

The Vascular Surgery Milestone Project

A Joint Initiative of

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



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The Vascular Surgery Milestone Project

The Milestones are designed only for use in evaluation of resident physicians in the context of their participation in ACGME-accredited residency or fellowship programs. The Milestones provide a framework for assessment of the development of the resident physician in key dimensions of the elements of physician competency in a specialty or subspecialty. They neither represent the entirety of the dimensions of the six domains of physician competency, nor are they designed to be relevant in any other context.

Vascular Surgery Milestones

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Milestone Reporting

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

For each period, review and reporting will involve selecting milestone levels that best describe a resident'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. These levels do not correspond with post-graduate year of education. Please note that residents in a traditional program may start at a higher level for many of the milestones due to their previous experience within the general surgery program.

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

Level 1: The resident demonstrates milestones expected of an incoming resident.

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

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

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

Level 5: The resident has advanced beyond performance targets set for residency 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 residents 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 residency 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 resident who performs a procedure independently must, at a minimum, be supervised through oversight.

Answers to Frequently Asked Questions about Milestones are available on the Milestones web page:

<http://www.acgme.org/acgmeweb/Portals/0/MilestonesFAQ.pdf>.

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.

PC6: Technical Skills - Open Surgical Skills				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> • Demonstrates basic surgical skills including knot tying, simple suturing, suture removal, use of Doppler ultrasound, administration of local anesthetic, universal precautions and aseptic technique, and reliably performs some basic procedures 	<ul style="list-style-type: none"> • 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 • Performs basic vascular procedures with limited supervision 	<ul style="list-style-type: none"> • Handles most instruments with increasing efficiency of motion during procedures • Moves through most steps, of most operations, without much coaching and is making intra-operative decisions • Performs intermediate vascular procedures with limited supervision 	<ul style="list-style-type: none"> • Proficiently handles instruments and equipment, uses assistants, guides the conduct of the operation, and makes independent intra-operative decisions • Independently performs simple, intermediate, and advanced vascular procedures, including troubleshooting and management of complications 	<ul style="list-style-type: none"> • 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"/>
Comments:			Not yet achieved Level 1	

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).

