The Case for an Osteopathic Entrustable Professional Activity

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Osteopathic medicine has arrived at a crossroads. The transition to a single accreditation system (SAS) for graduate medical education (GME), which will conclude in 2020, has created uncertainty about the training of osteopathic physicians (ie, DOs) and consequently the future of osteopathic medicine. One reason for the uncertainty is that the Accreditation Council for Graduate Medical Education (ACGME), which has been responsible for accrediting only allopathic (ie, MD) programs, will become the sole accrediting body for all residency programs.1 Also, although both medical education models have used physician competencies as a framework for the training of students and residents, the competencies are defined differently by DO and MD accreditation systems. Allopathic programs use a set of 6 core competencies defined by the ACGME.2 The osteopathic competencies have similar names, but the definitions reflect osteopathic principles and practice (OPP), and the set includes a seventh, distinctly osteopathic competency.3

Resolving these discrepancies has been a priority in establishing the SAS. For example, the ACGME has designated an Osteopathic Recognition Committee (ORC), which has defined distinctively osteopathic criteria for GME programs seeking to attain Osteopathic Recognition.4 However, residencies that admit DO graduates will not be required to use these guidelines if the program does not have Osteopathic Recognition. Whether programs not seeking Osteopathic Recognition will accommodate osteopathic competencies, and how their decision will affect DO graduates, remains unknown.4

In our view, the current measures to promote Osteopathic Recognition in the SAS are insufficient to protect a distinctively osteopathic approach to medical practice, particularly among DO graduates in residency programs that do not seek the additional recognition. The American Association of Colleges of Osteopathic Medicine (AACOM) has addressed this issue by embedding osteopathic considerations within the framework of the 13 Entrustable Professional Activities (EPAs) developed by the Association of American Medical Colleges (AAMC) to define MD student readiness to enter residency.5,6 Although we applaud and enthusiastically embrace this effort, we also believe that the adoption of a distinctively osteopathic EPA—proposed in the following paragraphs—would help both MD and DO educators recognize and nurture the unique attributes and skills that DO graduates can be expected to bring to patient care.

It would also enhance the profile of osteopathic distinctiveness in the context of the SAS.

Discrepancies in DO and MD Competencies?

Differences in the use and assessment of competencies, not only between DO and MD programs but also within MD programs, was a key factor in the development of the SAS.7 Medical educators have long sought ways to standardize the implementation of physician competencies by basing assessment of competency attainment on directly observable and consistent standards. The ongoing concern that MD and DO competencies are different was illustrated when the ACGME determined that only physicians trained in ACGME-accredited programs were eligible for ACGME-accredited fellowships. It was posited that evidence of attaining the requisite competencies would not exist for physicians trained in non-ACGME programs.8 The possibility that graduates of residency programs accredited by the American Osteopathic Association could be denied access to ACGME-accredited fellowships led to negotiations that resulted in the announcement of the SAS.1,7,8 Concurrent innovations to resolve discrepancies and promote consistency in the
Ensuring Osteopathic Competencies in the SAS

As undergraduate medical educators working in a college of osteopathic medicine, we focus on preparing students to meet expectations for entering residency. We use the 7 osteopathic core competencies as a guide because we expect our graduates to have a strong osteopathic identity and to be competent in osteopathic skills as well as osteopathic thinking. At the same time, it is our responsibility to respond to residency programs’ expectations of our graduates. We believe that as lists of observable and assessable tasks that include every “essential clinical activity that defines the profession,” EPAs will be useful to identify the attainment of competence that underlies the performance of definitively DO activities and will therefore facilitate communication between colleges of osteopathic medicine and residency programs regarding student readiness.

We are not alone in the view that EPAs will constitute an important curriculum tool to aid in the transition from undergraduate to graduate programs. The importance and utility of EPAs in the assessment of DO competence is evident in the new, competency-based blueprint and accompanying documentation developed by the National Board of Osteopathic Medical Examiners for its licensure examination series. The importance of EPAs is also evident in the 13 EPAs published by the AAMC to characterize MD student readiness for residency training. Importantly, each EPA in the guide is accompanied by a listing of underlying physician competencies selected from the 6 core allopathic competencies.

