Operative Competency Evaluation

Trainee Identification: _____ Date: __ __/__ __/__ __ __ __

Program: _____ Evaluator Identification: _____

Global Assessment for Laparoscopic Sigmoid Colectomy

Instructions: Please read each action highlighted in grey. Evaluate the performance of each action according to the 1-5 scale listed below the stated action. Then write the corresponding score in the column labeled "score". There are separate sections for the medial and lateral approaches; please follow the directions guiding which items to use.

E	Exposure	Score
E1	**Demonstrates knowledge of optimum skin incision/portal/access** **1** Does not extend an incision when struggling for access **2** **3** Makes an incision clearly too small or too large **4** **5** Verbally states or marks with a pen the anatomical landmarks prior to making the incision Extends incision if necessary for exposure.	
E2	**Achieves an adequate exposure through purposeful dissection in correct tissue planes and identifies all structures correctly** **1** Describes the structure encountered in the dissection in the wrong location. Rough blind palpation of abdominal contents causing damage **2** **3** Tries to maintain the standard approach despite the fact that access is proving difficult. Forgets to examine some of the abdominal contents **4** **5** Is able to give a running commentary to the trainer of the structures encountered. Makes a cautious entry through peritoneum. Systematic inspection of contents of abdomen	
E-T	**Total Score for Exposure**	

Trainee Identification: _____ Date: __ __/__ __/__ __ __ __

LSC-IT	Laparoscopic Sigmoid Colectomy	Score
LSC-IT1	**Port Placement, Trocar pattern** **1** Careless placement causing and/or inadequate pattern **2** **3** Parts placed with some disregard for safety and/or optimal pattern. **4** **5** Safe Placement without injury to abdominal wall structures	
LSC-IT2	**Abdominal exploration** **1** Fails to adequately identify liver, small bowel, pelvis and colon **2** **3** Identifies some but not all of the organs or identifies all organs but not in systematic manner **4** **5** Identifies liver, small bowel, pelvis and colon in a systematic manner	
LSC-IT4	**Appropriate mesenteric/bowel manipulation** **1** Causes mesenteric or bowel injury such as large hematoma and/or significant bleeding **2** **3** Suboptimal manipulation without causing injury or causing peritoneal or serosal injury, small hematomas or minimal bleeding. **4** **5** Gentle precise manipulation of mesentery and bowel without hematomas or bleeding	
	If using lateral to medial approach, continue. If using medial to lateral approach skip to LSC-IT16	
LSC-IT5	**Incision to start the dissection: Lateral to medial (along the left gutter starting at the pelvic inlet)** 1 Fails to gain exposure and identify appropriate plane 2 3 Slow or inadequate identification of appropriate plane 4 5 Easily and quickly identifies appropriate plane	
LSC-IT6	**Taking down the lateral attachments of the sigmoid and descending colon to the abdominal wall and retroperitoneum** 1 Fails to incise attachments 2 3 Incises attachments with difficulty 4	

	5.Easily incises attachments	
LSC-IT7	**Identifies left ureter** 1 Fails to protect the ureter from significant injury 2 3 Has difficulty protecting the ureter, resulting in minor injury to the ureter 4 5. Easily protects the ureter	
LSC-IT8	**Identifies the hypogastric nerves** 1 Fails to protect the nerves from significant injury 2 3 Has difficulty protecting the nerves, resulting in minor injury to the nerves 4 5.Easily protects the nerves	
LSC-IT9	**Release of the lateral attachments of the sigmoid/descending colon:** 1 Fails to incise attachments 2 3 Incises attachments with difficulty 4 5. Easily incises attachments	
LSC-IT10	**Dividing the splenocolic ligament, renocolic ligament** 1 Fails to incise the attachments 2 3 Incises attachments with difficulty 4 5. Easily incises the attachments	
LSC-IT11	**Separates omental attachments from the transverse colon and flexure** 1 Fails to incise the attachments 2 3 Incises attachments with difficulty 4 5. Easily incises the attachments	
LSC-IT12	**Make a window around IMA pedicle** 1 Unable to create proximal and distal exposure of the IMA. 2	

