Review Article

Initial Management of the Anticoagulated Patient with Upper Gastrointestinal Bleeding in the Emergency Department

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Abstract

Upper gastrointestinal bleeding in anticoagulated patients represents a complex clinical scenario that requires prompt and structured management in the emergency setting. The pathophysiology is characterized by disruption of normal hemostasis due to the effects of anticoagulant therapies, which impair clot formation and stability, particularly in the presence of underlying gastrointestinal lesions such as ulcers, varices, or malignancy. Initial evaluation follows a systematic approach focused on airway protection, respiratory support, and rapid identification of hypovolemic shock, with early resuscitation using intravenous fluids and blood products to restore hemodynamic stability. Risk stratification plays a central role in guiding clinical decisions, allowing differentiation between low-risk patients suitable for outpatient management and high-risk individuals requiring intensive care. Pharmacologic therapy, including the early use of proton pump inhibitors and vasoactive agents in suspected variceal bleeding, contributes to clot stabilization and bleeding control. Reversal of anticoagulation is a critical component of management and must be tailored according to the specific

agent used, the severity of bleeding, and the patient's thrombotic risk. Endoscopy within twenty-four hours after stabilization is recommended as the cornerstone of definitive diagnosis and treatment, enabling targeted hemostatic interventions. In cases of endoscopic failure, alternative strategies such as transcatheter embolization or surgery may be required. Post-stabilization management requires careful balancing between the risks of rebleeding and thromboembolism, with individualized decisions regarding the timing of anticoagulation resumption. Secondary prevention measures, patient education, and multidisciplinary follow-up are essential to reduce recurrence and improve clinical outcomes in this high-risk population.

Key words

Upper gastrointestinal bleeding, anticoagulation, emergency management, hemodynamic resuscitation, endoscopy, anticoagulant reversal.

Introduction

Upper gastrointestinal bleeding is a critical condition characterized by hemorrhage originating from the upper gastrointestinal tract and frequently requires urgent medical intervention. It represents a major cause of morbidity and mortality, particularly among older adults and patients with multiple comorbidities [1]. In parallel, the use of anticoagulant therapies, including warfarin and direct oral anticoagulants, has increased substantially due to their effectiveness in preventing thromboembolic events. Among these, direct oral anticoagulants are often preferred over warfarin because of their more predictable pharmacokinetic profiles and reduced need for routine monitoring [2, 3].

This growing use of anticoagulation has important clinical implications, as patients receiving these therapies who develop upper gastrointestinal bleeding tend to experience higher rates of hospitalization and prolonged hospital stays, particularly those treated with warfarin compared to those receiving direct oral anticoagulants [2]. In addition, rebleeding and mortality remain significant concerns, especially in the presence of factors such as duodenal bleeding and underlying comorbid conditions, which further increase the risk of adverse outcomes [4]. The greater need for blood transfusions and endoscopic interventions in patients treated with warfarin reflects the increased severity of bleeding episodes in this subgroup [2].

The management of upper gastrointestinal bleeding in anticoagulated patients therefore presents a complex clinical dilemma, requiring a balance between effective hemorrhage control and the prevention of thromboembolic events. Although reversal strategies for anticoagulants can reduce bleeding risk, they may simultaneously increase the risk of thrombosis if anticoagulation is not reintroduced in a timely manner [1]. Consequently, determining the optimal timing for resuming anticoagulation is critical, with current recommendations suggesting a window of 15 to 30 days to minimize thrombotic complications [5]. Risk assessment tools such as the ABL score have been developed to identify high-risk patients and support clinical decision-making [6]. At the same time, both endoscopic and pharmacological interventions remain central components of management, with ongoing advancements in hemostatic techniques contributing to improved clinical outcomes [7].

