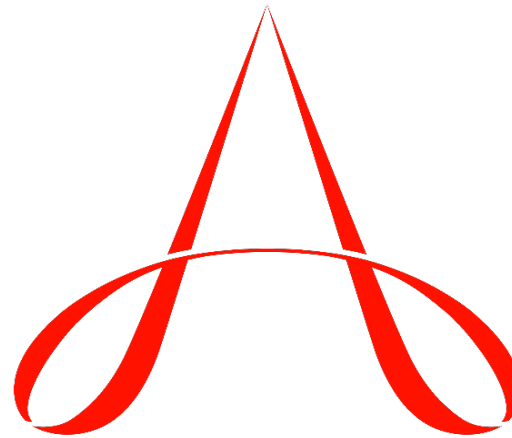




Pediatric Urology Milestones

The Accreditation Council for Graduate Medical Education



ACGME

Implementation Date: July 1, 2021

Second Revision: May 2021

First Revision: February 2014

Pediatric Urology Milestones

The Milestones are designed only for use in evaluation of fellows 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 fellow in key dimensions of the elements of physician competence 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.

Pediatric Urology Milestones

Work Group

Laura Edgar, EdD, CAE
Deborah Jacobson, MD, MS
David Joseph, MD
Eva Meunier
Lane Palmer, MD
Chad Ritenour, MD
Catherine Seager, MD
Stephen Sparks, MD
Heidi Stephany, MD
Elizabeth Yerkes, MD

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

American Board of Urology
ACGME Review Committee for Urology
Society of Academic Urologists

Understanding Milestone Levels and Reporting

This document presents the Milestones, which programs use in a semi-annual review of fellow 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 fellow 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 fellow 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 fellow may achieve higher levels early in his/her educational program just as a senior fellow may be at a lower level later in his/her educational program. There is no predetermined timing for a fellow to attain any particular level. Fellows 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 fellow.

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

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 fellow 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 fellow 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.

Supplemental Guides and other resources are available on the Milestones page of each specialty section of the ACGME website. On www.acgme.org, choose the applicable specialty under the “Specialties” menu, then select the “Milestones” link in the lower navigation bar.

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

Patient Care 3: Endoscopic Procedures				
Level 1	Level 2	Level 3	Level 4	Level 5
Prepares pediatric patients and equipment for endoscopic procedures	Independently performs diagnostic pediatric lower tract endoscopic procedures	Independently performs simple diagnostic upper tract and lower tract therapeutic endoscopic procedures	Independently performs complex endoscopic procedures	Independently performs complex endoscopic procedures in a patient with challenging anatomy
Identifies anatomic and safety differences between pediatric and adult populations	Identifies urethral and ureteral abnormalities during endoscopic procedures	Selects ureteroscope and stent size for individual patients and plans for assistive devices to perform endoscopic procedures	Selects endoscopic assistive devices in a cost-effective manner and effectively troubleshoots during the procedure	Identifies a novel use of available tools
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <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: Patient Evaluation and Decision Making				
Level 1	Level 2	Level 3	Level 4	Level 5
Obtains and performs developmentally appropriate history and physical exam	Selects and interprets diagnostic testing	Develops a plan to manage patients with straightforward conditions	Develops a plan to manage patients with complex conditions and adapts plan for changing clinical situation	Develops a clinical pathway for the management of patients with complex conditions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <div style="float: right; text-align: right;"> Not Yet Completed Level 1 <input type="checkbox"/> Not Yet Assessable <input type="checkbox"/> </div>				

Patient Care 2: Peri-Procedural Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes how changes in normal physiology may lead to peri-procedural alterations and complications	Accurately and reliably gathers and reports clinical information pertaining to common peri-procedural alterations and complications	Identifies and prioritizes tasks necessary for management of peri-procedural alterations and complications	Proactively recognizes potential risk factors for complications and implements measures to prevent or mitigate them	Coordinates input from multiple specialties and/or manages multiple scenarios simultaneously
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <div style="float: right; text-align: right;"> Not Yet Completed Level 1 <input type="checkbox"/> Not Yet Assessable <input type="checkbox"/> </div>				

