

# Next Steps for Graduate Medical Education

Osteopathic Graduate Medical Education (OGME)  
and the Single Graduate Medical Education (GME)  
Accreditation System

*A white paper prepared by the American Association of  
Colleges of Osteopathic Medicine's Ad Hoc Committee  
on Graduate Medical Education Transition*

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# Table of Contents

Executive Summary .....	1
Recommendations .....	4
I. Recommendations for Osteopathically-Recognized Programs .....	4
II. Recommendations for Criteria for MDs Pursuing Osteopathic GME .....	6
Introduction and Context .....	7
Overview of Medical Education in the U.S.....	7
The Osteopathic Graduate Medical Education (OGME) Model.....	9
Unification of the Graduate Medical Education System: .....	12
Opportunities and Challenges	
I. Recommendations for Osteopathically-Recognized Programs.....	14
Infrastructure .....	14
Curriculum .....	15
Outcomes .....	17
II. Recommendations for Integrating MDs into Osteopathically-Recognized .....	18
Residency Programs	
Pre-Matriculation .....	18
Completing a DO program.....	19
Conclusion.....	20
References.....	21
Appendix 1. Ad Hoc Committee’s Scope, Purpose, and Members .....	24
Appendix 2. Core OMT/OMM Modalities .....	26
Appendix 3. Abbreviations .....	27
Figure 1. Comparison of U.S. Medical Education, Training Pathways .....	28
and Organizational Oversight	

# Executive Summary

## Introduction, Context and Historical Information

**T**he U.S. healthcare system is undergoing a transformation, affecting both the training of physicians and the delivery of care. The existing system does not fully address the public's current needs in medical education and healthcare, leading to calls for reduction or reallocation of medical education resources.<sup>1</sup>

The United States is unique in having two distinct philosophical approaches to patient care with parallel systems for educating physicians. Osteopathic and allopathic medical education each have unique strengths in how they prepare physicians for practice.

The recently announced development of a single graduate medical education (GME) accreditation system will enable more collaboration between osteopathic and allopathic medicine to better meet America's healthcare needs for the 21st century. Osteopathic philosophy, principles, and practices will be integrated in the new system, which could potentially raise awareness of the benefits of osteopathic medicine. The single GME accreditation system will also provide an opportunity for MDs to receive integrative training in osteopathic principles and practice (OPP).

### Overview of DO and MD Medical Education in the U.S.

In this country, candidates interested in becoming physicians will train in one of the two pathways for undergraduate medical education: osteopathic medical or allopathic medical school. Osteopathic curricula historically provided broad-based exposure to all of the core areas of medicine. In addition, the osteopathic medical profession utilizes a distributive model of medical education and integrates the principles and practices of osteopathic medicine across all four years of undergraduate medical education.

After earning a degree from a DO- or MD-granting institution, graduates enter GME programs for concentrated training in a specialty. GME training is needed for a physician to earn full practice rights. Osteopathic medical graduates may pursue training in programs accredited by either the American Osteopathic Association (AOA) or the Accreditation Council for Graduate Medical Education (ACGME). MD graduates receive GME training in ACGME-accredited residency programs.

Traditionally, osteopathic GME has predominantly occurred in community hospitals and in the primary care specialties. In the late 1980s, when developments in healthcare economics led to the consolidation of smaller hospitals into large health systems, hospital systems and graduate medical education began to change.

In response, leaders in osteopathic medical education devised a community-based infrastructure for training DO graduates, known as Osteopathic Postdoctoral Training Institutions (OPTIs). Since 1995, all osteopathic graduate medical education (OGME) has taken place within OPTI consortia, which consist of at least one osteopathic medical college, one hospital and frequently include other healthcare facilities. Resident physicians in OPTIs often spend time in a variety of settings, from hospitals to physicians' offices.

### Challenges in the U.S. Healthcare System

American medicine is acclaimed for its clinical and scientific advances. The U.S. healthcare system has developed knowledge and tools of care that lead the world. Medical education has a critical role in setting the agenda and creating the structure for healthcare, with \$15 billion dollars spent annually by the federal government to support the GME infrastructure. To reinforce these strengths while reducing

1. This executive summary does not include references though they are included in subsequent sections of the white paper.

inefficiencies, medical education must assess its vision for the future and assume a leadership role during this time of change. This will require introspection, defining the core drivers of GME and identifying outdated, redundant, or irrelevant processes.

Many strengths of OGME appear to be consistent with federal government priorities for healthcare: a focus on prevention, primary care and the underserved; training in settings similar to where one will practice; attention to patient priorities and optimizing the health of patients. Nevertheless, all aspects of GME need to be re-examined. Patient-centered care can be a challenge for resident physicians who frequently rotate from one facility to another in GME residency training. In addition, osteopathic medical students deciding between AOA-approved and ACGME-accredited residencies have to navigate disconnected systems to match into GME programs.

### Unification of GME

The transition to a single system for accrediting GME will simplify and strengthen postdoctoral training.

To reinforce the osteopathic medical profession's approach to care, certain measures will be put in place. The AOA and the American Association of Colleges of Osteopathic Medicine (AACOM) will become member organizations of the ACGME, and representatives from the osteopathic community will serve on the ACGME governing board and the residency review committees overseeing osteopathic training. Additionally, an ACGME Osteopathic Principles Committee (OPC) will be formed to develop standards for osteopathically-recognized programs. The ACGME will also form a new Review Committee in Neuromusculoskeletal Medicine (NMM/OMM) to oversee programs in osteopathic manipulative medicine (OMM).

### Osteopathic GME and ACGME: Major Challenges

OGME is transforming from a system of community hospitals training mostly primary care physicians to join a system that trains predominantly non-primary-care specialists. Thus, osteopathic medical educators need to give careful consideration to the aspects of osteopathic medicine and OGME

that are most valuable and need to be included in all osteopathically-recognized programs, while still accommodating the unified goal of training quality physicians.

The upcoming changes require the osteopathic medical profession to codify the best characteristics of osteopathic training and establish evidence-based standards that osteopathically-recognized residencies will be expected to meet to maintain ACGME accreditation.

The agreement between the AOA, AACOM and the ACGME to unify GME accreditation includes a provision allowing MD graduates to apply to osteopathically-recognized programs. DO students receive 200 to 360 hours of instruction in OPP prior to residency. MD resident physicians will need grounding in OPP before and during residency to get the most out of osteopathically-recognized GME.

AACOM established the Ad Hoc Committee on GME Transition to offer its perspective on two important areas of consideration by the OPC: how to maintain the uniqueness of osteopathic GME and how to enable a smooth transition for MDs applying to and entering osteopathically-recognized programs. This white paper details the many considerations weighed by the Ad Hoc Committee in formulating its recommendations that were shared with the OPC for their use during deliberations on these issues, and it is now released in order to contribute to the ongoing discussions on these issues.

### Recommendations for Osteopathically-Recognized Programs

The Ad Hoc Committee agrees that it is crucial for osteopathically-recognized programs under the ACGME to integrate osteopathic philosophy and techniques and maintain context-rich, community-based learning environments. Osteopathically-recognized residencies should have AOA board-certified program directors or co-directors as well as faculty members who can mentor and assess resident physicians in OPP. This could occur through a variety of assessments, including but not limited to objective structured clinical examinations (OSCEs), simulation-based assessments, 360-degree evaluations (student-resident, fellow-resident, resident-faculty, etc.), medical education portfolios, self-

assessment, procedure/interaction logs, and other clinical assessment metrics.

The ACGME Osteopathic Principles Committee should look toward dually accredited GME programs as a model. The flexibility and other positive features in the current dually accredited programs should be maintained in the ACGME's osteopathically-recognized programs. The Committee recommends that residencies with dual or parallel accreditation who wish to apply for a portion of their resident cohort to be osteopathically-recognized, should be able to do so.

Although common standards must be established for all osteopathically-recognized programs by the OPC, the Ad Hoc Committee recommends that osteopathic specialty societies and each specialty's review committee develop the specific competency milestones that their resident physicians must meet.

