

Upper GI Bleed

A plain-English guide for you and your family

WHAT IS HAPPENING

Inside your esophagus (the swallowing tube), stomach, and the very top of your small intestine, a thin layer of special cells makes slippery mucus and releases bicarbonate (a base that neutralizes acid) to protect the lining from being burned by stomach acid. Underneath this lining sits a thick net of blood vessels that brings oxygen and nutrients to keep the tissue healthy. Normally, tiny scrapes heal on their own because platelets (sticky blood cells) clump up and seal any small tears. When something breaks through that protective layer—like a deep ulcer (a crater eroded into the lining by too much acid or an infection with *H. pylori* bacteria), a tear from violent vomiting (called a Mallory-Weiss tear), swollen, overstuffed veins in the esophagus or stomach that burst because the liver is scarred and backed-up (varices from cirrhosis), stomach inflammation (gastritis) from pain medicines (NSAIDs like ibuprofen) or alcohol, or a growing tumor (cancer)—blood spills into the inside of the gut. Your body cannot afford to lose that blood, so your heart speeds up to pump harder, you feel dizzy when you stand because there is not enough blood to fill your vessels, and eventually your blood pressure drops. The bleeding shows up as vomit that looks like coffee grounds (because stomach acid turns the blood dark brown), or as bright red vomit if the bleeding is so brisk that the blood does not sit long enough to change color, or as black, tarry, sticky stool (melena) because the blood has traveled through the intestines and been digested. Doctors give fluids through two large IV lines to replace lost volume, check how much blood you have left with a hemoglobin test, and send a thin flexible camera (endoscope) down your throat to see exactly where the leak is so they can cauterize it (burn it shut), clip it, band it (if it is a varix), or inject medicine to stop the bleeding. If you have cirrhosis, you will also get an antibiotic to prevent infection and a medicine called octreotide to shrink the swollen veins. The goal is to find the source and seal it before you lose so much blood that your organs shut down.

What you might feel

- Throwing up blood (hematemesis) — can look bright red or like coffee grounds
- Black, tarry, sticky stools (melena) that smell very bad
- Bright red blood in the stool (hematochezia) when the bleed is very fast

- Feeling dizzy, lightheaded, or fainting when standing up
- Heart racing (tachycardia) or pounding
- Pale, cool, clammy skin
- Belly pain or discomfort, especially burning in the upper stomach
- Spider-like red blood vessels on the skin (spider angiomas), swollen belly (ascites), red palms (palmar redness (erythema)), or large belly veins (caput medusae)
- Confusion, sleepiness, or trouble waking up

Call the doctor right away if...

- Throwing up bright red blood or large clots
- Feeling faint, very dizzy, or passing out
- Heart racing over 100 beats per minute at rest, or blood pressure dropping below 90 on top
- Confused, hard to wake, or very drowsy
- Bright red blood pouring from the rectum with an upper source (means massive, fast bleed)

What the care team will do

- Establish two large-bore IV lines (18-gauge or larger) and start balanced crystalloid fluids.
- Place patient on continuous cardiac monitoring and pulse oximetry, measure blood pressure every 15 minutes.
- Type and crossmatch blood, draw CBC (complete blood count), PT/INR (clotting times), liver panel, and lactate immediately.
- Keep patient NPO (nothing by mouth) and place on aspiration precautions with head of bed elevated 30 to 45 degrees.
- Administer IV proton pump inhibitor bolus followed by continuous infusion as ordered.
- Start octreotide infusion and ceftriaxone if stigmata of liver disease are present or variceal bleed is suspected.
- Maintain hemoglobin goal of 7 to 8 g/dL with packed red blood cells, avoiding over-transfusion.
- Prepare for urgent endoscopy and notify gastroenterology immediately if massive bleeding or hemodynamic instability occurs.

Medicines you may be given — and why

Crystalloid IV fluids (normal saline or lactated Ringer's)

Replaces lost blood volume quickly to keep blood pressure stable and organs fed. These are salt-water solutions that go straight into the veins through two thick IV tubes (large-bore) so a lot of fluid can move fast. The goal is balanced resuscitation: give enough to keep the body running but not so much that you trigger more bleeding or overload the lungs with fluid.

