

# The Colon and Rectal Surgery Milestone Project

*A Joint Initiative of*

The Accreditation Council for Graduate Medical Education

and

The American Board of Colon and Rectal Surgery



December 2013

## The Colon and Rectal 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 the assessment of the development of the resident physician in key dimensions of the elements of physician competency in a specialty or subspecialty. They neither represent the entirety of the dimensions of the six domains of physician competency, nor are they designed to be relevant in any other context.

## Colon and Rectal 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 (NAS) 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.

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.

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

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.

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

| Rectal Cancer — Medical Knowledge  |   |  |  |  |
|--|---|--|--|--|
| Level 1  | Level 2   | Level 3  | Level 4  | Level 5  |
| <ul style="list-style-type: none"> <li>• Lists some components of anatomy, pathogenesis, histopathology, genetics, and staging</li> <li>• Lists common agents in neo-adjuvant and adjuvant therapy</li> <li>• Lists modalities for post-treatment surveillance</li> <li>• Lists common sites and relative risks of recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses some components of anatomy, pathogenesis, histopathology, genetics, and staging</li> <li>• Discusses mechanism of action for some neo-adjuvant and adjuvant therapies</li> <li>• Discusses guidelines for post-treatment surveillance</li> <li>• Recognizes and discusses risk factors for recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of anatomy, pathogenesis, histopathology, genetics, and staging</li> <li>• Demonstrates understanding of treatment protocols and complications</li> <li>• Demonstrates understanding of stage-based post-treatment surveillance</li> <li>• Demonstrates understanding of therapeutic options for recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Integrates anatomy, pathogenesis, histopathology, genetics, and staging</li> <li>• Distinguishes and justifies use of specific neo-adjuvant and adjuvant agents and protocols for stage-based therapy and complications</li> <li>• Justifies post-treatment surveillance strategies based upon timing and patterns of local and distant recurrence</li> <li>• Distinguishes and justifies palliative vs. curative management of recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses investigational tumor markers and other staging modalities</li> <li>• Discusses investigational chemotherapeutic and radiation options</li> <li>• Discusses investigational modalities for post-treatment surveillance</li> <li>• Discusses controversial or emerging modalities for management of recurrent disease</li> </ul> |
| <input type="checkbox"/>   | <input type="checkbox"/>  | <input checked="" type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>   |
| Comments:  |   |  |  |  |

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

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

**Benign Perianal and Anal Disease Processes — Patient Care**

| Level 1   | Level 2   | Level 3  | Level 4   | Level 5  |
|---|---|--|---|--|
| <ul style="list-style-type: none"> <li>• Lists some common diagnoses</li> <li>• Lists some options for problems requiring urgent intervention</li> <li>• Lists some options for the elective treatment</li> <li>• Lists common complications of operative procedures</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses epidemiology of common diagnoses</li> <li>• Articulates options for urgent intervention and some component steps</li> <li>• Articulates options for elective treatment and some component steps</li> <li>• Articulates variances in progress after treatment implementation and investigational options</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of common diagnoses; demonstrates some knowledge of specialty examination</li> <li>• Recognizes situations requiring urgent intervention; with assistance, directs appropriate resuscitation and completes indicated intervention</li> <li>• With assistance, selects and directs or performs initial elective treatment, operative or non-operative</li> <li>• Recognizes disease progression, treatment failure, and complications, and implements management</li> </ul> | <ul style="list-style-type: none"> <li>• Assesses specific history details in formulation of differential diagnosis; independently performs exam for diagnosis confirmation</li> <li>• Independently identifies need for urgent intervention; proficiently directs appropriate resuscitation and selects and completes indicated intervention</li> <li>• Independently selects and directs or performs initial elective treatment, operative or non-operative, including discussion with patient regarding risk-benefit analysis</li> <li>• Anticipates, diagnoses, and proficiently manages disease progression, treatment failure, or complications in a timely manner</li> </ul> | <ul style="list-style-type: none"> <li>• Understands and discusses current controversies in disease incidence and prevalence</li> <li>• Demonstrates proficiency as a teaching assistant in the component steps of urgent intervention</li> <li>• Understands and discusses current controversies in therapy; demonstrates proficiency as a teaching assistant in the component steps of elective operative management</li> <li>• Reviews and assesses practice results and uses the information to effectively modify practice</li> </ul> |

                          

