The Pediatrics Subspecialty Milestone Project

Adolescent Medicine
Child Abuse
Developmental-Behavioral Pediatrics
Neonatal-Perinatal
Pediatric Cardiology
Pediatric Critical Care
Pediatric Endocrinology
Pediatric Gastroenterology
Pediatric Hematology Oncology
Pediatric Hospital Medicine
Pediatric Infectious Diseases
Pediatric Nephrology
Pediatric Pulmonology
Pediatric Rheumatology
Pediatric Transplant Hepatology

Joint Initiative of

The Accreditation Council for Graduate Medical Education
and
The American Board of Pediatrics

July 2015

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The Milestones are designed only for use in assessment of fellow in the context of their participation in ACGME-accredited residency or fellowship programs. The Milestones, in the context of the entrustable professional activities (EPAs) identified for a given subspecialty practice, provide a framework for the assessment of the development of fellows in key dimensions of the elements of physician competency in a 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.

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Milestone Reporting

This document presents milestones designed for programs to use in semi-annual review of fellow 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. The Pediatrics Subspecialty Milestones are designed to describe changes in observable attributes of the learner across the continuum of medical education from residency through fellowship into practice. In the initial years of implementation, the Review Committee will examine Milestone performance data for each program's fellows as one element in the Next Accreditation System (NAS) to determine whether fellows overall are progressing.

For each reporting period, review and reporting will involve selecting the level of milestones that best describes each fellow's current performance level in relation to those milestones. Milestones are arranged into levels (see the figure on page iv). Progressing from Level 1 to Level 5 is synonymous with moving from novice to expert in the subspecialty. Selection of a level implies that the fellow substantially demonstrates the milestones in that level, as well as those in lower levels.

Additional Notes

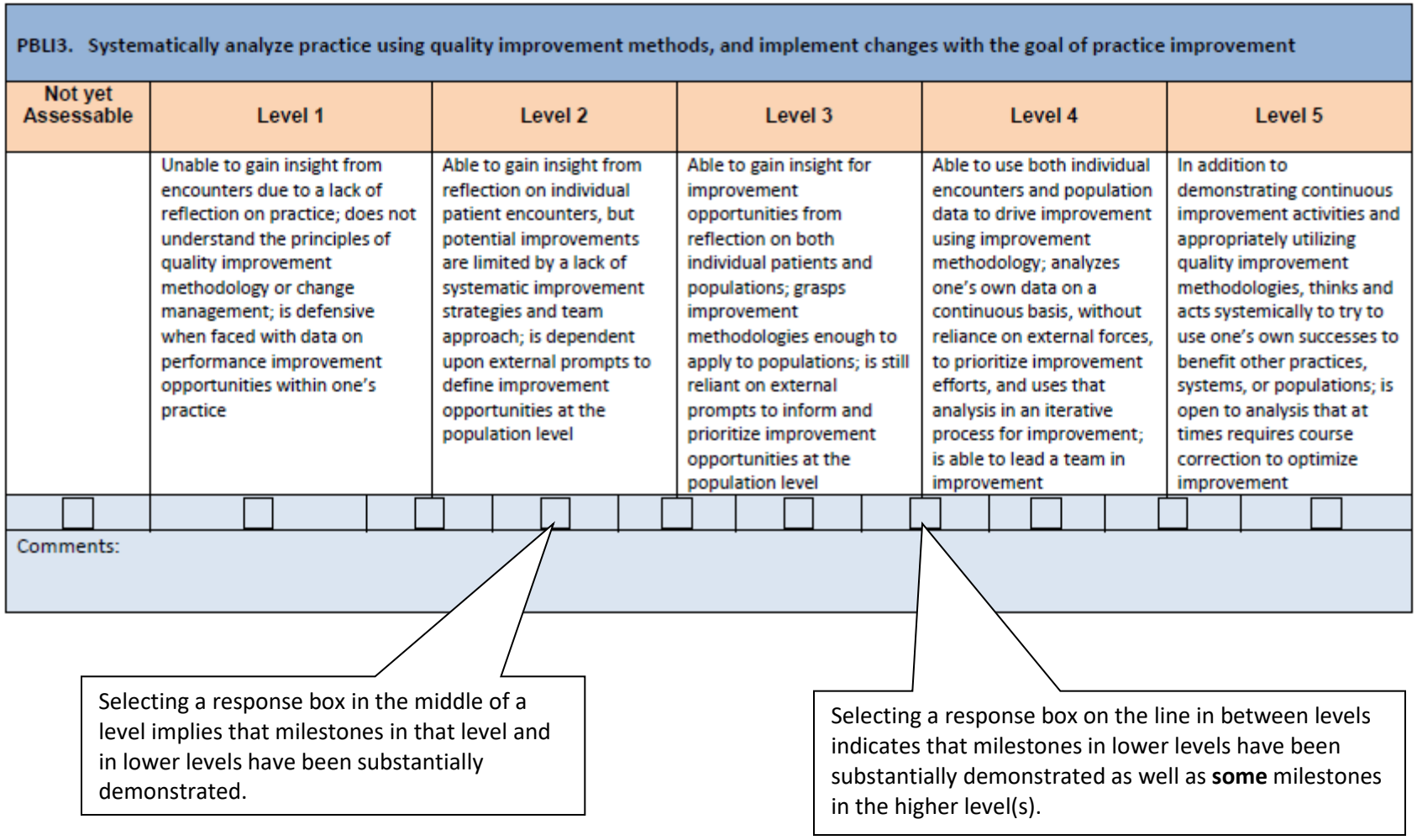
Level 4 is designed as the graduation *target* but does *not* represent a graduation *requirement*. Making decisions about readiness for graduation is the purview of the residency program director (See the Milestones FAQ for further discussion of this issue: "Can a resident/fellow graduate if he or she 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/acgmeweb/Portals/0/MilestonesFAQ.pdf.

