

# The Complex General Surgical Oncology Milestone Project

*A Joint Initiative of*

The Accreditation Council for Graduate Medical Education,

and

The American Board of Surgery



May 2014

## The Complex General Surgical Oncology Milestone Project

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 assessment of the development of the fellow 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.

**Complex General Surgical Oncology Milestones**

**Chair: Danny Takanishi Jr., MD chair**

**Working Group**

Russell S. Berman, MD  
Laura Edgar, EdD, CAE  
Christopher McHenry, MD  
Peggy Simpson, EdD  
Paula Termuhlen, MD  
Doug Tyler, MD

**Advisory Group**

James C. Herbert, MD  
Lenworth Jacobs, MD  
John R. Potts III, MD

## Milestone Reporting

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

For each period, review and reporting will involve selecting milestone levels that best describe a fellow's current performance and attributes. Milestones are arranged into numbered levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert in the subspecialty.

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

**Level 1:** The fellow demonstrates milestones expected of an incoming fellow with little experience in the area of study.

**Level 2:** The fellow is advancing and demonstrates additional milestones, but is not yet performing at a mid-fellowship level.

**Level 3:** The fellow continues to advance and demonstrate additional milestones, consistently including the majority of milestones targeted for fellowship.

**Level 4:** The fellow has advanced so that he or she now substantially demonstrates the milestones targeted for fellowship. This level is designed as the graduation target.

**Level 5:** The fellow has advanced beyond performance targets set for fellowship and is demonstrating "aspirational" goals which might describe the performance of someone who has been in practice for several years. It is expected that only a few exceptional fellows will reach this level.

## **Additional Notes**

Level 4 is designed as the graduation *target* and *does not* represent a graduation *requirement*. Making decisions about readiness for graduation is the purview of the fellowship program director. Study of Milestone performance data will be required before the ACGME and its partners will be able to determine whether milestones in the first four levels appropriately represent the developmental framework, and whether Milestone data are of sufficient quality to be used for high-stakes decisions.

Examples are provided with some milestones. Please note that 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 well as to institutional and program policies. For example, a fellow who performs a procedure independently must, at a minimum, be supervised through oversight.

In addition, some milestones include a statement of limited knowledge and basic knowledge. The intent of these descriptions is that a fellow with limited knowledge is likely a fellow who has come from an area outside of surgery or who is completing the fellowship before finishing his or her surgery residency. A fellow who begins the program with basic knowledge will more likely have completed a general surgery residency program.

*Answers to Frequently Asked Questions about the Next Accreditation System and Milestones are posted on the Next Accreditation System section of the ACGME website.*

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 fellow's performance on the milestones for each sub-competency will be indicated by selecting the level of milestones that best describes that fellow's performance in relation to those milestones.

Patient Care - Endocrine/Head and Neck: Evaluation and Multimodality Care				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> <li>• Develops appropriate differential diagnosis</li> <li>• Understands appropriate diagnostic evaluation and basic imaging</li> <li>• Understands need and engagement of multidisciplinary specialties</li> <li>• Understands advantages and disadvantages of using practice guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Effectively narrows differential diagnosis; ensures that appropriate imaging and other testing has been completed</li> <li>• Performs appropriate work-up of disease</li> <li>• Utilizes multidisciplinary specialties for technical aspects of care</li> <li>• Utilizes practice guidelines and identifies relevant clinical trials</li> </ul>	<ul style="list-style-type: none"> <li>• Makes a diagnosis based on imaging and test results</li> <li>• Reevaluates a differential diagnosis when imaging and/or other testing are inconclusive or discordant</li> <li>• Makes appropriate referrals for postoperative evaluation and treatment (e.g., hormonal therapy, radioiodine whole body scanning and ablative therapy and external radiation)</li> <li>• Utilizes information provided by multidisciplinary specialties</li> <li>• Considers eligibility for clinical trials</li> </ul>	<ul style="list-style-type: none"> <li>• Efficiently utilizes imaging and test results to make therapeutic recommendations</li> <li>• Makes appropriate recommendations for surgical and medical treatment</li> <li>• Appropriately prioritizes treatment options based on organ, tumor, and patient factors</li> <li>• Advocates for patient participation in clinical trials</li> </ul>	<ul style="list-style-type: none"> <li>• Independently acts as a consultant in surgical oncology for other disciplines</li> <li>• Actively recruits and enrolls patients in clinical trials</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:				Not yet achieved Level 1 <input type="checkbox"/>