Missing from this guide are distinctively osteopathic definitions of the physician competencies, as well as distinctively osteopathic EPAs, such as being entrustable to perform osteopathic structural examinations or obtain informed consent to perform osteopathic manipulative treatment. It is therefore evident that while the 13 listed activities may be applicable to every medical student, they do not include every essential clinical activity that defines the practice of osteopathic medicine. Therefore, they are an insufficient guide for DOs in residency programs that do not have Osteopathic Recognition.

DO and MD Competency Components: An Analysis

We performed an analysis that illustrates this point. Using a data table available on the AAMC website to align osteopathic competencies with MD competencies, we compiled a list of DO competency components referenced by the allopathic EPAs. We then counted and computed the frequency with which each osteopathic competency was referenced. The 7 osteopathic competencies comprise 332 components; 240 components were referenced at least once, and many were referenced multiple times, resulting in a total of 1269 references. The osteopathic competency most frequently referenced in the allopathic EPAs was OPP, which we believe reflects that osteopathic principles are embedded in all aspects of medical care.

Using the same dataset, we identified 92 components (28%) of the osteopathic competencies that were incompletely or not at all referenced. Figure 2 shows a selection of these components.

Where We Go From Here

AACOM has begun to remedy the lack of distinctively osteopathic competencies by embedding essential osteopathic skills as they align with each of the 13 allopathic EPAs in Osteopathic Considerations for Core Entrustable Professional Activities for Entering Residency. For example, EPA 1, “Gather a History and Perform a Physical Examination,” features “Identify, describe, and document abnormal physical exam findings, including osteopathic structural findings (e.g. somatic dysfunction, TART, etc.).”

This approach assumes that all physicians have a clear understanding that osteopathic medicine is more than a list of skills. It does not provide sufficient...
context for faculty unfamiliar with osteopathic medicine to effectively assess whether the skills are used osteopathically—that is, used to find cause and health and to understand the relationship between structure and function. Osteopathic medicine entails an approach to patient care that relies on a philosophy and reasoning process to inform the application of distinctive skills. While we value the work of AACOM, we suspect it could negatively affect entrustment decisions. For example, in the AACOM draft of EPA 4, “Enter and Discuss Orders and Prescriptions,” the entrustable student is described as “able to synthesize the information at hand from the patient’s history, physical exam, including the osteopathic structural exam [italics added], and review of existing studies.” Without additional context regarding the osteopathic reasoning behind performing the structural examination, faculty members who are not osteopathically trained may be challenged to make an appropriate entrustment decision. Furthermore, embedding osteopathic considerations within each EPA, as it is in AACOM’s EPAs, requires an educator to synthesize a picture of OPP from a fragmented list of skills scattered throughout a 68-page document.

We believe the interrelationship of osteopathic philosophy, reasoning, and practice, is the heart and foundation of the osteopathic tradition. Our findings (Figure 1 and Figure 2) and the work of AACOM lead us to conclude that while the framework of EPAs for MDs is appropriate for DO graduates, it does not describe a single, definitively osteopathic professional activity through which full competence in OPP can be demonstrated. To address this problem, we recommend national adoption of an osteopathic EPA.

We have drafted an osteopathic EPA, “Integrate Osteopathic Principles and Practice into Clinical Practice,” which consists of a concise, holistic description of osteopathic professional activity (eAppendix). Our proposed EPA follows the model of the AAMC and includes osteopathic pre-entrustable and entrustable behaviors and vignettes. It describes an approach that includes procedures, which are important, but it places osteopathic reasoning and principles in the forefront because many DOs who never use osteopathic manipulative treatment techniques are still dedicated to the osteopathic philosophy. We believe that adopting such an EPA nationally, whether or not it is the one we propose, would promote reliability in entrustment decisions by providing context for the embedded osteopathic considerations. A discreet, stand-alone EPA would also facilitate locating osteopathic content.

