Supplemental Guide:
Pain Medicine

ACGME

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Milestones Supplemental Guide

This document provides additional guidance and examples for the Pain 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: Gathers and Synthesizes Essential and Accurate Information to Define Each Patient's Clinical Problem(s) (Neurology and Musculoskeletal) **Overall Intent:** To demonstrate progression in the areas of history taking, physical examination, and formulation of the correct diagnosis, with emphasis placed on inclusion of broad and complete sources of information including the patient, patient-reported outcomes, biopsychosocial data, and secondary sources of data (e.g., medical record)	
Milestones	**Examples**
Level 1 *Acquires accurate medical histories*	● Adheres to note template when acquiring medical histories
Performs accurate physical exams	● Asks about headache healthy habits
Develops limited differential diagnoses	● Performs respiratory, cardiovascular and abdominal exam; needs guidance to organize neurological and musculoskeletal exams
Level 2 *Acquires accurate and relevant pain histories*	● When patients state they stay well hydrated, asks follow-up questions to determine exact daily fluid intake, types of liquids, daily caffeine, and sugary drink intake
Performs relevant pain-based physical exams	● Examines a patient for Beighton criteria for joint hypermobility ● In a patient with widespread pain, examines and looks for tender points in all four quadrants ● Talks patient through the exam, explaining each step
Uses and synthesizes collected data, including patient-reported outcomes, to define a patient's central clinical problem(s) and generate a prioritized differential diagnosis and problem list	● Provides differential diagnosis for an L5 radiculopathy ● Uses the Functional Disability Inventory trends over time to assess efficacy of treatment plan
Level 3 *Acquires accurate and relevant pain histories in the context of a patient with complex medical conditions*	● Obtains an accurate medical history of acute pain symptoms superimposed on chronic pain ● Adjusts hip examination technique in a patient with previous total hip arthroplasty
Performs accurate and relevant physical exams that are targeted to the patient's problems	● During abdominal exam, looks for signs consistent with visceral hyperalgesia versus neuralgia versus myofascial pain ● Demonstrates on self potentially painful elements of exam (e.g., pinprick for sensory testing for patients with neuropathic pain)
Efficiently uses the biopsychosocial data to inform the differential diagnosis	● Obtains history of substance misuse in a patient with chronic pain to inform treatment options ● Interprets discrepancies between functional outcomes and pain scale responses ● Modifies treatment plan based on Functional Disability Inventory trends

Level 4 *Efficiently acquires accurate and relevant pain history in the context of a patient with complex medical conditions*	● If patient has multi-site pain, asks the patient to rank the areas with the most to the least impact on function and starts to gather pain history in that order ● Asks patients about sleep hygiene, including bedtime, wake-up time, length to onset of sleep, number of awakenings during the night, ease of going back to sleep, use of electronic devices around bedtime, caffeine intake, and exercise routine
Performs hypothesis-driven physical exams that identify subtle or unusual physical exam findings in patients with uncommon conditions	● Performs hook sign to look for slipping rib syndrome in patient with lower chest pain/rib cage pain
Efficiently uses all sources of secondary data to inform differential diagnosis	● In addition to institutional and external electronic health record (EHR) review, incorporates patient reported outcomes into differential diagnosis and development of treatment plan
Level 5 *Acts as a role model and teaches the effective use of history taking, biopsychosocial, and physical examination skills to efficiently identify and treat multiple complex pain conditions*	● During subspecialty rotation, identifies a patient who would benefit from multidisciplinary pain clinic evaluation, discusses referral with the patient, and if patient agrees, counsels an attending physician about placing a referral to pain clinic ● Supervises more junior residents during patient encounter
Assessment Models or Tools	● Direct observation ● Role playing ● Simulation
Curriculum Mapping	●
Notes or Resources	● Malanga GA, Mautner K. *Musculoskeletal Physical Examination: An Evidence-Based Approach*. 2nd ed. Philadelphia, PA: Elsevier; 2016. ISBN:978-0323396233. ● O'Brien M. *Aids to the Examination of the Peripheral Nervous System*. 5th ed. Elsevier; 2010. ISBN:978-0702034473. ● Scholten P, Chekka K, Benzon HT. Physical examination of the patient with pain. In: Benzon HT, Raja SN, Fishman SM, et al. *Essentials of Pain Medicine*. 4th ed. Philadelphia, PA: Elsevier; 2017. ISBN:978-0323401968. ● Stanford Medicine. Stanford Medicine 25: Promoting the Culture of Bedside Medicine. https://stanfordmedicine25.stanford.edu/. 2021. ● Wahezi SE, Duarte RA, Yerra S, et al. Telemedicine during COVID-19 and beyond: A practical guide and best practices multidisciplinary approach for the orthopedic and neurologic pain physical examination. *Pain Physician*. 2020;23(4S):S205-S238. https://www.painphysicianjournal.com/linkout?issn=&vol=23&page=S205. 2021.

Patient Care 2: Gathers and Synthesizes Essential and Accurate Information to Define Each Patient's Clinical Problem(s) (Psychiatric and Pain Comorbidities) **Overall Intent:** To master psychiatric history taking, mental status examination, and screening for common psychiatric comorbidities impacting pain treatment outcomes; to screen for additional high-risk factors that require modification of treatment plan; to understand and include patient reported outcomes, which will be increasingly required to assess efficacy of treatments and justify treatment selection	
Milestones	**Examples**
Level 1 *Acquires accurate psychiatric histories and conducts a mental status examination when relevant* *Identifies common psychiatric diagnoses*	● Counsels adolescent patient about potential mood-related side effects of gabapentin prescribed for sciatica ● Asks patients to self-identify personality styles as easy going or "worriers"
Level 2 *Consistently acquires accurate psychiatric histories and conducts mental status examinations when relevant* *Screens patients for common psychiatric comorbidities*	● Asks patients about stressors in their lives ● When patient identifies the stressor, fellow asks follow-up questions about how the stressors make them feel (worried, stressed, overwhelmed, etc.) ● Understands the rationale to triage patients into groups based on results of Risk Assessment Tool (or similar) ● Administers Risk Assessment Tool (or similar) to assess patient's risk for substance use disorder
Level 3 *Consistently and efficiently acquires accurate psychiatric histories and conducts mental status examinations when relevant; screens for common psychiatric comorbidities* *Consistently screens for adverse childhood events, trauma, substance use disorders (SUDs), and safety*	● Utilizes and interprets screening tools to recognize when a patient is suffering from depression or anxiety ● When starting a patient on opioids who is at moderate risk for opioid related adverse effects (misuse) based on Risk Assessment Tool, adjusts follow-up schedule and limits medication quantity accordingly
Level 4 *Consistently uses screening to narrow the differential diagnosis for a patient with psychiatric comorbidities* *Consistently follows trends in functional assessment of a patient with common psychiatric comorbidities*	● In patient with personality disorder, chronic pain, and severe pain disability, discusses higher level of psychiatric intervention such as partial hospitalization and how taking care of mental health will positively influence treatment of pain ● Places adolescent patients in a separate room from parents to privately and confidentially discuss smoking and use of tetrahydrocannabinols (THC), alcohol, and illicit drugs ● Identifies risk level (low, medium, high) for substance use disorder based on results of Risk Assessment Tool (or similar)

Level 5 *Acts as a role model and teaches the effective use of history taking and conducting a mental status examination when relevant* *Acts as a role model and teaches how to screen for adverse childhood events, trauma, SUDs, and safety*	● Actively involved in research or development of tools related to patient reported outcomes ● Teaches more junior residents or medical students how to conduct a non-judgmental screening for substance use disorder
Assessment Models or Tools	● Direct observation ● Role playing ● Simulation
Curriculum Mapping	●
Notes or Resources	● Adams MCB, Mackey SC. Assessment of chronic pain. In: Longnecker D, Newman M, Zapol W, Sandberg W, Mackey S. *Anesthesiology*. 3rd ed. McGraw Hill Education; 2017. ISBN:978-0071848817. ● Jackson WC. Connecting the dots: How adverse childhood experiences predispose to chronic pain. *Practical Pain Management*. 2021;20(3):24-28. https://www.practicalpainmanagement.com/treatments/psychological/connecting-dots-how-adverse-childhood-experiences-predispose-chronic-pain. 2021. ● Lawson EF, Wallace MS. Neurolytic agents. In: Deer TR, Leong MS, Buvanendran A, Kim PS, Panchal SJ, ed. *Treatment of Chronic Pain by Interventional Approaches: the American Academy of Pain Medicine Textbook on Patient Management*. New York: Springer; 2014. ISBN:978-1493918232. ● Leong MS, Kim PS, Saberski L. Cryoanalgesia. In: Deer TR, Leong MS, Buvanendran A, Kim PS, Panchal SJ, ed. *Treatment of Chronic Pain by Interventional Approaches: the American Academy of Pain Medicine Textbook on Patient Management*. New York: Springer; 2014. ISBN:978-1493918232. ● Younger J, McCue R, Mackey S. Pain outcomes: A brief review of instruments and techniques. *Curr Pain Headache Rep*. 2009;13(1):39-43. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891384/. 2021.

