

Supplemental Guide: Regional Anesthesiology and Acute Pain Medicine

February 2018

Milestones Supplemental Guide

This document provides additional guidance and examples for the Regional Anesthesiology and Acute 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 Working 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.

It is important to use this guide in conjunction with the ACGME specialty-specific Program Requirements. Specific language has been included that is best defined through the Program Requirements. One notable area within the requirements is VI.A.2.c) which includes the definitions for levels of supervision:

Levels of Supervision

To promote oversight of fellow supervision while providing for graded authority and responsibility, the program must use the following classification of supervision:

Direct Supervision – the supervising physician is physically present with the fellow and patient.

Indirect Supervision:

 with Direct Supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision.

 with Direct Supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.

Oversight – the supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered

We encourage you to review this guide with your CCC and the members of your faculty. As you develop a shared mental model of the Milestones, you can create an individualized guide (Supplemental Guide Template available) with institution/program-specific examples, assessment tools used by the program, and curricular components.

Supplemental Guide for Regional Anesthesiology and Acute Pain Medicine
Patient Care:

Patient Care 1	Peri-Procedural Assessment and Management
Overall Intent	Formulates and implements a regional anesthetic plan and manages complications.
Level 1 Examples	<ul style="list-style-type: none"> • Selects interscalene block for shoulder arthroscopy • Identifies symptoms of phrenic nerve block
Level 2 Examples	<ul style="list-style-type: none"> • Modifies approach for a patient with chronic obstructive pulmonary disease (COPD) • Identifies and manages symptoms of phrenic nerve block with direct supervision
Level 3 Examples	<ul style="list-style-type: none"> • Selects interscalene catheter for patient undergoing shoulder arthroplasty • Identifies and manages brachial plexus injury with direct supervision
Level 4 Examples	<ul style="list-style-type: none"> • Modifies approach for patient with severe COPD undergoing shoulder arthroplasty • Identifies and manages brachial plexus injury with oversight
Level 5 Examples	<ul style="list-style-type: none"> • Modifies approach for patient with myasthenia gravis undergoing shoulder arthroplasty • Identifies and manages respiratory failure
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Faculty evaluations • Sim Lab performance • Objective Structured Clinical Examinations (OSCE)
Notes or Resources	<ul style="list-style-type: none"> • New York School of Regional Anesthesia (NYSORA) http://www.nysora.com/ • American Society of Regional Anesthesia and Pain Medicine (ASRA) https://www.asra.com/

Patient Care 2	Acute Pain Management
Overall Intent	Formulates and implements acute pain management plan for surgical and non-surgical indications and manages complications.
Level 1 Examples	<ul style="list-style-type: none"> • Selects multimodal pain management plan for colectomy • Evaluates and assesses patient with rib fractures • Identifies respiratory depression in a patient on opioids
Level 2 Examples	<ul style="list-style-type: none"> • Tailors multimodal pain management plan for laparoscopic cholecystectomy in a patient with opioid tolerance • Formulates a plan for a patient with rib fractures • Alters opioid dosing and monitors patient for respiratory depression
Level 3 Examples	<ul style="list-style-type: none"> • Selects multimodal pain management plan for pancreatectomy in a patient with chronic abdominal pain already taking opioid and non-opioid pain medications • Implements plan for multimodal medication regiment and intercostal blocks for a patient with rib fractures, with direct supervision • Identifies and manages delirium in response to combination of medications, with supervision
Level 4 Examples	<ul style="list-style-type: none"> • Selects multimodal pain management plan for emergent pancreatectomy patient with active heroin abuse • Implements plan for multimodal medication regiment and intercostal blocks for a patient with rib fractures, with oversight • Identifies and manages delirium in response to combination of medications, with oversight
Level 5 Examples	<ul style="list-style-type: none"> • Participates in developing Enhanced Recovery after Surgery and Anesthesia (ERAS) • Participates in developing ERAS for patient with rib fracture • Identifies and manages Stevens Johnson Syndrome in response to combination of medications
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Faculty evaluations • Sim Lab performance • OSCE
Notes or Resources	<ul style="list-style-type: none"> • Anesthesia Toolbox has resources available • NYSORA http://www.nysora.com/ • ASRA https://www.asra.com/ • Up To Date

