



UAEU

جامعة الإمارات العربية المتحدة
United Arab Emirates University

NATIONAL INSTITUTE FOR HEALTH SPECIALTIES

NIHS Entrustable Professional
Activities (EPAs) for Specialty
Education in Clinical Certificate in
Robotic Surgery in GI surgery

Draft version 1

28/01/2025



List of EPAs:

EPA 1: Performing the skills of minimally invasive surgery (MIS), Robotic	3
EPA 2: Performing Robotic Bariatric Surgeries.....	4
EPA 3: Performing procedures on the hepatobiliary system.....	5
EPA 4: Performing procedures on the Colon and Rectum.....	7
EPA 5: Performing procedures inguinal /Ventral/ Umbilical hernia	9

I. General Surgery/Upper and Lower GI Surgery

EPA 1: Performing the skills of minimally invasive surgery (MIS), Robotic

Key Features: This EPA addresses participants that completed wet-labs, console training and assisting for robotic cases.

Assessment Plan:

Direct observation by robotic surgeon

Assessment form collects information on:

- Component performed (*select all that apply*): knot tying and/or suturing; correct using the instruments on the console; correct port placement; docking and targeting; safely introducing the instruments; other (write in)

Basis on formal entrustment decisions:

Collect 4 observations of achievement

- At least 1 of each surgical task
- At least 2 different observers
- At least 2 observations by faculty

Relevant Milestones:

1. P 1.2 Prepare for the procedure, reviewing relevant investigations and pre- operative assessments/consults
2. ME 3.4 Set-up, position, and drape the patient for the procedure
3. ME 5.2 Participate in the surgical safety checklist or equivalent
4. ME 1.4 Apply knowledge of anatomy, key landmarks, and the surgical procedure
5. ME 3.4 Use surgical instruments and equipment correctly and in a fluid manner like port placement, docking and Targeting
6. ME 3.4 Perform safe dissection of relevant structures and tissue layers with gentle tissue handling
7. ME 3.4 Anticipate, recognize, and respond to intraoperative challenges
8. ME 3.4 Demonstrate intraoperative judgement, fluidity of movement, and forward progression
9. COL 1.2 Make effective use of operative assistants
10. P 1.1 Work within personal limits, asking for help as needed
11. COL 1.2 Work effectively with the OR team
12. COM 5.1 Document the surgical procedure in a complete and timely manner

EPA 2: Performing Robotic Bariatric Surgeries

Key Features: This EPA focuses on the performance of surgical approaches and techniques in patients with disorders of upper GI and bariatric.

- These skills may be observed in a range of procedures. Examples include anti-reflux surgery, partial or total gastrectomy, bariatric and metabolic surgery like gastric sleeve and gastric bypass.
- It does not require completion of the surgical procedure from start to finish.

Assessment Plan:

Direct observation by robotic surgeon

Assessment form collects information on:

- Procedure: anti-reflux surgery; partial gastrectomy; total gastrectomy; gastric sleeve; gastric bypass; other (write in)
- Component performed (*select all that apply*): mobilization of stomach, including hiatus; resection of stomach; anastomosis to stomach; other (write in)

Basis on formal entrustment decisions:

Collect 12 observations of achievement

- At least 2 of each surgical task
- At least 7 Gastric Sleeve
- At least 3 Gastric Bypass

Relevant Milestones:

1. P 1.2 Prepare for the procedure, reviewing relevant investigations and pre- operative assessments/consults
2. ME 3.4 Set-up, position, and drape the patient for the procedure
3. ME 5.2 Participate in the surgical safety checklist or equivalent
4. ME 1.4 Apply knowledge of anatomy, key landmarks, and the surgical procedure
5. ME 3.4 Use surgical instruments and equipment correctly and in a fluid manner like port placement, docking and Targeting
6. ME 3.4 Perform safe dissection of relevant structures and tissue layers with gentle tissue handling
7. ME 3.4 Anticipate, recognize, and respond to intraoperative challenges
8. ME 3.4 Demonstrate intraoperative judgement, fluidity of movement, and forward progression
9. COL 1.2 Make effective use of operative assistants
10. P 1.1 Work within personal limits, asking for help as needed
11. COL 1.2 Work effectively with the OR team
12. COM 5.1 Document the surgical procedure in a complete and timely manner

EPA 3: Performing procedures on the hepatobiliary system

Key Features: This EPA focuses on the performance of surgical approaches and techniques in patients with disorders of the hepatobiliary system.

