

Emergency Medicine Milestones for Singapore



May 2017

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The Milestones are designed only for use in evaluation of residents in the context of their participation in ACGME-I-accredited residency programs. The Milestones provide a framework for the assessment of the development of the resident in key dimensions of the elements of physician competency in a specialty. They neither represent the entirety of the dimensions of the six domains of physician competency, nor are they designed to be relevant in any other context.

Milestones Reporting

This document presents milestones designed for programs to use in semi-annual review of resident performance and reporting to the ACGME-I. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME-I competencies organized in a developmental framework from less to more advanced. They are descriptors and targets for resident performance as a learner moves from entry into their program through graduation.

For each period, review and reporting will involve selecting milestone levels that best describe each resident's current performance and attributes. Milestones are arranged in numbered levels. Tracking from "Level 1" to "Level 5" is synonymous with moving from novice to expert in the specialty. These levels do not correspond with time in the educational program. Dependent upon previous education and experience, residents may enter a program at varying points in the Milestones.

Selection of a level implies that the resident substantially demonstrates the milestones in that level, as well as those in lower levels (see the diagram on page v).

Level 1: The resident demonstrates milestones expected of an incoming resident.

Level 2: The resident is advancing and demonstrates additional milestones, but is not yet performing at a mid-residency level.

Level 3: The resident continues to advance and demonstrate additional milestones; the resident demonstrates the majority of milestones targeted for residency in this sub-competency.

Level 4: The resident has advanced so that he or she now substantially demonstrates the milestones targeted for residency. This level is designed as the graduation target.

Level 5: The resident has advanced beyond performance targets set for residency and is demonstrating "aspirational" goals, which might describe the performance of someone who has been in practice for several years. It is expected that only a few exceptional residents will reach this level.

Additional Notes

The “Level 4” Milestones are designed as the graduation *target* and *do not* represent a graduation *requirement*. Making decisions about readiness for graduation is the purview of the program director. Study of Milestones performance data will be required before the ACGME-I and its partners will be able to determine whether milestones in the first four levels appropriately represent the developmental framework, and whether Milestone data overall are of sufficient quality to be used for high-stakes decisions.

Answers to Frequently Asked Questions about Milestones are posted on the ACGME-I website.

The diagram below presents an example set of milestones for one sub-competency in the same format as the ACGME-I Report Worksheet. For each reporting period, a learner’s performance on the milestones for each sub-competency will be indicated by selecting the level of milestones that best describes that learner’s performance in relation to those milestones.

| Systems-Based Practice 1: Patient Safety and Quality Improvement | | | | |
|--|---|--|---|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Demonstrates knowledge of common patient safety events | Identifies system factors that lead to patient safety events | Participates in analysis of patient safety events (simulated or actual) | Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual) | Actively engages teams and processes to modify systems to prevent patient safety events |
| Demonstrates knowledge of how to report patient safety events | Reports patient safety events through institutional reporting systems (actual or simulated) | Participates in disclosure of patient safety events to patients and families (simulated or actual) | Discloses patient safety events to patients and families (simulated or actual) | Role models or mentors others in the disclosure of patient safety events |
| Demonstrates knowledge of basic quality improvement methodologies and metrics | Describes local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation) | Participates in local quality improvement initiatives | Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project | Creates, implements, and assesses quality improvement initiatives at the institutional or community level |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: Not yet achieved Level 1 <input type="checkbox"/> | | | | |

Selecting a response box in the middle of a level implies that milestones in that level and in lower levels have been substantially demonstrated.