A full report on the Pediatrics Milestone Project, including background information on each set of Milestones, is located at http://www.acgme.org/acgmeweb/Portals/0/PDFs/Milestones/320_PedsMilestonesProject.pdf

The figure 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 fellow's performance on the milestones for each sub-competency will be indicated by:

- selecting the level of milestones that best describes that fellow's performance in relation to those milestones
  or
- selecting the "Not yet Assessable" response option. This option should be used only when a fellow has not yet had a learning experience in the sub-competency.



PBLI3. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	Unable to gain insight from encounters due to a lack of reflection on practice; does not understand the principles of quality improvement methodology or change management; is defensive when faced with data on performance improvement opportunities within one's practice	Able to gain insight from reflection on individual patient encounters, but potential improvements are limited by a lack of systematic improvement strategies and team approach; is dependent upon external prompts to define improvement opportunities at the population level	Able to gain insight for improvement opportunities from reflection on both individual patients and populations; grasps improvement methodologies enough to apply to populations; is still reliant on external prompts to inform and prioritize improvement opportunities at the population level	Able to use both individual encounters and population data to drive improvement using improvement methodology; analyzes one's own data on a continuous basis, without reliance on external forces, to prioritize improvement efforts, and uses that analysis in an iterative process for improvement; is able to lead a team in improvement	In addition to demonstrating continuous improvement activities and appropriately utilizing quality improvement methodologies, thinks and acts systemically to try to use one's own successes to benefit other practices, systems, or populations; is open to analysis that at times requires course correction to optimize improvement
☐	☐	☐	☐	☐	☐
Comments:					

PEDIATRICS SUBSPECIALTY MILESTONES

ACGME Report Worksheet

PC1. Provide transfer of care that ensures seamless transitions					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Demonstrates variability in transfer of information (content, accuracy, efficiency, and synthesis) from one patient to the next; makes frequent errors of both omission and commission in the hand-off	Uses a standard template for the information provided during the hand-off; is unable to deviate from that template to adapt to more complex situations; may have errors of omission or commission, particularly when clinical information is not synthesized; neither anticipates nor attends to the needs of the receiver of information	Adapts and applies a standardized template, relevant to individual contexts, reliably and reproducibly, with minimal errors of omission or commission; allows ample opportunity for clarification and questions; is beginning to anticipate potential issues for the transferee	Adapts and applies a standard template to increasingly complex situations in a broad variety of settings and disciplines; ensures open communication, whether in the receiver- or the provider-of-information role, through deliberative inquiry, including read-backs, repeat-backs (provider), and clarifying questions (receivers)	Adapts and applies the template without error and regardless of setting or complexity; internalizes the professional responsibility aspect of hand-off communication, as evidenced by formal and explicit sharing of the conditions of transfer (e.g., time and place) and communication of those conditions to patients, families, and other members of the health care team
☐	☐	☐	☐	☐	☐
Comments:					

PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Recalls and presents clinical facts in the history and physical in the order they were elicited without filtering, reorganization, or synthesis; demonstrates analytic reasoning through basic pathophysiology results in a list of all diagnoses considered rather than the development of working diagnostic considerations, making it difficult to develop a therapeutic plan	Focuses on features of the clinical presentation, making a unifying diagnosis elusive and leading to a continual search for new diagnostic possibilities; largely uses analytic reasoning through basic pathophysiology in diagnostic and therapeutic reasoning; often reorganizes clinical facts in the history and physical examination to help decide on clarifying tests to order rather than to develop and prioritize a differential diagnosis, often resulting in a myriad of tests and therapies and unclear management plans, since there is no unifying diagnosis	Abstracts and reorganizes elicited clinical findings in memory, using semantic qualifiers (such as paired opposites that are used to describe clinical information [e.g., acute and chronic]) to compare and contrast the diagnoses being considered when presenting or discussing a case; shows the emergence of pattern recognition in diagnostic and therapeutic reasoning that often results in a well-synthesized and organized assessment of the focused differential diagnosis and management plan	Reorganizes and stores clinical information (illness and instance scripts) that lead to early directed diagnostic hypothesis testing with subsequent history, physical examination, and tests used to confirm this initial schema; demonstrates well-established pattern recognition that leads to the ability to identify discriminating features between similar patients and to avoid premature closure; Selects therapies that are focused and based on a unifying diagnosis, resulting in an effective and efficient diagnostic work-up and management plan tailored to address the individual patient	Current literature does not distinguish between behaviors of proficient and expert practitioners. Expertise is not an expectation of GME training, as it requires deliberate practice over time
☐	☐	☐	☐	☐	☐
Comments:					

