

ENDOSCOPY IN PATIENTS WITH DIABETES

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As approximately 2% of the population has diabetes, managing glycaemic control before and after endoscopy is an essential aspect of endoscopic practice. Each unit should develop a policy for managing diabetic control during endoscopy. Factors influencing management include the type of diabetes procedure that is planned, the preparation/recovery time and the history of diabetes control in the individual patient. Thus, a patient with poorly controlled insulin-dependent diabetes undergoing colonoscopy will require more input than a patient with type 2 diabetes on oral hypoglycaemic medication undergoing upper gastrointestinal endoscopy. All patients should bring their own medication to the unit and should be advised not to drive in case there is an alteration in their glycaemic control. Most patients can be managed using clear protocols on an outpatient basis; however, elderly patients and those with brittle control should be admitted. In general, patients with diabetes should be endoscoped first on the morning list. In complex cases the diabetes team should be involved. The majority of endoscopies can be performed safely without the need for routine antibiotic prophylaxis. However, given that certain endoscopic procedures are associated with a significant bacteraemia (Table 9.2), there are several specific situations where antibiotic cover is required to prevent either bacterial endocarditis, infection of surgical prostheses or systemic sepsis. In general, the risk of infection relates to the level of bacteraemia and the risk of the underlying medical condition. Traditionally, patients with a previous history of endocarditis or a metallic heart valve received antibiotic prophylaxis for all endoscopic procedures, and some national guidelines still reflect this. However, in 2009 UK guidelines changed in response to the low reported incidence of infective endocarditis in this patient group undergoing endoscopy. Patients with severe neutropenia may also require antibiotic prophylaxis for endoscopy. The antibiotic regime used will depend on local guidelines. Procedures such as endoscopic percutaneous gastrostomy are associated with a significant incidence of wound or stoma infection, particularly if inserted for malignancy. Antibiotic prophylaxis reduces this complication and a single intravenous injection of co-amoxiclav should be administered before the procedure. Antibiotics are routinely used during endoscopic manipulation of an obstructed biliary tree in which it is unlikely that complete drainage will be achieved or there is significant comorbidity. When cystic cavities are aspirated at EUS, a one-off dose of a broad-spectrum antibiotic (e.g. co-amoxiclav) is recommended to prevent cyst infection.

TABLE 9.2 Approximate incidence of bacteraemia in immunocompetent individuals following various procedures involving the gastrointestinal tract. Procedure Incidence of a bacteraemia (%)
Rectal digital examination 4 Proctoscopy 5 Barium enema 11 Tooth brushing 25 Dental extraction 30–60 Colonoscopy 2–4 Diagnostic upper gastrointestinal endoscopy 4 Sigmoidoscopy 6–9 ERCP (no duct occlusion) 6 ERCP (duct occluded) 11 Oesophageal varices band ligation 6 b Oesophageal

varices sclerotherapy 10–50 Oesophageal dilatation/prosthesis 34–54 Oesophageal laser therapy 35 EUS +/- fine-needle aspirate 0–6 ERCP, endoscopic retrograde cholangiopancreatography; EUS, endoscopic ultrasound. a Summary of published data. b Higher after emergency than after elective management.

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TABLE 9.2 Approximate incidence of bacteraemia in immunocompetent individuals following various procedures involving the gastrointestinal tract. Procedure Incidence of a bacteraemia (%)

Rectal digital examination	4
Proctoscopy	5
Barium enema	11
Tooth brushing	25
Dental extraction	30–60
Colonoscopy	2–4
Diagnostic upper gastrointestinal endoscopy	4
Sigmoidoscopy	6–9
ERCP (no duct occlusion)	6
ERCP (duct occluded)	11
Oesophageal varices band ligation	6
Oesophageal varices sclerotherapy	10–50
Oesophageal dilatation/prosthesis	34–54
Oesophageal laser therapy	35
EUS +/- fine-needle aspirate	0–6

ERCP, endoscopic retrograde cholangiopancreatography; EUS, endoscopic ultrasound. a Summary of published data. b Higher after emergency than after elective management.

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