

The Emergency Medicine Milestone Project

A Joint Initiative of

The Accreditation Council for Graduate Medical Education

and

The American Board of Emergency Medicine



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The Emergency Medicine Milestone Project

The Milestones are designed only for use in evaluation of resident physicians in the context of their participation in ACGME accredited residency or fellowship programs. The Milestones provide a framework for the assessment of the development of the resident physician in key dimensions of the elements of physician competency in a specialty or subspecialty. 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.

Emergency Medicine Milestones

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Milestone Reporting

This document presents milestones designed for programs to use in semi-annual review of resident performance and reporting to the ACGME. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME competencies organized in a developmental framework from less to more advanced. They are descriptors and targets for resident performance as a resident moves from entry into residency through graduation. In the initial years of implementation, the Review Committee will examine milestone performance data for each program's residents as one element in the Next Accreditation System (NAS) to determine whether residents overall are progressing.

For each reporting period, review and reporting will involve selecting the level of milestones that best describes a resident's current performance level in relation to milestones, using evidence from multiple methods, such as direct observation, multi-source feedback, tests, and record reviews, etc. Milestones are arranged into numbered levels. These levels do not correspond with post-graduate year of education.

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). A general interpretation of levels for emergency medicine is below:

- 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

Level 4 is designed as the graduation *target* but does *not* represent a graduation *requirement*. Making decisions about readiness for graduation is the purview of the residency program director (See the Milestones FAQ for further discussion of this issue: “Can a resident/fellow graduate if he or she does not reach every milestone?”). Study of Milestone performance data will be required before the ACGME and its partners will be able to determine whether Level 4 milestones and milestones in lower levels are in the appropriate level within the developmental framework, and whether milestone data are of sufficient quality to be used for high stakes decisions.

Answers to Frequently Asked Questions about Milestones are available on the Milestones web page:

<http://www.acgme.org/acmeweb/Portals/0/MilestonesFAQ.pdf>.

The diagram below presents an example set of milestones for one sub-competency in the same format as the milestone report worksheet. For each reporting period, a resident’s performance on the milestones for each sub-competency will be indicated by:

- selecting the level of milestones that best describes the resident’s performance in relation to the milestones
- or
- selecting the “Has not Achieved Level 1” response option

2. Performance of Focused History and Physical Exam (PC2) 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.					
Has not Achieved Level 1	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	<p>Prioritizes essential components of a history given a limited or dynamic circumstance</p> <p>Prioritizes essential components of a physical examination given a limited or dynamic circumstance</p>	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"/>	<input type="checkbox"/>
Comments:					

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).

EMERGENCY MEDICINE MILESTONES

ACGME REPORT WORKSHEET

1. Emergency Stabilization (PC1) 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.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Recognizes abnormal vital signs	Recognizes when a patient is unstable requiring immediate intervention Performs a primary assessment on a critically ill or injured patient Discerns relevant data to formulate a diagnostic impression and plan	Manages and prioritizes critically ill or injured patients Prioritizes critical initial stabilization actions in the resuscitation of a critically ill or injured patient Reassesses after implementing a stabilizing intervention Evaluates the validity of a DNR order	Recognizes in a timely fashion when further clinical intervention is futile Integrates hospital support services into a management strategy for a problematic stabilization situation	Develops policies and protocols for the management and/or transfer of critically ill or injured patients
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: SDOT, observed resuscitations, simulation, checklist, videotape review

2. Performance of Focused History and Physical Exam (PC2) 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.					
Has not Achieved Level 1	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	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	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"/>	<input type="checkbox"/>
Comments:					

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

3. Diagnostic Studies (PC3) Applies the results of diagnostic testing based on the probability of disease and the likelihood of test results altering management.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Determines the necessity of diagnostic studies	Orders appropriate diagnostic studies Performs appropriate bedside diagnostic studies and procedures	Prioritizes essential testing Interprets results of a diagnostic study, recognizing limitations and risks, seeking interpretive assistance when appropriate Reviews risks, benefits, contraindications, and alternatives to a diagnostic study or procedure	Uses diagnostic testing based on the pre-test probability of disease and the likelihood of test results altering management Practices cost effective ordering of diagnostic studies Understands the implications of false positives and negatives for post-test probability	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"/>	<input type="checkbox"/>
Comments:					

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

4. Diagnosis (PC4) Based on all of the available data, narrows and prioritizes the list of weighted differential diagnoses to determine appropriate management.					
Has not Achieved Level 1	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 Correctly identifies “sick versus not sick” patients 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 and avoids premature closure
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