PC3. Develop and carry out management plans					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Develops and carries out management plans based on directives from others, either from the health care organization or the supervising physician; is unable to adjust plans based on individual patient differences or preferences; communication about the plan is unidirectional from the practitioner to the patient and family	Develops and carries out management plans based on one's theoretical knowledge and/or directives from others; can adapt plans to the individual patient, but only within the framework of one's own theoretical knowledge; is unable to focus on key information, so conclusions are often from arbitrary, poorly prioritized, and time-limited information gathering; develops management plans based on the framework of one's own assumptions and values	Develops and carries out management plans based on both theoretical knowledge and some experience, especially in managing common problems; follows health care institution directives as a matter of habit and good practice rather than as an externally imposed sanction; is able to more effectively and efficiently focus on key information, but still may be limited by time and convenience; begins to incorporate patients' assumptions and values into plans through more bidirectional communication	Develops and carries out management plans based most often on experience; effectively and efficiently focuses on key information to arrive at a plan; incorporates patients' assumptions and values through bidirectional communication with little interference from personal biases	Develops and carries out management plans, even for complicated or rare situations, based primarily on experience that puts theoretical knowledge into context; rapidly focuses on key information to arrive at the plan and augments that with available information or seeks new information as needed; has insight into one's own assumptions and values that allow one to filter them out and focus on the patient/family values in a bidirectional conversation about the management plan
☐	☐	☐	☐	☐	☐
Comments:					

PC4. Provide appropriate role modeling					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Performs routine duties and behaviors of profession without awareness of the impact on those around him or her; may or may not reflect on actions as they occur (reflection in action) and does not share reflections with others	Inconsistently aware of the impact of one's behaviors and attitudes on others; sometimes teaches by example; occasionally will reflect openly on events as they occur (reflection in action) and privately on events that have already taken place (reflection on action)	Conscious of being a role model during many interactions; frequently teaches by example and often reflects in action openly in the presence of learners; behavior change implies frequent private reflection on action	Conscious of being a role model during most interactions; routinely teaches by example; regularly reflects in action and frequently reflects on action, sharing this analysis of practice with learners	Role modeling is a habit; recognizes that he or she is a role model in all actions and behaviors at all times; characteristically teaches by example; routinely reflects both in action and on action; examines, analyzes, and explains actions/behaviors in the presence of learners and colleagues
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Comments:					

MK1. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Explains basic principles of Evidence-based Medicine (EBM), but relevance is limited by lack of clinical exposure	Recognizes the importance of using current information to care for patients and responds to external prompts to do so; is able to formulate questions with some difficulty, but is not yet efficient with online searching; is starting to learn critical appraisal skills	Able to identify knowledge gaps as learning opportunities; makes an effort to ask answerable questions on a regular basis and is becoming increasingly able to do so; understands varying levels of evidence and can utilize advanced search methods; is able to critically appraise a topic by analyzing the major outcomes, however, may need guidance in understanding the subtleties of the evidence; begins to seek and apply evidence when needed, not just when assigned to do so	Is increasingly self-motivated to learn more, as exhibited by regularly formulating answerable questions; incorporates use of clinical evidence in rounds and teaches fellow learners; is quite capable with advanced searching; is able to critically appraise topics and does so regularly; shares findings with others to try to improve their abilities; practices EBM because of the benefit to the patient and the desire to learn more rather than in response to external prompts	Teaches critical appraisal of topics to others; strives for change at the organizational level as dictated by best current information; is able to easily formulate answerable clinical questions and does so with majority of patients as a habit; is able to effectively and efficiently search and access the literature; is seen by others as a role model for practicing EBM
	Example: *The senior fellow asks each member of the inpatient team to answer a clinical question that he raised during rounds and to be prepared to discuss it the next morning. The learner goes to a more senior colleague for help, since he cannot work through a case or article using the critical appraisal approach,*	*Example:* *In response to a clinical question raised during rounds and the senior fellow's request that everyone answer the question, the learner is able, with some difficulty, to frame the question in a Population-Intervention-Comparison-Outcome*	*Example:* *In response to the clinical question raised during rounds, the learner develops an answerable clinical question in PICO format and efficiently searches for best evidence. He volunteers to present on rounds the next day and demonstrates effective*	*Example:* *In response to the clinical question raised during rounds, presents a second question that he has already researched in a PICO format as well as a critique of the evidence and its applicability to the current patient. He was motivated to be proactive*	*Example:* *Is an EBM practitioner, as observed by conversations during rounds, whom others try to emulate. He enjoys teaching colleagues how to become EBM practitioners by role modeling. He helps team members develop and refine their skills using his*

	mainly due to lack of clinical context from which to work.	*(PICO) format. He has searching capability, but the search and the steps of analyzing and applying the evidence are time-intensive, so he is not prepared to discuss his findings on rounds the next morning.*	*analytic skills and the ability to apply his findings to the current patient. He has a bit of difficulty interpreting and applying some of the secondary outcomes and, in the context of this discussion, another question is raised, which he volunteers to search and answer.*	*by his interest in learning, as well as the needs of his patient. He shares his tactics with team members by teaching them the steps he engaged in to learn and apply this information.*	*expertise to make a difficult task practical and doable.*
☐	☐	☐	☐	☐	☐
Comments:					