The objective of this review is to provide a comprehensive and clinically integrated analysis of the initial management of anticoagulated patients presenting with upper gastrointestinal bleeding in the emergency department, focusing on early recognition, risk stratification, hemodynamic stabilization, anticoagulation reversal strategies, and timely therapeutic

interventions, with the aim of optimizing bleeding control, minimizing thromboembolic risk, and improving patient outcomes.

Methodology

This manuscript was developed as a structured narrative review aimed at providing an updated and clinically integrated analysis of the initial management of anticoagulated patients presenting with upper gastrointestinal bleeding in the emergency department, with particular emphasis on early risk stratification, hemodynamic stabilization, anticoagulation reversal strategies, and timely therapeutic interventions. The review was conducted in accordance with the SANRA (Scale for the Assessment of Narrative Review Articles) framework and followed a predefined methodological protocol established prior to literature screening. Given the clinical heterogeneity of this population, the variability in anticoagulant therapies, and differences in bleeding severity and underlying etiologies, a narrative interpretative synthesis was selected over quantitative pooling in order to integrate pathophysiological, clinical, and therapeutic considerations into a coherent and clinically applicable framework. Special attention was given to the balance between bleeding control and thrombotic risk, the role of pharmacologic and endoscopic management, and decision-making in the emergency setting. The objective was to provide a structured synthesis capable of supporting multidisciplinary management in high-risk patients with upper gastrointestinal bleeding.

A comprehensive literature search was conducted in PubMed, Scopus, and Web of Science, including peer-reviewed articles published in English or Spanish between January 2020 and December 2025. The final search was performed in march 2026. This timeframe was selected to capture contemporary advances in anticoagulation management, reversal agents, endoscopic hemostatic techniques, and updated clinical guidelines for upper gastrointestinal bleeding. Foundational studies were incorporated when necessary to contextualize pathophysiological mechanisms or established therapeutic principles. The search strategy combined MeSH and free-text terms using Boolean operators related to upper gastrointestinal bleeding, anticoagulation, warfarin, direct oral anticoagulants, anticoagulant reversal, emergency management, endoscopy, hemostasis, transfusion strategies, and thromboembolic risk. Searches were conducted in titles and abstracts as well as indexed subject headings to maximize sensitivity.

The initial search yielded 226 records. After removal of duplicates, 181 articles remained for title and abstract screening. Of these, 108 underwent full-text evaluation, and 62 studies were included in the final synthesis. Selection was performed independently by two authors, with disagreements resolved through discussion and consensus. Exclusion criteria comprised non–peer-reviewed publications, isolated case reports, editorials without clinical outcome data, purely technical descriptions lacking relevance to emergency management, redundant datasets, and studies not directly addressing initial management, anticoagulation strategies, or clinical outcomes in patients with upper gastrointestinal bleeding.

Eligible studies included randomized controlled trials, large observational cohorts, systematic reviews, meta-analyses, expert consensus statements, and contemporary international guidelines from gastroenterology, emergency medicine, and hematology societies. Priority was assigned to multicenter studies, investigations with clearly defined bleeding severity and anticoagulation status, and research evaluating outcomes such as mortality, rebleeding, transfusion requirements, thromboembolic events, and length of hospital stay. Extracted variables included study design, patient characteristics, type of anticoagulant, bleeding etiology, management strategies (pharmacologic,

endoscopic, and supportive), reversal approaches, and clinical outcomes. Methodological quality and internal validity were assessed narratively, considering risk of bias, sample size, follow-up duration, consistency in outcome definitions, and reproducibility of findings. In cases of conflicting evidence, greater interpretative weight was assigned to higher-level evidence and guideline-supported recommendations.

Reference lists of included studies were manually screened to identify additional relevant publications. Given its narrative design, this review is subject to potential selection bias and does not provide pooled quantitative estimates. Artificial intelligence–based tools were used exclusively to assist in literature organization and structural coherence, whereas critical appraisal, synthesis, and final interpretation were conducted independently by the authors to preserve methodological rigor.

