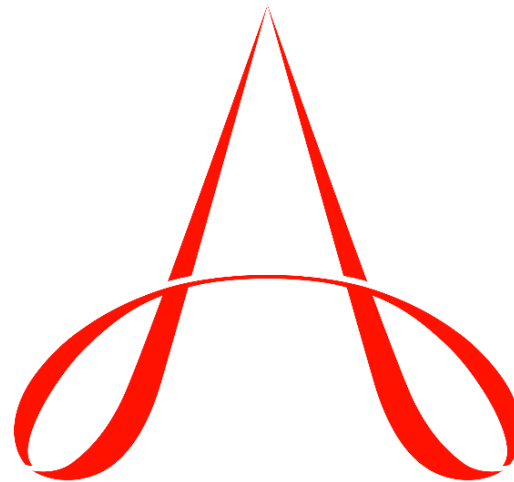




Supplemental Guide: Osteopathic Neuromusculoskeletal Medicine



A C G M E

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Milestones Supplemental Guide

This document provides additional guidance and examples for the Osteopathic Neuromusculoskeletal Medicine Milestones. This is not designed to indicate any specific requirements for each level, but to provide insight into the thinking of the Milestone Work Group.

Included in this document is the intent of each Milestone and examples of what a Clinical Competency Committee (CCC) might expect to be observed/assessed at each level. Also included are suggested assessment models and tools for each subcompetency, references, and other useful information.

Review this guide with the CCC and faculty members. As the program develops a shared mental model of the Milestones, consider creating an individualized guide (Supplemental Guide Template available) with institution/program-specific examples, assessment tools used by the program, and curricular components.

Additional tools and references, including the Milestones Guidebook, Clinical Competency Committee Guidebook, and Milestones Guidebook for Residents and Fellows, are available on the [Resources](#) page of the Milestones section of the ACGME website

Patient Care 1: Patient Management: Osteopathic Approach to Patient Care	
Overall Intent: To encourage an osteopathic philosophy with long-term progressive whole-person care and to think holistically about all stages of the patient experience while incorporating elements of mind, body, and spirit	
Milestones	Examples
<p>Level 1 <i>Integrates history, examination, diagnostic testing, and medication management into osteopathic patient care plan, with direct supervision and guidance</i></p> <p><i>Performs osteopathic structural examination and diagnoses somatic dysfunction appropriate to patient condition, with direct supervision and guidance</i></p> <p><i>Incorporates osteopathic principles to promote health and wellness in patients with acute and chronic conditions, with direct supervision</i></p>	<ul style="list-style-type: none"> ● While on an inpatient ONMM rotation, evaluating hospitalized patients for an ONMM consult, creates an appropriate assessment and follows a treatment plan set forth by more senior residents and the attending physician ● When prompted by a supervising physician, performs an osteopathic structural exam as part of the physical exam portion of patient care ● When prompted by a supervising physician or senior-level resident, recognizes and addresses deficits in lifestyle contributing to pathology (lack of exercise, poor posture, smoking, poor water intake)
<p>Level 2 <i>Integrates history, examination, diagnostic testing, and medication management into osteopathic patient care plan, with indirect supervision</i></p> <p><i>Performs osteopathic structural examination and diagnoses somatic dysfunction appropriate to patient condition, with indirect supervision</i></p> <p><i>Incorporates osteopathic principles to promote health and wellness in patients with acute and chronic conditions, with indirect supervision</i></p>	<ul style="list-style-type: none"> ● While on an inpatient ONMM rotation, creates an appropriate assessment and treatment plan with input from the attending physician ● Performs an osteopathic structural exam as part of the physical exam of a patient consultation in the obstetrics unit; reports findings to the supervising physician ● When completing a patient visit, suggests and demonstrates tools for lifestyle and behavior modifications to improve overall health (e.g., stretches to improve posture, hydration reminder apps, handouts recommending dietary changes)
<p>Level 3 <i>Independently integrates history, examination, diagnostic testing, and medication management into osteopathic patient care plan</i></p> <p><i>Independently performs accurate and complete osteopathic structural examination and</i></p>	<ul style="list-style-type: none"> ● While on an inpatient ONMM rotation, independently creates an appropriate assessment and treatment plan independently for a stable hospitalized patient ● Identifies musculoskeletal -associated chief complaints that may not warrant immediate OMT, such as shoulder pain in a patient with significant cardiovascular disease history or, low back pain with red-flag symptoms ● Summarizes specialist consult notes and previous treatment plans; self-initiates conversations with specialists regarding patient care

<p><i>diagnoses somatic dysfunction appropriate to patient condition</i></p> <p><i>Incorporates osteopathic principles to promote health and wellness in patients with complex conditions, with indirect supervision</i></p>	<ul style="list-style-type: none"> • When treating patients, acknowledges previous attempts at lifestyle modification counseling attempts and recognizes if changes in tactics are necessary; provides coaching to patients with comorbid conditions (e.g., strength training to someone with osteoporosis, balancing hydration status in a patient with both congestive heart failure and chronic kidney disease)
<p>Level 4 <i>Independently integrates history, examination, diagnostic testing, and medication management into osteopathic patient care plan in complex patients</i></p> <p><i>Independently performs accurate and complete osteopathic structural examination and diagnoses somatic dysfunction appropriate to complex patients</i></p> <p><i>Independently incorporates osteopathic principles to promote health and wellness in patients with complex conditions</i></p>	<ul style="list-style-type: none"> • While on an inpatient ONMM rotation, independently creates an appropriate assessment and treatment plan for a critical hospitalized patient • Communicates the need to balance evidence-based medicine, cost-effective and appropriate care, and patient demands (e.g., requests for additional imaging when not warranted) with the patient • Recognizes personal deficits in behavior modification counseling and lifestyle coaching; proactively finds resources to improve (e.g., takes courses online, seeks out mentor advice or reads leadership and self-improvement articles/books)
<p>Level 5 <i>Role models the effective use of osteopathic-focused history, examination, diagnostic testing, and medication management to minimize the need for further diagnostic testing or intervention</i></p> <p><i>Role models the complete osteopathic structural examination and diagnoses somatic dysfunction in patient care</i></p> <p><i>Role models the integration of osteopathic principles to optimize patient health</i></p>	<ul style="list-style-type: none"> • Teaches more junior residents and medical students how to create an appropriate assessment and treatment plan for an inpatient ONMM consult, regardless of acuity • Provides exemplary behaviors and instruction to other learners, such as fellow residents and medical students • Presents at local or regional conferences and/or poster presentations • Engages and encourages fellow resident participation with local and state osteopathic associations • Compiles references to teach self-motivated and self-directed personal development for more junior residents
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> • Direct observation • Multisource feedback

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	<ul style="list-style-type: none">• Review of video monitoring• Simulation lab, Standardized patients
Curriculum Mapping	<ul style="list-style-type: none">•
Notes or Resources	<ul style="list-style-type: none">• Nelson KE, Glonek T (eds). <i>Somatic Dysfunction in Osteopathic Family Medicine</i>. 2nd ed. Philadelphia, PA: Wolters Kluwer Health; 2015. ISBN:978-1451103052.

Patient Care 2: Osteopathic Manipulative Treatment (OMT) (Direct)	
Overall Intent: To become proficient in direct treatment modalities and appropriately/effectively/safely incorporate these modalities into patient care	
Milestones	Examples
Level 1 <i>Performs direct OMT for identified somatic dysfunction, with direct supervision and guidance</i>	<ul style="list-style-type: none"> • Correctly sets up cervical high-velocity low-amplitude (HVLA) technique with direct supervision, identifying and maneuvering a patient into a position that locks out the appropriate restrictive barriers to achieve a desired treatment response
Level 2 <i>Performs direct OMT for identified somatic dysfunction, with indirect supervision</i>	<ul style="list-style-type: none"> • Discusses OMT plan with attending and then performs muscle energy to a group somatic dysfunction at T4-6RrSI, appropriately achieving a therapeutic change
Level 3 <i>Independently and effectively performs direct OMT for identified somatic dysfunction in routine patient presentations</i>	<ul style="list-style-type: none"> • Independently performs a physical exam and osteopathic structural exam; recognizes red-flag symptoms that require urgent imaging/specialist consultation instead of OMT • Independently performs lumbar HVLA technique to a patient with acute low back pain without red-flag symptoms, appropriately achieving a therapeutic change
Level 4 <i>Independently and effectively performs direct OMT for identified somatic dysfunction in complex patient presentations</i>	<ul style="list-style-type: none"> • Independently performs muscle energy, making appropriate modifications in relation to patient physical restrictions (e.g., pregnancy, body habitus, wheelchair bound)
Level 5 <i>Mentors others to become competent in performing direct OMT for identified somatic dysfunction in complex patient presentations</i>	<ul style="list-style-type: none"> • Teaches junior residents and medical students appropriate localization of HVLA thrust • Demonstrates how to adapt Spencer’s technique for a patient who cannot lay in a lateral recumbent position
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Multisource feedback • Review of video monitoring • Simulation lab, Standardized patients
Curriculum Mapping	<ul style="list-style-type: none"> •
Notes or Resources	<ul style="list-style-type: none"> • Ehrenfeuchter WC. Muscle energy. In: Seffinger MA. <i>Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research</i>. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324. • Essig-Beatty DR, Li TS, Steele KM, et al. <i>The Pocket Manual of OMT: Osteopathic Manipulative Treatment for Physicians</i>. Philadelphia, PA: Wolters Kluwer; 2010. ISBN:978-1608316571. • Ettinger H. Acutely ill or hospitalized patients; osteopathic consideration and approaches using OMT. In: Seffinger MA. <i>Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research</i>. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324.

- Giusti RE, Hruby RJ. High-velocity low-amplitude (HVLA) thrust. In: Seffinger MA. *Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research*. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324.
- Nicholas AS, Nicholas EA. *Atlas of Osteopathic Techniques*. 3rd ed. Philadelphia, PA: Wolters Kluwer; 2016. ISBN:978-1451193411.

