resident physicians must be treated as colleagues.
SUPERVISION OF RESIDENT PHYSICIANS. Program directors must supervise and evaluate the clinical performance of resident physicians. The policies of the sponsoring institution, as enforced by the program director, and specified in the ACGME Institutional Requirements and related accreditation documents, must ensure that the clinical activities of each resident physician are supervised to a degree that reflects the ability of the resident physician and the level of responsibility for the care of patients that may be safely delegated to the resident. The sponsoring institution's GME Committee must monitor programs' supervision of residents and ensure that supervision is consistent with:
(A) Provision of safe and effective patient care;
(B) Educational needs of residents;
(C) Progressive responsibility appropriate to residents' level of education, competence, and experience; and
(D) Other applicable Common and specialty/subspecialty specific Program Requirements. The program director, in cooperation with the institution, is responsible for maintaining work schedules for each resident based on the intensity and variability of assignments in conformity with ACGME Review Committee recommendations, and in compliance with the ACGME clinical and educational work hour standards. Integral to resident supervision is the necessity for frequent evaluation of residents by faculty, with discussion between faculty and resident. It is a cardinal principle that responsibility for the treatment of each patient and the education of resident and fellow physicians lies with the physician/faculty to whom the patient is assigned and who supervises all care rendered to the patient by residents and fellows. Each patient's attending physician must decide, within guidelines established by the program director, the extent to which responsibility may be delegated to the resident, and the appropriate degree of supervision of the resident's participation in the care of the patient. The attending physician, or designate, must be available to the resident for consultation at all times.
EVALUATION OF RESIDENTS AND SPECIALTY BOARD CERTIFICATION. Residency program directors and faculty are responsible for evaluating and documenting the continuing development and competency of residents, as well as the readiness of residents to enter independent clinical practice upon completion of training. Program directors should also document any deficiency or concern that could interfere with the practice of medicine and which requires remediation, treatment, or removal from training. Inherent within the concept of specialty board certification is the necessity for the residency program to attest and affirm to the competence of the residents completing their training program and being recommended to the specialty board as candidates for examination. This attestation of competency should be accepted by specialty boards as fulfilling the educational and training requirements allowing candidates to sit for the certifying examination of each member board of the ABMS.
GRADUATE MEDICAL EDUCATION IN THE AMBULATORY SETTING. Graduate medical education programs must provide educational experiences to residents in the broadest possible range of educational sites, so that residents are trained in the same types of sites in which they may practice after completing GME. It should include experiences in a variety of ambulatory settings, in addition to the traditional inpatient experience. The amount and types of ambulatory training is a function of the given specialty.
VERIFICATION OF RESIDENT PHYSICIAN EXPERIENCE. The program director must document a resident physician's specific experiences and demonstrated knowledge, skills, attitudes, and behavior, and a record must be maintained within the institution.

Encouragement of Interprofessional Education Among Health Care Professions Students D-295.934
1. Our American Medical Association recognizes that interprofessional education and partnerships are a priority of the American medical education system.
2. Our AMA supports the concept that medical education should prepare students for practice in, and leadership of, physician-led interprofessional health care teams.
3. Our AMA will encourage health care organizations that engage in a collaborative care model to provide access to an appropriate mix of role models and learners.
4. Our AMA will encourage the development of skills for interprofessional education that are applicable to and appropriate for each group of learners.
5. Our AMA supports the concept that interprofessional education include a mechanism by which members of interdisciplinary teams learn about, with, and from each other; and that this education include learning about

differences in the depth and breadth of their educational backgrounds, experiences, and knowledge and the impact these differences may have on patient care.
6. Our AMA supports a clear mechanism for medical school and appropriate institutional leaders to intervene when undergraduate and graduate medical education is being adversely impacted by undergraduate, graduate, and postgraduate clinical training programs of non-physicians.

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2. UPDATES TO RECOMMENDATIONS FOR FUTURE DIRECTIONS FOR MEDICAL EDUCATION

Reference committee hearing: see report of Reference Committee C.

HOUSE ACTION: RECOMMENDATIONS ADOPTED
REMAINDER OF REPORT FILED
See Policies D-295.299 and H-295.995

"Updates to Recommendations for Future Directions for Medical Education" is a self-initiated report by the Council on Medical Education.