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

5. Pharmacotherapy (PC5) 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 ED.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	<p>Knows the different classifications of pharmacologic agents and their mechanism of action.</p> <p>Consistently asks patients for drug allergies</p>	<p>Applies medical knowledge for selection of appropriate agent for therapeutic intervention</p> <p>Considers potential adverse effects of pharmacotherapy</p>	<p>Considers array of drug therapy for treatment. 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>	<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, and clinical guidelines, including patient's age, weight, and other modifying factors</p>	<p>Participates in developing institutional policies on pharmacy and therapeutics</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

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

6. Observation and Reassessment (PC6) Re-evaluates patients undergoing ED observation (and monitoring) and using appropriate data and resources, determines the differential diagnosis and, treatment plan, and disposition.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Recognizes the need for patient re-evaluation	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 Monitors a patient's clinical status at timely intervals during their stay in the ED	Considers additional diagnoses and therapies for a patient who is under observation and changes treatment plan accordingly Identifies and complies with federal and other regulatory requirements, including billing, which must be met for a patient who is under observation	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"/>	<input type="checkbox"/>
Comments:					

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

7. Disposition (PC7) 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.					
Has not Achieved Level 1	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>Formulates and provides patient education regarding diagnosis, treatment plan, medication review and PCP/consultant appointments for complicated patients</p> <p>Involves appropriate resources (e.g., PCP, consultants, social work, PT/OT, financial aid, care coordinators) in a timely manner</p> <p>Makes correct decision regarding admission or discharge of patients</p> <p>Correctly assigns admitted patients to an appropriate level of care (ICU/Telemetry/Floor/Observation Unit)</p>	<p>Formulates sufficient admission plans or discharge instructions including future diagnostic/therapeutic interventions for ED patients</p> <p>Engages patient or surrogate to effectively implement a discharge plan</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"/>	<input type="checkbox"/>
Comments:					

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

8. Multi-tasking (Task-switching) (PC8) Employs task switching in an efficient and timely manner in order to manage the ED.					
Has not Achieved Level 1	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	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"/>	<input type="checkbox"/>
Comments:					

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

9. General Approach to Procedures (PC9) 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.					
Has not Achieved Level 1	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>Correctly interprets the results of a diagnostic procedure</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"/>	<input type="checkbox"/>
Comments:					

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

10. Airway Management (PC10) 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.					
Has not Achieved Level 1	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 BVM</p>	<p>Describes elements of airway assessment and indications impacting the airway management</p> <p>Describes the pharmacology of agents used for rapid sequence intubation including specific indications and contraindications</p> <p>Performs rapid sequence intubation in patients without adjuncts</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>Performs rapid sequence intubation in patients using airway adjuncts</p> <p>Implements post-intubation management</p> <p>Employs appropriate methods of mechanical ventilation based on specific patient physiology</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>Performs a minimum of 35 intubations</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>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

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

11. Anesthesia and Acute Pain Management (PC11) Provides safe acute pain management, anesthesia, and procedural sedation to patients of all ages regardless of the clinical situation.					
Has not Achieved Level 1	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/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"/>	<input type="checkbox"/>
Comments:					

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

12. Other Diagnostic and Therapeutic Procedures: Goal-directed Focused Ultrasound (Diagnostic/Procedural) (PC12) 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.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Describes the indications for emergency ultrasound	Explains how to optimize ultrasound images and Identifies the proper probe for each of the focused ultrasound applications Performs an eFAST	Performs goal-directed focused ultrasound exams Correctly interprets acquired images	Performs a minimum of 150 focused ultrasound examinations	Expands ultrasonography skills to include: advanced echo, TEE, bowel, adnexal and testicular pathology, and transcranial Doppler
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

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

13. Other Diagnostic and Therapeutic Procedures: Wound Management (PC13) Assesses and appropriately manages wounds in patients of all ages regardless of the clinical situation.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	<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>Uses medical terminology to clearly describe/classify a wound (e.g., stellate, abrasion, avulsion, laceration, deep vs superficial)</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 as tendon repairs and skin flaps</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

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

14. Other Diagnostic and Therapeutic Procedures: Vascular Access (PC14) Successfully obtains vascular access in patients of all ages regardless of the clinical situation.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	<p>Performs a venipuncture</p> <p>Places a peripheral intravenous line</p> <p>Performs an arterial puncture</p>	<p>Describes the indications, contraindications, anticipated undesirable outcomes and complications for the various vascular access modalities</p> <p>Inserts an arterial catheter</p> <p>Assesses the indications in conjunction with the patient anatomy/pathophysiology and select the optimal site for a central venous catheter</p> <p>Inserts a central venous catheter using ultrasound and universal precautions</p> <p>Confirms appropriate placement of central venous catheter</p> <p>Performs intraosseous access</p>	<p>Inserts a central venous catheter without ultrasound when appropriate</p> <p>Places an ultrasound guided deep vein catheter (e.g., basilic, brachial, and cephalic veins)</p>	<p>Successfully performs 20 central venous lines</p> <p>Routinely gains venous access in patients with difficult vascular access</p>	<p>Teaches advanced vascular access techniques</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: Knowledge assessment using MCQ, checklist driven task analysis, procedure log