PC1: Patient Data				
Level 1	Level 2	Level 3	Level 4	Level 5
Elicits an accurate history and performs a physical examination relevant to the patient's presenting complaint	Identifies and obtains additional patient data and testing needed to develop a comprehensive diagnostic and treatment plan (e.g., comorbidities, additional diagnostic tests)	Succinctly and cogently presents pertinent patient data, including history, physical examination, imaging, and other relevant information	Synthesizes patient data, including diagnostic imaging, to arrive at an organized hierarchical differential diagnosis, including primary and secondary treatment options	Explains and defends treatment plan to patient
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PC2: Vascular Medicine				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes risk factors for vascular disease	Identifies appropriate therapies for risk factor modification	Recognizes end-points, contraindications, and complications of medical therapy	Formulates a comprehensive plan of medical management for patients with vascular disease, including risk factor modification	Investigates new medical therapies
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PC3: Peri-operative Care				
Level 1	Level 2	Level 3	Level 4	Level 5
With supervision, recognizes common peri-operative problems Participates in patient hand-off conferences	With limited supervision, recognizes and manages common peri-operative problems	Recognizes and manages complex peri-operative problems, including vascular complications and critical care	Leads team and provides supervision in the evaluation and management of complex peri-operative problems, including vascular complications and critical care Leads patient hand-off conferences	Develops novel approaches to treatment of complex peri-operative problems
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PC4: Longitudinal Care (e.g., outpatient management, screening, surveillance)				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes standard longitudinal care for patients with vascular disease	With supervision, provides longitudinal care for patients with stable vascular disease	Identifies complications or problems requiring changes in longitudinal care plan	Independently provides longitudinal care for patients with vascular disease, including those with complications	Innovates new aspects of longitudinal care for patients with vascular disease
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PC5: Technical Skills – Procedural Preparation				
Level 1	Level 2	Level 3	Level 4	Level 5
Prepares patient for surgery, including appropriate pre-operative orders and tests	For basic procedures, ensures necessary imaging, instrumentation, equipment, devices, and medications are available; positions, prepares, and drapes patient appropriately	For intermediate procedures, ensures necessary imaging, instrumentation, equipment, devices, and medications are available; positions, prepares, and drapes patient appropriately	For advanced procedures, ensures necessary imaging, instrumentation, equipment, devices, and medications are available; positions, prepares, and drapes patient appropriately	Develops procedures or protocols to increase efficiency in procedural preparation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PC6: Technical Skills – Open Surgical Skills				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic surgical skills, including knot tying, simple suturing, suture removal, use of Doppler ultrasound, administration of local anesthetic, universal precautions and aseptic technique, and reliably performs some basic procedures	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 Performs basic vascular procedures with limited supervision	Handles most instruments with increasing efficiency of motion during procedures Moves through most steps of most operations without much coaching, and is making intra-operative decisions Performs intermediate vascular 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 simple, intermediate, and advanced vascular procedures, including troubleshooting and management of complications	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"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PC7: Technical Skills – Endovascular				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic endovascular skills, including ultrasound guidance for percutaneous access With supervision, performs some basic endovascular procedures Describes the principles of As Low as Reasonably Achievable (ALARA)	Performs basic endovascular procedures using appropriate catheters and guide wires and devices with limited supervision Consistently follows ALARA principles	Performs intermediate endovascular procedures using appropriate catheters and guide wires and devices with limited supervision	Proficiently handles catheters, guide wires and devices, uses assistants, guides the conduct of the procedure, and makes independent intra-operative decisions Independently performs simple, intermediate, and advanced endovascular procedures, including troubleshooting and management of complications	Achieves mastery of catheter, guide wire and device handling, using assistants, guiding the conduct of the procedure, and making innovative intra-operative decisions Competently teaches and supervises other learners
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PC8: Vascular Imaging (e.g., computed tomography [CT], magnetic resonance [MR], angiography, ultrasonography)				
Level 1	Level 2	Level 3	Level 4	Level 5
Differentiates normal from abnormal findings Makes core observations, formulates differential diagnoses, and recognizes critical findings Recognizes need to modify imaging protocols based on patient comorbidities	Uses imaging findings in operative planning for basic procedures Makes secondary observations and prioritizes differential diagnoses Modifies imaging protocol to optimize data acquisition With supervision, generates an accurate, concise, and organized report of imaging findings	Uses imaging findings in operative planning for intermediate procedures Differentiates modalities based on comparative effectiveness and cost Independently generates an accurate, concise, and organized report of imaging findings	Uses imaging findings in operative planning for advanced procedures Observes and interprets subtle findings Independently uses multidimensional imaging (e.g., 3-D computed tomography angiography [CTA])	Implements innovative imaging technology to enhance the care of the patient Teaches imaging interpretation to other learners
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK1: Procedural Rationale – Basic Procedures (e.g., amputation, basic arteriovenous [AV] fistula/graft, varicose veins, diabetic foot and wound management, percutaneous vascular access, first- and second-order catheterizations, e-code vascular exposures, placement of inferior vena cava [IVC] filter)				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies the need for intervention	Describes specific indications for the procedure	Describes alternative treatments	Describes the rationale for procedure selection using meaningful data	Develops new guidelines or innovative applications
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK2: Procedural Anatomy – Basic Procedures (e.g., amputation, basic AV fistula/graft, varicose veins, diabetic foot and wound management, percutaneous vascular access, first- and second-order catheterizations, e-code vascular exposures, placement of IVC filter)				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates general knowledge of normal anatomy	Demonstrates knowledge of pathologic anatomy	Demonstrates knowledge of common variants	Describes impact of patient-specific anatomy on operative plan	Demonstrates knowledge of uncommon or rare variants
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK3: Procedural Understanding – Basic Procedures (e.g., amputation, basic AV fistula/graft, varicose veins, diabetic foot and wound management, percutaneous vascular access, first- and second-order catheterizations, e-code vascular exposures, placement of IVC filter)				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies appropriate procedure	Demonstrates knowledge of major procedural steps	Describes procedure sequence and understands critical decision points of procedure	Describes areas for potential complications Describes measures for procedural success	Describes or develops an innovative approach
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK4: Crisis Management – Basic Procedures (e.g., amputation, basic AV fistula/graft, varicose veins, diabetic foot and wound management, percutaneous vascular access, first- and second-order catheterizations, e-code vascular exposures, placement of IVC filter)				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes potential crises	Describes signs and symptoms associated with a crisis	Describes appropriate response to the crisis	Anticipates patient-specific risk for crisis and describes appropriate treatment algorithm and potential outcomes	Describes or develops an innovative approach
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK5: Procedural Rationale – Intermediate Procedures (e.g., femoral-popliteal bypass, extra-anatomic bypass, thromboembolectomy, ilio-femoral percutaneous transluminal angioplasty [PTA]/stent, IVC filter retrieval, femoral and carotid endarterectomy, infrarenal endovascular aneurysm repair [EVAR], non-truncal vascular trauma)				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies the need for intervention	Describes specific indications for the procedure	Describes alternative treatments	Describes the rationale for procedure selection using meaningful data	Develops new guidelines or innovative applications
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:				Not yet achieved Level 1 <input type="checkbox"/>