Patient Care 3: Osteopathic Manipulative Treatment (OMT) (Indirect)	
Overall Intent: To become proficient in multiple indirect treatment modalities and appropriately/effectively incorporate these modalities into patient care	
Milestones	Examples
Level 1 <i>Performs indirect OMT for identified somatic dysfunction, with direct supervision and guidance</i>	<ul style="list-style-type: none"> ● Performs indirect myofascial release on a patient with an acute lumbar muscle strain with the ONMM attending providing direct oversight
Level 2 <i>Performs indirect OMT for identified somatic dysfunction, with indirect supervision</i>	<ul style="list-style-type: none"> ● Performs strain counterstrain to a posterior C3 tender point on the right; after treatment, contacts the attending by phone to describe the changes made with the treatment
Level 3 <i>Independently and effectively performs indirect OMT for identified somatic dysfunction in routine patient presentations</i>	<ul style="list-style-type: none"> ● Independently performs strain counterstrain on a patient presenting with an acute left ankle sprain with an anterior talus tender point
Level 4 <i>Independently and effectively performs indirect OMT for identified somatic dysfunction in complex patient presentations</i>	<ul style="list-style-type: none"> ● Independently performs a cranial treatment for left lateral strain on a patient who had a motor vehicle accident one week before and now suffers headaches (patient also has a left humerus fracture, left clavicle fracture, and a chest tube on right lung)
Level 5 <i>Mentors others to become competent in performing indirect OMT for identified somatic dysfunction in complex patient presentations</i>	<ul style="list-style-type: none"> ● Develops an independent curriculum to teach the interdisciplinary team how to treat intensive care unit (ICU) patients with indirect techniques ● Demonstrates indirect thoracic inlet myofascial release (and explains Osteopathic Principles and Practices) to emergency department residents treating an elderly patient with pneumonia
Assessment Models or Tools	<ul style="list-style-type: none"> ● Direct observation ● Multisource feedback ● Review of electronic health records (EHR) ● Simulation lab
Curriculum Mapping	<ul style="list-style-type: none"> ●
Notes or Resources	<ul style="list-style-type: none"> ● Essig-Beatty DR, Li TS, Steele KM, et al. <i>The Pocket Manual of OMT: Osteopathic Manipulative Treatment for Physicians</i>. Philadelphia, PA: Wolters Kluwer; 2010. ISBN:978-1608316571. ● Glover JC, Rennie PR. Strain/counterstrain. In: Seffinger MA. <i>Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research</i>. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324. ● King HH. Osteopathic cranial manipulative medicine. In: Seffinger MA. <i>Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research</i>. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324. ● Kuchera ML, Heinking K, Brolinson PG, Goodwin TA. Osteopathic approach to diagnosing and treating somatic dysfunction in the extremities. In: Seffinger MA. <i>Foundations of</i>

Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324.

- Nicholas AS, Nicholas EA. *Atlas of Osteopathic Techniques*. 3rd ed. Philadelphia, PA: Wolters Kluwer; 2016. ISBN:978-1451193411.

Patient Care 4: Diagnostic Screening, Testing, and Interpreting Overall Intent: Appropriately order, interpret, and report diagnostic screening and testing, using current evidence-based guidelines	
Milestones	Examples
Level 1 <i>Explains the rationale, risks, and benefits for common diagnostic testing</i> <i>Interprets results of common diagnostic tests</i>	<ul style="list-style-type: none"> ● Knows the indications of ordering a lumbar x-ray in a patient with acute low back pain ● Identifies bony anatomy and recognizes pathology on plain-film imaging of the lumbar spine
Level 2 <i>Explains the rationale, risks, and benefits for complex diagnostic testing</i> <i>Interprets complex diagnostic data</i>	<ul style="list-style-type: none"> ● Knows the indication of ordering a magnetic resonance (MR) arthrogram in a patient with a suspected hip labral tear ● Reviews and interprets results from diagnostic work-up for clinically suspected rheumatoid arthritis
Level 3 <i>Integrates value and test characteristics of various diagnostic strategies in patients with common diseases</i> <i>Integrates complex diagnostic data accurately to reach high-probability diagnoses</i>	<ul style="list-style-type: none"> ● Understands when to order magnetic resonance imaging (MRI) of the lumbar spine in a patient with radicular symptoms who has failed other conservative measures ● Reviews results of lab work for patient presenting with multiple joint pain and takes appropriate next steps in management and treatment of the disease process
Level 4 <i>Integrates value and test characteristics of various diagnostic strategies in patients with comorbid conditions or multisystem disease</i> <i>Anticipates and accounts for limitations when interpreting diagnostic data</i>	<ul style="list-style-type: none"> ● Orders an MRI with and without contrast for a patient who is status post-lumbar fusion five years ago presenting with low back pain with lower extremity radiculopathy but is recalcitrant to non-steroidal anti-inflammatory drugs (NSAIDs) and physical therapy, ● Considers alternatives to an MRI with contrast in a patient with chronic renal failure; understands that alternative imaging can limit the evaluation
Level 5 <i>Demonstrates a nuanced understanding of emerging diagnostic tests and procedures</i>	<ul style="list-style-type: none"> ● Leads group discussion on emerging diagnostic tests of cervical instability
Assessment Models or Tools	<ul style="list-style-type: none"> ● Direct observation ● Educational presentations ● Office visit documentation ● Written and mock oral exams
Curriculum Mapping	<ul style="list-style-type: none"> ●
Notes or Resources	<ul style="list-style-type: none"> ● American College of Radiology (ACR). Appropriateness Criteria. https://www.acr.org/Clinical-Resources/ACR-Appropriateness-Criteria. 2021. ● Choosing Wisely. https://www.choosingwisely.org/. 2021.

- U.S. National Library of Medicine. PubMed Tutorial. <https://www.nlm.nih.gov/bsd/disted/pubmedtutorial/cover.html>. 2021.

Patient Care 5: Management of Procedural Care (e.g., Trigger Point Injection, Joint Aspiration, and Injection) Overall Intent: To understand the appropriateness of and gain proficiency in an osteopathic neuromusculoskeletal medicine physician's procedural scope of practice	
Milestones	Examples
<p>Level 1 <i>Identifies the procedures that osteopathic neuromusculoskeletal medicine physicians perform</i></p> <p><i>Recognizes osteopathic neuromusculoskeletal medicine physicians' role in referring patients for appropriate procedural care</i></p>	<ul style="list-style-type: none"> ● Discusses treatment options for a patient's identified myofascial trigger point ● Informs the patient of the treatment options for knee joint pain ● Informs the patient of treatment options for knee joint pain, including a referral to another specialist
<p>Level 2 <i>Identifies patients for whom a procedure is indicated and who is equipped to perform it</i></p> <p><i>Counsels patients about expectations for common procedures performed by osteopathic neuromusculoskeletal medicine physicians and consultants</i></p>	<ul style="list-style-type: none"> ● Identifies a myofascial trigger point in a physical exam and discusses with the attending why the patient is a candidate for this treatment approach ● Obtains informed consent prior to performing a trigger point injection
<p>Level 3 <i>Demonstrates confidence and motor skills while performing procedures, including addressing complications</i></p> <p><i>Performs independent risk and appropriateness assessment based on patient-centered priorities for procedures performed by consultants</i></p>	<ul style="list-style-type: none"> ● Properly and effectively performs a trigger point injection into the right proximal trapezius muscle; ensures there are active breath sounds throughout ● Identifies a knee joint that would benefit from a cortico-steroid injection, discusses the treatment's risks and benefits with the patient, and performs the injection under direct supervision of the attending
<p>Level 4 <i>Identifies and acquires the skills to independently perform procedures in the current practice environment</i></p> <p><i>Collaborates with procedural colleagues to match patients with appropriate procedures, including declining support for procedures that are not in the patient's best interest</i></p>	<ul style="list-style-type: none"> ● Performs a trigger point injection on a right levator scapulae trigger point with indirect supervision from the attending; ensures there are active breath sounds throughout ● Discusses with the sports medicine attending the outcomes of a steroid injection in a shared diabetic patient with lateral epicondylitis
<p>Level 5 <i>Identifies procedures needed in future practice and pursues supplemental training to independently perform</i></p>	<ul style="list-style-type: none"> ● Determines the community does not have adequate ultrasound-guided musculoskeletal services and asks to learn the procedure
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> ● Direct observation

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	<ul style="list-style-type: none">• Multisource feedback• Office visit documentation• Simulation
Curriculum Mapping	<ul style="list-style-type: none">•
Notes or Resources	<ul style="list-style-type: none">• Anderson BC. <i>Office Orthopedics for Primary Care: Treatment</i>. 3rd ed. Saunders; 2006. ISBN:978-1416022060.• US Preventive Services Task Force. https://www.uspreventiveservicestaskforce.org/. 2021.

