Introduction

Acute upper gastrointestinal bleeding is a common medical emergency that has a 10% hospital mortality rate. Despite changes in management, mortality has not significantly improved over the past 50 years.

Elderly patients and people with chronic medical diseases withstand acute upper gastrointestinal bleeding less well than younger, fitter patients, and have a higher risk of death. Almost all people who develop acute upper gastrointestinal bleeding are treated in hospital and the guideline therefore focuses on hospital care. The most common causes are peptic ulcer and oesophago-gastric varices.

Endoscopy is the primary diagnostic investigation in patients with acute upper gastrointestinal bleeding but it has not always been clear whether urgent endoscopy is cost effective as well as clinically valuable. Endoscopy aids diagnosis, yields information that helps predict outcome and most importantly allows treatments to be delivered that can stop bleeding and reduce the risk of re-bleeding.

Drugs may have a complementary role in reducing gastric acid secretion and portal vein pressure. Not every patient responds to endoscopic and drug treatments; emergency surgery and a range of radiological procedures may be needed to control bleeding.

This guideline aims to identify which diagnostic and therapeutic steps are useful in managing acute upper gastrointestinal bleeding. This should enable hospitals to develop a structure in which clinical teams can deliver an optimum service for people who develop this condition. The guideline will assume that prescribers will use a drug’s summary of product characteristics to inform decisions made with individual patients.
Patient-centred care

This guideline offers best practice advice on the care of adults and young people aged 16 years and older with acute variceal and non-variceal upper gastrointestinal bleeding. Treatment and care should take into account patients' needs, preferences and religious beliefs. People with acute upper gastrointestinal bleeding should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals. If patients do not have the capacity to make decisions, healthcare professionals should follow the Department of Health’s advice on consent and the code of practice that accompanies the Mental Capacity Act. In Wales, healthcare professionals should follow advice on consent from the Welsh Government. In taking account of patients' religious beliefs in the context of blood transfusion, healthcare professionals should follow the advice from UK Blood Transfusion and Tissue Transplantation Services.

Good communication between healthcare professionals and patients is essential. It should be supported by evidence-based written information tailored to the patient’s needs. Treatment and care, and the information patients are 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.

If the patient agrees, families and carers should have the opportunity to be involved in decisions about treatment and care. Families and carers should also be given the information and support they need.
Key priorities for implementation

Risk assessment

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

Timing of endoscopy

- Offer endoscopy to unstable patients with severe acute upper gastrointestinal bleeding immediately after resuscitation.
- Offer endoscopy within 24 hours of admission to all other patients with upper gastrointestinal bleeding.
- Units seeing more than 330 cases a year should offer daily endoscopy lists. Units seeing fewer than 330 cases a year should arrange their service according to local circumstances.

Management of non-variceal bleeding

- Do not use adrenaline as monotherapy for the endoscopic treatment of non-variceal upper gastrointestinal bleeding.
- For the endoscopic treatment of non-variceal upper gastrointestinal bleeding, use one of the following:
  - a mechanical method (for example, clips) with or without adrenaline
  - thermal coagulation with adrenaline
  - fibrin or thrombin with adrenaline.
- Offer interventional radiology to unstable patients who re-bleed after endoscopic treatment.
- Refer urgently for surgery if interventional radiology is not promptly available.
Management of variceal bleeding

- Offer prophylactic antibiotic therapy at presentation to patients with suspected or confirmed variceal bleeding.

- Consider transjugular intrahepatic portosystemic shunts (TIPS) if bleeding from oesophageal varices is not controlled by band ligation.

Control of bleeding and prevention of re-bleeding in patients on NSAIDs, aspirin or clopidogrel

-
1 Guidance

1.1 Risk assessment

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

1.2 Resuscitation and initial management

- Transfuse patients with massive bleeding with blood, platelets and clotting factors in line with local protocols for managing massive bleeding.
- Base decisions on blood transfusion on the full clinical picture, recognising that over-transfusion may be as damaging as under-transfusion.
- Do not offer platelet transfusion to patients who are not actively bleeding and are haemodynamically stable.
- Offer platelet transfusion to patients who are actively bleeding and have a platelet count of less than 50 $\times 10^9$ litre.
- Offer fresh frozen plasma to patients who are actively bleeding and have a prothrombin time (or international normalised ratio) or activated partial thromboplastin time greater than 1.5 times normal. If a patient's fibrinogen level remains less than 1.5 g/litre despite fresh frozen plasma use, offer cryoprecipitate as well.
1.3 Timing of endoscopy

1.4 Management of non-variceal bleeding

Endoscopic treatment
Proton pump inhibitors

Treatment after first or failed endoscopic treatment

1.5 Management of variceal bleeding

Oesophageal varices
Gastric varices

1.6 Control of bleeding and prevention of re-bleeding in patients on NSAIDs, aspirin or clopidogrel

1.7 Primary prophylaxis for acutely ill patients in critical care
1.8 Information and support for patients and carers
Notes on the scope of the guidance

The guideline covers:

- 
- 
- 
- 
- 
- 
- 
- 
- 

The guideline does not cover:

- 
- 
- 
- 
- Helicobacter pylori.
How this guideline was developed

NICE commissioned the National Clinical Guideline Centre to develop this guideline. The Centre established a Guideline Development Group (see appendix A), which reviewed the evidence and developed the recommendations.

There is more information about how NICE clinical guidelines are developed on the NICE website. A booklet, ‘How NICE clinical guidelines are developed: an overview for stakeholders, the public and the NHS’ is available.
3 Implementation

NICE has developed tools to help organisations implement this guidance.
4 Other versions of this guideline

4.1 Full guideline

The full guideline, Acute upper gastrointestinal bleeding: management contains details of the methods and evidence used to develop the guideline. It is published by the National Clinical Guideline Centre.

4.2 NICE pathway

The recommendations from this guideline have been incorporated into a NICE pathway.

4.3 Information for the public

NICE has produced information for the public explaining this guideline. We encourage NHS and voluntary sector organisations to use text from this information in their own materials about upper gastrointestinal bleeding.
5 Related NICE guidance

- Alcohol-use disorders. NICE clinical guideline 100 (2010).
- Unstable angina and NSTEMI. NICE clinical guideline 94 (2010).
- Stroke. NICE clinical guideline 68 (2008).
- Dyspepsia. NICE clinical guideline 17 (2004).
6 Updating the guideline
Appendix A: The Guideline Development Group, National Collaborating Centre and NICE project team

**Guideline Development Group**

Stephen Atkinson

Mark Donnelly

Richard Forbes-Young

Carlos Gomez

Daniel Greer

Kenneth Halligan

Markus Hauser

Simon McPherson

Mimi McCord

Kelvin Palmer (GDG Chair)
Changes after publication

April 2015

October 2012
About this guideline

Your responsibility

Copyright