NICE National Institute for Health and Care Excellence

NICE quality standard

# Acute upper gastrointestinal bleeding in adults

Quality standard

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This standard is based on CG141.

This standard should be read in conjunction with QS11, QS15, QS96, QS112 and QS152.

## Introduction

This quality standard covers the management of acute upper gastrointestinal bleeding in adults and young people (16 years and older). For more information see the acute upper gastrointestinal bleeding scope.

### *Why this quality standard is needed*

Acute upper gastrointestinal bleeding is a common medical emergency that has a 10% hospital mortality rate. People with acute upper gastrointestinal bleeding develop haematemesis (vomiting of blood from the upper gastrointestinal tract) or melaena (black tarry stools). The most common causes are peptic ulcer and oesophagogastric varices. Although crude hospital mortality of acute upper gastrointestinal bleeding has not improved much over several decades, patients are now older and have many more comorbidities than in the past. In addition, the number of people with variceal bleeding has increased greatly as a consequence of alcohol misuse and obesity. The stable hospital mortality rate in the face of the increased incidence shows that management of acute upper gastrointestinal bleeding has improved substantially.

### *How this quality standard supports delivery of outcome frameworks*

NICE quality standards are a concise set of prioritised statements designed to drive measureable quality improvements within a particular area of health or care. They are derived from high-quality guidance, such as that from NICE or other sources accredited by NICE. This quality standard, in conjunction with the guidance on which it is based, should contribute to the improvements outlined in the following 2 outcomes frameworks published by the Department of Health:

- NHS Outcomes Framework 2013/14
- Improving outcomes and supporting transparency: a public health outcomes framework for England 2013–2016, Part 1 and Part 1A.

Tables 1 and 2 show the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving.

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Table 1 NHS Outcomes Framework 2013/14

| Domain | Overarching indicators and improvement areas |
|---|---|
| 1 Preventing people from dying prematurely | *Overarching indicator*<br>1a Potential years of life lost (PYLL) from causes considered amenable to healthcare<br>i Adults ii Children and young people<br>1b Life expectancy at 75<br>i Males ii Females |
| 3 Helping people to recover from episodes of ill health or following injury | *Overarching indicator*<br>3b Emergency readmissions within 30 days of discharge from hospital* |
| **Alignment across the health and social care system**<br>* Indicator shared with Public Health Outcomes Framework (PHOF) | |

Table 2 Public health outcomes framework for England, 2013–2016

| Domain | Objectives and indicators |
|---|---|
| 4 Healthcare public health and preventing premature mortality | *Objective*<br>Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities<br>*Indicators*<br>*4.11 Emergency readmissions within 30 days of discharge from hospital (Placeholder)* |

## *Coordinated services*

The quality standard for acute upper gastrointestinal bleeding specifies that services should be commissioned from and coordinated across all relevant agencies encompassing the whole acute upper gastrointestinal bleeding care pathway. A person-centred, integrated approach to providing services is fundamental to delivering high-quality care to adults and young people (16 years and older) with acute upper gastrointestinal bleeding.

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The Health and Social Care Act 2012 sets out a clear expectation that the care system should consider NICE quality standards in planning and delivering services, as part of a general duty to secure continuous improvement in quality. Commissioners and providers of health and social care should refer to the library of NICE quality standards when designing high-quality services. Other quality standards that should also be considered when choosing, commissioning or providing a high-quality acute upper gastrointestinal bleeding service are listed in Related NICE quality standards.

### *Training and competencies*

The quality standard should be read in the context of national and local guidelines on training and competencies. All healthcare practitioners involved in assessing, caring for and treating people with acute upper gastrointestinal bleeding should have sufficient and appropriate training and competencies to deliver the actions and interventions described in the quality standard.

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## List of quality statements

Statement 1. People with acute upper gastrointestinal bleeding receive a risk assessment using a validated risk score.

Statement 2. People with severe acute upper gastrointestinal bleeding who are haemodynamically unstable are given an endoscopy within 2 hours of optimal resuscitation.

Statement 3. People admitted to hospital with acute upper gastrointestinal bleeding who are haemodynamically stable are given an endoscopy within 24 hours of admission.