Patient Care 3: Endoscopic Procedures				
Level 1	Level 2	Level 3	Level 4	Level 5
Prepares pediatric patients and equipment for endoscopic procedures	Independently performs diagnostic pediatric lower tract endoscopic procedures	Independently performs simple diagnostic upper tract and lower tract therapeutic endoscopic procedures	Independently performs complex endoscopic procedures	Independently performs complex endoscopic procedures in a patient with challenging anatomy
Identifies anatomic and safety differences between pediatric and adult populations	Identifies urethral and ureteral abnormalities during endoscopic procedures	Selects ureteroscope and stent size for individual patients and plans for assistive devices to perform endoscopic procedures	Selects endoscopic assistive devices in a cost-effective manner and effectively troubleshoots during the procedure	Identifies a novel use of available tools
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <div style="text-align: right;"> Not Yet Completed Level 1 <input type="checkbox"/> Not Yet Assessable <input type="checkbox"/> </div>				

Patient Care 4: Open Procedures – Abdominal and Retroperitoneal				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes various published techniques available for open procedures	Anticipates the steps of the procedure and actively assists	Performs simple open procedures with good tissue handling and identifies the need for deviation in the surgical plan	Performs complex open procedures and executes deviation in the surgical plan when needed	Performs procedures incorporating surgical innovations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:				Not Yet Completed Level 1 <input type="checkbox"/> Not Yet Assessable <input type="checkbox"/>

Patient Care 5: Genital Reconstruction				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes various published techniques available for reconstruction	Anticipates the steps of the procedure and actively assists	Performs routine genital procedures with good tissue handling and identifies the need for deviation from the surgical plan	Performs complex genital procedures and deviates from the surgical plan when needed	Performs procedures incorporating surgical innovations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:				Not Yet Completed Level 1 <input type="checkbox"/> Not Yet Assessable <input type="checkbox"/>

Patient Care 6: Minimally Invasive Procedures (Laparoscopic and Robotic)				
Level 1	Level 2	Level 3	Level 4	Level 5
Prepares pediatric patients and equipment for minimally invasive procedures	Actively assists and performs portions of the minimally invasive procedure	Performs low complexity minimally invasive procedures with good tissue handling and identifies need for deviation in the surgical plan or conversion to open approach	Performs complex minimally invasive procedures and deviates from the surgical plan when needed	Performs procedures incorporating surgical innovations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not Yet Completed Level 1	<input type="checkbox"/>
			Not Yet Assessable	<input type="checkbox"/>

Medical Knowledge 1: Clinical Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of anatomy and physiology of the genitourinary tract as it relates to pediatric patients	Demonstrates knowledge of pathophysiology and treatments of simple conditions, including guidelines	Demonstrates knowledge of pathophysiology and treatments of complex conditions, taking individual patient factors into consideration (e.g., contributing bowel and bladder dysfunction, familial preferences)	Demonstrates knowledge of the full spectrum of congenital conditions, including rare diseases, controversies, and evolving treatment practices	Advances understanding of pathophysiology or clinical care pathways in pediatric urology
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <div style="text-align: right;"> Not Yet Completed Level 1 <input type="checkbox"/> Not Yet Assessable <input type="checkbox"/> </div>				

Medical Knowledge 2: Clinical Reasoning				
Level 1	Level 2	Level 3	Level 4	Level 5
Integrates patient-specific information to generate an appropriate working diagnosis	Provides a prioritized differential diagnosis using supporting rationale	Independently synthesizes clinical information to inform diagnosis and therapy in simple cases and adapts based on a patient's clinical course and additional data	Independently synthesizes clinical information to inform diagnosis and therapy in complex cases, recognizing sources of error	Teaches others to recognize sources of diagnostic error
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not Yet Completed Level 1	<input type="checkbox"/>
			Not Yet Assessable	<input type="checkbox"/>

Medical Knowledge 3: Complex Care in Medical Management				
Level 1	Level 2	Level 3	Level 4	Level 5
Understands long-term ramifications of urinary tract, renal function, gastrointestinal function, and reproductive health	Identifies role of other specialists to achieve goals of care	Engages with other specialists for comprehensive care	Actively contributes to the medical and psychological well-being of patients with complex conditions	Advocates locally and nationally for psychological well-being and collaborative care of chronic conditions
Demonstrates basic knowledge of embryology and physiologic changes with aging in the genitourinary system	Describes initial treatment options for patients born with genitourinary conditions requiring long-term care	Lists care requirements for pediatric patients with chronic genitourinary conditions as they age and grow	Identifies potential complications and long-term adult needs for patients with chronic genitourinary conditions arising in childhood	Develops clinical curriculum related to care transition from child to adulthood for chronic genitourinary conditions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not Yet Completed Level 1	<input type="checkbox"/>
			Not Yet Assessable	<input type="checkbox"/>

