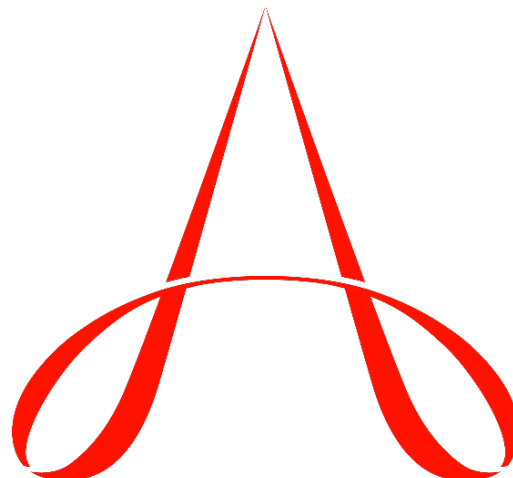




# Allergy and Immunology Milestones

The Accreditation Council for Graduate Medical Education



ACGME

Second Revision: August 2019

First Revision: August 2013

## Allergy and Immunology Milestones

The Milestones are designed only for use in evaluation of residents 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 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.

## Allergy and Immunology Milestones Work Group

Amal Assa'ad, MD

Taylor Atchley, MD

T. Prescott Atkinson, MD, PhD

Laura Edgar, EdD, CAE

Beverly Huckman, BA\*

Bruce Lanser, MD

Evelyn Lomasney, MD

Aidan Long, MD

Mike Nelson, MD

Princess Ogbogu, MD

Kelly Stone, MD, PhD

*The ACGME would like to thank the following organizations for their continued support in the development of the Milestones:*

*American Board of Allergy and Immunology*

*American Academy of Allergy, Asthma, and Immunology*

*Review Committee for Allergy and Immunology*

\*Acknowledgments: The Work Group and the ACGME would like to honor Beverly Huckman, for her contributions as the non-physician member of the milestones work group. She will be greatly missed.

## Understanding Milestone Levels and Reporting

This document presents the Milestones, which programs use in a semi-annual review of resident performance, and then report to the ACGME. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME Competencies organized in a developmental framework. The narrative descriptions are targets for resident performance throughout their educational program.

Milestones are arranged into levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert resident in the specialty or subspecialty. For each reporting period, the Clinical Competency Committee will review the completed evaluations to select the milestone levels that best describe each learner's current performance, abilities, and attributes for each subcompetency.

These levels *do not* correspond with post-graduate year of education. Depending on previous experience, a junior resident may achieve higher levels early in his/her educational program just as a senior resident may be at a lower level later in his/her educational program. There is no predetermined timing for a resident to attain any particular level. Residents may also regress in achievement of their milestones. This may happen for many reasons, such as over scoring in a previous review, a disjointed experience in a particular procedure, or a significant act by the resident.

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

## Additional Notes

Level 4 is designed as a graduation *goal* but *does not* represent a graduation *requirement*. Making decisions about readiness for graduation and unsupervised practice is the purview of the program director. Furthermore, Milestones 2.0 include revisions and changes that preclude using Milestones as a sole assessment in high-stakes decisions (i.e., determination of eligibility for certification or credentialing). Level 5 is designed to represent an expert resident whose achievements in a subcompetency are greater than the expectation. Milestones are primarily designed for formative, developmental purposes to support continuous quality improvement for individual learners, education programs, and the specialty. The ACGME and its partners will continue to evaluate and perform research on the Milestones to assess their impact and value.

Examples are provided for some milestones within this document. Please note: the examples are not the required element or outcome; they are provided as a way to share the intent of the element.

Some milestone descriptions include statements about performing independently. These activities must occur in conformity to ACGME supervision guidelines as described in the Program Requirements, as well as to institutional and program policies. For example, a resident who performs a procedure independently must, at a minimum, be supervised through oversight.

A Supplemental Guide is also available to provide the intent of each subcompetency, examples for each level, assessment methods or tools, and other available resources. The Supplemental Guide, like examples contained within the Milestones, is designed only to assist the program director and Clinical Competency Committee, and is not meant to demonstrate any required element or outcome.

Additional resources are available in the [Milestones](#) section of the ACGME website. Follow the links under “What We Do” at [www.acgme.org](http://www.acgme.org).

The diagram below presents an example set of milestones for one sub-competency in the same format as the ACGME 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 those milestones.