Patient Care 3	Technical/Procedural Skills
Overall Intent	Demonstrates the ability to perform a wide range of peripheral and neuraxial blocks under various localization methods. Demonstrates the ability to use ultrasound.
Level 1 Examples	<ul style="list-style-type: none"> • Performs popliteal-sciatic nerve block with direct supervision • Performs lumbar spinal with direct supervision • Acquires ultrasound images to identify relevant anatomic structures for routine popliteal block
Level 2 Examples	<ul style="list-style-type: none"> • Performs paravertebral block in a patient with direct supervision • Performs lumbar spinal anesthesia in a patient with prior spine fusion with direct supervision • Adjusts ultrasound time gain compensation to optimize nerve image
Level 3 Examples	<ul style="list-style-type: none"> • Performs popliteal-sciatic nerve block with oversight • Performs lumbar spinal with oversight • Using ultrasound, identifies relevant anatomic structures in a patient with morbid obesity for a popliteal block
Level 4 Examples	<ul style="list-style-type: none"> • Performs paravertebral block in a patient with oversight • Performs lumbar spinal anesthesia in a patient with prior spine fusion with direct oversight • Using ultrasound, identifies existing bypass graft and alters popliteal block location
Level 5 Examples	<ul style="list-style-type: none"> • Performs paravertebral block in a patient with severe scoliosis • Performs lumbar spinal anesthesia in a patient with juvenile rheumatoid arthritis • Assists hand surgeon to identify aberrant radial nerve prior to surgery
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Faculty evaluations • Task training • OSCE • Checklists
Notes or Resources	<ul style="list-style-type: none"> • Anesthesia Toolbox has resources available • NYSORA http://www.nysora.com/ • ASRA https://www.asra.com/ • Up To Date

Medical Knowledge:

Medical Knowledge 1	Anatomy, Physiology, and Pharmacology
Overall Intent	Learns and applies anatomy, physiology, and pharmacology as they relate to regional anesthesia and acute pain management.
Level 1 Examples	<ul style="list-style-type: none"> • Identifies the sciatic nerve and surrounding structures
Level 2 Examples	<ul style="list-style-type: none"> • Identifies the individual branches of the sciatic nerve
Level 3 Examples	<ul style="list-style-type: none"> • Identifies the microanatomy of the sciatic nerve
Level 4 Examples	<ul style="list-style-type: none"> • Demonstrates an anatomic approach to blockade of the sciatic nerve for various procedures in the lower extremities
Level 5 Examples	<ul style="list-style-type: none"> • Recognizes and teaches blockade of the sciatic nerve at all levels and for all procedures
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Faculty evaluation • Sim Lab • OSCE
Notes or Resources	<ul style="list-style-type: none"> • Workshops • Cadaver Lab

Medical Knowledge 2	Procedures and Techniques
Overall Intent	Demonstrates versatility in performing neuraxial techniques, using landmarks or image guidance and peripheral nerve blocks, and image guidance and nerve stimulation.
Level 1 Examples	<ul style="list-style-type: none"> • Knows how to perform spinal or lumbar epidural and basic peripheral nerve blocks including interscalene and supraclavicular brachial plexus block, femoral nerve block, popliteal sciatic nerve block, and transverse abdominis plane (TAP) block
Level 2 Examples	<ul style="list-style-type: none"> • Knows how to perform thoracic epidural, and more complex peripheral nerve blocks including transgluteal sciatic block, rectus sheath block, and quadratus lumborum block
Level 3 Examples	<ul style="list-style-type: none"> • Knows how to choose between thoracic epidural and paravertebral block, and performs advanced peripheral nerve block, including paravertebral block, lumbar plexus block, and suprascapular nerve block
Level 4 Examples	<ul style="list-style-type: none"> • Chooses regional anesthetic technique in an anticoagulated patient
Level 5 Examples	<ul style="list-style-type: none"> • Demonstrates knowledge of newer techniques (e.g., serratus anterior block)
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Faculty evaluation • Sim Lab • OSCE
Notes or Resources	<ul style="list-style-type: none"> • Workshops • NYSORA http://www.nysora.com/ • ASRA https://www.asra.com/

Medical Knowledge 3	Assessment of Acute Pain
Overall Intent	Demonstrates knowledge of the validated acute pain assessment tools.
Level 1 Examples	<ul style="list-style-type: none"> • Assesses pain in a patient who has had knee arthroplasty with direct supervision • Assesses pain in a patient who has had sickle cell crisis with direct supervision
Level 2 Examples	<ul style="list-style-type: none"> • Assesses pain in a patient who has had knee arthroplasty with oversight • Assesses pain in a patient who has had sickle cell crisis with oversight
Level 3 Examples	<ul style="list-style-type: none"> • Assesses pain in a patient with opioid dependence who had knee arthroplasty with direct supervision • Assesses pain in a patient with opioid dependence who had sickle cell crisis with direct supervision
Level 4 Examples	<ul style="list-style-type: none"> • Assesses pain in a patient with opioid dependence who had knee arthroplasty with oversight • Assesses pain in a patient with opioid dependence who had sickle cell crisis with oversight
Level 5 Examples	<ul style="list-style-type: none"> • Provides expert consultation for patient with opioid dependence who had knee arthroplasty • Provides expert consultation for patient with opioid dependence who had sickle cell crisis (e.g., use of continuous ketamine)
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Faculty evaluation • Sim Lab • OSCE
Notes or Resources	<ul style="list-style-type: none"> • NYSORA http://www.nysora.com/ • ASRA https://www.asra.com/ • Textbooks (e.g., Bonica’s Management of Pain) • American Board of Anesthesiology’s digital library

Systems-based Practice:

