

# The Pediatrics Milestone Project

*A Joint Initiative of*  
The Accreditation Council for Graduate Medical Education  
and  
The American Board of Pediatrics



July 2017

## The Pediatrics 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.

## Pediatrics 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. The pediatrics milestones are designed to describe changes in observable attributes of the learner across the continuum of medical education from medical school through residency into practice. 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 each resident's current performance level in relation to 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. Selection of a level implies that the resident substantially demonstrates the milestones in that level, as well as those in lower levels.

### Additional Notes

Level 3 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 3 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 the Milestones are available on the Milestones web page:*

<http://www.acgme.org/acqmeweb/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/acqmeweb/Portals/0/PDFs/Milestones/320\\_PedsMilestonesProject.pdf](http://www.acgme.org/acqmeweb/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 resident's performance on the milestones for each sub-competency will be indicated by:

- selecting the level of milestones that best describes that resident's performance in relation to the milestones or
- selecting the "Not yet Assessable" response option. This option should be used only when a resident 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
<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).

## PEDIATRICS MILESTONES

### ACGME Report Worksheet

<b>PC1. Gather essential and accurate information about the patient</b>					
<b>Not yet Assessable</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>
	Either gathers too little information or exhaustively gathers information following a template regardless of the patient’s chief complaint, with each piece of information gathered seeming as important as the next. Recalls clinical information in the order elicited, with the ability to gather, filter, prioritize, and connect pieces of information being limited by and dependent upon analytic reasoning through basic pathophysiology alone	Clinical experience allows linkage of signs and symptoms of a current patient to those encountered in previous patients. Still relies primarily on analytic reasoning through basic pathophysiology to gather information, but has the ability to link current findings to prior clinical encounters allows information to be filtered, prioritized, and synthesized into pertinent positives and negatives, as well as broad diagnostic categories	Demonstrates an advanced development of pattern recognition that leads to the creation of illness scripts, which allow information to be gathered while simultaneously filtered, prioritized, and synthesized into specific diagnostic considerations. Data gathering is driven by real-time development of a differential diagnosis early in the information-gathering process	Creates well-developed illness scripts that allow essential and accurate information to be gathered and precise diagnoses to be reached with ease and efficiency when presented with most pediatric problems, but still relies on analytic reasoning through basic pathophysiology to gather information when presented with complex or uncommon problems	Creates robust illness scripts and instance scripts (where the specific features of individual patients are remembered and used in future clinical reasoning) that lead to unconscious gathering of essential and accurate information in a targeted and efficient manner when presented with all but the most complex or rare clinical problems. These illness and instance scripts are robust enough to enable discrimination among diagnoses with subtle distinguishing features
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PC2. Organize and prioritize responsibilities to provide patient care that is safe, effective, and efficient					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	Struggles to organize patient care responsibilities, leading to focusing care on individual patients rather than multiple patients; responsibilities are prioritized as a reaction to unanticipated needs that arise (those responsibilities presenting the most significant crisis at the time are given the highest priority); even small interruptions in task often lead to a prolonged or permanent break in that task to attend to the interruption, making return to initial task difficult or unlikely	Organizes the simultaneous care of a few patients with efficiency; occasionally prioritizes patient care responsibilities to anticipate future needs; each additional patient or interruption in work leads to notable decreases in efficiency and ability to effectively prioritize; permanent breaks in task with interruptions are less common, but prolonged breaks in task are still common	Organizes the simultaneous care of many patients with efficiency; routinely prioritizes patient care responsibilities to proactively anticipate future needs; additional care responsibilities lead to decreases in efficiency and ability to effectively prioritize only when patient volume is quite large or there is a perception of competing priorities; interruptions in task are prioritized and only lead to prolonged breaks in task when workload or cognitive load is high	Organizes patient care responsibilities to optimize efficiency; provides care to a large volume of patients with marked efficiency; patient care responsibilities are prioritized to proactively prevent those urgent and emergent issues in patient care that can be anticipated; interruptions in task lead to only brief breaks in task in most situations	Serves as a role model of efficiency; patient care responsibilities are prioritized to proactively prevent interruption by routine aspects of patient care that can be anticipated; unavoidable interruptions are prioritized to maximize safe and effective multitasking of responsibilities in essentially all situations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PC3. 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
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					