Patient Care 3: Diagnostic Tests and Procedures for Allergy and Immunology Patients				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic understanding of the commonly used allergy and immunology diagnostic tests and procedures	Selects tests for patients with common clinical conditions and according to evidence-based guidelines	Selects tests for patients with complex conditions, including selected use of specialized testing and an understanding of limitations of the test	Develops individualized cost-effective testing strategies to evaluate patients with complex conditions	Participates in the writing or reviewing of local or national diagnostic guidelines or policies
Interprets test results, with supervision	Independently interprets common test results	Interprets complex test results, with supervision	Independently interprets specialized and complex results in the context of the individual patient	Identifies, critically evaluates and selectively utilizes emerging and investigational tests or procedures
	With supervision, performs common clinical diagnostic procedures (e.g., skin testing)	Independently performs common clinical diagnostic procedures, and with supervision performs specialized procedures (e.g., challenges)	Independently performs specialized clinical diagnostic procedures	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="float: right;">                     Not Yet Completed Level 1 <input type="checkbox"/>                      Not Yet Assessable <input type="checkbox"/> </div>				

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

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

Patient Care 1: Medical Interview and Physical Examination of Adult Allergy and Immunology Patients				
Level 1	Level 2	Level 3	Level 4	Level 5
Obtains a history and physical exam	Obtains a complete history and physical exam, extracting relevant elements for presentation of a patient with common conditions	Obtains a complete history and physical exam, extracting relevant elements for presentation of a patient with complex conditions	Efficiently obtains and communicates a focused history and physical exam for all patients	Efficiently obtains and communicates a focused history and exam, including sensitive, complicated, and detailed information that may not be volunteered by the patient
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>			Not Yet Completed Level 1	<input type="checkbox"/>
			Not Yet Assessable	<input type="checkbox"/>

Patient Care 2: Medical Interview and Physical Examination of Pediatric Allergy and Immunology Patients				
Level 1	Level 2	Level 3	Level 4	Level 5
Obtains a complete history and physical exam	Obtains a complete history and physical exam, extracting relevant elements for presentation of a patient with common conditions	Obtains a complete history and physical exam, extracting relevant elements for presentation of a patient with complex conditions	Efficiently obtains and communicates a focused history and physical exam for all patients	Efficiently obtains and communicates a focused history and exam, including sensitive, complicated, and detailed information that may not be volunteered by the patient
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">                     Not Yet Completed Level 1 <input type="checkbox"/>                      Not Yet Assessable <input type="checkbox"/> </div>				



Patient Care 3: Diagnostic Tests and Procedures for Allergy and Immunology Patients				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic understanding of commonly used allergy and immunology diagnostic tests and procedures	Selects tests for patients with common clinical conditions and according to evidence-based guidelines	Selects tests for patients with complex conditions, including selected use of specialized testing and an understanding of limitations of the test	Develops individualized cost-effective testing strategies to evaluate patients with complex conditions	Participates in the writing or reviewing of local or national diagnostic guidelines or policies
Interprets test results, with supervision	Independently interprets common test results	Interprets complex test results, with supervision	Independently interprets specialized and complex results in the context of the individual patient	Identifies, critically evaluates, and selectively uses emerging and investigational tests or procedures
	With supervision, performs common clinical diagnostic procedures (e.g., skin testing)	Independently performs common clinical diagnostic procedures, and with supervision, performs specialized procedures (e.g., challenges)	Independently performs specialized clinical diagnostic procedures	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				
				Not Yet Completed Level 1 <input type="checkbox"/>
				Not Yet Assessable <input type="checkbox"/>

Patient Care 4: Management Plan for Allergy and Immunology Patients				
Level 1	Level 2	Level 3	Level 4	Level 5
Recognizes basic treatments for common allergic and immunologic disorders	Selects and implements treatment from existing evidence with substantial supervision	Selects and implements cost-effective treatment from existing evidence with minimal supervision	Selects and implements cost-effective treatment from existing evidence independently	Participates in writing or reviewing local or national practice guidelines or policies
Identifies patient outcomes and adverse events associated with specific treatments	Formulates a plan for monitoring patient outcomes and adverse events	Monitors patient outcomes and adverse events; adjusts treatment with supervision	Monitors patient outcomes and adverse events; adjusts treatment independently	Identifies and formally reports previously unrecognized patient outcomes or adverse events
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				
				Not Yet Completed Level 1 <input type="checkbox"/>
				Not Yet Assessable <input type="checkbox"/>

Medical Knowledge 1: Basic Science of Allergy and Immunology				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic knowledge of the cellular and humoral components of the immune system	Demonstrates advanced knowledge of the cellular and humoral components of the immune system and basic knowledge of normal physiology	Applies knowledge of basic immunology to understanding the pathophysiology of common immunologic and allergic diseases	Applies knowledge of basic immunology to understanding the pathophysiology of complex immunologic and allergic diseases, as well as the basis for diagnosis, treatment, and research	Serves as a content expert, invited lecturer, or subject matter expert
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">                     Not Yet Completed Level 1 <input type="checkbox"/>                      Not Yet Assessable <input type="checkbox"/> </div>				

