Società Medico Chirurgica di Ferrara

Ferrara 7 Giugno 2019
Aula Magna Nuovo Arcispedale Sant'Anna

La gestione in urgenza del paziente con emorragia digestiva: territorio ed ospedali in rete

La visita di un medico mi assicura, quella di due mi atterrisce

Roberto Gervaso

La gestione in urgenza del paziente
con emorragia digestiva:
territorio ed ospedali in rete

Ferrara 7 Giugno 2019
Aula Magna Nuovo Arcispedale Sant'Anna

Epidemiologia del sanguinamento acuto del tratto digestivo: incidenza e fattori di rischio.

ALBERTO MERIGHI

Gastroenterologia
AOU di Ferrara

Società Medico Chirurgica di Ferrara

DAI EMERGENZA
UO PRONTO SOCCORSO

Procedura Interaziendale

La gestione del paziente con emorragia digestiva superiore e inferiore

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Procedura Interaziendale

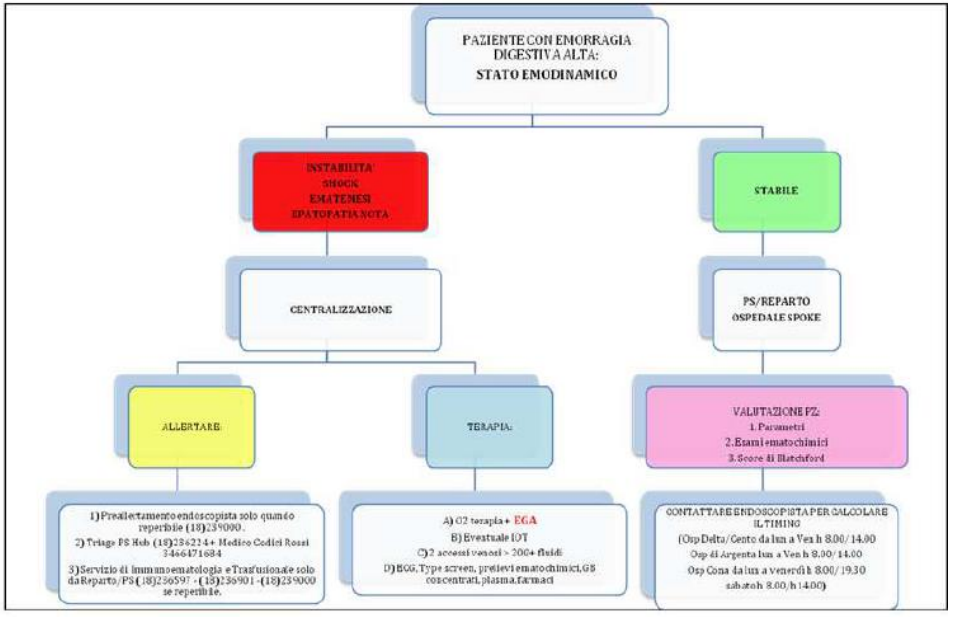
P-062-INTER Pag. 1/1
Rev. 0 18 02 2019

La gestione del paziente con emorragia digestiva superiore e inferiore

AOU: rete intranet – sez. Accreditamento

AUSL: DOC-WEB Ferrara

Algoritmo 1 : Gestione pre-endoscopica nell'emorragia digestiva del tratto superiore



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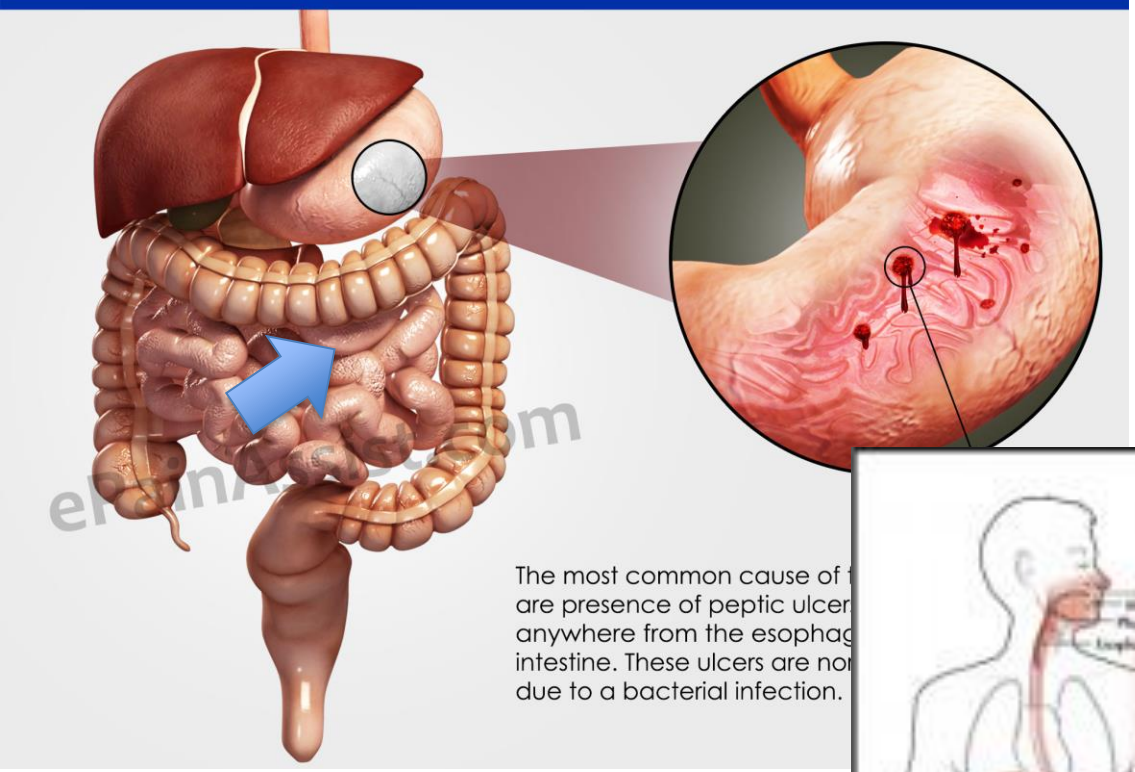
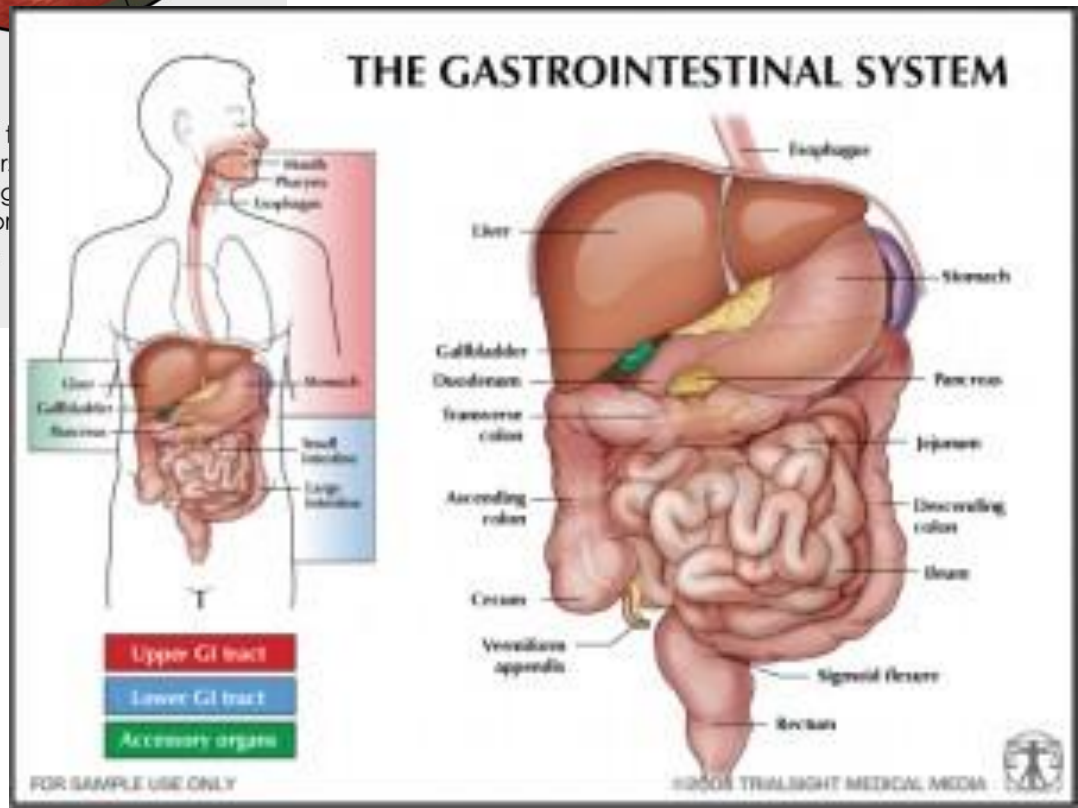
GIB usually manifests as hematemesis (vomiting of blood or coffee-ground-like material), melena (black or tarry stools), and hematochezia. UGIB appears as hematemesis in 40%-50%, and as melena or hematochezia in 90%-98%, especially hematochezia in massive UGIB[3]. However, patients with LGIB typically present with hematochezia, but right-sided colonic bleeding or small bowel bleeding may show as melena[4]. Therefore, it is frequently difficult to distinguish between UGIB and LGIB based on only the initial symptoms of the patient[5]. In real clinical practice, it is necessary to approach the patient with melena and hematochezia based on the main symptom rather than UGIB or LGIB.

Upper & Lower Gastrointestinal Bleeding



The most common cause of
are presence of peptic ulcer
anywhere from the esophag
intestine. These ulcers are no
due to a bacterial infection.



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Melena may be seen in varying stages of blood loss, with as little as 50 ml of blood [2]. Hematemesis (vomiting of bright red blood) is suggestive of moderate to severe bleeding, whereas coffee ground emesis (oxidation of the heme molecule of red blood cells due to gastric acid) suggests more limited bleeding. The yearly incidence of hospitalization for acute UGIB is about 100 per 100,000 people [3]. The UGIB rate of admission to the hospital is six times higher as compared to lower GI bleeding [3].

Along with abdominal pain, gastrointestinal bleeding (GIB) is one of the most common conditions in the emergency department. Upper GIB (UGIB) is a major problem that has been declining over the past 20 years but still has a mortality rate of 2.1%[1]. Lower GIB (LGIB) has a mortality rate less than 5%, but it is common in older patients and those with intestinal ischemia and comorbidity[2].

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GASTROINTESTINAL BLEEDING, THE MOST COMMON CAUSE OF HOSPITALization due to gastrointestinal disease in the United States, accounts for more than 507,000 hospitalizations and $4.85 billion in costs annually.[1] Upper gastrointestinal bleeding, defined as bleeding from the esophagus, stomach, or duodenum, is responsible for 50% or more of these hospitalizations.[2] The case fatality rate among hospitalized patients with upper gastrointestinal bleeding has decreased over the past 20 years and ranges from 2.1 to 2.5% in U.S. nationwide database studies[3,4] to 10% in large, prospective European observational studies.[5,6] The rate of death among patients who are already hospitalized for another condition when upper gastrointestinal bleeding develops is approximately 3 to 4 times as high as the rate among patients who are admitted to the hospital for upper gastrointestinal bleeding.[5]

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Suspicious GI bleeding with symptom, such as hematemesis, melena and hematochezia

Hemodynamically stable? Possibility of upper GI bleeding?

