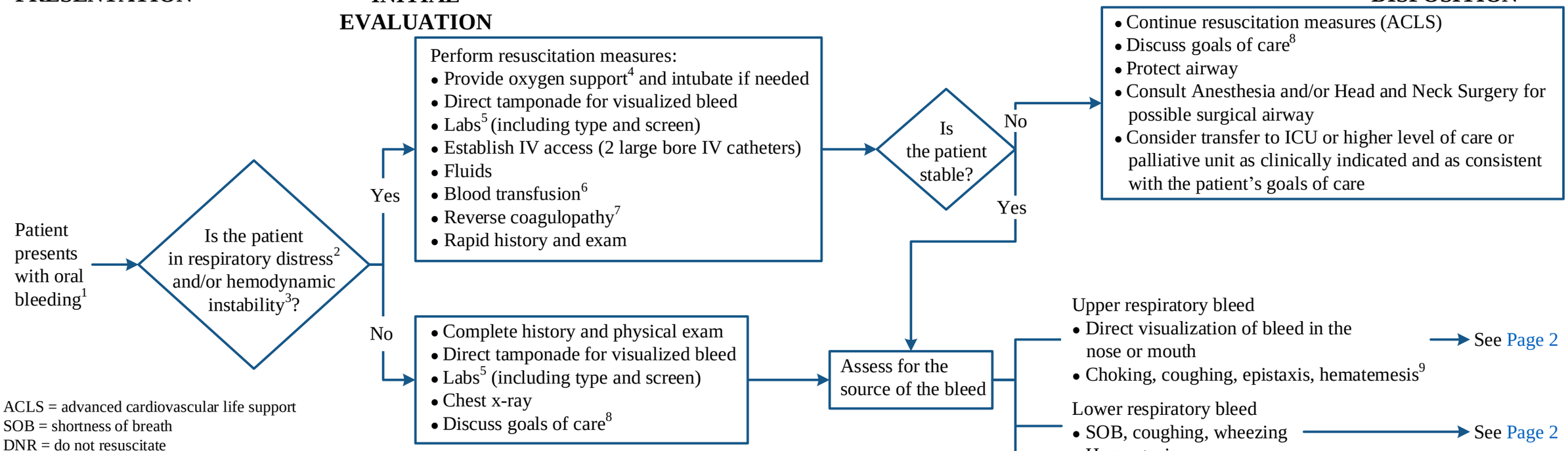
Oral Bleeding Emergency Management

Disclaimer: *This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.*

PRESENTATION

INITIAL EVALUATION

DISPOSITION



ACLS = advanced cardiovascular life support
SOB = shortness of breath
DNR = do not resuscitate

[1] Bleeding from the oral cavity, nose, and/or stoma site (e.g. tracheostomy or laryngostoma)

[2] Respiratory failure: need > 50% FiO_2 to maintain oxygen saturation of 90%, increased work of breathing, respiration rate > 30 breaths/minute
Acute hypercapnic respiratory failure: $PaCO_2$ > 45 mmHg with pH < 7.35

[3] Hemodynamic instability: Heart rate > 110 beats/minute, systolic blood pressure < 90 mmHg, inability to protect airway, glasgow coma scale (GCS) <13

[4] Avoid using a face mask if the patient continues to have heavy oral bleed

[5] Point of care (POC) hemoglobin and hematocrit (if available), chemistries, PT, PTT, INR, fibrinogen, and d-dimer

[6] If patient is actively bleeding and unstable, obtain untyped and uncrossmatched blood. If vitals are stable and patient is not actively bleeding, wait for hemoglobin and hematocrit results then transfuse for hemoglobin <7 g/dL

[7] Consider tranexamic acid 1g (consider topical or inhalation as necessary); fresh frozen plasma (FFP); platelets; cryoprecipitate; specific reversal agents for fractionated and unfractionated heparin, andexanet alfa for direct oral anticoagulants (DOACs). Providers may use the Emergency Anticoagulation Reversal orderset in OneConnect or refer to the Anticoagulation Resources for additional references regarding anticoagulation reversal management.

[8] Discuss goals of care with patient and primary oncologist, establish code status, and limit invasive interventions as clinically appropriate and as consistent with patient's goals of care. Reverse DNR status as needed for procedures.