Effects and Limits
At the Touro University College of Osteopathic Medicine-CA, we use EPAs in a learner-directed third-year course in which students target specific EPAs for development, including the osteopathic EPA. Students self-assess using a “rubric of entrustability.” They then direct their own growth by targeting a higher level of entrustability to achieve by the end of the course, and faculty members provide narrative feedback on their progress. Our aim is for this program to generate outcome data on the osteopathic EPA while promoting a stronger understanding of the utility of EPAs
Conclusion
Osteopathic medicine is a different way to practice medicine. Adopting an osteopathic EPA would offer all stakeholders, from students to both DO and MD program directors, a rich, useful, holistic description of osteopathic distinction that might otherwise be reduced to a list of skills that are fragmented and ultimately lost in a lengthy document. An osteopathic EPA would illustrate distinctively osteopathic practices that residency directors should expect from DO graduates while providing a streamlined tool to directly identify entrustability with the skills and philosophy of osteopathic medicine.17 Perhaps most importantly, we believe the national adoption of an osteopathic EPA could hold the space for osteopathic distinctiveness in residency programs that do not seek Osteopathic Recognition. (doi:10.7556/jaoa.2017.118)

References


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Editor's Note: To view the proposed EPA in the eAppendix, which is available online only, access this article at JAOA.org.
Proposed Osteopathic Entrustable Professional Activity (EPA), including pre-entrustable and entrustable behaviors by competency components (bolded items are proposed by the authors) and pre-entrustable and entrustable vignettes. The layout, format, and design of this proposed EPA are modeled after the Association of American Medical Colleges’ *Core Entrustable Professional Activities for Entering Residency: Curriculum Developers’ Guide*.6

**EPA 14: Integrate osteopathic principles and practice into clinical practice.**

1. **Description of the activity**
   
   A day-1 resident should be able to integrate osteopathic principles and practice (OPP) into clinical work. OPP is foundational to all aspects of osteopathic medical training, including diagnosis and management and extends across all competency areas of training. A day-1 resident should be prepared to reason and provide care using the fundamental skills of osteopathic training.

   **Functions**
   - Perform an accurate complete or focused medical history and physical examination integrating OPP.
   - Generate differential diagnoses that integrate OPP (eg, recognition of viscerosomatic or somatovisceral changes) and explain the clinical reasoning behind such diagnoses (eg, commenting on the pertinent interrelationship of structure and function).
   - Recommend and interpret common diagnostic tests appropriate to the clinical encounter, offer an assessment and plan that includes osteopathic principles such as osteopathic manipulative treatment (OMT).
   - Explain the use of OMT to a patient, colleague, or attending physician incorporating best evidence and using audience-appropriate terminology.
   - Explain indications and contraindications for use of OMT.
   - Obtain informed consent for OMT.
   - Treat a patient using OMT.
   - Document findings of the osteopathic structural examination and OMT.
   - Integrate other medical treatment tools important in primary care, such as behavioral modification, prescriptions, exercise programs, or specialty care (through appropriate referrals when indicated).

2. **Most relevant domains of competence**

   ☑ Patient Care
   ☑ Knowledge for Practice
   ☑ Practice-Based Learning and Improvement
   ☑ Interpersonal and Communication Skills
   ☐ Professionalism
   ☐ Systems-Based Practice
   ☐ Interprofessional Collaboration
   ☐ Personal and Professional Development