### **Recommendations for Integrating MDs into Osteopathically-Recognized Programs**

The Ad Hoc Committee concurs that to fully realize the benefits of osteopathically-recognized training, MDs will need to have some background in OPP before starting residency and be provided with an appropriate curriculum throughout that training. The requirements for MDs should be rigorous, yet allow for flexible means of fulfillment. Residency training needs to be equivalent to what DO graduates receive, but not necessarily identical. By the end of their first year in an osteopathically-recognized residency, the Committee recommends that MDs be able to pass a performance evaluation in OPP on an equivalent level to that passed by DO students prior to their graduation from undergraduate medical school.

Beginning in undergraduate medical education, colleges of osteopathic medicine (COMs) and their OPTI partner institutions should provide opportunities for interested MD students to participate in osteopathic elective rotations in primary care and non-primary-care specialties alongside DO students. In addition to providing exposure to osteopathic philosophy and practice, these electives could serve as audition rotations for MDs considering osteopathic residencies.

Additionally, individual medical schools, AACOM, the AOA and osteopathic specialty societies can develop special courses for MDs considering osteopathically-recognized GME. MD students should be able to take online didactic classes on osteopathic principles and enroll in hands-on OMM workshops or "boot camps" that would introduce the concept of somatic dysfunction and basic OMT techniques, such as counter-strain, muscle energy, and myofascial release.

The osteopathic medical profession could use and build on OPP educational modules that have already been created by osteopathic medical schools, AACOM, the American Academy of Osteopathy (AAO), the American College of Osteopathic Family Physicians (ACOF), and other osteopathic medical organizations.

### **Looking Ahead**

The unification of GME accreditation into a single system will be a transformational change for graduate medical education, one in sync with efforts to streamline healthcare. During this transition, the osteopathic medical profession has the opportunity to share the benefits of osteopathic principles and practice with a wider audience. At the same time, the Ad Hoc Committee believes that the ongoing need for further research into the outcomes of OPP will be enhanced by these developments.

The Ad Hoc Committee on GME Transition hopes that its recommendations will become a part of the dialogue in the medical education community, and a context for discussions related to the implementation of the standards developed by the OPC for osteopathically-recognized program accreditation and the admission and training of MD graduates in these programs. The Ad Hoc Committee supports the maintenance of what is best about osteopathic GME: continued honing of osteopathic manipulative treatment (OMT) skills; focus on compassionate, whole-patient care; and community-based learning environments. With adequate preparation and ongoing additional training, MDs will be able to thrive in osteopathic GME programs, thereby expanding the influence and reach of osteopathic medicine.

# Recommendations

The work of AACOM's Ad Hoc Committee on GME Transition is reflected in the following recommendations. These recommendations were developed as a perspective for consideration by the ACGME Osteopathic Principles Committee

(OPC), which establishes standards for osteopathically-recognized ACGME programs that educate graduates of U.S. osteopathic (DO) and allopathic (MD) medical schools.

## I. Recommendations for Osteopathically-Recognized Programs

### 1. Infrastructure

- a. The consortium model of training should be maintained. Resident physicians should be exposed to a diversity of clinical experiences in hospitals, ambulatory sites and other settings, especially environments resembling where the graduates will practice. Graded levels of contextual experience should be provided to resident physicians in order to produce learners capable of applying knowledge and skills to a broad range of clinical presentations, including the application of osteopathic principles in diagnosis and treatment.
- b. An osteopathic learning community should incorporate such factors as (a) membership or affiliation within the academic structure provided by an osteopathic postdoctoral training institution; (b) sponsorship by a college of osteopathic medicine (COM); and (c) presence of an adequate number of DO faculty within the program.
- c. All programs should have osteopathically trained (U.S. DO or MD) "core faculty" as defined by ACGME and an AOA board-certified program director, the minimum proportion of DO faculty members determined by each specialty.
- d. ACGME specialty programs should be able to pursue osteopathic recognition for a portion of their training cohort, i.e., an osteopathically recognized track within a larger program that includes a non-osteopathic track as well. Current dually accredited ACGME-AOA programs can provide a model for shaping such standards.
- e. Resident physicians should have ample and clinically relevant opportunities for supervised and independent hands-on OPP training and access to adequate facilities and resources, including OMT tables, osteopathic medical literature, etc.
- f. Electronic health records (EHRs) and other types of clinical records used in programs should include sections for documenting the rationale and clinical context for the integration of the osteopathic structural examination in the patient management routine, from screening to specific segmental dysfunction, as well as the application of specific OMT techniques.
- g. Resident physicians should engage in publishable research or scholarly activities that should be shared in a peer-reviewed manner. The resources necessary to pursue research/scholarly activities on osteopathic principles and practice should be available. Results of research should be prepared in line with the standards for publication in the *Journal of the American Osteopathic Association*, *Osteopathic Family Physician*, or other appropriate venues.

## 2. Curriculum

- a. All programs should integrate the four tenets of osteopathic medicine, with resident physicians understanding the whole patient approach to care; the impact of body, mind and spirit on health; the body's self-healing and self-regulatory properties; and the interrelationship of structure and function.
- b. Resident physicians should be able to demonstrate knowledge of the osteopathic medical profession's history, understanding the context in which osteopathic medicine emerged and evolved since its founding. The Ad Hoc Committee agrees that the continuity between undergraduate osteopathic medical education and osteopathically focused GME should be maintained.
- c. Resident physicians should be able to integrate at least three of the seven major OMT modalities into the care of patients and be familiar with all seven major OMT modalities (see appendix: Core OMT/OMM modalities): counterstrain; high-velocity, low-amplitude thrust; lymphatic; muscle energy; myofascial release; osteopathic cranial manipulative medicine; and soft tissue.
- d. Programs in all specialties should meet core-competency standards for OPP. Programs should ensure progressive proficiency in specific OPP competencies as demonstrated by Entrustable Professional Attributes (EPAs) toward the achievement of osteopathic milestones over time. The ACGME Osteopathic Principles Committee (OPC) should consult the modality guidelines developed by AACOM's Educational Council on Osteopathic Principles (ECOP) and the competency milestones being developed by the AOA Council on Postdoctoral Training (COPT). The input from each osteopathic specialty college/society and its educational committees should determine any additional competencies and program requirements.
- e. Resident physicians should be able to demonstrate the skillful use of their hands in the total assessment and management of a patient, including a specific and presentation-directed osteopathic structural approach for diagnosis and treatment.  
  
Resident physicians should be able to think critically in the process of individualized patient care, including the appropriate use of osteopathic concepts and rationale in the total patient-management routine.
- f. Resident physicians should be able to perform, document, and rationally integrate the findings arising from the osteopathic structural screening examination as it applies to total patient care. After the screening examination, resident physicians should be able to engage in further segmental diagnosis and application of osteopathic manipulative treatment.

## 3. Outcomes

- a. Graduates of osteopathically-recognized programs, DOs and MDs, who successfully complete all of the osteopathic requirements for the "osteopathic focus" of the residency program should receive certificate/diploma indicating additional training in OPP applicable to their specialty as granted by an OPTI, a college of osteopathic medicine or other qualified academic sponsor.
- b. All graduates of osteopathically-recognized programs should be well-prepared to pass the AOA board-certification examination for their specialty. The passage of these certifying examinations will be one outcome measure used by the Osteopathic Principles Committee and the specialty-specific Review Committee (RC) to assess the program.
- c. Graduates of osteopathically-recognized programs should be practice-ready, equipped with the clinical knowledge, procedural skills, and management acumen to succeed in their specialty, including a detailed knowledge base of the indications, contraindications and specific application criteria of OPP to the individual patient's presentation.

- d. Programs must provide the structure and opportunities for the experiences that would allow the first year of the residency to meet the requirements for DOs to be licensed in those states that require successful completion of one year of OGME, currently: Michigan, Pennsylvania, Oklahoma, and Florida.