[9] Head and Neck sentinel bleed may present as hematemesis. Hematemesis does not always equal GI bleed for Head and Neck patients.

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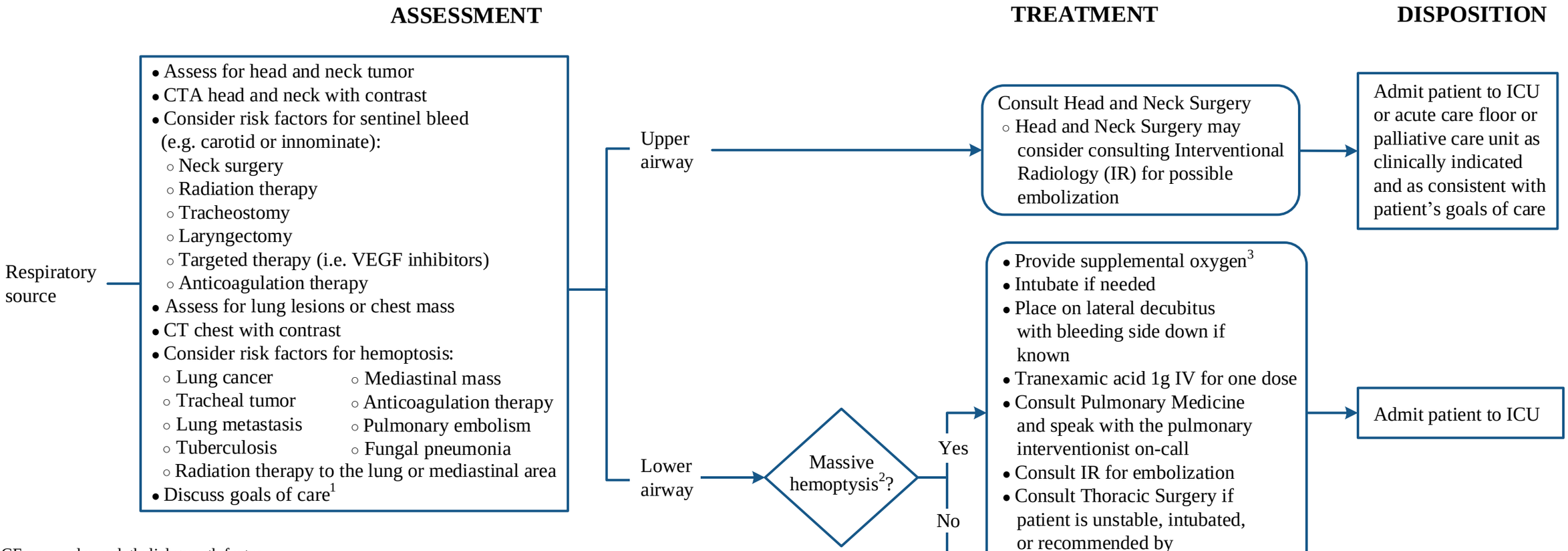

VEGF = vascular endothelial growth factor

[1] Discuss goals of care with patient and primary oncologist, establish code status, and limit invasive interventions as clinically appropriate and as consistent with patient's goals of care appropriate. Reverse do not resuscitate (DNR) status as needed for procedures.

[2] Define by volume/respiratory failure or hemodynamic instability:
- Volume of blood > 500 mL in 24 hours or > 200 mL in 1 hour
- Respiratory failure: need of > 50% FiO_2 to maintain oxygen saturation of 90%, increased work of breathing, respiration rate > 30 breaths/minute
- Acute hypercapnic respiratory failure: $PaCO_2$ > 45 mmHg with pH < 7.35
- Hemodynamic instability: Heart rate > 110 beats/minute, systolic blood pressure < 90 mmHg, inability to protect airway, GCS <13

[3] Avoid using a face mask if the patient continues to have heavy oral bleed

[4] Moderate volume is between less than massive hemoptysis and more than blood tinged sputum