Statement 4. People with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage are offered endoscopic treatments (combination or a mechanical method).

Statement 5. People with non-variceal acute upper gastrointestinal bleeding who continue to bleed or re-bleed after endoscopic treatment and who are haemodynamically unstable are given interventional radiology treatment.

Statement 6. People with suspected or confirmed variceal acute upper gastrointestinal bleeding are given antibiotic therapy at presentation.

Statement 7. People with acute upper gastrointestinal bleeding from oesophageal varices are given band ligation.

Statement 8. People with acute upper gastrointestinal bleeding from gastric varices are given an endoscopic injection of N-butyl-2-cyanoacrylate.

Statement 9. People with uncontrolled acute upper gastrointestinal bleeding from varices are given transjugular intrahepatic portosystemic shunts (TIPS).

Statement 10. People with acute upper gastrointestinal bleeding who take aspirin for secondary prevention of vascular events and in whom haemostasis has been achieved are advised to continue on low-dose aspirin.

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# Quality statement 1: Risk assessment

## *Quality statement*

People with acute upper gastrointestinal bleeding receive a risk assessment using a validated risk score.

## *Rationale*

The prognosis for people with acute upper gastrointestinal bleeding can vary so it is important to carry out a risk assessment using a validated risk score. This can inform the best course of further treatment, and in some instances can identify people for whom early discharge or outpatient endoscopy are appropriate.

## *Quality measures*

### Structure

Evidence of local arrangements to ensure that people with acute upper gastrointestinal bleeding receive a risk assessment using a validated risk score.

***Data source:*** Local data collection.

### Process

Proportion of people with acute upper gastrointestinal bleeding who receive a risk assessment using a validated risk score.

Numerator – the number of people in the denominator who receive a risk assessment using a validated risk score.

Denominator – the number of people with acute upper gastrointestinal bleeding.

***Data source:*** Local data collection. Contained in NICE audit support for Acute upper gastrointestinal bleeding: initial management (NICE clinical guideline 141). The British Society of Gastroenterology's UK comparative audit of upper gastrointestinal bleeding and the use of blood (2007) asks, 'Does your hospital routinely calculate and document a risk score (for example, Rockall or Blatchford scores) for patients with suspected upper GI bleeding?'

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### *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place for people with acute upper gastrointestinal bleeding to receive a risk assessment using a validated risk score.

**Healthcare practitioners** give people with acute upper gastrointestinal bleeding a risk assessment using a validated risk score.

**Commissioners** ensure that they commission services that give people with acute upper gastrointestinal bleeding a risk assessment using a validated risk score.

### *What the quality statement means for patients, service users and carers*

**People with acute upper gastrointestinal bleeding** have an assessment of their risk of more bleeding or complications, using an accepted scoring system.

### *Source guidance*

- Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendations 1.1.1 (key priority for implementation) and 1.1.2.

### *Definitions of terms used in this quality statement*

**Risk assessment** NICE clinical guideline 141 recommendations 1.1.1 and 1.1.2 suggest the following approach for risk assessment:

Use the following formal risk assessment scores for all patients with acute upper gastrointestinal bleeding:

- the Blatchford score at first assessment, and
- the full Rockall score after endoscopy.

Consider early discharge for patients with a pre-endoscopy Blatchford score of 0.

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# Quality statement 2: Immediate endoscopy for people who are haemodynamically unstable

## *Quality statement*

People with severe acute upper gastrointestinal bleeding who are haemodynamically unstable are given an endoscopy within 2 hours of optimal resuscitation.

## *Rationale*

In most cases, endoscopy diagnoses the cause of bleeding, provides information about the likely prognosis and facilitates delivery of a range of haemostatic therapies. People who are haemodynamically unstable should be given an endoscopy within 2 hours of optimal resuscitation because their condition means they need urgent investigation and treatment.

## *Quality measures*

### Structure

Evidence of local arrangements to ensure that people with severe acute upper gastrointestinal bleeding who are haemodynamically unstable are given an endoscopy within 2 hours of optimal resuscitation.

***Data source:*** Local data collection.

### Process

Proportion of people with severe acute upper gastrointestinal bleeding who are haemodynamically unstable who receive endoscopy within 2 hours of optimal resuscitation.