Systems-based Practice 1	Patient Safety and Quality Improvement
Overall Intent	Demonstrates competence to engage in the analysis and management of patient safety events, including relevant communication with patients, families, and health care professionals. Is able to conduct a quality improvement project.
Level 1 Examples	<ul style="list-style-type: none"> • Has basic knowledge of patient safety events, reporting pathways, and quality improvement (QI) strategies, but has not yet participated in any such activities
Level 2 Examples	<ul style="list-style-type: none"> • Has identified and reported a patient safety issue (real or simulated), along with system factors contributing to that issue • Is aware of improvement initiatives within their scope of practice
Level 3 Examples	<ul style="list-style-type: none"> • Has reviewed a patient safety event (e.g., preparing for morbidity and mortality (M&M) presentations, joining a Root Cause Analysis [RCA] group) and has communicated with patients/families about such an event • Has participated in a QI project, though they may not have yet designed a QI project
Level 4 Examples	<ul style="list-style-type: none"> • Collaborates with a team to lead the analysis of a patient safety event and can competently communicate with patients/families about those events • Has initiated and completed a QI project, including communication with stakeholders
Level 5 Examples	<ul style="list-style-type: none"> • Competently assumes a leadership role at the departmental or institutional level for patient safety and/or QI initiatives, possibly even being the person to initiate action or call attention to the need for action
Assessment Models or Tools	<ul style="list-style-type: none"> • Simulation • Reflection • Direct observation at bedside or in meetings • E-module multiple choice tests • Chart or other system documentation by fellow • Documentation of QI or patient safety project processes or outcomes • 360 evaluations • Portfolio
Notes or Resources	<ul style="list-style-type: none"> • Institute of Healthcare Improvement website (http://www.ihl.org/Pages/default.aspx) which includes multiple choice tests, reflective writing samples, and more

Systems-based Practice 2	System Navigation for Patient Centered Care
Overall Intent	Effectively navigates 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.
Level 1 Examples	<ul style="list-style-type: none"> • Identifies the members of the interprofessional team and describes their roles; is not routinely utilizing team members or accessing resources • Lists the essential components of an effective sign-out • Identifies components of social determinants of health and how they impact the delivery of patient care
Level 2 Examples	<ul style="list-style-type: none"> • Contacts interprofessional team members, such as social workers and consultants, but requires supervision to ensure all necessary referrals are made and resource needs are arranged • Performs a basic sign-out but still needs direct supervision to identify sick versus not sick, and anticipatory guidance for overnight events to the night team or next incoming team for a new block • Identifies different populations within own panel of patients and/or the local community • Knows which patients are at high risk due for specific health outcomes related to health literacy concerns, cost, LGBTQ status, etc.
Level 3 Examples	<ul style="list-style-type: none"> • For a post-myocardial infarction patient, the fellow arranges for a nutritionist, occupational therapy (OT)/physical therapy(PT), and follow up appointments • Provides effective anticipatory guidance for unstable patients including medication reconciliation and checklists to transition from operating room (OR) to floor • Appreciates the need for and utilizes clinic or local resources, such as the social worker/health navigator, to ensure patients with low literacy understand how to schedule a procedure
Level 4 Examples	<ul style="list-style-type: none"> • Role models and educates students and junior team members regarding the engagement of appropriate interprofessional team members as needed for each patient, and ensures the necessary resources have been arranged • Proactively calls the outpatient doctor to ensure a discharged patient can get their international normalized ratio (INR) checks, provides efficient handoff to the intensive care unit (ICU) team at the end of a rapid response event, coordinates and prioritizes consultant input for a new high risk diagnosis (such as malignancy) to ensure the patient gets appropriate follow-up • Performs panel reviews to identify patients who are not up to date on pap smears and facilitates their return to the office; identifies patient populations at high risk for poor post-operative outcomes due to health disparities and implements strategies to improve care
Level 5 Examples	<ul style="list-style-type: none"> • 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 process • Works with a QI mentor to identify better hand-off tools or to improve teaching sessions • Designs a social determinants of health curriculum to help others learn to identify local resources and barriers to care; effectively utilizes resources,

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	such as telehealth, for proactive outreach to prevent emergency department (ED) visits or readmission for high-risk populations
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation (including discussion during rounds and case presentations) OSCE, chart review • Review of sign-out tools, utilization of checklists between units, from the OR to peri-/post-operative care, or from the ED to an inpatient unit • 360 feedback from the interprofessional team • Panel management quality metrics and goals mined from Electronic Health Records • Lectures/workshops on social determinants of health or population health with identification of local resources • Interdisciplinary rounds for high risk patients
Notes or Resources	