	3 Struggles to create a window cephalad to the IMA. 4 5. Identifies the IMA pedicle through a window anterior to the aorta.	
LSC-IT13	**Isolation of vessels** 1 Unable to circumferentially isolate the IMA pedicle. 2 3 Struggles to isolate the IMA pedicle and places the vessels and nerves in jeopardy. 4 5. Easily and safely encircles and isolates the IMA.	
LSC-IT14	**Divide IMA pedicle.** 1 Unable to safely divide the IMA pedicle 2 3 Struggles to divide the pedicle and requires multiples attempts to complete 4 5. Safely and quickly divides the IMA pedicle with the chosen method.	
LSC-IT15	**Divides IMV if length is needed to reach pelvic anastomosis** 1 Fails to isolate and divide IMV at its origin or traumatizes the vessel or fails to control the vessel during division. 2 3 Isolate IMV with difficulty but without injury and divides the vein with difficulty. 4 5.Easily isolates and divides the IMV without traumatizing the veins	
	To continue, skip to LSC-IT 28	
	Medial to lateral approach	
LSC-IT16	**Incision to start the dissection: Medial to lateral (along the IMA/sigmoidal artery pedicle)** 1 Fails to identify IMA/sigmoidal artery pedicle 2 3 Slow or inadequate identification of IMA/sigmoidal artery pedicle 4 **5** Easily and quickly identifies IMA/sigmoidal artery pedicle	
LSC-IT17	**Creates an incision in the rectosigmoid mesentery into the pelvis, below**	

	the IMA 1 Fails to identify appropriate plane 2 3 Slow or inadequate identification of appropriate plane 4 **5** Easily and quickly identifies appropriate plane	
LSC-IT18	**Develops a plane posterior to the IMA** 1 Fails to identify appropriate plane 2 3 Slow or inadequate identification of appropriate plane 4 **5** Easily and quickly identifies appropriate plane	
LSC-IT19	**Identifies the left hypogastric nerve** 1 Fails to protect the nerves from significant injury 2 3 Has difficulty protecting the nerves resulting in minor injury to the nerves 4 5 Easily protects the nerves	
LSC-IT20	**Identifies the left ureter** 1 Fails to protect the ureter from significant injury 2 3 Has difficulty protecting the ureter resulting in minor injury to the ureter 4 **5** Easily protects the ureter	
LSC-IT21	**Continues dissection in a plane anterior to the retroperitoneal fascia** 1 Fails to identify appropriate plane 2 3 Slow or inadequate identification of appropriate plane 4 **5** Easily and quickly identifies appropriate plane	
LSC-IT22	**Divides IMA pedicle** 1 Fails to isolate and divide IMA pedicle or traumatizes the vessel or fails to control the vessel during division. 2 3 Isolates IMA with difficulty but without injury to the vessels and divides the pedicle with difficulty.	

	4 **5** Easily isolates and divides the IMA without traumatizing the vessels	
LSC-IT23	**Continues medial mobilization under left colon mesentery** 1 Fails to dissect left colon from the retroperitoneum or damages retroperitoneum while dissecting. 2 3 Dissects left colon from retroperitoneum with difficulty and/or causes minor injury. 4 **5** Easily dissects left colon from retroperitoneum	
LSC-IT24	**Divides IMV if length is needed to reach pelvic anastomosis** 1. Fails to isolate and divide IMV at its origin or traumatizes the vessel or fails to control the vessel during division. 2. 3. Isolates IMV with difficulty but without injury and divides the vein with difficulty. 4. 5.Easily isolates and divides the IMV without traumatizing the veins	
LSC-IT25	**Release of the lateral attachments of the sigmoid/descending colon:** **1.**Fails to incise attachments 2. 3.Incises attachments with difficulty 4. 5.Easily incises attachments	
LSC-IT26	**Dividing the splenocolic ligament, renocolic ligament** **1.**Fails to incise the attachments 2. 3.Incises attachments with difficulty 4. 5 .Easily incises the attachments	
LSC-IT27	**Separates omental attachments from the transverse colon and flexure** 1.Fails to incise the attachments 2. 3.Incises attachments with difficulty 4. 5. Easily incises the attachments	

