

BOWEL ANASTOMOSIS AND STOMAS

MODULE: GENERAL SURGERY, UROLOGY

TARGET: CT1 - ST4

BACKGROUND:

Bowel resection and anastomosis is a frequent occurrence during general surgical operations as well as during elective urological reconstructive procedures. Emergency operations frequently involve the construction of a stoma, especially in the presence of contamination or obstructed gut. This skills simulation specifically targets these skills - faculty will also explore with the learners the indications for these different stomas and the contra-indications for bowel anastomosis.

RELEVANT AREAS OF THE CURRICULUM

The ISCP states that by the end of CT2 the trainee should be a safe and useful assistant in the operating room and be able to perform some simple procedures under minimal supervision and perform more complex procedures under direct supervision.

Module 2: Common surgical conditions

Intestinal obstruction Intestinal perforation Abdominal wall stomata

Module 3: Basic surgical skills

To handle surgical instruments safely
To handle tissues safely
To incise and close superficial tissues accurately
To tie secure knots
Safely use surgical diathermy
To assist helpfully, even when the operation is not familiar
Handle tissues gently with appropriate instruments
understand the principles of anastomosis

INFORMATION FOR FACULTY

LEARNING OBJECTIVES

To be able to construct an end colostomy

To be able to construct a loop colostomy

To be able to construct a loop ileostomy

To be able to perform a handsewn or stapled small bowel anastomosis





SCENE SETTING

Location: Bench-top laboratory setting

Expected duration of scenario: 90 mins with ongoing technical feedback throughout procedure

EQUIPMENT AND CONSUMABLES

Non-sterile gloves

Inco pad / sheet

Colostomy bags, Colostomy rods

Number 10 scalpel blade, Scalpel handle No. 3

Sharps bin

Swabs - small

Kidney dish

Cork mat

Pea soup

Gilles toothed forceps

Debakey forceps

GA 75 stapler plus refill for every learner

McIndoe scissors

6 x Mosquito clips

3/0 Vicryl suture x 8

2/0 Vicryl ties x 4

3/0 PDS suture x8

3/0 Vicryl rapide x8

Soft bowel clamps x2

Straight Mayo scissors

Finger-switch diathermy hand piece with spatula blade

ValleyLab diathermy machine – Force 2 (second hand auction price around £750)

ValleyLab diathermy plates E7506 POLYHESIVE NON REM RET EL £79.50 for 50

Clincial waste bags

Pig belly large - £7.00 each Fresh Tissue Supplies

Pig colon £3.30 Fresh Tissue Supplies

Pig small bowel with mesentry £4.20 Fresh Tissue Supplies

PARTICIPANT BRIEFING

Under faculty guidance you will construct an end colostomy, then a loop colostomy.

Use the diathermy to incise the pork belly. Then move on to form a loop ileostomy - the small bowel can be filled with pea soup to simulate small bowel contents.

The final task is to perform a small bowel resection (it is suggested that you resect the ileostomy that you have created) divide the mesentery between clips, resect the bowel and then perform a small bowel anastomosis either stapled or hand-sewn - check the security of your anastomosis by filling the bowel with pea soup.

FACULTY BRIEFING

Please give both generic and specific feedback upon trainees suturing skills, in particular pay attention to the amount of tension placed on the tissues.

Please give careful instruction as to how to 'spout' the ileostomy





SURGERY > TECHNICAL SCENARIO 8 > BOWEL ANASTAMOSES & STOMAS

INFORMATION FOR PARTICIPANTS

KEY POINTS

Indications for the different types of stomas How to ensure that the stoma spouts adequately Sub-mucosal anastomotic technique Familiarity with stapling devices

RELEVANCE TO THE CURRICULUM

Module 3 Basic surgical skills

Safe administration of appropriate local anaesthetic agents.

Acquisition of basic surgical skills in instrument and tissue handling.

Incise superficial tissues accurately with suitable instruments.

Close superficial tissues accurately.

Tie secure knots.

Achieve haemostasis of superficial vessels.

Use suitable methods of retraction.

Handle tissues gently with appropriate instruments.

Assist helpfully, even when the operation is not familiar.

Specific curricular items related to inguinal hernia

Anatomy of inguinal region including inguinal canal Hernia repair-inguinal

WORKPLACE-BASED ASSESSMENTS



Direct Observation of Procedural Skills (Surgical DOPS)

Trainer/Trainee Guidance Points

These guidance points are to be used in conjunction with point 6 ('performs the technical aspects in line with the guidance notes') on the main Surgical DOPS form. A mark should <u>not</u> be given for each of these points – they should instead be used to inform the mark to be given for point 6.

Specialty: General Surgery

Procedure: Formation of Loop Ileostomy (part of other operation)

Steps to be performed

- 1. Abdomen open at laparotomy. Stoma site marked.
- 2. Circular trephine of skin of appropriate diameter. Longitudinal split of rectus muscle to create aperture of appropriate size
- 3. Withdrawal of suitable loop of ileum through abdominal wall and fix if necessary $% \left(1\right) =\left(1\right) \left(1$
- 4. Prevent retraction of loop with sling or bridge and identify proximal and distal limb
- 5. Close abdominal wound
- 6. Incision of distal aspect of loop near skin level with folding back to produce a protruding stoma
- 7. Appropriate placement of mucocutaneous sutures
- 8. Accurately fashion flange of stoma appliance to fit stoma

There is a DOPS for creation of a loop ileostomy which may be used in modified form during this simulation

There is a PBA for emergency small bowel resection on the ISCP which can be used in modified form in this simulation

- see left and on next page.