Pathophysiology of Bleeding in Anticoagulated Patients

Normal hemostasis is a coordinated process that involves both primary and secondary phases. Primary hemostasis consists of the formation of a platelet plug at the site of vascular injury, where platelets adhere to the exposed subendothelial matrix and subsequently aggregate to create a temporary hemostatic barrier. This initial response is followed by secondary hemostasis, which involves activation of the coagulation cascade and results in the formation of a stable fibrin clot. This phase depends on the activation of multiple clotting factors, including those that are inhibited by anticoagulant therapies such as warfarin and direct oral anticoagulants.Warfarin exerts its anticoagulant effect by inhibiting vitamin K epoxide reductase, an enzyme essential for the synthesis of vitamin K–dependent clotting factors II, VII, IX, and X. This inhibition reduces the activity of these clotting factors and impairs secondary hemostasis, thereby increasing the risk of bleeding [2]. In contrast, direct oral anticoagulants act through more targeted mechanisms. Thrombin inhibitors, such as dabigatran, directly inhibit thrombin and prevent the conversion of fibrinogen to fibrin, which is essential for clot formation [8]. Factor Xa inhibitors, including rivaroxaban, apixaban, and edoxaban, act by inhibiting factor Xa, a key enzyme in the coagulation cascade, thereby reducing thrombin generation and fibrin formation [9].

The use of anticoagulants disrupts the physiological balance between procoagulant and anticoagulant forces, leading to impaired clot formation and reduced clot stability. This effect becomes more pronounced in patients with underlying gastrointestinal lesions, such as ulcers or varices, where the integrity of the mucosal barrier is already compromised. Anticoagulation can exacerbate bleeding from peptic ulcer disease by impairing clot formation at the site of mucosal injury. Similarly, conditions such as varices and erosive gastritis are inherently prone to bleeding, and anticoagulant therapy can increase both the severity and duration of bleeding episodes. In cases of malignancy, where tumors may erode blood vessels, anticoagulation further contributes to significant bleeding risk [8, 9].

Several additional factors can aggravate bleeding risk in anticoagulated patients. Renal dysfunction plays a critical role by impairing the clearance of direct oral anticoagulants, thereby increasing their anticoagulant effect and associated bleeding risk [10]. Advanced age is also associated with a higher risk of bleeding, as older patients frequently present with multiple comorbidities and altered pharmacokinetics [2]. Furthermore, polypharmacy, particularly the concurrent use of antiplatelet agents or nonsteroidal anti-inflammatory drugs, can potentiate the anticoagulant effect and further increase the likelihood of bleeding complications [8].

Initial Evaluation in the Emergency Department (ABCDE Approach)

The initial evaluation of patients with upper gastrointestinal bleeding in the emergency setting follows a structured approach based on airway, breathing, circulation, disability, and exposure. Airway assessment is particularly critical in the presence of active hematemesis, as it poses a significant risk of aspiration, which may lead to airway obstruction and respiratory complications. In this context, endotracheal intubation should be considered in patients who are unable to protect their airway; however, it should be avoided when possible, due to its associated risks. When intubation is required, adequate preoxygenation and appropriate suctioning are essential to reduce complications [11].

Breathing assessment involves evaluation of respiratory rate, oxygen saturation, and work of breathing. Supplemental oxygen should be administered as needed to maintain adequate oxygenation, particularly in patients with significant blood loss, where oxygen delivery may be compromised. Circulatory status must be promptly evaluated to identify signs of hypovolemic shock, such as hypotension and tachycardia, which are frequently observed in severe cases of upper gastrointestinal bleeding [11, 12]. Immediate intravenous fluid resuscitation is essential to restore hemodynamic stability, and blood transfusion may be required depending on the severity of anemia, with a hemoglobin threshold of 7 g/dL generally recommended, or 8 g/dL in patients with myocardial ischemia [13].