BACKGROUND

Report Origins and Process

In July 1980, the AMA House of Delegates (HOD) authorized the establishment of six task forces to review then-current and predicted future issues within medical education. At the 1982 Annual Meeting, the Council on Medical Education released recommendations on "Future Directions for Medical Education," with the following stated purpose: "This report expresses the continual interest of the Council on Medical Education, consistent with its function within the AMA, 'to elevate medical education'."[1] These recommendations are AMA Policy H-295.995, Recommendations for Future Directions for Medical Education, and were last amended by the Council in 2017 with

CME Report 1-I-17, Promoting and Reaffirming Domestic Medical School Clerkship Education (Resolution 308-I-16). Most of the current 37 recommendations retain the original language from 1982, despite more than 40 years of changes to medical education.

For this reason, the Council on Medical Education voted in favor of proposing a series of self-initiated reports to reassess and modernize the policy's recommendations, including, when relevant, consolidating some of AMA's other policies on medical education topics. The goal of this self-initiated process is to establish an updated framework for understanding the future of medical education, as well as potentially incorporating innovations and newer understandings from the last several decades of collaboration with medical education stakeholders. This first report seeks to describe a brief history of the important changes in medical education since 1982 and proposes sunsetting out-of-date recommendations within AMA Policy H-295.995. This report also describes a proposed framework for reassessing AMA Policy H-295.995, with the subcategories of 1) mission of medical education, 2) professional regulation, 3) entry into and transition through the medical education continuum, 4) medical education curricula, 5) physician as medical professional, 6) medical education systems, and 7) obligation to students and trainees. This initial report then proposes that the Council conduct future studies in following years based around each of the new framework's categories to overhaul and modernize these aspects of AMA medical education policy. Beyond deleting irrelevant and out-of-date recommendations in AMA Policy H-295.995, this initial report will continue current AMA policies on medical education without revision or reorganization—and will offer these new categories with examples of where the existing recommendations may fit in the body of future reports, with the intention of future restructuring. In future studies, if approved, policy consolidation and/or new policy recommendations will then take place under each of the adopted subcategories.

40 Years of Changes in Medical Education

A detailed historical account of all major changes in medical education across more than 40 years is outside the scope of this report; however, major examples of changes include but are not limited to the following.

Mission of medical education

Medical education's mission is to train a competent physician workforce that meets the needs of patients and populations. Though efforts by groups and individuals have been made throughout history to improve conditions for the most marginalized, a heightened awareness of equity concerns within medical education has emerged over the past few decades. In the context of the AMA, since the original 1982 Council report on the future of medical education, the Minority Affairs Consortium was created in 1992, the Commission to End Health Care Disparities began in 2004, and in 2008, the AMA officially apologized for its history of harms against Black physicians and patients.[2] The AMA's Center for Health Equity was launched in 2019, with the AMA's strategic plan to embed racial justice and advance health equity released in 2021.[3] Council on Medical Education Report 05-J-21, "Promising Practices Among Pathway Programs to Increase Diversity in Medicine"[4] discussed the harms of the 1910 Flexner Report and called for an external study focused on reimagining the future of health equity and racial justice in medical education, which was published in 2024.[5] In the greater U.S., milestones such as the 1990 Americans with Disabilities Act (ADA), the 2008 ADA Amendments Act, and the 2015 legalization of same-sex marriage via the *Obergefell v. Hodges* Supreme Court decision have also drawn attention to disability and lesbian, gay, bisexual, transgender, queer, and more (LGBTQ+) rights within medical education.[6]

In recent years, there is an unprecedented demand for health care, with increasing physician workforce shortages nationally as well as in certain underserved areas.[7] There are also current and pending shortages in specific specialties, such as urology.[8] Many of these shortages may be attributed to maldistribution, rather than purely insufficient numbers of physicians nationwide, with certain areas remaining underserved, particularly rural areas, with medical education playing a major role in influencing physicians to meet these needs.[9] The transition toward competency-based medical education (CBME) is one of the most pivotal shifts in medical education in recent years[10] and one of AMA's ChangeMedEd 2023 areas of strategic focus, alongside equity, diversity, and belonging; precision education; and transitions across the continuum.[11]