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 – Hepatobiliary/Pancreas: Evaluation and Multimodality Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Develops appropriate differential diagnosis  Understands appropriate diagnostic evaluation and basic imaging  Understands need and engagement of multidisciplinary specialties  Understands advantages and disadvantages of using practice guidelines	Effectively narrows differential diagnosis; ensures that appropriate imaging and other testing has been completed  Performs appropriate work-up of disease  Utilizes multidisciplinary specialties for technical aspects of care  Utilizes practice guidelines and identifies relevant clinical trials	Makes a diagnosis based on imaging and test results  Reevaluates a differential diagnosis when imaging and/or other testing are inconclusive or discordant  Makes appropriate referrals for rehabilitation and palliative care  Utilizes information provided by multidisciplinary specialties  Considers eligibility for clinical trials	Efficiently utilizes imaging and test results to make therapeutic recommendations  Makes appropriate recommendations for sequencing of treatment (surgical and medical)  Appropriately prioritizes treatment options based on organ, disease, and patient factors  Advocates for patient participation in clinical trials	Independently acts as a consultant in surgical oncology for other disciplines  Actively recruits and enrolls patients in clinical trials
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Patient Care – Hepatobiliary/Pancreas: Technical Aspects of Surgical Interventions				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates respect for tissue, and is developing skill in instrument handling  Moves through portions of common operations without coaching, and makes straightforward intra-operative decisions  Demonstrates the ability to be an effective assistant with common procedures	Performs procedures with significant supervision  Handles most instruments and devices with increasing efficiency of motion during procedures	Moves through most steps of most operations with minimal coaching, and makes appropriate intra-operative decisions  Performs common procedures with limited supervision	Proficiently handles instruments and equipment, uses assistants, guides the conduct of the operation, and makes independent intra-operative decisions  Independently performs procedures	Achieves mastery of instrument and equipment handling, using assistants, guiding the conduct of the operation, and making independent intra-operative decisions  Competently teaches and supervises other learners
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Patient Care – Endocrine/Head and Neck: Evaluation and Multimodality Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Develops appropriate differential diagnosis  Understands appropriate diagnostic evaluation and basic imaging  Understands need and engagement of multidisciplinary specialties  Understands advantages and disadvantages of using practice guidelines	Effectively narrows differential diagnosis; ensures that appropriate imaging and other testing has been completed  Performs appropriate work-up of disease  Utilizes multidisciplinary specialties for technical aspects of care  Utilizes practice guidelines and identifies relevant clinical trials	Makes a diagnosis based on imaging and test results  Reevaluates a differential diagnosis when imaging and/or other testing are inconclusive or discordant  Makes appropriate referrals for post-operative evaluation and treatment (e.g., hormonal therapy, radioiodine whole body scanning, and ablative therapy and external radiation)  Utilizes information provided by multidisciplinary specialties  Considers eligibility for clinical trials	Efficiently utilizes imaging and test results to make therapeutic recommendations  Makes appropriate recommendations for surgical and medical treatment  Appropriately prioritizes treatment options based on organ, tumor, and patient factors  Advocates for patient participation in clinical trials	Independently acts as a consultant in surgical oncology for other disciplines  Actively recruits and enrolls patients in clinical trials
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Patient Care – Endocrine/Head and Neck: Technical Aspects of Surgical Interventions				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates respect for tissue, and is developing skill in instrument handling  Moves through portions of common operations without coaching, and makes straightforward intra-operative decisions  Assists with procedures	Performs procedures with significant supervision  Handles most instruments and devices with increasing efficiency of motion during procedures	Handles most instruments and devices with increasing efficiency of motion during procedures  Moves through most steps of most operations without much coaching, and is making intra-operative decisions  Performs procedures with limited supervision	Proficiently handles instruments and equipment, uses assistants, guides the conduct of the operation, and makes independent intra-operative decisions  Independently performs procedures	Achieves mastery of instrument and equipment handling, using assistants, guiding the conduct of the operation, and making independent intra-operative decisions  Competently teaches and supervises other learners
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Patient Care – Gastrointestinal/Gynecology/Thoracic: Evaluation and Multimodality Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Develops appropriate differential diagnosis  Understands appropriate diagnostic evaluation and basic imaging  Understands need and engagement of multidisciplinary specialties  Understands advantages and disadvantages of using practice guidelines	Effectively narrows differential diagnosis; ensures that appropriate imaging and other testing has been completed  Performs appropriate work-up of disease  Utilizes multidisciplinary specialties for technical aspects of care  Utilizes practice guidelines and identifies relevant clinical trials	Makes a diagnosis based on imaging and test results  Reevaluates a differential diagnosis when imaging and/or other testing are inconclusive or discordant  Makes appropriate referrals for rehabilitation and palliative care  Utilizes information provided by multidisciplinary specialties  Considers eligibility for clinical trials	Efficiently utilizes imaging and test results to make therapeutic recommendations  Makes appropriate recommendations for sequencing of treatment (surgical and medical)  Appropriately prioritizes treatment options based on organ, tumor, and patient factors  Advocates for patient participation in clinical trials	Independently acts as a consultant in surgical oncology for other disciplines  Actively recruits and enrolls patients in clinical trials