15. Medical Knowledge (MK) Demonstrates appropriate medical knowledge in the care of emergency medicine patients.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	<p>Passes initial national licensing examinations (e.g., USMLE Step 1 and Step 2 or COMLEX Level 1 and Level 2)</p>	<p>Resident develops and completes a self-assessment plan based on the in-training examination results</p> <p>Completes objective residency training program examinations and/or assessments at an acceptable score for specific rotations</p>	<p>Demonstrates improvement of the percentage correct on the in-training examination or maintain an acceptable percentile ranking</p>	<p>Obtains a score on the annual in-training examination that indicates a high likelihood of passing the national qualifying examinations</p> <p>Successfully completes all objective residency training program examinations and/or assessments</p> <p>Passes final national licensing examination (e.g., USMLE Step 3 or COMLEX Level 3)</p>	<p>Passes ABEM certifying examinations or AOBEM certifying examinations</p> <p>Meets all the requirements for the ABEM Maintenance of Certification program or the AOBEM Osteopathic Continuous Certification Program</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: National licensing examinations (USMLE, COMLEX), national in-training examination (developed by ABEM & AOA), CORD Question & Answer Bank tests, MedChallenger, local residency examinations

16. Patient Safety (SBP1) Participates in performance improvement to optimize patient safety.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	<p>Adheres to standards for maintenance of a safe working environment</p> <p>Describes medical errors and adverse events</p>	<p>Routinely uses basic patient safety practices, such as time-outs and 'calls for help'</p>	<p>Describes patient safety concepts</p> <p>Employs processes (e.g., checklists, SBAR), personnel, and technologies that optimize patient safety (SBAR= Situation – Background – Assessment – Recommendation)</p> <p>Appropriately uses system resources to improve both patient care and medical knowledge</p>	<p>Participates in an institutional process improvement plan to optimize ED practice and patient safety</p> <p>Leads team reflection such as code debriefings, root cause analysis, or M&M to improve ED performance</p> <p>Identifies situations when the breakdown in teamwork or communication may contribute to medical error</p>	<p>Uses analytical tools to assess healthcare quality and safety and reassess quality improvement programs for effectiveness for patients and for populations</p> <p>Develops and evaluates measures of professional performance and process improvement and implements them to improve departmental practice</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: SDOT, simulation, global ratings, multi-source feedback, portfolio work products, including a QI project

17. Systems-based Management (SBP2) Participates in strategies to improve healthcare delivery and flow. Demonstrates an awareness of and responsiveness to the larger context and system of health care.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Describes members of ED team (e.g., nurses, technicians, and security)	Mobilizes institutional resources to assist in patient care Participates in patient satisfaction initiatives	Practices cost-effective care Demonstrates the ability to call effectively on other resources in the system to provide optimal health care	Participates in processes and logistics to improve patient flow and decrease turnaround times (e.g., rapid triage, bedside registration, Fast Tracks, bedside testing, rapid treatment units, standard protocols, and observation units) Recommends strategies by which patients' access to care can be improved Coordinates system resources to optimize a patient's care for complicated medical situations	Creates departmental flow metric from benchmarks, best practices, and dash boards Develops internal and external departmental solutions to process and operational problems Addresses the differing customer needs of patients, hospital medical staff, EMS, and the community
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: Direct observation-SDOT, chart review, global ratings, billing records, simulation, multi-source feedback, and outcome data including throughput numbers and patients per hour

18. Technology (SBP3) Uses technology to accomplish and document safe healthcare delivery.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	<p>Uses the Electronic Health Record (EHR) to order tests, medications and document notes, and respond to alerts</p> <p>Reviews medications for patients</p>	<p>Ensures that medical records are complete, with attention to preventing confusion and error</p> <p>Effectively and ethically uses technology for patient care, medical communication and learning</p>	<p>Recognizes the risk of computer shortcuts and reliance upon computer information on accurate patient care and documentation</p>	<p>Uses decision support systems in EHR (as applicable in institution)</p>	<p>Recommends systems re-design for improved computerized processes</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: Direct observation-SDOT, chart review, global ratings, billing records, simulation, multi-source feedback

19. Practice-based Performance Improvement (PBLI) Participates in performance improvement to optimize ED function, self-learning, and patient care.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Describes basic principles of evidence-based medicine	Performs patient follow-up	<p>Performs self-assessment to identify areas for continued self-improvement and implements learning plans</p> <p>Continually assesses performance by evaluating feedback and assessment</p> <p>Demonstrates the ability to critically appraise scientific literature and apply evidence-based medicine to improve one's individual performance</p>	<p>Applies performance improvement methodologies</p> <p>Demonstrates evidence-based clinical practice and information retrieval mastery</p> <p>Participates in a process improvement plan to optimize ED practice</p>	Independently teaches evidence-based medicine and information mastery techniques
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: SDOT, simulation, global ratings, checklist or ratings of portfolio work products, including a literature review, Vanderbilt matrix evaluation of a clinical issue, critical appraisal