**Comments:**

**Benign Perianal and Anal Disease Processes — Medical Knowledge**

| Level 1  | Level 2  | Level 3   | Level 4   | Level 5  |
|--|--|---|---|--|
| <ul style="list-style-type: none"> <li>• Lists some components of anatomy, physiology, pathogenesis, and histopathology</li> <li>• Lists some processes that require urgent management</li> <li>• Lists some general elective treatment recommendations</li> <li>• Lists some treatment options for disease progression or recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses some components of anatomy, physiology, pathogenesis, and histopathology</li> <li>• Discusses some processes that require urgent management</li> <li>• Discusses mechanism of action for some initial elective treatment recommendations</li> <li>• Discusses some treatment options for disease progression or recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of physiology, anatomy, pathogenesis, and histopathology</li> <li>• Demonstrates understanding of processes requiring urgent management</li> <li>• Demonstrates understanding of initial elective treatment recommendations and their limitations</li> <li>• Demonstrates knowledge of treatment options for disease progression or recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Integrates anatomy, physiology, pathogenesis, and histopathology</li> <li>• Distinguishes and justifies urgent vs. elective approaches for initial treatment; distinguishes and justifies appropriate resuscitation preparatory to urgent management</li> <li>• Distinguishes and justifies non-operative vs. operative approaches for initial elective treatment</li> <li>• Distinguishes and justifies treatment options for disease progression or recurrence, including the associated risks, in the context of previous treatment attempts</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses new theories of physiologic disturbance and disease pathogenesis</li> <li>• Discusses investigational options for disease treatment and prevention</li> <li>• Discusses investigational options for disease treatment and prevention</li> <li>• Discusses investigational options for decreasing risks associated with management of disease progression or recurrence</li> </ul> |

                                  

**Comments:**

**Colonic Neoplasia (polyps, colon cancer, polyposis) — Patient Care**

| Level 1   | Level 2   | Level 3   | Level 4  | Level 5   |
|---|---|---|--|---|
| <ul style="list-style-type: none"> <li>• Lists some imaging options for tumour/node/metastases (TNM) staging</li> <li>• Lists some of the surgical options for management and treatment; knows different procedures for polyps, cancer, and polyposis</li> <li>• Lists common complications and management of those complications</li> <li>• Lists modalities of post-treatment surveillance for polyps, cancer, and polyposis syndromes</li> <li>• Lists potential evaluation and treatment of recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses strategies for imaging, but has limited understanding of interpretation of results</li> <li>• Articulates surgical options and some component steps for partial colectomy, total abdominal colectomy (TAC), total proctocolectomy (TPC), restorative proctectomy, and laparoscopic and open techniques</li> <li>• Recognizes variances from the normal post-operative course and begins investigation</li> <li>• Discusses modalities for post-treatment surveillance</li> <li>• Discusses evaluation of recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Formulates an appropriate imaging strategy and interprets results</li> <li>• With assistance, selects and completes the component steps for partial colectomy, TAC, TPC, restorative proctectomy, and laparoscopic and open techniques</li> <li>• Implements management of complications</li> <li>• Understands post-treatment surveillance strategies vary by stage</li> <li>• Discusses treatment of recurrence and potential complications</li> </ul> | <ul style="list-style-type: none"> <li>• Assesses imaging information and justifies a TNM-based treatment strategy</li> <li>• Independently selects and completes component steps for partial colectomy, TAC, TPC, restorative proctectomy, and laparoscopic and open techniques</li> <li>• Anticipates, diagnoses, and proficiently manages complications in a timely manner</li> <li>• Directs post-treatment surveillance strategies</li> <li>• Implements curative vs. palliative intervention for recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Understands and discusses current controversies regarding image-based treatment strategies</li> <li>• Demonstrates proficiency as a teaching assistant partial colectomy, TAC, TPC, restorative proctectomy, and laparoscopic and open techniques</li> <li>• Reviews and assesses practice results, and uses the information to effectively modify practice</li> <li>• Understands and discusses current controversies regarding surveillance</li> <li>• Understands and discusses evolving management of recurrent disease</li> </ul> |
| <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>  |
| <b>Comments:</b>  |   |   |  |   |

**Colonic Neoplasia — Medical Knowledge**

| Level 1  | Level 2   | Level 3   | Level 4  | Level 5   |
|--|---|---|--|---|
| <ul style="list-style-type: none"> <li>• Lists some components of anatomy, pathogenesis, histopathology, genetics, and staging for colon cancer and polyps and polyposis syndromes</li> <li>• Lists common agents in neoadjuvant and adjuvant therapy</li> <li>• Lists modalities for post treatment surveillance</li> <li>• Lists common sites and relative risks of recurrence</li> <li>• Lists surveillance schedule for patients with polyps</li> <li>• Lists polyposis syndromes and knows some differences between them</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses some components of anatomy, pathogenesis, histopathology, genetics, and staging for colon cancer and polyps and polyposis syndromes</li> <li>• Discusses mechanism of action for some neoadjuvant and adjuvant therapies</li> <li>• Discusses guidelines for post-treatment surveillance</li> <li>• Recognizes and discusses risk factors for recurrence</li> <li>• Discusses post-polypectomy surveillance schedule</li> <li>• Discusses polyposis syndrome treatment plan, timing, and type of procedures</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of anatomy, pathogenesis, histopathology, genetics, and staging for colon cancer and polyps and polyposis syndromes</li> <li>• Demonstrates understanding of treatment protocols and complications</li> <li>• Demonstrates understanding of stage-based post-treatment surveillance</li> <li>• Demonstrates understanding of therapeutic options for recurrence</li> <li>• Demonstrates understanding of polyp surveillance schedule</li> <li>• Demonstrates understanding of polyposis syndrome treatment plan, timing, and specific procedures</li> </ul> | <ul style="list-style-type: none"> <li>• Integrates anatomy, pathogenesis, histopathology, genetics, and staging for colon cancer and polyps and polyposis syndromes</li> <li>• Distinguishes and justifies use of specific neo-adjuvant agents and protocols for stage-based therapy and complications</li> <li>• Justifies post-treatment surveillance strategies based upon timing and patterns of local and distant recurrence</li> <li>• Distinguishes and justifies palliative vs. curative management of recurrence</li> <li>• Justifies timing and procedure type for various polyposis syndromes</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses investigational tumor markers and other staging modalities</li> <li>• Discusses investigational chemotherapeutic options</li> <li>• Discusses investigational modalities for post-treatment surveillance</li> <li>• Discusses controversial or emerging modalities for management of recurrent disease</li> <li>• Discusses advanced genetic and treatment concepts for polyposis syndromes</li> </ul> |
| <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>  |