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Patient Care – Gastrointestinal/Gynecology/Thoracic: Technical Aspects of Surgical Interventions				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates respect for tissue, and is developing skill in instrument handling  Moves through portions of common operations without coaching, and makes straightforward intra-operative decisions  Assists with procedures	Performs procedures with significant supervision  Handles most instruments and devices with increasing efficiency of motion during procedures	Moves through most steps of most operations without much coaching, and is making intra-operative decisions  Performs procedures with limited supervision	Proficiently handles instruments and equipment, uses assistants, guides the conduct of the operation, and makes independent intra-operative decisions  Independently performs procedures	Achieves mastery of instrument and equipment handling, using assistants, guiding the conduct of the operation, and making independent intra-operative decisions  Competently teaches and supervises other learners
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Patient Care – Breast: Evaluation and Multimodality Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Develops appropriate differential diagnosis  Understands appropriate diagnostic evaluation and basic imaging  Understands need and engagement of multidisciplinary specialties  Understands advantages and disadvantages of using practice guidelines	Effectively narrows differential diagnosis; ensures that appropriate imaging and other testing has been completed  Performs appropriate work-up of disease; ensures that appropriate imaging and other testing has been completed  Utilizes multidisciplinary specialties for technical aspects of care  Utilizes practice guidelines and identifies relevant clinical trials	Confirms a diagnosis based on imaging and test results  Reevaluates a differential diagnosis when imaging and/or other testing are inconclusive or discordant  Makes appropriate referrals for rehabilitation  Utilizes information provided by multidisciplinary specialties  Considers eligibility for clinical trials	Efficiently utilizes imaging and test results to make therapeutic recommendations  Makes appropriate recommendations for sequencing of treatment (surgical and medical)  Appropriately prioritizes treatment options based on organ, tumor, and patient factors  Advocates for patient participation in clinical trials	Independently acts as a consultant in surgical oncology for other disciplines  Actively recruits and enrolls patients in clinical trials
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Patient Care – Breast: Technical Aspects of Surgical Interventions				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates respect for tissue, and is developing skill in instrument handling  Moves through portions of common operations without coaching, and makes straightforward intra-operative decisions  Assists with procedures	Performs procedures with significant supervision  Handles most instruments and devices with increasing efficiency of motion during procedures	Moves through most steps of most operations without much coaching, and is making intra-operative decisions  Performs procedures with limited supervision	Proficiently handles instruments and equipment, uses assistants, guides the conduct of the operation, and makes independent intra-operative decisions  Independently performs procedures	Achieves mastery of instrument and equipment handling, using assistants, guiding the conduct of the operation, and making independent intra-operative decisions  Competently teaches and supervises other learners
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Patient Care – Melanoma, Sarcoma, Common and Rare Cutaneous and Soft Tissue Malignancies: Evaluation and Multimodality Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Develops appropriate differential diagnosis  Understands appropriate diagnostic evaluation and basic imaging  Understands need and engagement of multidisciplinary specialties  Understands advantages and disadvantages of using practice guidelines	Effectively narrows differential diagnosis; ensures that appropriate imaging and other testing has been completed  Performs appropriate work-up of disease  Utilizes multidisciplinary specialties for technical aspects of care  Utilizes practice guidelines and identifies relevant clinical trials	Makes a diagnosis based on imaging and test results  Reevaluates a differential diagnosis when imaging and/or other testing are inconclusive or discordant  Makes appropriate referrals for rehabilitation and palliative care  Utilizes information provided by multidisciplinary specialties  Considers eligibility for clinical trials	Efficiently utilizes imaging and test results to make therapeutic recommendations  Makes appropriate recommendations for sequencing of treatment (surgical and medical)  Appropriately prioritizes treatment options based on organ, tumor, and patient factors  Advocates for patient participation in clinical trials	Independently acts as a consultant in surgical oncology for other disciplines  Actively recruits and enrolls patients in clinical trials
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Patient Care – Melanoma, Sarcoma, Common and Rare Cutaneous and Soft Tissue Malignancies: Technical Aspects of Surgical Interventions				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates respect for tissue, and is developing skill in instrument handling  Moves through portions of common operations without coaching, and makes straightforward intra-operative decisions  Assists with procedures	Performs procedures with significant supervision  Handles most instruments and devices with increasing efficiency of motion during procedures	Moves through most steps of most operations without much coaching, and is making intra-operative decisions  Performs procedures with limited supervision	Proficiently handles instruments and equipment, uses assistants, guides the conduct of the operation, and makes independent intra-operative decisions  Independently performs procedures	Achieves mastery of instrument and equipment handling, using assistants, guiding the conduct of the operation, and making independent intra-operative decisions  Competently teaches and supervises other learners
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