## II. Recommendations for Criteria for MDs Pursuing Osteopathic GME

### 1. Requirements Prior to Matriculation

- a. MDs pursuing osteopathically-recognized GME should have instruction in osteopathic philosophy and techniques in manipulative medicine—120 hours minimum.<sup>2</sup> This foundation in OPP need not be completed before an MD student or graduate applies for residency. The Ad Hoc Committee recommends a flexible, hybrid approach that includes MD student access to introductory OPP courses while in medical school, OPP orientation prior to beginning residency, and ongoing training throughout the osteopathically-recognized residency.
- b. Osteopathic medical schools and their OPTI partner institutions should facilitate elective rotations or other educational experiences for MD students alongside DO students in OPP, primary care and non-primary-care specialties. Electives can serve as audition rotations for MDs desiring osteopathic training in a specific program.
- c. Osteopathic program directors should consider MD candidates for entry into osteopathically-recognized GME based on a number of factors, such as completion of OPP courses at an osteopathic medical school, performance on audition elective rotations, a convincing personal statement explaining their interest in an osteopathically-recognized program, letters of recommendation, and personal interviews.

### 2. Requirements for Completing DO Programs

- a. A single consistent standard is needed for MDs entering and completing osteopathically-recognized residencies. A single source for record keeping and assessment of standards should be encouraged.
- b. By the end of their first year in an osteopathically-recognized residency, MD resident physicians should be required to take a performance evaluation (PE) equivalent to that taken by DO students prior to their graduation from undergraduate medical school, e.g., Level 2-PE of the National Board of Osteopathic Medical Examiners' Comprehensive Osteopathic Medical Licensing Examination of the United States (COMLEX-USA), and/or the appropriate Comprehensive Osteopathic Medical Achievement Test(s) (COMAT). Additional alternatives could include other standardized examinations and/or institutionally specific evaluation programs.
- c. MD and DO graduates of osteopathically-recognized programs should complete the AOA board-certification examination in their specialty, with the results of such examinations utilized in program assessment by the OPC. MDs and DOs who desire can also sit for board certification by the American Board of Medical Specialties (ABMS).

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2. The Ad Hoc Committee on GME Transition's consensus is that MDs should have a minimum of 120 hours of instruction to adequately learn and apply OPP/OMT in an osteopathically focused residency program.



# Introduction and Context

The U.S. healthcare system is a complicated structure for patients and providers to navigate. While the aging of the population places growing demands on the healthcare system, community hospitals are evolving into focused healthcare delivery systems, and new physicians are gravitating to specialties other than primary care. As a result, many parts of the country have insufficient numbers of physicians, especially primary care physicians.<sup>1-6</sup>

Underserved populations continue to struggle to afford the care they need, as hospitals become absorbed by larger health systems and physicians flock to urban academic medical centers.<sup>7</sup> Community hospitals, once the bedrock of healthcare, in particular have trouble adapting and providing the care that their patients are looking for. The resulting disparate geographic distribution of physicians has become one of the nation's most pressing concerns.<sup>8</sup>

The dwindling number of primary care physicians and community hospitals over the past two decades signals a major shift in the U.S. healthcare delivery model. The educational system that produces the physician workforce holds the key to addressing these challenges. Physicians end up practicing where they train and in systems similar to where they received their initial training.<sup>8,9</sup>

All components of the medical education community—accreditors, associations, institutions, hospitals, medical schools—must commit to new models of care that bridge healthcare gaps, as they work to simplify and better coordinate the medical education continuum. Graduate medical education (GME), especially, is a vital component in shaping the physician workforce and must play a key role in the redesign of the healthcare education model.<sup>10-12</sup>

## Overview of Medical Education in the U.S.

The United States is the only country in the world with two separate, parallel pathways for medical education and two different types of physicians within its healthcare system. Despite their

differences, osteopathic physicians and allopathic physicians today have very similar qualifications and pathways for earning their credentials (See Figure 1. in appendix). In the United States, both professions require a bachelor's degree, science prerequisites, and the Medical College Admissions Test (MCAT) before a student can apply to medical school. Depending on their interests and acceptance, candidates decide whether to enter an osteopathic or an allopathic medical school. DO and MD schools have similar curricula, except that colleges of osteopathic medicine require 200 to 360 hours of osteopathic manipulative medicine (OMM) during the first two years—in addition to the basic science and clinical coursework.<sup>13</sup> In their third and fourth years, students complete clerkships and elective rotations at various hospitals and ambulatory training sites. Here, osteopathic and allopathic medical students frequently cross paths at sites that accept both DO and MD students.

Both allopathic and osteopathic medical students use the Electronic Residency Application Service (ERAS<sup>®</sup>)<sup>14</sup> to apply to GME programs in their desired specialty. After interviewing with various residency programs, fourth-year students take part in the match process, which involves submitting a rank order list of the programs they find most desirable and believe they are most likely to match into. The residencies also prepare rank order lists based on candidates' desirability. A computer algorithm matches candidates with GME programs. The National Matching Services runs the American Osteopathic Association (AOA) Match,<sup>15</sup> which places DO students in osteopathic GME programs, while the National Resident Matching Program (NRMP) operates the match<sup>16</sup> for residencies accredited by the Accreditation Council for Graduate Medical Education (ACGME).

While graduating MDs have been able to participate in the NRMP Match only and join just ACGME-accredited residencies, graduating DOs can participate in either or both matches and choose either AOA-approved or ACGME-accredited residencies. In addition, students can take part in three other matches that lead to ACGME residencies: the Military Match, the San Francisco Match, and the Urology Match.

While they value this choice, osteopathic medical students have to navigate separate match systems if they are interested in both osteopathic and allopathic GME programs.<sup>17</sup> Moreover, the AOA Match takes place in February, while the NRMP Match is a month later. Although osteopathic medical students can sign up for both matches, the AOA Match

takes precedence. If a DO student places into an AOA-approved GME program (other than a traditional rotating internship), he or she must withdraw from the NRMP Match, even if certain ACGME-accredited residencies are ranked higher by the applicant than the assigned OGME program.<sup>18</sup>

Over the years, several trends have emerged in osteopathic undergraduate and graduate medical education. Key among these is the rapid growth in the number of osteopathic medical schools and increases in class sizes (Table 1), which contributes to greater participation of DO graduates in ACGME residency programs:

- In fall 2014, a total of 24,615 students were enrolled in osteopathic medical schools—an increase of 6.7 percent over fall 2013.<sup>19</sup>
- In the 2014 NRMP match, there were 2,738 active DO applicants; 2,127 of them successfully matched in the match process. The preliminary count of 2014 DO graduates is 4,978; thus 43% of 2014 DO graduates matched in the NRMP match.<sup>19,20</sup>
- The largest number of DO residents in ACGME programs are in the specialties of internal medicine, pediatrics, psychiatry, family medicine, and emergency medicine.
- In the 2014 AOA Match, there were 2,988 first-year funded positions, of which 529 were traditional rotating internship positions (69% filled within the match process).<sup>21</sup>

**Table 1. DO/MD New Student Enrollment and Projections**

	2002	2010		2015			
	Enrollment	Enrollment	# Increase	% Increase	Enrollment	# Increase (2002-2015)	% Increase (2002-2015)
MD	16,488	18,665	2,177	13%	20,181	3,693	22%
DO	3,079 <sup>1</sup>	5,233	2,154	70%	7,050	3,971	129%
<b>Total</b>	<b>19,567</b>	<b>23,698</b>	<b>4,331</b>	<b>22%</b>	<b>27,231</b>	<b>7,664</b>	<b>39%</b>

<sup>1</sup> 2002 figure reflects first year student enrollment numbers, as opposed to only new students and could therefore include repeaters.