MK6: Procedural Anatomy – Intermediate Procedures (e.g., femoral-popliteal bypass, extra-anatomic bypass, thromboembolectomy, ilio-femoral PTA/stent, IVC filter retrieval, femoral and carotid endarterectomy, infrarenal EVAR, non-truncal vascular trauma)				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates general knowledge of normal anatomy	Demonstrates knowledge of pathologic anatomy	Demonstrates knowledge of common variants	Describes impact of patient-specific anatomy on operative plan	Demonstrates knowledge of uncommon or rare variants
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:				Not yet achieved Level 1 <input type="checkbox"/>

MK7: Procedural Understanding – Intermediate Procedures (e.g., femoral-popliteal bypass, extra-anatomic bypass, thromboembolectomy, ilio-femoral PTA/stent, IVC filter retrieval, femoral and carotid endarterectomy, infrarenal EVAR, non-truncal vascular trauma)				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies appropriate procedure	Demonstrates knowledge of major procedural steps	Describes procedure sequence and understands critical decision points of procedure	Describes areas for potential complications Describes measures for procedural success	Describes or develops an innovative approach
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK8: Crisis Management – Intermediate Procedures (e.g., femoral-popliteal bypass, extra-anatomic bypass, thromboembolectomy, ilio-femoral PTA/stent, IVC filter retrieval, femoral and carotid endarterectomy, infrarenal EVAR, non-truncal vascular trauma)				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes potential crises	Describes signs and symptoms associated with a crisis	Describes appropriate response to the crisis	Anticipates patient-specific risk for crisis and describes appropriate treatment algorithm and potential outcomes	Describes or develops an innovative approach
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK9: Procedural Rationale – Advanced Procedures (e.g., open aortic surgery at all levels, mesenteric and renal interventions, infragenuate intervention, re-operative vascular surgery, carotid stent, complex EVAR/thoracic endovascular aortic repair [TEVAR]/fenestrated endovascular aortic/aneurysm repair [FEVAR], graft infection)				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies the need for intervention	Describes specific indications for the procedure	Describes alternative treatments	Describes the rationale for procedure selection using meaningful data	Develops new guidelines or innovative applications
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK10: Procedural Anatomy – Advanced Procedures (e.g., open aortic surgery at all levels, mesenteric and renal interventions, infragenuate intervention, re-operative vascular surgery, carotid stent, complex EVAR/TEVAR/FEVAR, graft infection)				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates general knowledge of normal anatomy	Demonstrates knowledge of pathologic anatomy	Demonstrates knowledge of common variants	Describes impact of patient-specific anatomy on operative plan	Demonstrates knowledge of uncommon or rare variants
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK11: Procedural Understanding – Advanced Procedures (e.g., open aortic surgery at all levels, mesenteric and renal interventions, infraginate intervention, re-operative vascular surgery, carotid stent, complex EVAR/TEVAR/FEVAR, graft infection)				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies appropriate procedure	Demonstrates knowledge of major procedural steps	Describes procedure sequence and understands critical decision points of procedure	Describes areas for potential complications Describes measures for procedural success	Describes or develops an innovative approach
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

MK12: Crisis Management – Advanced Procedures (e.g., open aortic surgery at all levels, mesenteric and renal interventions, infraginate intervention, re-operative vascular surgery, carotid stent, complex EVAR/TEVAR/FEVAR, graft infection)				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes potential crises	Describes signs and symptoms associated with a crisis	Describes appropriate response to the crisis	Anticipates patient-specific risk for crisis and describes appropriate treatment algorithm and potential outcomes	Describes or develops an innovative approach
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

SBP1: Radiation Safety				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Describes the mechanisms of and risks for radiation injury</p> <p>Describes the ALARA principle</p> <p>With supervision, applies basic radiation protection and monitoring concepts</p>	<p>Identifies signs of radiation injury</p> <p>Communicates the relative risk of exam-specific radiation exposure to patients</p> <p>Requires supervision when employing ALARA principles to minimize radiation exposure to the patient, self, and staff while optimizing image quality</p>	<p>With limited supervision, consistently employs ALARA principles to minimize radiation exposure to the patient, self, and staff while optimizing image quality</p>	<p>Consistently and independently employs ALARA principles to minimize radiation exposure to the patient, self, and staff while optimizing image quality</p>	<p>Performs root-cause analysis for recordable or reportable events</p> <p>Develops methodologies to further decrease radiation exposure</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