Packed red blood cells (pRBCs)

Restores the oxygen-carrying capacity of the blood by replacing lost red blood cells. A restrictive transfusion strategy is used: transfuse to a hemoglobin target of 7 g/dL in stable patients, or 8 g/dL if the patient has blood-starved (ischemic) heart disease (not enough blood feeding the heart muscle) or other serious heart or lung problems. Over-transfusing can increase portal pressure (pressure in the liver's blood vessels) in variceal bleeding and worsen outcomes.

Proton pump inhibitor (PPI): IV pantoprazole or esomeprazole

Blocks the stomach's acid-making pumps (the proton pumps on the cells lining the stomach) so the stomach becomes less acidic. A clot forming over a bleeding ulcer is fragile; acid can dissolve it and restart bleeding. By raising the stomach's pH above 6, PPIs protect the clot and help it seal the ulcer. Given as an IV bolus (fast push) followed by a continuous infusion (slow drip) for 72 hours in high-risk ulcer bleeding, then switched to oral PPI once the patient can swallow.

Octreotide

Mimics somatostatin, a natural hormone that constricts (tightens) blood vessels in the gut and lowers portal pressure (the pressure in the veins draining the intestines and spleen into the liver). High portal pressure makes varices (swollen, fragile veins in the esophagus) more likely to bleed. Octreotide is used when varices are suspected or confirmed, started as soon as possible and continued for 2–5 days alongside antibiotics and endoscopy.

Ceftriaxone

Kills bacteria that commonly infect patients with cirrhosis and variceal bleeding, especially bacteria that sneak from the gut into the bloodstream (spontaneous bacterial peritonitis and bacteremia). Infection worsens outcomes and increases re-bleeding risk. Ceftriaxone is started immediately when varices are suspected, even before infection is proven, and continued for up to 7 days. This preventive (prophylactic) (preventive) antibiotic reduces death rates and infection rates in variceal bleeding.

Reversal agents for anticoagulants (specific to the drug the patient is taking)

Stops or reverses the blood-thinning effect of anticoagulant medications so clots can form and bleeding can stop. The choice of reversal agent depends on which anticoagulant the patient is on and how severe the bleeding is. Examples: (1) Warfarin: give IV vitamin K and four-factor prothrombin complex concentrate (4F-PCC) or fresh frozen plasma (FFP). (2) Dabigatran (Pradaxa): give idarucizumab (Praxbind), a monoclonal antibody that binds and inactivates dabigatran. (3) Rivaroxaban, apixaban, edoxaban (Xa inhibitors): give andexanet alfa (Andexxa) or 4F-PCC. (4) Heparin: stop the infusion; if urgent, give protamine sulfate. The goal is NOT to make the blood hypercoagulable, only to normalize clotting enough to stop life-threatening bleeding.

Platelet transfusion (if platelets < 50,000/ μ L and active bleeding)

Replaces platelets, the tiny cell fragments that plug holes in blood vessels and help clots form. If the platelet count is very low (thrombocytopenia), clots are weak or don't form at all, and bleeding continues. Transfusing platelets raises the count temporarily so endoscopy can be performed safely and bleeding can be controlled. Guideline targets vary, but generally platelets are transfused to keep the count above 50,000/ μ L during active bleeding or before high-risk procedures.

Fresh frozen plasma (FFP) or prothrombin complex concentrate (PCC) (if INR elevated and active bleeding)

Replaces clotting factors (proteins made by the liver that work together in a cascade to form a clot). Patients on warfarin, or those with liver disease, often have low levels of factors II, VII, IX, and X, so their INR (international normalized ratio, a measure of clotting time) is high and clots form slowly. FFP contains all clotting factors; PCC is a concentrated dose of factors II, VII, IX, and X. PCC works faster and with less volume than FFP, so it is preferred in urgent bleeding. Both are given IV to normalize the INR quickly (goal < 1.5 in major bleeding) so a stable clot can form.

Where this information comes from

- ACG Clinical Guideline: Upper Gastrointestinal Bleeding (2021)
- AASLD Practice Guidance: Variceal Hemorrhage (2020)
- AGA Institute Guideline on Management of Acute Lower GI Bleeding (2016)
- Cochrane systematic reviews on peptic ulcer and variceal bleeding

Last reviewed: 2026-07-07