Selecting a response box on the line in between levels indicates that milestones in lower levels have been substantially demonstrated as well as **some** milestones in the higher level(s).

| Patient Care 1: Emergency Stabilization - Prioritizes Critical Initial Stabilization Action and Mobilizes Hospital Support Services in the Resuscitation of a Critically-Ill or Injured Patient and Reassesses after Stabilizing Intervention | | | | |
|---|---|--|---|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Recognizes abnormal vital signs</p> <p>Recognizes when a patient is unstable requiring immediate intervention</p> <p>Performs a primary assessment on a critically ill or injured patient</p> | <p>Discerns relevant data to formulate a diagnostic impression and plan</p> | <p>Manages and prioritizes critically ill or injured patients</p> <p>Prioritizes critical initial stabilization actions in the resuscitation of a critically ill or injured patient</p> <p>Reassesses after implementing a stabilizing intervention</p> <p>Evaluates the validity of an Advanced Care Plan</p> | <p>Recognizes in a timely fashion when further clinical intervention is futile</p> <p>Integrates hospital support services into a management strategy for a problematic stabilization situation</p> | <p>Develops policies and protocols for the management and/or transfer of critically ill or injured patients</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: standardized direct observation tool (SDOT), observed resuscitations, simulation, checklist, videotape review

| Patient Care 2: Performance of Focused History and Physical Exam - Abstracts Current Findings in a Patient with Multiple Chronic Medical Problems and, when appropriate, Compares with a Prior Medical Record and Identifies Significant Differences between the Current Presentation and Past Presentations | | | | |
|--|---|---|---|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Performs and communicates a reliable, comprehensive history and physical exam | Performs and communicates a focused history and physical exam which effectively addresses the chief complaint and urgent patient issues Succinctly summarizes the electronic health record | Prioritizes essential components of a history given a limited or dynamic circumstance Prioritizes essential components of a physical examination given a limited or dynamic circumstance Correlates past patient history with presenting complaints | Synthesizes essential data necessary for the correct management of patients using all potential sources of data | Identifies obscure, occult or rare patient conditions based solely on historical and physical exam findings |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: Global ratings of live performance, checklist assessments of live performance, SDOT, oral boards, simulation

| Patient Care 3: Diagnostic Studies - Applies the Results of Diagnostic Testing Based on the Probability of Disease and the Likelihood of Test Results Altering Management | | | | |
|---|--|--|--|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Determines the necessity of diagnostic studies | Orders appropriate diagnostic studies and bedside procedures | <p>Prioritizes essential testing</p> <p>Interprets results of a diagnostic study, recognizing limitations and risks, seeking interpretive assistance when appropriate</p> <p>Reviews risks, benefits, contraindications, and alternatives to a diagnostic study or procedure</p> <p>Correctly interprets the results of a diagnostic procedure</p> | <p>Uses diagnostic testing based on the pre-test probability of disease and the likelihood of test results altering management</p> <p>Practices cost effective ordering of diagnostic studies</p> <p>Understands the implications of false positives and negatives for post-test probability</p> | Discriminates between subtle and/or conflicting diagnostic results in the context of the patient presentation |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: SDOT, oral boards, standardized exams, chart review, simulation

| Patient Care 4: Diagnosis - Based on all of the Available Data, Narrows and Prioritizes the List of Weighted Differential Diagnoses to Determine Appropriate Management | | | | |
|---|---|---|---|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Constructs a list of potential diagnoses based on chief complaint and initial assessment | Constructs a list of potential diagnoses, based on the greatest likelihood of occurrence Constructs a list of potential diagnoses with the greatest potential for morbidity or mortality | Uses all available medical information to develop a list of ranked differential diagnoses including those with the greatest potential for morbidity or mortality Revises a differential diagnosis in response to changes in a patient's course over time | Synthesizes all of the available data and narrows and prioritizes the list of weighted differential diagnoses to determine appropriate management | Uses pattern recognition to identify discriminating features between similar patients |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: SDOT as baseline, global ratings, simulation, oral boards, chart review