General Knowledge Assessment — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Demonstrates some basic knowledge of biology of cancer, clinical pharmacology, tumor immunology, endocrinology, and pertinent anatomy and physiology of broad and focused topics</p> <p>Identifies appropriate initial diagnostic and treatment recommendations for broad and focused topics</p> <p>Demonstrates knowledge of common complications of multimodality therapy, as well as expected outcomes for broad and focused topics</p>	<p>Demonstrates comprehensive knowledge of biology of cancer, clinical pharmacology, tumor immunology, endocrinology, and pertinent anatomy and physiology of broad and focused topics</p> <p>Demonstrates comprehensive understanding of diagnostic and treatment recommendations for broad and focused topics</p> <p>Demonstrates comprehensive knowledge of complications of multimodality therapy, as well as expected outcomes for broad and focused topics</p>	<p>With guidance, applies knowledge of biology of cancer, clinical pharmacology, tumor immunology, endocrinology, and pertinent anatomy and physiology of broad and focused topics</p> <p>With guidance, applies diagnostic and treatment recommendations for broad and focused topics</p> <p>Understands methods to minimize or prevent complications</p>	<p>Independently applies knowledge of biology of cancer, clinical pharmacology, tumor immunology, endocrinology, and pertinent anatomy and physiology of broad and focused topics</p> <p>Independently applies diagnostic and treatment recommendations for broad and focused topics</p> <p>Recognizes opportunities to minimize or prevent complications</p>	<p>Demonstrates <b>significant command</b> of the literature, including novel therapeutic interventions and outcomes</p> <p>Serves as a content expert in areas of tumor biology, immunology, anatomy or physiology</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				