Numerator – the number of people in the denominator who receive endoscopy within 2 hours of optimal resuscitation.

Denominator – the number of people with severe acute upper gastrointestinal bleeding who are haemodynamically unstable.

***Data source:*** Local data collection. Contained in NICE audit support for Acute upper gastrointestinal bleeding: initial management (NICE clinical guideline 141).

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## *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place for people with severe acute upper gastrointestinal bleeding who are haemodynamically unstable to be given an endoscopy within 2 hours of optimal resuscitation.

**Healthcare practitioners** perform an endoscopy within 2 hours of optimal resuscitation in people with severe acute upper gastrointestinal bleeding who are haemodynamically unstable.

**Commissioners** ensure that they commission services that give an endoscopy within 2 hours of optimal resuscitation to people with severe acute upper gastrointestinal bleeding who are haemodynamically unstable.

## *What the quality statement means for patients, service users and carers*

**People withsevereacuteuppergastrointestinalbleedingwhoseblood pressure and/or pulse isunstable** are given an endoscopy (a procedure using a narrow, flexible tube that is swallowed and has a very small camera at its tip) within 2 hours of being resuscitated.

## *Source guidance*

- Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendation 1.3.1 (key priority for implementation).

## *Definitions of terms used in this quality statement*

**2 hour timeframe** Derived from expert consensus.

**Haemodynamically unstable** People who are haemodynamically unstable are those with active bleeding whose blood pressure or pulse cannot be normalised or who need rapid intravenous fluids to maintain haemodynamic stability.

Endoscopy is associated with complications. These are uncommon when it is used for diagnosis in relatively fit people, but are relatively common in people who are actively bleeding, and may be life threatening in people with comorbidities whose condition is unstable.

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The full guideline Acute upper gastrointestinal bleeding: management states that, whenever possible, endoscopy should not be undertaken until cardiovascular stability is achieved. However, it is recognised that for people who are haemodynamically unstable it will not be possible to achieve full resuscitation, therefore attempts should be made to optimally resuscitate before endoscopy to minimise the risk of complications. The risks of endoscopy for people whose condition is unstable should be balanced against the risks of delaying endoscopy.

Clinical judgement should be used to determine whether people who are haemodynamically unstable have achieved their optimal level of resuscitation.

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# Quality statement 3: Endoscopy within 24 hours for people who are haemodynamically stable

## *Quality statement*

People admitted to hospital with acute upper gastrointestinal bleeding who are haemodynamically stable are given an endoscopy within 24 hours of admission.

## *Rationale*

In most cases, endoscopy diagnoses the cause of bleeding, provides information about the likely prognosis and facilitates delivery of a range of haemostatic therapies. People admitted to hospital who are haemodynamically stable should be given an endoscopy within 24 hours of admission. This will help to avoid re-bleeding, and can reduce the length of their hospital stay.

## *Quality measures*

### Structure

Evidence of local arrangements to ensure that people admitted to hospital with acute upper gastrointestinal bleeding who are haemodynamically stable are given an endoscopy within 24 hours of admission.

***Data source:*** Local data collection.

### Process

Proportion of people admitted to hospital with acute upper gastrointestinal bleeding who are haemodynamically stable who receive endoscopy within 24 hours of admission.

Numerator – the number of people in the denominator who receive endoscopy within 24 hours of admission.

Denominator – the number of people admitted to hospital with acute upper gastrointestinal bleeding who are haemodynamically stable.

***Data source:*** Local data collection. Contained in NICE audit support for Acute upper gastrointestinal bleeding: initial management (NICE clinical guideline 141).

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### Outcome

Length of hospital stay for people with acute upper gastrointestinal bleeding who are haemodynamically stable.

***Data source:*** Local data collection.

## *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place for people admitted to hospital with acute upper gastrointestinal bleeding who are haemodynamically stable to be given an endoscopy within 24 hours of admission.

**Healthcare practitioners** perform endoscopy within 24 hours of hospital admission in people with acute upper gastrointestinal bleeding who are haemodynamically stable.

**Commissioners** ensure that they commission services that give an endoscopy within 24 hours of hospital admission to people with acute upper gastrointestinal bleeding who are haemodynamically stable.