Assessment of disability focuses on neurological status and level of consciousness, which serve as indirect indicators of cerebral perfusion. Altered mental status may reflect significant blood loss or hypoperfusion and warrants urgent intervention [13]. Exposure involves a thorough physical examination aimed at identifying ongoing bleeding and associated clinical findings, including hematemesis or melena, as well as signs suggestive of chronic liver disease, which may complicate the clinical scenario [11].

Key clinical signs such as hematemesis, melena, hypotension, and tachycardia are essential for the rapid identification and prioritization of patients requiring urgent management (Long & Gottlieb, 2024). A focused clinical history is equally important and should include detailed information regarding anticoagulant use, including the specific agent, dosage, timing of the last dose, and underlying indication, as this information directly influences decisions related to anticoagulant reversal strategies [12, 14]. This evaluation is complemented by a targeted physical examination, which should assess for signs of chronic liver disease such as jaundice, ascites, or spider angiomas, thereby helping to identify the potential source and severity of bleeding and guide subsequent management [11].

Risk Stratification and Clinical Decision-Making

Risk stratification plays a central role in the initial management of upper gastrointestinal bleeding in the emergency setting, allowing clinicians to identify patients at low and high risk and guide decisions regarding disposition and intervention. The Glasgow-Blatchford Score is one of the most widely used tools for pre-endoscopic risk assessment, as it facilitates early identification of patients at low risk of rebleeding or mortality, thereby supporting safe outpatient management [15]. Evidence indicates that a Glasgow-Blatchford Score of ≤ 1 is effective in identifying low-risk patients who can be safely discharged from the emergency department [16]. Furthermore, expanding the low-risk threshold to include patients with a score of 2 may reduce hospital admissions without compromising patient safety [17].

In addition to the Glasgow-Blatchford Score, the pre-endoscopic Rockall Score is also used for risk stratification, relying on clinical parameters prior to endoscopic evaluation [18]. However, its predictive performance for determining the need for endoscopic intervention is lower when compared with other tools such as the Glasgow-Blatchford Score [19]. High-risk patients are

typically identified based on a combination of clinical features, including hemodynamic instability, the presence of significant comorbidities, and elevated scores on risk assessment tools. In this context, the ABL score has demonstrated superior performance compared to both the Glasgow-Blatchford and Rockall scores in identifying high-risk groups [6]. Additional factors, such as cirrhosis, syncope at presentation, and the need for early endoscopy, are also associated with an increased likelihood of requiring therapeutic endoscopic intervention [19].

These risk stratification tools are essential in determining the appropriate level of care. Patients presenting with severe hemodynamic instability, high risk of rebleeding, or significant comorbid conditions generally require admission to an intensive care unit, whereas those with lower risk scores and stable vital signs may be appropriately managed in a general ward [6, 15]. Conversely, patients identified as low risk, particularly those with a Glasgow-Blatchford Score of ≤1 or a CANUKA score of ≤2, demonstrate high sensitivity and negative predictive value for adverse outcomes and may be safely managed in an outpatient setting, thereby reducing healthcare utilization and associated costs [16, 20].

In anticoagulated patients, risk stratification must also incorporate an individualized assessment of thrombotic risk, as this is critical for determining the timing of anticoagulation resumption following bleeding control. The decision requires balancing the risk of thromboembolism against the risk of rebleeding, with current recommendations favoring the resumption of anticoagulation within seven days once hemostasis has been achieved and the patient is clinically stable [15].

Hemodynamic Resuscitation and Initial Support

The initial management of upper gastrointestinal bleeding in anticoagulated patients requires prompt and structured hemodynamic resuscitation. A fundamental step is the establishment of large-bore intravenous access, which enables rapid administration of fluids and blood products. This is particularly important in anticoagulated patients, who are at increased risk of significant hemorrhage and may require urgent transfusion support [12, 14].