Systems-based Practice — Administrative Responsibility				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Demonstrates basic knowledge of how health care systems operate</p> <p>Demonstrates basic knowledge of how a multidisciplinary tumor board operates</p> <p>Knows system factors that contribute to medical errors, and is aware of the impact of variations in care</p>	<p>Understands how patient care is provided in their system and recognizes specific system failures that can affect patient care</p> <p>Participates in multidisciplinary tumor board</p> <p>Follows protocols and guidelines for patient care</p>	<p>Makes suggestions for changes in the health care system that may improve patient care</p> <p>Contributes meaningfully to the discussion at a multidisciplinary tumor board</p> <p>Reports problems with technology (e.g., devices and automated systems) or processes that could produce medical errors</p>	<p>Participates in work groups or performance improvement teams designed to reduce errors, improve patient safety, and improve health outcomes</p> <p>Initiates and presents their own patients at tumor board, and is responsible for comprehensive discussion</p> <p>Understands the appropriate use of standardized approaches to care, and participates in creating protocols of care</p>	<p>Leads a performance improvement team to reduce errors and/or improve health outcomes</p> <p>Leads a multidisciplinary tumor board meeting</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b></p>				<p>Not yet achieved Level 1 <input type="checkbox"/></p>

Systems-based Practice — Coordination and Transitions of Care				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Requires direct supervision to provide effective written and verbal communication to prevent medical errors</p> <p>Recognizes that there are several aspects and phases of global care for the cancer patient</p>	<p>Usually utilizes appropriate forms of communication (e.g., face-to-face, telephone, electronic) to ensure accurate transitions of care and optimize communication across systems and the continuum of care</p> <p>Recognizes the importance of allied health care personnel (e.g., therapists, social workers, support groups) in the global care of the cancer patient</p>	<p>Effectively and regularly utilizes all appropriate forms of communication (e.g., face-to-face, telephone, electronic) to ensure accurate transitions of care and optimize communication across systems and the continuum of care</p> <p>Appropriately engages allied health care personnel in the global care of the cancer patient</p>	<p>Takes a leadership role in ensuring accurate transitions of care and optimizing communication across systems and the continuum of care</p> <p>Coordinates team approach for the global care of the cancer patient</p> <p>Recognizes importance of outreach and advocacy for the cancer patient</p>	<p>Performs quality improvement or research project regarding coordination or transitions of care</p> <p>Participates in outreach and advocacy for the cancer patient</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b></p>				<p>Not yet achieved Level 1 <input type="checkbox"/></p>

Practice-based Learning and Improvement — Improvement of Care				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Actively participates in morbidity and mortality (M&amp;M) and/or other quality improvement (QI) conferences with comments, questions, and accurate presentation of cases</p> <p>Changes personal behaviors in response to feedback from supervisors</p> <p>Recognizes when and how errors or adverse events affect the care of patients</p>	<p>Evaluates own patient outcomes and the quality and efficacy of care of patients through appraisal and assimilation of scientific evidence</p> <p>Uses relevant literature to support discussions and conclusions at M&amp;M and/or other QI conferences</p> <p>Understands basic steps of a QI project (e.g., generates a hypothesis, conducts a cause-effect analysis, develops method for study)</p> <p>Understands how to modify care practices to avoid errors</p>	<p>Evaluates own patient care outcomes in a systematic manner and identifies opportunities for improvement</p> <p>Identifies probable causes for complications and deaths at M&amp;M and/or other QI conferences, as well as appropriate strategies for improving care</p>	<p>Exhibits on-going self-evaluation and improvement that includes reflection on practice, tracking, and analyzing patient outcomes, integrating evidence-based practice guidelines and identifying opportunities to make practice improvements</p> <p>Discusses or demonstrates application of M&amp;M and/or other QI conference conclusions to own patient care</p> <p>Participates in a QI activity relevant to patient care outcomes</p>	<p>Participates in an institutional committee that is responsible for performance in practice improvement and helps develop QI activities</p> <p>Authors a national presentation or publication on the results of a quality improvement project</p> <p>Recognizes opportunities for improvement in patient care using process analysis and initiates a corrective action plan</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Practice-based Learning and Improvement — Scholarly Activity				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Critically reviews and interprets publications with the ability to identify study aims, hypotheses, design, and biases</p> <p>Recognizes elements of a publishable scientific article, including:</p> <ul style="list-style-type: none"> <li>• Abstract</li> <li>• Introduction</li> <li>• Methods</li> <li>• Results</li> <li>• Discussion</li> <li>• Summary</li> <li>• References</li> </ul> <p>Demonstrates knowledge of basic principles underlying the ethical conduct of research and the protection of human subjects</p>	<p>Describes commonly used study designs (e.g., randomized control study, cohort, case-control, cross-sectional); distinguishes between association and causation; and knows criteria for causal inference</p> <p>Applies the principles of ethics and good clinical practice to the protection of human subjects recruited to participate in research</p> <p>Identifies research mentor(s)</p>	<p>Designs a hypothesis-driven or hypothesis-generating study, including:</p> <ul style="list-style-type: none"> <li>• Defining the knowledge gap in the literature</li> <li>• Developing specific aims</li> <li>• Defining exposures and outcomes using standardized measures</li> <li>• Determining the sample size</li> <li>• Determining appropriate statistical analysis</li> <li>• Identifying strengths and limitations of study design</li> </ul>	<p>Conducts research ensuring data quality and safety</p> <p>Demonstrates competence in statistical analyses and epidemiology</p> <p>Presents scientific findings to peers for review and critique</p> <p>Leads a comprehensive journal club conference</p>	<p>Obtains extramural funding for research study</p> <p>Publishes research in peer-reviewed journal</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b></p>				<p>Not yet achieved Level 1 <input type="checkbox"/></p>