**Comments:**

| Crohn's Disease — Patient Care  |  |   |   |   |
|---|--|---|---|---|
| Level 1   | Level 2  | Level 3   | Level 4   | Level 5   |
| <ul style="list-style-type: none"> <li>• Displays limited understanding of appropriate symptom scoring, imaging, and endoscopic options for disease evaluation</li> <li>• List some of the medical and surgical options for management and treatment</li> <li>• Lists common complications of disease, medical, and surgical treatment</li> <li>• List modalities for disease monitoring and prophylaxis</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses strategies for imaging and medical therapy based on symptom scoring or disease activity</li> <li>• Articulates medical (corticosteroids, immunosuppression, 5-aminosalicylic acid [ASA]) and surgical (fistula management, lap and open segmental bowel resection, strictureplasty, TPC/Ileostomy) options</li> <li>• Recognizes disease progression and variances from normal post-operative course and begins investigations</li> <li>• Recognizes strategies for disease monitoring and prophylaxis</li> </ul> | <ul style="list-style-type: none"> <li>• Formulates an appropriate scoring, imaging, and endoscopic strategy and interprets results</li> <li>• With assistance selects and completes component steps for fistula management, lap and open segmental bowel resection, strictureplasty, and TPC/Ileostomy</li> <li>• Recognizes and implements management of complications</li> <li>• Understands and discusses post-treatment and surveillance strategies</li> </ul> | <ul style="list-style-type: none"> <li>• Assesses symptom scoring, imaging, and endoscopic information to develop treatment strategy</li> <li>• Independently selects and completes component steps for fistula management, lap and open segmental bowel resection, strictureplasty, and TPC/Ileostomy</li> <li>• Anticipates, diagnoses, and proficiently manages complications in a timely manner</li> <li>• Directs post-surgical management for surveillance and prophylaxis</li> </ul> | <ul style="list-style-type: none"> <li>• Understands and discusses current controversies regarding imaging and emerging medical treatment modalities</li> <li>• Demonstrates proficiency as a teaching assistant for fistula management, lap and open segmental bowel resection, strictureplasty, and TPC/Ileostomy</li> <li>• Reviews and assesses practice results and uses the information to effectively modify practice</li> </ul> |
| <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>  |
| <b>Comments:</b>  |  |   |   |   |

| Crohn's Disease — Medical Knowledge  |  |  |   |  |
|--|--|--|---|--|
| Level 1  | Level 2  | Level 3  | Level 4   | Level 5  |
| <ul style="list-style-type: none"> <li>• Lists some components of anatomical distribution, pathogenesis, histopathology, immunology, genetics, and diagnostic information</li> <li>• Lists common agents for medical therapy</li> <li>• Lists common surgical options</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses some components of anatomical distribution, pathogenesis, histopathology, immunology, genetics, and diagnostic information</li> <li>• Discusses mechanisms of action for drug therapy</li> <li>• Discusses indications for surgical intervention</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of anatomical distribution, pathogenesis, histopathology, immunology, genetics, and diagnostic information</li> <li>• Demonstrates understanding of appropriate use and monitoring of drug therapy</li> <li>• Demonstrates understanding of appropriate timing and selection of surgical intervention</li> </ul> | <ul style="list-style-type: none"> <li>• Integrates anatomical distribution, pathogenesis, histopathology, immunology, genetics, and diagnostic information</li> <li>• Distinguishes and justifies use of specific immune-suppressive and anti-inflammatory therapy</li> <li>• Justifies appropriate timing and selection of surgical intervention</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses investigational genetic markers, inflammatory mediators, and imaging modalities</li> <li>• Discusses controversial or emerging modalities for surgical therapy</li> </ul> |
| <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>   |
| <b>Comments:</b>   |  |  |   |  |

