TABLE 56-2 ASSESSMENT AND TESTING FOR INVOLUNTARY WEIGHT LOSS

Indications	Laboratory
5% weight loss in 30 d	Complete blood count
10% weight loss in 180 d	Comprehensive electrolyte and metabolic panel, including liver and renal function tests
Body mass index <21	Thyroid function tests
25% of food left uneaten after 7 d	Erythrocyte sedimentation rate
Change in fit of clothing	C-reactive protein
Change in appetite, smell, or taste	Ferritin
Abdominal pain, nausea, vomiting, diarrhea, constipation, dysphagia	HIV testing, if indicated
Assessment	**Radiology**
Complete physical exam, including dental evaluation	Chest x-ray
	Abdominal ultrasound
Medication review	
Recommended cancer screening	
Mini-Mental State Examination[a]	
Mini-Nutritional Assessment[a]	
Nutrition Screening Initiative[a]	
Simplified Nutritional Assessment Questionnaire[a]	
Observation of eating[a]	
Activities of daily living[a]	
Instrumental activities of daily living[a]	

[a]May be more specific to assess weight loss in the elderly.

Mini-Mental State Examination and the Geriatric Depression Scale, respectively (Chap. 11). The Mini Nutritional Assessment (*www.mna-elderly.com*) and the Nutrition Screening Initiative (*http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1694757/*) are also available for the nutritional assessment of elderly patients. Almost all patients with a malignancy and >90% of those with other organic diseases have at least one laboratory abnormality. In patients presenting with substantial IWL, major organic and malignant diseases are unlikely when a baseline evaluation is completely normal. Careful follow-up rather than undirected testing is advised since the prognosis of weight loss of undetermined cause is generally favorable.

TREATMENT UNINTENTIONAL WEIGHT LOSS

The first priority in managing weight loss is to identify and treat the underlying causes systematically. Treatment of underlying metabolic, psychiatric, infectious, or other systemic disorders may be sufficient to restore weight and functional status gradually. Medications that cause nausea or anorexia should be withdrawn or changed, if possible. For those with unexplained IWL, oral nutritional supplements such as high-energy drinks sometimes reverse weight loss. Advising patients to consume supplements between meals rather than with a meal may help minimize appetite suppression and facilitate increased overall intake. Orexigenic, anabolic, and anticytokine agents are under investigation. In selected patients, the antidepressant mirtazapine results in a significant increase in body weight, body fat mass, and leptin concentration. Patients with wasting conditions who can comply with an appropriate exercise program gain muscle protein mass, strength, and endurance and may be more capable of performing ADLs.

57 Gastrointestinal Bleeding

Loren Laine

Gastrointestinal bleeding (GIB) accounts for ~150 hospitalizations per 100,000 population annually in the United States, with upper GIB (UGIB) ~1.5–2 times more common than lower GIB (LGIB) The incidence of GIB has decreased in recent decades, primarily due to a reduction in UGIB, and the mortality has also decreased to <5%. Patients today rarely die from exsanguination, but rather die due to decompensation of other underlying illnesses.

GIB presents as either overt or occult bleeding. *Overt GIB* is manifested by *hematemesis*, vomitus of red blood or "coffee-grounds" material; *melena*, black, tarry, foul-smelling stool; and/or *hematochezia*, passage of bright red or maroon blood from the rectum. *Occult GIB* may be identified in the absence of overt bleeding when patients present with *symptoms of blood loss or anemia* such as lightheadedness, syncope, angina, or dyspnea; or when routine diagnostic evaluation reveals iron deficiency anemia or a positive fecal occult blood test. GIB is also categorized by the site of bleeding as UGIB, LGIB, or obscure GIB if the source is unclear.

SOURCES OF GASTROINTESTINAL BLEEDING

Upper Gastrointestinal Sources of Bleeding (Table 57-1) Peptic ulcers are the most common cause of UGIB, accounting for ~50% of cases. Mallory-Weiss tears account for ~5–10% of cases. The proportion of patients bleeding from varices varies widely from ~5–40%, depending on the population. Hemorrhagic or erosive gastropathy (e.g., due to nonsteroidal anti-inflammatory drugs [NSAIDs] or alcohol) and erosive esophagitis often cause mild UGIB, but major bleeding is rare.

PEPTIC ULCERS Characteristics of an ulcer at endoscopy provide important prognostic information. One-third of patients with active bleeding or a nonbleeding visible vessel have further bleeding that requires urgent surgery if they are treated conservatively. These patients benefit from endoscopic therapy with bipolar electrocoagulation, heater probe, injection therapy (e.g., absolute alcohol, 1:10,000 epinephrine), and/or clips with reductions in bleeding, hospital stay, mortality, and costs. In contrast, patients with clean-based ulcers have rates of recurrent bleeding approaching zero. If stable with no other reason for hospitalization, such patients may be discharged home after endoscopy. Patients without clean-based ulcers usually remain in the hospital for 3 days because most episodes of recurrent bleeding occur within 3 days.

Randomized controlled trials document that high-dose, constant-infusion IV proton pump inhibitor (PPI) (80-mg bolus and 8-mg/h infusion), designed to sustain intragastric pH >6 and enhance clot stability, decreases further bleeding and mortality in patients with high-risk ulcers (active bleeding, nonbleeding visible vessel, adherent clot) when given after endoscopic therapy. Patients with lower-risk findings (flat pigmented spot or clean base) do not require endoscopic

TABLE 57-1 SOURCES OF BLEEDING IN PATIENTS HOSPITALIZED FOR UPPER GASTROINTESTINAL BLEEDING

Sources of Bleeding	Proportion of Patients, %
Ulcers	31–67
Varices	6–39
Mallory-Weiss tears	2–8
Gastroduodenal erosions	2–18
Erosive esophagitis	1–13
Neoplasm	2–8
Vascular ectasias	0–6
No source identified	5–14

Source: Data on hospitalizations from year 2000 onward from Am J Gastroenterol 98:1494, 2003; Gastrointest Endosc 57:AB147, 2003; 60;875, 2004; Eur J Gastroenterol Hepatol 16:177, 2004; 17:641, 2005; J Clin Gastroenterol 42:128, 2008; World J Gastroenterol 14:5046, 2008; Dig Dis Sci 54:333, 2009; Gut 60:1327, 2011; Endoscopy 44:998, 2012; J Clin Gastroenterol 48:113, 2014.