No → Intensive resuscitation including medical therapy (transfusion, proton pump inhibitor, vasoactive drug, antibiotics) → ICU care with bedside endoscopy Consider other modality (angiography, operation)

Yes

Underlying liver disease? History of gastroesophageal varix?

No → No risk factor for GI bleeding → EGD within 24 h → Other gastric bleeding causes

Yes → Urgent EGD (< 12 h) → Variceal bleeding?

Yes → EVL or Sclerotherapy, balloon tube insertion, (Sengstaken-Blakemore) Esophageal stent insertion → Treatment for underlying liver disease

No → Other gastric bleeding causes → Treatment for specific diseases

Medication history? (including NSAIDs, antiplatelet agents, anticoagulants) High prevalence of *Helicobacter pylori*?

No → No risk factor for GI bleeding

Yes → EGD within 24 h → Peptic ulcer bleeding?

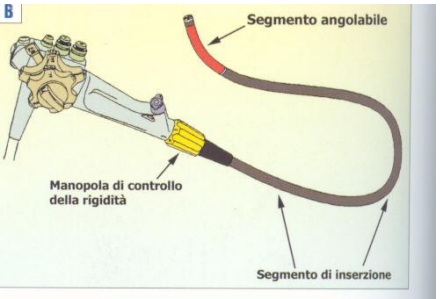
No → No focus on the upper GI tract by EGD → Consider LGIB or small bowel bleeding

Yes → Bleeding control according to the endoscopic findings (Injection, thermal, and mechanical method) → If high risk for rebleeding Second look endoscopy

Consider LGIB or small bowel bleeding

Age < 50 Fresh hematochezia associated with defecation → Sigmoidoscopy for anorectal lesions

Age ≥ 50 Iron deficiency anemia Family history of colorectal cancer → Full colonoscopy with rapid bowel preparation → Consider small bowel bleeding → capsule endoscopy or enteroscopy



Jung K *et al*. Role of endoscopy in acute gastrointestinal bleeding *World J Gastrointest Endosc* 2019 February 16; 11(2): 68-83

Sanguinamento gastro-intestinale oscuro

→ **Ripetizione di EGDS e/o colonscopia**

occulto — **visibile**

Sanguinamento massivo → **MDCT Angiografia**

capsula endoscopica

Negativo (MDCT Angiografia → capsula endoscopica)

Negativo (capsula endoscopica)

Sono necessarie ulteriori valutazioni?

Positivo (capsula endoscopica, MDCT Angiografia)

Trattamento specifico
Terapia medica
PE o DBE per emostasi
Angiografia per embolizzazione
Laparoscopia/IOE

No

Osservazione
Terapia medica

recidiva

Sì

Sì

Ripetere endoscopia di routine
Scintigrafia Tc pertecnetato
Ripetere videocapsula
Laparoscopia/IOE

No

Nessuna altra valutazione

Negativo

Follow-up

Positivo

Trattamento specifico

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Table 1 Causes of upper gastrointestinal bleeding

Common causes	Other causes
Peptic ulcer disease (gastric or duodenal)	Hemosuccus pancreaticus
Gastric or esophageal varices	Cameron lesions
Erosive esophagitis	Hemobilia
Upper gastrointestinal tumors	Aortoenteric fistula
Upper gastrointestinal angioectasias	Anastomotic bleeding
Mallory-Weiss tear	Arteriovenous malformation
Gastric or duodenal erosions	Acute esophageal necrosis
Dieulafoy lesion	Atrial-esophageal fistula
	Gastric antral vascular ectasia

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The source of bleeding cannot be recognized in 10%-15% of patients with UGIB; either the lesion is hard to identify (such as a Dieulafoy's lesion), obscured by a retained blood clot at endoscopy, or the lesion has already healed by the time endoscopy was performed. The four major risk factors for bleeding peptic ulcers are [11-12]: *Helicobacter pylori* (*H. pylori*) infection, use of nonsteroidal anti-inflammatory drugs (NSAIDs), physiologic stress, and excess gastric acid.

Table 1. Causes of Acute Lower Gastrointestinal Bleeding in Adults.*

Cause	Percentage of Cases
Diverticulosis	30–65
Ischemic colitis	5–20
Hemorrhoids	5–20
Colorectal polyps or neoplasms	2–15
Angioectasias	5–10
Postpolypectomy bleeding	2–7
Inflammatory bowel disease	3–5
Infectious colitis	2–5
Stercoral ulceration	0–5
Colorectal varices	0–3
Radiation proctopathy	0–2
NSAID-induced colopathy	0–2
Dieulafoy's lesion	Rare

* NSAID denotes nonsteroidal antiinflammatory drug. Adapted from Strate and Naumann.[17]

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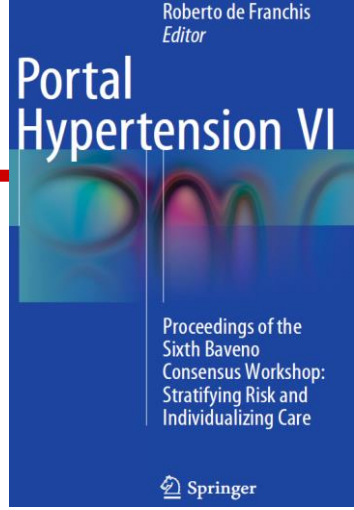
Treatment of acute variceal bleeding



- **Team approach – Written protocol**

- Conservative blood transfusion policy
- Specific therapy: *
  - Prevention and Rx of complications:

Infections#	Encephalopathy	Renal failure
Prophylactic antibiotics!!!	***NG-tube, lactulose?***	***Hemodynamics***

  - Drugs: terlipressin, somatostatin
  - Early Endoscopic Treatments
  - TIPS (Early and Rescue)

 # Meta-analysis show that antibiotic prophylaxis in the initial 5-8 days of a variceal bleeding episode decreases mortality

Baveno VI

Management of the acute bleeding episode

The goal of resuscitation is to preserve tissue perfusion. Volume restitution should be initiated to restore and maintain hemodynamic stability.

PRBC transfusion should be done conservatively at a target hemoglobin level between 7-8 g/dl., although transfusion policy in individual patients should also consider other factors such as cardiovascular disorders, age, hemodynamic status and ongoing bleeding (1;A)

Recommendations regarding management of coagulopathy and thrombocytopenia cannot be made on the basis of currently available data. PT/INR is not a reliable indicator of the coagulation status in patients with cirrhosis

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Baveno VI

Management of the acute bleeding episode

Antibiotic prophylaxis is an integral part of therapy for patients with cirrhosis presenting with upper gastrointestinal bleeding and should be instituted from admission" (1;A).

The risk of bacterial infection and mortality are very low in patients with Child Pugh A cirrhosis (2;b), but more prospective studies are needed to assess whether antibiotic prophylaxis can be avoided in this subgroup of patients.

Individual patient risk characteristics and local antimicrobial susceptibility patterns must be considered when determining appropriate first-line AVH antimicrobial prophylaxis at each center.

Intravenous ceftriaxone 1g/24h should be considered in patients with advanced cirrhosis (1;A), in hospital settings with high prevalence of quinolone-resistant bacterial infections and in patients on previous quinolone prophylaxis (1;C).

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LINEE GUIDA

Recommendations from major published guidelines on non-variceal UGIB

Guideline	Risk scoring	Prokinetics	Pre-endoscopy PPIs	Timing of endoscopy	Post-endoscopy PPIs
International, 2010[3]	Prognostic scales recommended to identify high and low risk groups	Promotility agents should not be used routinely	May be considered but should not delay endoscopy	Within 24 h for most patients	IV PPI bolus then infusion if high risk stigmata and have had successful endoscopic therapy
US, ACG (ulcer bleeding only) 2012[28]	Carry out risk assessment to stratify into higher and lower risk groups. Consider discharge from ED if GBS=0	Consider IV erythromycin	IV PPIs may be considered	Within 24 h after resuscitation. Consider within 12 h if high risk features (eg, hemodynamic instability, bloody emesis in hospital)	After successful endoscopic hemostasis, give IV PPI bolus then infusion to those with active bleeding, NBVV, or adherent clot
US, ASGE 2012[57]	No specific recommendation but notes that GBS=0 identifies a very low risk group	Suggest IV prokinetic if high probability of fresh blood or clot in stomach	IV PPIs recommended	Depends on clinical factors but recommends within 24 h in the presence of cancer, cirrhosis, hematemesis, hypovolemia, or Hb <80 g/L	IV PPI bolus then infusion after endoscopic therapy for ulcers with high risk stigmata
UK, NICE 2012[4]	Use GBS before endoscopy and full Rockall score after endoscopy. Consider early discharge if GBS=0	Not assessed	Do not give PPIs before endoscopy	Within 24 h, but immediately after resuscitation if unstable and severe UGIB	Offer PPIs if stigmata of recent bleeding seen at endoscopy
Europe, ESGE 2015[5]	Patients with GBS 0-1 do not require early endoscopy or admission	Recommend IV erythromycin if clinically severe or ongoing active UGIB	IV bolus then infusion but should not delay endoscopy	Within 24 h of resuscitation, but consider within 12 h if high risk features (eg, hemodynamic instability despite resuscitation, inpatient bloody emesis, contraindication to stopping anticoagulants)	IV PPI bolus then 72 h infusion for patients who receive endoscopic hemostasis and those with adherent clots. Consider giving PPIs as intermittent IV bolus or high dose oral
Asia-Pacific, 2018[6]	Use GBS; adopting a cut off at GBS ≤1 allows most hospitals to reduce unnecessary admissions	Not assessed	IV PPIs recommended if suspected UGIB awaiting endoscopy (especially if endoscopy is not available within 24 h)	Within 24 h, but urgent (within 12 h) if hemodynamic instability, after resuscitation and stabilization	After endoscopic hemostasis is achieved high dose oral PPIs can be used for 72 h as an alternative to high dose IV PPIs

Abbreviations: ACG=American College of Gastroenterology; ASGE=American Society for Gastrointestinal Endoscopy; ED=emergency department; ESGE=European Society of Gastrointestinal Endoscopy; GBS=Glasgow Blatchford score; Hb=hemoglobin; NBVV=non-bleeding visible vessel; NICE=National Institute for Health and Care Excellence; PPIs=proton pump inhibitors; IV=intravenous; UGIB=upper gastrointestinal bleeding.