Medical Knowledge 2: Clinical Science of Allergy and Immunology				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of clinical presentations for common immunologic and allergic conditions	Demonstrates sufficient knowledge and applies it to the diagnosis and treatment of patients with common immunologic and allergic conditions	Demonstrates sufficient knowledge and applies it to the diagnosis and treatment of patients with complex immunologic and allergic conditions	Independently synthesizes the literature and patient care experiences to diagnose and treat patients with newly identified or emerging immunologic and allergic diseases	Serves as a content expert, invited lecturer, or subject matter expert
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not Yet Completed Level 1 <input type="checkbox"/> Not Yet Assessable <input type="checkbox"/>

Medical Knowledge 3: Research and Scholarly Activity				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of the principles of Responsible Conduct of Research and study design	Develops a research hypothesis or scholarly activity and identifies the resources necessary, with appropriate supervision	Designs and conducts a research study or scholarly activity with appropriate supervision	Analyzes and reports the results of a research study or scholarly activity	Independently designs and leads a complex research study or scholarly activity
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">                     Not Yet Completed Level 1 <input type="checkbox"/>                      Not Yet Assessable <input type="checkbox"/> </div>				

Systems-Based Practice 1: Patient Safety and Quality Improvement				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of common patient safety events	Identifies system factors that lead to patient safety events	Participates in analysis of patient safety events (simulated or actual)	Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)	Actively engages teams and processes to modify systems to prevent patient safety events
Demonstrates knowledge of how to report patient safety events	Reports patient safety events through institutional reporting systems (simulated or actual)	Participates in disclosure of patient safety events to patients and families (simulated or actual)	Discloses patient safety events to patients and families (simulated or actual)	Role models or mentors others in the disclosure of patient safety events
Demonstrates knowledge of basic quality improvement methodologies and metrics	Demonstrates knowledge of and participates in local quality improvement initiatives	Demonstrates the ability to identify and develop a quality improvement project or advance an existing project	Demonstrates the ability to implement or assess quality improvement initiatives	Independently creates, implements, and assesses quality improvement initiatives
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				
Not Yet Completed Level 1 <input type="checkbox"/>				

Systems-Based Practice 2: System Navigation for Patient-Centered Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of care coordination	Coordinates care of patients in routine clinical situations effectively using the roles of interprofessional teams  Identifies key elements for safe and effective transitions of care and hand-offs	Coordinates care of patients in complex clinical situations effectively using the roles of interprofessional teams  Performs safe and effective transitions of care/hand-offs in routine clinical situations	Role models effective coordination of patient-centered care among different disciplines and specialties  Performs safe and effective transitions of care/hand-offs in complex clinical situations	Analyzes the process of care coordination and leads in the design and implementation of improvements  Role models or improves safe and effective transitions of care/hand-offs within and across health care delivery systems
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

Systems-Based Practice 3: Physician Role in Health Care Systems				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes basic health payment systems and practice models	Identifies and describes how components of a complex health care system are interrelated, and how this impacts patient care  Delivers care with consideration of each patient's payment model	Discusses how individual practice affects the broader system  Engages with patients in shared decision making informed by each patient's payment models	Uses various components of the complex health care system to provide efficient and effective patient care and transition of care  Advocates for patient care needs with consideration of the limitations of the patient's payment model	Advocates for or leads systems change that enhances high-value, efficient, and effective patient care and transition of care  Participates in health policy advocacy activities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				



Systems-Based Practice 4: Community and Population Health				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of population or community health needs and disparities	Identifies specific population or community health needs and inequities for the local population	Accesses local resources to meet the needs of a specific patient population or community	Participates in changing and adapting practice to provide for the needs of specific populations or communities	Leads innovations to advocate for specific populations or communities with health care inequities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

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

Practice-Based Learning and Improvement 2: Reflective Practice and Commitment to Personal Growth				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Accepts responsibility for personal and professional development by establishing goals</p> <p>Identifies the factors contributing to gaps between expectations and actual performance</p>	<p>Demonstrates openness to feedback and other input to inform goals</p> <p>Analyzes and reflects on the factors contributing to gap(s) between expectations and actual performance</p> <p>Designs and implements a learning plan</p>	<p>Periodically seeks feedback or other input, with adaptability</p> <p>Institutes behavioral change to narrow the gap between expectations and actual performance</p> <p>Uses performance data to measure the effectiveness of the learning plan</p>	<p>Consistently seeks feedback or other input, with adaptability</p> <p>Critically analyzes and considers alternatives to narrow the gap(s) between expectations and actual performance</p> <p>Continuously modifies the learning plan based on feedback and other input</p>	<p>Role models consistently seeking feedback or other input with adaptability</p> <p>Coaches others on reflective practice</p> <p>Facilitates the design and implementation of learning plans for others</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b></p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