- It does not require completion of the surgical procedure from start to finish.
- Observation focuses on the following surgical skills: mobilization of liver, wedge resection/biopsy of liver, dissection of biliary tree, dissection of gallbladder, intraoperative cholangiogram, common bile duct (CBD) drainage, biliary-enteric anastomosis, and hemorrhage control. Pancreatic exposure, kocherisation, Pancreatic pseudocyst management
- These skills may be observed in a range of procedures. Examples include hepatic resection, cholecystectomy, CBD exploration, CBD resection and biliary reconstruction, Whipple, pancreatectomy, operative management of pancreatic pseudocyst.

Assessment Plan:

Direct observation by robotic surgeon

Assessment form collects information on:

- Presentation: malignant; benign
- Procedure (*select all that apply*): hepatic resection; cholecystectomy; CBD exploration; CBD resection and biliary reconstruction; Whipple; organ harvest; repair of traumatic injury to liver and common bile ducts; and kocherization of duodenum, surgical exposure of the pancreas, resection of the pancreas, and drainage of peripancreatic fluid collections; other (write in)
- Component performed (*select all that apply*): mobilization of liver; wedge resection/biopsy of liver; dissection of biliary tree; dissection of gallbladder; intraoperative cholangiogram; CBD drainage; biliary-enteric anastomosis; hemorrhage control Whipple's procedure, Whipple, operative management of pancreatic pseudocystic lesions, distal pancreatectomy, total pancreatectomy; other (write in)

Basis on formal entrustment decisions:

Collect 19 observations of achievement

- At least 4 of each surgical task
- At least 4 pancreatic surgeries
- At least 10 dissections of gallbladder
- At least 1 hemorrhage control on the robot

Relevant Milestones:

1. P 1.2 Prepare for the procedure, reviewing relevant investigations and pre-operative assessments/consults
2. ME 3.4 Set-up, position, and drape the patient for the procedure
3. ME 5.2 Participate in the surgical safety checklist or equivalent
4. ME 1.4 Apply knowledge of anatomy, key landmarks, and the surgical procedure

5. ME 3.4 Use surgical instruments and equipment correctly and in a fluid manner like port placement, docking and Targeting
6. ME 3.4 Perform safe dissection of relevant structures and tissue layers with gentle tissue handling
7. ME 3.4 Anticipate, recognize, and respond to intraoperative challenges
8. ME 3.4 Demonstrate intraoperative judgement, fluidity of movement, and forward progression
9. COL 1.2 Make effective use of operative assistants
10. P 1.1 Work within personal limits, asking for help as needed
11. COL 1.2 Work effectively with the OR team
12. COM 5.1 Document the surgical procedure in a complete and timely manner

II. Colorectal Surgeries

EPA 4: Performing procedures on the Colon and Rectum

Key Features: This EPA focuses on performance of surgical approaches and techniques in patients with disorders of the colon and rectum. It does not require completion of the surgical procedure from start to finish.

- Observation focuses on the following surgical skills: colon resection, anastomosis, mobilization, vascular control, mobilization of the rectum.
- These skills may be observed in a range of procedures. Examples include, ileocolic resection, right hemicolectomy, left hemicolectomy, sigmoid colon resection, subtotal colectomy, Hartmann's resection, Hartmann's reversal, proctocolectomy, low anterior resection, including total mesorectal excision (TME); abdominal perineal resection.