| Patient Care 5: Pharmacotherapy - Selects and Prescribes Appropriate Pharmaceutical Agents Based upon Relevant Considerations such as Mechanism of Action, Intended Effect, Financial Considerations, Possible Adverse Effects, Patient Preferences, Allergies, Potential Drug-Food and Drug-Drug Interactions, Institutional Policies, and Clinical Guidelines; and Effectively Combines Agents and Monitors and Intervenes in the Advent of Adverse Effects in the Emergency Department (ED) | | | | |
|--|---|--|--|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Knows the different classifications of pharmacologic agents and their mechanism of action and common side effects. | Applies medical knowledge for selection of appropriate agent for therapeutic intervention | <p>Considers array of drug therapy for treatment.</p> <p>Selects appropriate agent based on mechanism of action, intended effect, and anticipates potential adverse side effects</p> <p>Considers and recognizes potential drug to drug interactions</p> | Selects the appropriate agent based on mechanism of action, intended effect, possible adverse effects, patient preferences, allergies, potential drug-food and drug-drug interactions, financial considerations, institutional policies, clinical guidelines and evidence based including patient's age, weight, and other modifying factors | Participates in developing institutional policies on pharmacy and therapeutics |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: SDOT, portfolio, simulation, oral boards, global ratings, medical knowledge examinations

| Patient Care 6: Observation and Reassessment - Re-evaluates Patients Undergoing ED Observation (and Monitoring) and Using Appropriate Data and Resources, Determines the Differential Diagnosis, Treatment Plan, and Disposition | | | | |
|--|--|---|--|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Recognizes the need for patient re-evaluation Monitors a patient's clinical status at timely intervals during their stay in the ED | Monitors that necessary therapeutic interventions are performed during a patient's ED stay | Identifies which patients will require observation in the ED Evaluates effectiveness of therapies and treatments provided during observation | Considers additional diagnoses and therapies for a patient who is under observation and changes treatment plan accordingly Identifies and complies with regulatory requirements and utilization of right siting | Develops protocols to avoid potential complications of interventions and therapies |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: SDOT, multi-source feedback, oral boards, simulation

| Patient Care 7: Disposition - Establishes and Implements a Comprehensive Disposition Plan that Uses Appropriate Consultation Resources; Patient Education Regarding Diagnosis Treatment Plan, Medications, and Time- and Location-Specific Disposition Instructions | | | | |
|---|---|--|--|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Describes basic resources available for care of the emergency department patient | Formulates a specific follow-up plan for common ED complaints with appropriate resource utilization | <p>Involves appropriate resources (e.g., consultants, social work, physical therapy [PT]/occupational therapy [OT], financial aid, care coordinators) in a timely manner</p> <p>Makes correct decision regarding admission to appropriate disciplines or discharge of patients</p> <p>Correctly assigns admitted patients to an appropriate level of care (intensive care unit [ICU]/Telemetry/Floor/Observation Unit)</p> | <p>Formulates sufficient admission plans or discharge instructions including future diagnostic/therapeutic interventions for ED patients</p> <p>Ability to resolve conflicts relating to disposition decisions</p> <p>Engages patient or surrogate to effectively implement a discharge plan</p> <p>Formulates and provides patient education regarding diagnosis, treatment plan, medication review and Patient Care P/consultant appointments for complicated patients</p> | Works within the institution to develop hospital systems that enhance safe patient disposition and maximizes resource utilization |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: SDOT, shift evaluations, simulation cases / Objective Structure Clinical Exam (OSCE), multi-source feedback, chart review

| Patient Care 8: Task-Switching - Employs Task-Switching in an Efficient and Timely Manner in Order to Manage the ED | | | | |
|---|--|--|--|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Manages a single patient amidst distractions | Task switches between different patients | Employs task switching in an efficient and timely manner in order to manage multiple patients Prioritizes tasks | Employs task switching in an efficient and timely manner in order to manage the ED | Employs task switching in an efficient and timely manner in order to manage the ED under high volume or surge situations |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: Simulation, SDOT, mock oral examination, multi-source feedback

