



Royal College
of Surgeons

ADVANCING SURGICAL CARE

Intermediate Skills in Laparoscopic Surgery

Programme

Course Director

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The Royal College of Surgeons of England

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Intermediate Skills in Laparoscopic Surgery

Day 1	
Time	Session
0830-0900	Registration and Refreshments
0900-0915	<p>Introduction and aims of the course</p> <p>At the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Use learning outcomes and identify their own goals in order to get the most from the course 2. Identify faculty and other participants.
0915-0930	<p>Section One – tutorial and demonstration</p> <ul style="list-style-type: none"> - Revision of basic suturing and knot tying - Advanced/alternative knots and tying - Ergonomics. Sitting and standing. Port site placement - Holding and manipulating tissue <p>At the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Identify the steps required to perform a safe and secure laparoscopic knot. 2. Outline the principles of good ergonomic port placement and surgeon and instrument positioning.
0930-1030	<p>Practical Session One</p> <p>Knotting</p> <ul style="list-style-type: none"> - Single knots thrown on dry tissue - Simple Szabo knot - Surgeons knot - Extracorporeal Roeder knot <p>(Suggested timings: 30 mins per participant)</p> <p>At the end of this session, participants will be able to demonstrate:</p> <ol style="list-style-type: none"> 1. One safe technique of tying a secure intracorporeal knot. 2. An effective and secure extracorporeal Roeder knot using suture material
1030-1045	Refreshments
1045-1300	<p>Practical Session Two</p> <ul style="list-style-type: none"> - Nissen fundoplication - Laparoscopic feeding gastrostomy <p>Suggested timings: (30 minutes per participant per exercise)</p> <p>At the end of this session, participants will be able to demonstrate:</p> <ol style="list-style-type: none"> 1. the safe closure of a hiatus hernia and a secure fundoplication on a model 2. the safe placement of a feeding tube into a gastrostomy on a model
1300-1400	Lunch
1400-1415	Section Two – tutorial

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	<p>Use of the harmonic scalpel</p> <p>At the end of this session, participants will be able to:</p> <ul style="list-style-type: none"> - Explain how ultrasonic energy sources work - Demonstrate how to use an ultrasonic dissector effectively
1415-1600	<p>Practical Session Three Laparoscopic Pyloroplasty Suggested timings: (45 minutes per participant)</p> <p>At the end of this session, participants will be able to demonstrate:</p> <ol style="list-style-type: none"> 1. an accurate incision to open the pylorus on the model 2. accurate and secure suturing techniques to form the pyloroplasty on an animal model
1600-1615	Refreshments
1615-1745	<p>Practical Session Four Laparoscopic Gastroenterostomy Suggested timings: (45 minutes per participant)</p> <p>At the end of this session, participants will be able to demonstrate:</p> <ol style="list-style-type: none"> 1. accurate placement of sutures to hold the 'stomach' and 'bowel' together on a model 2. accurate incisions to achieve a gastrotomy and an enterotomy on the model 3. Accurate and secure suturing techniques to form the anastomosis on the model.
1745	Close

Day 2

Time	Content
0830-0900	<p>Section Three – tutorial and demonstration</p> <ul style="list-style-type: none"> - Difficult access - Ergonomics - Theatre set-up <p>At the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Outline the principles of good ergonomics in relation to surgeon and patient positioning and theatre set up 2. Identify the different means of access and describe how to avoid complications and identify techniques for dealing with difficult access.
0900-1015	<p>Practical Session Five</p> <ul style="list-style-type: none"> - Exploration of common bile duct. - Transductal approach and insertion of T-Tube - Closure of choledochotomy <p>Suggested timings: (30 minutes per participant)</p> <p>At the end of this session, participants will be able to demonstrate:</p> <ol style="list-style-type: none"> 1. Safe dissection of soft tissues to expose the CBD on the model