Systems-based Practice 3	Physician Role in Health Care Systems
Overall Intent	Understands his/her role in the complex health care system and how to optimize the system to improve patient care and the health system's performance.
Level 1 Examples	<ul style="list-style-type: none"> • Recognizes the multiple, often competing forces, in the health care system (e.g., name all the providers and systems involved in discharging a patient on ambulatory perineural infusion) • Compares payment systems, such as Medicare, Medicaid, the VA, and commercial third party payers, and contrast practice models, such as a patient-centered medical home and an Accountable Care Organization; compares and contrasts types of health benefit plans, including preferred provider organization (PPO) and health maintenance organization (HMO) • Understands the impact of health plan features, including formularies and network requirements; demonstrates knowledge that is theoretical, and is unable to apply this knowledge to the care of patients without a great direct attending input and prompting • Completes a note template following a routine patient encounter and apply appropriate coding in compliance with regulations with direct supervision
Level 2 Examples	<ul style="list-style-type: none"> • Understands how improving patient satisfaction improves patient adherence and remuneration to the health system; is not yet able to consistently think through clinical redesign to improve quality; does not yet modify personal practice to enhance outcomes • Applies knowledge of health plan features, including formularies and network requirements in patient care situations • Completes a note template following a routine patient encounter and apply appropriate coding in compliance with regulations, with oversight
Level 3 Examples	<ul style="list-style-type: none"> • Understands, accesses, and analyzes his/her own individual performance data; relevant data may include: <ul style="list-style-type: none"> ○ vaccination rates of infants in a fellow's clinic practice; surgical site infection rate of the fellow's post-op patients; ○ central line-associated bloodstream infections (CLABSI) in patients in whom the fellow has placed central lines; ○ A1c of the fellow's patients with diabetes; ○ percentage of patients the fellow intubated had an appropriate "ventilator bundle" implemented; ○ receives data related to readmission rates and begin working on improving transitions of care for his/her patients • Uses shared decision and adapts the choice of the most cost-effective medications depending on the relevant formulary • Understands process of contract negotiations, choosing malpractice insurance carriers and features, and reporting requirements for MACRA/MIPS
Level 4 Examples	<ul style="list-style-type: none"> • Works collaboratively with pertinent stakeholders to increase community influenza vaccination rates to decrease ED overcrowding during influenza season, improves surgical start times, increasing the percentage of procedures that include a "time out" or improve informed consent for non-English speaking patients requiring interpreter services • Works collaboratively with the institution to improve patient assistance resources or design the institution's community health needs assessment, or develop/implement/assess the resulting action plans; • Applies knowledge of contract negotiations, choosing malpractice insurance carriers and features, and reporting requirements for MACRA/MIPS

<p>Level 5 Examples</p>	<ul style="list-style-type: none"> • Decreases opioid prescribing on one or more clinical services, incorporates e-consults into the electronic health record, publishes original research in a peer reviewed journal • Works with community or professional organizations to advocate for no smoking ordinances
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> • Direct observation: how fellows reflect their knowledge of components in the health care system in their care of patients (e.g., understanding the requirements of Medicare prior to transfer to a skilled nursing facility, or the requirements for home oxygen in order for it to be reimbursed) • Chart review/audit of patient care: The fellow’s individual performance data should be benchmarked to aggregate at institutional, regional, and national level. Fellows could complete a chart review or audit as part of a quality improvement project. • OSCE: A Systems-based Practice observational record of the caregiving environment (ORCE) could be specifically developed for the fellow to demonstrate knowledge of health care systems as both a formative and summative activity. It should include a checklist of explicit behaviors the fellow is expected to develop. Ideally, this would be developed by the specialty. • Quality Improvement project (perhaps as part of a portfolio): The fellow’s quality improvement project may serve as an excellent assessment model/tool to assess this subcompetency. The program can develop criteria to ensure the fellow is able to access and analyze personal practice data, and work with others to design and implement action plans, and subsequently evaluate the outcome and the impact of the plan(s). Examples include receiving clinical performance data such as readmission rates, number of patients seen in clinic, or quality metrics for patients with diabetes. • Multiple choice test: The specialty (and/or the institution) may develop a multiple choice test to evaluate basic fellow knowledge of focused content such as government regulation, MACRA, malpractice insurance.
<p>Notes or Resources</p>	<ul style="list-style-type: none"> • Physician Performance Measurement and Reporting Introduction (content and case studies): http://www.nationalalliancehealth.org/Physician-Performance-Measurement-Reporting-Introduction • The Merit-based Incentive Payment System: Advancing Care Information and Improvement Activities Performance Categories. December 2016 https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MIPS-ACI-and-IA-presentation.pdf • Center for Medicare and Medicaid Services: MIPS and MACRA https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html • Agency for Healthcare Research and Quality (AHRQ): The Challenges of Measuring Physician Quality https://www.ahrq.gov/professionals/quality-patient-safety/talkingquality/create/physician/challenges.html • Major physician performance sets: https://www.ahrq.gov/professionals/quality-patient-safety/talkingquality/create/physician/measurementssets.html • The Kaiser Family Foundation: Topics include health reform, health costs, Medicare, Medicare, private insurance, uninsured: www.kff.org and http://kff.org/health-reform/ • The National Academy for Medicine (formerly the Institute of Medicine): Dzau VJ McClellan M Burke S Coye MJH Daschle TA Diaz A Frist WH Gaines ME Hamburg MA Henney JE Kumanyika S Leavitt MO McGinnis M Parker R