Practice-based Learning and Improvement — Teaching				
Level 1	Level 2	Level 3	Level 4	Level 5
Requires prompting to impart educational information clearly and effectively to other health care team members	<p>Communicates educational material accurately and effectively at the appropriate level for learner understanding</p> <p>Accurately and succinctly presents patient cases appropriate for learning environment</p>	<p>Demonstrates an effective teaching style when responsible for a conference or formal presentation</p> <p>Demonstrates effective use of audiovisual tools to enhance learning by others</p>	<p>Recognizes teachable moments and readily and respectfully engages the learner</p> <p>Facilitates conferences and case discussions based on assimilation of evidence from the literature</p>	<p>Demonstrates highly effective teaching with an interactive educational style, and engages in constructive educational dialogue</p> <p>Develops an educational curriculum or an evaluation system for other learners</p> <p>Presents or publishes educational research</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Practice-based Learning and Improvement — Self-Directed Learning				
Level 1	Level 2	Level 3	Level 4	Level 5
Completes learning assignments as directed  Recognizes that multiple resources exist to enhance learning and patient care	Selects an appropriate evidence-based information tool to answer specific questions while providing care	Demonstrates the ability to use multiple resources to improve patient care and self-knowledge  Integrates use of recommended materials in learning	Routinely synthesizes current scientific literature and other resources for self-directed learning and improvement of patient care  Independently identifies additional materials to enhance self-directed learning	Presents at local, regional, or national activity, optional conferences, and/or self-assessment programs
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Professionalism — Professionalism and Personal Behavior				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Demonstrates behavior that conveys compassion, honesty, and genuine interest in patients and families in most circumstances</p> <p>Requires reminders to respect patient confidentiality and privacy</p>	<p>Demonstrates an understanding of the importance of compassion, integrity, respect, sensitivity, and responsiveness to patients and families, and is able to exhibit these behaviors consistently in common and uncomplicated situations</p> <p>Demonstrates a commitment to continuity of care by taking personal responsibility for patient care outcomes</p> <p>Recognizes the limits of his/her knowledge and asks for help when needed</p>	<p>Manifests these behaviors consistently in complex and complicated situations</p> <p>Ensures patient care responsibilities are performed and continuity of care is maintained</p> <p>Accepts responsibility for errors in patient care and can initiate corrective action</p> <p>Consistently demonstrates integrity in all aspects of care and professional relationships</p>	<p>Serves as a role model for ethical and professional behavior</p> <p>Consistently places the interests of patients ahead of self-interests when appropriate</p> <p>Maintains composure in accordance with ethical principles even in stressful situations</p>	<p>Demonstrates leadership and mentoring regarding these principles</p> <p>Develops organizational policies and education to support the application of these principles in the practice of medicine</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Professionalism — Ethical Issues in Cancer Patients				
Level 1	Level 2	Level 3	Level 4	Level 5
Aware of basic bioethical principles; able to identify ethical issues (e.g., end-of-life care, surrogacy, futility)	Consistently recognizes ethical issues in practice; able to discuss, analyze, and manage common clinical situations	Able to effectively analyze and manage ethical issues in complicated and challenging clinical situations (e.g., implications of genetic testing, withdrawal of care)	Serves as a role model for consistently considering and managing ethical issues in practice	Serves as a member of an institutional ethics committee  Performs research or presents locally, regionally, or nationally on ethical problems in cancer patients
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Professionalism — Personal Responsibility				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Completes operative case logs and duty hour logs, and performs other assigned and required administrative tasks in a timely fashion without excessive written and verbal reminders or prodding (e.g., visa renewal, credentialing, obtaining a medical license)</p>	<p>Is usually prompt in attending conferences, meetings, operations, and other activities</p> <p>Usually responds promptly to requests from faculty and departmental staff members</p> <p>Understands the importance of preparing for patient care activities (e.g., clinic, operating room)</p>	<p>Ensures that those under his/her supervision respond appropriately to their responsibilities in a timely fashion</p> <p>Exhibits a clear understanding of personal responsibilities (clinical and administrative)</p> <p>Prepares for patient care activities, with prompting</p>	<p>Serves as a role model for promptness and attendance for conferences, meetings, operations, and other activities on all rotations</p> <p>Performs clinical and administrative responsibilities in an exemplary manner, without prompting</p> <p>Prepares for patient care activities, without prompting</p>	<p>Serves as a resource for the program and mentoring of other learners about accountability and responsible professional conduct</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b></p>				<p>Not yet achieved Level 1 <input type="checkbox"/></p>