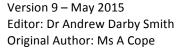
General Surgery PBA: EMERGENCY - Small Bowel Resection			
Trainee:	Assessor:		Date:
Assessor's Position*:	Email (institutional):		GMC No:
Duration of procedure (mins):	Duration of assessment period (mins):		Hospital:
Operation more difficult than usual? Yes / N reason)	o (If yes, state	[] Tick this box if this setting.	PBA was performed in a Simulated

IMPORTANT: The trainee should explain what he/she intends to do throughout the procedure. The Assessor should provide verbal prompts if required, and intervene if patient safety is at risk.

Rating:
N = Not observed or not appropriate
D = Development required

S = Satisfactory standard for CCT (no prompting or intervention required)

Competencies and Definitions			Comments
I. Conse	ent entered and the second and the s		
C1	Demonstrates sound knowledge of indications and contraindications including alternatives to surgery		
C2	Demonstrates awareness of sequelae of operative or non operative management		
C3	Demonstrates sound knowledge of complications of surgery		
C4	Explains the procedure to the patient / relatives / carers and checks understanding		
C5	Explains likely outcome and time to recovery and checks understanding		
II. Pre o	peration planning		
PL1	Demonstrates recognition of anatomical and pathological abnormalities (and relevant co-morbidities) and selects appropriate operative strategies / techniques to deal with these		
PL2	Demonstrates ability to make reasoned choice of appropriate equipment, materials or devices (if any) taking into account appropriate investigations e.g. x-rays		
PL3	Checks materials, equipment and device requirements with operating room staff		
PL4	Ensures the operation site is marked where applicable		
PL5	Checks patient records, personally reviews investigations		
III. Pre	pperative preparation		
PR1	Checks in theatre that consent has been obtained		
PR2	Gives effective briefing to theatre team		
PR3	Ensures proper and safe positioning of the patient on the operating table		
PR4	Demonstrates careful skin preparation		
PR5	Demonstrates careful draping of the patient's operative field		
PR6	Ensures general equipment and materials are deployed safely (e.g. catheter, diathermy)		
PR7	Ensures appropriate drugs administered		
PR8	Arranges for and deploys specialist equipment (e.g. image intensifiers) effectively		
IV. Expo	osure and closure		
E1	Demonstrates knowledge of optimum skin incision / portal / access		
E2	Achieves an adequate exposure through purposeful dissection in correct tissue planes and identifies all structures correctly		
E3	Completes a sound wound repair where appropriate		





^{*} Assessors are normally consultants (senior trainees may be assessors depending upon their training level and the complexity of the procedure)



E4	Protects the wound with dressings, splints and drains where appropriate	
V. Intra	pperative technique: global (G) and task-specific items (T)	
IT1(G)	Follows an agreed, logical sequence or protocol for the procedure	
IT2(G)	Consistently handles tissue well with minimal damage	
IT3(G)	Controls bleeding promptly by an appropriate method	
IT4(G)	Demonstrates a sound technique of knots and sutures/staples	
IT5(G)	Uses instruments appropriately and safely	
IT6(G)	Proceeds at appropriate pace with economy of movement	
IT7(G)	Anticipates and responds appropriately to variation e.g. anatomy	
IT8(G)	Deals calmly and effectively with unexpected events/complications	
IT9(G)	Uses assistant(s) to the best advantage at all times	
IT10(G)	Communicates clearly and consistently with the scrub team	
IT11(G)	Communicates clearly and consistently with the anaesthetist	
IT12(T)	Explores the abdomen in a logical fashion, defines the diagnosis and determines need for small bowel resection	
IT13(T)	Mobilises small bowel with due regard to adjacent structures	
IT14(T)	Demonstrates and ligates mesenteric vessels	
IT15(T)	Divides and resects bowel and makes effective anastomosis with sutures, closing mesenteric defect	
VI. Post	operative management	
PM1	Ensures the patient is transferred safely from the operating table to bed	
PM2	Constructs a clear operation note	
РМ3	Records clear and appropriate post operative instructions	
PM4	Deals with specimens. Labels and orientates specimens appropriately	

Global Summary

Level at v	Tick as appropriate	
Level 0	Insufficient evidence observed to support a summary judgement	
Level 1	Unable to perform the procedure, or part observed, under supervision	
Level 2	Able to perform the procedure, or part observed, under supervision	
Level 3	Able to perform the procedure with minimum supervision (needed occasional help)	
Level 4	Competant to perform the procedure unsupervised (could deal with complications that arose)	

Comments by Assessor (include	ding strengths and areas for de	velopment):	
Comments by Trainee:			
Trainee Signature:		Assessor Signature:	
Assessor training?	[] No [] Written [] Web/CD [] Workshop		
Time taken for feedback	mins		
	Not at all	Highly	





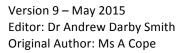
PARTICIPANT REFLECTION

TAKTICH ANT KETELETION
What have you learned from this experience? (Please try and list 3 things)
How will your practice now change?
What other actions will you now take to meet any identified learning needs?





PARTICIPANT FEEDBACK					
Date of training session:					
Learner grade:					
J					
	Strongly	Agree	Neither agree	Disagree	Strongly
I found this skills simulation	Agree		nor disagree		Disagree
useful					
uscrai					
I understand more about the					
simulation subject					
I have more confidence to					
deal with this operative case					
The material covered was					
relevant to me					
How could this simulation be in anything in the disagree/strong			? This is especially	important if yo	u have ticked







FACULTY DEBRIEF - TO BE COMPLETED BY FACULTY TEAM

What went particularly well during this simulation?
What did not go well, or as well as planned?
Why didn't it go well?
why didn't it go well.
How could the simulation be improved for future participants?