## *What the quality statement means for patients, service users and carers*

**People withacuteuppergastrointestinalbleedingwhose blood pressure and pulse are stable and who are admitted to hospital** are given an endoscopy (a procedure using a narrow, flexible tube that is swallowed and has a very small camera at its tip) within 24 hours of admission.

## *Source guidance*

- Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendation 1.3.2 (key priority for implementation).

## *Definitions of terms used in this quality statement*

**Haemodynamically stable** People who are haemodynamically stable have stabilised blood pressure and pulse.

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## Quality statement 4: Endoscopic treatment for non-variceal bleeding

### *Quality statement*

People with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage are offered endoscopic treatments (combination or a mechanical method).

### *Rationale*

Endoscopic treatment of non-variceal acute upper gastrointestinal bleeding can control active bleeding, reduce the rate of re-bleeding and the need for blood transfusion.

### *Quality measures*

#### Structure

Evidence of local arrangements to ensure that people with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage are offered endoscopic treatments (combination or a mechanical method).

***Data source:*** Local data collection.

#### Process

Proportion of people with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage who receive endoscopic treatments (combination or a mechanical method).

Numerator – the number of people in the denominator who receive endoscopic treatments (combination or a mechanical method).

Denominator – the number of people with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage.

***Data source:*** Local data collection. Contained in NICE audit support for Acute upper gastrointestinal bleeding: non-variceal (NICE clinical guideline 141). The British Society of Gastroenterology's UK comparative audit of upper gastrointestinal bleeding and the use of blood (2007) asks 'Were any therapeutic endoscopic procedures undertaken?'

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### Outcome

a) Proportion of people with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage who have uncontrolled bleeding or re-bleeding within 48 hours.

***Data source:*** Local data collection.

b) Proportion of people with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage who need rescue therapies.

***Data source:*** Local data collection.

## *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place for people with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage to be offered endoscopic treatments (combination or a mechanical method).

**Healthcare practitioners** offer endoscopic treatments (combination or a mechanical method) to people with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage.

**Commissioners** ensure that they commission services that offer endoscopic treatments (combination or a mechanical method) to people with non-variceal acute upper gastrointestinal bleeding and stigmata of recent haemorrhage.

## *What the quality statement means for patients, service users and carers*

**People with acute upper gastrointestinal bleeding caused by stomach or duodenal ulcers** are offered treatment using an endoscope (a narrow, flexible tube that is swallowed and has a very small camera at its tip).

## *Source guidance*

- Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendations 1.4.1 and 1.4.2 (key priorities for implementation).

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## *Definitions of terms used in this quality statement*

NICE clinical guideline 141 recommendation 1.4.1 states: do not use adrenaline as monotherapy for the endoscopic treatment of non-variceal upper gastrointestinal bleeding.

NICE clinical guideline 141 recommendation 1.4.2 recommends using 1 of the following endoscopic treatments:

- a mechanical method (for example, clips) with or without adrenaline
- thermal coagulation with adrenaline
- fibrin or thrombin with adrenaline.

The full guideline Acute upper gastrointestinal bleeding: management concludes that each of these approaches can control active bleeding, reduce the rate of re-bleeding and need for blood transfusion compared with not receiving endoscopic therapy. Trials have failed to show superiority of any single approach.

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## Quality statement 5: Treatment of non-variceal bleeding after first or failed endoscopic treatment

### *Quality statement*

People with non-variceal acute upper gastrointestinal bleeding who continue to bleed or re-bleed after endoscopic treatment and who are haemodynamically unstable are given interventional radiology treatment.

### *Rationale*

Sometimes endoscopic therapy is technically difficult and the endoscopist cannot achieve or secure haemostasis, or bleeding recurs despite full or maximal endoscopic treatment. One additional therapeutic option is interventional radiology (embolisation), which can identify and treat the bleeding point. This can be preferable to surgery, because postoperative mortality is high for this group of patients, most of whom are extremely ill at the time of surgery.

### *Quality measures*

#### Structure

Evidence of local arrangements to ensure that people with non-variceal acute upper gastrointestinal bleeding who continue to bleed or re-bleed after endoscopic treatment and who are haemodynamically unstable are given interventional radiology treatment (embolisation).