| Large Bowel Obstruction — Patient Care  |   |   |  |   |
|---|---|---|--|---|
| Level 1   | Level 2   | Level 3   | Level 4  | Level 5   |
| <ul style="list-style-type: none"> <li>• Displays limited understanding of clinical or image-based presentation</li> <li>• Lists some medical, image-guided, or surgical options for management and treatment</li> <li>• Lists common complications and their management</li> <li>• Limited understanding of need for post-treatment strategies for definitive therapy, adjuvant therapy, or surveillance dependent upon histo-pathology</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses strategies for clinical- and image-guided therapy with limited understanding of results and benign/malignant etiologies</li> <li>• Articulates some component steps for definitive, staged, or palliative treatment using endoscopic, minimally invasive surgery (MIS), and traditional surgical approaches</li> <li>• Recognizes variances in medical, interventional, and surgical recovery, and begins investigation</li> <li>• Recognizes need for post-treatment strategies for definitive therapy, adjuvant therapy, or surveillance dependent upon histo-pathology</li> </ul> | <ul style="list-style-type: none"> <li>• Formulates an appropriate assessment based on imaging and clinical evaluation and discusses options for therapy</li> <li>• With assistance selects and completes component steps for definitive, staged, or palliative treatment using endoscopic, MIS, and traditional surgical approaches</li> <li>• Recognizes and implements management for failure of non-operative therapy or surgical complications</li> <li>• Demonstrates knowledge and understanding of some components of post-treatment strategies for definitive therapy, adjuvant therapy, or surveillance dependent upon histo-pathology</li> </ul> | <ul style="list-style-type: none"> <li>• Appropriately assesses clinical presentation, staging, and imaging, and justifies appropriate therapy</li> <li>• Independently selects and completes component steps for definitive, staged, or palliative treatment using endoscopic, MIS, and traditional surgical approaches</li> <li>• Anticipates, diagnoses, and proficiently manages treatment failure or surgical complications in a timely manner</li> <li>• Appropriately directs post-treatment strategies for definitive therapy, adjuvant therapy, or surveillance dependent upon histo-pathology</li> </ul> | <ul style="list-style-type: none"> <li>• Understands and discusses current controversies in assessment and therapy</li> <li>• Demonstrates proficiency as a teaching assistant in the component steps definitive, staged, or palliative treatment using endoscopic, MIS, and traditional surgical approaches</li> <li>• Reviews and assesses practice results and uses the information to effectively modify practice</li> <li>• Discusses controversies and emerging theories regarding post-treatment strategies for definitive therapy, adjuvant therapy, or surveillance</li> </ul> |
| <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>  |
| <b>Comments:</b>  |   |   |  |   |

| Large Bowel Obstruction — Medical Knowledge  |  |  |  |  |
|--|--|--|--|--|
| Level 1  | Level 2  | Level 3  | Level 4  | Level 5  |
| <ul style="list-style-type: none"> <li>• Lists some components of etiology, anatomic distribution, pathophysiology, and clinical staging (when appropriate)</li> <li>• Lists common diagnostic modalities</li> <li>• Lists endoscopic or surgical modalities for treatment</li> <li>• Limited understanding of need for post-treatment definitive therapy, adjuvant therapy, or surveillance dependent upon histo-pathology</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses some components of etiology, anatomic distribution, pathophysiology, and clinical staging (when appropriate)</li> <li>• Discusses appropriate diagnostic imaging and endoscopic modalities</li> <li>• Discusses endoscopic or surgical modalities for treatment or palliation</li> <li>• Recognizes the need for post-treatment definitive therapy, adjuvant therapy, or surveillance dependent upon histo-pathology</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of etiology, anatomic distribution, pathophysiology, and clinical staging (when appropriate)</li> <li>• Demonstrates knowledge of appropriate diagnostic imaging and endoscopic modalities</li> <li>• Demonstrates knowledge for endoscopic or surgical modalities for treatment or palliation</li> <li>• Demonstrates knowledge and understanding of some post-treatment strategies for definitive therapy, adjuvant therapy, or surveillance dependent upon histo-pathology</li> </ul> | <ul style="list-style-type: none"> <li>• Integrates symptoms, exams, lab, imaging, and endoscopic findings to develop an appropriate differential diagnosis</li> <li>• Distinguishes and justifies appropriate use of diagnostic imaging and endoscopic modalities</li> <li>• Distinguishes and justifies appropriate endoscopic or surgical modalities for treatment or palliation</li> <li>• Appropriately justifies post-treatment strategies for definitive therapy, adjuvant therapy, or surveillance dependent upon histo-pathology</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses investigational diagnostic modalities</li> <li>• Discusses investigational diagnostic modalities</li> <li>• Discusses controversial or emerging modalities for treatment or palliation</li> <li>• Discusses post-treatment controversies and emerging strategies for definitive therapy, adjuvant therapy, or surveillance</li> </ul> |
| <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>   |
| <b>Comments:</b>   |  |  |  |  |

| Rectal Cancer — Patient Care  |  |  |  |   |
|---|--|--|--|---|
| Level 1   | Level 2  | Level 3  | Level 4  | Level 5   |
| <ul style="list-style-type: none"> <li>• Lists some imaging options for TNM staging</li> <li>• Lists some surgical options for management and treatment</li> <li>• Lists common complications and management of those complications</li> <li>• Lists modalities of post-treatment surveillance</li> <li>• Lists potential evaluation and treatment of recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses strategies for imaging, but has limited understanding of interpretation of results</li> <li>• Articulates surgical options and some component steps for transanal excision (TAE), TME, restorative proctectomy, and anterior perineal resection (APR)</li> <li>• Recognizes variances from the normal post-operative course and begins investigation</li> <li>• Discusses modalities for post-treatment surveillance</li> <li>• Discusses evaluation of recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Formulates appropriate imaging strategy and interprets result</li> <li>• With assistance, selects and completes the component steps for TAE, TME, restorative proctectomy, and APR</li> <li>• Implements management of complications</li> <li>• Understands that post-treatment surveillance strategies vary by stage</li> <li>• Discusses treatment of recurrence and potential complications</li> </ul> | <ul style="list-style-type: none"> <li>• Assesses imaging information and justifies a TNM-based treatment strategy</li> <li>• Independently selects and completes component steps for TAE, TME, restorative proctectomy, and APR</li> <li>• Anticipates, diagnoses, and proficiently manages complications in a timely manner</li> <li>• Directs post-treatment surveillance strategies</li> <li>• Implements curative vs. palliative intervention for recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Understands and discusses current controversies regarding image-based treatment strategies</li> <li>• Demonstrates proficiency as a teaching assistant for TAE, TME, restorative proctectomy, and APR</li> <li>• Reviews and assesses practice results, and uses information to effectively modify practice</li> <li>• Understands and discusses current controversies regarding surveillance</li> <li>• Understands and discusses evolving management of recurrent disease</li> </ul> |
| <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>  |
| <b>Comments:</b>  |  |  |  |   |