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SUMMARY OF THE MANAGEMENT OF UPPER GASTROINTESTINAL BLEEDING

Pre-endoscopic management

- Hemodynamic assessment and resuscitation as needed
- Blood transfusion at a hemoglobin threshold of 70-80 g/L; higher threshold if severe bleeding with hypotension
- Risk assessment:
  -If Glasgow-Blatchford score ≤1 consider outpatient endoscopy and management
- Erythromycin (as a prokinetic agent) and proton pump inhibitor may be considered
- Patients with cirrhosis should receive vasoactive drugs and antibiotics

Endoscopic

- Endoscopy is generally recommended within 24 hours in patients admitted to hospital
  - If the patient has severe bleeding with hemodynamic instability, urgent endoscopy should be performed after resuscitation
- Ulcers with active bleeding and non-bleeding visible vessels should receive endoscopic therapy; endoscopic therapy may also be used for ulcers with adherent clots
- Injection therapy (eg, epinephrine), thermal probes (eg, bipolar electrocoagulation, hea... probe), or clips should be used
- Epinephrine injection should always be followed by a second modality
- Recurrent bleeding should be treated with repeat endoscopic therapy but subsequent bleeding by transarterial embolization or surgery
- Esophageal variceal bleeding should be treated with ligation and gastric varices with the injection of tissue adhesive
- Refractory variceal bleeding should be treated with transjugular portosystemic shunt
- For massive refractory esophageal variceal bleeding a removable covered metal stent is preferred to balloon tamponade as a temporizing measure

Post-endoscopic management

- Patients who have ulcers with high risk lesions (active bleeding, visible vessel, adherent clot) should receive high dose proton pump inhibitors for 72 h
- Patients with cirrhosis should continue antibiotics for up to seven days regardless of the bleeding source
- Variceal bleeding should be treated with vasoactive drugs for up to five days
- When used for secondary prevention, aspirin should be continued or reintroduced soon after hemostasis is achieved
- Early reintroduction of other antithrombotic drugs is also recommended after hemostasis is achieved to reduce thrombotic events and death

Management of acute upper gastrointestinal bleeding

Adrian J Stanley,[1] Loren Laine[2]

BMJ: first published as 10.1136/bmj.l536 on 25 March 2019.

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Acute upper gastrointestinal bleeding overview

http://pathways.nice.org.uk/pathways/acute-upper-gastrointestinal-bleeding
NICE Pathway last updated: 10 February 2017

Key priorities for implementation

The following recommendations have been identified as priorities for implementation.

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.

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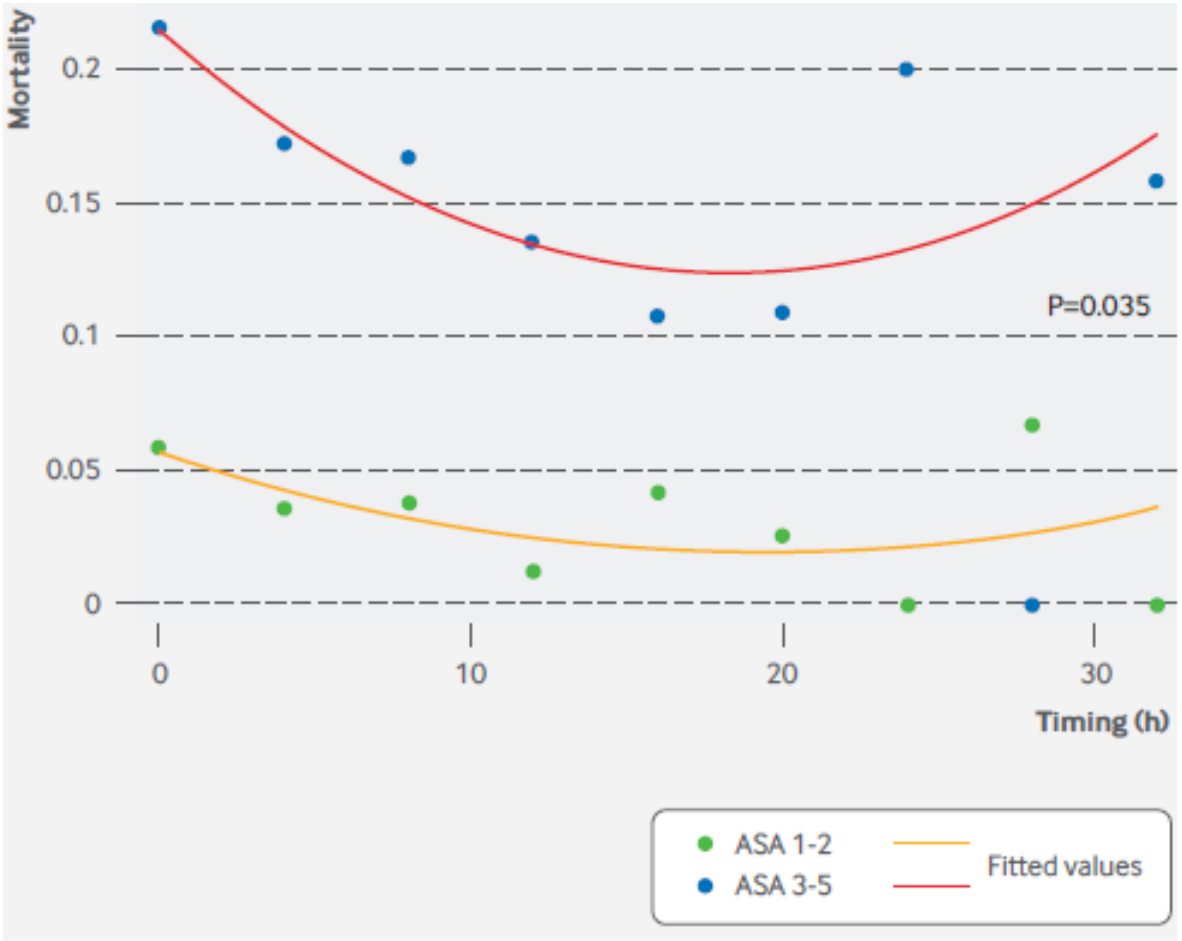

Fig 3| Association between timing of endoscopy and mortality in hospital patients with hemodynamic instability after correction for confounding variables.[76] Abbreviation: ASA=American Society of Anesthesiologists score.

Time to endoscopy : first stabilization

BMJ: first published as 10.1136/bmj.l536 on 25 March 2019.

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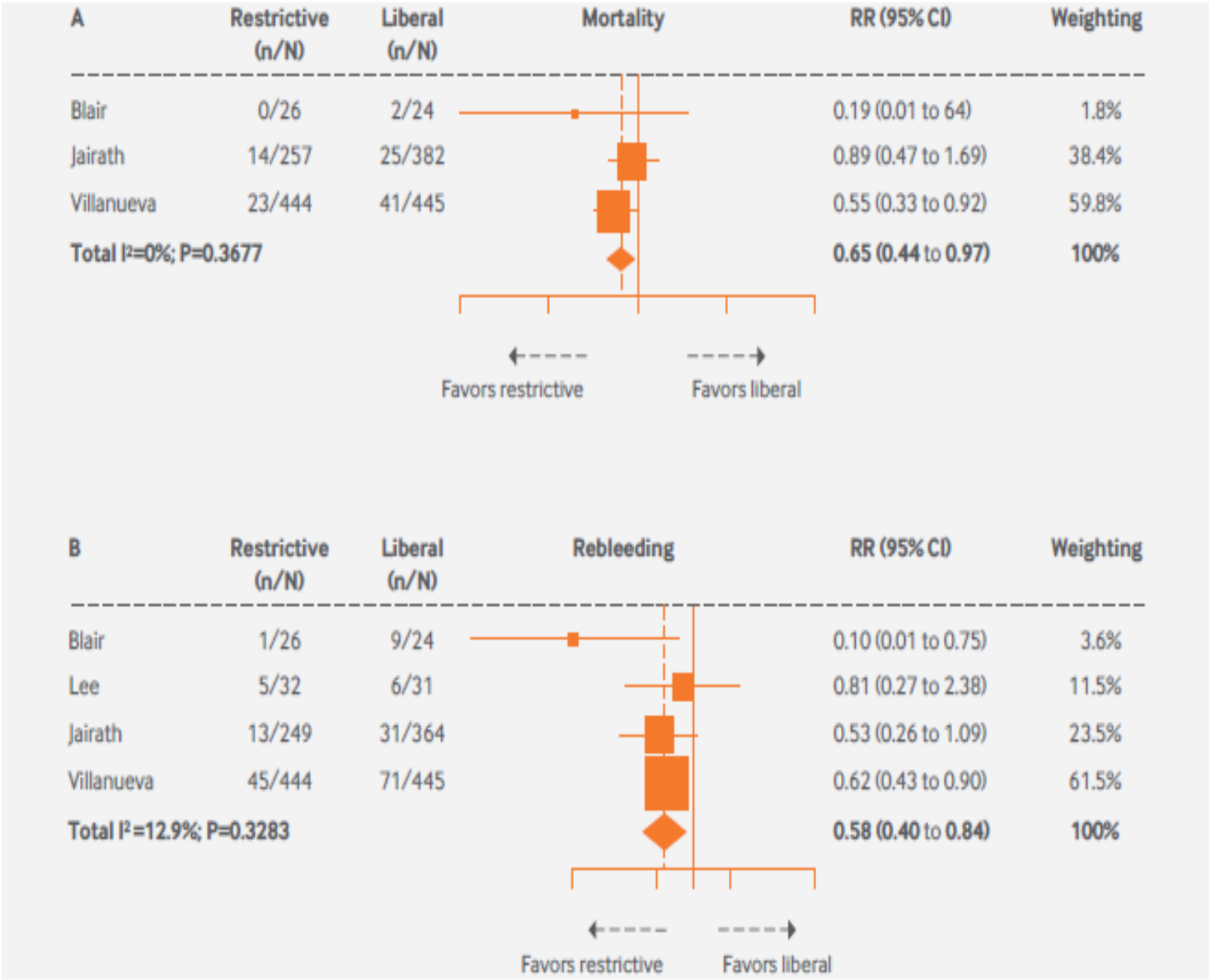


Fig 1 | Blood transfusion meta-analysis: liberal versus restrictive transfusion for (A) mortality and (B) rebleeding.[27] Reproduced with permission from Elsevier. Abbreviations: CI=confidence interval; RR=relative risk.