***Data source:*** Local data collection.

#### Process

Proportion of people with non-variceal acute upper gastrointestinal bleeding who continue to bleed or re-bleed after endoscopic treatment and who are haemodynamically unstable who receive interventional radiology treatment (embolisation).

Numerator – the number of people in the denominator who receive interventional radiology treatment (embolisation).

Denominator – the number of people with non-variceal acute upper gastrointestinal bleeding who continue to bleed or re-bleed after endoscopic treatment and who are haemodynamically unstable.

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***Data source:*** Local data collection. Contained in NICE audit support for Acute upper gastrointestinal bleeding: non-variceal (NICE clinical guideline 141). The British Society of Gastroenterology's UK comparative audit of upper gastrointestinal bleeding and the use of blood (2007) shows the proportion of people having either surgery or radiological intervention.

## *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place for people with non-variceal acute upper gastrointestinal bleeding who continue to bleed or re-bleed after endoscopic treatment and who are haemodynamically unstable to be given interventional radiology treatment.

**Healthcare practitioners** give interventional radiology treatment to people with non-variceal acute upper gastrointestinal bleeding who continue to bleed or re-bleed after endoscopic treatment and who are haemodynamically unstable.

**Commissioners** ensure that they commission services that give interventional radiology treatment to people with non-variceal acute upper gastrointestinal bleeding who continue to bleed or re-bleed after endoscopic treatment and who are haemodynamically unstable.

## *What the quality statement means for patients, service users and carers*

**People with acute upper gastrointestinal bleeding from the stomach or duodenum who continue to bleed or re-bleed after endoscopic treatment and whose blood pressure or pulse is unstable** are given interventional radiology treatment. A long narrow plastic tube called a catheter is inserted into an artery in the groin and, under X-ray guidance, is then steered to the site of bleeding. After a small injection of X-ray dye to confirm that the tube is in the right place, the bleeding artery is blocked off to stop the bleeding. A CT scan may be needed beforehand to guide treatment if endoscopy has not identified the site of bleeding.

## *Source guidance*

- Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendation 1.4.7 (key priority for implementation).

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### *Definitions of terms used in this quality statement*

NICE clinical guideline 141 recommendation 1.4.7 states that if interventional radiology is not promptly available people should be referred urgently for surgery.

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# Quality statement 6: Prophylactic antibiotic therapy for variceal bleeding

## *Quality statement*

People with suspected or confirmed variceal acute upper gastrointestinal bleeding are given antibiotic therapy at presentation.

## *Rationale*

People with variceal acute upper gastrointestinal bleeding are prone to infection. Infection has adverse effects on renal function and commonly precipitates hepatorenal failure, characterised by oliguria, sodium and fluid retention and death. Early antibiotic therapy reduces these risks.

## *Quality measures*

### Structure

Evidence of local arrangements to ensure that people with suspected or confirmed variceal acute upper gastrointestinal bleeding are given antibiotic therapy at presentation.

***Data source:*** Local data collection.

### Process

Proportion of people with suspected or confirmed variceal acute upper gastrointestinal bleeding who receive antibiotic therapy at presentation.

Numerator – the number of people in the denominator who receive antibiotic therapy at presentation.

Denominator – the number of people with suspected or confirmed variceal acute upper gastrointestinal bleeding at presentation.

***Data source:*** Local data collection. Contained in NICE audit support for Acute upper gastrointestinal bleeding: variceal (NICE clinical guideline 141).

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### Outcome

Rates of sepsis in people with suspected or confirmed variceal acute upper gastrointestinal bleeding.

***Data source:*** Local data collection.

## *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place for people with suspected or confirmed variceal acute upper gastrointestinal bleeding to be given antibiotic therapy at presentation.

**Healthcare practitioners** give antibiotic therapy at presentation to people with suspected or confirmed variceal acute upper gastrointestinal bleeding.

**Commissioners** ensure that they commission services that give antibiotic therapy at presentation to people with suspected or confirmed variceal acute upper gastrointestinal bleeding.