| Rectal Cancer — Medical Knowledge  |   |  |  |  |
|--|---|--|--|--|
| Level 1  | Level 2   | Level 3  | Level 4  | Level 5  |
| <ul style="list-style-type: none"> <li>• Lists some components of anatomy, pathogenesis, histopathology, genetics, and staging</li> <li>• Lists common agents in neo-adjuvant and adjuvant therapy</li> <li>• Lists modalities for post-treatment surveillance</li> <li>• Lists common sites and relative risks of recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses some components of anatomy, pathogenesis, histopathology, genetics, and staging</li> <li>• Discusses mechanism of action for some neo-adjuvant and adjuvant therapies</li> <li>• Discusses guidelines for post-treatment surveillance</li> <li>• Recognizes and discusses risk factors for recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of anatomy, pathogenesis, histopathology, genetics, and staging</li> <li>• Demonstrates understanding of treatment protocols and complications</li> <li>• Demonstrates understanding of stage-based post-treatment surveillance</li> <li>• Demonstrates understanding of therapeutic options for recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Integrates anatomy, pathogenesis, histopathology, genetics, and staging</li> <li>• Distinguishes and justifies use of specific neo-adjuvant and adjuvant agents and protocols for stage-based therapy and complications</li> <li>• Justifies post-treatment surveillance strategies based upon timing and patterns of local and distant recurrence</li> <li>• Distinguishes and justifies palliative vs. curative management of recurrence</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses investigational tumor markers and other staging modalities</li> <li>• Discusses investigational chemotherapeutic and radiation options</li> <li>• Discusses investigational modalities for post-treatment surveillance</li> <li>• Discusses controversial or emerging modalities for management of recurrent disease</li> </ul> |
| <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>   |
| <b>Comments:</b>   |   |  |  |  |

**Rectal Prolapse — Patient Care**

| Level 1   | Level 2  | Level 3   | Level 4   | Level 5   |
|---|--|---|---|---|
| <ul style="list-style-type: none"> <li>• Lists some imaging options (defecography std x-rays vs. MRI) and physiologic studies (anorectal manometry [ARM], electromyographic [EMG], Pudendal Nerve Terminal Motor Latency [PNTML], Colon Transit Studies) useful in evaluation of rectal prolapse</li> <li>• Lists options for treatment of rectal prolapse</li> <li>• Lists common complications associated with pelvic prolapse surgeries</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses strategies for imaging and physiology but has limited ability to interpret results</li> <li>• Discusses key steps of abdominal rectopexy and resection/rectopexy (laparoscopic vs. open); discusses key steps of perineal repair of rectal prolapse</li> <li>• Discusses rationale for rectopexy vs. resection rectopexy</li> <li>• Recognizes disease progression and variances from normal post-operative course and begins investigations</li> </ul> | <ul style="list-style-type: none"> <li>• Formulates an appropriate investigative work-up after conducting appropriate history and physical</li> <li>• With assistance, performs key steps of rectopexy, resection/rectopexy, and perineal repair; discusses newer modalities for rectal prolapse</li> <li>• With assistance, performs key steps of surgery for rectal prolapse repair</li> <li>• Recognizes and implements management of complications</li> </ul> | <ul style="list-style-type: none"> <li>• Assesses history and physical, imaging, and physiologic data, and justifies treatment strategy</li> <li>• Independently performs transabdominal and perineal repair of rectal prolapse; discusses newer ventral rectopexy</li> <li>• Independently performs surgery for rectal prolapse; appropriately involves multidisciplinary team for repairs of associated pelvic organ prolapse</li> <li>• Anticipates, diagnoses, and proficiently manages complications in a timely manner</li> </ul> | <ul style="list-style-type: none"> <li>• Reviews and assesses the frequency of time physiology studies would change surgical decisions in personal practice</li> <li>• Demonstrates proficiency as a teaching assistant for repair of rectal prolapse and pelvic organ prolapse</li> <li>• Discusses current controversies regarding repairs</li> <li>• Reviews outcome data collected and uses this data to change practice</li> </ul> |