Patient Care 3: In Collaboration with the Patient, Develops, and Achieves a Comprehensive Pain Treatment Plan for Each Patient; Includes Consideration of Available Pharmacologic, Behavioral, Rehabilitative, Interventional, Complementary/Alternative Approaches **Overall Intent:** To demonstrate progression in the design, implementation, follow-up, and adjustments of a comprehensive therapy plan	
Milestones	**Examples**
Level 1 *Develops a plan for straightforward cases, with assistance* *Consistently recognizes situations that require consultations or help from an attending physician* *Manages straightforward cases, with direct supervision*	● Identifies the potential options for consultations and diagnostics in a patient with new (first time) onset of lower back pain without any risk factors or "red flag" symptoms such as neurological deficits and sees the patient for follow-up care ● Requests rheumatological consultation for a patient with suspected inflammatory spondyloarthropathy ● Completes a routine medication refill visit with attending supervision under consideration of the indication, effects, side effects, interactions, and comorbidities
Level 2 *Independently develops a plan for a straightforward case and implements it, with assistance* *Obtains appropriate consultations with specific questions for the consultant* *Manages complex cases, with direct supervision*	● For the patient described under Level 1, reviews potential diagnostic interventions and implements a treatment plan including follow-up as indicated ● Evaluates a complex pain patient, such as a patient with failed-back surgery syndrome under supervision and initiates appropriate consultations, such as physical therapy and spine surgery and provides follow-up care ● Evaluates a complex pain patient, such as a patient with complex regional pain syndrome and initiates the appropriate consultations such as physical therapy and reviews potential differential diagnostic options
Level 3 *Develops a plan for a complex case and implements it, with minimal assistance* *Incorporates consultation results into a treatment plan* *Manages cases with indirect supervision*	● Develops a treatment plan for a patient with failed-back surgery syndrome through incorporation of the consultant recommendations (spine surgeons, psychologists, and physical therapists) and follow-up care as indicated ● Actively manages the patient and makes adjustments to the treatment plan based on clinical outcomes and recommendations by the consultants and the patient`s preferences during follow-up care
Level 4 *Independently develops, implements, and monitors a comprehensive treatment plan*	● Independently manages a complex pain patient, such as a patient with cancer pain, through the various clinical stages including in the ambulatory and in-patient setting

Applies learning from consultants to similar patient care scenarios *Independently manages patients across applicable inpatient, outpatient, and ambulatory clinical settings*	● Incorporates changes in the patient`s preferences and consult recommendations throughout the clinical course of the pain condition ● Independently follows up and assesses the patient and clinical outcomes
Level 5 *Effectively manages unusual, rare, or complex disorders in all appropriate clinical settings* *Acts as role model and teaches complex patient-centered care* *Actively advances novel pain therapies*	● Expertise is actively sought by referring physicians and patients themselves ● Shares own expertise using various communication channels such as meetings, publications, or presentations ● Advances and actively implements novel assessment, diagnostic and therapeutic tools
Assessment Models or Tools	● Direct observation ● Multisource feedback ● Review of records ● Simulation
Curriculum Mapping	●
Notes or Resources	● Standard Pain Medicine Lite

Patient Care 4: Patient Counseling for Testing and Procedures **Overall Intent:** To identify risks and benefits for diagnostic testing and interventional pain procedures	
`	**Examples**
Level 1 *Discusses the indications, contraindications, and potential risks of diagnostic testing and straightforward procedures and obtains and documents informed consent*	● Informs patient of risks of performing lumbar medial branch denervation including bleeding, infection, increased pain, ineffectiveness, injury to nerves causing increased pain, weakness, or numbness in leg ● Lists common labs for inflammatory work-up for a young adult male with bilateral sacroiliac region pain ● Lists common labs for neuropathy work-up for paresthesia in stocking-glove distribution in a patient with no other known comorbidities
Level 2 *Discusses the indications, contraindications, and potential risks of invasive diagnostic testing and complex procedures and obtains and documents informed consent*	● Discusses risks and benefits of intrathecal pump placement ● Explains the cumulative effects of radiation exposure from radiographs, computerized tomography (CT), etc. ● Discusses the importance of first performing medial branch blocks prior to radiofrequency ablation because structural changes seen in the zygapophysial joint on radiographs, CT, or magnetic resonance imaging (MRI) does not always predict zygapophysial joint-mediated pain
Level 3 *Discusses the indications, contraindications, potential risks, and controversies of procedures for patients with common comorbidities and obtains and documents informed consent*	● Discusses the risks of spinal cord stimulator with a patient who has a body mass index (BMI) of 35 ● Explains the rationale for dual diagnostic blocks prior to proceeding with radiofrequency ablation for suspected zygapophysial joint pain ● Explains the value of diagnostic intra-articular hip injection in a patient with history of moderate to severe hip osteoarthritis and chronic intractable low back pain despite spine injections
Level 4 *Discusses the indications, contraindications, potential risks, and controversies procedures for patients with complex comorbidities and obtains and documents informed consent*	● Discussed risks and benefits of intrathecal pump placement in cancer patient on anticoagulation therapy ● Identifies in imaging the different types of transitional lumbosacral segments associated with Bertolotti's syndrome
Level 5 *Quantifies evidence for risk-benefit analysis while obtaining informed consent for invasive diagnostic testing, complex procedures, or therapies*	● Accurately describes risks with percentages of complication from genicular nerve denervation procedures, as well as percent of patients who get 50 percent relief and for how long
Assessment Models or Tools	● Direct observation

	● Multisource feedback ● Role playing
Curriculum Mapping	●
Notes or Resources	● Annacone F, Dixon S, Kaufman A. A review of long-term pain relief after genicular nerve radiofrequency ablation in chronic knee osteoarthritis. *Pain Physician*. 2017;20(3):E437-E444. https://www.painphysicianjournal.com/linkout?issn=&vol=20&page=E437. 2021. ● Cohen SP, Bhaskar A, Bhatia A, et al. Consensus practice guidelines on interventions for lumbar facet joint pain from a multispecialty, international working group. *Reg Anesth Pain Med*. 2020;45(6):424-467. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7362874/. 2021. ● Deer TR, Lamer TJ, Pope JE, et al. The Neurostimulation Appropriateness Consensus Committee (NACC) safety guidelines for the reduction of severe neurological injury. *Neuromodulation*. 2017;20(1):15-30. https://onlinelibrary.wiley.com/doi/10.1111/ner.12564. 2021. ● Deer TR, Pope JE, Hayek SM, et al. The Polyanalgesic Consensus Conference (PACC): Recommendations on intrathecal drug infusion systems best practices and guidelines. *Neuromodulation*. 2017;20(2):96-132. https://onlinelibrary.wiley.com/doi/10.1111/ner.12538. 2021. ● Wang RZ, Vashistha V, Kaur S, Houchens NW. Serotonin syndrome: Preventing, recognizing, and treating it. *Cleve Clin J Med.* 2016;83(11):810-817. https://www.ccjm.org/content/83/11/810.long. 2021.

Patient Care 5: Demonstrates Skill in Performing Interventions **Overall Intent:** To understand appropriate patient selection, risks and benefits, and safe procedure technique for interventional pain procedures	
`	**Examples**
Level 1 *Performs straightforward interventions, ensuring patient safety and comfort, with supervision* *Recognizes and manages complications in patients with common comorbidities, with supervision*	● Positions patient prone with lumbar support; uses appropriate sterile technique; obtains satisfactory fluoroscopic images, explains intervention to patient as it is being performed (e.g., saying “you will now feel a pinch and burn,” when administering local anesthetic, with guidance from attending ● Recognizes "wet tap” and informs patient of treatment options with help of attending
Level 2 *Independently performs straightforward interventions, ensuring patient safety and comfort* *Independently recognizes and manages complications in patients with common comorbidities*	● Positions patient prone with lumbar support; uses appropriate sterile technique; obtains satisfactory fluoroscopic images; explains intervention to patients as it is being performed (e.g., saying “you will now feel a pinch and burn,” when administering local anesthetic independently ● Recognizes “wet tap” and can inform patient of treatment options independently
Level 3 *Performs complex interventions, ensuring patient safety and comfort, with supervision* *Recognizes and manages complications in patients with complex comorbidities, with supervision*	● Performs spinal cord stimulator trial with attending supervision ● Recognizes and treats signs and symptoms of serotonin syndrome in patient with history of depression on multiple antidepressants who was recently started on cyclobenzaprine with help from attending
Level 4 *Independently performs complex interventions, ensuring patient safety and comfort* *Independently recognizes and manages complications in patients with complex comorbidities*	● Independently performs spinal cord stimulator trial ● Recognizes and independently treats signs and symptoms of serotonin syndrome in patient with history of depression on multiple antidepressants, who was recently started on cyclobenzaprine
Level 5 *Independently performs complex interventions for a patient with complex*	● Independently implants intrathecal pump in cancer patient with malnutrition and on chronic anticoagulation therapy