	Continue below for both approaches	
LSC-IT28	**Continues the dissection inferiorly until the rectum is adequately mobilized** 1 Fails to dissect the rectum from the sacrum or damages the mesorectum while dissecting or bleeding from the sacrum results 2 3 Dissects the rectum from the sacrum with difficulty and/ or causes minor injury to the sacrum or mesorectum. 4 5 Easily dissects the mesorectum from the sacrum	

Trainee Identification: _____ Date: __ __/__ __/__ __ __ __

LSC-IT29	**Checking the length of the mobilized specimen to ensure it will be of adequate length without tension** 1 Unable to provide adequate length to the left colon. 2 3 Struggles to identify area of fixation, avoid twisting, and maintain blood supply. 4 **5** Able to follow the dissected edge of the colon mesentery to guarantee colon.	
LSC-IT30	**Bowel Resection: Creating a mini-laparotomy in the left lower quadrant or Pfannenstiel** 1 Unable to select and create a site in the abdominal wall that allows comfortable extraction and anastomosis. 2 3 Struggles to control bleeding and retract the muscle / fascia to enter the abdomen. 4 **5** Appropriate incision and exposure of the abdominal cavity.	
LSC-IT31	**Bowel Resection: Utilizing a wound protector when the end of the proximal colon is delivered through the incision** 1 Unable to place appropriate wound protection/ or failure to perform 2 3 Struggles to place wound protector 4 **5** Appropriate selection of wound protection and easy placement.	
LSC-IT32	**Exteriorization, bowel resection and anastomosis: Choice of proximal transaction site appropriate for disease process** 1 Chooses a poorly vascularized inappropriate segment. 2 3 Requires repeat transaction to achieve good anastomotic site. 4 **5** Chooses well vascularized bowel with no complicating features.	
LSC-IT33	**Bowel Resection: Dividing the rectum and mesorectum at a right angle to the bowel** **1.** Unable to select and divide mesentery appropriate for anastomosis. 2. 3. Struggles to expose mesentery to allow right angle division of the mesentery at a point appropriate for resection.	

	4. 5. Uses three point traction to expose a line of division along the mesentery at right angles to the colon.	
LSC-IT34	**Exteriorization, bowel resection and anastomosis: Alignment of proximal and distal bowel segments for anastomosis** 1 Uses twisted colon for anastomosis 2 3 Struggles to untwist or align colon, with inadequate vision 4 **5** Easily aligns the bowel using handover hand stretching of the proximal colon	
LSC-IT35	**Exteriorization, bowel resection and anastomosis: Stapled or handsewn** 1 Unable to create an anastomosis 2 3 Struggles to accomplish anastomosis 4 **5** Safely uses sutures or circular stapled to create anastomosis	
LSC-IT36	**Exteriorization, bowel resection and anastomosis: Containment / avoidance of spillage** 1 Gross spillage of stool with poor containment 2 3 Struggles to isolate open bowel 4 **5** Contains stool and isolates anastomosis	
LSC-IT37	**Test the anastomosis with air insufflations and saline filled pelvis** 1.Fails to test the anastomosis 2. 3.Tests the anastomosis via proctoscopy, incomplete inflation of the proximal colon 4. 5. Tests the anastomosis via proctoscopy, makes sure there is adequate insufflations with no leak.	
LSC-IT-T	**Total score for Laparoscopic Sigmoid Colectomy**	
C	**Closure**	**Score**

Trainee Identification: _____ Date: __ __/__ __/__ __ __ __

C1	**Completes a sound wound repair where appropriate** 1. Ties very tight sutures, clearly strangulating soft tissue 2. 3.Leaves too large a gap between sutures so that sutures are not properly opposed 4. 5. Closes each layer without tension	
C2	**Protects the wound with dressings, splints and drains where appropriate** 1. Walks away from the operating table without briefing the assistant or the nurse about required dressing. 2. 3. Fails to specify required dressing 4. 5. Personally supervises the application of the wound dressing	
C	**Total score for closure**	
LSC-TS	**Laparoscopic Sigmoid Colectomy Intra-operative Technical Skills**	**Score**
LSC-TS1	**Dissection techniques to preserve structures, avoid blood loss, define planes** 1.Fails to practice meticulous careful dissection 2. 3.Dissection accomplished with more blood loss and/or more trauma than desired 4. 5. Careful meticulous dissection	
LSC-TS2	**Traction and counter traction** 1.Use of expressive or inadequate force 2. 3. Variably has difficulty maintaining three point traction and counter traction for exposure 4. 5. Applies adequate atraumatic traction and counter traction	
LSC-TS3	**Reduction of blood loss / management of small vessels** 1.Fails to recognize or manage small vessels that are actively bleeding 2. 3. Recognizes and manages small vessels that are actively bleeding,	