Medical Knowledge 1: Applied Foundational Sciences Overall Intent: To harmonize medical sciences with osteopathic principles to effectively establish a more specific and personalized osteopathic treatment	
Milestones	Examples
Level 1 <i>Explains the scientific knowledge (e.g., physiologic, pathologic, socioeconomic, and behavioral) for normal function and common conditions</i>	<ul style="list-style-type: none"> ● Explains the history, symptoms, findings, and common causes of low back pain ● Identifies normal gait pattern as well as gross deviations
Level 2 <i>Explains the scientific knowledge for complex conditions</i>	<ul style="list-style-type: none"> ● Explains the history, symptoms, findings, and potential causes of an acute chronic obstructive pulmonary disease (COPD) exacerbation and the physiology behind the acute flare mechanism
Level 3 <i>Integrates scientific knowledge into an osteopathic treatment plan while respecting the patient's comorbid conditions</i>	<ul style="list-style-type: none"> ● Creates an osteopathic treatment plan for a patient presenting with chronic prostatitis, incorporating the pathophysiology of the patient's history of benign prostatic hypertrophy and diabetes mellitus type 2, noting how it may contribute to the underlying condition ● Creates an osteopathic treatment plan for a patient with lumbar radiculopathy and history of uncontrolled diabetes mellitus
Level 4 <i>Integrates scientific knowledge into an osteopathic treatment plan while respecting the patient's complex comorbid conditions</i>	<ul style="list-style-type: none"> ● Integrates the physiologic and behavioral components into the osteopathic treatment plan for a patient with congestive heart failure, stage three chronic kidney disease, and atrial fibrillation ● Establishes an osteopathic treatment plan for an elderly patient admitted for small-bowel obstruction with history of multiple abdominal surgeries and current methadone use
Level 5 <i>Demonstrates a nuanced understanding of the scientific knowledge related to uncommon, atypical, or complex conditions</i>	<ul style="list-style-type: none"> ● Presents the pathophysiology, including behavioral and socioeconomic components, that can affect a patient with dermatomyositis; creates a detailed osteopathic treatment plan to improve the patient's quality of life
Assessment Models or Tools	<ul style="list-style-type: none"> ● Direct observation ● Mock written or oral exam ● Reflection ● Review of EHR ● Simulation
Curriculum Mapping	<ul style="list-style-type: none"> ●
Notes or Resources	<ul style="list-style-type: none"> ● D'Alonzo GE Jr, Krachman SL, Foley W, Ettlinger H, Carreiro JE. Osteopathic considerations in pulmonology. In: Seffinger MA. <i>Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research</i>. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324.

- Finley JM, Wieting JM, Foley W, Heinking KP, Lipton J, Valashinas BA. Osteopathic considerations in rheumatology. In: Seffinger MA. *Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research*. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324.
- Rogers FJ. Osteopathic consideration in cardiovascular medicine. In: Seffinger MA. *Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research*. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324.

Medical Knowledge 2: Manifestation of Systemic Disease through Neuromusculoskeletal System	
Overall Intent: To recognize systemic conditions manifesting in the neuromusculoskeletal system and develop a broad differential diagnosis leading to comprehensive care	
Milestones	Examples
<p>Level 1 <i>Describes the basic interrelationship of structure and function through osteopathic structural findings</i></p> <p><i>Forms an osteopathic treatment plan based on the patient’s history and physical exam findings, with guidance</i></p>	<ul style="list-style-type: none"> ● When a patient presents with pneumonia in the hospital, recalls relevant anatomy and physiology to explain presenting complaints and why the physician would look for somatic dysfunction in the thoracic spine ● Discusses the rationale for using indirect techniques in a patient recently involved in a motor vehicle collision, with guidance
<p>Level 2 <i>Consistently describes the interrelationship of structure and function through osteopathic structural findings</i></p> <p><i>Forms an appropriate osteopathic treatment plan based on the patient’s history and physical exam findings</i></p>	<ul style="list-style-type: none"> ● Discusses the interconnectedness of back pain and somatic dysfunctions in a patient with scoliosis ● Performs OMT that rationally addresses the somatic dysfunctions found in the cervical and thoracic spine during the exam of a patient who presents with migraine headaches
<p>Level 3 <i>Consistently describes the complex interrelationship of structure and function through osteopathic structural findings as relates to the patient’s systemic disease</i></p> <p><i>Consistently forms an appropriate osteopathic treatment plan based on the patient’s complex history and physical exam findings</i></p>	<ul style="list-style-type: none"> ● Charts thought process connecting a patient’s Crohn’s disease and low back pain to osteopathic findings using five models of care ● Documents treatment plans for a patient with a leg-length discrepancy presenting with back pain that include OMT, physical therapy (PT), orthotics/lift therapy, medical management, and exercise
<p>Level 4 <i>Demonstrates knowledge of the effects of health and illness on the whole patient – body, mind, and spirit</i></p> <p><i>Develops a long-range treatment plan to support the health and well-being of the patient</i></p>	<ul style="list-style-type: none"> ● Provides rational treatment plans that include well-being and prevention addressing mind, body, and spirit for a patient with mixed-type headaches whose symptoms are worsened by work and personal issues ● Provides exercises to develop mind-body connection for patients with a desire to reduce stress levels
<p>Level 5 <i>Teaches the osteopathic tenets to the multidisciplinary team</i></p> <p><i>Is a leader in the development and dissemination of osteopathic knowledge</i></p>	<ul style="list-style-type: none"> ● Provides grand rounds discussion incorporating osteopathic tenets ● Presents research findings at a regional or national meeting

Assessment Models or Tools	<ul style="list-style-type: none"> ● Direct observation ● Simulation
Curriculum Mapping	<ul style="list-style-type: none"> ●
Notes or Resources	<ul style="list-style-type: none"> ● Fraix MP, Neiman DC, Dreibelbis R, Giusti RE. Energy balance: nutrition, exercise and the metabolic model. In: Seffinger MA. <i>Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research</i>. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324. ● Kuchera ML, Ettlinger H, Seffinger MA. Assessing for viscerosomatic reflexes and somatosomatic reflexes, jones tender points, trigger points, and chapman reflexes. In: Seffinger MA. <i>Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research</i>. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324. ● Saeed SA, Cunningham K, Bloch RM. Depression and anxiety disorders: Benefits of exercise, yoga, and meditation. <i>Am Fam Physician</i>. 2019;99(10):620-627. https://www.aafp.org/afp/2019/0515/p620.html. 2021. ● Seffinger MA, Amirianfar E, Kuchera ML, Jerome J. The five models of osteopathic patient care. In: Seffinger MA. <i>Foundations of Osteopathic Medicine: Philosophy, Science, Clinical Applications, and Research</i>. 4th ed. Philadelphia, PA: Wolters Kluwer; 2018. ISBN:978-1496368324.

Systems-Based Practice 1: Patient Safety and Quality Improvement (QI)	
Overall Intent: To engage in the analysis and management of patient safety events, including relevant communication with patients, families, and health care professionals; to conduct a QI project	
Milestones	Examples
<p>Level 1 <i>Demonstrates knowledge of common patient safety events</i></p> <p><i>Demonstrates knowledge of how to report patient safety events</i></p> <p><i>Demonstrates knowledge of basic quality improvement methodologies and metrics</i></p>	<ul style="list-style-type: none"> ● Lists patient misidentification or medication errors as common patient safety events ● Describes how to report errors in your environment ● Describes a fishbone tool
<p>Level 2 <i>Identifies system factors that lead to patient safety events</i></p> <p><i>Reports patient safety events through institutional reporting systems (simulated or actual)</i></p> <p><i>Describes local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation)</i></p>	<ul style="list-style-type: none"> ● Identifies that a lack of hand sanitizer dispenser at each clinical exam room can lead to increased infection rates ● Reports a lack of hand sanitizer dispenser at each clinical exam room to the medical director ● Summarizes protocols resulting in decreased spread of hospital acquired <i>C. diff</i>
<p>Level 3 <i>Participates in analysis of patient safety events (simulated or actual)</i></p> <p><i>Participates in disclosure of patient safety events to patients and families (simulated or actual)</i></p> <p><i>Participates in local quality improvement initiatives</i></p>	<ul style="list-style-type: none"> ● Prepares for morbidity and mortality presentations ● Through simulation, communicates with patients/families about incorrect imaging based on the chief complaint ● Participates in project identifying the root cause of rooming inefficiency
<p>Level 4 <i>Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)</i></p> <p><i>Discloses patient safety events to patients and families (simulated or actual)</i></p>	<ul style="list-style-type: none"> ● Collaborates with a team to conduct the analysis of incorrect imaging errors; can effectively communicate with patients/families about those events

<p><i>Demonstrates skills required to identify, develop, implement, and analyze a quality improvement project</i></p>	<ul style="list-style-type: none"> ● Participates in the completion of a QI project to reduce opiate prescriptions for acute low back pain, including assessing the problem, articulating a broad goal, developing a SMART (Specific, Measurable, Attainable, Relevant, Time-bound) objective plan, and monitoring progress and challenges
<p>Level 5 <i>Actively engages teams and processes to modify systems to prevent patient safety events</i></p> <p><i>Role models or mentors others in the disclosure of patient safety events</i></p> <p><i>Designs, implements, and assesses quality improvement initiatives at the institutional or community level</i></p>	<ul style="list-style-type: none"> ● Assumes a leadership role at the departmental or institutional level for patient safety ● Conducts a simulation for disclosing patient safety events ● Initiates and completes a QI project to reduce opiate prescriptions for acute low back pain
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> ● Direct observation ● E-module multiple choice tests ● Medical record (chart) audit ● Portfolio review ● Reflection ● Simulation
<p>Curriculum Mapping</p>	<ul style="list-style-type: none"> ●
<p>Notes or Resources</p>	<ul style="list-style-type: none"> ● Agency for Healthcare Research and Quality (AHRQ). Quality and Patient Safety. https://www.ahrq.gov/professionals/quality-patient-safety/index.html. 2021. ● Agency for Healthcare Research and Quality. TeamSTEPPS. https://www.ahrq.gov/teamstepps/index.html. 2021. ● American Academy of Family Physicians. Basics of Quality Improvement. https://www.aafp.org/practice-management/improvement/basics.html. 2021. ● American Board of Family Medicine. Performance Improvement. https://www.theabfm.org/continue-certification/performance-improvement. 2021. ● Institute for Healthcare Improvement. http://www.ihl.org/Pages/default.aspx. 2021. ● The Joint Commission. https://www.jointcommission.org/. 2021. ● World Health Organization. Patient Safety. https://www.who.int/patientsafety/en/. 2021.