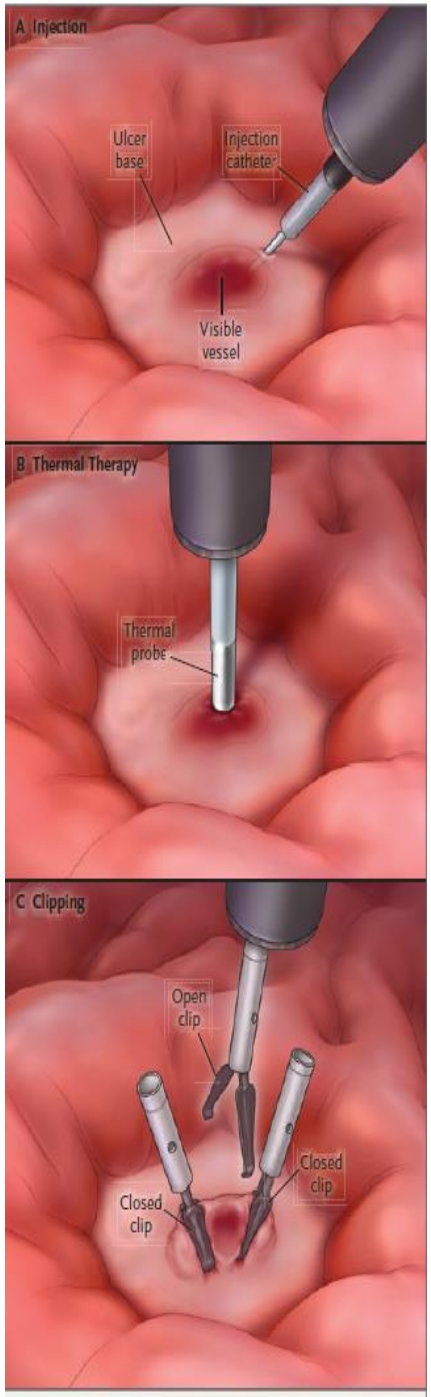
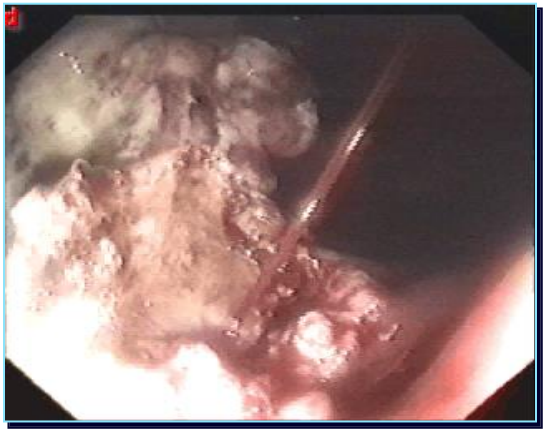
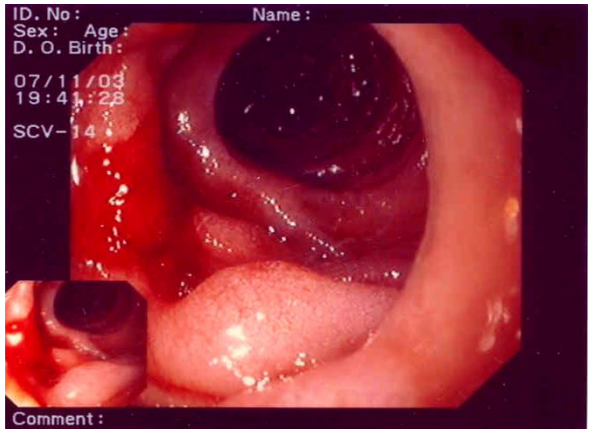
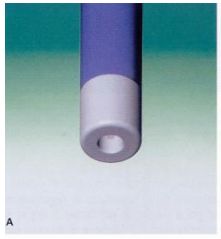


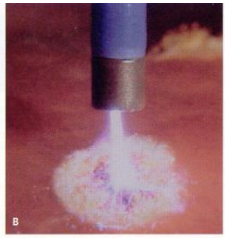
Figure 2. Endoscopic Hemostatic Therapies.

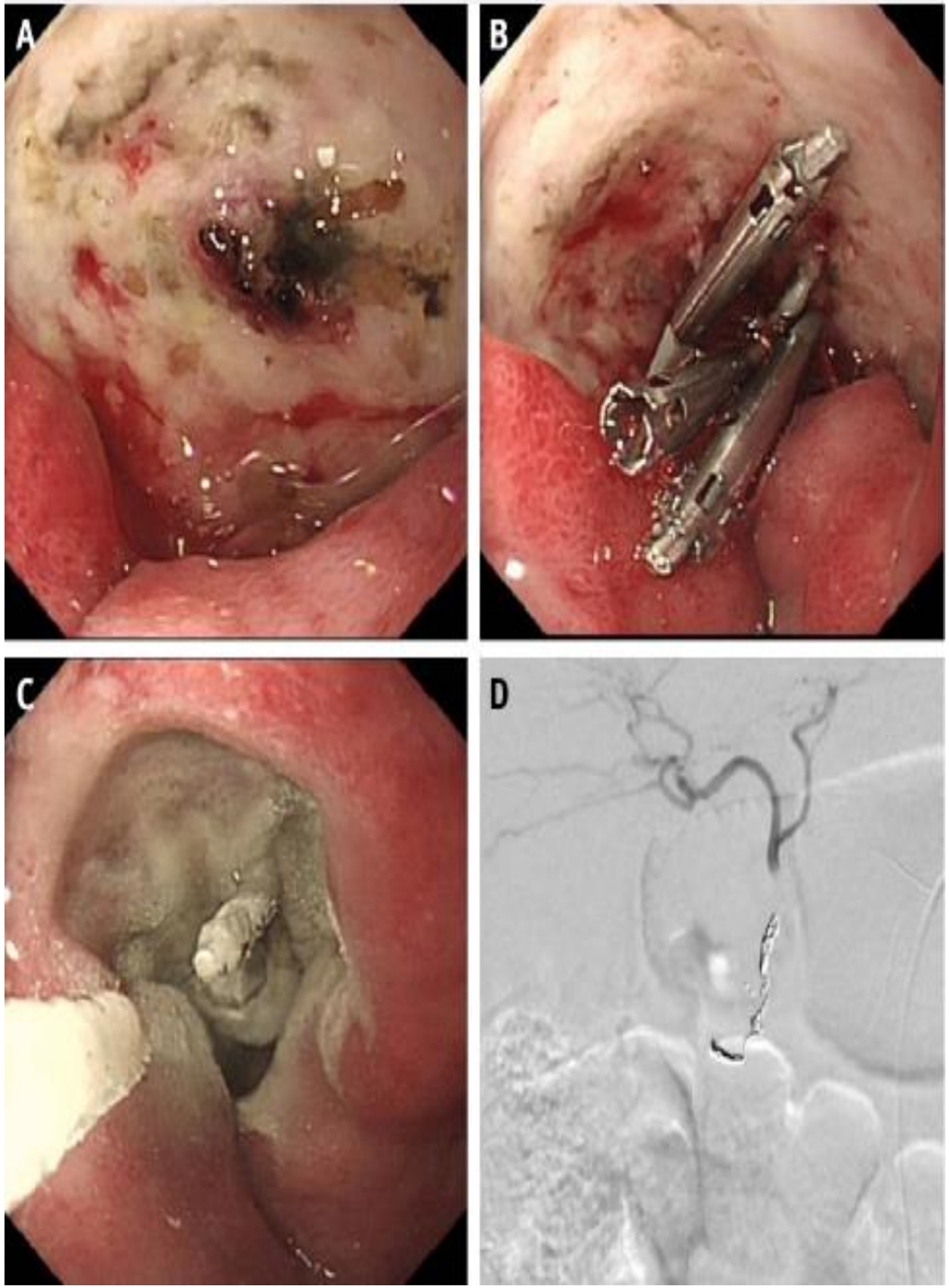




Endoscopic Hemostatic Modality







Rebleeding

Refractory lesion: predictors of rebleeding

- Haemodinamic instability
- Active bleeding (spurting)
- Active bleeding (spurting + oozing)
- Ulcer > 2 cm
- Posterior duodenal ulcer
- High lesser curvature

Garcia-Iglesia APT 2011; BarkunAJ

Upper Gastrointestinal Bleeding Due to a Peptic Ulcer

Loren Laine, M.D.

N ENGL J MED 374;24 NEJM.ORG JUNE 16, 2016

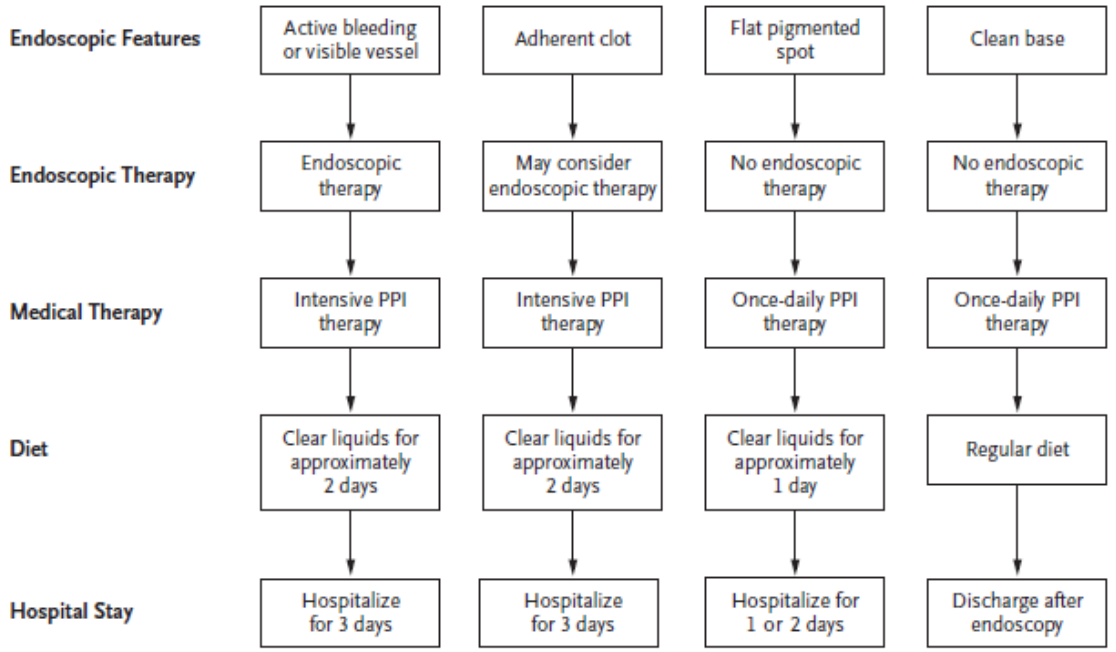


Figure 1. Initial Treatment of Patients with Ulcer Bleeding, According to the Endoscopic Features of the Ulcer.

Intensive proton-pump inhibitor (PPI) therapy is an intravenous bolus (80 mg) followed by an infusion (8 mg per hour) for 72 hours or an oral or intravenous bolus (e.g., 80 mg) followed by intermittent high-dose PPI therapy (e.g., 40 to 80 mg twice daily) for 3 days.[11] The diets shown are diets after endoscopy in patients who do not have nausea or vomiting. The duration of hospital stay after endoscopy is shown in patients who are in stable condition and do not have further bleeding or concurrent medical conditions requiring hospitalization.