Professionalism 1: Professional Behavior and Ethical Principles				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates understanding of professional behaviors	Acts in a professional manner in routine situations and takes responsibility for own professionalism lapses	Acts in a professional manner in complex or stressful situations	Recognizes situations that may trigger professionalism lapses and intervenes to prevent lapses in self and others	Coaches others when their behavior fails to meet professional expectations
Demonstrates knowledge of ethical principles	Analyzes straightforward situations using ethical principles	Recognizes complex ethical situations and uses appropriate resources for managing and resolving them when appropriate	Encourages others to use appropriate resources for managing and resolving ethical dilemmas as needed	Seeks to address system-level factors that induce or exacerbate ethical problems or impede their resolution
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				
				Not Yet Completed Level 1 <input type="checkbox"/>

Professionalism 2: Accountability/Conscientiousness				
Level 1	Level 2	Level 3	Level 4	Level 5
Requires prompting to complete professional duties	Performs professional duties in a timely manner with appropriate attention to detail and without the need for reminders in routine situations	Performs professional duties in a timely manner with appropriate attention to detail in complex or stressful situations	Intervenes in situations that may affect self or other team members' ability to complete professional duties	Participates in methods to improve system outcomes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

Professionalism 3: Self-Awareness and Help-Seeking				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>With assistance, recognizes status of personal and professional well-being</p> <p>Recognizes limits in the knowledge/skills of self or team, with assistance</p>	<p>Independently recognizes status of personal and professional well-being</p> <p>Independently recognizes limits in the knowledge/skills of self or team; demonstrates appropriate help-seeking behaviors</p>	<p>With assistance, proposes a plan to optimize personal and professional well-being</p> <p>With assistance, proposes a plan to remediate or improve limits in the knowledge/skills of self or team</p>	<p>Independently develops a plan to optimize personal and professional well-being</p> <p>Independently develops a plan to remediate or improve limits in the knowledge/skills of self or team</p>	<p>Coaches others when emotional responses or limitations in knowledge/skills do not meet professional expectations</p> <p>Seeks to develop plans that improve knowledge/skills applicable to program or system as a whole</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b></p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

Interpersonal and Communication Skills 1: Patient and Family-Centered Communication				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Uses language and nonverbal behavior to demonstrate respect and establish rapport</p> <p>Identifies common barriers to effective communication (e.g., language, disability) while accurately communicating own role within the health care system</p>	<p>Establishes a therapeutic relationship and uses shared decision making in straightforward encounters using active listening and clear language</p> <p>Identifies more subtle barriers to effective communication (e.g. health literacy, cultural preferences)</p>	<p>Establishes and maintains a therapeutic relationship and uses shared decision making and compassionate language in challenging patient encounters, with assistance</p> <p>Reflects on personal biases and attempts to minimize communication barriers</p>	<p>Independently establishes and maintains a therapeutic relationship and uses shared decision making and compassionate language in challenging patient encounters</p> <p>Independently recognizes personal and implicit biases and proactively minimizes communication barriers</p>	<p>Mentors others in situational awareness and critical self-reflection to consistently develop positive therapeutic relationships</p> <p>Role models self-awareness practice and teaches a contextual approach to minimize communication barriers</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b></p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

Interpersonal and Communication Skills 2: Interprofessional and Team Communication				
Level 1	Level 2	Level 3	Level 4	Level 5
Respectfully receives and clarifies a consultation request	Responds to a consultation request clearly, concisely and in a timely manner	Confirms understanding of recommendations when providing consultation	Coordinates recommendations from different members of the health care team to optimize patient care	Role models flexible communication strategies that value input from all health care team members, resolving conflict when needed
Uses language that values and respects all members of the team	Communicates information effectively and solicits feedback with all members of the team	Solicits feedback and communicates concerns to peers and learners	Communicates feedback and constructive criticism to superiors, as indicated	Facilitates team-based feedback in complex situations (e.g., fostering debriefing sessions)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				
Not Yet Completed Level 1 <input type="checkbox"/>				



Interpersonal and Communication Skills 3: Communication within Health Care Systems				
Level 1	Level 2	Level 3	Level 4	Level 5
Accurately records information in the patient record	<p>Demonstrates organized diagnostic and therapeutic reasoning through notes in the patient record</p> <p>Identifies institutional policy on safeguarding patient personal health information and maintains confidentiality in communications</p>	<p>Communicates clearly, timely, and in an organized written form for routine patient encounters</p> <p>Selects appropriate direct and indirect forms of communication based on context, with assistance</p>	<p>Communicates clearly, timely, and in an organized written form for complex patient encounters</p> <p>Independently selects appropriate direct and indirect forms of communication based on context</p>	<p>Communicates evidence basis for therapeutic reasoning for complex cases</p> <p>Achieves written or verbal communication that serves as an example for others to follow</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b></p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				