Systems-Based Practice 2: System Navigation for Patient-Centered Care	
Overall Intent: To effectively navigate the health care system, including the interdisciplinary team and other care providers; to adapt care to a specific patient population to ensure high-quality patient outcomes	
Milestones	Examples
<p>Level 1 <i>Demonstrates knowledge of care coordination</i></p> <p><i>Identifies key elements for safe and effective transitions of care and hand-offs</i></p> <p><i>Demonstrates knowledge of population and community health needs and disparities</i></p>	<ul style="list-style-type: none"> ● For a patient with low back pain with left-sided radiculopathy, identifies the neurologist, primary care physician, and physical therapist as team ● Lists the essential components of a structured tool such as I-PASS for sign-out and care transition and hand-offs ● Identifies that patients in rural areas may have different needs than urban patients
<p>Level 2 <i>Coordinates care of patients in routine clinical situations effectively using the roles of the interprofessional team members</i></p> <p><i>Performs safe and effective transitions of care/hand-offs in routine clinical situations</i></p> <p><i>Identifies specific population and community health needs and inequities in the local population</i></p>	<ul style="list-style-type: none"> ● Coordinates care with inpatient obstetrics department to facilitate follow-up at the ONMM clinic for new mothers with low back pain ● Routinely uses I-PASS for a stable patient during sign-out ● Identifies that limited transportation options may hinder rural patients from attending multiple medical appointments
<p>Level 3 <i>Coordinates care of patients in complex clinical situations effectively using the roles of interprofessional team members</i></p> <p><i>Performs safe and effective transitions of care/hand-offs in complex clinical situations</i></p> <p><i>Uses local resources effectively to meet the needs of a patient population and community</i></p>	<ul style="list-style-type: none"> ● Works with the social worker to create a care plan for a homeless patient that will ensure follow-up at the ONMM continuity of care clinic after discharge from the hospital ● Coordinates care with the urgent care or emergency department for patients presenting to the ONMM continuity of care clinic with urgent medical issues ● Routinely uses I-PASS when transferring a patient to the intensive care unit ● Refers patients to a local pharmacy that provides a sliding fee scale option and prints pharmacy coupons for patients in need
<p>Level 4 <i>Role models effective coordination of patient-centered care among different disciplines and specialties</i></p>	<ul style="list-style-type: none"> ● During inpatient rotations, leads team members in approaching consultants to review cases/recommendations and arranges interdisciplinary ONMM rounds for the team

<p><i>Role models and advocates for safe and effective transitions of care/hand-offs within and across health care delivery systems</i></p> <p><i>Participates in changing and adapting practice to provide for the needs of specific populations</i></p>	<ul style="list-style-type: none"> ● Prior to going on vacation, proactively informs the covering resident about a plan of care for a pregnant patient who has elevated blood pressure at 36 weeks, has outpatient labs pending, and is having rib and low back pain managed by an ONMM consult service ● Oversees sign-outs among other residents and reinforces use of I-PASS ● Assists to design protocols for prescribing an exercise prescription to patients with opioid use disorders
<p>Level 5 <i>Analyzes the process of care coordination and leads in the design and implementation of improvements</i></p> <p><i>Improves quality of transitions of care within and across health care delivery systems to optimize patient outcomes</i></p> <p><i>Leads innovations and advocates for populations and communities with health care inequities</i></p>	<ul style="list-style-type: none"> ● Leads a program to arrange for ONMM team home visits that includes OMM for elderly patients who have chronic pain ● Develops a protocol to improve transitions to long term care facilities ● Leads development of ONMM clinic with diagnostic services for a rural clinic site
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> ● Direct observation ● Medical record (chart) audit ● Multisource feedback ● Objective structured clinical examination ● Portfolio review ● Quality metrics and goals mined from EHRs
<p>Curriculum Mapping</p>	<ul style="list-style-type: none"> ●
<p>Notes or Resources</p>	<ul style="list-style-type: none"> ● American Academy of Family Physicians. The EveryONE Project TOOLKIT. https://www.aafp.org/patient-care/social-determinants-of-health/everyone-project/eop-tools.html. 2021. ● Centers for Disease Control and Prevention (CDC). Population Health Training. https://www.cdc.gov/pophealthtraining/whatis.html. 2021. ● Institute for Healthcare Improvement. IHI Open School. http://www.ihl.org/education/IHIOpenSchool/courses/Pages/default.aspx. 2021. ● Phillips RL Jr, Pugno PA, Saultz JW, et al. Health is primary: Family medicine for America's health. <i>Ann Fam Med</i>. 2014;12(Suppl 1):S1-S12. https://www.annfammed.org/content/12/Suppl_1/S1. 2021.

- Skochelak SE, Hammoud MM, Lomis KD, et al. *AMA Education Consortium: Health Systems Science*. 2nd ed. Elsevier; 2021. ISBN:9780323694629.
- Spector ND, Starner AJ, Allen AD, et al. I-PASS handoff curriculum: Core resident workshop. *MedEdPORTAL*. 2013;9(1).
https://www.mededportal.org/doi/10.15766/mep_2374-8265.9311. 2021.
- UCSF. Center for Excellence in Primary Care. <https://cepc.ucsf.edu/>. 2021.

Systems-Based Practice 3: Physician Role in Health Care Systems	
Overall Intent: To understand the physician’s role in the complex health care system and how to optimize the system to improve patient care and the system’s performance	
Milestones	Examples
<p>Level 1 <i>Identifies key components of the complex health care system (e.g., hospital, skilled nursing facility, finance, personnel, technology)</i></p> <p><i>States factors impacting the costs of osteopathic neuromusculoskeletal medicine care</i></p> <p><i>Identifies basic knowledge domains for effective transition to practice (e.g., information technology, legal, billing and coding, financial, personnel)</i></p>	<ul style="list-style-type: none"> ● Demonstrates understanding of the credentialing process, daily work, and financial benefits of a hospital ONMM service during a didactics session ● Explains to patients how team-based care with a physical therapist and an ONMM specialist improves patient outcomes for backpain at a reduced cost to the healthcare system ● Demonstrates basic knowledge of the Modifier-25 for coding
<p>Level 2 <i>Describes how components of a complex health care system are interrelated, and how this impacts patient care</i></p> <p><i>Documents osteopathic neuromusculoskeletal medicine detail to facilitate accurate billing and reimbursement</i></p> <p><i>Demonstrates use of information technology required for medical practice (e.g., electronic health record, documentation required for billing and coding)</i></p>	<ul style="list-style-type: none"> ● Discusses with a patient how going to the emergency department for chronic low back pain is inefficient and costs the health care system more without improving care ● Achieves 90% on a chart coding audit ● Demonstrates that accurate written communication about patient surgical history in the EHR can increase patient safety and improve outcomes in a patient who has failed back syndrome
<p>Level 3 <i>Discusses how individual practice affects the broader system (e.g., length of stay, readmission rates, clinical efficiency)</i></p> <p><i>Explains the impact of documentation on billing and reimbursement</i></p>	<ul style="list-style-type: none"> ● Ensures that a patient who needs a referral to a neurosurgeon obtains access to care in the appropriate time frame ● Discusses risks, benefits, and costs of overuse of MRI imaging for acute low back pain ● Understands the core elements of employment contract negotiation

<p><i>Describes core administrative knowledge needed for transition to practice (e.g., contract negotiations, malpractice insurance, government regulation, compliance)</i></p>	<ul style="list-style-type: none"> ● Accurately codes for clinic visits and can justify reasoning for how treatment for a complex new patient presenting with headaches was coded
<p>Level 4 <i>Manages various components of the complex health care system to provide efficient and effective patient care and transition of care</i></p> <p><i>Practices and advocates for cost-effective patient care</i></p> <p><i>Analyzes individual practice patterns and prepares for professional requirements to enter practice</i></p>	<ul style="list-style-type: none"> ● Ensures proper documentation to gain approval for a shoulder MRI for a patient with a suspected rotator-cuff tear ● Works collaboratively to improve patient assistance resources for a patient with a recent amputation and limited resources ● Proactively compiles procedure logs in anticipation of applying for hospital privileges
<p>Level 5 <i>Advocates for or leads systems change that enhances high-value, efficient, and effective patient care</i></p> <p><i>Engages in external activities related to advocacy for cost-effective care</i></p> <p><i>Role models effective practice and practice management</i></p>	<ul style="list-style-type: none"> ● Works with community or professional organizations to advance the understanding of cost-effective care delivered by osteopathic physicians ● Improves informed consent process for non-English-speaking patients requiring interpreter services ● Shares experiences of QI projects with other physicians
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> ● Direct observation ● Knowledge based content testing ● Medical record (chart) audit ● Multisource feedback ● QI metrics/practice data
<p>Curriculum Mapping</p>	<ul style="list-style-type: none"> ●
<p>Notes or Resources</p>	<ul style="list-style-type: none"> ● Agency for Healthcare Research and Quality (AHRQ). Major Physician Measurement Sets. https://www.ahrq.gov/professionals/quality-patient-safety/talkingquality/create/physician/measurementsets.html. 2021. ● AHRQ. Measuring the Quality of Physician Care. https://www.ahrq.gov/professionals/quality-patient-safety/talkingquality/create/physician/challenges.html. 2021.

- Center for Medicare and Medicaid Services. MACRA. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html>. 2021.
- Center for Medicare and Medicaid Services. Merit-based Incentive Payment System (MIPS) Overview. <https://qpp.cms.gov/mips/overview>. 2021.
- The Commonwealth Fund. Health System Data Center. http://datacenter.commonwealthfund.org/?_ga=2.110888517.1505146611.1495417431-1811932185.1495417431#ind=1/sc=1. 2021.
- Dzau VJ, McClellan MB, McGinnis JM, et al. Vital directions for health and health care: Priorities from a National Academy of Medicine initiative. *JAMA*. 2017;317(14):1461-1470. <https://nam.edu/vital-directions-for-health-health-care-priorities-from-a-national-academy-of-medicine-initiative/>. 2021.
- Institute for Healthcare Improvement. IHI Open School. <http://app.ihl.org/lmsspa/#/6cb1c614-884b-43ef-9abd-d90849f183d4>. 2021.
- The Kaiser Family Foundation. Topic: Health Reform. <https://www.kff.org/health-reform/>. 2021.