Source: AACOM analysis

Once medical school graduates match with a residency, they can expect to complete the residency program in anywhere from three to seven years, depending on the specialty, before entering clinical practice. Increasingly, graduating residents pursue subspecialty training in fellowships, which typically take two to three years to complete.<sup>22, 23</sup> Many internal medicine residents, for example, complete fellowships in such subspecialties as cardiology, oncology, gastroenterology, and pulmonology and critical care.<sup>24</sup> During their training, DO and MD residents are vital staff members of the hospitals and other facilities where they provide care. Medical residents establish roots in the communities where they train and, consequently, tend to practice within 100 miles of their training site.<sup>24, 25</sup>

Residency-trained physicians are eligible for board certification in their specialty, which typically requires passing both written and oral examinations. MDs and DOs who complete ACGME residencies can become certified by the American Board of Medical Specialties (ABMS), while DOs who train in AOA-approved GME programs can become certified by AOA specialty certifying boards. Since 1992, ACGME-trained DOs have been able to obtain AOA recognition of their allopathic training and sit for AOA board-certification examinations.<sup>26</sup> DOs may opt for dual board certification, which involves sitting for two sets of examinations and fulfilling maintenance of certification requirements for both the allopathic and osteopathic certifying boards.<sup>27</sup>

Board certification is not required for licensure, but generally only board-eligible or board-certified physicians can obtain hospital privileges and participate on health insurance panels. In most states, physicians can become licensed to practice after just one or two years of GME.<sup>27, 28</sup> Licensure represents meeting basic standards of competency, while board certification signifies proficiency in a specialized field. Board-certified physicians are required to maintain their knowledge and skill levels, are assessed by the board that certifies them, and engage in ongoing recertification. Depending on the state, physicians also need to complete a certain number of CME credits to maintain their medical licenses.

## The Osteopathic Graduate Medical Education (OGME) Model

Distinctive aspects of osteopathic GME evolved as a result of historical circumstances in the profession's early decades. The osteopathic medical profession established its hospitals, many located away from large urban centers. These community-based hospitals, typically small- to medium-sized, provided clinical education to third- and fourth-year osteopathic medical students and served as sites for traditional osteopathic rotating internships and for AOA-approved residencies.<sup>29</sup>

In the late 1980s, developments in healthcare economics resulted in the consolidation of smaller hospitals into large health systems. This trend had a huge impact on the structure of community-based hospitals and the nature of OGME.<sup>30, 31</sup> The osteopathic medical profession responded to these changes by creating a new consortium model of GME. Since 1995, the AOA has required that all osteopathic graduate medical training take place in affiliations with Osteopathic Postdoctoral Training Institutions (OPTIs)—consortia consisting of at least one osteopathic medical college and one hospital and often including several other healthcare facilities, including community health centers and doctors' offices.<sup>32</sup> Since 2012, OPTIs have been the academic sponsors of all AOA-approved GME, enabling individual OPTIs to apply for teaching health center grants from the federal government.<sup>33, 34</sup> As academic sponsors, OPTIs are responsible for ensuring that training programs adhere to specialty training standards, as well as the standards outlined in the *AOA Basic Documents for Postdoctoral Training*.<sup>35, 36</sup>

The community-based consortium model of training is a clear way for osteopathic GME programs to maintain linkages to osteopathic learning communities and particularly, to provide resident physicians with the skills they will need in practice.

The following program characteristics are typical of the OPTI model of training:<sup>35, 36</sup>

- Osteopathic resident physicians train in more than one clinical setting, increasing their exposure to multiple ways of thinking about the same issues, as well as providing exposure for resident physicians to more cases and techniques.

- Osteopathic resident physicians have more ambulatory-care experiences than many non-osteopathic resident physicians, exposing them to environments where the majority of medical care is provided.
- Osteopathic resident physicians are exposed to the value and roles of non-physician clinicians in caring for patients.
- Progressive clinical responsibilities in programs are granted once competence is demonstrated to clinical faculty, often earlier in OGME programs.

### Box 1: History of Osteopathic Medicine

To appreciate the differences between osteopathic and allopathic GME, it is helpful to understand the osteopathic medical profession's history. Deeply disenchanting with conventional medicine in an era of bloodletting, surgery without anesthesia, and toxic medications, Andrew Taylor Still, MD, founded the osteopathic medical profession in 1874. He set out to learn as much as he could about human anatomy, convinced that physicians simply targeted symptoms rather than searching for the root causes of illnesses. Influenced by his hands-on research and the writings of alternative medicine practitioners, he developed osteopathic manipulative medicine (OMM).<sup>29</sup>

Osteopathic medicine, therefore, is differentiated by the philosophy that dates back to A.T. Still and continues to be sustained through the continuum of osteopathic medical education: The body has self-healing and self-regulating mechanisms; the patient must be viewed holistically, taking into account body, mind and spirit; the interrelationship of structure and function; somatic dysfunction causes many illnesses and impedes well-being. Osteopathic medicine also includes techniques of osteopathic manipulative treatment (OMT), such as counterstrain, muscle energy and myofascial release, involve working on the bones, joints, muscles and connective tissue to restore proper alignment and promote the optimal flow of blood, lymph and neural activity.<sup>29,30</sup>

Although A.T. Still pioneered many OMT techniques, each generation of DOs develops new ones and refines the classics. And as with MDs, each generation of osteopathic physicians embraces new clinical discoveries and best practices. But the basic principles laid out by A.T. Still live on in modern-day osteopathic medicine.<sup>31</sup>

Many of the changes to the profession, especially to osteopathic medical education, have resulted from outside influences (Table 2). Shaped by the Flexner Report of 1910, the explosion of biomedical knowledge, the growth of specialization, the ever-increasing influence of Medicare, the entrance of managed care, the decline of the required rotating internship, and many other trends and turning points, osteopathic medical education developed as a parallel but increasingly similar system to allopathic medical education for training U.S. physicians.<sup>29</sup>

**Table 2. The Evolution of Osteopathic Medicine**

<b>1874</b>	Andrew Taylor Still, MD, DO conceived and published his philosophy of osteopathic medicine rejecting now-discredited medical practices of the day and prioritizing wellness.
<b>1892</b>	A.T. Still opens first osteopathic medical school, the American School of Osteopathy, in Kirksville, Missouri.
<b>1910</b>	Flexner report leads to changes in the osteopathic curriculum.
<b>1915</b>	New requirement from American Osteopathic Association (AOA) moves to a four-year curriculum for osteopathic medical colleges.
<b>1917</b>	HR 5407 provided for the selection of osteopathic physicians in the medical services with the same rank and pay as MDs.
<b>1929</b>	Osteopathic medical schools require pharmacology. Surgery is adopted around this time.
<b>1936</b>	Internships are reviewed and approved for training osteopathic physicians.
<b>1947</b>	Residencies are reviewed and approved for osteopathic physician training.
<b>1957</b>	U.S. government recognizes AOA as accrediting body for osteopathic medical education.
<b>1966</b>	Secretary of Defense Robert McNamara authorized commissioning of DOs in Military Medical Corps.
<b>1973</b>	Doctors of Osteopathic medicine (DOs) are eligible for licensure in all 50 states and the District of Columbia.
<b>1991</b>	ACGME-accredited graduate medical education is accepted as second pathway to obtain osteopathic medical licensure.
<b>1995</b>	Osteopathic Postdoctoral Training Institutions (OPTIs) begin serving as accredited academic sponsors for osteopathic graduate medical education, providing an enhanced quality-assurance mechanism for a seamless educational continuum between academic medicine, hospitals, and other community-based healthcare facilities.
<b>2001</b>	With Louisiana accepting the NBOME COMLEX examination, DOs can be licensed in all states in the US with their own licensure examination.
<b>2008</b>	Rotating osteopathic internship is merged into residency training. Osteopathic physicians have full practice rights in 45 countries.
<b>2011</b>	AOA approves ACGME graduate medical education as interchangeable with AOA training for purposes of certification of physicians, through Resolution 29.
<b>2014</b>	ACGME, AOA, AACOM announce agreement to create a single accreditation system for graduate medical education.