Sandy LG Schaeffer LD Steele GD Thompson
P Zherhouni E. *Vital Directions for Health and Health Care: A Policy Initiative of the National Academy of Medicine*. March 21, 2017:

<https://nam.edu/initiatives/vital-directions-for-health-and-health-care/>
<https://nam.edu/vital-directions-for-health-health-care-priorities-from-a-national-academy-of-medicine-initiative/>

- **The Commonwealth Fund** Health System Data Center:
http://datacenter.commonwealthfund.org/?_ga=2.110888517.1505146611.1495417431-1811932185.1495417431#ind=1/sc=1
- Health Reform Resource Center:
[http://www.commonwealthfund.org/interactives-and-data/health-reform-resource-center#/f:@facasubcategoriesfacet63677=\[Individual%20and%20Employer%20Responsibility\]](http://www.commonwealthfund.org/interactives-and-data/health-reform-resource-center#/f:@facasubcategoriesfacet63677=[Individual%20and%20Employer%20Responsibility])
- **ABIM Practice Assessment:** Modules that physicians can use to assess clinical practice practice: <http://www.abim.org/maintenance-of-certification/earning-points/practice-assessment.aspx>

Practice-based Learning and Improvement:

Practice-based Learning and Improvement 1	Evidence-Based and Informed Practice
Overall Intent	Incorporates evidence and patient values into clinical practice.
Level 1 Examples	<ul style="list-style-type: none"> • Identifies evidence for neuraxial anesthesia in the setting of joint arthroplasty
Level 2 Examples	<ul style="list-style-type: none"> • Identifies evidence for neuraxial anesthesia in a patient with aortic stenosis undergoing joint arthroplasty
Level 3 Examples	<ul style="list-style-type: none"> • Applies available evidence for anesthetic options in a patients with aortic stenosis and decides between general and neuraxial anesthesia
Level 4 Examples	<ul style="list-style-type: none"> • Identifies lack of evidence related to continuous spinal anesthesia in patients with aortic stenosis undergoing joint arthroplasty
Level 5 Examples	<ul style="list-style-type: none"> • Creates a local hospital guideline to aid decision making related to anesthesia options for patients with aortic stenosis
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Fellow portfolio • Simulation (OSCE) • Oral or written examination
Notes or Resources	

Practice-based Learning and Improvement 2	Reflective Practice and Commitment to Personal Growth
Overall intent	Seeks clinical performance information with the intent to improve care. Reflects on all domains of practice, personal interactions, and behaviors, and their impact on patients and colleagues (reflective mindfulness). Develops clear objectives and goals for improvement in some form of a learning plan
Level 1 Examples	<ul style="list-style-type: none"> • Is aware of need to improve • Is beginning to seek ways to figure out what to work on to improve and make some non-specific goals that may be difficult to execute and achieve
Level 2 Examples	<ul style="list-style-type: none"> • Increasingly able to identify what to work on in terms of patient care; uses feedback from others • After working on wards with him/her for a week, asks attending about ways to talk with patients that is easier to understand • Uses feedback with a goal of improving communication skills with patients the following week
Level 3 Examples	<ul style="list-style-type: none"> • Takes input from nursing staff, peers, and supervisors to gain complex insight into personal strengths and areas to improve • Humbly acts on input and is appreciative and not defensive • May be beginning to document goals in a more specific and achievable manner, such that attaining them is measureable
Level 4 Examples	<ul style="list-style-type: none"> • Is clearly in the habit of making a learning plan for each rotation • Consistently identifies ongoing gaps and chooses areas to work on
Level 5 Examples	<ul style="list-style-type: none"> • Actively discusses learning goals with supervisors and colleagues; may encourage other learners on the team to consider how their behavior affects the rest of the team
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Review of learning plan
Notes or Resources	<ul style="list-style-type: none"> • Hojat M, Veloski JJ, Gonnella JS. Measurement and correlates of physicians' lifelong learning. <i>Academic Medicine</i> 2009. Aug;84(8):1066-74. doi: 10.1097 /ACM. 0b013e 3181acf25f. <i>Contains a validated questionnaire about physician lifelong learning.</i> • Lockspeiser TM, Schmitter PA, Lane JL et al. Assessing Fellows' Written Learning Goals and Goal Writing Skill: Validity Evidence for the Learning Goal Scoring Rubric. <i>Academic Medicine</i> 2013. 88 (10) • Burke AE, Benson B, Englander R, Carraccio C, Hicks PJ. Domain of competence: practice-based learning and improvement. <i>Academic Pediatrics</i> 2014. 14: S38-S54.