| Patient Care 9: General Approach to Procedures - Performs the Indicated Procedure on all Appropriate Patients (Including those who are Uncooperative, at the Extremes of Age, Hemodynamically Unstable and Those Who Have Multiple Co-Morbidities, Poorly Defined Anatomy, High Risk for Pain or Procedural Complications, Sedation Requirement), Takes Steps to Avoid Potential Complications, and Recognizes the Outcome and/or Complications Resulting from the Procedure | | | | |
|--|--|---|---|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Identifies pertinent anatomy and physiology for a specific procedure</p> <p>Uses appropriate Universal Precautions</p> | <p>Performs patient assessment, obtains informed consent and ensures monitoring equipment is in place in accordance with patient safety standards</p> <p>Knows indications, contraindications, anatomic landmarks, equipment, anesthetic and procedural technique, and potential complications for common ED procedures</p> <p>Performs the indicated common procedure on a patient with moderate urgency who has identifiable landmarks and a low-moderate risk for complications</p> <p>Performs post-procedural assessment and identifies any potential complications</p> | <p>Determines a backup strategy if initial attempts to perform a procedure are unsuccessful</p> | <p>Performs indicated procedures on any patients with challenging features (e.g., poorly identifiable landmarks, at extremes of age or with co-morbid conditions)</p> <p>Performs the indicated procedure, takes steps to avoid potential complications, and recognizes the outcome and/or complications resulting from the procedure</p> | <p>Teaches procedural competency and corrects mistakes</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: Procedural competency forms, checklist assessment of procedure and simulation lab performance, global ratings

| Patient Care 10: Airway Management - Performs Airway Management on all Appropriate Patients (Including those who are Uncooperative, at the Extremes of Age, Hemodynamically Unstable and Those Who Have Multiple Co-Morbidities, Poorly Defined Anatomy, High Risk for Pain or Procedural Complications, Sedation Requirement), Takes Steps to Avoid Potential Complications, and Recognize the Outcome and/or Complications Resulting from the Procedure | | | | |
|--|--|--|--|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Describes upper airway anatomy</p> <p>Performs basic airway maneuvers or adjuncts (jaw thrust/chin lift/oral airway/nasopharyngeal airway) and ventilates/oxygenates patient using bag valve mask (BVM)</p> | <p>Describes elements of airway assessment and indications impacting the airway management</p> <p>Performs intubation in patients not requiring RSI</p> <p>Confirms proper endotracheal tube placement using multiple modalities</p> | <p>Uses airway algorithms in decision making for complicated patients employing airway adjuncts as indicated</p> <p>Describes the pharmacology of agents used for rapid sequence intubation including specific indications and contraindications</p> <p>Considers other modalities for appropriate conditions such as noninvasive ventilation (NIV) prior to intubation.</p> <p>Performs intubation in patients requiring rapid sequence intubation (RSI)</p> <p>Implements post-intubation management</p> | <p>Performs airway management in any circumstance taking steps to avoid potential complications, and recognizes the outcome and/or complications resulting from the procedure</p> <p>Demonstrates the ability to perform a cricothyrotomy</p> <p>Uses advanced airway modalities in complicated patients</p> | <p>Teaches airway management skills to health care providers</p> |

| | | | | | | | | | | | |
|--|--------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Employs appropriate methods of mechanical ventilation based on specific patient physiology | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: Not Yet Achieved Level 1 <input type="checkbox"/> | | | | | | | | | | | |

Suggested Evaluation Methods: Airway Management Competency Assessment Tool (CORD), Airway Management Assessment Cards, SDOT checklist, procedure log, and simulation