SBP1. Work effectively in various health care delivery settings and systems relevant to their clinical specialty					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	With limited knowledge of systems, focuses on the "pieces" of a process rather than the whole; frequently frustrated by the system's suboptimal processes, but lacks the ability to identify the root cause and thus to effect change	Has developed knowledge of systems and therefore understands when others describe how the pieces relate to the whole; not yet able to articulate that relationship independently, and therefore develops work-arounds when faced with a systems challenge	Competent in working in various systems and settings; therefore, able to apply knowledge, skills, and attitudes in systems thinking to systems' problems within a given context; recognizes the need to change systems rather than develop work-arounds, and can activate the system to do so; however, does not apply learning from one setting or context to another	Capable in systems thinking; therefore, has competence in systems thinking and can adapt learning from one system or setting to another; in this way, can effect or stimulate improvements in a system and does so when the need arises	Capable, as defined in Level 4, and views improving systems of care as an integral component of professional identity; leads systems changes as part of the routine care delivery process
☐	☐	☐	☐	☐	☐
Comments:					

SBP2. Coordinate patient care within the health care system relevant to their clinical specialty					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Performs the role of medical decision-maker, developing care plans and setting goals of care independently; informs patient/family of the plan, but no written care plan is provided; makes referrals, and requests consultations and testing with little or no communication with team members or consultants; is not involved in the transition of care between settings (e.g., outpatient and inpatient, pediatric and adult); shows little or no recognition of social/educational/cultural issues affecting the patient/family	Begins to involve the patient/family in setting care goals and some of the decisions involved in the care plan; a written care plan is occasionally made available to the patient/family; care plan does not address key issues; has variable communication with team members and consultants regarding referrals, consultations, and testing; answers patient/family questions regarding results and recommendations; may inconsistently be involved in the transition of care between settings (e.g., outpatient and inpatient, pediatric and adult); makes some assessment of social/educational/cultural issues affecting the patient/family and applies this in interactions	Recognizes the responsibility to assist families in navigation of the complex health care system; frequently involves patient/family in decisions at all levels of care, setting goals, and defining care plans; frequently makes a written care plan available to the patient/family and to appropriately authorized members of the care team; care plan omits few key issues; has good communication with team members and consultants; consistently discusses results and recommendations with patient/family; is routinely involved in the transition of care between settings (e.g., outpatient and inpatient, pediatric and adult); considers social, educational and cultural issues in most care interactions	Actively assists families in navigating the complex health care system; has open communication, facilitating trust in the patient-physician interaction; develops goals and makes decisions jointly with the patient/family (shared-decision-making); routinely makes a written care plan available to the patient/family and to appropriately authorized members of the care team; makes a thorough care plan, addressing all key issues; facilitates care through consultation, referral, testing, monitoring, and follow-up, helping the family to interpret and act on results/recommendations; coordinates seamless transitions of care between settings (e.g., outpatient and inpatient, pediatric and adult; mental and dental health; education; housing; food security; family-to-family support); builds partnerships that foster	Current literature does not distinguish between behaviors of proficient and expert practitioners. Expertise is not an expectation of GME training, as it requires deliberate practice over time

				family-centered, culturally-effective care, ensuring communication and collaboration along the continuum of care	
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Comments:					

SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Unaware of costs issues in evaluation and management of patients; has difficulty processing cost and risk-benefit information in a way that results in cost-containment actions or appropriate risk-benefit analysis; frustrated by cost containment efforts that are viewed as primarily externally mandated	Uses externally provided information (e.g., prescribing information, test ordering patterns, or research around a treatment) to inform cost-containing action and/or preliminary risk-benefit analysis; demonstrates inadequate skills in critical appraisal that may result in inappropriate cost containment activities and/or risk-benefit counseling	Critically appraises information available on an evaluation test or treatment to allow optimization of cost issues and risk-benefit for an individual patient; adopts strategies that decrease cost and risk and optimize benefits for individuals, with less attention to those outcomes for populations	Critically appraises information in the context of not only the individual patient, but also the broader population/system; ascribes value to cost and risk-benefit decisions based on this broad understanding of the information	Consistently integrates cost analysis into one's practice while minimizing risk and optimizing benefits for whole systems or populations
☐	☐	☐	☐	☐	☐
Comments:					

SBP4. Work in inter-professional teams to enhance patient safety and improve patient care quality					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Seeks answers and responds to authority from only intra-professional colleagues; does not recognize other members of the interdisciplinary team as being important or making significant contributions to the team; tends to dismiss input from other professionals aside from other physicians	Is beginning to have an understanding of the other professionals on the team, especially their unique knowledge base, and is open to their input, however, still acquiesces to physician authorities to resolve conflict and provide answers in the face of ambiguity; is not dismissive of other health care professionals, but is unlikely to seek out those individuals when confronted with ambiguous situations	Aware of the unique contributions (knowledge, skills, and attitudes) of other health care professionals, and seeks their input for appropriate issues, and as a result, is an excellent team player	Same as Level 3, but an individual at this stage understands the broader connectivity of the professions and their complementary nature; recognizes that quality patient care only occurs in the context of the inter-professional team; serves as a role model for others in interdisciplinary work and is an excellent team leader	Current literature does not distinguish between behaviors of proficient and expert practitioners. Expertise is not an expectation of GME training, as it requires deliberate practice over time
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Comments:					