3. **Competencies within each domain critical to entrustment decisions**

   - PC 2
   - PC 5
   - PC 6
   - PC 8
   - KP 1
   - ICS 1
   - ICS 2
   - ICS 2 / IPC 3
   - ICS 5

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*IN MY VIEW*
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<th>Critical Competency</th>
<th>Pre-Entrustable Behaviors</th>
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<td>PC 2: Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests</td>
<td>Either gathers too little information or exhaustively gathers information following a template, regardless of the patient's chief complaint, with each piece of information gathered seeming as important as the next. Recalls clinical information in the order elicited. Limited ability to gather, filter, prioritize, and connect pieces of information. Uses analytic reasoning from basic pathophysiology knowledge without ability to link findings to prior clinical encounters. Incorrectly performs and elicits most physical examination maneuvers. May miss key physical exam findings. Does not alter the head-to-toe approach to the physical examination to meet the developmental level or behavioral needs of the patient. Does not seek or is overly reliant on secondary data. (PEDS, IM, PSYCH) Does not incorporate osteopathic reasoning into choice of history questions asked. Does not perform structural examination, and if it is performed, it is done from a template rather than using osteopathic principles in determining appropriate areas to examine. (This is a new milestone created for this document.)</td>
<td>Clinical experience allows linkage of signs and symptoms of a current patient to those encountered in previous patients. Still relies primarily on analytic reasoning of basic pathophysiology to gather information, but the ability to link current findings to prior clinical encounters allows information to be filtered, prioritized, and synthesized into pertinent positives and negatives as well as broad diagnostic categories. Performs basic physical examination maneuvers correctly and recognizes and correctly interprets abnormal findings. Consistently and successfully uses a developmentally appropriate approach to the physical examination. Seeks and obtains data from secondary sources when needed. (PEDS, IM, PSYCH). Using knowledge of all branches of anatomy and physiology, asks appropriate questions to gain information about possible causes of signs and symptoms. Examines the whole patient for indications of structural abnormalities that may contribute to or be the cause of presenting complaints. Using knowledge of normal structure and function, targets specific body areas in the physical examination to assess for TART changes. (This is a new milestone created for this document.)</td>
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<td>PC 5: Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment</td>
<td>Recalls and presents clinical facts in the history and physical in the order they were elicited without filtering, reorganization, or synthesis. Analytic reasoning through basic pathophysiology precludes pattern recognition and results in an exhaustive list of all diagnoses considered rather than the development of working diagnostic considerations, making it difficult to develop a therapeutic plan. The absence of a focused differential and working diagnosis also precludes incorporation of patient preferences into the diagnostic and management plan. (PEDS, PSYCH) Reports structural findings without integrating them into the clinical reasoning process. Does not offer to explain the use of osteopathic manipulative treatment to patient or attendings and is unable to offer evidence for the use of these treatments. (This is a new milestone created for this document.)</td>
<td>Abstracts and reorganizes elicited clinical findings using semantic qualifiers (such as paired opposites that are used to describe clinical information [e.g., acute and chronic]) to compare and contrast the diagnoses being considered. The emergence of pattern recognition in diagnostic and therapeutic reasoning often results in a well-synthesized and organized assessment of the focused differential diagnosis and management plan. The focused differential and working diagnosis allows incorporation of patient preferences into the diagnostic and management plan. (PEDS, PSYCH) Using knowledge of normal and abnormal and an understanding of the osteopathic tenets as well as knowledge of indications and contraindications, the student is able to develop a treatment plan that includes use of osteopathic manipulative treatment. The student is able to explain his or her reasoning to attending in appropriate language, using evidence-based medicine when possible, and to modify his or her language to explain the option to the patient as well. (This is a new milestone created for this document.)</td>
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<td><strong>PC 6:</strong> Develop and carry out patient management plans</td>
<td>Develops and carries out management plans based on directives from others, either from the health care organization or the supervising physician. Unable to adjust plans based on individual patient differences or preferences. Communication about the plan is unidirectional, from the physician to the patient/family. Inconsistently seeks additional guidance or consultation when needed. (PEDS, IM, PSYCH, SURG) <strong>Makes decisions about osteopathic manipulative treatment based on findings but does not prioritize treatments based on an understanding of how the findings may be involved in causing the illness or patient needs. Does not obtain informed consent or explain to the patient the use of treatments. Is unable to explain to the attending why the treatment would be useful for the patient. (This is a new milestone created for this document.)</strong></td>