| Patient Care 11: Anesthesia and Acute Pain Management - Provides Safe Acute Pain Management, Anesthesia, and Procedural Sedation to Patients of all Ages Regardless of the Clinical Situation | | | | |
|--|---|--|---|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Discusses with the patient indications, contraindications and possible complications of local anesthesia</p> <p>Performs local anesthesia using appropriate doses of local anesthetic and appropriate technique to provide skin to sub-dermal anesthesia for procedures</p> <p>Knows the indications, contraindications, potential complications and appropriate doses of analgesic medications</p> | <p>Knows the indications, contraindications, potential complications and appropriate doses of sedative medications</p> <p>Knows the anatomic landmarks, indications, contraindications, potential complications and appropriate doses of local anesthetics used for regional anesthesia</p> | <p>Knows the indications, contraindications, potential complications and appropriate doses of medications used for procedural sedation</p> <p>Performs patient assessment and discusses with the patient the most appropriate analgesic/sedative medication and administers in the most appropriate dose and route</p> <p>Performs pre-sedation assessment, obtains informed consent and orders appropriate choice and dose of medications for procedural sedation</p> <p>Obtains informed consent and correctly performs regional anesthesia</p> <p>Ensures appropriate monitoring of patients during procedural sedation</p> | <p>Performs procedural sedation providing effective sedation with the least risk of complications and minimal recovery time through selective dosing, route and choice of medications</p> | <p>Develops pain management protocols/care plans</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: Procedural competency forms, checklist assessment of procedure and simulation lab performance, global ratings, patient survey, chart review

| Patient Care 12: Other Diagnostic and Therapeutic Procedures: Goal-Directed Focused Ultrasound (Diagnostic/Procedural) - Uses Goal-Directed Focused Ultrasound for the Bedside Diagnostic Evaluation of Emergency Medical Conditions and Diagnoses, Resuscitation of the Acutely Ill or Injured Patient, and Procedural Guidance | | | | |
|--|--|--|--|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Describes the indications for emergency ultrasound</p> <p>Explains how to optimize ultrasound images and Identifies the proper probe for each of the focused ultrasound applications</p> | <p>Performs ultrasound with right indications and recognise pitfalls.</p> <p>Acquires optimised images most of the time</p> <p>Acquires standard views for extended-FAST, abdominal aorta and renal ultrasound</p> | <p>Performs goal-directed focused ultrasound exams</p> <p>Acquires optimised images, including use of non-standard views, and performs manoeuvres to optimise images in difficult cases</p> <p>Reliably recognises and differentiate normal versus pathological findings</p> <p>Acquires standard views for Cardiac/inferior vena cava (IVC), lung, gallbladder and deep vein thrombosis (DVT)</p> | <p>Performs goal-directed focused ultrasound exams in a broad variety of emergency and critically ill patients</p> <p>Integrates ultrasound findings to impact clinical care in difficult cases</p> <p>Completes stipulated numbers and direct observation of procedural skills (DOPS) in all ultrasound applications</p> <p>Teaches and instructs bedside ultrasound to beginners</p> | <p>Expands ultrasonography skills to include advanced applications (e.g., assessment for trans-abdominal intrauterine pregnancy [IUP], musculoskeletal ultrasound, and others)</p> <p>Teaches and instructs bedside ultrasound to advanced learners</p> <p>Conducts an ultrasound course</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: OSCE, SDOT, videotape review, written examination, checklist

| Patient Care 13: Other Diagnostic and Therapeutic Procedures: Wound Management - Assesses and Appropriately Manages Wounds in Patients of all Ages Regardless of the Clinical Situation | | | | |
|--|---|---|--|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Uses medical terminology to clearly describe/classify a wound (e.g., stellate, abrasion, avulsion, laceration, deep vs superficial)</p> <p>Prepares a simple wound for suturing (identify appropriate suture material, anesthetize wound, and irrigate)</p> <p>Demonstrates sterile technique</p> <p>Places a simple interrupted suture</p> | <p>Classifies burns with respect to depth and body surface area</p> <p>Compares and contrasts modes of wound management (adhesives, steri-strips, hair apposition, staples)</p> <p>Identifies wounds that require antibiotics or tetanus prophylaxis</p> <p>Educates patients on appropriate outpatient management of their wound</p> | <p>Performs complex wound repairs (deep sutures, layered repair, corner stitch)</p> <p>Manages a severe burn</p> <p>Determines which wounds should not be closed primarily</p> <p>Demonstrates appropriate use of consultants</p> <p>Identifies wounds that may be high risk and require more extensive evaluation (example: x-ray, ultrasound, and/or exploration)</p> | <p>Achieves hemostasis in a bleeding wound using advanced techniques such as: cautery, ligation, deep suture, injection, topical hemostatic agents, and tourniquet</p> <p>Repairs wounds that are high risk for cosmetic complications (such as eyelid margin, nose, ear)</p> <p>Describes the indications for and steps to perform an escharotomy</p> | <p>Performs advanced wound repairs, such skin flaps</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: Direct observation, procedure checklist, medical knowledge quiz, portfolio, global ratings, procedure log