## *What the quality statement means for patients, service users and carers*

**People with acute upper gastrointestinal bleeding known or suspected to be caused by enlarged veins** are given antibiotics when they first see a healthcare professional.

## *Source guidance*

- Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendation 1.5.2 (key priority for implementation).

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# Quality statement 7: Band ligation for oesophageal variceal bleeding

## *Quality statement*

People with acute upper gastrointestinal bleeding from oesophageal varices are given band ligation.

## *Rationale*

The use of bands for oesophageal bleeding will stop the bleeding and has significant benefits over the alternative of injection sclerotherapy. The benefits include: improved mortality and a reduction in re-bleeding, numbers of additional procedures needed to control bleeding, total units of blood transfused and number of sessions of treatment needed to eradicate varices.

## *Quality measures*

### Structure

Evidence of local arrangements to ensure that people with acute upper gastrointestinal bleeding from oesophageal varices are given band ligation.

***Data source:*** Local data collection.

### Process

Proportion of people with acute upper gastrointestinal bleeding from oesophageal varices who receive band ligation.

Numerator – the number of people in the denominator who receive band ligation.

Denominator – the number of people with acute upper gastrointestinal bleeding from oesophageal varices.

***Data source:*** Local data collection. Contained in NICE audit support for Acute upper gastrointestinal bleeding: variceal (NICE clinical guideline 141). The British Society of Gastroenterology's UK comparative audit of upper gastrointestinal bleeding and the use of blood (2007) shows the number of endoscopic therapeutic procedures, which includes banding.

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### Outcome

Rates of uncontrolled bleeding in people with upper gastrointestinal bleeding from oesophageal varices.

***Data source:*** Local data collection.

## *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place for people with acute upper gastrointestinal bleeding from oesophageal varices to be given band ligation.

**Healthcare practitioners** perform band ligation in people with acute upper gastrointestinal bleeding from oesophageal varices.

**Commissioners** ensure that they commission services that give band ligation to people with acute upper gastrointestinal bleeding from oesophageal varices.

## *What the quality statement means for patients, service users and carers*

**Peoplewith acute upper gastrointestinal bleeding caused by enlarged veins in the oesophagus (gullet)** are given band ligation, a type of elastic band that helps to stop the bleeding.

## *Source guidance*

Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendation 1.5.3.

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## Quality statement 8: N-butyl-2-cyanoacrylate for gastric variceal bleeding

### *Quality statement*

People with acute upper gastrointestinal bleeding from gastric varices are given an endoscopic injection of N-butyl-2-cyanoacrylate.

### *Rationale*

Endoscopic injection of N-butyl-2-cyanoacrylate can obliterate gastric varices, whereas attempts at banding are likely to be unsuccessful for these varices.

### *Quality measures*

#### Structure

Evidence of local arrangements to ensure that people with acute upper gastrointestinal bleeding from gastric varices are given an endoscopic injection of N-butyl-2-cyanoacrylate.

***Data source:*** Local data collection.

#### Process

Proportion of people with acute upper gastrointestinal bleeding from gastric varices who receive endoscopic injection of N-butyl-2-cyanoacrylate.

Numerator – the number of people in the denominator who receive endoscopic injection of N-butyl-2-cyanoacrylate.

Denominator – the number of people with acute upper gastrointestinal bleeding from gastric varices.

***Data source:*** Local data collection. Contained in NICE audit support for Acute upper gastrointestinal bleeding: initial management (NICE clinical guideline 141).

#### Outcome

Rates of uncontrolled bleeding in people with acute upper gastrointestinal bleeding from gastric varices.

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***Data source:*** Local data collection.

## *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place for people with acute upper gastrointestinal bleeding from gastric varices to be given an endoscopic injection of N-butyl-2-cyanoacrylate.

**Healthcare practitioners** give an endoscopic injection of N-butyl-2-cyanoacrylate to people with acute upper gastrointestinal bleeding from gastric varices.

**Commissioners** ensure that they commission services that give an endoscopic injection of N-butyl-2-cyanoacrylate to people with upper gastrointestinal bleeding from gastric varices.