<td>Develops and carries out management plans based on both theoretical knowledge and some experience, especially in managing common problems. Follows health care-institution practice guidelines and treatment algorithms as a matter of habit and good practice rather than as an externally imposed sanction. Plans begin to incorporate patients’ assumptions and values through more bidirectional communication, thus allowing for shared decision making. Seeks additional guidance and consultation as needed. (PEDS, IM, PSYCH, SURG) <strong>Understanding the first three osteopathic tenets and using the developed differential diagnosis allows the resident to develop a rational plan for using osteopathic manipulative treatment that takes into account the patient’s concerns and understanding as well as the underlying pathophysiology and mechanisms of disease. (This is a new milestone created for this document.)</strong></td>
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<td><strong>PC 8:</strong> Provide appropriate referral of patients including ensuring continuity of care throughout transitions between providers or settings, and following up on patient progress and outcomes</td>
<td>Demonstrates variability in transfer of information (content, accuracy, efficiency, and synthesis) from one patient to the next. Frequent errors of both omission and commission in the handoff. Inconsistently uses available resources (e.g., information from EHR) to coordinate and ensure safe and effective patient care within and across delivery systems. Inefficient transitions of care lead to unnecessary expense or risk to a patient (e.g., duplication of tests or preventable readmissions to the hospital). (PEDS, IM) <strong>When offering osteopathic manipulative treatment, does not demonstrate understanding of how it should be prioritized in the presentation of each patient. Does not know when to refer for more advanced or ongoing osteopathic care. (This is a new milestone created for this document.)</strong></td>
<td>Adapts and applies a standardized template, relevant to individual contexts, reliably and reproducibly with minimal errors of omission or commission. Consistently uses available resources (e.g., information from EHR) to coordinate and ensure safe and effective patient care within and across delivery systems. Allows ample opportunity for clarification and questions. Beginning to anticipate potential issues for the transferee. (PEDS, IM) <strong>Knows when to refer out for more advanced osteopathic manipulative treatment or, if offering osteopathic manipulative treatment, when to refer out for other primary care or specialty care. Knows when osteopathic manipulative treatment is indicated and contraindicated, when it is the priority treatment, or when other treatments, such as medication or emergent management, should be prioritized. (This is a new milestone created for this document.)</strong></td>
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<td>KP 1: Demonstrate an investigatory and analytic approach to clinical situations</td>
<td>Recalls only discrete, isolated bits of information. Tends toward “intuitive leaps” to conclusions, often unsupported by the data gathered or the evidence, before fully understanding the learning task or the types of information needed; does not follow a systematic procedure for synthesis, comparison, and evaluation of information, which may result in reasoning that is slow and linear; may have stored knowledge of procedures, rules, and formulas, but, due to a lack of integrated mental models of health and disease, fails to recognize what conditions warrant the application of this knowledge or why it is relevant. Has difficulty recognizing recurring patterns of information. (This is a new milestone created for this document.) Shows limited ability to apply osteopathic principles and practice, including incorporation of the four tenets of osteopathic medicine, in the approach to the patient and clinical reasoning. Has difficulty selecting appropriate components of the osteopathic structural examination to use with individual patients. Shows limited ability to recognize opportunities for osteopathic manipulative treatment to potentially benefit a patient with a particular clinical presentation. Misses opportunities for viscerosomatic findings to contribute to analysis of the diagnostic picture. (This is a new milestone created for this document.)</td>
<td>Is developing an implicit knowledge base that allows more rapid connections, pattern recognition, and clinical reasoning. Can focus cognitive processes to discern relevant information, identify the unknowns, and make connections to solve problems or answer clinical questions via just-in-time-learning. Brings together multiple representations of the problem by comparing, synthesizing, and evaluating. (This is a new milestone created for this document.) Shows ability to apply osteopathic principles and practice, including incorporation of the four tenets of osteopathic medicine, in the approach to the patient and clinical reasoning. Easily incorporates key components of the osteopathic structural examination to utilize with individual patients. Appropriately utilizes opportunities for viscerosomatic findings to contribute to analysis of the diagnostic picture. (This is a new milestone created for this document.)</td>
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<td>ICS 1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds</td>
<td>Communication with patients and families generally unidirectional and based on a template, without the ability to vary the approach based on a patient’s unique demographic, cognitive, physical, cultural, socioeconomic, or situational needs. Frequently uses medical jargon. Does not engage patients and families in discussions of care plans (i.e., does not engage in shared decision making). Respects patient preferences when offered by the patient, but does not actively solicit preferences. Defers or avoids difficult or ambiguous conversations. (SURG, IM, PEDS, PSYCH) Discusses physical examination in terms of osteopathic structural examination findings not necessarily recognizable to patients and families. Does not describe osteopathic manipulative treatment options well. (This is a new milestone created for this document.)</td>