**Comments:**

| Rectal Prolapse — Medical Knowledge  |   |  |  |   |
|--|---|--|--|---|
| Level 1  | Level 2   | Level 3  | Level 4  | Level 5   |
| <ul style="list-style-type: none"> <li>• Lists some components of anatomy and physiology of rectal prolapse</li> <li>• Lists some imaging options (defecography, air contrast barium enema) and physiologic studies (ARM, EMG, PNTML, Colon Transit Studies) useful in evaluating rectal prolapse</li> <li>• Lists options for treatment of rectal prolapse</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses some components of anatomy and physiology of rectal prolapse</li> <li>• Discusses strategies for imaging and physiology but has limited ability to interpret results</li> <li>• Discusses rationale for transabdominal versus perineal techniques for rectal prolapse</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of anatomy and physiology of rectal prolapse</li> <li>• Demonstrates understanding of appropriate imaging and physiologic evaluation</li> <li>• Demonstrates knowledge of success rates for treatment options, and surgical management of anterior compartment prolapse</li> </ul> | <ul style="list-style-type: none"> <li>• Integrates anatomy and physiology of rectal prolapse</li> <li>• Integrates results of imaging and physiologic testing and correlates appropriately with anatomical and physiological abnormalities</li> <li>• Justifies appropriate treatment interventions for rectal and general pelvic organ prolapse</li> </ul> | <ul style="list-style-type: none"> <li>• Proposes investigational research in anatomic or physiologic disturbances</li> <li>• Discusses new investigational modalities for rectal prolapse</li> <li>• Discusses current controversies in treatment options</li> </ul> |
| <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>  |
| <b>Comments:</b>   |   |  |  |   |

**Rectovaginal (RV) Fistula — Patient Care**

| Level 1  | Level 2   | Level 3   | Level 4   | Level 5  |
|--|---|---|---|--|
| <ul style="list-style-type: none"> <li>• Displays limited understanding of appropriate examination, imaging, and evaluation options for disease evaluation</li> <li>• List some surgical options for management and treatment</li> <li>• Lists common complications of surgical treatment</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses strategies for imaging and examination of patients based on presenting symptoms</li> <li>• Articulates surgical fistula management options (sealants, advancement flaps layered closure, muscle interpositions)</li> <li>• Recognizes variances from normal post-operative course and begins investigations</li> </ul> | <ul style="list-style-type: none"> <li>• Formulates appropriate assessment based on imaging and examination results</li> <li>• With assistance, selects and completes component steps of fistula management</li> <li>• Recognizes and implements management of complications</li> </ul> | <ul style="list-style-type: none"> <li>• Assesses symptoms, imaging, and examination to develop an appropriate treatment strategy</li> <li>• Independently selects and completes component steps for fistula management</li> <li>• Anticipates, diagnoses, and proficiently manages complications in a timely manner</li> </ul> | <ul style="list-style-type: none"> <li>• Understands and discusses current controversies regarding imaging treatment modalities</li> <li>• Demonstrates proficiency as a teaching assistant for fistula management</li> <li>• Reviews and assesses practice results and uses the information to effectively modify practice</li> </ul> |
| <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>   |
| <b>Comments:</b>   |   |   |   |  |

**Rectovaginal Fistula — Medical Knowledge**

| Level 1  | Level 2  | Level 3   | Level 4   | Level 5  |
|--|--|---|---|--|
| <ul style="list-style-type: none"> <li>• Lists some components of classification schemes, pathogenesis, and diagnostic information</li> <li>• Lists common surgical options</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses some components of classification schemes, pathogenesis, and diagnostic information</li> <li>• Discusses options for surgical intervention</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of classification schemes, pathogenesis, and diagnostic information</li> <li>• Demonstrates understanding of appropriate timing and selection of surgical intervention</li> </ul> | <ul style="list-style-type: none"> <li>• Integrates classification schemes, pathogenesis, and diagnostic information</li> <li>• Justifies appropriate timing and selection of surgical intervention, including benefits of one therapy over another and including recurrence rates</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses investigational approaches of pathogenesis and diagnosis</li> <li>• Discusses controversial or emerging modalities for surgical therapy and approaches to recurrent RV fistula</li> </ul> |
| <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>   |
| <b>Comments:</b>   |  |   |   |  |

| Pelvic Floor Disorders — Patient Care   |  |   |   |   |
|---|--|---|---|---|
| Level 1   | Level 2  | Level 3   | Level 4   | Level 5   |
| <ul style="list-style-type: none"> <li>• Lists some imaging options (e.g., transanal ultrasound, magnetic resonance imaging [MRI], proctography) and physiologic studies (e.g., ARM, EMG, PNTML, Colon Transit Studies) useful in evaluation of fecal incontinence and constipation</li> <li>• Lists options for treatment of incontinence</li> <li>• Lists options for treatment of outlet obstruction</li> <li>• Lists common complications associated with pelvic floor surgeries</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses strategies for imaging and physiology but has limited ability to interpret results</li> <li>• Discusses key steps of sphincteroplasty and rationale for biofeedback, surgical interventions, and medical management</li> <li>• Discusses rationale for biofeedback, surgical interventions, and medical management</li> <li>• Recognizes disease progression and variances from normal post-operative course and begins investigations</li> </ul> | <ul style="list-style-type: none"> <li>• Formulates an appropriate investigative work-up after conducting appropriate history and physical</li> <li>• With assistance, performs key steps of sphincteroplasty; discusses newer modalities for fecal incontinence</li> <li>• With assistance, performs key steps of surgery for rectal prolapse, rectocele, and enterocele</li> <li>• Recognizes and implements management of complications</li> </ul> | <ul style="list-style-type: none"> <li>• Assesses history and physical, imaging, and physiologic data and justifies treatment strategy</li> <li>• Independently performs sphincteroplasty; acquires skills for sacral nerve stimulation (SNS) and other modalities as they becomes available</li> <li>• Independently performs surgery for rectal prolapse, rectocele, and enterocele, or appropriately involves multidisciplinary team for repairs</li> <li>• Anticipates, diagnoses, and proficiently manages complications in a timely manner</li> </ul> | <ul style="list-style-type: none"> <li>• Reviews and assesses the frequency physiology studies change surgical decisions in personal practice</li> <li>• Demonstrates proficiency as a teaching assistant for sphincteroplasty</li> <li>• Discusses current controversies regarding biologic mesh in these repairs</li> <li>• Reviews outcome data collected and uses this data to change practice</li> </ul> |
| <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>  |
| <b>Comments:</b>  |  |   |   |   |