## *What the quality statement means for patients, service users and carers*

**People withacuteuppergastrointestinalbleedingcausedbyenlargedveinsinthestomach** are given an injection of N-butyl-2-cyanoacrylate, a substance that helps to stop the bleeding. This injection is given using an endoscope (a narrow, flexible tube with a camera at its tip).

## *Source guidance*

- Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendation 1.5.5.

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# Quality statement 9: Management of variceal bleeding using transjugular intrahepatic portosystemic shunts (TIPS)

## *Quality statement*

People with uncontrolled acute upper gastrointestinal bleeding from varices are given transjugular intrahepatic portosystemic shunts (TIPS).

## *Rationale*

In some cases variceal bleeding cannot be controlled with endoscopic treatment. In these instances, TIPS can be used to stop the bleeding.

## *Quality measures*

### Structure

Evidence of local arrangements to ensure that people with uncontrolled acute upper gastrointestinal bleeding from varices are given TIPS.

***Data source:*** Local data collection.

### Process

The proportion of people with uncontrolled acute upper gastrointestinal bleeding from varices who receive TIPS.

Numerator – the number of people in the denominator who receive TIPS.

Denominator – the number of people with uncontrolled acute upper gastrointestinal bleeding from varices.

***Data source:*** Local data collection. Contained in NICE audit support for Acute upper gastrointestinal bleeding: variceal (NICE clinical guideline 141).

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## *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place for people with uncontrolled acute upper gastrointestinal bleeding from varices to be given TIPS.

**Healthcare practitioners** perform TIPS in people with uncontrolled acute upper gastrointestinal bleeding from varices.

**Commissioners** ensure that they commission services that give TIPS to people with uncontrolled acute upper gastrointestinal bleeding from varices.

## *What the quality statement means for patients, service users and carers*

**People withuncontrolledacute uppergastrointestinalbleedingcausedbyenlargedveins** are given a procedure called transjugular intrahepatic portosystemic shunts (also called TIPS). In a TIPS procedure the veins feeding into the liver and those draining it are connected so that the blood flow is redirected and the pressure in the enlarged veins is lowered.

## *Source guidance*

- Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendations 1.5.4 (key priority for implementation) and 1.5.6.

## *Definitions of terms used in this quality statement*

**Transjugular intrahepatic portosystemic shunts (TIPS)** In a TIPS procedure the veins feeding into the liver and those draining it are connected so that the blood flow is redirected and the pressure in the enlarged veins is lowered.

Before using TIPS, attempts should first be made to stop bleeding using the alternative methods described in quality statements 7 and 8. NICE clinical guideline 141 recommendations 1.5.4 and 1.5.6 state:

- Consider transjugular intrahepatic portosystemic shunts (TIPS) if bleeding from oesophageal varices is not controlled by band ligation.
- Offer TIPS if bleeding from gastric varices is not controlled by endoscopic injection of N-butyl-2-cyanoacrylate.

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## Quality statement 10: Continuation on low-dose aspirin

### *Quality statement*

People with acute upper gastrointestinal bleeding who take aspirin for secondary prevention of vascular events and in whom haemostasis has been achieved are advised to continue on low-dose aspirin.

### *Rationale*

Aspirin can cause gastrointestinal ulcers to form and cause pre-existing ulcers to bleed. Clinicians have therefore withheld aspirin at the time of acute gastrointestinal bleeding. However, the antiplatelet effects of aspirin persist for at least 7 days after discontinuation. This means that people with acute upper gastrointestinal bleeding who are already taking low-dose aspirin to prevent further vascular events should be advised to continue taking aspirin if their bleeding has stabilised so that the benefit of taking aspirin can be maintained.

### *Quality measures*

#### Structure

Evidence of local arrangements to ensure that people with acute upper gastrointestinal bleeding who take aspirin for secondary prevention of vascular events and in whom haemostasis has been achieved are advised to continue on low-dose aspirin.

***Data source:*** Local data collection.

#### Process

Proportion of people with acute upper gastrointestinal bleeding who take aspirin for secondary prevention of vascular events and in whom haemostasis has been achieved who are advised to continue on low-dose aspirin.

Numerator – the number of people in the denominator who are advised to continue on low-dose aspirin.

Denominator – the number of people with acute upper gastrointestinal bleeding who take aspirin for secondary prevention of vascular events and in whom haemostasis has been achieved.