## Unification of the Graduate Medical Education System: Opportunities and Challenges

Although both the osteopathic and the allopathic GME pathways produce highly skilled physicians, postdoctoral training in this country could be improved with greater alignment and more efficient practices. This was part of the impetus behind the development of a single GME accreditation system.<sup>39,40</sup> After two years of negotiations, the AOA, AACOM and the ACGME in February 2014 approved a memorandum of understanding (MOU) calling for the development of a single, unified system for GME accreditation. The unification will be completed by July 1, 2020, after which the ACGME will be the sole accrediting entity for graduate medical training. Current AOA-approved programs that meet the ACGME's standards and wish to remain osteopathic can seek acknowledgment as osteopathically-recognized programs. ACGME-accredited programs that have not been osteopathic in the past can also apply for recognition as osteopathically-recognized within the new system.<sup>21</sup>

The MOU puts in place certain provisions to maintain the distinctiveness of osteopathic GME. As part of the process to unify the GME accreditation standards, the ACGME will establish an Osteopathic Principles Committee (OPC) consisting of 13 AOA appointments and two ACGME appointments. The OPC is tasked with developing standards for osteopathically-recognized GME programs and for allowing MDs into those programs. Until the two GME accrediting agencies are unified, the AOA Board of Trustees retains final authority over the training standards for AOA-approved programs. The OPC will assume this responsibility under the single GME accreditation system. The AOA can continue approving osteopathic GME programs until 2020. ACGME's OPC should be able to start conferring programs as osteopathically-recognized in 2015.

One challenge for the osteopathic medical profession, however, is to make sure that OGME programs maintain their osteopathic nature as they transition to the ACGME's oversight. There are some concerns about the potential dilution of osteopathic content in programs under the new accreditation system, especially if they include MD resident physicians.

However, the Ad Hoc Committee sees the unification primarily as an opportunity to champion community-based GME and the osteopathic approach to care to a much larger audience.

With unification, competencies, entrustable professional activities (EPAs) and milestones will be further incorporated in osteopathic medical education. ACGME's Next Accreditation System (NAS), implemented in July 2013, creates a national framework for measuring and reporting on educational outcomes of residency programs and residents through educational milestones based on competencies. To better align with NAS, the osteopathic medical education community will need to develop competencies, EPAs and milestones to specifically assess OPP.

The unification of GME accreditation offers the chance to showcase the strengths of osteopathic GME. The recent report on GME funding by the National Academies' Institute of Medicine (IOM) criticized the current hospital-based system of training physicians, stressing that many graduates of this system enter ambulatory practices without knowing how to do simple office-based procedures.<sup>10</sup> Osteopathic GME programs, in contrast, typically train physicians in a variety of settings beyond the hospital, including doctors' offices and ambulatory clinics. Many of the IOM report's other recommendations, such as the need to produce more primary care physicians and to serve the underserved, also resemble existing characteristics of OGME.

AACOM established its Ad Hoc Committee on GME Transition which developed several recommendations after weighing various courses of action and analyzing potential consequences, to contribute to the ongoing dialogue about standards developed by the ACGME Osteopathic Principles Committee. Divided into two broad categories, the recommendations cover guidelines for recognizing osteopathic programs and criteria for MDs applying to and entering osteopathic programs.

The Ad Hoc Committee believes that MDs entering osteopathically-recognized residencies should receive instruction in OPP comparable to that of their DO peers. It is reasonable to expect that osteopathic medical education organizations would collaborate on the development of a curriculum specifically

geared towards the orientation of MDs seeking and admitted into osteopathically-recognized training (see Box 2. for examples of existing efforts).

The Ad Hoc Committee agrees that it is crucial for osteopathically-recognized programs under the ACGME to integrate osteopathic philosophy and OMT techniques and be led by directors and faculty

members who can mentor and assess resident physicians in OPP. Above all, the Ad Hoc Committee agrees that the continuity between undergraduate osteopathic medical education and osteopathic GME should be maintained, with residents able to train in diverse clinical settings, as well as hone and apply the OMT modalities they learned in DO school.

### Box 2. Educational Resources for MDs

In preparing materials for MD graduates interested in entering osteopathically-recognized programs, the osteopathic medical profession can build on existing resources. We are aware that there has been significant activity along these lines and suggest that such information be gathered in the future for the OPC and osteopathically-recognized programs to use. Here are some examples:

#### **American Association of Colleges of Osteopathic Medicine (AACOM)**

AACOM has instructional videos on osteopathic manipulative treatment aimed for use in training MD preceptors on how to supervise osteopathic medical students in performing OMT.

**The American Academy of Osteopathy (AAO)** welcomes MD students and graduates to attend its Convocations and take its courses.

**Michigan State University College of Osteopathic Medicine (MSUCOM)** in East Lansing offers a number of Continuing Medical Education (CME) workshops on osteopathic manipulative treatment that MD resident physicians, as well as other non-DOs, can take.

**The American College of Osteopathic Family Physicians (ACOFP)** has a web-based “Somatic Dysfunction in Family Medicine” program developed by Kenneth Nelson.

#### **Other Resources**

Hollis King, DO, PhD, created a program for MD preceptors of students attending the A.T. Still University-School of Osteopathic Medicine in Arizona in Mesa. Some of these existing modules could be adapted into a training program for MD students and graduates interested in entering an osteopathically-recognized program.<sup>46</sup>

# I. Recommendations for Osteopathically-Recognized Programs

Osteopathic GME programs offer community-based experiences predominantly in primary care, general medical and surgical specialties. These programs provide graded levels of contextual experience and develop learners capable of applying knowledge to a broad range of clinical presentations, which ultimately produces physicians capable of practicing in a variety of settings. The desired end product of an osteopathically-recognized program is physicians, whether DOs or MDs, who can apply osteopathic principles and techniques in patient care.

The Ad Hoc Committee agrees that programs should be permitted to have an osteopathic track, as opposed to an all-or-none approach, similar to the structure of dually accredited programs that have a percentage of their slots reserved for DOs. This gives programs flexibility to respond to resident interest and faculty availability in their program offerings.

In developing standards for osteopathically-recognized programs, the ACGME Osteopathic Principles Committee should start with current requirements, policies and practices of AOA-approved programs, utilizing the *AOA Basic Documents for Postdoctoral Training* as a starting point for the standards.<sup>38</sup> The transition to a single accreditation system presents the opportunity to define OPP competencies for non-primary-care specialties. At the same time, these standards should not be restrictive or seek to add additional requirements beyond those already codified in AOA's standards. As the single accreditation system emerges, the Osteopathic Principles Committee (OPC) must re-examine current standards to reduce duplication and ensure a smooth transition for all stakeholders. Current standards and practices in dually accredited programs can be used as a framework for developing guidelines for osteopathically-recognized programs, including faculty requirements and basic OPP milestones for primary care and non-primary care specialties.<sup>41</sup>

## RECOMMENDATION 1: Infrastructure

- A. The consortium model of training should be maintained. Resident physicians should have a diversity of clinical experiences in hospitals, ambulatory sites and other settings, especially environments resembling where the graduates will practice. Graded levels of contextual experience should be provided to resident physicians in order to produce learners capable of applying knowledge and skills to a broad range of clinical presentations, including the application of osteopathic principles in diagnosis and treatment.
- B. An osteopathic learning community should incorporate such factors as (a) membership or affiliation within the academic structure provided by an osteopathic postdoctoral training institution; (b) sponsorship by a college of osteopathic medicine; and (c) presence of an adequate number of DO faculty within the program.
- C. All programs should have osteopathically trained (U.S. DO or MD) "core faculty" as defined by ACGME, and an AOA board-certified program director, the minimum proportion of DO faculty members determined by each specialty.
- D. ACGME specialty programs should be able to pursue osteopathic recognition for a portion of their training cohort, i.e., an osteopathically recognized track within a larger program that includes a non-osteopathic track as well. Current dually accredited ACGME-AOA programs can provide insights on how to shape such standards.