| Medical Knowledge 1: Demonstrates Appropriate Medical Knowledge in the Care of Emergency Medicine Patients | | | | |
|--|--|--|--|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Obtains satisfactory standard for year of training | Demonstrates improvement of the percentage in -in-training examination results | Obtains satisfactory standing for the in-training examination or maintain an acceptable percentile ranking | Obtains a score on the annual in-training examination that indicates a high likelihood of passing the national qualifying examinations | Passes EM Exit Exam and satisfies all national requirements for specialist accreditation. |
| Demonstrates ability to relate applied sciences to clinical context | | Successfully passes the intermediate exams | Successfully completes all objective residency training program requirements | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

Suggested Evaluation Methods: National licensing examinations (United States Medical Licensing Exam [USMLE], Comprehensive Osteopathic Medical Licensing Exam [COMLEX]), national in-training examination (developed by ABEM & AOA), CORD Question & Answer Bank tests, MedChallenger, local residency examinations

| Systems-Based Practice 1: Patient Safety and Quality Improvement | | | | |
|---|---|--|---|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Demonstrates knowledge of common patient safety events | Identifies system factors that lead to patient safety events | Participates in analysis of patient safety events (simulated or actual) | Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual) | Actively engages teams and processes to modify systems to prevent patient safety events |
| Demonstrates knowledge of how to report patient safety events | Reports patient safety events through institutional reporting systems (actual or simulated) | Participates in disclosure of patient safety events to patients and families (simulated or actual) | Discloses patient safety events to patients and families (simulated or actual) | Role models or mentors others in the disclosure of patient safety events |
| Describes local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation) | Demonstrates knowledge of basic quality improvement methodologies and metrics | Participates in local quality improvement initiatives | Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project | Creates, implements, and assesses quality improvement initiatives at the institutional or community level |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

| Systems-Based Practice 2: System Navigation for Patient-Centered Care | | | | |
|---|---|--|---|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Demonstrates knowledge of care coordination | Coordinates care of patients in routine clinical situations effectively utilizing the roles of the interprofessional teams (know the resources available) | Coordinates care of patients in complex clinical situations effectively utilizing the roles of their interprofessional teams | Role models effective coordination of patient-centered care among different disciplines and specialties | Analyses the process of care coordination and leads in the design and implementation of improvements |
| Identifies key elements for safe and effective transitions of care and handoffs | Performs safe and effective transitions of care/handoffs in routine clinical situations | Performs safe and effective transitions of care/handoffs in complex clinical situations | Role models and advocates for safe and effective transitions of care/handoffs within and across health care delivery systems, including outpatient settings | Improves quality of transitions of care within and across health care delivery systems to optimize patient outcomes |
| Demonstrates knowledge of population and community health needs and disparities | Identifies specific population and community health needs and inequities for their local population | Uses local resources effectively to meet the needs of a patient population and community | Participates in changing and adapting practice to provide for the needs of specific populations | Leads innovations and advocates for populations and communities with health care inequities |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

| Practice-Based Learning and Improvement 1: Evidence-Based and Informed Practice | | | | |
|--|---|--|--|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Demonstrates how to access and use available evidence, and incorporate patient preferences and values in order to take care of a routine patient | Articulates clinical questions and elicits patient preferences and values in order to guide evidence-based care | Locates and applies the best available evidence, integrated with patient preference, to the care of complex patients | Critically appraises and applies evidence even in the face of uncertainty and conflicting evidence to guide care, tailored to the individual patient | Coaches others to critically appraise and apply evidence for complex patients; and/or participates in the development of guidelines |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