PC4. 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
	<p>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</p>	<p>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</p>	<p>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</p>	<p>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</p>	<p>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</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PC5. 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
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

MK1. Critically evaluate and apply current medical information and scientific evidence for patient care					
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 significant effort and time; online search efficiency is minimal; (e.g., may require multiple search strategies); knows how to read and interpret the literature but requires guidance for application	Identifies 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	Formulates answerable clinical questions regularly; 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
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

<b>SBP1. Coordinate patient care within the health care system relevant to their clinical specialty</b>					
<b>Not yet Assessable</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>
	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	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



SBP2. Advocate for quality patient care and optimal patient care systems										
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5					
	<p>Attends to medical needs of individual patient(s); wants to take good care of patients and takes action for individual patients' health care needs</p> <p><i>Example: Sees a child with a firearm injury and provides good care.</i></p>	<p>Demonstrates recognition that an individual patient's issues are shared by other patients, that there are systems at play, and that there is a need for quality improvement of those systems; acts on the observed need to assess and improve quality of care</p> <p><i>Example: A physician notes on rounds, "We have sent home four-to-five firearm-injury patients and one has come back with repeated injury. We need to do something about that."</i></p>	<p>Acts within the defined medical role to address an issue or problem that is confronting a cohort of patients; may enlist colleagues to help with this problem</p> <p><i>Example: The physician works with colleagues to develop an approach, protocol, or procedure for improving care for penetrating trauma injury in children and measures the outcomes of system changes.</i></p>	<p>Actively participates in hospital-initiated quality improvement and safety actions; demonstrates a desire to have an impact beyond the hospital walls</p> <p><i>Example: The physician attends a hospital symposium on gun-related trauma and what can be done about it and then arranges to speak on gun safety at the local meeting of the parent-teachers association.</i></p>	<p>Identifies and acts to begin the process of improvement projects both inside the hospital and within one's practice community</p> <p><i>Example: Upon completion of quality improvement project, the physician works on new proposed legislation and testifies in City Council.</i></p>					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:										

SBP3. 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
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PBL1. Identify strengths, deficiencies, and limits in one's knowledge and expertise					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	<p>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)</p> <p><i>Example:</i> 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</p>	<p>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</p> <p><i>Example:</i> 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."</p>	<p>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</p> <p><i>Example:</i> 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</p>	<p>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</p> <p><i>Example:</i> 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</p>	<p>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</p> <p><i>Example:</i> 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 =</p>