SBP5. Participate in identifying system errors and implementing potential systems solutions					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Defensive or blaming when encountering medical error; no perception of personal responsibility for individual or systems error correction; not open to discussion of error or identification of the type of error; approaches error prevention from an individual case perspective only	Occasionally open to discussion of error without a defensive or blaming approach; some awareness of personal responsibility for individual or systems error correction; identifies medical error events, but cannot identify the type (active versus latent) of error; begins to perceive that error may be more than the mistake of an individual	Usually open to a discussion of error; actively identifies medical error events and seeks to determine the type of error; occasionally identifies the element of personal responsibility for individual or systems error correction; sees examination and analysis of error as an important part of the preventive process	Usually encourages open and safe discussion of error; actively identifies medical error events; accepts personal responsibility for individual or systems error correction, regularly determining the type of error and beginning to seek system causes of error	Consistently encourages open and safe discussion of error; characteristically identifies and analyzes error events, habitually approaching medical error with a system solution methodology; actively and routinely engaged with teams and processes through which systems are modified to prevent medical error
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Comments:					

PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	The learner acknowledges external assessments, but understanding of his performance is superficial and limited to the overall grade or bottom line; has little understanding of how the performance measure relates in a meaningful way to his specific level of Knowledge, Skills and Attitudes (KSA)	Assessment of performance is seen as being able to do or not do the task at hand without appreciation for how well it is done and whether there is a need to improve the outcome	Prompts for understanding specifics of level of performance are internal and may be identified in response to uncertainty, discomfort, or tension in completing clinical duties; evidence of this stage is demonstrated by active questioning and application of knowledge in developing a rationale for care plans or in teaching activities	Prompted by anticipation or contemplation of potential clinical problems, the learner self-identifies gaps in KSA through reflection that assesses current KSA versus understanding of underlying basic science or pathophysiologic principles to generate new questions about limitations or mastery of KSA; evidence of this stage can be determined by the advanced nature and level of questioning or resource seeking	Prompted by a self-directed goal of improving the professional self, the practitioner anticipates hypothetical clinical scenarios that build on current experience and systematically addresses identified gaps to enhance the level of KSA; elaborate questioning occurs to further explore gaps and strengths
	Example: *During a semiannual review, a learner is unable to describe in any specific terms how he has performed when asked to do so by his mentor. In response, the mentor reviews and interprets the learner's evaluations and then asks the learner to reflect on the discussion. The learner repeats the language used and recites the overall score/grade without interpretation of*	*Example:* *The learner seeks external assessment of performance as ability "to do" or "not able to do" with little understanding of what the assessment means. "Are these orders written correctly?" "Did I do that correctly?" Seeks feedback approval on whether KSA were "right" or "wrong." Does not seek "How?" or*	*Example:* *Learner requests elaboration, clarification, or expansion on patient-care related task. "Why would we use this antibiotic for this condition?" or "The patient has underlying condition x. Does that alter therapy y for this patient?" or "I think we should order study w for this patient, since*	*Example:* *In caring for a patient with an illness not previously encountered, this practitioner says, "I have experience taking care of patients with this acute illness but have never had a patient with this acute illness who also had this particular underlying condition and wonder if the chronic condition might*	*Example:* *In caring for a patient, a practitioner becomes aware of a gap in KSA, and in response (with or without consultation from a mentor) seeks to understand more about the identified KSA gap. A PICO-formatted question (P = Patient, I = Intervention, C = Comparison, O = Outcome) is constructed,*

	further meaning or inference regarding the reported performance assessment	*"Why?" as part of request for feedback to assist identification of KSA.*	*sometimes this disease presents with underlying condition z."*	*alter his clinical course?"*	*followed by a process of identification of learning needed.*					
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Comments:										

PBLI2. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Unable to gain insight from encounters due to a lack of reflection on practice; does not understand the principles of quality improvement methodology or change management; is defensive when faced with data on performance improvement opportunities within one's practice	Able to gain insight from reflection on individual patient encounters, but potential improvements are limited by a lack of systematic improvement strategies and team approach; is dependent upon external prompts to define improvement opportunities at the population level	Able to gain insight for improvement opportunities from reflection on both individual patients and populations; grasps improvement methodologies enough to apply to populations; is still reliant on external prompts to inform and prioritize improvement opportunities at the population level	Able to use both individual encounters and population data to drive improvement using improvement methodology; analyzes one's own data on a continuous basis, without reliance on external forces, to prioritize improvement efforts, and uses that analysis in an iterative process for improvement; is able to lead a team in improvement	In addition to demonstrating continuous improvement activities and appropriately utilizing quality improvement methodologies, thinks and acts systemically to try to use one's own successes to benefit other practices, systems, or populations; is open to analysis that at times requires course correction to optimize improvement
☐	☐	☐	☐	☐	☐
Comments:					