[5] Minimal volume is blood tinged sputum

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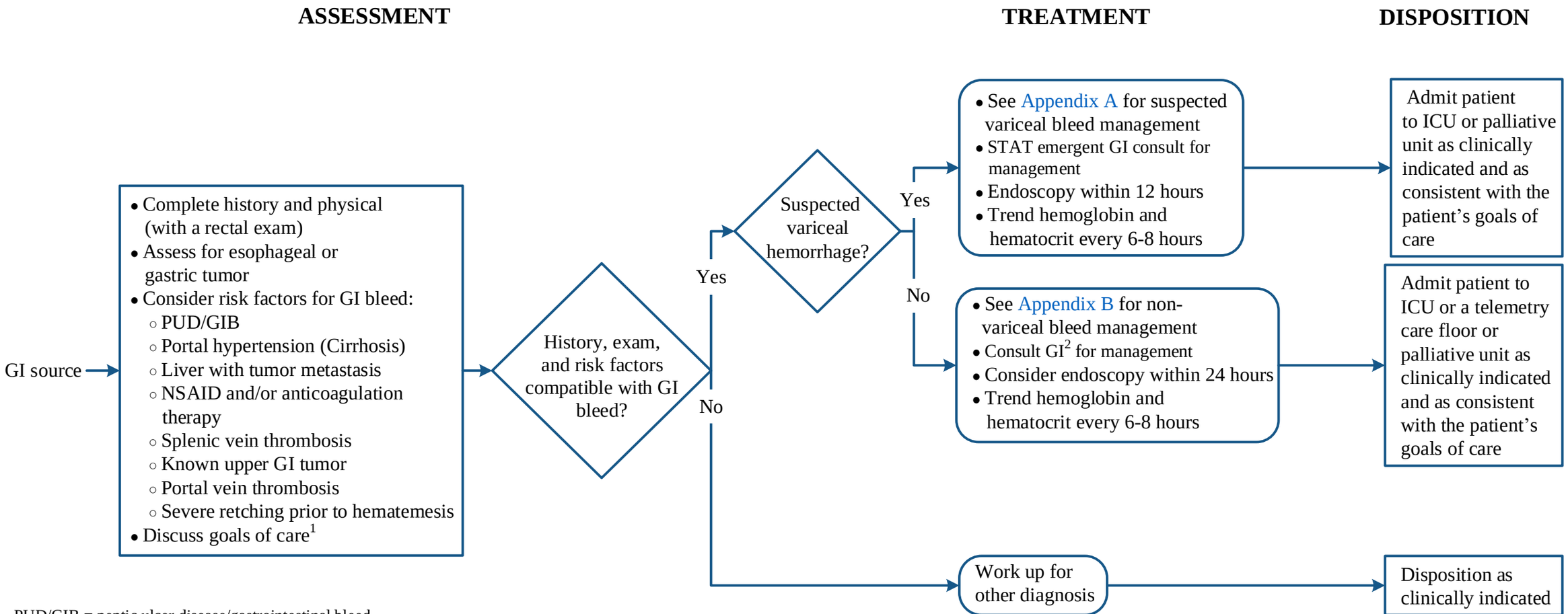

PUD/GIB = peptic ulcer disease/gastrointestinal bleed
NSAID = nonsteroidal anti-inflammatory drug

[1] Discuss goals of care with patient and primary oncologist, establish code status, and limit invasive interventions as clinically appropriate and as consistent with patient's goals of care appropriate. Reverse DNR status as needed for procedures.
[2] If patient is unstable and vomiting blood, place STAT urgent GI consult. If the patient is stable, place routine GI consult after the patient is admitted or at the discretion of the inpatient team.

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Oral Bleeding Emergency Management

APPENDIX A: Suspected Variceal Bleed Management

Resuscitation
- IV fluids
- Blood product transfusion
  - Transfuse PRBC for a hemoglobin goal of ≥ 7 g/dL. May consider a higher target if history of cardiac/comorbidities.
  - Transfuse platelet or plasma
  - Avoid over-transfusion due to concern for increasing portal hypertension
- Hold diuretics and beta blockers

Antithrombotic Management
- Consider consulting Benign Hematology
- Hold anticoagulants
- Consider holding anti-platelet agents - weigh thrombotic risk, clinical stability/urgency, and bleeding risk
- Consider continuing aspirin if on dual antiplatelet therapy (DAPT)
- For life-threatening bleeds, consider reversal agents, 4 factor prothrombin complex, vitamin K, FFP, cryoprecipitate, activator factors
- Exercise caution when stopping DAPT with stents, platelet transfusion in patients on anti-platelet agents, and giving vitamin K or reversal agents

