

Surgical antibiotic prophylaxis: abdominal surgery

This table summarises information in *Therapeutic Guidelines* about the indications and first-line regimens for surgical antibiotic prophylaxis. See [Therapeutic Guidelines](#) for detailed and up-to-date information, including adjustment of antibiotic choice, dosing and timing based on specific patient factors.

Infective endocarditis prophylaxis may be required for patients with specific cardiac conditions who are undergoing a procedure for which surgical antibiotic prophylaxis is not required—see [Therapeutic Guidelines](#) for indications and regimens.

If surgical antibiotic prophylaxis is indicated, a single preoperative dose of antibiotic(s) is sufficient for the significant majority of procedures. In specific circumstances, a repeat intraoperative dose may also be necessary—see [Therapeutic Guidelines](#) for discussion.

For a small minority of procedures (see Notes column), there are inadequate data to show that a single dose of surgical antibiotic prophylaxis is as effective as 24 hours of prophylaxis. For these procedures, postoperative doses can be considered but prophylaxis should not continue beyond 24 hours.

This table should be used in conjunction with **clinical judgement**. Prescribers should consider the **harm–benefit profile** of a drug in each patient (eg consider potential drug interactions).

Procedures	Is surgical antibiotic prophylaxis indicated?	Surgical antibiotic prophylaxis regimens	Notes
GASTRODUODENAL AND OESOPHAGEAL SURGERY			
endoscopic procedures	NO		
nonendoscopic procedures that do not enter the gastrointestinal tract lumen	ONLY IF the patient has risk factors for postoperative infection	cefazolin 2 g (child: 30 mg/kg up to 2 g) intravenously, within the 60 minutes before surgical incision	Risk factors for postoperative infection include morbid obesity; gastric outlet obstruction; reduced gastric acidity or motility; and gastrointestinal bleeding, malignancy or perforation.
nonendoscopic procedures that enter the gastrointestinal tract lumen	YES	cefazolin 2 g (child: 30 mg/kg up to 2 g) intravenously, within the 60 minutes before surgical incision	
BILIARY SURGERY, INCLUDING LAPAROSCOPIC SURGERY			
laparoscopic surgery	ONLY IF the patient has risk factors for postoperative infection	cefazolin 2 g (child: 30 mg/kg up to 2 g) intravenously, within the 60 minutes before surgical incision	Risk factors for postoperative infection include age older than 70 years, diabetes, obstructive jaundice, common bile duct stones, acute cholecystitis, and nonfunctioning gallbladder.
open cholecystectomy	YES	cefazolin 2 g (child: 30 mg/kg up to 2 g) intravenously, within the 60 minutes before surgical incision	If the patient is being treated with antibiotic therapy for acute cholecystitis, additional antibiotic prophylaxis may not be required—see Therapeutic Guidelines for discussion.
SMALL INTESTINAL SURGERY			
endoscopic procedures	NO		
nonendoscopic procedures	YES	cefazolin 2 g (child: 30 mg/kg up to 2 g) intravenously, within the 60 minutes before surgical incision PLUS if the small intestine is obstructed metronidazole 500 mg (child: 12.5 mg/kg up to 500 mg) intravenously, within the 120 minutes before surgical incision	

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COLORECTAL SURGERY			
endoscopic procedures	NO		
nonendoscopic procedures	YES	cefazolin 2 g (child: 30 mg/kg up to 2 g) intravenously, within the 60 minutes before surgical incision PLUS metronidazole 500 mg (child: 12.5 mg/kg up to 500 mg) intravenously, within the 120 minutes before surgical incision	
APPENDICECTOMY			
all appendectomy procedures	YES	cefazolin 2 g (child: 30 mg/kg up to 2 g) intravenously, within the 60 minutes before surgical incision PLUS metronidazole 500 mg (child: 12.5 mg/kg up to 500 mg) intravenously, within the 120 minutes before surgical incision	This advice applies to laparoscopic appendectomy. If the patient is being treated with antibiotic therapy for appendicitis, additional antibiotic prophylaxis is not required—see Therapeutic Guidelines for discussion.
HERNIA REPAIR			
hernia repair with or without prosthetic material	YES	cefazolin 2 g (child: 30 mg/kg up to 2 g) intravenously, within the 60 minutes before surgical incision PLUS if entry into the bowel lumen is expected metronidazole 500 mg (child: 12.5 mg/kg up to 500 mg) intravenously, within the 120 minutes before surgical incision PLUS if patient known to be or at increased risk of being colonised or infected with MRSA vancomycin (adult and child) 15 mg/kg intravenously, started within the 120 minutes before surgical incision (recommended infusion rate 10 mg/minute)	For risk factors for MRSA infection, see Therapeutic Guidelines .

MRSA = methicillin-resistant *Staphylococcus aureus*