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***Data source:*** Local data collection. The British Society of Gastroenterology's UK comparative audit of upper gastrointestinal bleeding and the use of blood (2007) records the drugs taken by people who have acute upper gastrointestinal bleeding.

## *What the quality statement means for service providers, healthcare practitioners, and commissioners*

**Service providers** ensure that systems are in place to advise people with acute upper gastrointestinal bleeding who take aspirin for secondary prevention of vascular events and in whom haemostasis has been achieved to continue on low-dose aspirin.

**Healthcare practitioners** advise people with acute upper gastrointestinal bleeding, who take aspirin for secondary prevention of vascular events and in whom haemostasis has been achieved, to continue on low-dose aspirin.

**Commissioners** ensure that they commission services that advise people with acute upper gastrointestinal bleeding who take aspirin for secondary prevention of vascular events and in whom haemostasis has been achieved to continue on low-dose aspirin.

## *What the quality statement means for patients, service users and carers*

**People with acute upper gastrointestinal bleeding who have had a stroke or heart attack, and are taking aspirin to prevent another,** are advised to continue on aspirin when their bleeding has stabilised.

## *Source guidance*

- Acute upper gastrointestinal bleeding: management (NICE clinical guideline 141), recommendation 1.6.1.

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## Using the quality standard

### *Quality measures*

The quality measures accompanying the quality statements aim to improve the structure, process and outcomes of care in areas identified as needing quality improvement. They are not a new set of targets or mandatory indicators for performance management.

We have indicated if current national indicators exist that could be used to measure the quality statements. These include indicators developed by the Health and Social Care Information Centre through its Indicators for Quality Improvement Programme. If there is no national indicator that could be used to measure a quality statement, the quality measure should form the basis for audit criteria developed and used locally.

See NICE's What makes up a NICE quality standard? for further information, including advice on using quality measures.

### *Levels of achievement*

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, NICE recognises that this may not always be appropriate in practice, taking account of safety, choice and professional judgement, and therefore desired levels of achievement should be defined locally.

### *Using other national guidance and policy documents*

Other national guidance and current policy documents have been referenced during the development of this quality standard. It is important that the quality standard is considered by commissioners, providers, healthcare practitioners, patients, service users and carers alongside the documents listed in Development sources.

### *Information for commissioners*

NICE has produced support for commissioning that considers the commissioning implications and potential resource impact of this quality standard. This is available on the NICE website.

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## *Information for the public*

NICE has produced information for the public about this quality standard. Patients, service users and carers can use it to find out about the quality of care they should expect to receive; as a basis for asking questions about their care, and to help make choices between providers of care services.

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## Diversity, equality and language

During the development of this quality standard, equality issues have been considered and equality assessments are available.

Good communication between healthcare practitioners and people with acute upper gastrointestinal bleeding 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. People with acute upper gastrointestinal bleeding 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 avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

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## Development sources

Further explanation of the methodology used can be found in the quality Process guide on the NICE website.

### *Evidence sources*

The documents below contain recommendations from NICE guidance or other NICE-accredited recommendations that were used by the Topic Expert Group to develop the quality standard statements and measures.

- Acute upper gastrointestinal bleeding. NICE clinical guideline 141 (2012).

### *Definitions and data sources for the quality measures*

- British Society of Gastroenterologists (2007) UK comparative audit of upper gastrointestinal bleeding and the use of blood.

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## Related NICE quality standards

### *Published*

- Patient experience in adult NHS services. NICE quality standard 15 (2012).
- Alcohol dependence and harmful alcohol use. NICE quality standard 11 (2011).

### *Future quality standards*

This quality standard has been developed in the context of all quality standards referred to NICE, including the following topics scheduled for future development:

- Gastro-oesophageal reflux disease.
- Resuscitation following major trauma and major blood loss.

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## 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.

The methods and processes for developing NICE quality standards are described in the quality standards process guide.

This quality standard has been incorporated into the NICE pathway for acute upper gastrointestinal bleeding.

Changes after publication

**April 2015:** Minor maintenance.

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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.

- British Society of Gastroenterology
- Royal College of Physicians
- Royal College of Radiologists

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