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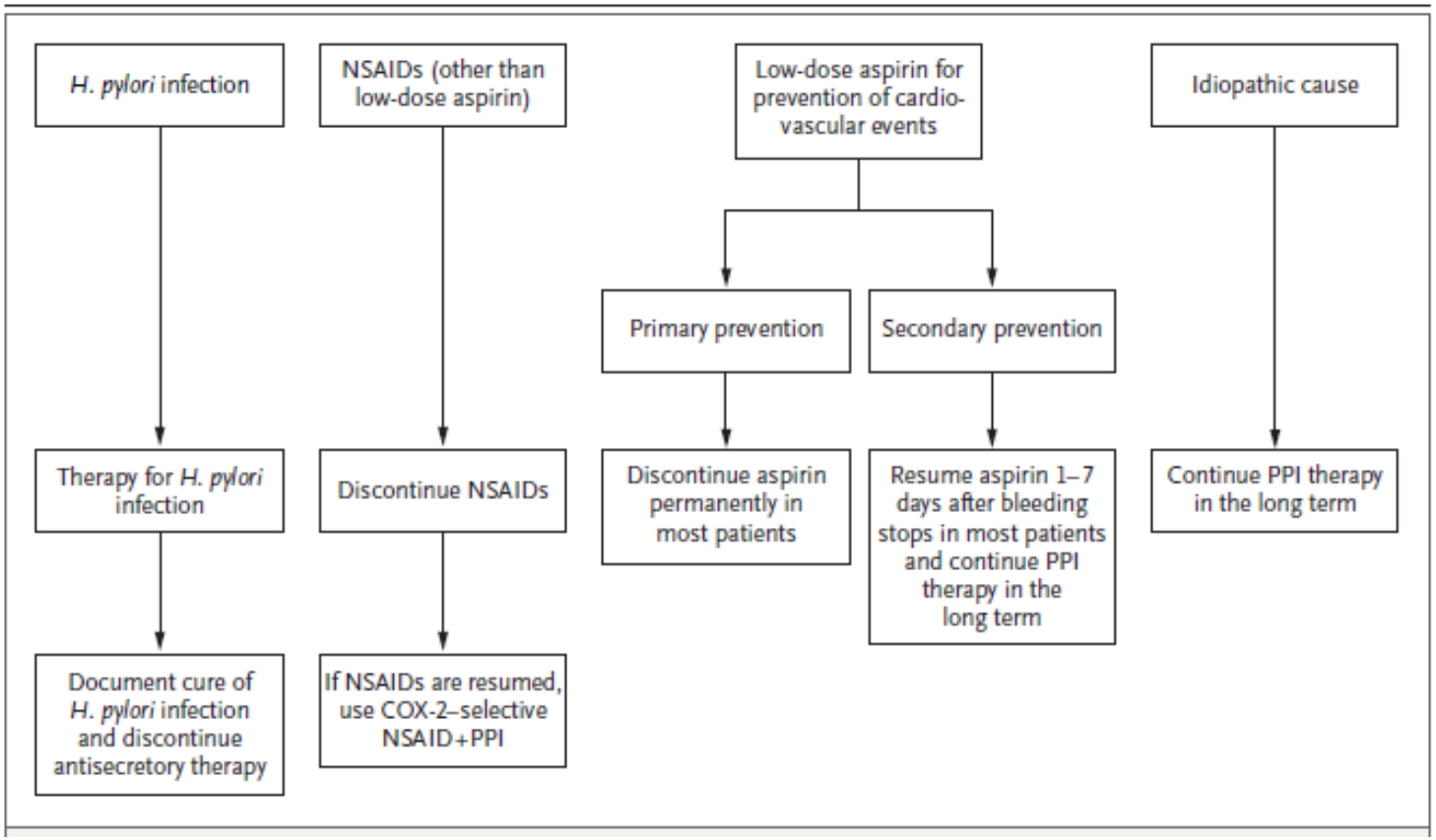
Upper Gastrointestinal Bleeding Due to a Peptic Ulcer



Loren Laine, M.D.

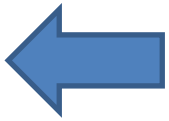
N ENGL J MED 374;24 NEJM.ORG JUNE 16, 2016

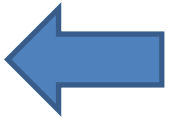
QUESTIONS FOR FUTURE RESEARCH

- What is the optimal approach to fluid resuscitation in patients with acute upper gastrointestinal bleeding?
- Can risk assessment tools be developed to allow accurate early identification of high risk patients with upper gastrointestinal bleeding, such as those who require endoscopic therapy or those with high mortality?
- What is the optimal timing of endoscopy after upper gastrointestinal bleeding?
- What is the exact role of hemostatic powder spray, over-the-scope clips, and Doppler ultrasound probes in the endoscopic management of upper gastrointestinal bleeding?
- When is the best time to reintroduce antithrombotic drugs after upper gastrointestinal bleeding?

Adrian J Stanley,[1] Loren Laine[2]

BMJ: first published as 10.1136/bmj.l536 on 25 March 2019.





Clinical advances in UGIB
Hot topics DDW 2019

- Risk stratification: **Will Machine Learning Model replace clinical risck score**
- Resumption of anticoagulation after GI bleeding: **3-14 days**
- Newer endoscopic modalities

- hemostatic powder spray: **useful treatment for temporary control of bleeding :**

- over-the-scope clips **useful in treating lesions refractory to conventional endoscopic haemostatic therapy**

L. Laine 2019

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Guidelines

OPEN ACCESS

Diagnosis and management of acute lower gastrointestinal bleeding: guidelines from the British Society of Gastroenterology

Kathryn Oakland,[1] Georgina Chadwick,[2] James E East,[3] Richard Guy,[4] Adam Humphries,[5] Vipul Jairath,[6,7] Simon McPherson,[8] Magdalena Metzner,[9] A John Morris,[10] Mike F Murphy,[11] Tony Tham,[12] Raman Uberoi,[13] Andrew McCulloch Veitch,[14] James Wheeler,[15] Cuthbert Regan,[16] Jonathan Hoare[17]

Oakland K, *et al*. *Gut* 2019;**68**:776–789. doi:10.1136/gutjnl-2018-317807

ACG Clinical Guideline: Management of Patients With Acute Lower Gastrointestinal Bleeding

Lisa L. Strate, MD, MPH, FACG[1] and Ian M. Gralnek, MD, MSHS[2]

Am J Gastroenterol 2016; 111:459–474; doi:10.1038/ajg.2016.41; published online 1 March 2016

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Acute colonic bleeding (or lower GI bleeding)—defined as that occurring from the colon, rectum, or anus, and presenting as either hematochezia (bright red blood, clots or burgundy stools) or melena—has an annual incidence of hospitalization of approximately 36/100,000 population, about half of that for upper GI bleeding. The rate of hospitalization is even higher in the elderly [1]. Patients usually present with painless hematochezia and a decrease in hematocrit value, but without orthostasis.

Most cases of acute colonic bleeding will stop spontaneously, thereby allowing non-urgent evaluation. However, for patients with severe hematochezia, defined as continued bleeding within the first 24 h of hospitalization with a drop in the hemoglobin of at least 2 g/dL and/or a transfusion requirement of at least 2 units of packed red blood cells, urgent diagnosis and intervention are required to control the bleeding. Clinical factors predictive of severe colonic bleeding include aspirin use, at least two comorbid illnesses, pulse greater than 100/minute, and systolic blood pressure <115 mmHg [2]. The overall mortality rate from colonic bleeding is 2.4–3.9 % [1, 3]. Independent predictors of inhospital mortality are age over 70 years, intestinal ischemia, and two or more comorbidities [3].

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Urgent colonoscopy following a rapid bowel purge has been shown to be safe, provide important diagnostic information, and allow therapeutic intervention. Because of these features, colonoscopy generally should be the initial modality used for evaluating acute colonic bleeding or severe hematochezia requiring hospitalization. Because most bleeding stops spontaneously, colonoscopy often is performed semi-electively, 24 h or more after initial hospitalization, to allow the patient to receive blood transfusions and the bowel preparation on the first day of hospitalization. However, the optimal time for performing urgent bowel preparation and colonoscopy is controversial. Early colonoscopy (soon after admission) has been associated with a shorter length of hospitalization, principally because of improved diagnostic yield [10]. Our group has reported that urgent colonoscopy after adequate cleansing of the colon with a bowel purge is more cost effective and associated with higher diagnostic yield than other strategies [11].

Bowel preparation

Recommendations

12. Once the patient is hemodynamically stable, colonoscopy should be performed after adequate colon cleansing. Four to six liters of a polyethylene glycol-based solution or the equivalent should be administered over 3–4 h until the rectal effluent is clear of blood and stool. Unprepped colonoscopy/sigmoidoscopy is not recommended (strong recommendation, low-quality evidence) (10,11,19).
13. A nasogastric tube can be considered to facilitate colon preparation in high-risk patients with ongoing bleeding who are intolerant to oral intake and are at low risk of aspiration (conditional recommendation, low-quali

Timing of colonoscopy

Recommendations

14. In patients with high-risk clinical features and signs or symptoms of ongoing bleeding, a rapid bowel purge should be initiated following hemodynamic resuscitation, and a colonoscopy performed within 24 h of patient presentation after adequate colon preparation to potentially improve diagnostic and therapeutic yield (conditional recommendation, low-quality evidence) (11,22).
15. In patients without high-risk clinical features or serious comorbid disease or those with high-risk clinical features without signs or symptoms of ongoing bleeding, colonoscopy should be performed next available after a colon purge (conditional recommendation, low-quality evidence) (52,65).

Management of coagulation defects

Recommendations

6. Endoscopic hemostasis may be considered in patients with an international normalized ratio (INR) of 1.5–2.5 before or concomitant with the administration of reversal agents. Reversal agents should be considered before endoscopy in patients with an INR >2.5 (conditional recommendation, very-low-quality evidence) (33–35).
7. Platelet transfusion should be considered to maintain a platelet count of 50×10^9/l in patients with severe bleeding and those requiring endoscopic hemostasis (conditional recommendation, very-low-quality evidence) (36,37).
8. Platelet and plasma transfusions should be considered in patients who receive massive RBC transfusions (conditional recommendation, very-low-quality evidence) (37–39).
9. In patients on anticoagulant agents, a multidisciplinary approach (e.g., hematology, cardiology, neurology, and gastroenterology) should be used when deciding whether to discontinue medications or use reversal agents to balance the risk of ongoing bleeding with the risk of thromboembolic events (strong recommendation, very-low-quality evidence) (36,40).

Table 3 Risk factors for novel oral anticoagulant-related gastrointestinal bleeding

Risk factors	Definition
Higher dose of dabigatran and edoxaban	Dabigatran: a dose of 150 mg b.i.d Edoxaban: a dose of 60 mg daily
Concomitant use of ulcerogenic agents	Antiplatelet agents, NSAIDs or steroid
Older age	Age ⩾ 75 years
Renal impairment	Creatinine clearance < 50 mL/min
Prior history of peptic ulcers or GIB	
Helicobacter pylori infection	
Pre-existing GI tract lesions	Examples like diverticulosis, angiodysplasias
Ethnicity	Western population
HAS-BLED score	Score of ⩾ 3
Protective factors	**Definition**
Gastroprotective agents	Proton pump inhibitors or histamine H2-receptor antagonists

NOAC: Novel oral anticoagulant; GIB: Gastrointestinal bleeding; NSAIDs: Non-steroidal anti-inflammatory drugs.