	<i>without interpretation of further meaning or inference regarding the reported performance assessment</i>	<i>Does not seek "How?" or "Why?" as part of request for feedback to assist identification of KSA.</i>	<i>for this patient, since sometimes this disease presents with underlying condition z."</i>	<i>the chronic condition might alter his clinical course?"</i>	<i>Outcome) is constructed, followed by a process of identification of learning needed.</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PBLI2. Identify and perform appropriate learning activities to guide personal and professional development					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	<p>Sets learning activities based on readily available curricular materials, irrespective of learning style, preferences, appropriateness of activity, or any outcome measures</p> <p><i>Example:</i> After realizing a need to better understand what medications should be used in the management of a clinic patient with moderate asthma, the learner asks a peer who is working with him in clinic rather than pursuing the references suggested by his clinic preceptor.</p>	<p>Well-defined goals are mapped to appropriate learning activities and resources based on assigned curriculum; assignment may be part of a teacher-constructed curriculum, or part of a prescribed curriculum offered by others, or sought by the learner in response to a performance gap</p> <p><i>Example:</i> A learner reads cases assigned for primary care in advance of coming to a scheduled clinic session where a discussion of the cases is to take place. Others have not read the case, and after the session the resident is left wondering about the case and its relevance to overall</p>	<p>Learning resources are sought based on analysis of learning needs assessment and constructed goals, and with consideration of the nature of the learning content and method</p> <p><i>Example:</i> Having failed at intubation in the delivery room, the learner goes back to the simulation lab to receive further training on intubation with the manikin (and does not simply reread the Neonatal Resuscitation Protocol<sup>10</sup>).</p>	<p>Consideration of choice of activities is based on instructional methods that are known to be effective in the development of the relevant knowledge content, application of that knowledge, and development of skills or behaviors; learning takes place through collaborative interface with experts in which learning activities sought are ones that allow for constant course correction and interactive sharing of alternative perspectives and differing lenses</p> <p><i>Example:</i> A learner is planning an advocacy workshop for parents of children with complex medical needs to improve their skills with managing medical devices. In the process of preparing for this workshop, he discovers that there is an in-service for parents of hospitalized patients in</p>	<p>Seeking resources to learn is undertaken with high efficiency and effectiveness, with open and flexible inclusion of the influences from outside sources (including regulatory and oversight groups); fruitful pathways and resources for learning are readily shared with peers and self-assessment of learning drives further resource seeking</p> <p><i>Example:</i> The learner seeks to expand the types of devices discussed in the workshop and looks to the work published by the Institute of Medicine Committee on Safe Medical Devices for Children.<sup>11</sup> He decides to pursue resources (experts in the field) to see if it would be possible to learn how to provide the</p>

		<p><i>learning. The case is part of a core curriculum with learning goals and objectives. Later, in clinic a patient presents with a problem similar to last week's case discussion, and the learner is able to go back to that case to glean further information on how to manage the patient.</i></p>	<p><i>how to care for devices and participates in this learning activity. Through this in-service, he identifies written resources, models useful for demonstrations, and video-recorded illustrations of anticipated complications with device use. He chooses to conduct a practice rehearsal with some families in the inpatient setting, with course correction from the hospital's nurse-educator.</i></p>	<p><i>instructional materials, plans, and workshops to parents throughout the state.</i></p>					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comments:</p>									

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 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
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PBLI4. Incorporate formative evaluation feedback into daily practice					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	Has difficulty in considering others' points of view when these differ from his or her own, leading to defensiveness and inability to receive feedback and/or avoidance of feedback; demonstrates a limited incorporation of formative feedback into daily practice	Is dependent on external sources of feedback for improvement; is beginning to acknowledge other points of view, but reinterprets feedback in a way that serves his or her own need for praise or consequence avoidance, rather than informing a personal quest for improvement; little to no behavioral change occurs in response to feedback (e.g., listens to feedback but takes away only those messages he or she wants to hear)	Understands others' points of view and changes behavior to improve specific deficiencies that are noted by others (e.g., understands that the perceptions of others are important even when those perceptions are different from his or her own, (such as when a nurse interprets a response as abrupt when it was not intended to be) causing the learner to examine what prompted this perception)	Internal sources of feedback allow for insight into limitations and engagement in self-regulation; improves daily practice based on both external formative feedback and internal insights (e.g., is able to point out what went well and what did not go well in a given encounter, and makes positive changes in behavior as a result)	Demonstrates professional maturity and deep emotional commitment that lead to deliberate practice and result in the habits of continuous reflection, self-regulation, and internal feedback and that lead to continuous improvement beyond a focus solely on deficiencies
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PROF1. Demonstrate humanism, compassion, integrity, and respect for others; based on the characteristics of an empathetic practitioner					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	Interacts with patients and families in a way that is detached and not sensitive to the human needs of the patient and family	Demonstrates compassion for patients in selected situations (e.g., tragic circumstances, such as unexpected death), but has a pattern of conduct that demonstrates a lack of sensitivity to many of the needs of others	Demonstrates consistent understanding of patient and family expressed needs and a desire to meet those needs on a regular basis; is responsive in demonstrating kindness and compassion	Goes beyond responding to expressed needs of patients and families; is altruistic and anticipates the human needs of patients and families and works to meet those needs as part of her skills in daily practice	Proactively advocates on behalf of individual patients, families, and groups of children in need
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PROF2. Professionalization: A sense of duty and accountability to patients, society, and the profession					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	Appears to be interested in learning pediatrics but not fully engaged and involved as a professional, which results in an observational or passive role	Appreciates the role in providing care and being a professional, at times has difficulty in seeing self as a professional, which may result in not taking appropriate primary responsibility	Demonstrates understanding and appreciation of the professional role and the gravity of being the "doctor" by becoming fully engaged in patient care activities; has a sense of duty; has rare lapses into behaviors that do not reflect a professional self-view	Internalizes and accepts full responsibility of the professional role and develops fluency with patient care and professional relationships in caring for a broad range of patients and team members	Extends professional role beyond the care of patients and sees self as a professional who is contributing to something larger (e.g., a community, a specialty, or the medical profession)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PROF3. 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
	Demonstrates 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)	Demonstrates lapses in professional conduct under conditions of stress or fatigue, that lead others to engage in reminding about and, enforcing professional behaviors as well as resolving conflicts; there may be some insight into behavior, but an inability to modify behavior when placed in stressful situations	Conducts interactions in nearly all circumstances with a professional mindset, sense of duty, and accountability; demonstrates conduct that illustrates insight into 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; demonstrates self-reflection to identify and voice insights to prevent lapses in conduct as part of her duty to help others	Role models professional conduct; interactions with patients, families, and peers demonstrates high ethical standards across settings and circumstances; utilizes excellent emotional intelligence about human behavior and insight into self, to promote and engage in professional behavior as well as to prevent lapses in others and self
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					