<td>Communication with patients and families generally bidirectional. When based on a template, can adapt to the patient’s unique demographic, cognitive, physical, cultural, socioeconomic, or situational needs. Avoids medical jargon. Uses a variety of techniques, including nontechnical language, teach back, appropriate pacing, and small pieces of information to ensure that communication with patients and their families is bidirectional and results in shared decision making. Develops scripts to approach most difficult communication scenarios. (SURG, IM, PEDS, PSYCH) Able to easily translate the osteopathic structural examination findings into terminology understandable to patients and families. Able to describe osteopathic manipulative treatment options well. (This is a new milestone created for this document.)</td>
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<td>ICS 2: Communicate effectively with colleagues within one’s profession or specialty, other health professionals, and health-related agencies</td>
<td>Often communicates from a template or prompt with rigid rules-based recitation of facts. Communication does not change based on context, audience, or situation. Uses unidirectional communication that fails to encourage ideas or opinions from other team members. Does not match communication tool to situation (e.g., email, telephone, pager, texting, electronic health record [EHR], face-to-face). Defers or avoids difficult or ambiguous conversations. (IPEC, PEDS, IM) Unable to appropriately articulate the underlying anatomy, physiology, and pathophysiology associated with somatic dysfunction. Does not readily recognize and communicate the indications or contraindications for osteopathic manipulative treatment. Limited ability to explain processes related to the application of osteopathic manipulative treatment. (This is a new milestone created for this document.)</td>
<td>Listens actively and encourages ideas and opinions from other team members. Successfully tailors communication strategy and message to the audience, purpose, and context in most situations. Fully aware of the purpose of the communication; can efficiently tell a story and make an argument. Beginning to improvise in unfamiliar situations. Generally matches the communication tool to the situation. Discusses care plans with the team and keeps them up to date. Engages others (e.g., supervisors) to help with feedback to other team members even when those conversations are difficult or uncomfortable. (IPEC, PEDS, IM) Readily articulates the underlying anatomy, physiology, and pathophysiology associated with somatic dysfunction. Recognizes and communicates indications and contraindications for osteopathic manipulative treatment. Readily explains processes related to the application of osteopathic manipulative treatment. (This is a new milestone created for this document.)</td>
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<td>IPC 3: Communicate with other health professionals in a responsive and responsible manner that supports the maintenance of health and the treatment of disease in individual patients and perspectives</td>
<td>ICS 2 and IPC 3 are essentially the same competency. Thus, the milestones for the two competencies are the same.</td>
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<td>ICS 5: Maintain comprehensive, timely, and legible medical records</td>
<td>Documentation has errors of omission and commission. In the former case, documentation is often incomplete; critical data sections (e.g., past medical history [PMH]) and critical data (e.g., specific diagnoses in the PMH) may be missing, may not document what was actually said and done, and may fail to communicate clinical reasoning. With errors of omission, documentation is subject to inclusion of unnecessary information or detail. Documentation is often not available for other providers to review in time for their use in the patient’s care. Handwritten documentation may be illegible. Documentation may be inconsistent with institutional policies, such as use of abbreviations, or omission of date, time, and signature. (PEDS, PSYCH, IM) The application of osteopathic principles and practice may be either missing or incomplete. May underestimate the need for documentation of osteopathic manipulative treatment. Documentation of the osteopathic structural examination may have excessive detail or be placed in an inappropriate part of the note. (This is a new milestone created for this document.)</td>
<td>Documentation is comprehensive and accurately captures the patient’s story using key aspects of the physician/patient interaction and the service provided, yet is not overly long and detailed. Will sometimes tailor the documentation to the specific situation. All important data are verified or the source is stated. Identified errors in the medical record are reported and appropriate measures initiated to correct them. Clinical reasoning is well documented. Key patient-specific databases are maintained and updated where applicable. Documentation is completed and available for others to review within an appropriate time frame to aid in the learner’s care of the patient. Handwritten documentation is always legible. Documentation is consistent with institutional policies, such as avoidance of prohibited abbreviations, and all documentation has a time, date, and signature. (PEDS, PSYCH, IM) Clinical reasoning is well documented, including Osteopathic Principles and Practice. The osteopathic structural examination and associated osteopathic manipulative treatment documentation is organized and appropriate with use of recognizable abbreviations for osteopathic manipulative treatment. (This is a new milestone created for this document.)</td>
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Pre-Entrustable Learners