Continuous monitoring of vital parameters, including blood pressure, heart rate, urine output, and lactate levels, is essential to evaluate the patient's hemodynamic status and guide ongoing resuscitation efforts. This monitoring allows for early detection of clinical deterioration and facilitates timely adjustment of therapeutic interventions [11, 21]. Initial fluid resuscitation should be performed using balanced crystalloids to restore intravascular volume and improve tissue perfusion. However, excessive fluid administration must be avoided, as it can lead to hemodilution and complicate the interpretation of hemoglobin levels [2, 23].

Transfusion strategies should generally follow a restrictive approach, with a hemoglobin threshold of 7–8 g/dL, except in cases of severe ongoing bleeding or myocardial ischemia, where a more liberal threshold may be appropriate [11]. This strategy helps minimize transfusion-related risks while maintaining adequate oxygen delivery [23]. The administration of blood components, including packed red blood cells, plasma, and platelets, should be guided by clinical status and laboratory findings. In the setting of massive hemorrhage, balanced resuscitation using a 1:1:1 ratio of red blood cells, plasma, and platelets has been associated with improved outcomes [22].

In cases of hemorrhagic shock, aggressive resuscitation combined with rapid identification and control of the bleeding source is critical [14]. Hemostatic strategies, including reversal of anticoagulation, may be required to achieve bleeding control [24]. Ultimately, the primary objective of resuscitation is the restoration of

adequate tissue perfusion and hemodynamic stability. This involves maintaining sufficient blood pressure and organ perfusion, which in some cases may necessitate the use of vasoactive agents in addition to fluids and blood products [7, 25].

Anticoagulation Management and Reversal Strategies

The management of anticoagulation in patients presenting with acute upper gastrointestinal bleeding requires prompt and individualized decision-making. Immediate discontinuation of anticoagulants is generally the first step, as it allows for the gradual reversal of anticoagulant effects through endogenous mechanisms. However, the time required for this process varies depending on the specific agent used and individual patient factors [12, 26].

In patients receiving warfarin, reversal is typically achieved through the administration of intravenous vitamin K in combination with prothrombin complex concentrates, which provide rapid replenishment of vitamin K–dependent clotting factors. Although fresh frozen plasma may also be used, prothrombin complex concentrates are preferred due to their faster onset of action and lower volume requirements. Within this context, four-factor prothrombin complex concentrates are recommended over three-factor formulations to ensure more comprehensive reversal [26, 27].

For patients treated with direct oral anticoagulants, reversal strategies are agent specific. Idarucizumab serves as a targeted reversal agent for dabigatran, offering rapid and effective neutralization of its anticoagulant activity, particularly in life-threatening bleeding scenarios [28, 29]. In contrast, andexanet alfa is used for the reversal of factor Xa inhibitors such as apixaban and rivaroxaban, demonstrating efficacy in acute bleeding events. However, its use is associated with higher costs and an increased risk of thromboembolic complications [9, 30]. In settings where andexanet alfa is unavailable or not feasible, prothrombin complex concentrates may be considered as an alternative strategy [31].

The decision regarding urgent versus delayed reversal depends on the severity of bleeding and the clinical context. Urgent reversal is indicated in life-threatening hemorrhage or when rapid hemostasis is required, such as prior to emergency procedures. In contrast, delayed or conservative approaches may be appropriate in less severe cases or when bleeding is already controlled [11, 26].

Importantly, the reversal of anticoagulation must be carefully balanced against the risk of thromboembolism. This is particularly relevant in patients with prior thromboembolic events or mechanical heart valves, where interruption of anticoagulation carries significant risk. Therefore, the timing of anticoagulation resumption should be individualized following achievement of hemostasis to minimize both bleeding and thrombotic complications [11, 29].

Special consideration is required for high-risk populations, including patients with mechanical heart valves, recent thromboembolism, or high-risk atrial fibrillation. In these cases, management strategies must be tailored to the individual patient, weighing the risks of anticoagulation interruption against the need for bleeding control. Multidisciplinary collaboration is often necessary to optimize clinical outcomes in these complex scenarios [11, 29].