comorbidities, ensuring patient safety and comfort *Demonstrates expertise to teach and supervise others in the performance of invasive procedures*	● Teaches fellows or colleague how to implant a spinal cord stimulator
Assessment Models or Tools	● Direct observation ● Role playing
Curriculum Mapping	●
Notes or Resources	● Annacone F, Dixon S, Kaufman A. A review of long-term pain relief after genicular nerve radiofrequency ablation in chronic knee osteoarthritis. *Pain Physician*. 2017;20(3):E437-E444. https://www.painphysicianjournal.com/linkout?issn=&vol=20&page=E437. 2021. ● Cohen SP, Bhaskar A, Bhatia A, et al. Consensus practice guidelines on interventions for lumbar facet joint pain from a multispecialty, international working group. *Reg Anesth Pain Med*. 2020;45(6):424-467. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7362874/. 2021. ● Deer TR, Lamer TJ, Pope JE, et al. The Neurostimulation Appropriateness Consensus Committee (NACC) safety guidelines for the reduction of severe neurological injury. *Neuromodulation*. 2017;20(1):15-30. https://onlinelibrary.wiley.com/doi/10.1111/ner.12564. 2021. ● Deer TR, Pope JE, Hayek SM, et al. The Polyanalgesic Consensus Conference (PACC): Recommendations on intrathecal drug infusion systems best practices and guidelines. *Neuromodulation*. 2017;20(2):96-132. https://onlinelibrary.wiley.com/doi/10.1111/ner.12538. 2021. ● Wang RZ, Vashistha V, Kaur S, Houchens NW. Serotonin syndrome: Preventing, recognizing, and treating it. *Cleve Clin J Med.* 2016;83(11):810-817. https://www.ccjm.org/content/83/11/810.long. 2021.

Patient Care 6: Provides Consultative Care **Overall Intent:** To provide timely, meaningful consults in a manner that maximizes multidisciplinary patient care management and is respectful of system-based practice issues	
Milestones	**Examples**
Level 1 *Respectfully receives and provides a timely response to consultation request* *Recognizes the need for timely consultation based on disease acuity with supervision*	● Consistently responds to page requesting an inpatient pain consult within an hour (or institutionally required timeframe)
Level 2 *Clarifies the consultative question after gathering data about a patient with a basic pain condition, with supervision* *Independently recognizes the need for timely consultation based on disease acuity*	● After discussion with the attending pain physician, calls the primary care provider to clarify which pain issue(s) the consult is for and the urgency for a patient with several pain complaints
Level 3 C*ommunicates the redefined problem with the referring team when a recommendation differs from the original consultation question, with supervision* *Prioritizes management steps*	● With the attending pain physician, determines it would be inappropriate to do an epidural steroid injection to a patient with primarily axial pain, and that a median branch block is indicated instead, along with the attending physician, calls the primary care provider to explain the rationale for this ● Under supervision of attending pain physician, determines the patient consulted for a blood patch for a post-dural puncture headache has signs and symptoms consistent with increased intracranial pressure and requires imaging prior to proceeding
Level 4 *Independently communicates the redefined problem with the referring team when a recommendation differs from the original consultation question* *Recognizes the economic impact and role of medical team dynamics when making recommendations to the referring team*	● In scenario in Level 3, independently calls the primary care provider ● In a patient with managed care health insurance, calls the case manager to obtain prior authorization for a procedure and explains the rationale for it
Level 5 *Is identified as a role model for consultative care across the spectrum of disease complexity and social determinants of health*	● If two consultants/teams have differing opinions, provides clarity on best course of action for a patient with complex problems

Leads the multidisciplinary team to evaluate and integrate divergent recommendations to formulate a unified plan	*Scenario: A patient with post-laminectomy syndrome has had chronic pain for two years following a L4-5 fusion. There is a herniated disc at L3-4, which has not responded to medications, epidural steroid injection, and physical therapy.* ● Convenes a phone conference with the spine surgeon to discuss whether spine fusion revision versus spinal cord stimulation would be the next appropriate step.
Assessment Models or Tools	● Chart review ● Direct observation ● 360-degree evaluations
Curriculum Mapping	●
Notes or Resources	● Chang D, Gabriel E. 10 tips for hospitalists to achieve an effective medical consult. *The Hospitalist*. 2015;7. https://www.the-hospitalist.org/hospitalist/article/122225/10-tips-hospitalists-achieve-effective-medical-consult. 2021.

Medical Knowledge 1: Possesses Clinical Knowledge **Overall Intent:** To demonstrate and apply basic science and clinical knowledge to provide optimal care to patients presenting with a wide range of pain symptoms	
Milestones	**Examples**
Level 1 *Possesses basic knowledge of the anatomy, physiology, and pharmacology of pain for common pain conditions*	● Lists classes of medications and their primary molecular target ● Lists common medication side effects related to class of medications
Possesses basic knowledge of pain assessment and treatment modalities for common pain conditions	● Describes common pain assessment tools (e.g., Visual Analog Scale)
Possesses basic knowledge of common interventional strategies to treat pain	● Lists common procedures use in pain management (e., Trigger point injections, peripheral joint injections, epidural steroid injections)
Level 2 *Possesses knowledge of the anatomy, physiology, and pharmacology of pain for common pain conditions*	● Identifies relevant spine anatomy and key physical landmarks ● Describes mechanisms of action for non-steroidal anti-inflammatory drugs (NSAIDs), opioid pain medications, antidepressant and neuromodulating medications
Possesses knowledge of pain assessment and treatment modalities for common pain conditions	● Identifies pertinent anatomic structures involved in pain generation ● Describes anatomy, indications, and risks for common pain procedures such as epidural steroid injections
Possesses knowledge of common interventional strategies to treat pain	● Discusses limitations of common pain assessment tools
Level 3 *Possesses knowledge of the anatomy, physiology, biopsychosocial factors, and pharmacology of pain for comprehensive pain care*	● Identifies biopsychosocial factors involved in pain syndromes ● Describes assessment tools for depression and anxiety
Possesses knowledge of pain assessment and treatment modalities for comprehensive pain care	● Outlines indications for pain psychology consultation and treatment approaches ● Describes specific pain interventions for cancer related pain syndromes
Possesses knowledge of interventional strategies to treat pain, including knowledge of non-standard cases	● Describes appropriate glucose and anticoagulation management strategies for interventional procedures in patients with comorbid conditions ● Understands pharmacology of ziconotide and its role in chronic pain management

Level 4 *Possesses knowledge of the anatomy, physiology, biopsychosocial factors, and pharmacology of pain for comprehensive pain care of complex cases*	● Outlines patient specific pain treatment options for patients with substance use disorders and chronic kidney disease and/ or liver disease
Possesses knowledge of pain assessment and treatment modalities for comprehensive pain care of complex cases	● Demonstrates knowledge of appropriate weaning of opioids in a post-operative patient to avoid withdrawal
Possesses knowledge of less commonly used interventional strategies to treat pain	● Describes indications, contraindications, procedural risks/ benefits and demonstrates skills required for implantation of spinal cord stimulators
Level 5 *Possesses knowledge of the anatomy, physiology, biopsychosocial factors, and pharmacology of pain for comprehensive pain care of rare or diagnostically ambiguous pain cases*	● Outlines multiple comorbidities impacting pain treatment recommendations ● Leads comprehensive pain interdisciplinary conferences
Possesses knowledge of pain assessment and treatment modalities for comprehensive pain care of rare or diagnostically ambiguous pain cases	● Engages in clinical translational research projects to target novel pain interventions
Possesses knowledge to develop and postulate new interventional targets and methods to treat pain	● Demonstrates ability to use medications to treat pain conditions without approved Food and Drug Administration (FDA) medications (atypical facial pain, erythromelalgia)
Assessment Models or Tools	● Direct observation ● E-module multiple choice tests ● Multisource feedback ● Portfolio ● Reflection ● Simulation
Curriculum Mapping	●
Notes or Resources	● The American Board of Anesthesiology (ABA). Pain Medicine Examination. https://theaba.org/pdfs/PM_Content_Outline.pdf. 2021. ● International Association for the Study of Pain (IASP). ISAP Curriculum Outline on Pain for Medicine. https://www.iasp-pain.org/education/curricula/iasp-curriculum-outline-on-pain-for-medicine/. 2021.