PBLI3. Use information technology to optimize learning and care delivery					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Reluctant to utilize information technology; generally does not initiate attempts to use information technology without mandatory assignments and direct help; demonstrates an inability to choose between multiple available databases for clinical query and an inability to filter or prioritize the information retrieved results in too much information, much of which is not useful; failure to achieve success may worsen perception of information technology ease of use, leading to resistance to adopting new technologies	Demonstrates a willingness to try new technology for patient care assignments or learning; able to identify and use several available databases, search engines, or other appropriate tools, resulting in a manageable volume of information, most of which is relevant to the clinical question; basic use of an EHR is improving, as evidenced by greater efficacy and efficiency in performing needed tasks; beginning to identify shortcuts to getting to the right information quickly, such as use of filters; also beginning to avoid shortcuts that lead one astray of the correct information or perpetuate incorrect information in the EHR	Efficiently retrieves (from EHR, databases, and other resources), manages, and utilizes biomedical information for solving problems and making decisions that are relevant to the care of patients and for ongoing learning	In addition to the capabilities in Level 3, the emotional investment in the outcome (improved patient care, deeper understanding, or successful resolution of a query) leads to the habit of utilizing familiar information technology resources and seeking new ones to answer clinical questions and remedy knowledge gaps identified in the course of patient care; utilizes the EHR platform to improve the care not only for individual patients but populations of patients; utilizes evidence-based (actuarial) decision support tools to continually supplement clinical experience	Along with the capabilities and behaviors in Level 4, the mental energy freed up by comfort level and experience with information technology systems is reinvested to contribute to the continuous improvement of current systems and the development and implementation of new information technology innovations for patient care and professional learning
☐	☐	☐	☐	☐	☐
Comments:					

PBLI4. Participate in the education of patients, families, students, residents, fellows, and other health professionals					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Has gaps in knowledge and experience that result in a rigid, scripted type of patient education and counseling that may not meet the needs of the patient; Demonstrates doctor-centered interaction	Is closing gaps in knowledge, allowing him or her to educate patients and families in a somewhat flexible way that begins to meet the needs of the patients; varies between doctor-centered and patient-centered depending upon the circumstances and the family dynamics; is responsive to patient's educational needs; is learning the importance of the concept of checking for patient understanding	Has a solid breadth of both knowledge and experience, resulting in the ability to modify teaching to meet the needs of the individual patient; his or her educational efforts are typically patient-Centered; is able to modify strategies to adapt to complex patient characteristics; checks for patient understanding inconsistently	Demonstrates broad knowledge base and significant experience with a variety of disease processes and patient characteristics; facilitates the participation of patients in all discussions about their health; able to be quite flexible with strategies of educating patients; patient-centeredness is clearly a priority and a conscious effort; consistently checks for patient understanding; empowers and motivates patients	Similar to Level 4 in terms of knowledge and flexibility; patient-centeredness is a habit; seamlessly, skillfully, and comfortably educates and interacts with patients in a way that satisfies the patients; demonstrates an uncanny ability to motivate and empower patients to make healthy changes and choices; does not leave the patient encounter without knowing that the patient understands the counseling
☐	☐	☐	☐	☐	☐
Comments:					

PROF1. Professional Conduct : High standards of ethical behavior which includes maintaining appropriate professional boundaries					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Has repeated lapses in professional conduct wherein responsibility to patients, peers, and/or the program are not met. These lapses may be due to an apparent lack of insight about the professional role and expected behaviors or other conditions or causes (e.g., depression, substance use, poor health)	Under conditions of stress or fatigue, has documented lapses in professional conduct that lead others to remind, enforce, and resolve conflicts; may have some insight into behavior, but an inability to modify behavior when placed in stressful situations	In nearly all circumstances, conducts interactions with a professional mindset, sense of duty, and accountability; has insight into his or her own behavior, as well as likely triggers for professionalism lapses, and is able to use this information to remain professional	Demonstrates an in-depth understanding of professionalism that allows her to help other team members and colleagues with issues of professionalism; is able to identify potential triggers, and uses this information to prevent lapses in conduct as part of her duty to help others	Others look to this person as a model of professional conduct; has smooth interactions with patients, families, and peers; maintains high ethical standards across settings and circumstances; has excellent emotional intelligence about human behavior and insight into self, and uses this information to promote and engage in professional behavior as well as to prevent lapses in others and self
☐	☐	☐	☐	☐	☐
Comments:					

PROF2. Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Has significant knowledge gaps or is unaware of knowledge gaps and demonstrates lapses in data-gathering or in follow-through of assigned tasks; may misrepresent data (for a number of reasons) or omit important data, leaving others uncertain as to the nature of the learner's truthfulness or awareness of the importance of attention to detail and accuracy; overt lack of truth-telling is assessed in a professionalism competency	Has a solid foundation in knowledge and skill, but is not always aware of or seeks help when confronted with limitations; demonstrates lapses in follow-up or follow-through with tasks, despite awareness of the importance of these tasks; follow-through can be partial, but limited due to inconsistency or yielding to barriers; when such barriers are experienced, no escalation occurs (such as notifying others or pursuing alternative solutions)	Has a solid foundation in knowledge and skill with realistic insight into limits with responsive help seeking; data-gathering is complete with consideration of anticipated patient care needs, and careful consideration of high-risk conditions first and foremost; requires little prompting for follow-up	Has a broad scope of knowledge and skill and assumes full responsibility for all aspects of patient care, anticipating problems and demonstrating vigilance in all aspects of management; pursues answers to questions, and communications include open, transparent expression of uncertainty and limits of knowledge	Same as Level 4, but any uncertainty brings about rigorous search for answers and conscientious and ongoing review of information to address the evolution of change; may seek the help of a master in addition to primary source literature
	Example: *A learner calls his supervisor at home to present a patient that he admitted. Key laboratory results are missing in the presentation and the supervisor requests that the learner seek this critical information and report back. Several hours later on rounds, the individual is*	*Example:* *On hand-over of patients from the day team to the night team, several tasks are identified as needing follow-up or completion during the next shift. The following day, when the service is handed back over to the original learner,*	*Example:* *Presentation of a patient consultation is done in a comprehensive manner, without the need for prompting. Questions posed by the learner allow the consultant to appreciate the learner's understanding of the*	*Example:* *An individual possesses the KSA to lead the team on rounds, asking for pertinent data not presented by other team members (assertive inquiry). Constant review and vigilance of patient status uncovers*	*Example:* *This is the practitioner who leaves no stone unturned. Colleagues are confident when handing-off a patient that he will receive exemplary care. In fact, when there is a complex patient, colleagues are relieved when this*