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	<ol style="list-style-type: none"> 2. Effective incision into the CBD and accurate placement of a T-tube on the model 3. Accurate placement of sutures to secure the T-Tube on the model.
1015-1045	Refreshments
1045-1100	<p>Section Four - tutorial Haemostasis</p> <p><i>At the end of this session, participants will be able to:</i></p> <ol style="list-style-type: none"> 1. Identify different means of obtaining haemostasis and differentiate between mechanical and chemical means 2. Explain the advantage and disadvantage of the different techniques in different situations 3. Define the principles of safely obtaining haemostasis and control of bleeding
1100-1230	<p>Practical Session Six Laparoscopic dissection and mobilisation of mesenteric vessels Suggested timings: (15 minutes per participant)</p> <p><i>At the end of this session, participants will be able to demonstrate:</i> Safe and gentle tissue dissection to expose the vessels on an animal model.</p> <hr/> <p>Practical Session Seven Laparoscopic inguinal hernia repair Suggested timings: (30 minutes per participant)</p> <p><i>At the end of this session, participants will be able to demonstrate:</i></p> <ol style="list-style-type: none"> 1. Safe and accurate use of the laparoscopic scissors to open up the 'peritoneal layer' on a model 2. Careful and safe dissection to expose the 'extraperitoneal space' on the model 3. Accurate sizing and positioning of a synthetic piece of mesh into the correct position on the model 4. Accurate and secure suturing technique to close the 'peritoneum' on the model.
1230-1330	Lunch
1330-1400	<p>Section Five – tutorial and video Laparoscopic staplers</p> <p><i>At the end of this session, participants will be able to:</i></p> <ul style="list-style-type: none"> - Define the indications for use of staplers in laparoscopic surgery - Explain the different types of staplers from different manufacturers and define their similarities and their differences - Explain how to select different staplers for different tissues.
1400-1500	<p>Practical Session Eight Laparoscopic Side to side stapled anastomosis with continuous suture closure of enterotomy Suggested timings: (30 minutes per participant)</p> <p><i>At the end of this session, participants will be able to demonstrate:</i></p> <ol style="list-style-type: none"> 1. Accurate placement of stay sutures to hold the two pieces of bowel together in the

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	<p>model</p> <ol style="list-style-type: none">2. Accurate placement of incisions to achieve enterotomies on both loops of bowel.3. Correct placement and use of the laparoscopic stapler to form the anastomosis4. Accurate and effective suturing of the bowel to achieve closure of the enterotomy in the model
1500-1515	<p>Section Five – tutorial and video Additional stapling techniques (talk)</p> <p><i>At the end of this session, participants will be able to:</i> See above in laparoscopic staplers for learning outcomes.</p>

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1515-1530	Refreshments
1530-1630	<p>Practical Session Nine (time permitting)</p> <ul style="list-style-type: none"> - Laparoscopic hand sewn continuous side to side entero-enterostomy <p>Suggested timings: (30 minutes per participant)</p> <p><i>Note that this session and the one below may be omitted if the participants needed more time than the suggested timings in order to complete their exercise. It is important to try and get the participants to complete their practical exercises as much as possible and the pace should be dictated by the group as a whole.</i></p> <p>At the end of this session, participants will be able to demonstrate:</p> <ol style="list-style-type: none"> 1. Accurate placement of stay sutures to hold the two pieces of bowel together in the model 2. Accurate placement of incisions to achieve matching enterotomies on the two loops of bowel. 3. Accurate and effective placement of continuous sutures to achieve a side to side anastomosis on the model
1630-1700	<p>Section Six (time permitting) – tutorial and video</p> <ul style="list-style-type: none"> - Video demonstration of double/triple laparoscopic stapled entero-enterostomy without suture - Video demonstration of laparoscopic end to end intracorporeal anastomosis with stapled ends <p>At the end of this session, participants will be able to: Describe the different techniques of achieving an effective bowel anastomosis.</p>
1700-1730	<p>Open discussion and feedback</p> <p>In this session:</p> <p>This should be an opportunity for the Faculty and the participants to provide feedback on good aspects of the course and offer suggestions for improvement. Both sides should be asked to complete evaluation forms or be directed to websites to complete their evaluation. Participants should be encouraged to practice their newly acquired skills either on simulators or ask for opportunities to do so in their work.</p>
1730	Course Close

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