Medical Knowledge 2: Diagnostic Testing and Imaging (e.g., Electrodiagnostics, Radiology, Laboratory) **Overall Intent:** To demonstrate knowledge of appropriate diagnostic tools in the work-up and management of a wide range of pain conditions	
Milestones	**Examples**
Level 1 *Discusses a general diagnostic approach appropriate to the clinical presentation*	● Educates patient on importance of trialing physical therapy and oral medication trial first for new onset acute low back pain without red flag symptoms or neurologic deficits prior to proceeding with advanced imaging
Interprets common diagnostic tests, with supervision	● Verbalizes presence of dynamic spine instability on flexion extension xrays when prompted to look at the region of pathology
Level 2 *Considers diagnostic testing based on cost effectiveness and likelihood that results will influence clinical management*	● Explains the rationale to defer advanced MR spine imaging for a patient presenting with new onset low back pain without red flag symptoms
Consistently interprets common diagnostic tests	● Independently interprets MR findings of left sided L4-L5 foraminal disc protrusion that is consistent with exam findings
Level 3 *Prioritizes the sequence and urgency of diagnostic studies*	● Explains the reason to defer electrodiagnostic testing until at least three weeks from injury in a patient presenting with radicular upper extremity pain
Consistently interprets results of complex diagnostic tests accurately while accounting for sensitivity and specificity	● Identifies the presence and duration of median nerve injury that is superimposed on a chronic C7 radiculopathy based on electrodiagnostic study
Level 4 *Correlates diagnostic testing with the clinical presentation*	● Discusses electrodiagnostic findings of and the likely prognosis of deep peroneal nerve axonotmesis that is contributing to foot weakness and paresthesia ● Explains the reason to defer MRI testing in a patient with acute radicular symptoms who does not demonstrate red flags
Anticipates and accounts for subtle nuances of interpreting diagnostic tests	● Understands that endocrine lab work to assess for secondary adrenal insufficiency from frequent steroid injections may be influenced by patient's comorbidities and alternative medications. ● Evaluates MRI findings for central, lateral recess, and foramina stenosis
Level 5 *Acts as a role model and teaches the effective use of multimodal diagnostic studies efficiently to identify and treat multiple complex pain conditions*	● Educates others on the utility of laboratory work, bone scans, x-rays, and sympathetic blocks in the workup and management of complex regional pain syndrome

Pursues knowledge of new and emerging diagnostic tests	● Actively participates in relevant scientific meetings to learn new and emerging diagnostic tests ● Leads research into the pharmacogenomics of specific pain disorders
Assessment Models or Tools	● Direct observation ● Multisource feedback ● Portfolio ● Reflection ● Simulation
Curriculum Mapping	●
Notes or Resources	● The American Board of Anesthesiology (ABA). Pain Medicine Examination. https://theaba.org/pdfs/PM_Content_Outline.pdf. 2021. ● International Association for the Study of Pain (IASP). ISAP Curriculum Outline on Pain for Medicine. https://www.iasp-pain.org/education/curricula/iasp-curriculum-outline-on-pain-for-medicine/. 2021.

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**
Level 1 *Demonstrates knowledge of common events that impact patient safety*	● Identifies patient misidentification or medication errors as common patient safety events
Demonstrates knowledge of how to report patient safety events	● Explains how to report errors in own health system
Demonstrates knowledge of basic quality improvement methodologies and metrics	● Describes fishbone tool
Level 2 *Identifies system factors that lead to patient safety events*	● Identifies the time out protocol is not being followed ● Identifies that a consent form does not include laterality
Reports patient safety events through institutional reporting systems (simulated or actual)	● Reports lack of compliance with risk analysis for prescriptions of opioid medications
Describes departmental quality improvement initiatives	● Summarizes protocols for safe opioid prescription practices
Level 3 *Participates in analysis of patient safety events (simulated or actual)*	● Assimilates patient data, evaluates the root cause, and presents the findings of a patient safety event
Participates in disclosure of patient safety events to patients and their families (simulated or actual)	● Through simulation or role play, communicates with patients/families about a medication administration error
Participates in department quality improvement initiatives	● Participates in development of a departmental policy on safe opioid prescribing
Level 4 *Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)*	● Collaborates with a team to conduct a root cause analysis of a patient safety event
Discloses patient safety events to patients and their families (simulated or actual)	● Discusses with patient (family) an inadvertent dural puncture during an epidural steroid injection

Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project	● Initiates and develops a fellow-level quality improvement project on increasing efficiency of patient flow through the clinic
Level 5 *Actively engages teams and processes to modify systems to prevent patient safety events* *Role models or mentors others in the disclosure of patient safety events* *Creates, implements, and assesses quality improvement initiatives at the institutional level or above*	● 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 improve disclosure of serious adverse events to patients and families and shares results with stakeholders
Assessment Models or Tools	● Direct observation ● E-module multiple choice tests ● Multisource feedback ● Portfolio ● Reflection ● Simulation
Curriculum Mapping	●
Notes or Resources	● Anesthesia Quality Institute. https://www.aqihq.org/. 2021. ● Institute of Healthcare Improvement. http://www.ihi.org/Pages/default.aspx. 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**
Level 1 *Demonstrates knowledge of care coordination*	● Identifies the members of the interprofessional/interdisciplinary team, including other specialty physicians, psychologists, physical therapists, nurses, consultants, social workers, and case managers, and describes their roles, but is not yet routinely using team members or accessing all available resources
Identifies key elements for safe and effective transitions of care and hand-offs	● Lists the essential components of a note that allow for transition of care to a referring provider ● Lists key pieces of recommendation that should be included for management of diabetic neuropathy
Demonstrates knowledge of population and community health needs and inequities	● Identifies components of social determinants of health and how they impact the delivery of patient care ● Identifies that gender, race, and other components of patient identify impact patient's experience of pain management
Level 2 *Coordinates care of patients in routine clinical situations effectively using the roles of interprofessional team members*	● Coordinates with interprofessional team members for routine cases, but requires supervision to ensure all necessary referrals and testing are made ● Coordinates pain psychology evaluation for spinal cord stimulator trial but needs reminder to get updated MRI imaging for thoracic spine
Performs safe and effective transitions of care/hand-offs in routine clinical situations	● Performs a routine case sign-out but still needs direct supervision to identify and appropriately triage cases or calls (priority versus non-priority case or call) and anticipatory guidance ● Gives appropriate sign out for epidurals but does not prioritize sign out for epidural that resulted in dural puncture
Identifies specific population and community health needs and inequities for the local population	● Knows which patients are at high risk for specific health outcomes related to health literacy concerns, cost of testing or therapy, LGBTQ status, socioeconomic status, religion, culture, and family support ● Differentiates that psychological services are different between Medicaid versus private insurance for local area
Level 3 *Coordinates care of patients in complex clinical situations effectively collaborating with members of the interprofessional team*	● Develops a comprehensive treatment plan in coordination with consultants from other medical specialties, physical therapists, pain psychologists ● Synthesizes recommendations from a multidisciplinary conference

Performs safe and effective transitions of care/hand-offs in complex clinical situations	● Coordinates a complex discharge from clinic to emergency room for development of new neurological signs after neuraxial procedure and coordinates emergent care/imaging and evaluation
Uses local resources effectively to meet the needs of a patient population and community while minimizing health care inequities	● Identifies a discount pharmacy close to where the patient lives
Level 4 *Role models effective coordination of patient-centered care among different professions and specialties*	● Role models and educates students and more junior team members regarding the engagement of appropriate interprofessional team members, as needed for each patient and/or case, and ensures the necessary resources have been arranged for multidisciplinary pain management
Role models and advocates for safe and effective transitions of care/hand-offs within and across health care delivery systems and settings	● Models efficient hand-offs to the surgical teams or inpatient teams, and coordinates and prioritizes consultant input for a specific diagnosis to ensure the patient gets appropriate follow-up ● Directs patient to rheumatological consultant given appropriate presentation for inflammatory arthritis and integrate recommendations for disease modifying therapy into care
Participates in changing and adapting practice to provide for the needs of specific populations	● Identifies patient populations at high risk for poor health care outcomes due to health disparities and inequities, and implements strategies to improve care
Level 5 *Analyzes the process of care coordination and leads in the design and implementation of improvements*	● Works with hospital or ambulatory site team members or leadership to analyze care coordination in that setting, and takes a leadership role in designing and implementing changes to improve the care coordination
Improves quality of transitions of care within and across health care delivery systems to optimize patient outcomes	● Develops a validated tool to improve safe and effective transitions of care
Leads innovations and advocacy in partnership with populations and communities experiencing health care inequities	● Designs a social determinants of health curriculum to help others learn to identify local resources and barriers to care
Assessment Models or Tools	● Case management quality metrics and goals mined from EHR ● Chart review ● Direct observation (including discussion during rounds, case workup and case presentations)

	● Lectures/workshops on social determinants of health or population health with identification of local resources ● Multisource feedback ● Review of sign-out tools, use and review of checklist
Curriculum Mapping	●
Notes or Resources	● Centers for Disease Control (CDC). Population Health Training. https://www.cdc.gov/pophealthtraining/whatis.html. 2021. ● Skochelak SE, Hammoud MM, Lomis KD, et al. *AMA Education Consortium: Health Systems Science*. 2nd ed. Elsevier; 2021. ISBN:9780323694629.