Systems-Based Practice 1: Patient Safety and Quality Improvement				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Participates in basic patient safety initiatives (e.g., time-outs, handwashing protocols)</p> <p>Demonstrates knowledge of basic quality improvement methodologies and metrics</p>	<p>Identifies and reports patient safety events</p> <p>Describes and participates in local quality improvement initiatives (e.g., multimodal analgesics, antibiotic stewardship, hospital acquired infection)</p>	<p>Participates in analysis of patient safety events (simulated or actual) and offers strategies to prevent future events</p> <p>Identifies potential areas for team or local quality improvement initiatives</p>	<p>Actively engages care team to prevent patient safety events</p> <p>Demonstrates the skills required to develop, implement, and analyze a quality improvement project</p>	<p>Enacts systemic changes to prevent patient safety events by affecting processes</p> <p>Creates, implements, and assesses quality improvement initiatives at the institutional or community level</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comments:</p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

Systems-Based Practice 2: System Navigation for Patient-Centered Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Advocates for quality patient care and identifies potential barriers to care	Demonstrates knowledge of local resources available for optimizing care delivery and coordination	Coordinates care of patients in routine clinical situations, considering potential barriers to care including inequities, cultural or language differences, and family circumstances	Coordinates multidisciplinary care of patients in complex clinical situations by incorporating local resources into the plan (e.g., social worker to identify additional home resources)	Designs innovative care coordination strategies for optimizing health care outcomes, taking into consideration populations with health care inequities
Performs safe and effective transitions of care/hand-offs in routine clinical situations	Performs safe and effective transitions of care/hand-offs in complex clinical situations	Supervises safe and effective transitions of care/hand-offs of junior team members	Resolves conflicts in transitions of care between teams	Leads in the design and implementation of improved transitions of care
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <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
<p>Understands different types of physician practices and the basic differences/benefits and liabilities associated with each (e.g., private practice versus academic, solo practitioner versus group practice)</p> <p>Describes basic health payment systems (e.g., government, private, public, uninsured care) and practice models</p>	<p>Demonstrates use of information technology required for medical practice (e.g., electronic health record, documentation required for billing and coding)</p> <p>Describes how components of a complex health care system are interrelated and how this impacts patient care</p>	<p>Identifies basic needs for effective transition to practice (e.g., information technology, legal, billing and coding, financial)</p> <p>Discusses how individual practice affects the broader system performance (e.g., length of stay, readmission rates, clinical efficiency)</p>	<p>Describes core administrative knowledge needed for transition to independent practice (e.g., cost/billing effectiveness)</p> <p>Manages various components of the complex health care system to provide efficient and effective patient care (e.g., patient payment models, insurance)</p>	<p>Analyzes professional requirements in preparation for practice (e.g., contract negotiations, malpractice insurance, government regulation, compliance)</p> <p>Advocates for or leads systems change that enhances high-value, efficient, and effective patient care</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comments:</p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

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 available evidence	Articulates clinical questions to guide evidence-based care	Integrates best available evidence with patient preferences to guide care	Tailors patient care in the setting of conflicting or absent evidence	Coaches others to critically appraise and apply evidence for patients with complex conditions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <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
Accepts feedback from faculty members	Uses feedback from all members of the team to improve performance	Integrates feedback and adjusts behaviors in real time to improve performance	Seeks out specific feedback to further improve performance	Coaches others to integrate feedback and improve performance
Establishes goals for personal and professional development	Monitors progress towards goals and directs efforts accordingly	Integrates practice data to revise goals	Uses performance data to measure readiness for independent clinical practice	Coaches others to incorporate performance data
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