	again questioned about the laboratory values, and reports that the results are normal, but is unable to locate those results in his paperwork. *D-2, C-1, T-2* KSA= Knowledge, skills & attitudes D= Discernment C= Conscientiousness T= Truth telling Number refers to performance level (1-5)	*several of these tasks were either incomplete or not completed as specified in the signed-out. When questioned about these tasks, the night-float individual indicated that things were busy, he forgot, or gives another excuse indicating an awareness of the expectation but failure to complete the tasks. KSA-3, D-2, C-3*	*disease process and the individual's awareness of gaps in his knowledge. Careful attention to detail and accuracy are evident in the history and physical examination that is presented. The next day, the service is busy and the learner needs reminding to re-check the send-out labs. KSA-3, D-3, C-3*	*unexplained findings on laboratory or physical examination. Findings are reported to supervisors as change with un-identified meaning (and potential concern). KSA-4, D-4, T-4*	*practitioner is on-call because he typically invests much time and energy in searching for needed answers and meticulously reports back on all important developments. KSA-4, D-4, C-4, T-4*
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Comments:					

PROF3. Provide leadership skills that enhance team functioning, the learning environment, and/or the health care delivery system/environment with the ultimate intent of improving care of patients					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Does not define/clarify roles and expectations for team members; team management is disorganized and inefficient; interacts with supervisor(s) in an unfocused and indecisive manner; open communication is not encouraged within the team; team members are not given ownership or engaged in decision-making; manages by mandate; unable to advocate effectively for the team with faculty members, staff members, families, patients, and others	Interactions suggest that there are roles and expectations for team members, but these are not explicitly defined; manages the team in a somewhat organized manner; interacts with supervisor(s) in a somewhat focused, but poorly decisive manner; begins to encourage open communication within the team; sometimes engages team members in decision-making processes; manages most often through direction, with some effort towards consensus building; attempts to advocate for the team with faculty members, staff members, families, patients, and others	Provides some explicit definition to roles and expectations for team members; manages the team in an organized manner; interactions with supervisor(s) are focused and decisive in most cases; open communication within the team is routinely encouraged; team members are routinely engaged in decision-making and are given some ownership in care; usually manages through consensus-building and empowerment of others, but sometimes reverts to being directive; advocates somewhat effectively for the team with faculty members, staff members, families, patients, and others	Routinely clarifies roles and expectations for team members; manages the team in an organized and fairly efficient manner; interactions with supervisor(s) are focused and decisive; creates a foundation of open communication within the team; team members are expected to engage in decision-making and are encouraged to take ownership in care; utilizes a consensus-building process and empowerment of others, only in rare instances becoming directive; advocates effectively for the team with faculty members, staff members, families, patients, and others	Routinely clarifies roles and expectations for team members; team management is organized and efficient; interacts with supervisor(s) in a focused and decisive manner; creates a strong sense of open communication within the team; team members routinely engage in decision-making and are expected to take ownership in care; consensus-building and empowerment are the norm; proactively and effectively advocates for the team with faculty members, staff members, families, patients, and others; inspires others to perform
☐	☐	☐	☐	☐	☐
Comments:					

PROF4. The capacity to accept that ambiguity is part of clinical medicine and to recognize the need for and to utilize appropriate resources in dealing with uncertainty					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Feels overwhelmed and inadequate when faced with uncertainty or ambiguity; communications with patients/families and development of therapeutic plan are rigid and authoritarian, with assumption that the patient can manage information and participate in decision-making; patient/family numeracy presumed; seeks only self or self-available resources to manage response to this uncertainty, resulting in a response characterized by their (individual) preexisting state of risk aversion or risk taking; does not regard patient need for hope; feels compelled to make sure that patients understand full potential for negative outcome (defensive/protective of physician)	Recognizes uncertainty and feels tension/pressure from not knowing or knowing with limited control of outcomes; explains situation to the patient in framework most familiar to the physician, rather than framing it with terms, graphics, or analogies familiar to the patient; seeks rules and statistics and feels compelled to transfer all information to the patient immediately, regardless of patient readiness, patient goals, and patient ability to manage information	Anticipates and focuses on uncertainty, looking for resolution by seeking additional information; aims to inform the patient of the more optimal outcome(s), framed by physician goals; does not manage overall balance of patient/family uncertainty with quality of life, need for hope, and ability to adhere to therapeutic plan; focuses on own risk management position for a given problem and does not suggest that more or less risk taking (different from physician's position) could be chosen; still seeks patient/parent recitation of uncertainty/morbidity as proof that patient/family understands the uncertainty; has an unresolved balance of expectations with physician expectations taking precedence	Anticipates that uncertainty at the time of diagnostic deliberation will be likely; uses such uncertainty or larger ambiguity as a prompt/motivation to seek information or understanding of unknown (to self or world); balances delivery of diagnosis with hope, information, and exploration of individual patient goals; works through concepts of risk versus hope using conceptual framework that includes cost (e.g., suffering, lifestyle changes, financial) versus benefit, framed by patient health care goals; expresses openness to patient position and patient uncertainty about his or her position and response	Is aware of and keeps own risk aversion or risk-taking position in check; seeks to understand patient/family goals for health and their capacity to achieve those goals, given the uncertain treatment options; engages in discussion with high sensitivity towards numeracy, emphasizing patient/family control of choices with initial plan development and ongoing information sharing through changes as knowledge and patient health status evolve; remains flexible and committed to engagement with the patient/family throughout the patient's illness, serving as a resource to gather information so that degree of uncertainty is minimized; openly and comfortably discusses strategies and outcomes