Practice-Based Learning and Improvement 1: Evidence-Based and Informed Practice Overall Intent: To incorporate evidence and patient values into clinical practice	
Milestones	Examples
Level 1 <i>Demonstrates how to access, categorize, and analyze clinical evidence</i> <i>Understands how to perform a focused literature review</i>	<ul style="list-style-type: none"> ● Identifies evidence-based guidelines for osteoporosis screening at US Preventive Services Task Force website ● Identifies evidence-based guidelines for knee osteoarthritis
Level 2 <i>Articulates clinical questions and elicits patient preferences and values to guide evidence-based care</i> <i>Locates and evaluates evidence-based resources to develop an OMT plan</i>	<ul style="list-style-type: none"> ● In a patient with a rotator cuff injury, identifies and discusses potential evidence-based treatment options, and solicits patient perspective ● Explains why an x-ray should not be performed based on an updated literature review ● Discusses literature with the attending in support of physiologic models on which the OMT plan is based
Level 3 <i>Locates and applies the best available evidence, integrated with patient preference, to the care of complex patients</i> <i>Critically evaluates and develops the OMT plan, integrating evidence-based osteopathic care, to the care of complex patients</i>	<ul style="list-style-type: none"> ● Obtains, discusses, and applies evidence for the treatment of a patient with rotator cuff tendinitis, diabetes, diabetes mellitus-associated renal disease, and hypertension ● Understands and appropriately uses available clinical practice guidelines in making patient care decisions while eliciting patient preferences
Level 4 <i>Critically appraises and applies evidence even in the face of uncertainty and conflicting evidence to guide osteopathic care, tailored to the individual patient and that patient's neuromusculoskeletal complaints</i>	<ul style="list-style-type: none"> ● Accesses primary literature to identify alternative treatments to opioids for musculoskeletal pain
Level 5 <i>Coaches others to critically appraise and apply evidence for complex patients</i> <i>Collaboratively researches, develops, and disseminates evidence-based decision-making processes to promote best practices in osteopathic neuromusculoskeletal medicine</i>	<ul style="list-style-type: none"> ● Teaches best practices for treating acute radiculopathies in a patient with diabetes mellitus and coronary artery disease ● As part of a team, develops a continuous quality improvement project assessing the risks and benefits of oral steroid use in the diabetic population for acute radiculopathies; shares findings at a regional event
Assessment Models or Tools	<ul style="list-style-type: none"> ● Direct observation ● Medical record (chart) audit ● Oral or written examination

	<ul style="list-style-type: none"> ● Presentation evaluation ● Research portfolio
Curriculum Mapping	<ul style="list-style-type: none"> ●
Notes or Resources	<ul style="list-style-type: none"> ● Care That Fits. https://carethatfits.org/. 2021. ● Fortin AH, Dwamena FC, Frankel RM, Smith RC. <i>Smith's Patient Centered Interviewing: An Evidence-Based Method</i>. 4th ed. New York, NY: McGraw Hill; 2018. ISBN:978-1259644627. ● Guyatt G, Rennie D, Meade MO, Cook DJ. <i>Users' Guides to the Medical Literature</i>. 3rd ed. New York, NY: McGraw Hill; 2015. ISBN:978-0-07-179071-0. ● Institutional IRB guidelines ● Mayo Clinic. Mayo Clinic Shared Decision-Making National Resource Center. https://shareddecisions.mayoclinic.org/. 2021. ● U.S. National Library of Medicine. PubMed Tutorial. https://www.nlm.nih.gov/bsd/disted/pubmedtutorial/cover.html. 2021. ● US Preventive Services Task Force. https://www.uspreventiveservicestaskforce.org/. 2021. ● Various journal submission guidelines

Practice-Based Learning and Improvement 2: Reflective Practice and Commitment to Personal Growth Overall Intent: To seek clinical performance information with the intent to improve care; reflect on all domains of practice, personal interactions, and behaviors, and their impact on colleagues and patients (reflective mindfulness); and develop clear objectives and goals for improvement in the form of a personal learning plan	
Milestones	Examples
<p>Level 1 <i>Accepts responsibility for personal and professional development by establishing goals</i></p> <p><i>Identifies the factors that contribute to gap(s) between expectations and actual performance</i></p> <p><i>Acknowledges there are always opportunities for self-improvement in both character and skill level</i></p>	<ul style="list-style-type: none"> ● Initiates personal goals and discuss them with an advisor ● Is aware that inadequate sleep may adversely impact performance ● Participates in didactic sessions and supplemental readings
<p>Level 2 <i>Demonstrates openness to performance data (feedback and other input) to improve on established goals</i></p> <p><i>Self-reflects and analyzes factors that contribute to gap(s) between expectations and actual performance</i></p> <p><i>Designs and implements a learning plan, with prompting</i></p>	<ul style="list-style-type: none"> ● Is increasingly able to identify performance gaps in diagnostic skills and daily work using feedback and supplied performance metrics ● After working with an attending for a week, asks the attending about personal performance and opportunities for improvement ● Uses feedback to improve communication with peers/colleagues, staff members, and patients
<p>Level 3 <i>Intermittently seeks additional performance data with adaptability and humility</i></p> <p><i>Self-reflects, analyzes, and institutes behavioral change(s) to narrow the gap(s) between expectations and actual performance</i></p> <p><i>Independently creates and implements a learning plan</i></p>	<ul style="list-style-type: none"> ● Takes input from peers/colleagues and supervisors to gain complex insight into personal strengths and areas to improve ● Self-reflects and is appreciative, of others' input ● Creates specific, measurable, reasonable, and achievable goals ● Finds and engages in activities targeted at practice areas for improvement
<p>Level 4 <i>Consistently seeks performance data with adaptability and humility</i></p>	<ul style="list-style-type: none"> ● Habitually makes a learning plan for each rotation and seeks data on personal clinical performance (e.g., creates list of pediatric fractures to see on a pediatric orthopaedic rotation)

<p><i>Challenges assumptions and considers alternatives in narrowing the gap(s) between expectations and actual performance</i></p>	<ul style="list-style-type: none"> ● Consistently identifies ongoing gaps and chooses areas for further development (e.g., looks at rotation curriculum to highlight learner deficits, identifies in-training exam categories where deficient to apply to learning plan)
<p><i>Uses performance data to measure the effectiveness of the learning plan, and, when necessary, improves it</i></p>	<ul style="list-style-type: none"> ● Consistently seeks out and engages in evidence-based activities targeted at areas for improvement identified by external sources and self-reflection
<p>Level 5 Leads performance review processes</p> <p><i>Coaches others on reflective practice for both treatment plans and OMT skill level</i></p> <p><i>Facilitates the design and implementing learning plans for others</i></p>	<ul style="list-style-type: none"> ● Actively discusses learning goals with supervisors and colleagues ● Encourages other learners to consider how their behaviors affects the team ● Serves as a role model for self-reflection and effective self-directed learning (e.g., shares study guides, learning plans with future classes of residents) ● Demonstrates emotional intelligence and cognitive reframing skills
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> ● Direct observation of patient care, video monitoring ● Review/creation of learning plan ● Self-reflection ● SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis
<p>Curriculum Mapping</p>	<ul style="list-style-type: none"> ●
<p>Notes or Resources</p>	<ul style="list-style-type: none"> ● Burke AE, Benson B, Englander R, Carraccio C, Hicks PJ. Domain of competence: Practice-based learning and improvement. <i>Acad Pediatr.</i> 2014;14(2 Suppl):S38-S54. https://www.academicpedsjnl.net/article/S1876-2859(13)00333-1/fulltext. 2021. ● Grant A, McKimm J, Murphy F. <i>Developing Reflective Practice: A Guide for Medical Students, Doctors and Teachers.</i> Hoboken, NJ: Wiley-Blackwell; 2017. ISBN:978-1119064749. ● Hojat M, Veloski JJ, Gonnella JS. Measurement and correlates of physicians' lifelong learning. <i>Acad Med.</i> 2009;84(8):1066-74. https://insights.ovid.com/crossref?an=00001888-200908000-00021. 2021. ● Kraut A, Yarris LM, Sargeant J. Feedback: Cultivating a positive culture. <i>J Grad Med Educ.</i> 2015;7(2):262-264. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4512803/. 2021. ● Lockspeiser TM, Schmitter PA, Lane JL, Hanson JL, Rosenberg AA, Park YS. Assessing residents' written learning goals and goal writing skill: Validity evidence for the learning goal scoring rubric. <i>Acad Med.</i> 2013;88(10):1558-1563. https://insights.ovid.com/article/00001888-201310000-00039. 2021. ● RJug R, Jiang XS, Bean SM. Giving and receiving effective feedback: A review article and how-to guide. <i>Arch Pathol Lab Med.</i> 2019;143(2):244-250.

<https://meridian.allenpress.com/aplm/article/143/2/244/64770/Giving-and-Receiving-Effective-Feedback-A-Review>. 2021.

- Winkel AF, Yingling S, Jones AA, Nicholson J. Reflection as a learning tool in graduate medical education: A systematic review. *JGME*. 2017;9(4):430-439.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5559236/>. 2021.