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 health system's performance	
Milestones	**Examples**
Level 1 *Describes basic health payment systems (e.g., government, private, public, uninsured care) and practice models* *Identifies basic knowledge domains for effective transition to practice (e.g., information technology, legal, billing and coding, financial, personnel)*	● Identifies appropriate patients for outpatient clinic, procedural suites, operating rooms, and inpatient perioperative spaces ● Names systems and providers involved in pain management care and delivery, including government pay models and private insurances ● Recognizes that Medicare, Medicaid, the VA, and commercial third-party payors are different payment systems ● Recognizes role of billing/coding in payment structure for pain management
Level 2 *Describes how components of a complex health care system are interrelated, and how this impacts delivery of pain management* *Delivers care with consideration of each patient's payment model (e.g., insurance type)* *Demonstrates use of information technology required for medical practice (e.g., electronic health record, documentation required for billing and coding)*	● Understands how improving patient satisfaction improves patient adherence and remuneration to the health system; beginning to think through clinical redesign to improve quality and modifying personal practice to enhance outcomes ● Applies knowledge of health plan features, including formularies and network requirements in patient care situations, including coverage of types of MRIs or procedure when making recommendation and plan ● Uses hospital EHR to write note meeting basic requirements for billing and coverage ● Documents minimum requirements to get MRI or procedure covered for patient)
Level 3 *Practices pain management in the context of a complex health care system to deliver effective care* *Engages with patients in shared decision making, informed by each patient's payment model* *Describes core administrative knowledge needed for transition to practice (e.g., contract*	● Understands potential problems with delays in therapy and/or access to other services embedded within the comprehensive treatment plan ● Uses shared decision making and adapts the choice of the most cost-effective testing depending on the relevant clinical needs ● Discusses with patient potential issues of coverage with certain modalities of treatment and options for patients to move forward ● Understands state law concerning requirements for medical practice and consequences for noncompliance

negotiations, malpractice insurance, government regulation, compliance)	
Level 4 *Navigates the various components of the complex health care system to provide efficient and effective patient care and transitions of care* *Advocates for patient care needs (e.g., community resources, patient assistance resources) with consideration of the limitations of each patient's payment model* *Analyzes individual practice patterns and professional requirements in preparation for independent practice*	● Works collaboratively with other services to identify patient assistance resources and advocates within the healthcare system for pain patients and education of services involved ● Advocates for alternative community resources ● Recognizes the need in practice to provide appropriate resources to evaluate the variable presentations and conditions of pain patients
Level 5 *Advocates for or leads systems change that enhances high-value, efficient, and effective patient care* *Participates in health policy advocacy activities* *Educates others to prepare them for transition to practice*	● Works with organization leadership to develop pathways for timely care delivery for pain patients ● Develops processes for appropriate and safe opioid prescribing for clinical services ● Discusses experiences within different models of practice
Assessment Models or Tools	● Direct observation ● Medical record (Chart) review ● Patient satisfaction data
Curriculum Mapping	●
Notes or Resources	● AHRQ. Measuring the Quality of Physician Care. https://www.ahrq.gov/professionals/quality-patient-safety/talkingquality/create/physician/challenges.html. 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. ● The Kaiser Family Foundation. Health Reform. https://www.kff.org/topic/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 *Demonstrates how to access and use available evidence*	● Identifies the clinical problem and obtains the appropriate evidence-based guideline for the patient ● Identifies and uses anticoagulation guidelines before a procedure
Level 2 *Locates and applies the best available evidence, integrated with patients' preferences, to the care of straightforward patients*	● Asks the appropriate questions of the patient in order to elicit preferences for management/treatment of low back pain
Level 3 *Locates and applies the best available evidence, integrated with patients' preferences, to the care of complex patients*	● Obtains and applies evidence in the care of patients with advanced complex regional pain syndromes
Level 4 *Critically appraises and applies evidence even in the face of uncertainty and conflicting evidence to guide care, tailored to the individual patient*	● Assesses the primary literature to answer a very specific clinical question for epidural steroids for treatment of lumbar radicular pain with spinal stenosis ● Assesses the primary literature to address a unique patient when the evidence is unclear or emerging ● Is aware of novel therapeutic techniques or new evidence that challenges current guidelines and demonstrates the ability to appropriately apply this information
Level 5 *Coaches others to critically appraise and apply evidence for complex patients, and/or participates in the development of guidelines*	● Formally teaches others how to find and apply best practice or develops, independently or as a part of a team, thoughtful clinical guidelines
Assessment Models or Tools	● Case based assessment ● Direct observation ● Journal Club ● Oral or written examination ● Research portfolio
Curriculum Mapping	●
Notes or Resources	● National Institutes of Health. Write Your Application. https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/write-your-application.htm. 2021. ● U.S. National Library of Medicine. PubMed Online Training. https://www.nlm.nih.gov/bsd/disted/pubmedtutorial/cover.html. 2021. ● Institutional IRB guidelines ● 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; to reflect on all domains of practice, personal interactions, and behaviors, and their impact on colleagues and patients (reflective mindfulness); to develop clear objectives and goals for improvement in some form of a learning plan	
Milestones	**Examples**
Level 1 *Accepts responsibility for personal and professional development by establishing goals*	● Completes self-reflective goals prior to meeting with the program director
Identifies the factors that contribute to performance gaps	● Identifies gaps in knowledge of mechanisms of drug action of gabapentin and pregabalin ● Identifies that fatigue, stressors, mental health/health problems, and perceived life-work imbalance contribute to performance deficits
Actively seeks opportunities to improve knowledge and skills	● Asks for feedback from patients, families, and patient care team members ● Uses institutional provided resources to balance personal/professional commitments and obligations
Level 2 *Demonstrates openness to performance data (feedback and other input) to form goals*	● Integrates feedback to adjust medication management of patients with chronic renal disease
Analyzes and acknowledges the factors that contribute to performance gaps	● Assesses time management skills and how they impact clinical efficiency
Designs and implements a learning plan, with prompting	● When prompted, develops individual education plan to improve their evaluation of patients with a history of chronic liver disease
Level 3 *Seeks performance data episodically, with adaptability and humility*	● Obtains chart data to determine prescription errors in own patients
Institutes behavioral change(s) to improve performance	● Completes focused literature review before selecting an appropriate procedure for a rare condition ● Maintains good sleep hygiene
Independently creates and implements a learning plan	● Implements strategies that improve behaviors such as trust, interdependence, genuineness, empathy, risk, team building, and success
Level 4 *Intentionally seeks performance data consistently, with adaptability and humility*	● Obtains a quarterly chart audit to determine controlled substance agreement is up-to-date and signed for own patients
Considers alternatives to improve performance	● After complication in radiofrequency denervation, alters technique ● Attempts a different approach to fluoroscopic imaging

Integrates performance data to adapt the learning plan	● Based on audit of incidence of allergic reaction to contrast, identifies knowledge gaps and reads current practice guidelines to improve care
Level 5 *Role models consistently seeking performance data, with adaptability and humility* *Models reflective practice* *Facilitates the design and implementation of learning plans for others*	● Shares own performance gaps and adapted plan with other learners ● Identifies and shares strategies to improve spinal cord stimulator placement based on previously received feedback ● Assists more junior learners in developing their individualized learning plans
Assessment Models or Tools	● Direct observation ● Review of learning plan
Curriculum Mapping	●
Notes or Resources	● Burke AE, Benson B, Englander R, Carraccio C, Hicks PJ. Domain of competence: Practice-based learning and improvement. Acad Pediatr. 2014;14(2 Suppl):S38-S54. https://www.academicpedsjnl.net/article/S1876-2859(13)00333-1/fulltext. 2021. ● Hojat M, Veloski JJ, Gonnella JS. Measurement and correlates of physicians' lifelong learning. *Acad Med.* 2009;84(8):1066-74. https://insights.ovid.com/crossref?an=00001888-200908000-00021. 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. Acad Med. 2013;88(10):1558-1563. https://insights.ovid.com/article/00001888-201310000-00039. 2021. ● Reed S, Lockspeiser TM, Burke A, et al. Practical suggestions for the creation and use of meaningful learning goals in graduate medical education. *Academic Pediatrics*. 2016;16(1):20-24. https://www.academicpedsjnl.net/article/S1876-2859(15)00333-2/pdf. 2021.