TABLE 2
Recommendation statements with associated adherence rates after guideline publication

	Recommendation statement (5)	Adherence, % (95% CI)
1	Hospitals should develop institution-specific protocols for multidisciplinary management, which should include access to an endoscopist with training in endoscopic hemostasis	52 (32.4–71.7)
2	Support staff trained to assist in endoscopy should be available for urgent endoscopy	83.5 (59.4–92.9)
3	Immediate evaluation and appropriate resuscitation are critical to proper management	N/A (–)
4	In selected patients, the placement of a nasogastric tube can be considered because the findings may have prognostic value	22 (20.4–24.0)
5A*	Clinical (nonendoscopic) stratification of patients into low- and high-risk categories for rebleeding and mortality is important for proper management. Available prognostic scales may be used to assist in decision making	N/A (–)
5B*	Early stratification of patients into low- and high-risk categories for rebleeding and mortality, based on clinical and endoscopic criteria, is important for proper management. Available prognostic scales may be used to assist in decision making	N/A (–)
6*	Early endoscopy (within the first 24 h) with risk classification by clinical and endoscopic criteria allows for safe and prompt discharge of patients classified as low risk; improves patient outcomes for patients classified as high risk and reduces resource use for patients classified as either low or high risk	65.6 (62.7–68.4)

Adherence to guidelines: A national audit of the management of acute upper gastrointestinal bleeding. The REASON registry

Yidan Lu MD[1], Alan N Barkun MD MSc[1,2], Myriam Martel BSc[1]; and the REASON investigators

Can J Gastroenterol Hepatol Vol 28 No 9 October 2014

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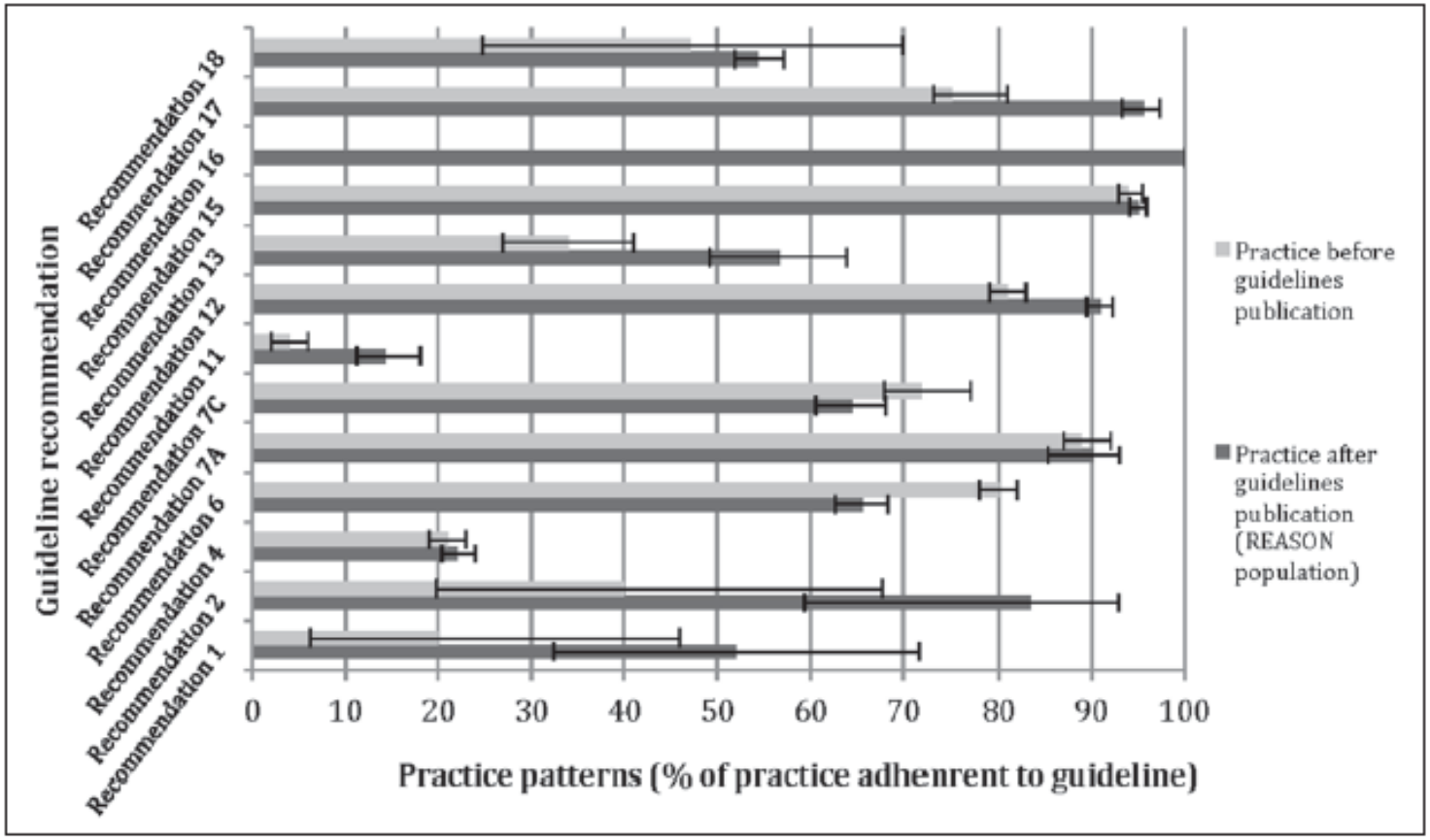

Figure 4) *Adherence to recommendations comparing practice before and after guidelines publication. *Guidelines in which collected data were insufficient to assess adherence are not included; **Data before guidelines publication were not available for recommendation 16. REASON* Registry of patients undergoing Endoscopic and/or Acid Suppression therapy and an Outcome analysis for upper gastrointestinal bleediNg

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Time to endoscopy for acute upper gastrointestinal bleeding: Results from a prospective multicentre trainee-led audit

Keith Siau[1,2], James Hodson[3], Richard Ingram[4], Andrew Baxter[4].

United European Gastroenterology Journal
2019, Vol. 7(2) 199–209

DOI: 10.1177/2050640618811491
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In conclusion, the majority of centres did not meet national standards for time to endoscopy. Factors associated with delayed endoscopy included time and route of admission, severity scoring and the timing of endoscopy referral. Early endoscopy may reduce length of stay, but is dependent on prompt assessment and referral. Strategic initiatives involving acute care services are likely to be required to improve this outcome.

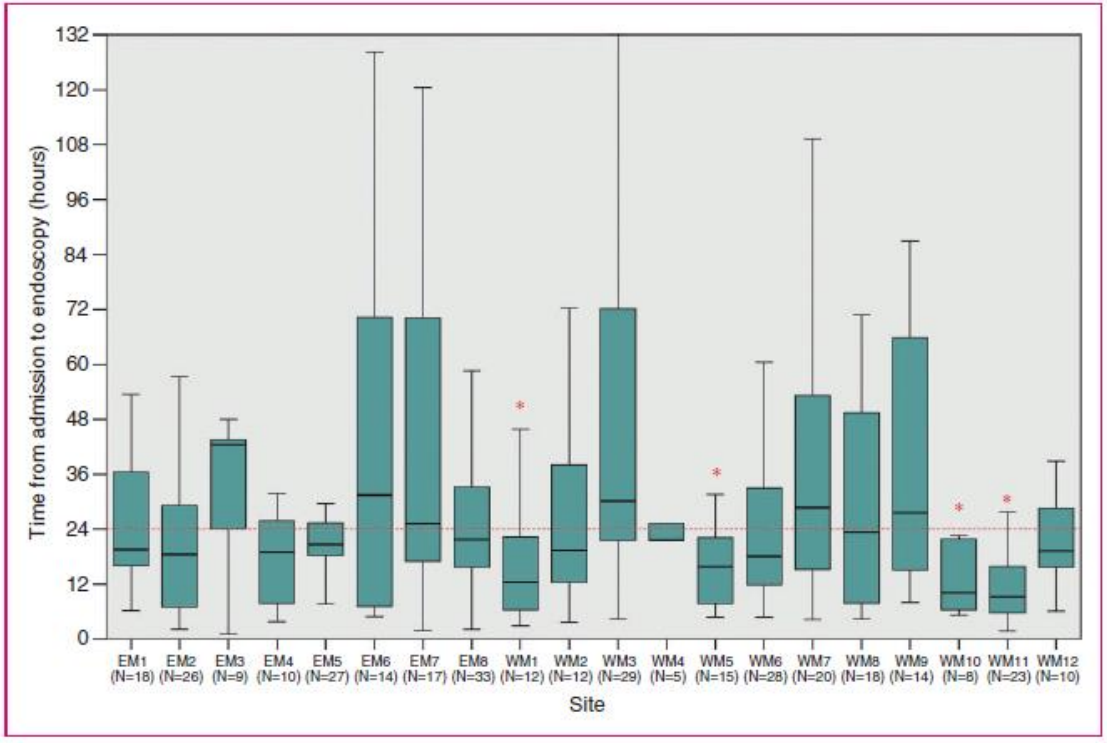

Figure 2. Time to endoscopy (h) for each participating centre. *Denotes centres achieving the JAG standard of early endoscopy in 75% + of patients.

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United European Gastroenterology Journal
2019, Vol. 7(3) 449–450

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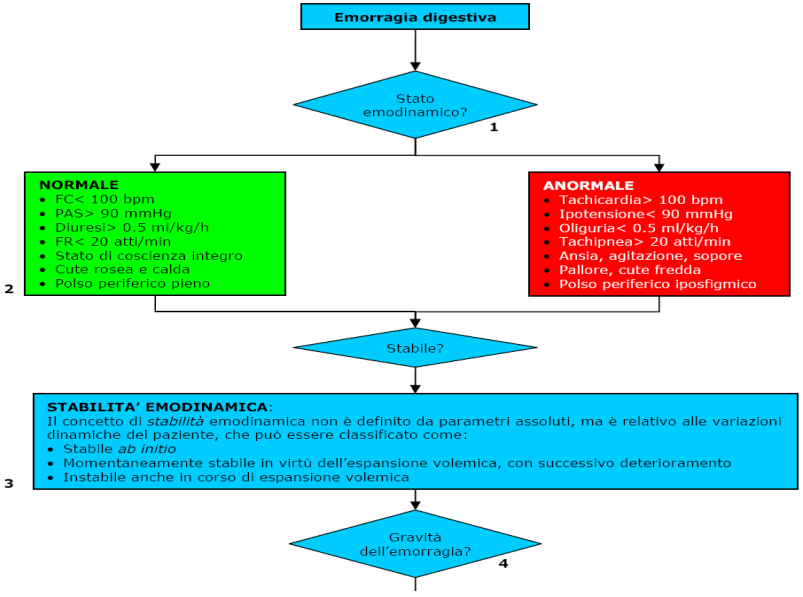
A call to arms for change: The UK strategy to improve standards of care in acute upper gastrointestinal bleeding

Keith Siau[1,2,3] and Allan John Morris[4,5]

We wish to applaud the Gastroenterololgy Trainee Research and Improvement Network North-West for sharing their experience with acute upper gastrointestinal bleeding (AUGIB) from North West England.[1] Consistent with our own observations and data from previous United Kingdom (UK) audits,[2–4] the authors report issues with attainment both of clinical and service-based quality standards in AUGIB, with 60% of patients receiving delayed endoscopy and poor adherence to Glasgow-Blatchford risk stratification.