Professionalism 1: Professional Behavior and Ethical Principles	
Overall Intent: To recognize and address lapses in ethical and professional behavior, demonstrates ethical and professional behaviors, and use appropriate resources for managing ethical and professional dilemmas	
Milestones	Examples
<p>Level 1 <i>Describes professional behavior and potential triggers for personal lapses in professionalism</i></p> <p><i>Takes responsibility for personal lapses in professionalism</i></p> <p><i>Demonstrates knowledge of ethical principles</i></p>	<ul style="list-style-type: none"> ● Understands that being tired can cause a lapse in professionalism ● Identifies personal goals related to communicating with patients and families ● Understands being late to sign-out has adverse effect on patient care and professional relationships ● Articulates how the principle of “do no harm” applies to a patient who may not need a trigger point injection even though the training opportunity exists
<p>Level 2 <i>Demonstrates self-reflective behaviors and professionalism in routine situations</i></p> <p><i>Describes when and how to report professionalism lapses in oneself and others</i></p> <p><i>Analyzes straightforward situations using ethical principles</i></p>	<ul style="list-style-type: none"> ● Responds appropriately to feedback from supervisors and colleagues related to starting shift on time ● Notifies appropriate supervisor when a resident is routinely late to sign-out ● Notifies appropriate supervisor when the resident recognizes personal difficulty showing up on time to osteopathic neuromusculoskeletal medicine continuity clinic ● Identifies and applies ethical principles involved in informed consent when unclear of all the risks
<p>Level 3 <i>Demonstrates professional behavior in complex or stressful situations</i></p> <p><i>Recognizes need to seek help in managing and resolving complex professionalism lapses</i></p> <p><i>Analyzes complex situations using ethical principles</i></p>	<ul style="list-style-type: none"> ● Appropriately responds to a distraught family member following an unsuccessful resuscitation attempt of a relative ● Holds respectful and informative conversations regarding vaccination decision making with a vaccine-hesitant parent ● After noticing a colleague’s inappropriate social media post, reviews social media use policies and seeks guidance ● Offers treatment options for a terminally ill patient, free of bias, while recognizing own limitations, and consistently honoring the patient’s choice
<p>Level 4 <i>Recognizes potential situations that may trigger professionalism lapses and intervenes to prevent lapses in oneself and others</i></p>	<ul style="list-style-type: none"> ● Actively considers the perspectives of others ● Models respect for patients and promotes the same from colleagues, when a patient has been waiting an excessively long time to be seen ● Recognizes and seeks to address any-self held biases that may alter patient interaction

<p><i>Recognizes and uses appropriate resources for managing and resolving dilemmas as needed</i></p>	<ul style="list-style-type: none"> ● Respectfully approaches a resident who is late to sign-out about the importance of being on time ● Recognizes and uses ethics consults, literature, risk management, and/or legal counsel to resolve ethical dilemmas ● Helps a distraught patient speak with a hospital administrator regarding complaints
<p>Level 5 <i>Mentors others in professional behavior</i></p> <p><i>Identifies and addresses system-level factors that induce or exacerbate ethical problems and professionalism lapses or impede their resolution</i></p>	<ul style="list-style-type: none"> ● Coaches others when their behavior fails to meet professional expectations and creates a performance improvement plan to prevent recurrence ● Engages stakeholders to address excessive wait times in the ONMM continuity of care clinic to decrease patient and provider frustrations that lead to unprofessional behavior
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> ● Direct observation ● Multisource feedback ● Oral or written self-reflection (e.g., of a personal or observed lapse, ethical dilemma, or systems-level factors) ● Simulation
<p>Curriculum Mapping</p>	<ul style="list-style-type: none"> ●
<p>Notes or Resources</p>	<ul style="list-style-type: none"> ● ABIM Foundation. American Board of Internal Medicine. Medical professionalism in the new millennium: A physician charter. <i>Annals of Internal Medicine</i>. 2002;136(3):243-246. https://annals.org/aim/fullarticle/474090/medical-professionalism-new-millennium-physician-charter. 2021. ● American College of Osteopathic Family Physicians. https://www.acofp.org/acofpimis/. 2021. ● American Medical Association. Ethics. https://www.ama-assn.org/delivering-care/ama-code-medical-ethics. 2021. ● American Osteopathic Association. Physician Wellness. https://osteopathic.org/life-career/your-health-wellness/. 2021. ● Bynny RL, Paauw DS, Papadakis MA, Pfeil S. <i>Medical Professionalism Best Practices: Professionalism in the Modern Era</i>. Aurora, CO: Alpha Omega Alpha Medical Society; 2017. <i>Medical Professionalism Best Practices: Professionalism in the Modern Era</i>. Aurora, CO: Alpha Omega Alpha Medical Society; 2017. http://alphaomegaalpha.org/pdfs/Monograph2018.pdf. 2021. ● Jefferson University. Jefferson Scale of Empathy. https://www.jefferson.edu/university/skmc/research/research-medical-education/jefferson-scale-of-empathy.html. 2021.

- Levinson W, Ginsburg S, Hafferty FW, Lucey CR. *Understanding Medical Professionalism*. 1st ed. New York, NY: McGraw-Hill Education; 2014. ISBN:978-0071807432.
- Local resources such as Resident Handbook and Medical Error reporting policies
- Mueller PS. Teaching and assessing professionalism in medical learners and practicing physicians. *Rambam Maimonides Med J*. 2015;6(2):e0011.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4422450/>. 2021.

Professionalism 2: Accountability/Conscientiousness	
Overall Intent: To take responsibility for one’s own actions and the impact of these on patients and other members of the health care team	
Milestones	Examples
<p>Level 1 <i>Takes responsibility for failure to complete tasks and responsibilities, identifies potential contributing factors, and describes strategies for ensuring timely task completion in the future</i></p> <p><i>Responds promptly to requests or reminders to complete tasks and responsibilities</i></p>	<ul style="list-style-type: none"> ● Responds promptly to reminders from program administrator to complete work hour logs ● Timely attendance at conferences ● Establishes timely goals for daily chart completion ● Completes end-of-rotation evaluations ● Completes chart documentation on the same day of the visit
<p>Level 2 <i>Performs tasks and responsibilities in a timely manner with appropriate attention to detail in routine situations</i></p> <p><i>Recognizes situations that may impact one’s own ability to complete tasks and responsibilities in a timely manner</i></p>	<ul style="list-style-type: none"> ● Completes administrative tasks and documents safety modules, procedure review, and licensing requirements by specified due date ● Routinely maintains up-to-date patient charts ● In preparation for being out of the office, arranges coverage for assigned clinical tasks on ONMM continuity of care clinic patients to ensure appropriate continuity of care
<p>Level 3 <i>Performs tasks and responsibilities in a timely manner with appropriate attention to detail in complex or stressful situations</i></p> <p><i>Proactively implements strategies to ensure that the needs of patients, teams, and systems are met</i></p>	<ul style="list-style-type: none"> ● Notifies attending of multiple competing demands on-call, appropriately triages tasks, and asks for assistance from other residents or faculty members, as needed ● Efficiently manages transfer of a clinic patient to the emergency room with all relevant information passed on to emergency department staff members ● Proactively communicates with other specialists and team members to ensure a coordinated plan of action upon a transition of care ● Routinely performs chart review ahead of clinic to manage patient load and delegate tasks efficiently
<p>Level 4 <i>Recognizes and addresses situations that may impact others’ ability to complete tasks and responsibilities in a timely manner</i></p>	<ul style="list-style-type: none"> ● Takes responsibility for inadvertently omitting key patient information during sign-out and professionally discusses with the patient, family members, and interprofessional team ● Encourages others on the team to maintain updated sign-out sheets for their patients to allow for seamless transfer of information
<p>Level 5 <i>Takes ownership of systemic processes and outcomes</i></p>	<ul style="list-style-type: none"> ● Sets up a meeting with the nurse manager to streamline patient discharges and leads team to find solutions to the problem ● Leads a quality improvement project aimed at identifying key factors in patient wait-time in clinic
Assessment Models or Tools	<ul style="list-style-type: none"> ● Compliance with deadlines and timelines

Osteopathic Neuromusculoskeletal Medicine Supplemental Guide

	<ul style="list-style-type: none"> • Direct observation • Multisource feedback • Resident learning portfolio • Self-evaluations and reflective tools • Simulation
Curriculum Mapping	<ul style="list-style-type: none"> •
Notes or Resources	<ul style="list-style-type: none"> • American Society of Anesthesiologists. Standards and Guidelines. https://www.asahq.org/standards-and-guidelines. 2021. • Code of conduct from fellow/resident institutional manual • Expectations of residency program regarding accountability and professionalism

Professionalism 3: Self-Awareness and Help-Seeking	
Overall Intent: To examine resident insight and ability to monitor and address personal well-being and professional growth	
Milestones	Examples
<p>Level 1 <i>Recognizes status of personal and professional well-being, with assistance</i></p> <p><i>Recognizes one's own limits in knowledge/skills, with assistance</i></p>	<ul style="list-style-type: none"> ● Acknowledges their fatigue when pointed out by a colleague ● Recognizes that asking for help is a sign of strength ● Accepts and exhibits positive responses to constructive feedback ● Receptive to attending physician guidance prior to seeing a patient
<p>Level 2 <i>Independently recognizes status of personal and professional well-being</i></p> <p><i>Independently recognizes limits in the knowledge/skills of oneself and the team and demonstrates appropriate help-seeking behaviors</i></p>	<ul style="list-style-type: none"> ● Identifies times when critical thinking is impaired due to fatigue ● Recognizes own symptoms of depression ● Actively seeks guidance when unsure about a clinical situation ● Schedules a review session with an attending when there are challenges understanding the management of low back pain in a patient with ankylosing spondylitis
<p>Level 3 <i>Proposes a plan to optimize personal and professional well-being, with guidance</i></p> <p><i>Proposes a plan to remediate or improve limits in the knowledge/skills of oneself or the team, with guidance</i></p>	<ul style="list-style-type: none"> ● After meeting with an advisor over concerns about increased stress in residency, develops a schedule for daily exercise ● Is receptive to faculty member suggestions to seek outside evaluation and/or treatment for a possible learning disability ● Coordinates with advisor to schedule blocked lactation times in ONMM continuity of care clinic and during the inpatient ONMM rotation ● Seeks assistance to develop a learning plan for an identified gap in prioritizing treatment needs of patients with multiple comorbid/musculoskeletal conditions
<p>Level 4 <i>Independently develops a plan to optimize personal and professional well-being</i></p> <p><i>Independently develops a plan to remediate or improve limits in the knowledge/skills of oneself or the team</i></p>	<ul style="list-style-type: none"> ● After becoming a parent, adjusts time management to allow for completion of clinical work while attending to family needs ● Initiates contact with a financial planner to optimize loan repayment strategies ● Develops workshop to address ability of team to manage shoulder dystocia ● After a missed diagnosis of a dislocated right shoulder on the inpatient service, develops a workshop to review best practice for the management of this condition at noon conference
<p>Level 5 <i>Addresses system barriers to maintain personal and professional well-being</i></p>	<ul style="list-style-type: none"> ● Works as part of a system committee to develop and administer well-being survey