Initial Pharmacologic Therapy and Adjunctive Measures

Pharmacologic management plays a central role in the initial treatment of upper gastrointestinal bleeding, particularly in anticoagulated patients. Proton pump inhibitors are recommended as first-line therapy, especially in cases of non-variceal bleeding. These agents are typically administered as an initial bolus followed by continuous infusion in order to reduce gastric acid secretion and promote clot stability. Their

protective effect is further supported by evidence demonstrating that proton pump inhibitor co-therapy in patients receiving oral anticoagulants is associated with a reduced risk of gastrointestinal bleeding [7, 32].

In cases where variceal bleeding is suspected, vasoactive agents such as octreotide or terlipressin should be initiated at presentation to reduce portal pressure and control hemorrhage. These therapies are generally continued for up to five days as part of standard management [15]. However, emerging evidence suggests that shorter durations of therapy may be equally effective, as studies comparing one-day versus five-day octreotide infusion have not demonstrated significant differences in re-bleeding rates [33].

Antibiotic prophylaxis is an essential component of management in cirrhotic patients with variceal bleeding, as infections can exacerbate hemorrhage and increase mortality. Agents such as ceftriaxone are commonly used, with a recommended duration of up to seven days, adjusted according to local antimicrobial resistance patterns and patient-specific factors such as allergies [15].

Correction of coagulopathy and thrombocytopenia is also a critical aspect of care in anticoagulated patients. This may involve the use of specific reversal agents as well as platelet transfusions when indicated. Given the complexity of these cases, a multidisciplinary approach is recommended to optimize bleeding control while minimizing adverse outcomes [12, 14].

The role of tranexamic acid, an antifibrinolytic agent, remains uncertain in this setting. Although it has been investigated as a potential adjunctive therapy, current evidence does not support its routine use in upper gastrointestinal bleeding, particularly in anticoagulated patients [7].

Gastric protection through proton pump inhibitors contributes to clot stabilization by maintaining an elevated gastric pH, which facilitates clot formation and persistence [32]. In addition to pharmacologic therapy, endoscopic interventions such as band ligation or cyanoacrylate injection are employed to achieve mechanical hemostasis in cases of variceal bleeding, complementing medical management and improving overall outcomes [12, 34].

Early Endoscopy and Definitive Hemostasis

Endoscopy represents a cornerstone in the management of upper gastrointestinal bleeding and should be performed in a timely manner following initial stabilization. Early endoscopy, defined as within 24 hours, has been associated with higher rates of therapeutic intervention and shorter hospital stays in anticoagulated patients with nonvariceal bleeding [35]. In line with this, the European Society of Gastrointestinal Endoscopy recommends performing endoscopy early after adequate hemodynamic resuscitation in patients presenting with acute upper gastrointestinal bleeding [12]. Although a systematic review and meta-analysis did not demonstrate a significant reduction in mortality with early endoscopy, it supports its use for improving overall clinical outcomes [36].

The role of urgent endoscopy, defined as within 12 hours, remains controversial. Some studies suggest that urgent endoscopy does not significantly improve outcomes compared to early endoscopy [36, 37]. In high-risk patients, it may increase the likelihood of endoscopic hemostatic intervention; however, it does not appear to significantly reduce mortality or rebleeding rates [38].

Preparation of the anticoagulated patient requires careful balancing of bleeding and thrombotic risks. Current recommendations suggest that anticoagulation should be resumed soon after bleeding control, considering the patient's thromboembolic risk profile [12]. Pharmacologic

measures, including the administration of proton pump inhibitors, are recommended prior to endoscopy to stabilize clot formation and improve visualization during the procedure [7].

Risk stratification during endoscopy is commonly guided by the Forrest classification, which categorizes bleeding lesions and informs therapeutic decisions. Active bleeding lesions, classified as Forrest Ia or Ib, require immediate endoscopic intervention. In addition, the Glasgow-Blatchford Score is used pre-endoscopically to identify patients at higher risk and guide the urgency of intervention [12].