- E. Resident physicians should have ample and clinically relevant opportunities for supervised and independent hands-on OPP training and access to adequate facilities and resources, including OMT tables, osteopathic medical literature, etc.
- F. Electronic health records (EHRs) and other types of clinical records used in programs should include sections for documenting the rationale and clinical context for the integration of osteopathic structural examination in the patient management routine, from screening to specific segmental dysfunction, as well as the application of specific OMT treatment/techniques.
- G. Resident physicians should engage in publishable research or scholarly activities that should be shared in a peer-reviewed manner. The resources necessary to pursue research/scholarly activities on osteopathic principles and practice should be available. Results of research should be prepared in line with standards for publication in the *Journal of the American Osteopathic Association* and *Osteopathic Family Physician* or other appropriate venues.

## RECOMMENDATION 2: Curriculum

- A. All programs should integrate the four tenets of osteopathic medicine, with resident physicians understanding the whole patient approach to care; the impact of body, mind and spirit on health; the body's self-healing and self-regulatory properties; and the interrelationship of structure and function.

Graduates of osteopathically-recognized GME programs must be able to integrate osteopathic principles and philosophy into their practice of medicine, acknowledging the equally important roles of body, mind and spirit in the healing process, as set forth in the osteopathic tenets<sup>38</sup>:

1. The body is a unit; the person is a unit of body, mind and spirit.
2. The body is capable of self-regulation, self-healing and health maintenance.
3. Structure and function are reciprocally interrelated.
4. Rational treatment is based on an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Osteopathic training should continue to produce physicians who take a whole-patient approach to care, uncovering the many biological, psychological and social factors bearing on a person's health. In osteopathic GME, as in osteopathic medical school, resident physicians learn to provide patient-centered compassionate care. One of the goals of osteopathically-recognized training programs is to produce physicians with advanced communication skills and significant and appropriate patient empathy.

The emphasis on bedside manner, early exposure to "hand-on" diagnosis and treatment, and connecting with patients begins in osteopathic medical school and should continue throughout osteopathic training in an osteopathically-recognized program. Osteopathically trained physicians should take thorough histories, value the physical exam, and work to find ways to connect with their patients.

- B. Resident physicians should be able to demonstrate knowledge of the osteopathic medical profession's history, understanding the context in which osteopathic medicine emerged and evolved since its founding. The Ad Hoc Committee agrees that the continuity between undergraduate osteopathic medical education and osteopathically focused GME should be maintained.

- C. Resident physicians should be able to integrate at least three of the seven major OMT modalities into the care of patients and be familiar with all seven major OMT modalities (see appendix: Core OMT/OMM modalities): counterstrain; high-velocity, low-amplitude thrust; lymphatic; muscle energy; myofascial release; osteopathic cranial manipulative medicine; and soft tissue.

OMM is a required foundational element of osteopathic medical school curricula and continues throughout all four years of osteopathic undergraduate medical education.<sup>39-41</sup> Forty different types of OMM techniques are included in AACOM's *Glossary of Osteopathic Terminology*.<sup>42</sup> Though residents need not know all forty OMM techniques, they should have a working knowledge of at least seven. All resident physicians, should demonstrate an understanding of somatic dysfunction—impaired or altered function of the skeletal, arthroidal and myofascial structures and their related vascular, lymphatic and neural elements. Residents in osteopathically-recognized programs, moreover, must integrate osteopathic concepts and OMT into the medical care they provide patients in more than one organ system and in a way that shows an appreciation for the interrelatedness of the body, mind or spirit.

All osteopathically-recognized programs must continue to train physicians to meet the existing seven core osteopathic competencies defined by the AOA<sup>38</sup>:

1. Osteopathic principles and practice (OPP)
2. Medical knowledge
3. Patient care
4. Professionalism
5. Interpersonal and communication skills
6. Practice-based learning and improvement
7. Systems-based practice

Osteopathic medical students begin to develop these competencies from the first day of medical school and proceed toward proficiency as they enter and complete OGME programs. Osteopathic philosophy and manipulative medicine skills, the profession's emphasis on patient-centered primary care, and GME programs' distinctive structure inform the other six core competencies.

Resident physicians in osteopathically-recognized programs must be able to demonstrate that they've achieved competency in the *palpatory diagnosis* and *osteopathic manipulative treatment (OMT)* techniques used in their specialty or subspecialty.

- D. Programs in all specialties should meet core-competency standards for OPP and must ensure the development of progressive proficiency of specific OPP competencies as demonstrated by Entrustable Professional Attributes (EPAs) toward the achievement of osteopathic milestones over time. The ACGME Osteopathic Principles Committee should consult the modality guidelines developed by AACOM's Educational Council on Osteopathic Principles (ECOP) and the competency milestones being developed by the AOA Council on Postdoctoral Training (COPT). The input from each osteopathic specialty college/society and its educational committees should determine any additional competencies and program requirements.

- E. Resident physicians should be able to demonstrate the skillful use of their hands in the total assessment and management of a patient, including a specific and presentation-directed osteopathic structural approach for diagnosis and treatment.

Resident physicians should be able to think critically in the process of individualized patient care, including the appropriate use of osteopathic concepts and rationale in the total patient-management routine.

- F. Resident physicians should be able to perform, document, and rationally integrate the findings arising from the osteopathic structural screening examination as it applies to total patient care. After the screening examination, resident physicians should be able to engage in further segmental diagnosis and application of osteopathic manipulative treatment.

### RECOMMENDATION 3: Outcomes

- A. Graduates of osteopathically-recognized programs, both DOs and MDs, who successfully complete all of the osteopathic requirements for the osteopathically-recognized residency program should receive a certificate/diploma indicating training in OPP applicable to their specialty as granted by an OPTI, a college of osteopathic medicine, or other qualified academic sponsor.
- B. All graduates of osteopathically-recognized programs should be well-prepared to pass the AOA board-certification examinations for their specialty. The passage of these certifying examinations should be one outcome measure used by the Osteopathic Principles Committee and the specialty-specific Review Committee (RC) to assess the program.
- C. Graduates of osteopathically-recognized programs should be practice-ready, equipped with the clinical knowledge, procedural skills, and management acumen to succeed in their specialty, including a detailed knowledge base about the indications, contraindications and specific application criteria of OPP to the individual patient's presentation.
- D. Programs must provide the structure and opportunities for the experiences that would allow the first year of the residency to meet the requirements for a DO to be licensed in those states that require the successful completion of one year of OGME, currently: Michigan, Pennsylvania, Oklahoma, and Florida.

The Ad Hoc Committee recognizes that there are a small number of states that have some restrictions on the qualifications needed for state board licensing examinations for DOs. The committee believes these regulations must change in order to simplify and streamline the process. The committee believes that until regulatory changes are made, counseling to take an osteopathically-recognized program is necessary for those who seek licensure in the states where these restrictions remain.

## II. Recommendations for Integrating MDs into Osteopathically-Recognized Residency Programs

In osteopathic medical school, students typically take between 200 and 360 hours of instruction (lab and didactic lectures) in osteopathic principles and practice.<sup>13</sup> In addition to the intense OMM instruction, DO students are influenced by the relatively large size of osteopathic family medicine departments, due to the profession's emphasis on primary care. In both undergraduate and graduate osteopathic medical education, resident physicians learn to provide the full range of care, in multiple healthcare environments, with providers of all types.

On top of their 200-360 hours of instruction in OPP, some DO students perform OMT techniques outside of the classroom, volunteer in clinics, attend hands-on workshops, etc. In addition, the

osteopathic whole-patient approach to care is integrated throughout DO schools' curricula.

MDs pursuing osteopathically-recognized GME should have instruction in osteopathic philosophy and manipulative medicine techniques—120 hours or more, forming a solid base although not equaling all of the skills of an osteopathic medical school graduate. But this OPP enrichment, which should be completed prior to a physician receiving osteopathic credentials, need not be completed before the MD student or graduate applies for residency. The Ad Hoc Committee prefers a flexible, hybrid approach, allowing MD students to take introductory OPP courses while in medical school and more intense OMT training right before and during the osteopathically-recognized residency.