Professionalism — Healthy Work Environment				
Level 1	Level 2	Level 3	Level 4	Level 5
Requires frequent direct supervision to comply with duty hours and to recognize personal health issues  Understands the principles of physician wellness and fatigue mitigation	Understands the institutional resources available to manage personal, physical, and emotional health (e.g., acute and chronic disease, substance abuse, mental health problems)  Complies with duty hours standards Recognizes fatigue and emotional distress in self and others	Monitors personal wellness and emotional health  Appropriately mitigates fatigue and/or stress such that he/she consistently arrives fit for duty  Is effective and efficient in time management	Sets an example by promoting healthy habits and creating an emotionally healthy environment for co-workers  Models appropriate management of personal health issues, fatigue, and stress	Recognizes and appropriately addresses health issues in other members of the health care team  Is proactive in modifying schedules or intervening in other ways (e.g., required nap, counseling, referral for services, report to program director) to ensure that caregivers and others under his/her supervision maintain personal wellness and do not compromise patient safety
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Interpersonal and Communication Skills — Effective Communication with Patients and Families				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Communicates with patients and their families in an understandable and respectful manner</p> <p>Effectively communicates basic health care information to patients and families</p> <p>Recognizes the importance of patient education and where to find resources</p>	<p>Customizes communication, taking into account patient and family characteristics (e.g., age, literacy, cognitive disabilities, cultural differences)</p> <p>Provides timely updates to patients and families</p> <p>Identifies appropriate patient resources</p>	<p>Effectively delivers complex and difficult information to patients and families</p> <p>Recognizes strategies for negotiating conflict</p> <p>Directs patients to appropriate resources (e.g., general information, clinical trials, advocacy groups)</p>	<p>Proficiently individualizes and leads difficult discussions specific to patient and family needs, (e.g., end-of-life, decisions to engage in supportive care only, explaining complications, discussing cancer prognoses)</p> <p>Effectively negotiates and manages conflict among patients, families, and the health care team</p> <p>Utilizes resources to educate patients</p>	<p>Develops novel tools for effective communication with the patient and families</p> <p>Effectively mentors other health care providers in communication skills and conflict management</p> <p>Develops resources to educate patients</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>

Interpersonal and Communication Skills — Effective Communication with the Multidisciplinary Cancer Team				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Recognizes the need for sharing and exchanging patient information with the multidisciplinary cancer team</p> <p>Responds politely and promptly to requests for care coordination activities</p>	<p>Shares and exchanges patient information with members of the multidisciplinary cancer team effectively</p>	<p>Anticipates and plans for effective communication of relevant information to all members of the multidisciplinary cancer team</p> <p>Demonstrates the ability to lead a multidisciplinary cancer team using effective communication styles</p> <p>Recognizes strategies for negotiating conflict within the multidisciplinary cancer team</p>	<p>Effectively leads a multidisciplinary cancer team responsible for the care of cancer patients using individualized communication strategies</p> <p>Utilizes strategies to prevent conflict within the multidisciplinary cancer team</p> <p>Effectively negotiates and manages conflict within the multidisciplinary cancer team</p>	<p>Serves as a resource for negotiating and managing conflict within the health care system</p> <p>Effectively mentors other health care providers in leadership, communication skills, and conflict management</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not yet achieved Level 1 <input type="checkbox"/>