	but fails to anticipate and control vessels that are likely to bleed 4. 5. Reality recognizes and manages small vessels that are actively bleeding and anticipates and quickly controls vessels that are likely to heal	
LSC-TS4	**Instrument exchange** 1.Fails to recognize the need for an instrument change 2. 3.Recognizes the need for timing of instrument change 4. 5. Recognizes the appropriateness of instrument changes and effectively minimizes the number of required changes.	
LSC-TS5	**Tissue hand to hand transfer** 1.Fails to perform hand to hand transfer 2. 3.Intermittently performs hand to hand transfer 4. 5. Consistently performs hand to hand transfer	
LSC-TS6	**Use of eletrocautery** 1.Unsafe use of electrocautery resulting in significant risk for causing damage 2. 3.Intermittent unsafe use of electrocautery introducing minimal risk for damage or bleeding 4. 5.Safe use of electrocautery with no risk for damage or bleeding	
LSC-TS7	**Use bipolar or ultrasonic devices** 1.Unsafe use of bipolar or ultrasonic devices too close to healthy tissue or with too much tissue introducing significant risk for or causing damage 2. 3.Intermittent unsafe use of bipolar or ultrasonic devices introducing minimal risk for damage or bleeding 4. 5.Safe use of bipolar or ultrasonic devices with no risk of damage or bleeding	
LSC-TS	**Total score for laparoscopic sigmoid colectomy technical skills**	

Trainee Identification: _____ Date: __ __/__ __/__ __ __ __

	Exposure	LSC Intraop Technique	Closure	LSC-TS
Total				

GLOBAL RATING SCALE OF OPERATIVE PERFORMANCE

Domain of Surgical Performance	Notes	UNSAT	GEN SURG	BRD CR SURG	COMP CR SURG	CR Surg
Respect for Tissue	Appropriate handling of tissue, minimizes tissue damage through appropriate use of instruments and appropriate force	☑	☑	☑	☑	☑
Time and Motion	Efficient and economic movement	☑	☑	☑	☑	☑
Instrument Handling	Competent use of instruments, fluid movements without stiffness or awkwardness	☑	☑	☑	☑	☑
Knowledge of Instruments	Familiar with names and uses of instrument required for this procedure, does not ask for wrong instrument or use incorrect names when asking for instruments	☑	☑	☑	☑	☑
Flow of Operation	Demonstrates forward planning; course of operation demonstrated through effortless flow from one move to the next	☑	☑	☑	☑	☑
Use of Assistant (if applicable)	Strategically used assistants to the best advantage at all times	☑	☑	☑	☑	☑
Knowledge of Specific Procedure	Demonstrated familiarity with all steps of the operation /procedure	☑	☑	☑	☑	☑
Quality of Final Product		☑	☑	☑	☑	☑

Trainee Identification: _____ Date: __ __/__ __/__ __ __ __

Based on the **OVERALL** performance, the candidate's current competence	**Unsatisfactory** – Below the level of a general surgeon. **Gen SURG** – Could function as a general surgeon. Basic competence in technical skills. **BRD CR SURG**– Borderline CR surgeon. **COMP CR SURG –** Competent as an independent CR surgeon. More advanced competence in technical skills. **CR SURG**– Could practice without supervision as a colorectal surgeon. Could function as an independent practitioner. Professionally sophisticated. At an exemplary level would also imply the person is competent enough to act as a resource to other health care professionals.	☑	☑	☑	☑	☑

EXAMINER STICKER

CANDIDATE STICKER