### RECOMMENDATION 1: Pre-Matriculation

- A. MDs pursuing osteopathically-recognized GME should have instruction in osteopathic philosophy and techniques in manipulative medicine—120 hours minimum.<sup>43</sup> This foundation in OPP need not be completed before an MD student or graduate applies for residency. The Ad Hoc Committee prefers a flexible, hybrid approach that includes MD student access to introductory OPP courses while in medical school, OPP orientation prior to beginning residency, and ongoing training throughout the osteopathically-recognized residency.

The training could be provided by colleges of osteopathic medicine, OPTIs or other appropriate academic organizations with the appropriate faculty to do so. These institutions, and others, should be encouraged to develop online and hands-on programming for MDs.

- B. Osteopathic medical schools and their OPTI partner institutions should facilitate elective rotations or other educational experiences for MD students alongside DO students in OPP, primary care and non-primary care specialties. Electives can serve as audition rotations for MDs desiring osteopathic training in a specific program.
- C. Osteopathic program directors should consider MD candidates for entry into osteopathically-recognized GME based on a number of factors, such as completion of OPP courses at an osteopathic medical school, performance on audition elective rotations, a convincing personal statement explaining their interest in an osteopathically-recognized program, letters of recommendation, and personal interviews.

**RECOMMENDATION 2: Completing a DO program**

- A. A single standard is needed for MDs entering and completing osteopathically-recognized residencies. This shouldn't infringe upon the discretion and decision-making authority of program directors. A single source for record keeping and assessment of standards should be encouraged.
- B. By the end of their first year in an osteopathically-recognized residency, MD resident physicians should be required to take a performance evaluation (PE) equivalent to that taken by DO students prior to their graduation from undergraduate medical school, e.g., Level 2-PE of the National Board of Osteopathic Medical Examiners' (NBOME) Comprehensive Osteopathic Medical Licensing Examination of the United States (COMLEX-USA), and/or the appropriate Comprehensive Osteopathic Medical Achievement Test(s) (COMAT). Additional alternatives could include other standardized examinations and/or institutionally specific evaluation programs.
- C. MD and DO graduates of osteopathically-recognized programs should complete the AOA board-certification examination in their specialty, with the results of such examinations utilized in program assessment by the OPC. MDs and DOs who desire can sit for board certification by the American Board of Medical Specialties (ABMS).

# Conclusion

The unification of GME accreditation is a strategy aligned with the broader vision of transforming U.S. healthcare into a more efficient, effective system for patient care. The single accreditation system presents a rich opportunity for the osteopathic medical profession to share its insights, approaches and clinical skills with the broader medical community.

Under the single GME accreditation system, graduating MDs will be allowed to apply to osteopathically focused residencies. The presence of MDs in osteopathic GME programs will give the osteopathic medical profession the chance to share osteopathic philosophy and techniques with the allopathic medical profession, thereby expanding osteopathic medicine's reach and impact.

The ACGME Osteopathic Principles Committee will play a major role in defining the osteopathic profession during and after the move to a single accrediting system. AACOM's Ad Hoc Committee on GME Transition came up with recommendations that were shared with the Osteopathic Principles Committee as it developed standards for conferring GME programs as osteopathically-recognized and standards for admitting MDs into those programs.

Many of the recommendations concern maintaining the current osteopathic GME infrastructure. DOs in OGME programs today train in community-based, context-rich learning environments that produce practice-ready physicians who are more apt to focus on primary care and rural medicine than are non-osteopathically trained physicians.

Other recommendations emphasize the content of osteopathically-recognized programs. The Ad Hoc Committee advises using the *AOA Basic Documents for Postdoctoral Training* as a starting point. All osteopathically-recognized programs, according to the Ad Hoc Committee, should integrate the four tenets of osteopathic medicine, recognizing the body's self-healing and self-regulatory properties; the equal importance of body, mind and spirit in determining health; and the interrelationship of structure and function. And each osteopathic

residency, should require proficiency in at least three of the seven main OMT techniques.

Osteopathic GME is a continuation of training that begins in osteopathic medical school. Every DO student completes between 200 and 360 hours of instruction in osteopathic philosophy and techniques. The Ad Hoc Committee, thus, believes that to succeed in and get the most out of osteopathically-recognized training, MDs will need considerable additional OMM instruction to enable them to have the same opportunity for learning as their DO peers. This OMM instruction can be delivered during medical school, right before residency, and during residency training.

The Ad Hoc Committee suggests that MD students considering osteopathically-recognized GME be allowed to take OMM workshops and/or elective rotations alongside DO students. AACOM, colleges of osteopathic medicine, and other osteopathic organizations can adapt existing resources or develop new programs to educate MD graduates in OPP prior to entering osteopathically-recognized programs.<sup>46</sup> Enrichment instruction in OMM should also be offered during residency, utilizing OPTI resources. The Ad Hoc Committee believes that MDs should be required to pass a performance evaluation in OMM by the end of their first year of residency, using a tool that is standardized or recognized as appropriate for such assessment.

The Ad Hoc Committee believes that MDs, as well as DOs, who complete osteopathically-recognized residencies should receive a certificate/diploma noting their accomplishment and should be eligible to take the AOA board certification examination in their specialty.

The transition to a single accreditation system for GME will require a collaborative approach. Many stakeholders, from leaders of osteopathic specialty societies to directors of osteopathic medical education and osteopathic program directors, will need to be consulted. The Ad Hoc Committee hopes that its detailed recommendations will provide a useful contribution to the decisions necessary as the momentous transformation becomes a reality.

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## APPENDIX 1.

# Ad Hoc Committee's Scope, Purpose, and Members

In February 2014, the American Association of Colleges of Osteopathic Medicine (AACOM), the American Osteopathic Association (AOA) and the Accreditation Council for Graduate Medical Education (ACGME) signed an agreement calling for the unification of the two separate graduate medical education (GME) accrediting systems. The resulting single accrediting system, operating under the auspices of the ACGME, will preserve the distinctiveness of osteopathic GME through a number of measures, including the formation of an Osteopathic Principles Committee, which will develop standards for recognizing GME programs as osteopathically focused.

MDs will be eligible to enter osteopathically-recognized ACGME programs. Therefore, another task of the Osteopathic Principles Committee is to develop criteria for MDs who wish to enter such programs.

AACOM established its Ad Hoc Committee on GME Transition in June 2014 to offer a perspective on the ACGME Osteopathic Principles Committee's task of formulating standards for both recognizing GME programs as osteopathically focused and admitting and training MDs in osteopathically focused programs.

Consisting of the president and CEO of AACOM and leading academic officers of osteopathic medical schools, the nine-member Ad Hoc Committee conducted two face-to-face meetings, including a two-day conference at AACOM's headquarters in Chevy Chase, MD, and weekly conference calls from July through September 2014. Two smaller working groups met independently, one concentrating on osteopathically focused residencies and the other on criteria for MDs entering those residencies. All of these meetings involved sharing ideas and resources and weighing multiple courses of action.

The Ad Hoc Committee started by coming up with multiple questions that need to be answered during the transition to a single accreditation system, such as "How do we maintain our distinctiveness?" and "What do we as a profession have to offer and to whom?" In organizing those questions and discussing potential answers, committee members devised a framework for the white paper.

The Ad Hoc Committee on GME Transition was particularly interested in ensuring that osteopathic medical students continue to develop and apply their osteopathic manipulative treatment (OMT) skills in osteopathically focused ACGME programs. The Ad Hoc Committee also discussed at length the importance of maintaining osteopathic learning communities.

In developing recommendations regarding MDs in osteopathically focused programs, the Ad Hoc Committee considered several alternative scenarios before deciding on the flexibility of a hybrid approach that would allow MD graduates to take online and hands-on OPP courses during medical school, right before residency and during residency. The Ad Hoc Committee reached out to the American Academy of Osteopathy for suggestions, which are incorporated in the white paper.