<i>Mentors others to enhance knowledge/skills of oneself or the team</i>	<ul style="list-style-type: none"> ● Leads an education committee to develop longitudinal workshops
Assessment Models or Tools	<ul style="list-style-type: none"> ● Direct observation ● Group interview or discussions for team activities ● Individual interview ● Multisource feedback ● Online training modules ● Participation in well-being programs ● Personal learning plan ● Reflection ● Self SWOT ● Self-assessment
Curriculum Mapping	<ul style="list-style-type: none"> ●
Notes or Resources	<ul style="list-style-type: none"> ● This subcompetency is not intended to evaluate a fellow’s well-being. Rather, the intent is to ensure that each fellow has the fundamental knowledge of factors that affect well-being, the mechanisms by which those factors affect well-being, and available resources and tools to improve well-being. ● ACGME. “Well-Being Tools and Resources.” https://dl.acgme.org/pages/well-being-tools-resources. Accessed 2022. ● Case Network. CoreWellness Online. http://casenetwork.com/markets/corewellness/. 2021. ● Hicks PJ, Schumacher D, Guralnick S, Carraccio C, Burke AE. Domain of competence: personal and professional development. <i>Acad Pediatr</i>. 2014 Mar-Apr;14(2 Suppl):S80-97. https://www.academicpedsjnl.net/article/S1876-2859(13)00332-X/fulltext. 2021. ● Local resources, including Employee Assistance programs ● Pipas CF. <i>A Doctor’s Dozen: 12 Strategies for Personal Health and a Culture of Wellness</i>. Hanover, NH: Dartmouth College Press; 2018. https://www.press.uchicago.edu/ucp/books/book/distributed/D/bo44895080.html. 2021.

Interpersonal and Communication Skills 1: Patient- and Family-Centered Communication	
Overall Intent: To deliberately use language and behaviors to form constructive relationships with patients, identify communication barriers including self-reflection on personal biases and minimize them in the doctor-patient relationships; organize and lead communication around shared decision making	
Milestones	Examples
<p>Level 1 <i>Uses language and non-verbal behavior to demonstrate respect and establish rapport while communicating one's own role within the health care system</i></p> <p><i>Recognizes easily-identified barriers to effective communication (e.g., language, disability)</i></p> <p><i>Identifies the need to individualize communication strategies</i></p>	<ul style="list-style-type: none"> ● Introduces self, other learners and faculty members; identifies patient and others in the room, and engages all parties in health care discussion ● Identifies need for trained interpreter with non-English-speaking patients ● Uses age-appropriate language when discussing treatment modalities with pediatric patients
<p>Level 2 <i>Establishes a therapeutic relationship in straightforward encounters using active listening and clear language</i></p> <p><i>Identifies complex barriers to effective communication (e.g., health literacy, cultural differences)</i></p> <p><i>Organizes and initiates communication, sets an agenda, clarifies expectations, and verifies understanding</i></p>	<ul style="list-style-type: none"> ● Avoids medical jargon and restates patient perspective when discussing tobacco cessation ● Recognizes the need for handouts with diagrams and pictures to communicate information to a patient who is unable to read ● Prioritizes and sets agenda at the beginning of the appointment for a new patient with chronic back pain
<p>Level 3 <i>Establishes a therapeutic relationship in challenging patient encounters</i></p> <p><i>When prompted, reflects on personal biases while attempting to minimize communication barriers</i></p> <p><i>Sensitively and compassionately delivers medical information, managing patient/patient's</i></p>	<ul style="list-style-type: none"> ● Acknowledges patient's request for an MRI for new onset back pain without red flags and arranges timely follow-up visit to align diagnostic plan with goals of care ● In a discussion with the faculty member, acknowledges discomfort in caring for a patient with COPD who continues to smoke and has recurrent thoracic back pain secondary to viscerosomatic reflexes related to lung pathology ● Conducts a family meeting to determine a plan for withdrawal of treatment in a terminally ill patient

<p><i>family's values, goals, preferences, uncertainty, and conflict</i></p>	
<p>Level 4 <i>Maintains therapeutic relationships, with attention to patient/patient's family's concerns and context, regardless of complexity</i></p> <p><i>Independently recognizes personal biases while attempting to proactively minimize communication barriers</i></p> <p><i>Independently uses shared decision making to align patient/patient's family's values, goals, and preferences with treatment options to make a personalized care plan</i></p>	<ul style="list-style-type: none"> ● Continues to engage representative family members with disparate goals in the care of a patient with dementia ● Reflects on personal bias related to lung cancer death of own father and solicits input from faculty about mitigation of communication barriers when counseling patients around smoking cessation ● Uses patient and family input to develop a plan for home-based physical and occupational therapy in a Parkinson's patient they are caring for in the ONMM continuity of care clinic
<p>Level 5 <i>Mentors others in situational awareness and critical self-reflection to consistently develop positive therapeutic relationships</i></p> <p><i>Leads or develops initiatives to identify and address bias</i></p> <p><i>Role models shared decision making in communicating with the patient/patient's family, including in situations with a high degree of uncertainty/conflict</i></p>	<ul style="list-style-type: none"> ● Leads a discussion group on personal experience of moral distress ● Develops a residency curriculum on social justice which addresses unconscious bias ● Serves on a hospital bioethics committee
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> ● Direct observation ● Multisource feedback ● Portfolio ● Self-assessment including self-reflection exercises ● Standardized patients or structured case discussions
<p>Curriculum Mapping</p>	<ul style="list-style-type: none"> ●
<p>Notes or Resources</p>	<ul style="list-style-type: none"> ● Laidlaw A, Hart J. Communication skills: An essential component of medical curricula. Part I: Assessment of clinical communication: AMEE Guide No. 51. <i>Med Teach</i>. 2011;33(1):6-8. https://www.tandfonline.com/doi/abs/10.3109/0142159X.2011.531170?journalCode=imte20. 2021.

- Makoul G. Essential elements of communication in medical encounters: the Kalamazoo consensus statement. *Acad Med.* 2001;76(4):390-393.
https://journals.lww.com/academicmedicine/Fulltext/2001/04000/Essential_Elements_of_Communication_in_Medical.21.aspx. 2021.
- Makoul G. The SEGUE Framework for teaching and assessing communication skills. *Patient Educ Couns.* 2001;45(1):23-34.
<https://www.sciencedirect.com/science/article/abs/pii/S0738399101001367?via%3Dihub>. 2021.
- Symons AB, Swanson A, McGuigan D, Orrange S, Akl EA. A tool for self-assessment of communication skills and professionalism in residents. *BMC Med Educ.* 2009; 9:1.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2631014/>. 2021.

Interpersonal and Communication Skills 2: Interprofessional and Team Communication Overall Intent: To effectively communicate with the health care team, including consultants, in both straightforward and complex situations	
Milestones	Examples
<p>Level 1 <i>Respectfully requests a consultation, with supervision</i></p> <p><i>Respectfully responds to a consultation request and conveys recommendations, with supervision</i></p> <p><i>Uses language that values all members of the health care team</i></p>	<ul style="list-style-type: none"> ● Contacts a psychiatry resident for a consultation for patient who is hallucinating ● Appropriately and professionally acknowledges and communicates (i.e., “closes the loop”) with consulting physician once consult is reviewed with supervisor ● Correctly identifies individuals in the ONMM program by name and role; acknowledges team approach to care with patients
<p>Level 2 <i>Clarifies the goals of the consultation request</i></p> <p><i>Clearly conveys recommendations following consultations</i></p> <p><i>Communicates information effectively with all health care team members</i></p>	<ul style="list-style-type: none"> ● Follows up with consultants to convey specific questions and goals ● Communicates physical exam and work-up to date to neurology team when requesting consultation ● Discusses case with physician requesting an an ONMM consult and follows up on results with a written letter ● Uses ONMM consult template when reporting on a patient referred for somatic dysfunction
<p>Level 3 <i>Ensures understanding of consultant recommendations</i></p> <p><i>Seeks and integrates input from different members of the health care team and provides recommendations to the primary team in a clear and timely manner</i></p> <p><i>Communicates concerns and provides feedback to peers and learners</i></p>	<ul style="list-style-type: none"> ● Uses closed-loop communication when providing ONMM consultative recommendations to requesting provider ● Written report to primary team should clearly answer reason for requested consult and add value to the patient’s care ● Understands the value of other team members ● Discusses results of newborn inpatient ONMM consultation with lactation consultant and pediatrician ● Facilitates a mid-rotation feedback session with a student, developing an action plan for improved problem-focused medical history taking
<p>Level 4 <i>Integrates recommendations from consultant into the treatment plan</i></p>	<ul style="list-style-type: none"> ● Develops a single plan of care for a patient with multiple sclerosis based on recommendations from neurology, psychiatry, and pain management

<p><i>Provides comprehensive and prioritized recommendations, including assessment and rationale, to all necessary health care team members</i></p>	<ul style="list-style-type: none"> ● Provide understandable rationalized treatment plan based on the OMM findings documented that can be implemented in the hospital setting for a patient with post operative ileus
<p><i>Communicates feedback and constructive criticism to supervising individuals</i></p>	<ul style="list-style-type: none"> ● Respectfully raises concerns about a disruptive faculty member to program director
<p>Level 5 <i>Leads the health care team in the provision of effective consultative services across the spectrum of disease complexity and acuity</i></p> <p><i>Facilitates regular health care team-based feedback in complex situations</i></p>	<ul style="list-style-type: none"> ● Knows role as consultant and progressively provides valuable advice and care to obese diabetic patients with renal insufficiency presenting with low back pain and peripheral neuropathy ● Effectively leads a clinical operations meeting to discuss controversial new scheduling templates ● Convenes and facilitates a multidisciplinary meeting regarding a patient's feedback received after a patient's unsatisfactory appointment at the ONMM continuity of care clinic
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> ● Direct observation ● Medical record (chart) audit ● Multisource feedback ● Simulation
<p>Curriculum Mapping</p>	<ul style="list-style-type: none"> ●
<p>Notes or Resources</p>	<ul style="list-style-type: none"> ● Braddock CH, Edwards KA, Hasenberg NM, Laidley TL, Levinson W. Informed decision making in outpatient practice: Time to get back to basics. <i>JAMA</i>. 1999;282(24):2313-2320. https://jamanetwork.com/journals/jama/fullarticle/192233. 2021. ● Dehon E, Simpson K, Fowler D, Jones A. Development of the faculty 360. <i>MedEdPORTAL</i>. 2015;11:10174. https://www.mededportal.org/doi/10.15766/mep_2374-8265.10174. 2021. ● Green M, Parrott T, Cook G. Improving your communication skills. <i>BMJ</i>. 2012;344:e357 https://www.bmj.com/content/344/bmj.e357. 2021. ● Henry SG, Holmboe ES, Frankel RM. Evidence-based competencies for improving communication skills in graduate medical education: A review with suggestions for implementation. <i>Med Teach</i>. 2013;35(5):395-403. https://www.tandfonline.com/doi/abs/10.3109/0142159X.2013.769677?journalCode=imte20. 2021. ● Roth CG, Eldin KW, Padmanabhan V, Freidman EM. Twelve tips for the introduction of emotional intelligence in medical education. <i>Med Teach</i>. 2018;21:1-4.