Practice-Based Learning and Improvement 3: Participates in Scholarship (Foundation, Investigation, Analysis, and Dissemination) **Overall Intent:** To actively engage in scholarly activity, dissemination of knowledge, manuscript review, and/or publications	
Milestones	**Examples**
Level 1 *Identifies a topic for a scholarly project and a mentor* *Communicates and/or disseminates knowledge in the field of pain medicine during straightforward clinical care*	● Identifies the role of exercise after epidural steroid injection as a topic of interest ● Approaches mentor with request for collaboration ● Selects a topic for grand round presentation ● Cites papers that demonstrate efficacy of epidural steroid injection in lumbar radiculopathy
Level 2 *Develops a research question for the scholarly project* *Communicates scientific literature as applied to more complex clinical situations*	● To determine patients' compliance with recommendations for exercise after epidural steroid injection ● Writes learning objectives for grand rounds presentation ● Discusses controversies of epidural steroid injection in chronic lumbar stenosis
Level 3 *Develops a research plan and timeline for completion of the scholarly project with one's mentor* *Presents at journal club, quality improvement meetings, or clinical conferences, and/or effectively describes and discusses one's own scholarly work or research*	● Prepares Institutional Review Board (IRB) submission for exemption (such as expedite approval for retrospective chart review or similar), type of data and timeline for data collection, statistical plan for data analysis with guidance of mentor ● Does literature review and outlines a book chapter ● Presents at grand rounds controversies in the use of epidural stenosis for treatment of spinal stenosis
Level 4 *Completes a scholarly project* *Presents scholarly project at local or regional meetings, and/or submits an abstract summarizing the scholarly work to regional/state/ national meetings, and/or publishes non-peer- reviewed manuscript(s) (reviews, book chapters)*	● Does data collection, data analysis and prepares manuscript of the patients' compliance with exercise after epidural steroid injection ● Poster presentation with the study results at regional meeting
Level 5 *Leads or provides mentorship for a scholarly project*	● Publishes paper in peer review journal about patients' compliance with exercise after epidural steroid injection

Presents scholarly work at national and international meetings or publishes peer-reviewed manuscript(s) containing scholarly work (clinical practice, quality improvement, patient safety, education, or research) or obtains research funding	● Facilitates a workshop on controversies of epidural steroids at national meeting
Assessment Models or Tools	● Documentation of research processes or outcomes ● Peer-reviewed scholarly work ● Presentation evaluation ● Research mentor and research staff member evaluation ● Review of research progress
Curriculum Mapping	●
Notes or Resources	● Textbooks ● Workshops ● Online resources ● Mentorship ● Human Subject Protection Certification Course (e.g., CITI) ● Local IRB

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**
Level 1 *Identifies potential triggers for professionalism lapses* *Describes when and how to report lapses in professionalism* *Demonstrates knowledge of the ethical principles underlying patient care*	● Recognizes the impact of fatigue on clinical performance ● Recognizes that personal "bias" may interfere with professionalism ● Uses institutional reporting system for medical errors ● Articulates how the principle of "do no harm" applies to a patient who may not need an intervention even though the learning opportunity exists ● Discusses the basic principles underlying ethics (e.g., beneficence, nonmaleficence, justice, autonomy) and professionalism (e.g., professional values and commitments), and how they apply in various situations (e.g., informed consent process) ● Maintains patient confidentiality in public situations
Level 2 *Demonstrates insight into professional behavior in routine situations* *Takes responsibility for one's own professionalism lapses* *Analyzes straightforward situations using ethical principles*	● Respectfully approaches a learner who is late to clinic about the importance of being on time ● Notifies appropriate supervisor in a timely way when unable to fulfill a responsibility ● Identifies and applies ethical principles involved in informed consent when the learner is unclear of all the risks ● Identifies surrogate for impaired patients
Level 3 *Demonstrates professional behavior in complex or stressful situations* *Recognizes need to seek help in managing and resolving complex interpersonal situations* *Analyzes complex situations using ethical principles*	● Appropriately responds to a family member, following a post-procedure complication ● After noticing a colleague's inappropriate social media post, reviews policies related to posting of content 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
Level 4 *Recognizes situations that may trigger professionalism lapses and intervenes to prevent lapses in oneself*	● Actively solicits the perspectives of others ● Models respect for patients and promotes the same from colleagues, when a patient has been waiting an excessively long time for their appointment

Implements recommendations to resolve complex interpersonal situations *Recognizes and utilizes resources for managing and resolving ethical dilemmas*	● Recognizes and uses ethics consults, literature, risk-management/legal counsel to resolve ethical dilemmas ● Recognizes and manages situations of medical futility
Level 5 *Coaches others when their behavior fails to meet professional expectations* *Participates in committees that works to promote ethical behavior*	● Coaches others when their behavior fails to meet professional expectations and creates a performance improvement plan to prevent recurrence ● Identifies and seeks to address system-wide factors or barriers to promoting a culture of ethical behavior through participation in a work group, committee, or taskforce, such as ethics committee or an ethics subcommittee, risk management committee, root cause analysis review, patient safety or satisfaction committee, professionalism work group, IRB, or learner grievance committee
Assessment Models or Tools	● Direct observation ● Global evaluation ● Multisource feedback ● Oral or written self-reflection ● Objective Structured Clinical Exam (OSCE) ● Simulation
Curriculum Mapping	●
Notes or Resources	● American Sociological Association (ASA). ASA Code of Ethics. https://www.asanet.org/code-ethics. 2021. ● American Medical Association. Ethics. https://www.ama-assn.org/delivering-care/ama-code-medical-ethics. 2021. ● Bynny RL, Paauw DS, Papadakis MA, Pfeil S. *Medical Professionalism Best Practices: Professionalism in the Modern Era*. Aurora, CO: Alpha Omega Alpha Medical Society; 2017. *Medical Professionalism Best Practices: Professionalism in the Modern Era*. Aurora, CO: Alpha Omega Alpha Medical Society; 2017. http://alphaomegaalpha.org/pdfs/Monograph2018.pdf. 2021. ● Domen RE, Johnson K, Conran RM, et al. Professionalism in pathology: A case-based approach as a potential education tool. *Arch Pathol Lab Med.* 2017;141:215-219. https://meridian.allenpress.com/aplm/article/141/2/215/132523/Professionalism-in-Pathology-A-Case-Based-Approach. 2021. ● Levinson W, Ginsburg S, Hafferty FW, Lucey CR. *Understanding Medical Professionalism*. 1st ed. New York, NY: McGraw-Hill Education; 2014. ISBN:978-0071807432.

Professionalism 2: Accountability/Conscientiousness **Overall Intent:** To take responsibility for one's own actions and the impact on patients and other members of the health care team	
Milestones	**Examples**
Level 1 *Responds promptly to requests or reminders to complete tasks* *Takes responsibility for failure to complete tasks*	● Responds promptly to reminders from program administrator to complete work hour logs ● Attends conferences and other educational activities on time ● Apologizes to team member(s) for unprofessional behavior without prompting
Level 2 *Performs tasks and responsibilities in a timely manner* *Recognizes situations that may impact one's own ability to complete tasks and responsibilities in a timely manner*	● Completes administrative tasks, documents safety modules, procedure review, and licensing requirements by specified due date ● Before going out of town, completes tasks in anticipation of lack of computer access while traveling
Level 3 *Performs tasks and responsibilities in a timely manner with appropriate attention to detail in routine situations* *Takes responsibility for tasks not completed in a timely manner and identifies strategies to prevent recurrence*	● Notifies attending of multiple competing demands on call, appropriately triages tasks, and asks for assistance from other residents or faculty members as needed ● Appropriately notifies residents and fellows on day service about overnight call events during transition of care or hand-off to avoid patient safety issues and compromise of patient care ● Apologizes to team member(s) for unprofessional behavior without prompting, offers restitution if possible and through self-reflection identifies root cause of failure ● Follows through with tasks, closes the loop when gaps were encountered
Level 4 *Prioritizes tasks and responsibilities in a timely manner with appropriate attention to detail in complex or stressful situations* *Proactively implements strategies to ensure that the needs of patients, teams, and systems are met*	● Takes responsibility for inadvertently omitting key patient information during hand-off and professionally discusses with the patient, family, and interprofessional team ● Follows up with a patient who had a complicated epidural placement after being discharged from the hospital to evaluate for post-dural puncture headache
Level 5 *Designs and implements an institutional systems approach to ensure timely task completion and shared responsibility*	● Coordinates a multidisciplinary team to facilitate intensive care unit (ICU) transfers throughout the institution ● Leads multidisciplinary team in post-procedure related root cause analysis to improve system practices around infection control
Assessment Models or Tools	● Compliance with deadlines and timelines ● Direct observation ● Global evaluations