					anticipated with the patient/family, emphasizing that all plans are subject to the imperfect knowledge and state of uncertainty; balances constant revisiting of knowledge, uncertainty, and developed plans acceptance of what is unknown; transparent communication of limits of treatment plan outcomes
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Comments:					

ICS1. Communicate effectively with physicians, other health professionals, and health-related agencies					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Demonstrates a rigid, rules-based recitation of facts; often communicates from a template or prompt; communication does not change based on context, audience, or situation; not aware of the social purpose of the communication	Begins to understand the purpose of the communication and at times adjusts length to context, as appropriate; however, will often still err on the side of inclusion of excess details	Successfully tailors communication strategy and message to the audience, purpose, and context in most situations; fully aware of the purpose of the communication; can efficiently tell a story and effectively make an argument; beginning to improvise in unfamiliar situations	Uses the appropriate strategy for communication; distills complex cases into succinct summaries tailored to audience, purpose, and context; can improvise and has expanded strategies for dealing with difficult communication scenarios (e.g., an inter-professional conflict)	Master of improvisation in any new or difficult communication scenario; recognized as a highly effective public speaker; intuitively develops strategies for tailoring message to context to gain maximum effect; is sought out as a role model for difficult conversations and mediator of disagreement
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Comments:					

ICS2. Work effectively as a member or leader of a health care team or other professional group					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Limited participation in team discussion; passively follows the lead of others on the team; little initiative to interact with team members; more self-centered in approach to work with a focus on one's own performance; little awareness of one's own needs and abilities; limited acknowledgment of the contributions of others	Demonstrates an understanding of the roles of various team members by interacting with appropriate team members to accomplish assignments; actively works to integrate herself into team function and meet or exceed the expectations of her given role; in general, works towards achieving team goals, but may put personal goals related to professional identity development (e.g., recognition) above pursuit of team goals	Identifies him or herself and is seen by others as an integral part of the team; seeks to learn the individual capabilities of each fellow team member and will offer coaching and performance improvement as needed; will adapt and shift roles and responsibilities as needed to adjust to changes to achieve team goals; communication is bi-directional with verification of understanding of the message sent and the message received in all cases	Initiates problem-solving, frequently provides feedback to other team members, and takes personal responsibility for the outcomes of the team's work; actively seeks feedback and initiates adaptations to help the team function more effectively in changing environments; engages in closed loop communication in all cases to ensure that the correct message is understood by all; seeks out and takes on leadership roles in areas of expertise and makes sure the job gets done	Goals of the team supersede any personal goals, resulting in the ability to seamlessly assume the role of leader or follower, as needed; creates a high-functioning team de novo or joins a poorly functioning team and facilitates improvement, such that team goals are met
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Comments:					

ICS3. Act in a consultative role to other physicians and health professionals					
Not yet Assessable	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
	Actively participates as a member of the consultation team and can accurately gather and present the patients' history and physical findings, scribe recommendations, and document them in the medical record; lack of discipline-specific knowledge limits ability to focus the data gathering and presentation to those details relevant to the question asked	Identifies self as a member of the consultation team; can accurately gather and present the patient's history and physical findings with a focus on those details pertinent to the question asked; demonstrates increased discipline-specific knowledge and an ability to filter and prioritize information that lead to a more focused (although not comprehensive), differential, realistic working diagnosis; makes more specific recommendations; and more succinct documentation; takes more "ownership" of the patients' outcomes during follow-up of initial recommendations	Identifies self as an integral member of the consultation team based on advanced knowledge and skills in specific areas tempered by recognition of limitations in others, leading to pursuit of new knowledge; independently assesses and confirms data; combination of past experience and ability to use information technology to seek new knowledge allows for recommendations that are consistent with best practice; develops good relationships with referring providers, but may not encourage the bidirectional feedback that makes the relationship truly collaborative	Identifies self as an expert in his or her discipline based on advanced knowledge and vast experience that manifest as intuitive clinical reasoning that is succinctly communicated to answer the specific questions asked; this drives life-long learning behavior and clear communication of the strength of the evidence on which recommendations are based; develops and maintains a collaborative relationship with the referring providers that maximizes adherence to recommendations and supports continuous bidirectional feedback	Identified by self and others as a master clinician who effectively and efficiently lends a practical wisdom to consultation; answers to all but the most difficult diagnostic dilemmas are intuitive, leaving most mental energy available for reinvestment in ongoing clinical, educational, and/or research contributions to the field
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Comments:					