20. Professional values (PROF1) Demonstrates compassion, integrity, and respect for others as well as adherence to the ethical principles relevant to the practice of medicine.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Demonstrates behavior that conveys caring, honesty, genuine interest and tolerance when interacting with a diverse population of patients and families	Demonstrates an understanding of the importance of compassion, integrity, respect, sensitivity and responsiveness and exhibits these attitudes consistently in common/uncomplicated situations and with diverse populations	Recognizes how own personal beliefs and values impact medical care; consistently manages own values and beliefs to optimize relationships and medical care Develops alternate care plans when patients' personal decisions/beliefs preclude the use of commonly accepted practices	Develops and applies a consistent and appropriate approach to evaluating appropriate care, possible barriers and strategies to intervene that consistently prioritizes the patient's best interest in all relationships and situations Effectively analyzes and manages ethical issues in complicated and challenging clinical situations	Develops institutional and organizational strategies to protect and maintain professional and bioethical principles
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: Direct observation, SDOT, portfolio, simulation, oral board, multi-source feedback, global ratings

21. Accountability (PROF2) Demonstrates accountability to patients, society, profession and self.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	<p>Demonstrates basic professional responsibilities such as timely reporting for duty, appropriate dress/grooming, rested and ready to work, delivery of patient care as a functional physician</p> <p>Maintains patient confidentially</p> <p>Uses social media ethically and responsibly</p> <p>Adheres to professional responsibilities, such as conference attendance, timely chart completion, duty hour reporting, procedure reporting</p>	<p>Identifies basic principles of physician wellness, including sleep hygiene</p> <p>Consistently recognizes limits of knowledge in common and frequent clinical situations and asks for assistance</p> <p>Demonstrates knowledge of alertness management and fatigue mitigation principles</p>	<p>Consistently recognizes limits of knowledge in uncommon and complicated clinical situations; develops and implements plans for the best possible patient care</p> <p>Recognizes and avoids inappropriate influences of marketing and advertizing</p>	<p>Can form a plan to address impairment in one's self or a colleague, in a professional and confidential manner</p> <p>Manages medical errors according to principles of responsibility and accountability in accordance with institutional policy</p>	<p>Develops institutional and organizational strategies to improve physician insight into and management of professional responsibilities</p> <p>Trains physicians and educators regarding responsibility, wellness, fatigue, and physician impairment</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: Direct observation, SDOT, portfolio, simulation, oral boards, multi-source feedback, global ratings

22. Patient Centered Communication (ICS1) Demonstrates interpersonal and communication skills that result in the effective exchange of information and collaboration with patients and their families.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	<p>Establishes rapport with and demonstrate empathy toward patients and their families</p> <p>Listens effectively to patients and their families</p>	<p>Elicits patients' reasons for seeking health care and expectations from the ED visit</p> <p>Negotiates and manages simple patient/family-related conflicts</p>	<p>Manages the expectations of those who receive care in the ED and uses communication methods that minimize the potential for stress, conflict, and misunderstanding</p> <p>Effectively communicates with vulnerable populations, including both patients at risk and their families</p>	<p>Uses flexible communication strategies and adjusts them based on the clinical situation to resolve specific ED challenges, such as drug seeking behavior, delivering bad news, unexpected outcomes, medical errors, and high risk refusal-of-care patients</p>	<p>Teaches communication and conflict management skills</p> <p>Participates in review and counsel of colleagues with communication deficiencies</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: Direct observation, SDOT, simulation, multi-source feedback, OSCE, global ratings, oral boards

23. Team Management (ICS2) Leads patient-centered care teams, ensuring effective communication and mutual respect among members of the team.					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Participates as a member of a patient care team	Communicates pertinent information to emergency physicians and other healthcare colleagues	<p>Develops working relationships across specialties and with ancillary staff</p> <p>Ensures transitions of care are accurately and efficiently communicated</p> <p>Ensures clear communication and respect among team members</p>	<p>Recommends changes in team performance as necessary for optimal efficiency</p> <p>Uses flexible communication strategies to resolve specific ED challenges such as difficulties with consultants and other health care providers</p> <p>Communicates with out-of-hospital and nonmedical personnel, such as police, media, and hospital administrators</p>	<p>Participates in and leads interdepartmental groups in the patient setting and in collaborative meetings outside of the patient care setting</p> <p>Designs patient care teams and evaluates their performance</p> <p>Seeks leadership opportunities within professional organizations</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

Suggested Evaluation Methods: Direct observation, SDOT, simulation, multi-source feedback, OSCE, global ratings, oral boards