Professional regulation

Medical education maintains commitment to the concept that the regulation of the medical profession should be guided by physicians. A 2015 memorandum of understanding between the Accreditation Council for Graduate

Medical Education (ACGME), American Osteopathic Association, and American Association of Colleges of Osteopathic Medicine began a five-year transition to single U.S. graduate medical education (GME) accreditation, which finalized in 2020,[12] though some express concerns.[13] AMA policy currently supports work toward a single licensure exam (Single Licensing Exam Series for Osteopathic and Allopathic Medical Students D-275.947), and inequities between Doctors of Osteopathic Medicine (DOs) and Doctors of Medicine (MDs) continue to be addressed.[14]

Significant overall shifts in how standardized assessments are designed and discussed have also taken place since the 1980s. This includes the notion of competence as actual competencies linked to patient outcomes rather than personality traits, an understanding that did not develop until the late 1990s and early 2000s, with awareness of assessor bias and the limitations of assessments emerging in scholarly literature even later.[15] In 2021, the United States Medical Licensing Examination (USMLE) Step 2 Clinical Skills (CS) was permanently discontinued after a COVID-19 related 2020 suspension.[16] In 2022, the USMLE Step 1 exam converted from numeric to pass-fail.[17]

Entry into and transition through the medical education continuum

Application and selection processes have also changed over time. In 1995, the Association of American Medical Colleges (AAMC) developed the Electronic Residency Application Service (ERAS), replacing cumbersome paper mail residency applications with newer technology—first floppy disks, followed by web-based services.[18] In more recent years, specialties have considered and tested alternatives to ERAS, such as the obstetrics and gynecology (OB/GYN) specialty's shift to the Residency Centralized Application Service in 2024.[19] This new platform will still work in conjunction with the National Resident Matching Program (NRMP) for the Match. Although the NRMP was established in 1952,[20] significant changes have also taken place over the years to modernize infrastructure and shift strategic priorities in response to modern needs.[21] The NRMP formalized its Specialty Matching Service and conducted its first fellowship Match in 1984.[22] A single Match for DOs and MDs began in 2020.[6]

The COVID-19 pandemic, declared officially in 2020, sparked both a major crisis within medical education and devastation for many within society at large, prompting opportunities for transformations of existing systems[23] in both education and patient care.[24] AAMC now recommends virtual interviewing for all residency and fellowship programs.[25] On the heels of COVID-19 related upheaval, the Coalition for Physician Accountability commissioned an independent body to review the UME-to-GME transition and provide recommendations. The Undergraduate Medical Education to Graduate Medical Education Review Committee (UGRC) released a report with 34 recommendations in August 2021.[26]

For international medical graduates, the Educational Commission for Foreign Medical Graduates (ECFMG) established the Foundation for Advancement of International Medical Education and Research (FAIMER) in 2000,[27] launched electronic verification of medical credentials in 2012,[28] developed certification Pathways in 2020 following the suspension of USMLE Step 2,[29] and in 2023, ECFMG and FAIMER became divisions of a private nonprofit organization, Intealth.[29] In 2024, the Federation of State Medical Boards (FSMB), Intealth, and the ACGME established an Advisory Commission on Alternate Licensing Models to "provide guidance on alternative pathways for state licensure of physicians who have completed training and/or practiced outside of the United States," with work in progress at the time of this writing.[30]

Medical education curricula

A vast number of technological changes have occurred since 1982, including but not limited to the advent of widely available internet access in the 1990s[31] in addition to more specific technological shifts in medical education over time.[32] Virtual education is now prominent.[33] More recently, the increasing attention to generative artificial intelligence or augmented intelligence (AI) prompted the AMA to release "Principles for Augmented Intelligence Development, Deployment, and Use" in November 2023.[34] AI technology and its opportunities and challenges are increasingly woven into the field of medical education.[35]