	● Multisource feedback ● Self-evaluations and reflective tools ● Simulation
Curriculum Mapping	●
Notes or Resources	● ASA. ASA Code of Ethics. https://www.asanet.org/code-ethics. 2021. ● Code of conduct from fellow/resident institutional manual ● Expectations of residency program regarding accountability and professionalism

Professionalism 3: Well-Being **Overall Intent:** To identify, use, manage, improve, and seek help for personal and professional well-being for self and others	
Milestones	**Examples**
Level 1 *Recognizes the importance of addressing personal and professional well-being being*	● Acknowledges own response to patient's fatal diagnosis ● Is receptive to feedback on missed emotional cues after patient evaluation ● Communicates impact of family-related concerns, lack of sleep, or substance use on personal well-being ● Discusses well-being concerns as they might affect performance
Level 2 *Lists available resources for addressing personal and professional well-being*	● Identifies institutionally sponsored wellness programs to promote individual well-being ● Identifies faculty members and facilities available to support well-being
Level 3 *With assistance, proposes a plan to promote personal and professional well-being*	● With the multidisciplinary team, develops a reflective response to deal with personal impact of difficult patient encounters and disclosures ● Participates in routine well-being programs offered by graduate medicate education
Level 4 *Independently develops a plan to promote personal and professional well-being*	● Independently identifies ways to manage personal stress ● Regularly engages in a personalized physical or meditative exercise regimen
Level 5 *Serves as a well-being coach and leads a well-being initiative*	● Assists in organizational efforts to address clinician well-being after patient diagnosis/prognosis/death ● Works with multidisciplinary team to develop a feedback framework for learners around family meetings ● Establishes a mindfulness program open to all employees
Assessment Models or Tools	● Direct observation ● Group interview or discussions for team activities ● Individual interview ● Institutional online training modules ● Self-assessment and personal learning plan
Curriculum Mapping	●
Notes or Resources	● This subcompetency is not intended to evaluate a fellow's well-being, but to ensure each fellow has the fundamental knowledge of factors that impact well-being, the mechanisms by which those factors impact 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. 2021. ● Hicks PJ, Schumacher D, Guralnick S, Carraccio C, Burke AE. Domain of competence: Personal and professional development. *Acad Pediatr*. 2014;14(2 Suppl):S80-97. https://linkinghub.elsevier.com/retrieve/pii/S1876-2859(13)00332-X. 2021. ● Local resources, including Employee Assistance Plan (EAP)

Professionalism 4: Patient-Centered Care/Cultural Competency **Overall Intent:** To attend to the comfort and dignity of all patients regardless of impairment or disability, race, ethnicity, socioeconomic status, or age	
Milestones	**Examples**
Level 1 *Recognizes the need to respect the dignity of patients of all backgrounds*	● Understands that all patients should be treated with respect, with due attention to their comfort and dignity, regardless of disability or pain behaviors
Level 2 *Demonstrates specific elements of verbal and physical communication that reflect respect for patients*	● Sits at the level of a wheelchair user or pediatric patient for conversation ● Talks directly to a person with disability, not through a caregiver or companion ● Talks directly to a patient requiring interpreter services, with pauses in between a few sentences for accurate interpretation and allowing adequate time for patients to respond ● Uses language that emphasizes the individual person and not just the disability when referring to the patient (“a person with paraplegia”, not “a paraplegic”) ● Identifies self and makes the patient aware verbally before making physical contact with a patient who is blind ● Communicates respectfully with an individual with a substance use or opioid use disorder
Level 3 *Recognizes the impact of a patient’s background on delivery of care*	● Takes care to avoid causing additional discomfort to the patient while testing active range of motion of an inflamed knee joint ● Understands the need to adapt certain physical examination maneuvers for a patient who is unable to lay supine due to underlying respiratory dysfunction
Level 4 *Integrates a patient’s background into the care one provides*	● Communicates realistic goals from the proposed treatment plan based on socioeconomic or cultural background ● Prints out home therapy exercises for a patient who does not have internet access or cannot afford co-payments to attend therapy sessions
Level 5 *Serves as a role model and resource for others by coaching them in behaviors and actions that optimize the comfort, dignity, and respect of patients of all backgrounds*	● Is recognized as a role model for demonstrating pain etiquette in clinical interactions and selected to teach a workshop on optimal techniques to examine patients with different painful conditions
Assessment Models or Tools	● Direct observation ● Global evaluation ● Mentor and program director observations ● Multisource feedback ● Oral or written self-reflection ● Simulation
Curriculum Mapping	●

Notes or Resources	● United Spinal Association. *Disability Etiquette: Tips on Interacting with People with Disabilities.* New York, NY: United Spinal Association. https://www.unitedspinal.org/pdf/DisabilityEtiquette.pdf. 2021. ● Sabharwal S. Assessment of competency in positioning and movement of physically disabled patients. *Acad Med*. 2000;75(5):525. https://journals.lww.com/academicmedicine/Fulltext/2000/05000/Assessment_of_Competency_in_Positioning_and.47.aspx. 2021. ● Sabharwal S. Objective assessment and structured teaching of disability etiquette. *Acad Med*. 2001;76(5):509. https://journals.lww.com/academicmedicine/Fulltext/2001/05000/Objective_Assessment_and_Structured_Teaching_of.38.aspx#pdf-link. 2021.

Interpersonal and Communication Skills 1: Patient- and Family-Centered Communication **Overall Intent:** To deliberately use language and behaviors to form constructive relationships with the patient and others (e.g., family and caregivers), identify communication barriers including self-reflection on personal biases, and minimize them in the doctor-patient relationships; to organize and lead communication around shared decision making	
Milestones	**Examples**
Level 1 *Uses language and non-verbal behavior to demonstrate respect and establish rapport* *Identifies common barriers to effective communication (e.g., language, disability)* *Accurately communicates one's own role within the health care system*	● Self-monitors tone and non-verbal responses ● Asks questions to invite patient/family/caregiver participation ● During a clinic visit, ensures that all participants can see and hear one another ● Uses interpretation services and picture boards as needed ● Begins to tailor language to the needs of the patient and family ● Introduces themselves and their role as a fellow to patients/families/caregivers
Level 2 *Establishes a therapeutic relationship in straightforward encounters using active listening and clear language* *Identifies complex barriers to effective communication (e.g., health literacy, cultural differences)* *Organizes and initiates communication with a patient/patient's family by clarifying expectations and verifying understanding of the clinical situation*	● Engages in active listening, pays attention to affect, and asks questions that explore the optimal approach to daily tasks ● Avoids medical jargon and communicates at a level understandable to patient and family members, using interpretation services as needed ● Effectively leads patient/family/caregiver discussions in straightforward cases, with attending guidance
Level 3 *Establishes a therapeutic relationship in challenging patient encounters* *When prompted, reflects on personal biases while attempting to minimize communication barriers* *With guidance, uses shared decision making to align a patient's/patient's family's values, goals, and preferences with treatment options to make a personalized care plan*	● Successfully establishes rapport with challenging patients ● Maintains and repairs a therapeutic relationship through times of conflict ● During feedback, recognizes implicit bias in communication and identifies ways to mitigate communication barriers ● Provides written concise and tailored post clinic visit information to meet the needs of patient/family/caregivers ● Elicits what is most important to the patient/family/caregivers ● Acknowledges uncertainty in medical complexity and prognosis