EMERGENZE-URGENZE ENDOSCOPICHE: PERCORSI INTEGRATI FRA PRONTO SOCCORSO ED ENDOSCOPIA DIGESTIVA

ALGORITMO 1: INQUADRAMENTO DELLO STATO EMODINAMICO



COMMENTI AGLI ALGORITMI

1. **STATO EMODINAMICO?**: lo stato emodinamico è influenzato dal volume circolante, dalla *performance* cardiaca e dalle resistenze periferiche. Cruciale è la capacità di mantenere un'adeguata *perfusione d'organo*, che nel paziente emorragico risulta progressivamente compromessa a causa dell'ipovolemia acuta (la depressione cardiaca e la vasodilatazione da esaurimento di amine vasoattive sono fenomeni tardivi, preceduti da fenomeni opposti: aumentato lavoro cardiaco e vasocostrizione periferica).
2. **NORMALITA' EMODINAMICA:** lo stato emodinamico può essere classificato come normale o non normale in base a parametri clinici (stato di coscienza, irrorazione cutanea, caratteristiche del polso periferico) e fisiologici (frequenza cardiaca e respiratoria, pressione arteriosa sisto-diastolica e differenziale, diuresi). L'alterazione di alcuni parametri emodinamici in risposta all'emorragia, senza ipotensione, indica solo l'efficacia dei meccanismi di compenso (più efficienti nel giovane e nell'atleta) e non deve indurre a misconoscere la gravità del sanguinamento.
3. **STABILITA' EMODINAMICA:** in virtù dei meccanismi fisiologici (richiamo di liquidi dall'interstizio, tachicardia) e di fattori iatrogeni (reintegro del volume) il paziente emorragico può raggiungere uno stato di compenso, suscettibile di variazioni dinamiche: lo stato emodinamico, nel tempo, può mantenersi stabile oppure modificarsi, configurando un quadro di *instabilità* (deterioramento di alcuni o tutti i parametri emodinamici). Il paziente *instabile* emodinamicamente non può esibire parametri *normali* (la variazione di frequenza sotto la soglia della tachicardia o la riduzione della PA sopra la soglia dell'ipotensione non configurano instabilità emodinamica), mentre un paziente con parametri non normali può mantenersi stabile su tali valori.

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LA GESTIONE DELLE URGENZE/EMERGENZE IN ENDOSCOPIA DIGESTIVA

ITER PAZIENTE ADULTO IN URGENZA/EMERGENZA

Le condizioni del tratto digestivo superiore o inferiore in cui deve essere effettuato un intervento endoscopico in urgenza/emergenza **in un paziente adulto** sono:

- *condizioni del tratto digestivo inferiore (indicazione ad EGDS)*
  - emorragie digestive varicose e non del tratto digestivo superiore
  - ingestione di caustici
  - ingestione di corpi estranei

- *condizioni del tratto digestivo inferiore (indicazione a colonscopia con/senza posizionamento protesi)*
  - enterorragia massiva
  - occlusione intestinale acuta di natura organica prima dell'intervento chirurgico
  - volvolo del sigma

- *condizioni delle vie bilio-pancreatiche (indicazione ad ERCP)*
  - colangite acuta con/senza shock settico
  - pancreatite acuta biliare grave

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U.O. Medicina di Emergenza Urgenza

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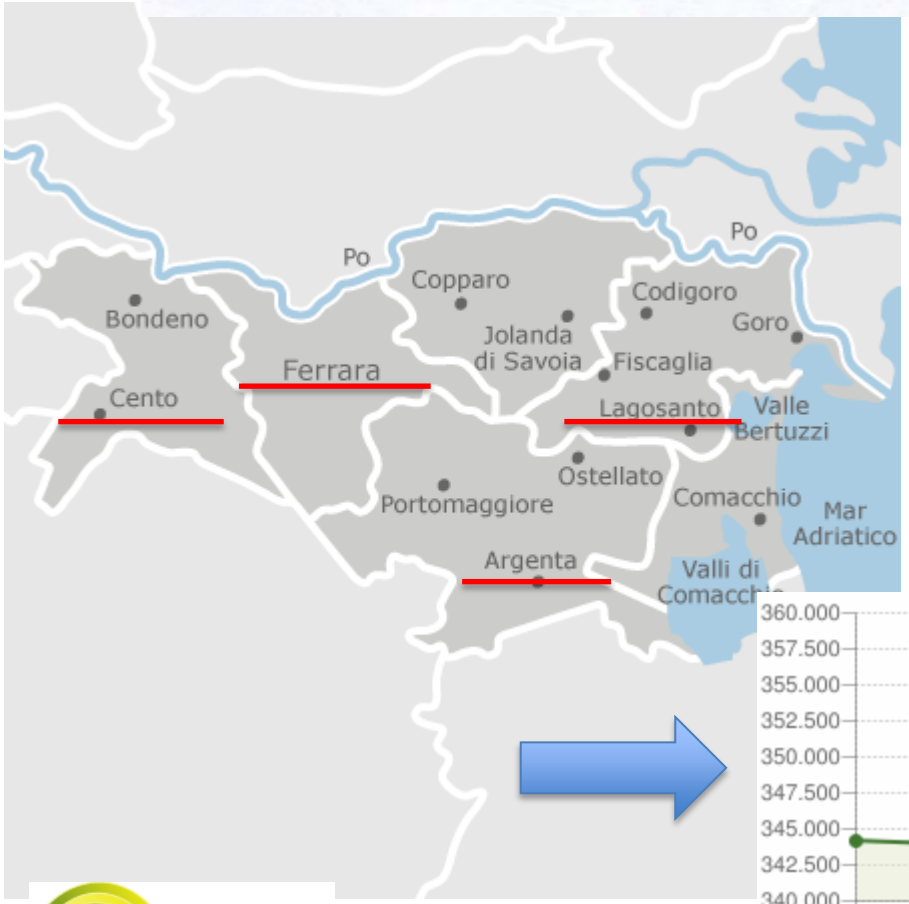
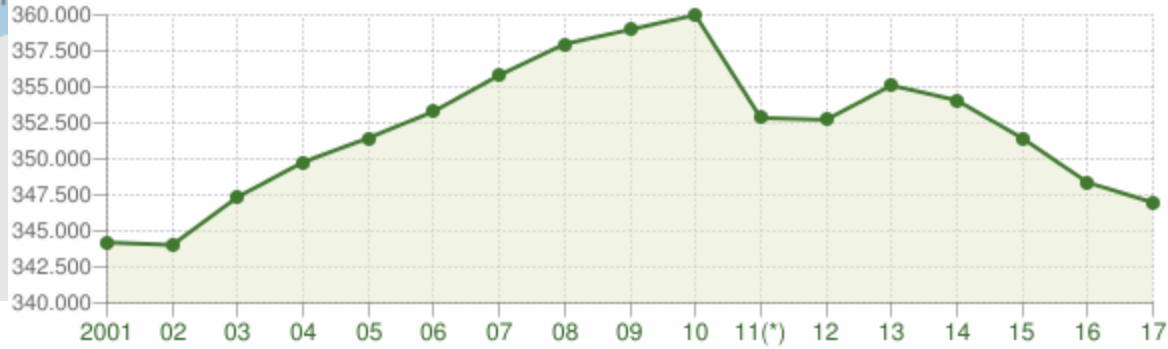
La gestione del paziente con emorragia digestiva superiore e inferiore





Andamento della popolazione residente

PROVINCIA DI FERRARA - Dati ISTAT al 31 dicembre di ogni anno - Elaborazione TUTTITALIA.IT

(*) post-censimento

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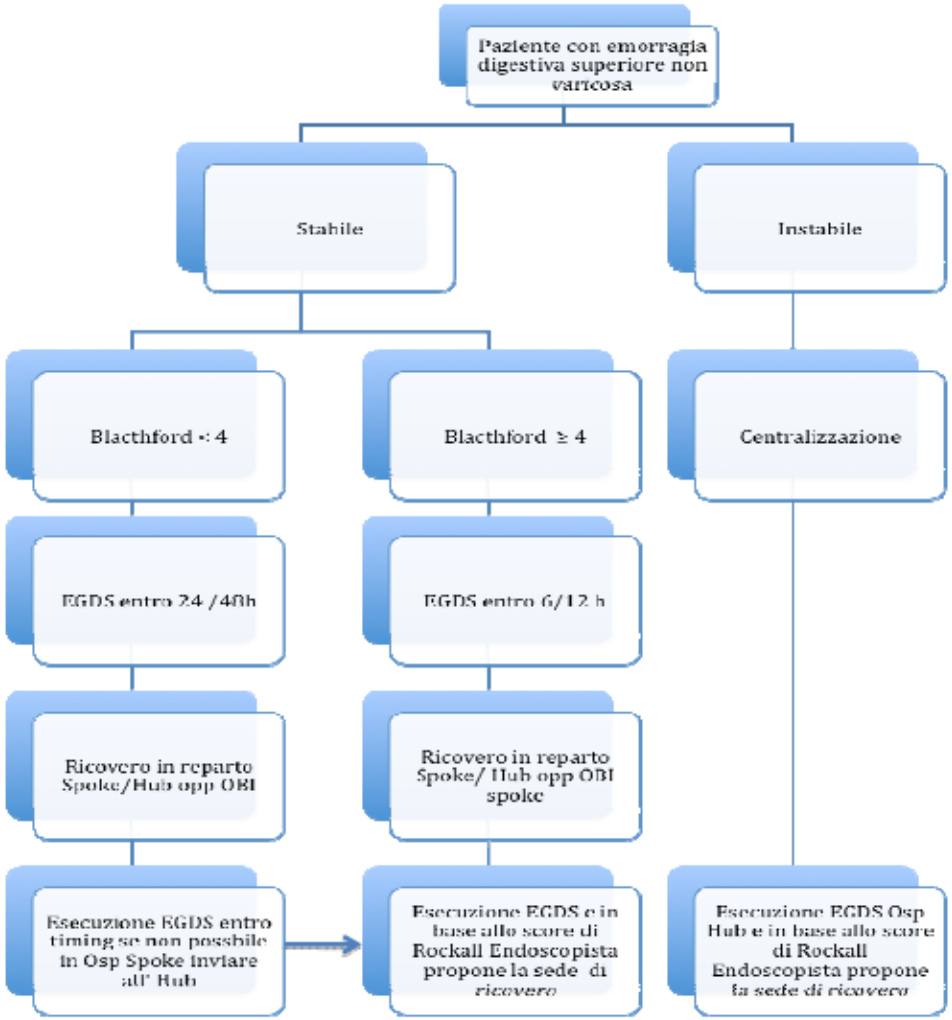
La gestione del paziente con emorragia digestiva superiore e inferiore



COMMENTO ALGORITMO 2

Il paziente emodinamicamente normale e stabile ab inizio, può essere trasferito dal DEA al reparto /OBI spoke prima dell'esecuzione dell'esame endoscopico, eseguendo monitoraggio clinico e dei parametri. I rari casi in cui il punteggio di Blatchford sia < 4 , non si sospetti ipertensione portale e il paziente non abbia mai avuto periodi di instabilità emodinamica, si può pensare all'esecuzione di EGDS entro 24 – 48 h e un periodo di osservazione breve.