Infusions
- Prophylactic antibiotics (e.g. cetriaxone 1 g IV every 24 hours preferred or fluoroquinolone can be used)
- Octreotide 50 mcg IV for one dose then 50 mcg/hour IV infusion
- Consider Pantoprazole 80 mg IV for one dose then 8 mcg/hour IV infusion

Procedural Management
- Endoscopy within 12 hours
- Interventional Radiology
- Surgery

Post Procedure Management
- Octreotide infusion for at least 72 hours
- Prophylactic antibiotic for 7 days

Post Procedure Anticoagulation Management
- Reinitiate anti-platelet once hemostasis achieved and in discussion with prescribing provider
- Consider resuming anticoagulation after discussion with prescribing provider

Oral Bleeding Emergency Management

APPENDIX B: Non-Variceal Bleed Management

Resuscitation
- IV fluids
- Blood product transfusion
  - Transfuse PRBC for a hemoglobin goal of ≥ 7 g/dL. May consider a higher target if history of cardiac/comorbidities.
  - Transfuse platelet or plasma

Antithrombotic Management
- Consider consulting Benign Hematology
- Hold anticoagulants
- Consider holding anti-platelet agents - weigh thrombotic risk, clinical stability/urgency, and bleeding risk
- Consider continuing aspirin if on dual antiplatelet therapy (DAPT)
- For life-threatening bleeds, consider reversal agents, 4 factor prothrombin complex, vitamin K, FFP, cryoprecipitate, activator factors
- Exercise caution when stopping DAPT with stents, platelet transfusion in patients on anti-platelet agents, and giving vitamin K or reversal agents

Infusions
- Pantoprazole 80 mg IV for one dose then 8 mcg/hour IV infusion
- Consider Octreotide 50 mcg IV for one dose then 50 mcg/hour IV infusion if uncertain about possibility of variceal bleeding

Procedural Management
- Endoscopy within 24 hours
- Interventional Radiology
- Surgery

Post Procedure Management
- Continue high dose IV proton pump inhibitor (PPI) for 72 hours in PUD with high risk stigmata
- Transition to oral PPI in PUD with low risk stigmata
- Consider the need for PPI long term

Post Procedure Anticoagulation Management
- Reinitiate anti-platelet once hemostasis achieved
- Discuss anti-platelet agents with prescribing provider for high risk of rebleeding or other concerns
- Resume anticoagulation within first week or consider bridge with short acting agent
- Discuss anticoagulant timing with prescribing provider

SUGGESTED READINGS

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DEVELOPMENT CREDITS

This practice consensus statement is based on majority opinion of the Oral Bleeding Emergency Management Workgroup at the University of Texas MD Anderson Cancer Center for the patient population. These experts included:

Roberto F. Casal, MD (Pulmonary Medicine)[Ŧ]
Emmanuel Coronel, MD (Gastroenterology Hepatology and Nutrition)[Ŧ]
Olga N. Fleckenstein[♦]
Maria S Gaeta, MD (Emergency Medicine)[Ŧ]
Harjeet Kaur, MSN, RN, CNL, CMQ[♦]
Thoa Kazantsev, MSN, RN, OCN[♦]
Reza Mehran, MD (Thoracic & Cardiovasc Surgery)[Ŧ]
Ethan Miller, MD (Gastroenterology Hepatology and Nutrition)
David Richards, MD (Gastroenterology Hepatology and Nutrition)[Ŧ]
William Ross, MD (Gastroenterology Hepatology and Nutrition)
Lan Wang, MD (Gastroenterology Hepatology and Nutrition)
Adriana H. Wechsler, MD (Emergency Medicine)[Ŧ]
Brian Weston, MD (Gastroenterology Hepatology and Nutrition)
Mark Zafereo, MD (Head & Neck Surgery)[Ŧ]
Hao Chi Zhang, MD (Gastroenterology Hepatology and Nutrition)

[Ŧ]Core Development Team
[♦]Clinical Effectiveness Development Team