

# Gallstone disease

Quality standard

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[www.nice.org.uk/guidance/qs104](https://www.nice.org.uk/guidance/qs104)

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This standard is based on CG188.

This standard should be read in conjunction with QS96, QS49 and QS15.

## Quality statements

Statement 1 Adults with acute cholecystitis have laparoscopic cholecystectomy within 1 week of diagnosis.

Statement 2 Adults with common bile duct stones causing jaundice have endoscopic retrograde cholangiopancreatography within 72 hours of diagnosis.

Statement 3 Adults with common bile duct stones who need emergency endoscopic retrograde cholangiopancreatography have it within 24 hours.

Statement 4 Adults with symptomatic gallstone disease who have not had their gallbladder or gallstones removed are advised to avoid food and drink that triggers their symptoms.

# Quality statement 1: Acute cholecystitis

## Quality statement

Adults with acute cholecystitis have laparoscopic cholecystectomy within 1 week of diagnosis.

## Rationale

The earlier a laparoscopic cholecystectomy is performed, the less potential there is for recurrent events such as inflammation and the infection spreading during the wait for surgery. If laparoscopic cholecystectomy cannot be performed within 1 week of diagnosis of acute cholecystitis, surgery should be delayed until the acute episode has subsided (more than 4 weeks after diagnosis).

## Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

## Structure

a) Evidence of local arrangements to ensure that adults with acute cholecystitis have laparoscopic cholecystectomy within 1 week of diagnosis.

**Data source:** Local data collection.

b) Evidence of local arrangements to ensure that secondary care services that offer laparoscopic cholecystectomy regularly perform the procedure.

**Data source:** Local data collection.

## Process

Proportion of adults with acute cholecystitis who have a laparoscopic cholecystectomy within 1 week of diagnosis.

Numerator – the number in the denominator who have a laparoscopic cholecystectomy within 1 week of diagnosis.

Denominator – the number of adults with acute cholecystitis.

**Data source:** Local data collection.

## Outcome

a) Acute readmission rates for adults with acute cholecystitis.

**Data source:** Local data collection. National data can be collected from [NHS Digital's Hospital Episode Statistics](#).

b) Length of stay for adults with acute cholecystitis.

**Data source:** Local data collection. National data can be collected from [NHS Digital's Hospital Episode Statistics](#).

c) Quality of life for adults with acute cholecystitis.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (such as secondary care services) ensure that surgeons are trained to perform laparoscopic cholecystectomy, and that adults with acute cholecystitis can have the procedure within 1 week of diagnosis.

**Healthcare professionals** (such as upper gastrointestinal surgeons) are trained to perform laparoscopic cholecystectomy, and provide it to adults with acute cholecystitis within

1 week of diagnosis.

**Commissioners** monitor services that offer laparoscopic cholecystectomy to ensure that they regularly perform it, and that adults with acute cholecystitis can have the procedure within 1 week of diagnosis.

**Adults with acute cholecystitis (infection in the gallbladder)** have keyhole surgery to remove their gallbladder (part of the digestive system) within 1 week of the infection being diagnosed, to reduce the risk of pain, swelling, and the infection spreading while waiting to have surgery.

## Source guidance

Gallstone disease. NICE guideline CG188 (2014), recommendation 1.2.4 (key priority for implementation)

## Definitions of terms used in this quality statement

### Diagnosing acute cholecystitis

Acute cholecystitis is diagnosed using abdominal ultrasound to confirm the presence of gallstones and signs of acute gallbladder pathology. [Expert opinion]

### Laparoscopic cholecystectomy

Removal of the gallbladder through 'keyhole' surgery. It should be performed within 1 week of diagnosis of acute cholecystitis. If it cannot be performed within 1 week of diagnosis, surgery should be delayed until the acute episode has subsided (more than 4 weeks after diagnosis). [Adapted from NICE's guideline on gallstone disease]

# Quality statement 2: Urgent endoscopic retrograde cholangiopancreatography within 72 hours

## Quality statement

Adults with common bile duct stones causing jaundice have endoscopic retrograde cholangiopancreatography within 72 hours of diagnosis.

## Rationale

Endoscopic retrograde cholangiopancreatography can be used to treat common bile duct stones. Adults should have the procedure performed within 72 hours of diagnosis of common bile duct stones if these are causing jaundice, to prevent further complications such as cholangitis while waiting for treatment.

## Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

## Structure

Evidence of local arrangements to ensure that adults with common bile duct stones causing jaundice have endoscopic retrograde cholangiopancreatography within 72 hours of diagnosis.

**Data source:** Local data collection.

## Process

Proportion of adults with common bile duct stones causing jaundice who have endoscopic



retrograde cholangiopancreatography within 72 hours of diagnosis.

Numerator – the number in the denominator who have endoscopic retrograde cholangiopancreatography within 72 hours of diagnosis.

Denominator – the number of adults with common bile duct stones causing jaundice.

**Data source:** Local data collection.

## Outcome

Rates of cholangitis in adults with common bile duct stones.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (such as secondary care services) ensure that healthcare professionals are trained to perform endoscopic retrograde cholangiopancreatography, and that adults can have it within 72 hours of diagnosis of common bile duct stones, if these are causing jaundice.

**Healthcare professionals** (such as gastroenterologists, radiologists and upper gastrointestinal surgeons) are trained to perform endoscopic retrograde cholangiopancreatography, and provide it for adults within 72 hours of diagnosis of common bile duct stones, if these are causing jaundice.

**Commissioners** monitor services that offer endoscopic retrograde cholangiopancreatography to ensure that they regularly perform it, and that adults can have this procedure within 72 hours of diagnosis of common bile duct stones, if these are causing jaundice.

**Adults with common bile duct stones causing jaundice** are able to have an endoscopy (inserting a thin, flexible tube down their throat to perform surgery inside their body) within 72 hours of getting their diagnosis. The endoscopy is to remove the stones in their bile duct (part of the digestive system that is connected to the gallbladder) and prevent

other problems such as blockages, inflammation or infection.

## Source guidance

Gallstone disease. NICE guideline CG188 (2014), recommendation 1.3.2 (key priority for implementation) and expert consensus

# Quality statement 3: Emergency endoscopic retrograde cholangiopancreatography within 24 hours

## Quality statement

Adults with common bile duct stones who need emergency endoscopic retrograde cholangiopancreatography have it within 24 hours.

## Rationale

Endoscopic retrograde cholangiopancreatography can be used to treat common bile duct stones. Not everybody will need this procedure within 24 hours, but emergency endoscopic retrograde cholangiopancreatography can improve outcomes for adults with acute cholangitis or acute pancreatitis if their condition is not responding to antibiotics or intravenous fluids. Delaying endoscopic retrograde cholangiopancreatography for adults with these conditions risks complications such as sepsis.

## Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

## Structure

Evidence of local arrangements to ensure that adults with common bile duct stones who need emergency endoscopic retrograde cholangiopancreatography have it within 24 hours.

**Data source:** Local data collection.

## Process

Proportion of adults with common bile duct stones who need emergency endoscopic retrograde cholangiopancreatography who have it within 24 hours.

Numerator – the number in the denominator who have endoscopic retrograde cholangiopancreatography within 24 hours.

Denominator – the number of adults with common bile duct stones who need emergency endoscopic retrograde cholangiopancreatography.

**Data source:** Local data collection.

## Outcome

Rates of sepsis in adults with common bile duct stones.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (such as secondary care services) ensure that healthcare professionals are trained to perform endoscopic retrograde cholangiopancreatography, and that adults with common bile duct stones who need this procedure in an emergency can have it within 24 hours. For 24-hour endoscopic retrograde cholangiopancreatography, service providers may need to be aware of local networks.

**Healthcare professionals** (such as gastroenterologists, radiologists and upper gastrointestinal surgeons) are trained to perform endoscopic retrograde cholangiopancreatography, and provide it for adults with common bile duct stones who need it in an emergency within 24 hours.

**Commissioners** monitor services that offer endoscopic retrograde cholangiopancreatography to ensure that they regularly perform it, and that adults with common bile duct stones can have it as an emergency within 24 hours if needed.

**Adults with common bile duct stones** are able to have an endoscopy (inserting a thin, flexible tube down their throat to perform surgery inside their body) within 24 hours if they need it in an emergency. The endoscopy is to remove the stones in their bile duct (part of the digestive system that is connected to the gallbladder) and prevent other problems such as blockages, inflammation or infection.