Expected behaviors for a pre-entrustable learner

The learner at this level uses a template or screening examination for osteopathic diagnoses. He or she is unable to integrate osteopathic reasoning into choice of history and physical examination findings and differential diagnosis. He or she is aware of anatomic relationships that are spatially obvious and bases osteopathic examination and treatment on these basic relationships rather than on an understanding of normal anatomy, physiology, and the interrelated nature of structure and function. The learner offers osteopathic manipulative treatment (OMT) but is unable to offer evidence or explanation for why it would be useful beyond basic understanding such as pain reduction or alignment of musculoskeletal aberrations. Documentation of findings and treatment lacks specificity.

Vignette for a pre-entrustable learner

Justin is currently working with the in-patient internal medicine team and is completing morning rounds. His first patient of the day is Mr. Thompson, a 75-year-old man admitted 2 days ago for pneumonia. Justin begins by reviewing Mr. Thompson’s vital signs and morning laboratory results in the computer, as well as the current medications.

Justin then goes to Mr. Thompson’s room for further evaluation. He begins by asking him how he is feeling, if he has had improvement of his cough, any if he has any pain, discomfort, or associated symptoms. Mr. Thompson notes that he is feeling a little better, though he is still coughing a lot and intermittently feeling feverish and that his appetite has not yet returned. He has some mild lower rib pain on the right side that has been present since the coughing started.

Justin then proceeds with a physical examination, including a general evaluation, mental status evaluation, listening to lung fields, listening for heart sounds in all 4 positions, observing skin for color, checking capillary refill, and palpat ing proximal and distal pulses. He checks the cervical and axillary lymph nodes. Additionally, he palpates the T2-T6 thoracic region looking for somatic dysfunction representing viscerosomatic reflexes. He notes some hypertonicity in the thoracic paraspinal region.

Justin reviews the patient encounter with Mr. Thompson with his attending physician. He appropriately organizes and presents the history and physical examination findings. He describes the somatic dysfunction found in the thoracic region as “Hypertonic paraspinals from T2-6 bilaterally” and that it may represent a viscerosomatic reflex. Justin’s attending asks him why he would want to use OMT in a patient with pneumonia, and he has difficulty outlining why it would be helpful other than it may help decrease sympathetic tone via the viscerosomatic reflex. Justin’s attending asks if there is any research support for the use of OMT in patients with pneumonia, and Justin is unsure. Justin’s attending is supportive of the use of OMT and would like him to perform it on the patient.

Justin and his attending return to the patient’s room, and Justin chooses to perform soft tissue technique after contemplating other technique choices, such as high-velocity, low-amplitude (HVLA). He decides against HVLA because of Mr. Thompson’s level of illness and age. He begins the technique and the patient asks, “What are you doing?” Justin replies that he is performing OMT and it will help him to feel better. The patient allows the treatment to continue. When he is finished, Mr. Thompson expresses gratitude for the “massage,” and he and Justin discuss his physical examination and laboratory findings and what they indicate for Mr. Thompson.