| Practice-Based Learning and Improvement 2: Reflective Practice and Commitment to Personal Growth | | | | |
|--|--|---|---|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Accepts responsibility for personal and professional development by establishing goals</p> <p>Identifies the factors that contribute to gap(s) between expectations and actual performance</p> <p>Actively seeks opportunities to improve</p> | <p>Demonstrates openness to performance data (feedback and other input) in order to inform goals</p> <p>Analyzes and reflects on the factors that contribute to gap(s) between expectations and actual performance</p> <p>Designs and implements a learning plan, with prompting</p> | <p>Seeks performance data episodically, with adaptability and humility</p> <p>Analyzes, reflects on, and institutes behavioral change(s) to narrow the gap(s) between expectations and actual performance</p> <p>Independently creates and implements a learning plan</p> | <p>Intentionally seeks performance data consistently, with adaptability and humility</p> <p>Challenges assumptions and considers alternatives in narrowing the gap(s) between expectations and actual performance</p> <p>Uses performance data to measure the effectiveness of the learning plan and, when necessary, improves it</p> | <p>Role models consistently seeking performance data, with adaptability and humility</p> <p>Coaches others on reflective practice</p> <p>Facilitates the design and implementation of learning plans for others</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

| Professionalism 1: Professional Behavior and Ethical Principles | | | | |
|---|---|---|---|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Identifies and describes potential triggers for professionalism lapses</p> <p>Describes when and how to appropriately report professionalism lapses, including strategies for addressing common barriers</p> <p>Demonstrates knowledge of the ethical principles underlying informed consent, surrogate decision making, advance directives, confidentiality, error disclosure, stewardship of limited resources, and related topics</p> | <p>Demonstrates insight into professional behavior in routine situations</p> <p>Takes responsibility for own professionalism lapses</p> <p>Analyzes straightforward situations using ethical principles</p> | <p>Demonstrates professional behavior in complex or stressful situations</p> <p>Analyzes complex situations using ethical principles</p> <p>Recognizes need to seek help in managing and resolving complex ethical situations</p> | <p>Recognizes situations that may trigger professionalism lapses and intervenes to prevent lapses in self and others</p> <p>Recognizes and utilizes appropriate resources for managing and resolving ethical dilemmas as needed (e.g., ethics consultations, literature review, risk management/legal consultation)</p> | <p>Coaches others when their behavior fails to meet professional expectations</p> <p>Identifies and seeks to address system-level factors that induce or exacerbate ethical problems or impede their resolution</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

| Professionalism 2: Accountability/Conscientiousness | | | | |
|--|---|---|--|---|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Takes responsibility for failure to complete tasks and responsibilities, identifies potential contributing factors, and describes strategies for ensuring timely task completion in the future</p> <p>Responds promptly to requests or reminders to complete tasks and responsibilities</p> | <p>Performs tasks and responsibilities in a timely manner with appropriate attention to detail in routine situations</p> <p>Recognizes situations that may impact own ability to complete tasks and responsibilities in a timely manner</p> | <p>Performs tasks and responsibilities in a timely manner with appropriate attention to detail in complex or stressful situations</p> <p>Proactively implements strategies to ensure that the needs of patients, teams, and systems are met</p> | <p>Recognizes situations that may impact others' ability to complete tasks and responsibilities in a timely manner</p> | <p>Takes ownership of system outcomes</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

| Professionalism 3: Self-Awareness and Help-Seeking | | | | |
|--|--|---|--|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Recognizes status of personal and professional well-being, with assistance | Independently recognizes status of personal and professional well-being | With assistance, proposes a plan to optimize personal and professional well-being | Independently develops a plan to optimize personal and professional well-being | Coaches others when emotional responses or limitations in knowledge/skills do not meet professional expectations |
| Recognizes limits in the knowledge/skills of self or team, with assistance | Independently recognizes limits in the knowledge/skills of self or team Demonstrates appropriate help-seeking behaviors | With assistance, proposes a plan to remediate or improve limits in the knowledge/skills of self or team | Independently develops a plan to remediate or improve limits in the knowledge/skills of self or team | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

