

Laparoscopic Appendicectomy Guidelines

Definition:	Removal of the appendix at laparoscopic surgery
Introduction:	<p>Appendicectomy is arguably the commonest surgical emergency procedure performed</p> <p>In developed countries it is estimated that 8% of the population has underwent this procedure. Following the advent of laparoscopic surgery and the surgeon's increasing familiarity with this technique, there is a growing trend towards laparoscopic appendicectomy (LA) given its proposed benefits</p>
Indication For Procedure:	<p>Clinical and/or radiological evidence of acute appendicitis without features of peritonitis or perforation</p> <p>Suspected acute appendicitis. A diagnostic laparoscopy performed in this instance proceeding with appendicectomy if:</p> <ul style="list-style-type: none">It appears macroscopically abnormalIt appears normal and no other pathology can be identified <p>(A right hemi-colectomy is advocated if there is a suspected tumour of the appendix)</p>
Relative Contra-indications	<p>Peritonitis</p> <p>Perforation of the appendix</p> <p>(There is evidence of a significantly higher incidence of intra-abdominal abscesses following LA)</p> <p>Previous surgery</p>
Contra indications:	<p>Inexperienced surgeon</p> <p>(The proposed benefits of laparoscopic surgery are only clinically evident when performed by surgeons with the necessary expertise. Those unfamiliar with laparoscopic surgery are best advised to continue with the open procedure as the benefits are in effect quite small)</p> <p>Unstable patient</p> <p>Grossly distorted anatomy</p> <p>Appendiceal abscess (simple drainage is advised)</p> <p>Coagulopathy, sepsis or open skin lesions, ascites</p>
Pre-Operative Investigations:	<p>Clinical suspicion</p> <p>White Cell Count</p> <p>Abdominal X-ray</p> <p>US or CT of the abdomen</p> <p>Antibiotic prophylaxis</p> <p>DVT prophylaxis for at risk patients</p>

HOSPITALISATION:

- **Pre-op admission days:** 0 (usually performed on emergency or urgent basis)

- **Theatre Requirements:** Basic laparoscopic camera, monitor/s and equipment
Laparoscopic instruments
 - Atraumatic graspers
 - Clip applicator
 - Scissors or hook (connected to diathermy)
 - Endoloop or endoscopic stapling device
 - Specimen bag

- **Length of stay (LOS):** 1-3 days
Increased duration for complicated/septic cases

- Level of Care:** General ward

- Advantages:**
 - Reduced post-operative pain
 - Reduced wound sepsis
 - Improved cosmesis
 - Earlier return of gut function
 - Reduced hospital stay
 - Earlier return to normal activity
 - Reduced diagnostic uncertainty

- Disadvantages:**
 - More expensive
 - Prolonged operating time
 - Increased incidence of intra-abdominal abscesses

- References:** Saureland S, Lefering R, Neugbauer EAM. Laparoscopic versus open surgery for suspected appendicitis. *Cochrane Database of Systemic Reviews* 2004, Issue 4. Art No CD001546. DOI:10.1002/14651858.CD00156.pub2
EAES Guidelines.....

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- Comments:**

The proposed benefits of LA although significant are very small and unlikely to be realised if performed by inexperienced surgeons.

The increased costs of LA may prove to be quite substantial and therefore outweigh the benefits in some clinical settings

LA has proven most beneficial in young female and/or obese patients and therefore advocated for routine application in these patients

There is no consensus regarding management of the appendiceal stump (endoloop versus stapling device) and therefore no recommendation can be offered

There is no clear policy regarding management of an innocent appendix where no other pathology or cause can be found, discretion is advised

Employing LA in the setting of peritonitis and/or perforation is highly controversial. Evidence shows that there is a significantly higher risk of intra-abdominal abscesses in LA (compared with the open procedure) and it is therefore ill advised and cannot be recommended

There is no evidence to suggest that there is a lower incidence of adhesions following LA