Justin returns to the medical record and documents his note including the somatic dysfunction of “thoracic hypertonicity” found on physical examination. Additionally, in his plan, he notes that OMT was performed to the thoracic region.
**Entrustable Learners**  
*Expected behaviors for an entrustable learner*

The learner at this level is able to routinely apply the four tenets of osteopathic medicine to the gathering of data and development of a diagnostic plan and in application of a treatment. Having retained sufficient understanding of normal anatomy and physiology, the learner is able to integrate and link current findings to prior clinical experiences and understanding of how structure and function are interrelated. Osteopathic physical examination is accurate and reported using appropriate anatomic or medical terms. Using best evidence and language appropriate to the listener, including the patient or health care team members, the learner is able to explain the reasoning for and use of OMT. The learner can prioritize, based on the urgency of the patient setting, which aspects of osteopathic history, physical examination, and treatment are most appropriate. The learner knows his or her limitations and appropriately seeks help or refers for other care.

**Vignette for an entrustable learner**

Justin is currently working with the in-patient internal medicine team and is completing morning rounds. His first patient of the day is Mr. Thompson, a 75-year-old man admitted 2 days ago for pneumonia. Justin begins by reviewing Mr. Thompson’s vital signs, morning laboratory results, and current medications. Justin then goes to Mr. Thompson’s room for further evaluation. He begins by asking him how he is feeling, if he has had improvement of his cough, and about associated symptoms, including if he has any pain or discomfort. Mr. Thompson notes that he is feeling a little better, but he is still coughing a lot and intermittently feels feverish. His appetite has not yet returned, and he has some mild lower rib pain on the right side that has been present since the coughing started.

Justin then proceeds with a physical examination, including a general evaluation, mental status evaluation, listening to lung fields, listening for heart sounds in all 4 positions, observing skin for color, checking capillary refill, and palpating proximal and distal pulses. He checks the cervical and axillary lymph nodes. Additionally, he palpates the T2-T6 thoracic region looking for somatic dysfunction representing a viscerosomatic reflex. He notes some hypertonicity in the thoracic paraspinous region as well as some segmental dysfunction. Justin examines the ribs and finds the right first rib elevated and the right ribs 4-6 exhaled. He also notes diaphragm restriction on the right, the cervicothoracic junction rotated right, as well as a tender Chapman point on the right between the first and second rib.

Justin reviews the patient encounter with Mr. Thompson with his attending physician. He appropriately organizes and presents the HPI and the physical examination under which he describes the somatic dysfunction found in the thoracic region, ribs, and diaphragm. In his assessment and plan he describes to his attending how treating these areas will help address viscerosomatic reflexes (thoracic spine), adequate respiration (ribs/diaphragm), and decreased pain by addressing rib motion, as well as adequate lymphatic and vascular flow by treating the diaphragm and thoracic inlet. Justin’s attending asks if there is any research on using OMT in patients with pneumonia, and Justin states he knows of several published in the *JAOA* and can pull them up for review. Justin’s attending is supportive of the use of OMT and would like him to perform it on the patient.

Justin and his attending return to the patients’ room. He chooses to perform soft tissue and balanced ligamentous tension models of treatment after contemplating other technique choices, such as HVLA. He decides against HVLA because of Mr. Thompson’s level of illness and age. Before beginning OMT, he discusses with Mr. Thompson what he has found on physical
examination and how he believes OMT may help. He outlines risks and benefits of the procedure and asks if Mr. Thompson would like to consent to treatment. Mr. Thompson consents, and Justin performs OMT to address the somatic dysfunction. When he is finished he checks in with Mr. Thompson to see how he is feeling and counsels him on what to expect after treatment. He then discusses the physical examination and laboratory findings and what they indicate for Mr. Thompson.

Justin returns to the medical record and documents his note, including the following somatic dysfunction: THORAX: T3ERSr, T5ERSl, hypertonic paraspinals bilaterally T2-6, right diaphragm restriction, right respiratory Chapman point, cervicothoracic junction rotated right; RIBS: right rib 1 elevated, right ribs 4-6 exhaled, T/L junction rotated right. He finishes his assessment and plan with a procedure note including consent, reason for treatment, type of treatment, body areas treated, patient response, and posttreatment follow-up.