| Interpersonal and Communication Skills 1: Patient- and Family-Centered Communication | | | | |
|---|---|---|--|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| <p>Uses language and non-verbal behavior to demonstrate respect and establish rapport</p> <p>Identifies common barriers to effective communication (e.g., language, disability) while accurately communicating own role within the health care system</p> <p>Identifies the need to adjust communication strategies based on assessment of patient/family expectations and understanding of their health status and treatment options</p> | <p>Establishes a therapeutic relationship in straightforward encounters using active listening and clear language</p> <p>Identifies complex barriers to effective communication (e.g., health literacy, cultural)</p> <p>Organizes and initiates communication with patient/family by introducing stakeholders, setting the agenda, clarifying expectations, and verifying an understanding of the clinical situation</p> | <p>Establishes a therapeutic relationship in challenging patient encounters</p> <p>When prompted, reflects on personal biases while attempting to minimize communication barriers</p> <p>With guidance, sensitively and compassionately delivers medical information; elicits patient/family values, goals and preferences; and acknowledges uncertainty and conflict</p> | <p>Easily establishes therapeutic relationships, with attention to patient/family concerns and context, regardless of complexity</p> <p>Independently recognizes personal biases while attempting to proactively minimize communication barriers</p> <p>Independently uses shared decision making to align patient/family values, goals, and preferences with treatment options to make a personalized care plan</p> | <p>Mentors others in situational awareness and critical self-reflection to consistently develop positive therapeutic relationships</p> <p>Role models self-awareness practice while identifying teaching a contextual approach to minimize communication barriers</p> <p>Role models shared decision making in patient/family communication in situations with a high degree of uncertainty/conflict</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

| Interpersonal and Communication Skills 2: Interprofessional and Team Communication | | | | |
|--|--|---|---|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Respectfully requests a consultation | Clearly and concisely requests a consultation | Checks own understanding of consultant recommendations | Coordinates recommendations from different members of the health care team to optimize patient care | Role models flexible communication strategies that value input from all health care team members, resolving conflict when needed |
| Respectfully receives a consultation request | Clearly and concisely responds to a consultation request | Checks understanding of recommendations when providing consultation | Communicates feedback and constructive criticism to superiors | Facilitates regular health care team-based feedback in complex situations |
| Uses language that values all members of the health care team | Communicates information effectively with all health care team members Solicits feedback on performance as a member of the health care team | Uses active listening to adapt communication style to fit team needs Communicates concerns and provides feedback to peers and learners | | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |

| Interpersonal and Communication Skills 3: Communication within Health Care Systems | | | | |
|--|---|--|---|--|
| Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Accurately records information in the patient record | Demonstrates organized diagnostic and therapeutic reasoning through notes in the patient record | Concisely reports diagnostic and therapeutic reasoning in the patient record | Communicates clearly, concisely, in a timely manner, and in an organized written form, including anticipatory guidance | Models feedback to improve others' written communication |
| Safeguards patient personal health information | Demonstrates accurate, timely, and appropriate use of documentation shortcuts | Appropriately selects direct (e.g., telephone, in-person) and indirect (e.g., progress notes, text messages) forms of communication based on context | Produces written or verbal communication (e.g., patient notes, e-mail, etc.) that serves as an example for others to follow | Guides departmental or institutional communication around policies and procedures |
| Communicates through appropriate channels as required by institutional policy (e.g., patient safety reports, cell phone/pager usage) | Documents required data in formats specified by institutional policy Respectfully communicates concerns about the system | Uses appropriate channels to offer clear and constructive suggestions to improve the system | Initiates difficult conversations with appropriate stakeholders to improve the system | Facilitates dialogue regarding systems issues among larger community stakeholders (e.g., institution, health care system, field) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments: | | | | Not Yet Achieved Level 1 <input type="checkbox"/> |