After preparing the white paper and its executive summary, the Ad Hoc Committee sent drafts of both documents out for review by many leaders in the osteopathic medical profession.

The resulting recommendations reflect consensus among the Ad Hoc Committee's members (listed below).

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## APPENDIX 2.

# Core OMT/OMM Modalities

The Educational Council on Osteopathic Principles (ECOP) is composed of a representative from each college accredited by the American Osteopathic Association's (AOA) Commission on Osteopathic College Accreditation (COCA). Based on a consensus of its current membership, ECOP has approved the following seven treatment modules (submitted for publishing) to be included as a required component within the Osteopathic Principles & Practice/Osteopathic

manipulative medicine (OPP/OMM) curriculum at all osteopathic medical schools. Note: These modules do not constitute an entire OPP/OMM curriculum. A comprehensive OPP/OMM curriculum includes other treatment approaches, osteopathic elements: history, philosophy, research, Neuromusculoskeletal examination, diagnosis, and approach to comprehensive patient care. These basic concepts should be introduced through the *Foundations of Osteopathic Medicine* 3rd Edition.

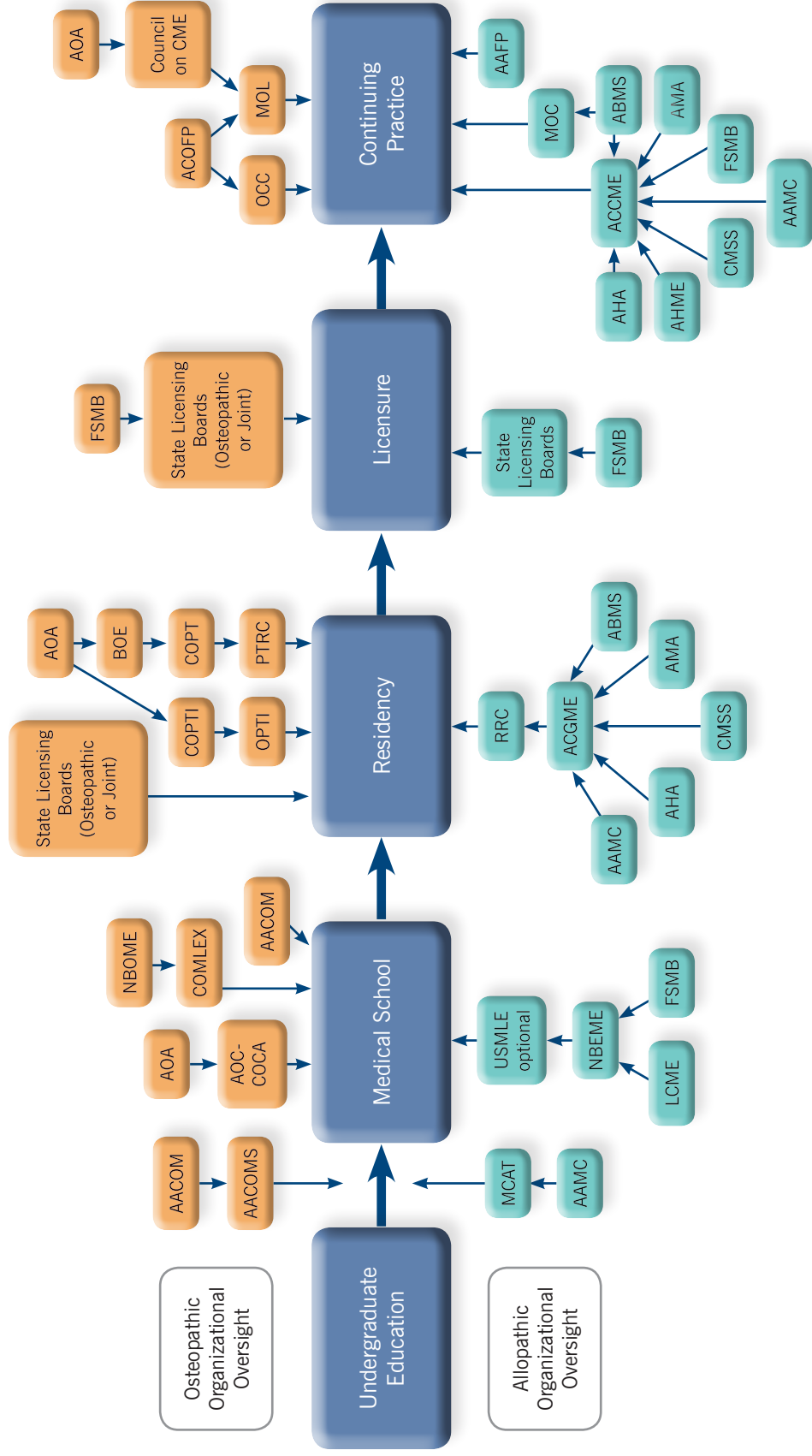
Module	Definition
Counterstrain	An osteopathic system of diagnosis and indirect treatment in which the patient's somatic dysfunction, diagnosed by an associated myofascial tender point, is treated by using a position of spontaneous tissue release while simultaneously monitoring the tender point.
Muscle Energy	A system of osteopathic manipulative diagnosis and direct treatment in which the patient's muscles are actively used from a precisely controlled position, in a specific direction, and against a distinctly executed physician counterforce.
Myofascial release (MFR)	Myofascial release (MFR) is a system of diagnosis and treatment, first described by A.T. Still, DO and his early students, which engages continual palpatory feedback to achieve release of myofascial tissues.
High-velocity low-amplitude (HVLA) thrust	An osteopathic technique employing a rapid, therapeutic force of brief duration that travels a short distance within the anatomic range of motion of a joint. It engages the restrictive barrier of an articular somatic dysfunction in one or more planes of motion to elicit release of restriction.
Soft tissue	A direct technique that usually involves kneading, stretching, deep pressure, inhibition, and/or traction, while monitoring tissue response and motion changes by palpation. This technique is a form of myofascial.
Lymphatic	Lymphatic techniques are designed to remove impediments to lymphatic circulation and promote and augment the flow of interstitial fluid and lymph
Osteopathic Cranial Manipulative Medicine	A system of diagnosis and treatment by an osteopathic physician using the primary respiratory mechanism and balanced membranous and ligamentous tension. Refers to the system of diagnosis and treatment first described by William G. Sutherland, DO.

# APPENDIX 3.

## Abbreviations

AAO	American Academy of Osteopathy
ABMS	American Board of Medical Specialties
ACGME	Accreditation Council on Graduate Medical Education
ACOFFP	American College of Osteopathic Family Physicians
AOA	American Osteopathic Association
CME	Continuing Medical Education
COM	College of Osteopathic Medicine
COMAT	Comprehensive Osteopathic Medical Achievement Test(s)
COMLEX-USA	Comprehensive Osteopathic Medical Licensing Examination of the United States
COPT	Council on Osteopathic Postdoctoral Training
DO	Doctor of Osteopathic Medicine
ECOP	Educational Council on Osteopathic Principles
EHR/EMR	Electronic Health Records/Electronic Medical Records
EPA	Entrustable Professional Activities
GME	Graduate Medical Education
MCAT	Medical College Admissions Test
MD	Medical Doctor
MOU	Memorandum of Understanding
NBOME	National Board of Osteopathic Medical Examiners
NRMP	National Resident Matching Program
OGME	Osteopathic Graduate Medical Education
OMM	Osteopathic manipulative medicine
OMT	Osteopathic Manipulative Treatment
OPC	Osteopathic Principles Committee
OPP	Osteopathic Principles and Practice
OPTI	Osteopathic Postdoctoral Training Institute
PE	Performance Evaluation
RRC/RC	Residency Review Committee/Review Committee
USMLE	United States Medical Licensing Examination

**Figure 1. Comparison of U.S. Medical Education, Training Pathways and Organizational Oversight**



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