| Pelvic Floor Disorders — Medical Knowledge  |  |   |  |  |
|---|--|---|--|--|
| Level 1   | Level 2  | Level 3   | Level 4  | Level 5  |
| <ul style="list-style-type: none"> <li>• Lists some components of anatomy and physiology of pelvic floor disorders</li> <li>• Lists some imaging options (e.g., transanal ultrasound, MRI, proctography) and physiologic studies (e.g., ARM, EMG, PNTML, Colon Transit Studies) useful in evaluating pelvic floor disorders</li> <li>• Lists options for treatment of fecal incontinence and pelvic outlet obstruction</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses some components of anatomy and physiology of pelvic floor disorders</li> <li>• Discusses strategies for imaging and physiology but has limited ability to interpret results</li> <li>• Discusses rationale for biofeedback, surgical interventions, and medical management</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates knowledge of anatomy and physiology of pelvic floor disorders</li> <li>• Demonstrates understanding of appropriate imaging and physiologic evaluation</li> <li>• Demonstrates knowledge of success rates for treatment options</li> </ul> | <ul style="list-style-type: none"> <li>• Integrates anatomy and physiology of pelvic floor disorders</li> <li>• Integrates results of imaging and physiologic testing and correlates appropriately with anatomical and physiological abnormalities</li> <li>• Justifies appropriate treatment interventions</li> </ul> | <ul style="list-style-type: none"> <li>• Proposes investigational research in anatomic or physiologic disturbances</li> <li>• Discusses new investigational modalities for pelvic floor disorders</li> <li>• Discusses current controversies in treatment options</li> </ul> |
| <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>   |
| <b>Comments:</b>  |  |   |  |  |

| Anatomy and Physiology — Medical Knowledge   |  |  |  |   |
|--|--|--|--|---|
| Level 1  | Level 2  | Level 3  | Level 4  | Level 5   |
| <ul style="list-style-type: none"> <li>• Lists some important muscular components of the pelvic floor and the innervation</li> <li>• Lists major arterial supply, venous, and lymphatic drainage for the colorectum and small bowel</li> <li>• Lists major hormonal and chemical neurotransmitters involved in the control of intestinal motility and secretion/absorption</li> <li>• Lists common functional bowel disorders</li> </ul> | <ul style="list-style-type: none"> <li>• Discusses important muscular components of the pelvic floor and the innervation</li> <li>• Discusses major arterial supply, venous, and lymphatic drainage for the colorectum and small bowel</li> <li>• Discusses the major hormonal and chemical neurotransmitters involved in the control of intestinal motility and secretion/absorption</li> <li>• Discusses common investigational strategies for common functional bowel disorders but has limited ability to interpret results</li> </ul> | <ul style="list-style-type: none"> <li>• Completely describes important muscular components of the pelvic floor and the innervation</li> <li>• With assistance, can demonstrate knowledge of the surgical approaches to the major arterial supply, venous, and lymphatic drainage for the colorectum and small bowel</li> <li>• Defines the appropriate evaluation of major hormonal and chemical neurotransmitters involved in the control of intestinal motility and secretion/absorption (disease specific)</li> <li>• With help, can formulate strategies for evaluation of common functional bowel disorders, but requires guidance to interpret</li> </ul> | <ul style="list-style-type: none"> <li>• Assesses history and physical, imaging, and physiologic data and justifies treatment strategy</li> <li>• Independently and proficiently demonstrates knowledge of the anatomy demonstrate the surgical approaches to the major arterial supply, venous, and lymphatic drainage for the colorectum and small bowel</li> <li>• Independently interprets the physiologic diagnostic studies</li> <li>• Anticipates, diagnoses, and proficiently manages the assessment and evaluation of anorectal physiology</li> </ul> | <ul style="list-style-type: none"> <li>• Reviews and assesses the frequency of time physiology studies would change surgical decisions in personal practice</li> <li>• Demonstrates proficiency as a teaching assistant for the evaluation of functional bowel disorders and altered intestinal physiology</li> <li>• Discusses current controversies the assessment of functional bowel disorders</li> <li>• Reviews outcome data collected and uses this data to change practice</li> </ul> |
| <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>  |
| <b>Comments:</b>   |  |  |  |   |