Level 4 *Easily establishes therapeutic relationships, with attention to a patient's/patient's family's concerns and context, regardless of complexity*	● Patient and family verbalize their trust in the fellow; can explain that what the family wants for the patient may not be what is best for the patient
Independently recognizes personal biases while proactively minimizing communication barriers	● Recognizes the fellow did not ask others in the room about their relationship to the patient ● Anticipates and proactively addresses communication barriers, acknowledging past experiences and preferences of patients/families/caregivers ● Recognition of own implicit bias
Independently uses shared decision making to align a patient's/patient's family's values, goals, and preferences with treatment options to make a personalized care plan	● Engages in shared decision making process with the patient and family, including a recommended plan to align patient's unique goals with treatment options; e.g., plan to return to work
Level 5 *Mentors others in developing positive therapeutic relationships*	● Role models and supports colleagues in self-awareness and reflection to improve therapeutic relationships with patients
Role models self-awareness practice while teaching a contextual approach to minimize communication barriers	● Is an example to others of leading shared decision making with clear recommendations to patients and families even in more complex clinical situations
Role models shared decision-making in patient/family communication, including in situations with a high degree of uncertainty/conflict	
Assessment Models or Tools	● Direct observation ● Kalamazoo Essential Elements Communication Checklist (Adapted) ● Multisource feedback ● Self-assessment including self-reflection exercises ● Skills needed to Set the state, Elicit information, Give information, Understand the patient, and End the encounter (SEGUE) ● Standardized patients or structured case discussions
Curriculum Mapping	●
Notes or Resources	● Laidlaw A, Hart J. Communication skills: An essential component of medical curricula. Part I: Assessment of clinical communication: AMEE Guide No. 51. *Med Teach*. 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**
Level 1 *Respectfully requests or receives consultations*	● Respectfully consults a spine surgeon for a patient with myelopathic signs and symptoms
Uses language that values all members of the health care team	● Receives an acute pain consult request, asks clarifying questions politely, and expresses appreciation for the motivation behind the consult request
Respectfully receives feedback from health care team members	● Acknowledges the contribution of each member of the patient care team to the patient
Level 2 *Clearly, concisely, and promptly requests or responds to a consultation*	● Communicates pain regimen recommendations with the attending physician for an inpatient consultation concisely in a timely manner
Communicates information effectively with all health care team members	● Effectively communicates pertinent concerns for performance of complex interventional pain procedures, such as neuromodulation, vertebral augmentation, to the operating room team and attending anesthesiologist
Solicits feedback on performance as a member of the health care team	● Conducts post-procedural follow-up communication and discusses patient complications with supervising attending while reflecting on personal role in the patient's care
Level 3 *Uses closed-loop communication to verify understanding*	● Recognizes a procedural adverse event and ensures team members understand their roles in care
Adapts communication style to fit team needs	● When receiving treatment recommendations from an attending physician, repeats back the plan to ensure understanding
Communicates concerns and provides feedback to peers and learners	● Provides constructive feedback to a medical student during history and physical examination
Level 4 *Coordinates recommendations from different members of the health care team to optimize patient care*	● Collaborates with surgical colleagues to plan for post-operative analgesia in a patient on buprenorphine
Manages communication among team members in complex patient situations	● Explains rationale for changes in medications for patients with a complex medical history involving polypharmacy

Communicates constructive feedback to faculty members and supervisors	● Alerts to a breech in sterility for spinal cord stimulator placement by a faculty member ● Alerts faculty of possible wrong side/site injection ● Cautions faculty member about an imminent prescription medication error
Level 5 *Role models flexible communication strategies that value input from all health care team members, resolving conflict when needed* *Coaches others in managing communication among team members in complex patient situations* *Facilitates regular health care team-based feedback in complex situations*	● Mediates a conflict resolution between different members of the health care team ● Leads an interdisciplinary care conference on a complex pain patient ● Leading an adverse event analysis
Assessment Models or Tools	● Assessment of root cause analysis presentation ● Direct observation ● Global assessment ● Medical record (chart) audit ● Multisource feedback ● Simulation
Curriculum Mapping	●
Notes or Resources	● AHRQ. Curriculum Materials. https://www.ahrq.gov/teamstepps/curriculum-materials.html. 2021. ● Tait AR, Teig MK, Voepel-Lewis T. Informed consent for anesthesia: A review of practice and startegies for optimizing the consent process. *Can J Anaesth*. 2014;61(9):832-842. https://pubmed.ncbi.nlm.nih.gov/24898765/. 2021. ● Dehon E, Simpson K, Fowler D, Jones A. Development of the faculty 360. *MedEdPORTAL*. 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. *BMJ*. 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. *Med Teach*. 2013;35(5):395-403. https://www.tandfonline.com/doi/full/10.3109/0142159X.2013.769677. 2021. ● Roth CG, Eldin KW, Padmanabhan V, Freidman EM. Twelve tips for the introduction of emotional intelligence in medical education. *Med Teach.* 2018:1-4. https://www.tandfonline.com/doi/full/10.1080/0142159X.2018.1481499. 2021.

Interpersonal and Communication Skills 3: Communication within Health Care Systems **Overall Intent:** To effectively communicate using a variety of methods	
Milestones	**Examples**
Level 1 *Accurately records information in the patient record while safeguarding patients' personal health information* *Demonstrates basic knowledge of appropriate channels of communication within the institution (e.g., pager callback, timely response to emails)*	● Notes are accurate but may include extraneous information and can be disorganized ● Identifies institutional and departmental communication hierarchy for concerns and safety issues ● Understands how to contact members of the interprofessional team
Level 2 *Demonstrates organized and complete diagnostic and therapeutic reasoning through notes in the patient record, including appropriate modifications when using copy-and-paste function* *Communicates through appropriate channels as required by institutional policy (e.g., patient safety reports)*	● Notes are organized and accurate but may still contain some extraneous information ● Assists with documentation of interdisciplinary team meeting ● Recognizes that a communication breakdown has happened and respectfully brings the breakdown to the attention of the appropriate individual ● Reports a patient safety event
Level 3 *Communicates clearly, concisely, timely, and in an organized written form, including anticipatory recommendations* *Appropriately selects direct (e.g., telephone, in-person) and indirect (e.g., progress notes, text messages) forms of communication based on context*	● Documentation is accurate, organized, concise, and includes anticipatory (if/then) guidance ● Immediately calls the attending to share results needing urgent attention
Level 4 *Provides feedback to improve others' written communication* *Produces written or verbal communication that serves as an example for others to follow*	● Provides feedback to colleagues who have insufficient documentation ● Talks directly to a colleague about breakdowns in communication to prevent recurrence ● Participates in efforts to improve communication within the local environment
Level 5 *Models feedback to improve others' written communication*	● Leads a task force established by the department to develop a plan to improve house staff hand-offs

Guides departmental or institutional communication around policies and procedures	● Teaches colleagues how to improve discharge summaries
Assessment Models or Tools	● Chart review for documented communications ● Multisource feedback ● Observation of sign-outs, observation of requests for consultations
Curriculum Mapping	●
Notes or Resources	● 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. *Teach Learn Med.* 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. *Jt Comm J Qual Patient Saf*. 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. *Pediatrics*. 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: Gathers and Synthesizes Essential and Accurate Information to Define Each Patient's Clinical Problem(s) (Neurological)	PC1: Gathers and Synthesizes Essential and Accurate Information
PC2: – Gathers and Synthesizes Essential and Accurate Information to Define Each Patient's Clinical Problem(s) (Musculoskeletal)	PC1: Gathers and Synthesizes Essential and Accurate Information
PC3: Gathers and Synthesizes Essential and Accurate Information to Define Each Patient's Clinical Problem(s) (Psychiatric)	PC2: Gathers and Synthesizes Essential and Accurate Information - Psychiatric History
PC4: In Collaboration with the Patient, Develops and Achieves a Comprehensive Pain Treatment Plan for Each Patient	PC3: Develops and Achieves a Comprehensive Pain Treatment Plan for Each Patient
PC5: Demonstrates Skill in Performing and Interpreting Diagnostic and Therapeutic Interventions	PC4: Demonstrates Skill in Performing Interventions
PC6: Requests and Provides Consultative Care	PC5: Provides Consultative Care
MK1: Possesses Clinical Knowledge	MK1: Possesses Clinical Knowledge
MK2: Demonstrates Knowledge of Diagnostic Laboratory, Diagnostic Imaging and Neuro-diagnostic Testing and Procedures	MK2: Diagnostic Testing and Imaging
MK3: Participates in Scholarship (Foundation, Investigation, Analysis, and Dissemination	PBLI3: Participates in Scholarship
SBP1: Works Effectively Within an Interprofessional Team	ICS2: Interprofessional and Team Communication
SBP2: Recognizes System-based Error and Advocates for System Improvement	SBP1: Patient Safety and Quality Improvement
SBP3: – Identifies Forces that Impact the Cost of Health Care, and Advocates for and Practices Cost-effective Care	SBP3: Physician Role in Health Care Systems
SBP4: Transitions Patients Effectively Within and Across Health Delivery System	SBP2: System Navigation for Patient-Centered Care

PBLI1: Monitors Practice with a Goal for Improvement	PBLI2: Reflective Practice and Commitment to Personal Growth
PBLI2: Learns and Improves via Performance Audit	PBLI2: Reflective Practice and Commitment to Personal Growth
PBLI3: Learns and Improves via Feedback	PBLI2: Reflective Practice and Commitment to Personal Growth
PBLI4: Learns and Improves at the Point of Care	PBLI1: Evidence-Based and Informed Practice
PROF1: Has Professional and Respectful Interactions with Patients, Caregivers, and Members of the Interprofessional Team	PROF1: Professional Behavior and Ethical Principles
PROF2: Accepts Responsibility and Follows through on Tasks	PROF2: Accountability/Conscientiousness
PROF3: Responds to each Patient's Unique Characteristics and Needs	PROF4: Patient-Centered Care/Cultural Competency
PROF4: Exhibits Integrity and Ethical Behavior in Professional Conduct	PROF1: Professional Behavior and Ethical Principles
	PROF3: Well-Being
ICS1: Communicates Effectively with Patients and Caregivers	ICS1: Patient- and Family-Centered Communication
ICS2: Communicates Effectively in Interprofessional Teams	ICS2: Interprofessional and Team Communication
ICS3: Appropriately Utilizes and Completion of Health Records	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/