<https://www.tandfonline.com/doi/abs/10.1080/0142159X.2018.1481499?journalCode=imte20>. 2021.

Interpersonal and Communication Skills 3: Communication within Health Care Systems Overall Intent: To effectively and responsibly use and improve EHR and health systems communication	
Milestones	Examples
<p>Level 1 <i>Records information in the patient record in an accurate and timely manner</i></p> <p><i>Learns institutional policy and safeguards patient personal health information</i></p> <p><i>Communicates through appropriate channels as required by institutional policy (e.g., patient safety reports, cell phone/pager use)</i></p>	<ul style="list-style-type: none"> ● Completes notes promptly with accurate data ● Adheres to Health Insurance Portability and Accountability Act (HIPAA) requirements by not discussing patients in common areas ● Uses encrypted email systems when including patient data
<p>Level 2 <i>Demonstrates organized medical management reasoning through notes in the patient record</i></p> <p><i>Appropriately uses documentation shortcuts; records required data in formats and timeframes specified by institutional policy</i></p> <p><i>Respectfully communicates concerns about the system</i></p>	<ul style="list-style-type: none"> ● After seeing a patient with low back pain, documents rationale for not ordering an MRI ● Avoids inappropriate copying and pasting of notes ● Adjusts contents of macros to be patient specific ● Discusses the breakdown of communication between nurses and physicians with appropriate individuals
<p>Level 3 <i>Uses the patient record to communicate updated and concise information in an organized format</i></p> <p><i>Appropriately selects direct (e.g., telephone, in-person) and indirect (e.g., progress notes, text messages) forms of communication based on context</i></p> <p><i>Uses appropriate channels to offer clear and constructive suggestions for system improvement while acknowledging system limitations</i></p>	<ul style="list-style-type: none"> ● Documents changes in patient status in the medical record outside of the daily note ● Routinely updates problem list to reflect current status ● Calls the patient to communicate a concerning test result, then notifies the clinical staff to schedule an appointment ● Communicates specific opportunities for EHR improvement to the appropriate advisory committee

<p>Level 4 <i>Demonstrates efficiency in documenting patient encounters and updating record</i></p> <p><i>Manages the volume and extent of written and verbal communication required for practice</i></p> <p><i>Initiates difficult conversations with appropriate stakeholders to improve the system</i></p>	<ul style="list-style-type: none"> ● Completes notes and updates charts for visits on day of appointment at a practice-level volume ● Manages practice-level volume of EHR tasks in a time-frame consistent with policy ● Participates in task force to update policy for sharing abnormal results ● Addresses members of the team, when needed, in an objective but compassionate, constructive, non-threatening manner
<p>Level 5 <i>Optimizes and improves functionality of the electronic health record within the institutional system</i></p> <p><i>Guides departmental or institutional communication around policies and procedures</i></p> <p><i>Facilitates dialogue regarding systems issues among larger community stakeholders (residency institution, health care system, field)</i></p>	<ul style="list-style-type: none"> ● Is identified as an EHR super-user ● Participates in a task force established by the hospital QI committee to improve order sets ● Participates in pharmacy and therapeutics committees to develop EHR tools to communicate across or between systems
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> ● Direct observation ● Medical record (chart) audit ● Multisource feedback
<p>Curriculum Mapping</p>	<ul style="list-style-type: none"> ●
<p>Notes or Resources</p>	<ul style="list-style-type: none"> ● Bierman JA, Hufmeyer KK, Liss DT, Weaver AC, Heiman HL. Promoting responsible electronic documentation: Validity evidence for a checklist to assess progress notes in the electronic health record. <i>Teach Learn Med.</i> 2017;29(4):420-432. https://www.tandfonline.com/doi/full/10.1080/10401334.2017.1303385. 2021. ● Haig KM, Sutton S, Whittington J. SBAR: A shared mental model for improving communication between clinicians. <i>Jt Comm J Qual Patient Saf.</i> 2006;32(3):167-175. https://www.jointcommissionjournal.com/article/S1553-7250(06)32022-3/fulltext. 2021. ● Starmer AJ, Spector ND, Srivastava R, et al. I-pass, a mnemonic to standardize verbal handoffs. <i>Pediatrics.</i> 2012;129.2:201-204. https://pediatrics.aappublications.org/content/129/2/201.long?sso=1&sso_redirect_count=1&nfstatus=401&nftoken=00000000-0000-0000-0000-000000000000&nfstatusdescription=ERROR%3a+No+local+token. 2021.

To help programs transition to the new version of the Milestones, the ACGME has mapped the original Milestones 1.0 to the new Milestones 2.0. Indicated below are where the subcompetencies are similar between versions. These are not exact matches but are areas that include similar elements. Not all subcompetencies map between versions. Inclusion or exclusion of any subcompetency does not change the educational value or impact on curriculum or assessment.

Milestones 1.0	Milestones 2.0
PC1: Osteopathic Manipulative Techniques (OMT) (Direct and Indirect)	PC2: Osteopathic Manipulative Treatment (OMT) (Direct) PC3: Osteopathic Manipulative Treatment (OMT) (Indirect)
PC2: Trigger Point Injection, Joint Aspiration, and Injection	PC5: Management of Procedural Care
PC3: Patient Management	PC1: Patient Management: Osteopathic Approach to Patient Care PC4: Diagnostic Screening, Testing, and Interpreting
PC4: Providing and Requesting Consultation	
MK1: Possesses Clinical Knowledge (Anatomy, Physiology, Pharmacology, Assessment, and Treatment)	MK1: Applied Foundational Sciences
MK2: Manifestation of systemic disease through neuromusculoskeletal system and related visceral and somatic reflex patterns	MK2: Manifestation of Systemic Disease through Neuromusculoskeletal System
SBP1: Patient Safety and Advocacy	SBP1: Patient Safety and Quality Improvement SBP2: System Navigation for Patient-Centered Care
SBP2: Practice Management and Economics	SBP3: Physician Role in the Health Care Systems
PBL1: Learning and Feedback	PBL2: Reflective Practice and Commitment to Personal Growth
PBL2: Literature Review and Research	PBL1: Evidence-Based and Informed Practice
PROF1: Patient and Community Interactions	PROF1: Professional Behavior and Ethical Principles
PROF2: Professional Conduct and Accountability	PROF1: Professional Behavior and Ethical Principles PROF2: Accountability/Conscientiousness
PROF3: Maintains emotional, physical, and mental health; and pursues continual personal and professional growth	PROF3: Self-Awareness and Help-Seeking
ICS1: Develops Meaningful, Therapeutic Relationships with Patients and Families	ICS1: Patient- and Family-Centered Communication
ICS2: Interprofessional Communications	ICS2: Interprofessional and Team Communication
	ICS3: Communication within Health Care Systems

Available Milestones Resources

Milestones 2.0: Assessment, Implementation, and Clinical Competency Committees Supplement, 2021 - <https://meridian.allenpress.com/jgme/issue/13/2s>

Milestones Guidebooks: <https://www.acgme.org/milestones/resources/>

- *Assessment Guidebook*
- *Clinical Competency Committee Guidebook*
- *Clinical Competency Committee Guidebook Executive Summaries*
- *Implementation Guidebook*
- *Milestones Guidebook*

Milestones Guidebook for Residents and Fellows: <https://www.acgme.org/residents-and-fellows/the-acgme-for-residents-and-fellows/>

- *Milestones Guidebook for Residents and Fellows*
- *Milestones Guidebook for Residents and Fellows Presentation*
- *Milestones 2.0 Guide Sheet for Residents and Fellows*

Milestones Research and Reports: <https://www.acgme.org/milestones/research/>

- *Milestones National Report*, updated each fall
- *Milestones Predictive Probability Report*, updated each fall
- *Milestones Bibliography*, updated twice each year

Developing Faculty Competencies in Assessment courses - <https://www.acgme.org/meetings-and-educational-activities/courses-and-workshops/developing-faculty-competencies-in-assessment/>

Assessment Tool: Direct Observation of Clinical Care (DOCC) - <https://dl.acgme.org/pages/assessment>

Assessment Tool: Teamwork Effectiveness Assessment Module (TEAM) - <https://team.acgme.org/>

Improving Assessment Using Direct Observation Toolkit - <https://dl.acgme.org/pages/acgme-faculty-development-toolkit-improving-assessment-using-direct-observation>

Remediation Toolkit - <https://dl.acgme.org/courses/acgme-remediation-toolkit>

Learn at ACGME has several courses on Assessment and Milestones - <https://dl.acgme.org/>