Assessment Plan:

Direct observation by robotic surgeon

Assessment form collects information on:

- Type of procedure: elective; urgent
- Presentation: benign; malignant
- Procedure: (select all that apply): ileocolic resection; right hemicolectomy; left hemicolectomy; sigmoid colon resection; subtotal colectomy; colostomy reversal; Hartmann's resection; Hartmann's reversal; proctocolectomy; low anterior resection, including total mesorectal excision (TME); abdominal perineal resection; rectal prolapse procedures; other (write in)
- Component performed (*select all that apply*): colon resection; anastomosis; mobilization; vascular control, mobilization of the rectum; other (write in)

Basis on formal entrustment decisions:

Collect 10 observations of achievement

- At least 2 of each surgical component
- At least 2 right colon mobilization
- At least 2 left colon mobilization
- At least 1 splenic flexure mobilization
- At least 3 rectum TME dissection

Relevant Milestones:

1. P 1.2 Prepare for the procedure, reviewing relevant investigations and pre-operative assessments/consults
2. ME 3.4 Set-up, position, and drape the patient for the procedure
3. ME 5.2 Participate in the surgical safety checklist or equivalent
4. ME 1.4 Apply knowledge of anatomy, key landmarks, and the surgical procedure

5. ME 3.4 Use surgical instruments and equipment correctly and in a fluid manner like port placement, docking and Targeting
6. ME 3.4 Perform safe dissection of relevant structures and tissue layers with gentle tissue handling
7. ME 3.4 Anticipate, recognize, and respond to intraoperative challenges
8. ME 3.4 Demonstrate intraoperative judgement, fluidity of movement, and forward progression
9. COL 1.2 Make effective use of operative assistants
10. P 1.1 Work within personal limits, asking for help as needed
11. COL 1.2 Work effectively with the OR team
12. COM 5.1 Document the surgical procedure in a complete and timely manner

EPA 5: Performing procedures inguinal /Ventral/ Umbilical hernia

Key Features: This EPA focuses on the performance of surgical approaches and techniques in patients with abdominal and inguinal hernias disorders. It does not require completion of the surgical procedure from start to finish.

- Observation focuses on the following surgical skills: inguinal hernia, ventral hernia, umbilical hernia repairs with mesh and to have a good overview of the anatomy of each.
- These skills may be observed in a range of procedures. Examples include, adhesionlysis, preoperational preparation in TAPP in inguinal hernia, closure of peritoneum with correct suturing, umbilical hernia repair and retromusclar repair with mesh insertion in ventral hernia, defect closure in umbilical and ventral hernias.

Assessment Plan:

Direct observation by robotic surgeon

Assessment form collects information on:

- Type of procedure: elective, urgent
- Presentation: ventral hernias; umbilical hernia; inguinal hernia.
- Procedure: TAPP, umbilical hernia repair with mesh; ventral hernia repair with retromusclar mesh insertion and peritoneal closure, with defect closure; other (write in)
- Component performed (*select all that apply*): port insertion; mesh insertion; peritoneal dissection; correct location and insertion of the mesh; closure of the peritoneal layer; other (write in)

Basis on formal entrustment decisions:

Collect 21 observations of achievement

- At least 2 of each surgical task
- At least 7 dissection of peritoneum in inguinal hernia in TAPP
- At least 4 umbilical hernia
- At least 5 retro muscular hernia repair preparation and dissection for ventral hernia

Relevant Milestones:

1. P 1.2 Prepare for the procedure, reviewing relevant investigations and pre- operative assessments/consults
2. ME 3.4 Set-up, position, and drape the patient for the procedure
3. ME 5.2 Participate in the surgical safety checklist or equivalent
4. ME 1.4 Apply knowledge of anatomy, key landmarks, and the surgical procedure
5. ME 3.4 Use surgical instruments and equipment correctly and in a fluid manner like port placement, docking and Targeting
6. ME 3.4 Perform safe dissection of relevant structures and tissue layers with gentle tissue handling

7. ME 3.4 Anticipate, recognize, and respond to intraoperative challenges
8. ME 3.4 Demonstrate intraoperative judgement, fluidity of movement, and forward progression
9. COL 1.2 Make effective use of operative assistants
10. P 1.1 Work within personal limits, asking for help as needed
11. COL 1.2 Work effectively with the OR team
12. COM 5.1 Document the surgical procedure in a complete and timely manner