Endoscopic treatment modalities include injection therapy, thermal coagulation, mechanical clipping, and variceal ligation. First-line approaches often involve thermal probes or hemoclips, while over-the-scope clips may be used for larger or refractory lesions [7]. Combination therapy, such as epinephrine injection followed by a second modality, is recommended in cases of active bleeding, as it improves hemostatic efficacy [12]. Multimodal strategies that combine different endoscopic techniques have been shown to enhance outcomes and reduce rebleeding rates [7].

In cases where endoscopic management fails to achieve hemostasis, transcatheter angiographic embolization is recommended as the next line of treatment, with surgery reserved as a last option when embolization is not available or unsuccessful. Additional measures, such as the use of topical hemostatic agents or cap-mounted clips, may also be considered in the management of persistent bleeding [12].

Post-Stabilization Management, Anticoagulation Resumption, and Discharge Planning

The post-bleeding management of anticoagulated patients with upper gastrointestinal bleeding requires a careful balance between the risk of rebleeding and the risk of thromboembolic events. Patients who do not resume anticoagulation remain at significant risk for thrombotic complications, whereas early resumption may increase the likelihood of recurrent bleeding [5, 38]. Therefore, risk stratification tools combined with clinical judgment are essential to guide decision-making, considering factors such as the severity of the initial bleeding episode, the individual thrombotic risk, and the specific anticoagulant used [14].

The optimal timing for resuming anticoagulation remains a subject of ongoing debate. Current recommendations vary, with some suggesting resumption within 15 to 30 days after the bleeding event [5], while others propose a timeframe of two to six weeks. This decision should be individualized based on the patient's clinical profile and the type of anticoagulant therapy, as direct oral anticoagulants may require different considerations compared to vitamin K antagonists [39].

In selected patients with high thrombotic risk, bridging strategies using short-acting anticoagulants may be considered; however, this approach must be carefully weighed against the increased risk of bleeding [14]. Additionally, dose adjustment or switching to an alternative anticoagulant may be necessary depending on the patient's bleeding risk and the pharmacokinetic properties of the medication. In life-threatening situations, reversal strategies such as the use of prothrombin complex concentrates for vitamin K antagonists or specific reversal agents for direct oral anticoagulants may be required [26].

Secondary prevention strategies are fundamental to reducing the risk of recurrent bleeding. Proton pump inhibitors are recommended, particularly in patients with peptic ulcer disease, due to their role in promoting mucosal healing and reducing gastric acidity [7]. Additional measures include eradication of Helicobacter pylori and appropriate management of variceal disease [21].

Patient education is also a critical component of care, as patients should be instructed on recognizing early signs of rebleeding and thromboembolic events, as well as the importance of adherence to prescribed therapies and lifestyle modifications [14, 21].

Criteria for safe discharge in the ambulatory setting include hemodynamic stability, resolution of active bleeding, and the establishment of a clear follow-up and anticoagulation management plan [12]. A multidisciplinary approach involving gastroenterologists, hematologists, and primary care providers is recommended to ensure comprehensive follow-up, monitor for complications, and adjust treatment strategies as needed [14, 21].

Conclusions

The management of upper gastrointestinal bleeding in anticoagulated patients requires a comprehensive and sequential approach that begins with prompt hemodynamic stabilization and structured clinical assessment, followed by risk stratification and appropriate anticoagulation reversal, and culminates in timely pharmacologic and endoscopic interventions, as the interaction between impaired hemostasis, comorbid conditions, and underlying gastrointestinal lesions significantly increases the risk of adverse outcomes if not addressed in a coordinated and early manner.

Clinical decision-making in this population relies on a dynamic balance between the risk of rebleeding and thromboembolic complications, requiring individualized management strategies that include careful timing of anticoagulation resumption, selection of therapeutic interventions, and structured follow-up planning, with a multidisciplinary approach being essential to optimize outcomes and reduce morbidity and mortality.

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