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Professionalism:

Professionalism 1	Professional Behavior and Ethical Principles
Overall Intent	Recognizes and addresses lapses in ethical and professional behavior, demonstrates ethical and professional behaviors, and utilizes appropriate resources for managing ethical and professional dilemmas
Level 1 Examples	<ul style="list-style-type: none"> • Identifies and describes potential triggers for professionalism lapses, describes when and how to appropriately report professionalism lapses, and outlines strategies for addressing common barriers to reporting • Discusses the basic principles underlying ethics (beneficence, nonmaleficence, justice, autonomy) and professionalism (professional values and commitments), and how they apply in various situations (e.g., informed consent process) • Obtains informed consent for procedures
Level 2 Examples	<ul style="list-style-type: none"> • Demonstrates professional behavior in routine situations and uses ethical principles to analyze straightforward situations, such as those where: <ul style="list-style-type: none"> ○ there are no or few conflicts (between values or patients) ○ the fellow may be tired or hungry, but is not excessively fatigued, overwhelmed, or otherwise distressed ○ workload is not unusually high, and there is no significant time pressure to make decisions • Acknowledges a lapse without becoming defensive, making excuses, or blaming others • Apologizes for the lapse when appropriate and taking steps to make amends if needed • Articulates strategies for preventing similar lapses in the future
Level 3 Examples	<ul style="list-style-type: none"> • Analyzes complex situations, such as how the clinical situation evokes strong emotions, conflicts (or perceived conflicts) between patients or between professional values; the fellow navigates a situation while not at his/her personal best (due to fatigue, hunger, stress, etc.), or the system poses barriers to professional behavior (e.g., inefficient workflow, inadequate staffing, conflicting policies) • Recognizes own limitations and seeks resources to help manage and resolve complex ethical situations • Analyzes difficult real or hypothetical ethics and professionalism case scenarios or situations, recognizes own limitations, and consistently demonstrates professional behavior
Level 4 Examples	<ul style="list-style-type: none"> • Monitors and responds to fatigue, hunger, stress, etc. in self and team members • Recognizes and responds effectively to the emotions of others • Actively seeks to consider the perspectives of others • Models respect for patients and expects the same from others • Recognizes and utilizes appropriate resources for managing and resolving ethical dilemmas (e.g., ethics consultations, literature review, risk management/legal consultation)
Level 5 Examples	<ul style="list-style-type: none"> • Coaches others when their behavior fails to meet professional expectations, either in the moment (for minor or moderate single episodes of unprofessional behavior) or after the moment (for major single episodes or repeated minor to moderate episodes of unprofessional behavior) • Identifies and seeks to address system-wide factors or barriers to promoting a culture of ethical and professional behavior through participation in a work

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	<p>group, committee, or taskforce (e.g., ethics committee or an ethics sub-committee, risk management committee, root cause analysis review, patient safety or satisfaction committee, professionalism work group, IRB, fellow grievance committee, etc.</p>
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> • Direct observation • Global evaluation • Multisource feedback • OSCE • Mentor and program director observations • Oral or written self-reflection (e.g., of a personal or observed lapse, ethical dilemma, or systems-level factors) • Simulation
<p>Notes or Resources</p>	<ul style="list-style-type: none"> • American Society of Anesthesiologist Code of Ethics Guidelines. (https://www.asahq.org/resources/ethics-and-professionalism) • American Medical Association Code of Ethics. https://www.ama-assn.org/delivering-care/ama-code-medical-ethics • American Board of Internal Medicine; American College of Physicians-American Society of Internal Medicine; European Federation of Internal Medicine. <u>Medical professionalism in the new millennium: a physician charter</u>. Ann Intern Med. 2002;136:243-246. • Byyny RL, Papadakis MA, Paauw DS. <u>Medical Professionalism Best Practices</u>. 2015 by Alpha Omega Alpha Medical Society, Menlo Park, CA. • Levinson W, Ginsburg S, Hafferty FW, Lucey CR. <u>Understanding Medical Professionalism</u>. McGraw-Hill Education, 2014.

Professionalism 2	Accountability/Conscientiousness
Overall Intent	Takes responsibility for his/her actions and the impact on patients and other members of the health care team.
Level 1 Examples	<ul style="list-style-type: none"> • Takes responsibility for not getting informed consent for performing peripheral nerve block
Level 2 Examples	<ul style="list-style-type: none"> • Completes routine tasks and recognizes when he/she will have trouble completing a task (e.g., description of nerve block and its potential complication)
Level 3 Examples	<ul style="list-style-type: none"> • Completes tasks in stressful situations and preempts issues that would impede completion of tasks (e.g., recognition of intervascular injection of local anesthetic solution and ability to prevent cardiovascular collapse)
Level 4 Examples	<ul style="list-style-type: none"> • Identifies issues that could impede others from completing tasks and provides leadership to address those issues (e.g., senior fellows advise interns how to manage their time in completing patient care tasks) • Follows current evidence-based guidelines for performance of central neuraxial blockade
Level 5 Examples	<ul style="list-style-type: none"> • Sets up a meeting with the nurse manager to streamline patient discharges • Takes responsibility for potential adverse outcomes from peripheral nerve block and professionally discusses this with the interprofessional team
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Multisource global evaluations • Self-evaluations • Compliance with deadlines and timelines • Simulation • OSCE • Mentor and program director observations
Notes or Resources	<ul style="list-style-type: none"> • ASA Code of ethics (https://www.asahq.org/resources/ethics-and-professionalism website insert) • Code of conduct from fellow institutional manual