PROF4. Self-awareness of one’s own knowledge, skill, and emotional limitations that leads to appropriate help-seeking behaviors					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	Demonstrates limited insight into limitations in knowledge, skills or attitudes which results in the learner not seeking help when needed, sometimes resulting in unintended consequences	Expresses concern that limitations may be seen as weaknesses that will negatively impact evaluations; this results in help-seeking behaviors, typically only in response to external prompts rather than internal drive	Recognizes limitations, but has the perception that autonomy is a key element of one’s identity as a physician, and the need to emulate this behavior to belong to the profession may interfere with internal drive to engage in appropriate help-seeking behavior	Recognizes limitations and has matured to the stage where a personal value system of help-seeking for the sake of the patient supersedes any perceived value of physician autonomy, resulting in appropriate requests for help when needed	Demonstrates the personal drive to learn and improve results in the habit of engaging in help-seeking behaviors and explicitly role modeling and encouraging these behaviors in others
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

PROF5. 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
	<p>Demonstrates gaps or is unaware of significant knowledge, skills or attitudes (KSA) gaps; 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 another professionalism competency)</p> <p><i>Example: *</i> 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</p>	<p>Demonstrates gaps in KSA, but does not always voice awareness of or seek 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 may be limited due to inconsistency or yielding to barriers; when such barriers are experienced, no escalation occurs (such as notifying others or pursuing alternative solutions)</p> <p><i>Example:</i> 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</p>	<p>Demonstrates inadequate level of KSA for the level of clinical responsibility, 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; little prompting is required for follow-up</p> <p><i>Example:</i> 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</p>	<p>Demonstrates competent level of KSA for the level of clinical responsibility 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</p> <p><i>Example:</i> 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</p>	<p>Demonstrates competent level of KSA for the level of clinical responsibility 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; uncertainty brings about rigorous search for answers and conscientious and ongoing review of information; may seek the help of a consultant in addition to primary source literature</p> <p><i>Example:</i> This is the practitioner who leaves no stone unturned. Colleagues are confident when handing-off a patient that the patient will receive exemplary care. In fact, when there is a complex patient, colleagues are</p>