From 2013-2022, the AMA's Accelerating Change in Medical Education Consortium[36] made $30 million in grants to 32 medical schools to jumpstart curricular and process changes and disseminate ideas,[37] and in 2019, AMA launched the Reimagining Residency initiative to support innovations to transform residency training.[38] The consortium became ChangeMedEd in 2023, and lessons from ChangeMedEd are informing ideas on future

directions in medical education as intended. Curricular innovations include health systems science,[39] the Master Adaptive Learner model,[40] and a renewed emphasis on equity and social determinants of health.[41]

Physician as medical professional

Due in part to the rapid growth of managed care in health insurance in the late 1980s and early 1990s, a much larger proportion of physicians began seeking board certification.[42] Rapid changes in medicine and the exponential growth of medical knowledge also caused shifts in patient and payer concerns about physician knowledge.[43] In 1990, internal medicine board certification became time-limited rather than one-time, and in 2002, all member boards of the American Board of Medical Specialties agreed on recertification requirements and evaluation of performance in practice.[42] These changes led to continuous assessment programs called maintenance of certification (MOC)[43] in the early 2000s, which offered both benefits and challenges, and translated to varying options for continuing board certification depending on specialty, such as a longitudinal knowledge assessment pathway for the American Board of Internal Medicine (ABIM) in 2022.[43]

With regard to physician lifelong learning, the Accreditation Council for Continuing Medical Education was still new when the 1982 report was written, having been established in 1981, and has evolved over time.[44] AMA's own Physician Recognition Award (PRA) Credit System also shifted over time, including official booklet updates in 2017 and in-progress changes since then.[45] Many factors related to lifelong learning have also emerged into greater awareness, such as ageism and principles to guide physician competence assessment at any age[46] and substance use disorder destigmatization and interventions.[47]

Medical education systems

The overall role of the physician and the practice of medicine in U.S. society has shifted. There has been a shift away from independent practice, influenced by economic, administrative, and regulatory burdens.[48] Due to the increasing complexity of health systems, in 1999, systems-based practice was introduced as one of the core competencies[49] endorsed by the ACGME and the ABMS, with Milestones introduced in 2013 as a developmental framework related to competencies and harmonized across specialties in 2017. There have been other updates since then.[49] Challenges continue to emerge in the clinical learning environment, requiring new approaches.[40] There are increasing concerns about the impact of corporate interests and private equity, as discussed in Council on Medical Education Reports 01-I-22, "The Impact of Private Equity on Medical Training,"[50] and 01-I-20, "Graduate Medical Education and the Corporate Practice of Medicine."[51] Other systems factors also influence medical education, such as high demand for clinical placements,[52] physician workforce disparities,[53] and scope of practice concerns, the latter of which led to the formation of the AMA's Scope of Practice Partnership in 2006.[54]

Obligation to students and trainees

Since 1982, there has been increased attention to the needs of students and trainees, in a variety of forms. Student well-being is now better researched, and a variety of interventions have been tested and implemented on an ongoing basis.[55] Resident working conditions and duty hours have become major issues in GME, particularly after the Libby Zion case in 1984[56] and adoption of ACGME duty hour standards.[57] In 2011, the AMA released the Residents and Fellows' Bill of Rights H-31.912, last updated in 2023, and there is increasing awareness of the need to address growing stressors and burnout within medical education, both for learners[58] and faculty.[59]

Research is ongoing on how other aspects of the medical education field have shifted over time and how these changes may impact learners and public health.[60]

Proposal for a New Medical Education Policy Framework

Given the substantial evolution in medical education over the last 40+ years, the Council on Medical Education proposes, over a series of future reports, to systematically re-evaluate Policy H-295.995 recommendations and other relevant AMA medical education policy to: a) reframe existing policies to match the current context, b) consolidate duplicate or overlapping policies, c) remove outdated policies, and d) propose new policies to address identified gaps. The proposed framework for this project is discussed below.

DISCUSSION

In the Council's original 1982 report, medical education topics were divided into the following 10 categories: 1) generalism and specialism, 2) preparation for and admission to medical school, 3) medical schools and undergraduate medical education, 4) evaluation, 5) the transition from undergraduate to graduate medical education, 6) specialism, graduate medical education, and specialty boards, 7) licensure for the practice of medicine, 8) continuing medical education, 9) graduates of foreign medical schools, and 10) the AMA and medical education. To modernize this policy, the Council on Medical Education recommends establishing a new framework with the following seven categories: 1) mission of medical education, 2) professional regulation, 3) entry into and transition through the medical education continuum, 4) medical education curricula, 5) physician as medical professional, 6) medical education systems, and 7) obligations to students and trainees. After receiving input from the House on this report, the Council intends to develop future reports based on a framework as adopted by the House of Delegates.