Professionalism 1: Professional Behavior and Ethical Principles				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Demonstrates professional behavior in routine situations and knows how to report professionalism lapses</p> <p>Demonstrates knowledge of ethical principles underlying shared decision making and patient confidentiality</p>	<p>Demonstrates insight into personal triggers for professionalism lapses and develops mitigation strategies</p> <p>Analyzes straightforward situations using ethical principles</p>	<p>Demonstrates professional behavior in complex or stressful situations</p> <p>Seeks help in managing and resolving complex ethical situations</p>	<p>Recognizes and intervenes in situations to prevent professionalism lapses in oneself and others</p> <p>Recognizes and uses appropriate resources for managing and resolving ethical dilemmas (e.g., ethics consultations, literature review)</p>	<p>Coaches others when their behavior fails to meet professional expectations</p> <p>Identifies and seeks to address system-level factors that induce or exacerbate ethical problems or impede their resolution</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comments:</p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

Professionalism 2: Administrative Tasks				
Level 1	Level 2	Level 3	Level 4	Level 5
Performs tasks and responsibilities in a timely manner with appropriate attention to detail in routine situations	Performs tasks and responsibilities in a timely manner with appropriate attention to detail in complex and stressful situations	Delegates and oversees tasks to medical students and residents that results in efficient management of clinical activities and enhances education	Recognizes situations that may impact others' ability to complete tasks and responsibilities in a timely manner and proposes solutions	Develops systems to enhance others' ability to efficiently complete administrative tasks and responsibilities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

Professionalism 3: Well-Being				
Level 1	Level 2	Level 3	Level 4	Level 5
With assistance, recognizes status of personal and professional well-being	Independently recognizes status of personal and professional well-being	Identifies how well-being impacts the team's performance	Independently develops a plan to optimize personal and professional well-being	Coaches others when emotional responses do not meet professional expectations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

This subcompetency is not intended to evaluate a fellow's well-being, but to ensure each fellow has the fundamental knowledge of factors that impact well-being, the mechanisms by which those factors impact well-being, and available resources and tools to improve well-being.

Interpersonal and Communication Skills 1: Patient- and Family-Centered Communication				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Demonstrates respect and establishes rapport with patients and patients' families (e.g., situational awareness of language, disability, health literacy level, cultural differences)</p> <p>Communicates with patients and their families in an understandable and respectful manner</p>	<p>Establishes a therapeutic relationship in straightforward encounters</p> <p>Identifies barriers to effective communication (e.g., health literacy, cultural differences)</p>	<p>Establishes a therapeutic relationship in challenging encounters (e.g., shared decision making)</p> <p>When prompted, reflects on personal biases while attempting to minimize communication barriers</p>	<p>Facilitates difficult discussions specific to patient and family conferences, (e.g., end-of-life, explaining complications, therapeutic uncertainty)</p> <p>Independently recognizes personal biases while attempting to proactively minimize communication barriers</p>	<p>Mentors others in situational awareness and critical self-reflection</p> <p>Coaches others in the facilitation of crucial conversations</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comments:</p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

Interpersonal and Communication Skills 2: Patient Counseling and Shared Decision Making				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic understanding of the informed consent process	Answers questions from patients and caregivers about treatment plans and seeks guidance when appropriate	Counsels patients and caregivers through decision-making process using developmentally appropriate language for simple clinical and surgical problems	Counsels patients and caregivers through decision-making process using developmentally appropriate language for complex clinical and surgical problems	Leads patients, caregivers, and team in complex and high-risk decision making and counseling
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:				

Interpersonal and Communication Skills 3: Interprofessional and Team Communication				
Level 1	Level 2	Level 3	Level 4	Level 5
Respectfully interacts and actively communicates with all members of health care team (e.g., proper identification, politely accepts and requests consults)	Communicates in an approachable and productive manner to facilitate teamwork (e.g., active listening, updates in timely fashion)	Actively recognizes and mitigates communication barriers and biases (explicit and implicit) with members of the health care team	Identifies conflict as threat to patient care and team functioning and initiates an intervention	Exemplifies flexible communication strategies
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

Interpersonal and Communication Skills 4: Communication within Health Care Systems				
Level 1	Level 2	Level 3	Level 4	Level 5
Accurately records information in the patient record in a timely manner while safeguarding patient personal health information	Documents diagnostic and therapeutic reasoning in the patient record with appropriate use of documentation shortcuts	Concisely reports diagnostic and therapeutic reasoning	Efficiently communicates in an organized fashion that includes contingency plans	Facilitates improved written and verbal communication of others
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:				Not Yet Completed Level 1 <input type="checkbox"/>