	<p><i>on rounds, the learner is again questioned about the laboratory values, and reports that the results are normal, but is unable to locate those results in his paperwork.</i> D-2, C-1, T-2</p> <p>KSA= Knowledge, skills &amp; attitudes D= Discernment C= Conscientiousness T= Truth telling Number refers to performance level (1-5)</p>	<p><i>to the original learner, several of these tasks were either incomplete or not completed as specified in the sign-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.</i> KSA-3, D-2, C-3</p>	<p><i>understanding of the disease process and the learners' 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.</i> KSA-3, D-3, C-3</p>	<p><i>status uncovers unexplained findings on laboratory or physical examination. Findings are reported to supervisors as change with un-identified meaning (and potential concern).</i> KSA-4, D-4, T-4</p>	<p><i>relieved when this 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.</i> KSA-4, D-4, C-4, T-4</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comments:</p>					

<b>PROF6. Recognize that ambiguity is part of clinical medicine and to recognize the need for and to utilize appropriate resources in dealing with uncertainty</b>					
<b>Not yet Assessable</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>
	Demonstrates state of being overwhelmed and unsure when faced with uncertainty or ambiguity; communications with patients/families and development of therapeutic plan are approached in a limited and authoritarian manner;; patient/family numeracy (understanding of probability/risk) is 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)	Expresses recognition of uncertainty and the 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; informs 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; unresolved balance of physician/patient expectations with physician expectations taking precedence	Anticipates that uncertainty at the time of diagnostic deliberation will be likely; uses such uncertainty or 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	Acknowledges and manages personal level of risk aversion or risk-taking tendencies; seeks to understand patient/family goals for health and their capacity to achieve those goals,; engages in discussion with high sensitivity towards health literacy and numeracy, emphasizing patient/family control of choices; 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; 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



ICS1. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	Uses standard medical interview template to prompt all questions; does not vary the approach based on a patient's unique physical, cultural, socioeconomic, or situational needs; may feel intimidated or uncomfortable asking personal questions of patients	Uses the medical interview to establish rapport and focus on information exchange relevant to a patient's or family's primary concerns; identifies physical, cultural, psychological, and social barriers to communication, but often has difficulty managing them; begins to use non-judgmental questioning scripts in response to sensitive situations	Uses the interview to effectively establish rapport; is able to mitigate physical, cultural, psychological, and social barriers in most situations; verbal and non-verbal communication skills promote trust, respect, and understanding; develops scripts to approach most difficult communication scenarios	Uses communication to establish and maintain a therapeutic alliance; sees beyond stereotypes and works to tailor communication to the individual; a wealth of experience has led to development of scripts for the gamut of difficult communication scenarios; is able to adjust scripts ad hoc for specific encounters	Connects with patients and families in an authentic manner that fosters a trusting and loyal relationship; effectively educates patients, families, and the public as part of all communication; intuitively handles the gamut of difficult communication scenarios with grace and humility
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					

ICS2. Demonstrate the insight and understanding into emotion and human response to emotion that allows one to appropriately develop and manage human interactions					
Not yet Assessable	Level 1	Level 2	Level 3	Level 4	Level 5
	Does not accurately anticipate or read others' emotions in verbal and non-verbal communication; is unaware of one's own emotional and behavioral cues and may transmit emotions in communication (e.g., anxiety, exuberance, anger) that can precipitate unintended emotional responses in others; does not effectively manage strong emotions in oneself or others	Begins to use past experiences to anticipate and read (in real time) the emotional responses in himself and others across a limited range of medical communication scenarios, but does not yet have the ability or insight to moderate behavior to effectively manage the emotions; strong emotions in oneself and others may still become overwhelming	Anticipates, reads, and reacts to emotions in real time with appropriate and professional behavior in nearly all typical medical communication scenarios, including those evoking very strong emotions; uses these abilities to gain and maintain therapeutic alliances with others	Perceives, understands, uses, and manages emotions in a broad range of medical communication scenarios and learns from new or unexpected emotional experiences; effectively manages own emotions appropriately in all situations; effectively and consistently uses emotions to gain and maintain therapeutic alliances with others; is perceived as a humanistic provider	Intuitively perceives, understands, uses, and manages emotions to improve the health and well-being of others and to foster therapeutic relationships in any and all situations; is seen as an authentic role model of humanism in medicine
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:					