The Council on Medical Education also recommends sunsetting four out-of-date subsections of H-295.995, seen below.

RELEVANT AMA POLICY

The current, full text of Recommendations for Future Directions for Medical Education H-295.995 is listed in the Appendix A of this report.

SUMMARY AND RECOMMENDATIONS

Substantial changes have taken place in medical education since 1982, and AMA Policy H-295.995, "Recommendations for Future Directions for Medical Education," has not been comprehensively reviewed in over 40 years. The Council on Medical Education proposes a future series of self-initiated reports to modernize AMA medical education policy and consolidate relevant medical education policies.

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

That our American Medical Association (AMA):

1. Study the restructuring of AMA Policy H-295.995, "Recommendations for Future Directions for Medical Education" in a series of seven future reports based on the topics of 1) mission of medical education, 2) professional regulation, 3) entry into and transition through the medical education continuum, 4) medical education curricula, 5) physician as medical professional, 6) medical education systems, and 7) obligations to students and trainees, to consolidate existing AMA policies in these areas where appropriate and to recommend new language for the future of medical education.

2. Policy H-295.995, "Recommendations for Future Directions for Medical Education," be amended by deletion of items 19, 20, 31 and 33 and appropriately renumbered to read as follows:

(19) ~~The first year of postdoctoral medical education for all graduates should consist of a broad year of general training. (a) For physicians entering residencies in internal medicine, pediatrics, and general surgery, postdoctoral medical education should include at least four months of training in a specialty or specialties other than the one in which the resident has been appointed. (A residency in family practice provides a broad education in medicine because it includes training in several fields.) (b) For physicians entering residencies in specialties other than internal medicine, pediatrics, general surgery, and family practice, the first postdoctoral year of medical education should be devoted to one of the four above-named specialties or to a program following the general requirements of a transitional year stipulated in the "General Requirements" section of the "Essentials of Accredited Residencies." (c) A program for the transitional year should be planned, designed, administered, conducted, and evaluated as an entity by the sponsoring institution rather than one or more departments. Responsibility for the executive direction of the program should be assigned to one physician whose responsibility is the administration of the program. Educational programs for a transitional year should be subjected to thorough surveillance by the appropriate accrediting body as a means of assuring that the content, conduct, and internal evaluation of the~~

~~educational program conform to national standards. The impact of the transitional year should not be deleterious to the educational programs of the specialty disciplines.~~

(20) ~~The ACGME, individual specialty boards, and respective residency review committees should improve communication with directors of residency programs because of their shared responsibility for programs in graduate medical education.~~

(31) ~~The Educational Commission for Foreign Medical Graduates should be encouraged to study the feasibility of including in its procedures for certification of graduates of foreign medical schools a period of observation adequate for the evaluation of clinical skills and the application of knowledge to clinical problems.~~

(33) ~~The AMA, when appropriate, supports the use of selected consultants from the public and from the professions for consideration of special issues related to medical education.~~