**Systems-based Practice —**

- Utilizes/accesses outside resources
- Demonstrates awareness of and accommodation to circumstances affecting patient care, including the patient’s financial resources and other factors that can affect health care delivery and quality
- Understands the basics of patient safety and clinical risk management, with emphasis on avoidance of medical errors
- Uses technology and external resources to accomplish safe and effective health care delivery

| Level 1   | Level 2   | Level 3   | Level 4   | Level 5  |
|---|---|---|---|--|
| • Rarely demonstrates proficiency in systems-based practice | • Occasionally demonstrates proficiency in systems-based practice | • Consistently demonstrates proficiency in systems-based practice in common clinical situations | • Consistently demonstrates proficiency in systems-based practice in most clinical situations | • Is a leader in the area of systems-based practice; advice is frequently sought in relating to difficult situations |
| <input type="checkbox"/>                                    | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>   |
| <b>Comments:</b>  |   |   |   |  |

**Practice-based Learning and Improvement —**

- Self-evaluates performance
- Incorporates feedback
- Identifies strengths, deficiencies, and limits in self-knowledge and expertise
- Sets learning and improvement goals in a manner that fosters productive self-directed learning
- Actively participates in quality improvement project(s)
- Locates, appraises, and assimilates evidence from scientific studies pertinent to patients
- Uses technology to enhance patient care and self-improvement
- Evaluates and analyzes patient care outcomes
- Utilizes an evidence-based approach to patient care

| Level 1  | Level 2  | Level 3   | Level 4  | Level 5   |
|--|--|---|--|---|
| • Rarely demonstrates proficiency in practice-based learning | • Occasionally demonstrates proficiency in practice-based learning | • Regularly demonstrates proficiency in practice-based learning | • Consistently demonstrates proficiency in practice-based learning | • Is a leader in the area of practice-based learning; advice is frequently sought in relating to difficult situations |
| <input type="checkbox"/>                                     | <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>  |
| <b>Comments:</b>   |  |   |  |   |

| Professionalism —   |  |   |  |   |
|---|--|---|--|---|
| <ul style="list-style-type: none"> <li>• Exhibits ethical and responsible behavior, including respect, compassion, honesty, and integrity, in all aspects of practice and scholarly activity</li> <li>• Accountable to patients, society and the profession and acknowledges errors</li> <li>• Maintains responsibility for his or her own emotional, physical, and mental health, including fatigue awareness and avoidance, and commitment to lifelong learning and self-assessment</li> <li>• Demonstrates sensitivity to diverse patient, staff, and support personnel populations</li> <li>• Considers needs of patients, families, and colleagues</li> <li>• Demonstrates a high standard of ethical behavior and a commitment to continuity of care</li> </ul> |  |   |  |   |
| Level 1   | Level 2  | Level 3   | Level 4  | Level 5   |
| <ul style="list-style-type: none"> <li>• Rarely demonstrates professional behaviors and attitudes expected of a colon rectal surgery resident</li> </ul>  | <ul style="list-style-type: none"> <li>• Occasionally demonstrates professional behaviors and attitudes expected of a colon rectal surgery resident</li> </ul> | <ul style="list-style-type: none"> <li>• Consistently demonstrates professional behaviors and attitudes expected of a colon rectal surgery resident in common situations</li> </ul> | <ul style="list-style-type: none"> <li>• Consistently demonstrates professional behaviors and attitudes expected of a colon rectal surgery resident in most clinical situations</li> </ul> | <ul style="list-style-type: none"> <li>• Is a leader in the area of professionalism; advice is frequently sought in relating to difficult situations</li> </ul> |
| <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>  |
| <b>Comments:</b>  |  |   |  |   |

**Interpersonal and Communication Skills —**

- Provides team-based care and develops productive relationships with patients, peers, staff members, and interdisciplinary care team members
- Ensures that patients understand their condition(s) and treatments, encourages questions from patients, and provides explanations appropriate to patient needs
- Educates and counsels patients, families, and colleagues when appropriate
- Identifies and accommodates special communication needs of vulnerable populations (e.g. children, elderly, patients with complex biomedical, psychosocial conditions; persons with disabilities; immigrant and refugee populations; veterans; prisoners; LGBT [lesbians, gay, bisexual, transgender] patients; etc.)
- Uses technology and information sharing modalities to facilitate communication

| Level 1   | Level 2   | Level 3   | Level 4   | Level 5  |
|---|---|---|---|--|
| <ul style="list-style-type: none"> <li>• Rarely demonstrates proficiency in interpersonal and communication skills</li> </ul> | <ul style="list-style-type: none"> <li>• Occasionally demonstrates proficiency in interpersonal and communication skills</li> </ul> | <ul style="list-style-type: none"> <li>• Consistently demonstrates proficiency in interpersonal and communication skills in common clinical situations</li> </ul> | <ul style="list-style-type: none"> <li>• Consistently demonstrates proficiency in interpersonal and communication skills in most clinical situations</li> </ul> | <ul style="list-style-type: none"> <li>• Is a leader in the area of interpersonal and communication skills; advice is frequently sought in relating to difficult situations</li> </ul> |

|                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
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**Comments:**