

AGA Clinical Practice Guidelines on Iron Deficiency Anemia (IDA)

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Etiology

- Fe deficiency can be caused by
 - Suboptimal Fe intake
 - Iron malabsorption (most dietary Fe absorbed in duodenum and proximal jejunum)
 - Chronic blood loss from GI vs other sources
- Consider mass lesions (carcinoma, large polyps) vs malabsorptive (Celiac) vs inflammatory (esophagitis/gastritis, ulcerative disease, IBD)
- Risk of underlying malignancy seven times higher in Fe deficiency anemia than asymptomatic colon cancer screening cohort

Management

- Bidirectional endoscopy (EGD and colonoscopy) recommended in asymptomatic post-menopausal women and men with IDA ; also recommended in **asymptomatic premenopausal women** over Fe replacement therapy alone, assuming no other unequivocal etiology for IDA
- Asymptomatic premenopausal women with IDA => bidirectional endoscopy recommended over iron replacement therapy only

Diagnosis

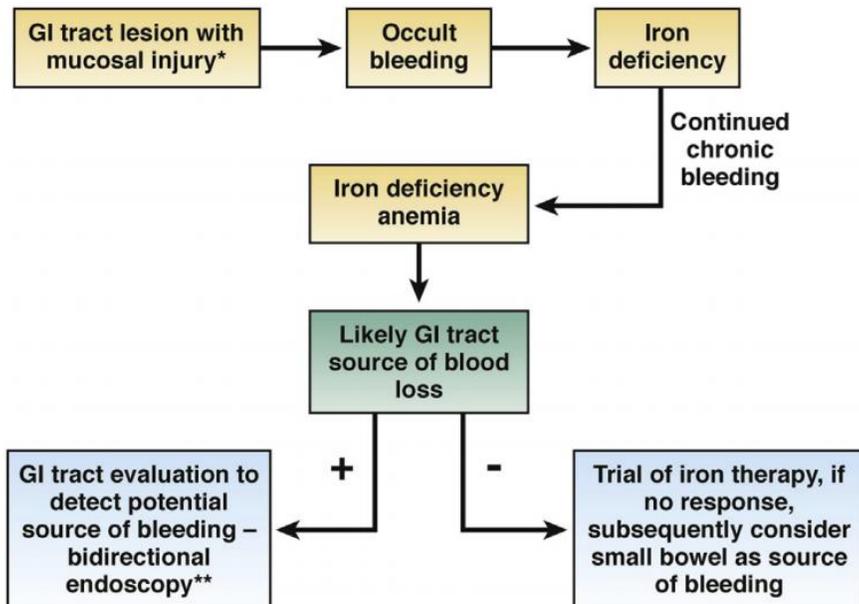
- Anemia is defined as hemoglobin <13 g/dL in men and <12 g/dL in nonpregnant women
- Recommend using cutoff of **Ferritin of 45 ng/mL over 15 ng/mL** when diagnosing IDA to maximize sensitivity (85%) with acceptable specificity (92%)
- In chronic inflammatory conditions or CKD, ferritin not accurate.
 - Serum Fe, transferrin saturation, soluble transferrin receptor, or C-reactive protein, may be useful adjunctive tests in this population
 - Transferrin saturation <20%, and ferritin <100 in predialysis patients and <200 in patients on dialysis has been proposed in renal disease

H. Pylori Eval in IDA

- Non-invasive testing for **H. pylori** recommended after negative bidirectional endoscopy
 - Non-invasive H. pylori testing (stool antigen, urease breath testing) associated with cost savings over over a strategy of routine gastric biopsies at the time of bidirectional endoscopy
- Not enough evidence to support routine gastric biopsies to assess for autoimmune atrophic gastritis as contributor to Fe deficiency anemia

Celiac in IDA

- **Initial serologic testing for Celiac** (anti-TTG and total IgA), recommended followed by small bowel biopsy only if serologies positive, rather than small bowel biopsies at time of bidirectional endoscopy. This model of serologic testing initially is recommended unless prevalence of celiac is >5% in population
- Diagnostic approach should be approached on case-by-case basis - patients with positive family history, GI symptoms, or personal autoimmune disease at higher risk of celiac and initial endoscopic eval may be indicated



Role of VCE in IDA

- In uncomplicated asymptomatic patients with IDA and negative bidirectional endoscopy, **initial iron supplementation recommended over the routine use of video capsule endoscopy**.
- Evidence required to evaluate the benefits of video capsule endoscopy in IDA is not currently available
- This recommendation does not apply to patients:
 - With symptoms suggestive of small bowel disease, or at higher risk of small bowel pathology (such as patients at increased risk for small bowel AVMs).
 - Who use anticoagulation or anti-platelet medications, in whom identification of a bleeding lesion may be important for prognostic or management purposes.
 - Hospitalized patients with acute or acute on chronic anemia

Iron Supplementation

- Daily dose of 150–200 mg of elemental iron recommended
- Some studies suggest that lower dosing or every-other-day dosing may improve tolerability and absorption
- Vitamin C co-administration commonly recommended to improve oral absorption, although the evidence is limited
- Response to oral Fe supplementation should be evident within 1 month
- Intravenous iron may be appropriate in those with impaired absorption due to prior gastric surgery, with inflammatory bowel disease or chronic kidney disease