## Source guidance

Gallstone disease. NICE guideline CG188 (2014), recommendation 1.3.2 (key priority for implementation) and expert consensus

## Definitions of terms used in this quality statement

### Emergency endoscopic retrograde cholangiopancreatography

Emergency endoscopic retrograde cholangiopancreatography (within 24 hours) is needed for adults with common bile duct stones and acute cholangitis or acute pancreatitis when indicated. [Adapted from NICE's guideline on gallstone disease, recommendations 1.3.1 and 1.3.2]

# Quality statement 4: Advice to prevent symptoms

## Quality statement

Adults with symptomatic gallstone disease who have not had their gallbladder or gallstones removed are advised to avoid food and drink that triggers their symptoms.

## Rationale

Certain food and drink may trigger symptoms of gallstone disease, such as pain and discomfort. Adults with gallstone disease should be advised to avoid food and drink that triggers their symptoms while they are waiting for treatment. In addition, some adults may be not be able to have treatment (for example because they are unwell), and should be given dietary advice to reflect this.

## Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

## Structure

Evidence of local arrangements and written clinical protocols to ensure that adults with symptomatic gallstone disease who have not had their gallbladder or gallstones removed are advised to avoid food and drink that triggers their symptoms.

**Data source:** Local data collection.

## Process

Proportion of adults with symptomatic gallstone disease who have not had their gallbladder or gallstones removed who are advised to avoid food and drink that triggers

their symptoms.

Numerator – the number in the denominator who are advised to avoid food and drink that triggers their symptoms.

Denominator – the number of adults with symptomatic gallstone disease who have not had their gallbladder or gallstones removed.

**Data source:** Local data collection.

## Outcome

a) Patient experience.

**Data source:** Local data collection.

b) Quality of life for adults with gallstone disease.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (such as primary and secondary care services) ensure that systems are in place for adults with symptomatic gallstone disease who have not had their gallbladder or gallstones removed to be advised to avoid food and drink that triggers their symptoms.

**Healthcare professionals** (such as GPs and gastroenterologists) advise adults with symptomatic gallstone disease who have not had their gallbladder or gallstones removed to avoid food and drink that triggers their symptoms. Healthcare professionals should document the advice that is given.

**Commissioners** (such as NHS England area teams) ensure that they commission services that make sure adults with symptomatic gallstone disease who have not had their gallbladder or gallstones removed are advised to avoid food and drink that triggers their symptoms.

**Adults with symptomatic gallstone disease who have not had their gallbladder or gallstones removed** are advised by their healthcare professional to avoid any food or drink that triggers their symptoms.

## Source guidance

Gallstone disease. NICE guideline CG188 (2014), recommendation 1.4.1

## Definitions of terms used in this quality statement

### Advice

Any advice given by a healthcare professional should include both oral and written information. [[NICE's guideline on patient experience in adult NHS services](#), recommendation 1.5.12]

## Equality and diversity considerations

Advice about gallstone disease should take into account any additional needs, such as physical, sensory or learning disabilities, and adults who do not speak English. Adults should have access to an interpreter or advocate if needed.

Healthcare professionals should also be aware that certain cultural groups may be more likely to eat food and drink that may trigger symptoms of gallstone disease. People who are homeless may also be less able to avoid certain food and drink.



## About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, this may not always be appropriate in practice. Taking account of safety, shared decision-making, choice and professional judgement, desired levels of achievement should be defined locally.

Information about [how NICE quality standards are developed](#) is available from the NICE website.

See our [webpage on quality standards advisory committees](#) for details about our standing committees. Information about the topic experts invited to join the standing members is available from the [webpage for this quality standard](#).

NICE has produced a [quality standard service improvement template](#) to help providers make an initial assessment of their service compared with a selection of quality statements. This tool is updated monthly to include new quality standards.

NICE guidance and quality standards apply in England and Wales. Decisions on how they apply in Scotland and Northern Ireland are made by the Scottish government and Northern Ireland Executive. NICE quality standards may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

## Diversity, equality and language

Equality issues were considered during development and [equality assessments for this quality standard](#) are available. Good communication between healthcare professionals and

adults with gallstone disease is essential. Treatment, care and support, and the information given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. Adults with gallstone disease should have access to an interpreter or advocate if needed.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

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## Endorsing organisation

This quality standard has been endorsed by NHS England, as required by the Health and Social Care Act (2012)

## Supporting organisations

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- [Royal College of General Practitioners \(RCGP\)](#)
- [Royal College of Nursing \(RCN\)](#)