Professionalism 3	Self-Awareness and Help-Seeking
Overall Intent	Identifies, uses, manages, improves, and seeks help for personal and professional well-being for self and others.
Level 1 Examples	<ul style="list-style-type: none"> • Accepts feedback and exhibits positive responses to criticism
Level 2 Examples	<ul style="list-style-type: none"> • Identifies possible sources of personal stress or lack of clinical knowledge and independently seeks help
Level 3 Examples	<ul style="list-style-type: none"> • With supervision, assists in developing a personal learning or action plan to address gaps in knowledge or stress and burnout for self or team
Level 4 Examples	<ul style="list-style-type: none"> • Independently develops personal learning or action plans for continued personal and professional growth, and limits stress and burnout for self or team
Level 5 Examples	<ul style="list-style-type: none"> • Mentors patients and colleagues in self-awareness and establishes health management plans to limit stress and burnout
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Self-assessment and personal learning plan • Individual interview • Group interview or discussions for team activities • Participation in institutional well-being programs • Mentor and program director observations • Institutional online training modules
Notes or Resources	<ul style="list-style-type: none"> • Local resources, including Employee Assistance

Interpersonal and Communication Skills:

Interpersonal and Communication Skills 1	Patient- and Family-Centered Communication
Overall Intent	Deliberately uses language and behaviors to form a therapeutic relationship with a patient and his/her family, to identify communication barriers, including self-reflection on personal biases, and minimize them in the doctor-patient relationship. Organizes and leads communication around shared decision-making.
Level 1 Examples	<ul style="list-style-type: none"> • Self-monitors and controls tone, non-verbal responses, and language and asks questions to invite the patient’s participation • Accurately communicates the role of the health care system to patients, families, and colleagues and identifies common communication barriers (e.g., loss of hearing, language, aphasia) in patient and family encounters • Identifies the need to communicate specifically about a patient’s pain trajectory after assessing that the patient and family are very anxious about time left and may be underestimating this
Level 2 Examples	<ul style="list-style-type: none"> • Establishes a developing, therapeutic relationship with a patient, reaching below the surface to know the patient (e.g., demonstrates patient-centeredness with active listening, attention to affect, and questions that explore the patient’s personhood) • Identifies complex communication barriers (e.g., culture, religious beliefs, health literacy) in patient and family encounters • Leads an agenda-driven discussion about acute pain management with the patient, family, and primary care team, reassessing the patient’s and family’s understanding and anxiety
Level 3 Examples	<ul style="list-style-type: none"> • Establishes and maintains a therapeutic relationship with a challenging patient (e.g., angry, non-adherent, substance seeking, mentally challenged, etc.), and articulates personal challenges in the relationship, how their personal biases may impact the relationship, and strategies to use going forward • Attempts to mitigate identified communication barriers, including reflection on implicit biases (e.g., preconceived ideas about patients of certain race or weight) when prompted • Moves beyond assessing the patient’s/family’s understanding to deliver meaningful information related to acute pain management and elicits what is most important to the patient and family going forward • Acknowledges uncertainty in a patient’s medical complexity and prognosis
Level 4 Examples	<ul style="list-style-type: none"> • Establishes a cordial relationship with the most challenging or complex patients/families with sensitivity to their specific concerns • Independently anticipates and proactively addresses communication barriers, including recognition of own implicit biases, and intuitively recognizes and controls these biases so they have less impact on a more complex physician-patient relationship • Independently engages in shared decision-making with the patient and family, including a recommended acute pain management plan to align a patient’s unique goals with treatment options
Level 5 Examples	<ul style="list-style-type: none"> • Role models and supports colleagues in self-awareness and reflection to improve therapeutic relationships with patients, and demonstrates intuitive

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	<p>understanding of a patient's perspective; uses a contextualized approach to minimize barriers for patients and colleagues</p> <ul style="list-style-type: none"> • Role models proactive self-awareness and reflection around explicit and implicit biases with a context-specific approach to mitigating communication barriers • Leads shared decision making with clear recommendations to patients and families even in more complex clinical situations
<p>Assessment Models or Tools</p>	<ul style="list-style-type: none"> • Attending assessment of patient/family encounters • Standardized patients or structured case discussions • Patient/family encounters • Self-assessment including self-reflection exercises • Mini-clinical evaluation exercise (CEX) • Kalamazoo Essential Elements Communication Checklist (Adapted) • Skills needed to set the state, Elicit information, Give information, Understand the patient, and End the encounter (SEGUE) • SECURE
<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. Med Teach. 2011;33(1):6-8. • Makoul G. Essential Elements of Communication in Medical Encounters: The Kalamazoo Consensus Statement. Academic Medicine 2001;76:390-393. • Makoul G. The SEGUE Framework for teaching and assessing communication skills. Patient Educ Couns 2001;45(1):23-34. • O'Sullivan P, Chao S, Russell M, Levine S, Fabiny A. Development and implementation of an objective structured clinical examination to provide formative feedback on communication and interpersonal skills in geriatric training. J Am Geriatr Soc 2008;56(9):1730-5. • Symons AB, Swanson A, McGuigan D, Orange S, Akl EA. A tool for self-assessment of communication skills and professionalism in fellows. BMC Med Educ 2009; 9:1. • American Academy of Hospice and Palliative Medicine: Hospice and Palliative Medicine Competencies Project. http://aahpm.org/fellowships/competencies#competencies-toolkit accessed June 6, 2017.