SBP2: Coordination of Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates a basic understanding of the resources available for coordinating patient care, including social workers, visiting nurses, and physical and occupational therapists	Knows the necessary resources to provide optimal coordination of care and how to access them Demonstrates awareness of specialized services	Efficiently and responsibly arranges patient disposition planning in preparing all materials necessary for discharge or transfer of their patients	Coordinates the activities of residents, nurses, social workers, and other health care professionals to provide optimal care to the patient at the time of discharge or transfer, and to provide post-discharge ambulatory care that is appropriate for the patient's particular needs	Completes a performance improvement project for coordination of care
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

SBP3: Improvement of Care				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates basic knowledge of how health systems operate Demonstrates knowledge of system factors that contribute to medical errors, and is aware that variations in care occur	Describes how patient care is provided in the system, and recognizes specific system failures that can affect patient care Follows protocols and guidelines for patient care	Suggests changes in the health care system that may improve patient care Reports problems with technology (e.g., devices and automated systems) or processes that could produce medical errors	Participates in work groups or performance improvement teams designed to reduce errors and improve health outcomes Demonstrates understanding of the appropriate use of standardized approaches to care, and participates in creating such protocols of care	Functions as a team leader for work groups or performance improvement teams designed to reduce errors and improve health outcomes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PBLI1: Teaching				
Level 1	Level 2	Level 3	Level 4	Level 5
Imparts educational information clearly and effectively to medical students and 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 in conferences</p> <p>Uses media in presentations appropriately and effectively</p>	Demonstrates an effective teaching style when asked to be responsible for a conference or formal presentation	<p>Capitalizes on teachable moments and readily and respectfully engages the learner</p> <p>Is a highly effective teacher with an interactive educational style; engages in constructive educational dialogue</p> <p>Coordinates conferences and case discussions</p>	<p>Serves as a role model for teaching or receives teaching award</p> <p>Develops teaching module</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PBLI2: Self-directed Learning				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Completes learning assignments from multiple resources</p>	<p>Demonstrates independent reading of the literature and uses appropriate sources to answer questions related to patients</p> <p>With some external assistance, develops a learning plan based on feedback</p>	<p>Identifies trends and patterns in the care of patients, and reads and uses sources to understand such patterns</p> <p>Selects an appropriate evidence-based information tool to answer specific questions while providing care</p>	<p>Participates in local, regional, and national educational activities, optional conferences, and/or self-assessment programs</p> <p>Demonstrates use of a system or process for keeping up with changes in the literature, and initiates assignments for other learners</p>	<p>Publishes a peer-reviewed manuscript or book chapter</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

PBLI3: Quality Improvement				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Actively participates in morbidity and mortality (M&M) and/or other Quality Improvement (QI) conferences with comments, questions, and/or accurate presentation of cases</p> <p>Changes patient care behaviors in response to feedback from supervisors</p> <p>Identifies when and how errors or adverse events affect the care of patients</p>	<p>Evaluates the quality and efficacy of patient care through appraisal and assimilation of scientific evidence</p> <p>Uses relevant literature to support discussions and conclusions at M&M and/or other QI conferences</p> <p>Performs basic steps in a QI project (e.g., generates a hypothesis, conducts a cause-effect analysis, creates method for study)</p> <p>Identifies ways to modify practice to avoid errors</p>	<p>Evaluates own surgical results and medical care outcomes in a systematic way, and identifies areas for improvement</p> <p>Identifies probable causes for complications and deaths at M&M and/or other QI conferences with appropriate strategies for improving care</p> <p>Identifies patterns in the care of patients and looks for opportunities to systematically reduce errors and adverse events</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&M and/or other QI conference conclusions to own patient care</p> <p>Leads a QI activity relevant to patient care outcomes</p>	<p>Participates in root-cause analysis and applies best evidence to make recommendations for change</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