APPENDIX A: RELEVANT AMA POLICY

Recommendations for Future Directions for Medical Education H-295.995
Our AMA supports the following recommendations relating to the future directions for medical education:
(1) The medical profession and those responsible for medical education should strengthen the general or broad components of both undergraduate and graduate medical education. All medical students and resident physicians should have general knowledge of the whole field of medicine regardless of their projected choice of specialty.
(2) Schools of medicine should accept the principle and should state in their requirements for admission that a broad cultural education in the arts, humanities, and social sciences, as well as in the biological and physical sciences, is desirable.
(3) Medical schools should make their goals and objectives known to prospective students and premedical counselors in order that applicants may apply to medical schools whose programs are most in accord with their career goals.
(4) Medical schools should state explicitly in publications their admission requirements and the methods they employ in the selection of students.
(5) Medical schools should require their admissions committees to make every effort to determine that the students admitted possess integrity as well as the ability to acquire the knowledge and skills required of a physician.
(6) Although the results of standardized admission testing may be an important predictor of the ability of students to complete courses in the preclinical sciences successfully, medical schools should utilize such tests as only one of several criteria for the selection of students. Continuing review of admission tests is encouraged because the subject content of such examinations has an influence on premedical education and counseling.
(7) Medical schools should improve their liaison with college counselors so that potential medical students can be given early and effective advice. The resources of regional and national organizations can be useful in developing this communication.
(8) Medical schools are chartered for the unique purpose of educating students to become physicians and should not assume obligations that would significantly compromise this purpose.
(9) Medical schools should inform the public that, although they have a unique capability to identify the changing medical needs of society and to propose responses to them, they are only one of the elements of society that may be involved in responding. Medical schools should continue to identify social problems related to health and should continue to recommend solutions.
(10) Medical school faculties should continue to exercise prudent judgment in adjusting educational programs in response to social change and societal needs.
(11) Faculties should continue to evaluate curricula periodically as a means of insuring that graduates will have the capability to recognize the diverse nature of disease, and the potential to provide preventive and comprehensive medical care. Medical schools, within the framework of their respective institutional goals and regardless of the organizational structure of the faculty, should provide a broad general education in both basic sciences and the art and science of clinical medicine.
(12) The curriculum of a medical school should be designed to provide students with experience in clinical medicine ranging from primary to tertiary care in a variety of inpatient and outpatient settings, such as university hospitals, community hospitals, and other health care facilities. Medical schools should establish standards and apply them to all components of the clinical educational program regardless of where they are conducted. Regular evaluation of the quality of each experience and its contribution to the total program should be conducted.

(13) Faculties of medical schools have the responsibility to evaluate the cognitive abilities of their students. Extramural examinations may be used for this purpose, but never as the sole criterion for promotion or graduation of a student.
(14) As part of the responsibility for granting the MD degree, faculties of medical schools have the obligation to evaluate as thoroughly as possible the non-cognitive abilities of their medical students.
(15) Medical schools and residency programs should continue to recognize that the instruction provided by volunteer and part-time members of the faculty and the use of facilities in which they practice make important contributions to the education of medical students and resident physicians. Development of means by which the volunteer and part-time faculty can express their professional viewpoints regarding the educational environment and curriculum should be encouraged.
(16) Each medical school should establish, or review already established, criteria for the initial appointment, continuation of appointment, and promotion of all categories of faculty. Regular evaluation of the contribution of all faculty members should be conducted in accordance with institutional policy and practice.
(17a) Faculties of medical schools should reevaluate the current elements of their fourth or final year with the intent of increasing the breadth of clinical experience through a more formal structure and improved faculty counseling. An appropriate number of electives or selected options should be included. (17b) Counseling of medical students by faculty and others should be directed toward increasing the breadth of clinical experience. Students should be encouraged to choose experience in disciplines that will not be an integral part of their projected graduate medical education.
(18) Directors of residency programs should not permit medical students to make commitments to a residency program prior to the final year of medical school.
(19) The first year of postdoctoral medical education for all graduates should consist of a broad year of general training. (a) For physicians entering residencies in internal medicine, pediatrics, and general surgery, postdoctoral medical education should include at least four months of training in a specialty or specialties other than the one in which the resident has been appointed. (A residency in family practice provides a broad education in medicine because it includes training in several fields.) (b) For physicians entering residencies in specialties other than internal medicine, pediatrics, general surgery, and family practice, the first postdoctoral year of medical education should be devoted to one of the four above-named specialties or to a program following the general requirements of a transitional year stipulated in the "General Requirements" section of the "Essentials of Accredited Residencies." (c) A program for the transitional year should be planned, designed, administered, conducted, and evaluated as an entity by the sponsoring institution rather than one or more departments. Responsibility for the executive direction of the program should be assigned to one physician whose responsibility is the administration of the program. Educational programs for a transitional year should be subjected to thorough surveillance by the appropriate accrediting body as a means of assuring that the content, conduct, and internal evaluation of the educational program conform to national standards. The impact of the transitional year should not be deleterious to the educational programs of the specialty disciplines.
(20) The ACGME, individual specialty boards, and respective residency review committees should improve communication with directors of residency programs because of their shared responsibility for programs in graduate medical education.
(21) Specialty boards should be aware of and concerned with the impact that the requirements for certification and the content of the examination have upon the content and structure of graduate medical education. Requirements for certification should not be so specific that they inhibit program directors from exercising judgment and flexibility in the design and operation of their programs.
(22) An essential goal of a specialty board should be to determine that the standards that it has set for certification continue to assure that successful candidates possess the knowledge, skills, and the commitment to upgrade continually the quality of medical care.
(23) Specialty boards should endeavor to develop a consensus concerning the significance of certification by specialty and publicize it so that the purposes and limitations of certification can be clearly understood by the profession and the public.
(24) The importance of certification by specialty boards requires that communication be improved between the specialty boards and the medical profession as a whole, particularly between the boards and their sponsoring, nominating, or constituent organizations and also between the boards and their diplomates.
(25) Specialty boards should consider having members of the public participate in appropriate board activities.
(26) Specialty boards should consider having physicians and other professionals from related disciplines participate in board activities.
(27) The AMA recommends to state licensing authorities that they require individual applicants, to be eligible to be licensed to practice medicine, to possess the degree of Doctor of Medicine or its equivalent from a school or