Interpersonal and Communication Skills 2	Interprofessional and Team Communication
Overall Intent	Effectively communicates with the health care team, including with consultants, in both straightforward and complex situations.
Level 1 Examples	<ul style="list-style-type: none"> • Shows respect in health care team communications through words and actions • Listens to and considers others' points of view, is nonjudgmental and actively engaged, and demonstrates humility
Level 2 Examples	<ul style="list-style-type: none"> • Communicates clearly and concisely in an organized and timely manner during consultant encounters, as well as with the health care team in general
Level 3 Examples	<ul style="list-style-type: none"> • Verifies understanding of his/her communications within the health care team (i.e., closed loop communications, restating), and raises concerns or provides opinions and feedback when needed to others on the team • Uses teach-back or other strategies to assess receiver understanding during consultations • Demonstrates active listening by fully focusing on the patient or surrogate, actively showing verbal and non-verbal signs (eye contact, posture, reflection, questioning, or summarization) • Respectfully provides feedback for the purposes of improvement or reinforcement of correct knowledge, skills, and attitudes • Inconsistently provides feedback or constructive criticism to superiors; unable to consistently manage conflict between team members
Level 4 Examples	<ul style="list-style-type: none"> • Offers suggestions to negotiate or resolve conflicts related to patient care among health care team members; raises concerns or provides opinions and feedback, when needed, to superiors on the team
Level 5 Examples	<ul style="list-style-type: none"> • Communicates with all health care team members, resolves conflicts, and provides feedback in any situation • Adapts communication strategies in handling complex situations
Assessment Models or Tools	<ul style="list-style-type: none"> • Direct observation • Global assessment • Multi-source assessment • Simulation encounters • Standardized patient encounters or OSCE • Checklists • Record or chart review
Notes or Resources	<ul style="list-style-type: none"> • François, J. (2011). Tool to assess the quality of consultation and referral request letters in family medicine. <i>Canadian Family Physician</i>, 57(5), 574–575. • Consultant Evaluation of Faculty form in Dehon E, Simpson K, Fowler D, Jones A. Development of the faculty 360. MedEdPORTAL Publications. 2015;11:10174. http://doi.org/10.15766/mep_2374-8265.10174.

Interpersonal and Communication Skills 3	Communication within Health Care Systems
Overall Intent	Effectively communicates using a variety of methods.
Level 1 Examples	<ul style="list-style-type: none"> • Notes are accurate but include extraneous information • Identifies medical errors and near misses, but does not know how to use the reporting system
Level 2 Examples	<ul style="list-style-type: none"> • Notes are organized and accurate but still contain extraneous information, such as all vital signs collected over the past 24 hours or irrelevant lab results • Recognizes that a communication breakdown has happened during sign-out and respectfully brings the breakdown to the attention of the chief fellow or faculty member • Unable to identify potential solutions to a system breakdown and is unable or uncomfortable raising concerns directly with colleagues
Level 3 Examples	<ul style="list-style-type: none"> • Documentation is accurate, organized, and concise with no extraneous information, but inconsistently contains anticipatory (if/then) guidance • Identifies an incident in which a communication breakdown occurred and offers constructive suggestions for how to improve the system; requires supervision or support to talk to a colleague about the incident
Level 4 Examples	<ul style="list-style-type: none"> • Notes are exemplary, but is not yet able to provide feedback to colleagues who are insufficiently documenting • Talks directly to a colleague about breakdowns in communication in order to prevent recurrence
Level 5 Examples	<ul style="list-style-type: none"> • Teaches colleagues how to improve clinical notes, including terminology, billing compliance, conciseness, and inclusion of all required elements • Leads a task force established by the hospital QI committee to develop a plan to improve housestaff hand-offs
Assessment Models or Tools	<ul style="list-style-type: none"> • Chart (HPI, progress notes, procedure notes, discharge summary) audit • Observation of sign-outs, observation of requests for consultations • 360 evaluation of chart documentation • Chart stimulated recall exercise addressing systems based practice
Notes or Resources	<ul style="list-style-type: none"> • Jennifer A. Bierman, Kathryn Kinner Hufmeyer, David T. Liss, A. Charlotta Weaver & Heather L. Heiman (2017): Promoting Responsible Electronic Documentation: Validity Evidence for a Checklist to Assess Progress Notes in the Electronic Health Record, Teaching and Learning in Medicine, • Starmer, Amy J., et al. "I-pass, a mnemonic to standardize verbal handoffs."Pediatrics 129.2 (2012): 201-204.