9. Parametri di controllo

Caratteristica		Indicatore	Standard/ risultato atteso
Rispetto del timing endoscopico emorragia digestiva **non** varicosa	Blatchford < 4*	Differenza in ore tra ora (HH:MM) di inizio della visita del paziente in PS e l'ora (HH:MM) di esecuzione EGDS	24-48 h
	Blatchford ≥ 4	Differenza in ore tra ora (HH:MM) di inizio della visita del paziente in PS e l'ora (HH:MM) di esecuzione EGDS	6-12 h
Appropriatezza ed efficacia del percorso diagnostico-terapeutico che inizia al momento del ricovero ospedaliero		Mortalità a 30 giorni dal ricovero per emorragia non varicosa del tratto intestinale superiore (NVGIB)	Riduzione del valore rispetto all'anno precedente per Struttura

* come da Commento Algoritmo 2

PNE – Piano Nazionale Esiti

EMORRAGIA NON VARICOSA DEL TRATTO INTESTINALE SUPERIORE

RAZIONALE

L'emorragia non varicosa del tratto intestinale superiore (Non Vascular Gastrointestinal Bleeding, NVGIB) è una patologia relativamente frequente (incidenza annua 100/100.000 residenti), con un tasso di mortalità a seguito di ricovero ospedaliero stabile negli ultimi 10 anni e compreso approssimativamente tra il 4% e il 12%. Attualmente la terapia di scelta per l'emorragia è quella endoscopica, che è associata ad una riduzione sia della mortalità a breve termine sia dell'occorrenza di recidive per sanguinamento.

La mortalità a 30 giorni dopo un ricovero per emorragia non varicosa del tratto intestinale superiore è considerata un indicatore valido e riproducibile dell'appropriatezza ed efficacia del percorso diagnostico-terapeutico che inizia al momento del ricovero ospedaliero.

L'indicatore "*mortalità a 30 giorni dal ricovero per emorragia non varicosa del tratto intestinale superiore*" misura le morti avvenuto entro breve termine dalla data di ricovero del paziente in ospedale.

L'indicatore ha lo scopo di fornire indicazioni sul funzionamento dell'intero processo assistenziale ospedaliero a partire dal ricovero del paziente. L'attribuzione dell'esito alla struttura di ricovero non implica la valutazione dell'assistenza fornita da quella struttura ma dell'appropriatezza ed efficacia del processo assistenziale che inizia con l'arrivo del paziente a quella struttura.

Il valore dell'indicatore può variare tra aree territoriali e strutture; questo fenomeno, oltre che dalla diversa qualità delle cure, può essere causato dalla eterogenea distribuzione, dovuta al case mix, di diversi fattori di rischio come ad esempio età, genere, condizioni di salute del paziente.

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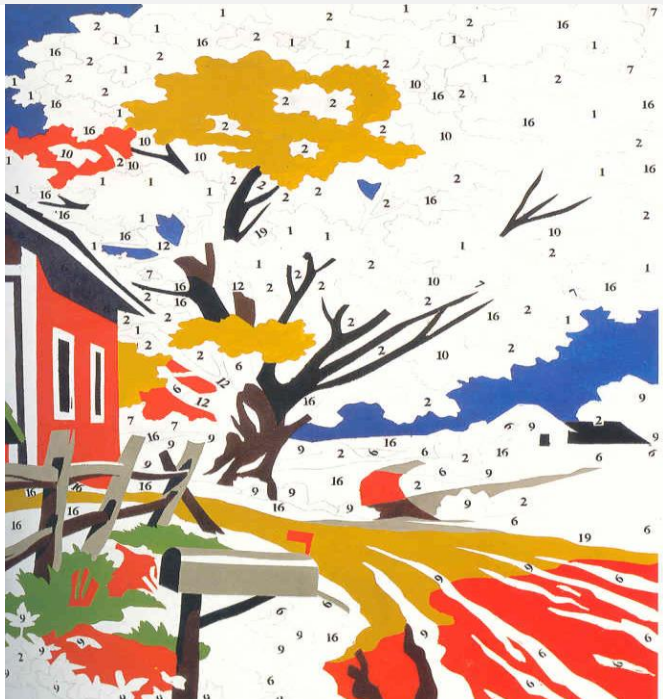
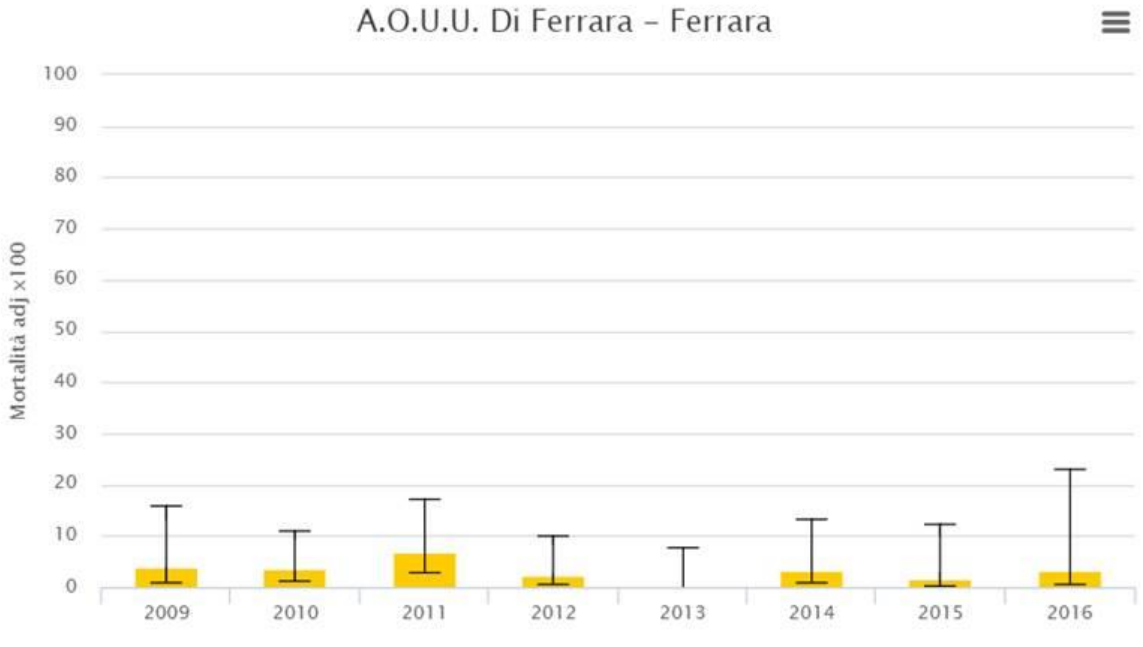
Emorragia non varicosa del tratto intestinale superiore: mortalità a 30 giorni - Italia 2013-201

Ordina/filtra | esporta

→ Tutte le strutture → Filtro regione/asl attivo → Confronto media nazionale + Ordinato per Regione crescente

STRUTTURA	PROVINCIA	REGIONE	N	% GREZZA	% ADJ	RR ADJ	P	GRAFICO
Italia			48739	3.88	-	-	-	
A.O.U.U. Di Ferrara - Ferrara	FE	Emilia Romagna	173	2.31	2.11	0.54	0.229	
Osp. Mazzolani Vandini Argenta - Argenta	FE	Emilia Romagna	39	2.56	-	-	-	
Osp. Del Delta - Lagosanto	FE	Emilia Romagna	72	1.39	-	-	-	
Osp. SS. Annunziata - Cento	FE	Emilia Romagna	37	2.70	-	-	-	
CCA Quisisana S.r.l. - Ferrara	FE	Emilia Romagna	16	18.75	-	-	-	
CCA Salus - Ferrara	FE	Emilia Romagna	9	22.22	-	-	-	





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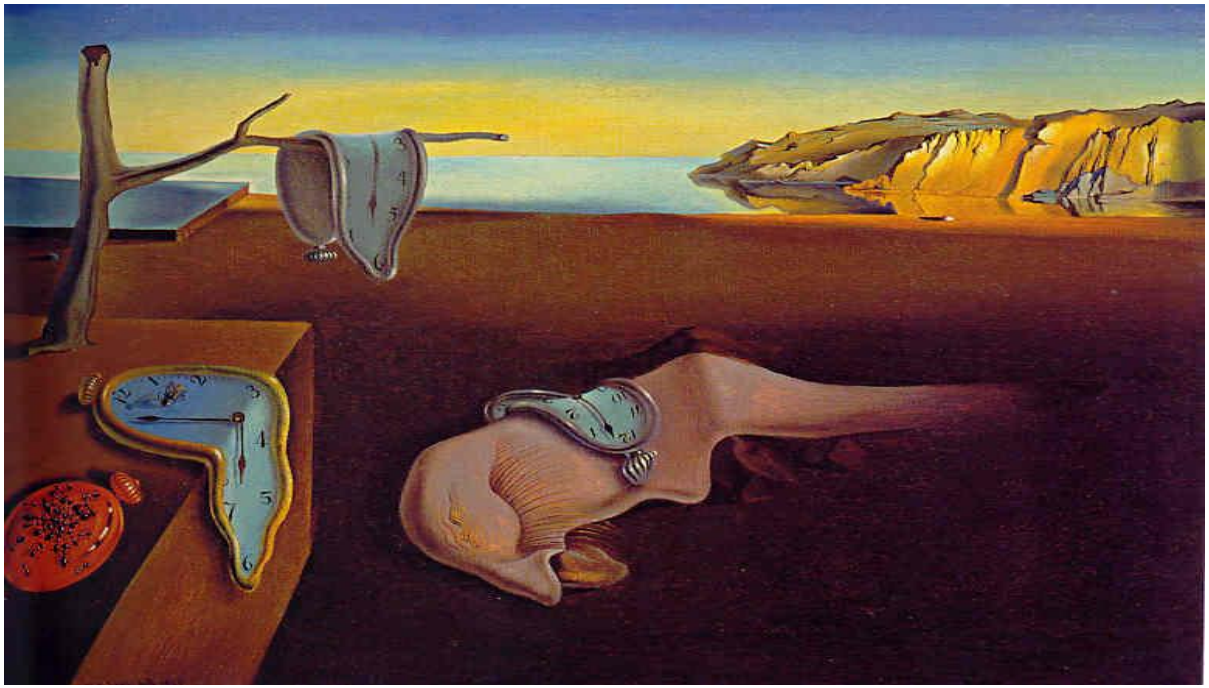

Grazie per l'attenzione