program that meets the standards of the LCME or accredited by the American Osteopathic Association, or to demonstrate as individuals, comparable academic and personal achievements. All applicants for full and unrestricted licensure should provide evidence of the satisfactory completion of at least one year of an accredited program of graduate medical education in the US. Satisfactory completion should be based upon an assessment of the applicant's knowledge, problem-solving ability, and clinical skills in the general field of medicine. The AMA recommends to legislatures and governmental regulatory authorities that they not impose requirements for licensure that are so specific that they restrict the responsibility of medical educators to determine the content of undergraduate and graduate medical education.

(28) The medical profession should continue to encourage participation in continuing medical education related to the physician's professional needs and activities. Efforts to evaluate the effectiveness of such education should be continued.

(29) The medical profession and the public should recognize the difficulties related to an objective and valid assessment of clinical performance. Research efforts to improve existing methods of evaluation and to develop new methods having an acceptable degree of reliability and validity should be supported.

(30) Methods currently being used to evaluate the readiness of graduates of foreign medical schools to enter accredited programs in graduate medical education in this country should be critically reviewed and modified as necessary. No graduate of any medical school should be admitted to or continued in a residency program if his or her participation can reasonably be expected to affect adversely the quality of patient care or to jeopardize the quality of the educational experiences of other residents or of students in educational programs within the hospital.

(31) The Educational Commission for Foreign Medical Graduates should be encouraged to study the feasibility of including in its procedures for certification of graduates of foreign medical schools a period of observation adequate for the evaluation of clinical skills and the application of knowledge to clinical problems.

(32) The AMA, in cooperation with others, supports continued efforts to review and define standards for medical education at all levels. The AMA supports continued participation in the evaluation and accreditation of medical education at all levels.

(33) The AMA, when appropriate, supports the use of selected consultants from the public and from the professions for consideration of special issues related to medical education.

(34) The AMA encourages entities that profile physicians to provide them with feedback on their performance and with access to education to assist them in meeting norms of practice; and supports the creation of experiences across the continuum of medical education designed to teach about the process of physician profiling and about the principles of utilization review/quality assurance.

(35) Our AMA encourages the accrediting bodies for MD- and DO-granting medical schools to review, on an ongoing basis, their accreditation standards to assure that they protect the quality and integrity of medical education in the context of the emergence of new models of medical school organization and governance.

(36) Our AMA will strongly advocate for the rights of medical students, residents, and fellows to have physician-led (MD or DO as defined by the AMA) clinical training, supervision, and evaluation while recognizing the contribution of non-physicians to medical education.

(37) Our AMA will publicize to medical students, residents, and fellows their rights, as per Liaison Committee on Medical Education and Accreditation Council for Graduate Medical Education guidelines, to physician-led education and a means to report violations without fear of retaliation.

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