Prof1: Integrity				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Is polite and respectful toward patients, families, support staff, and other health care professionals</p> <p>Demonstrates a commitment to continuity of care by taking personal responsibility for patient care outcomes</p> <p>Responds to pages and consultation requests promptly</p> <p>Is honest and trustworthy</p> <p>Consistently respects patient confidentiality and privacy</p>	<p>Maintains composure in accordance with ethical principles, even in stressful situations</p> <p>Exhibits compassion and empathy toward patients and their families</p> <p>Recognizes limits of personal knowledge and asks for help when needed</p>	<p>Ensures patient care responsibilities are performed and continuity of care is maintained</p> <p>Accepts responsibility for errors in patient care and initiates any corrective action</p> <p>Consistently demonstrates integrity in all aspects of care and professional relationships</p>	<p>Positively influences others by assertively modeling professionalism</p> <p>Consistently places the interests of patients ahead of self</p>	<p>Mentors others to promote professional behavior</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

Prof2: Personal Wellbeing				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Describes the institutional resources available to manage personal, physical, and emotional health (i.e., acute and chronic disease, substance abuse, mental health problems)</p> <p>Describes the principles of physician wellness and fatigue mitigation</p>	<p>Monitors own personal health and wellness, and appropriately mitigates fatigue and/or stress</p> <p>Effectively and efficiently manages own time and ensures fitness for duty</p>	<p>Sets an example by promoting healthy habits and creating an emotionally healthy environment for those working with him/her</p> <p>Models appropriate management of personal health issues, fatigue, and stress</p>	<p>Promotes a healthy work environment</p> <p>Recognizes and appropriately addresses personal health issues in self and other members of the health care team</p> <p>Proactively modifies schedules or intervenes in other ways (i.e., requires nap, counsels, refers to services, reports to program director) to ensure that those caregivers under their supervision maintain personal wellness and do not compromise patient safety</p>	<p>Develops new programs to enhance wellbeing</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

Prof3: Administrative Tasks				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Completes operative Case Logs, performs other assigned and required administrative tasks in a timely fashion, and does not require excessive reminders or follow-up (e.g., for chart completion, operative logs, documentation of duty hours)</p> <p>Complies with duty hour regulations and accurately reports duty hours</p>	<p>Promptly attends and participates in conferences, meetings, operations, and other relevant activities</p> <p>Responds promptly to requests from faculty and departmental staff members (e.g., pager responsiveness)</p>	<p>Acts as a role model for conference attendance, promptness, and attention to assigned tasks</p>	<p>Ensures that others under his or her supervision respond appropriately to responsibilities in a timely fashion</p>	<p>Mentors others to promote timely completion of administrative tasks</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

ICS1: Communication with Patients and Families				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Uses a variety of techniques to ensure that communication with patients and families is understandable and respectful (i.e., use of non-technical language, teach back, appropriate pacing, small pieces of information)</p> <p>Effectively communicates basic health care information to patients and families</p> <p>Lists the necessary elements of informed consent for procedures</p>	<p>Customizes communication, taking into account patient characteristics (i.e., age, literacy, cognitive disabilities, cultural competency)</p> <p>Demonstrates sensitivity and responsiveness to a diverse patient population, including to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation</p> <p>Provides timely updates to patients and families during hospitalizations and clinic visits</p> <p>Obtains informed consent for basic procedures</p>	<p>Delivers bad news to patients and families sensitively and effectively</p> <p>Obtains informed consent for complex procedures</p>	<p>Customizes emotionally difficult information, such as participation in end-of-life discussions</p> <p>Negotiates and manages conflict among patients and families</p>	<p>Is identified as a role model by patients, peers, or staff members</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Not yet achieved Level 1 <input type="checkbox"/>	

ICS2: Communications with Healthcare Team				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Exchanges patient information, including face-to-face hand-offs, with team members</p> <p>Responds politely and promptly to requests for consults and care coordination activities</p>	<p>Exhibits behaviors that invite information sharing with health care team members (e.g., respect, approachability, active listening)</p> <p>Performs hand-off best practices (e.g., uses multiple forms of information transfer, confirms receipt of information, invites questions)</p> <p>With supervision, leads a pre-operative "time out"</p>	<p>Discusses care plans with the team and keeps team members up to date on patient status and care plan changes</p> <p>Delivers timely, complete, and well organized information to referring physicians and providers of follow-up care at the time of patient care transitions</p>	<p>Assumes overall leadership of a health care team responsible for his or her patients, while at the same time seeking and valuing input from the members of the team</p> <p>Negotiates and manages conflict among care providers</p> <p>Takes responsibility for ensuring that clear hand-offs are given at transitions of care</p>	<p>Identified as a role model by the health care team</p> <p>Develops innovative methods to improve communication with health care team</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comments:</p>			<p>Not yet achieved Level 1 <input type="checkbox"/></p>	