Iron Deficiency Anemia ED Guideline

Last Revision 5/2025

Inclusion Criteria:
Pediatric patients with new or known iron deficiency anemia

Exclusion Criteria:
Patients with other causes of anemia aside from iron deficiency

Patients with ongoing bleeding, concern for bleeding disorder

Concern for iron deficiency anemia (IDA) based on history, physical exam or prior labs

Initiate workup

PIV placement for labs:

1. CBC with diff
2. Ferritin
3. Reticulocyte
4. TIBC

Additional considerations:

- If ill appearing and/or hypotensive:
  - Type & screen
- If suspect Abnormal uterine bleeding, see guideline for additional workup considerations

→ See **Abnormal Uterine Bleeding Guideline**

***MILD symptoms:**
fatigue, headache, positional dizziness, persistent tachycardia

SEVERE symptoms:
syncopal, non-resolving dizziness

Labs consistent with iron deficiency anemia?
Low: MCV, MCHC, ferritin
High: RDW

NO → **Consider other causes of anemia**

YES

Is the patient hemodynamically stable?
(Normal perfusion, mental status, peripheral pulses, and blood pressure for age)

NO → Transfuse pRBC's Admit to PICU

YES

Hgb > 6 g/dL & asymptomatic	Hgb > 6 g/dL with mild symptoms*	Hgb 5 - 6 g/dL	Hgb 3.1 - 4.9 g/dL	Hgb </= 3 g/dL
Prescribe PO Iron	**Administer IV Iron**	**Administer IV Iron**	**Consult Hematology**	**Consult Hematology**
If patient has failed PO iron outpatient, consider Hematology consult for IV iron	Consult Hematology for guidance on dose and formulation	Consult Hematology for guidance on dose and formulation	Discuss IV Iron vs pRBCs Admit to floor	Discuss need for pRBC's Admit to floor vs. PICU

If failed PO iron

Discuss IV Iron vs pRBC w/ Hematology

PO Iron

Dose: 3mg elemental iron/kg/day (max 100mg/day) EVERY OTHER DAY

Formulation options:

1. Ferrous sulfate tablet (325mg tablet = 65mg elemental iron)
2. Ferrous sulfate liquid (300mg ferrous sulfate/ 5mL = 60mg elemental iron/ 5mL)
3. Fer-in-sol (44mg iron/ 5mL elixir)

Take in morning w/ Vitamin C to maximize absorption

Discharge home using the **'Iron Deficiency Anemia Discharge Smartset'** in Epic

IV Iron Infusions

Use Iron Deficiency Anemia Orderset

Run over 1 hour

IV Dextran: Premedicate high risk patients with IV methylprednisolone (1mg/kg, max 60mg) 30 minutes prior to administration

Consider discharge to Tomorrow Fund Clinic for infusion on a case-by-case basis if daytime hours

Maintain patient on CRM during the entire transfusion

STOP Infusion if evidence of hypersensitivity reaction**

Lifespan's IV Iron Pharmacy Guideline:
https://lspharmintra01.lsmaster.lifespan.org/pharm/intra/newdrugguidelines/iviron.html

MD CALC IRON CALCULATOR (click here)

pRBC Transfusions

Transfuse one aliquot of blood (5mL/kg)

Transfuse over 4 hours

Hematology and admitting team to determine need for additional aliquots

Patients at higher risk for hypersensitivity reaction to IV iron doses:

- Prior drug reactions
- Severe asthma or eczema
- Severe respiratory or cardiac disease
- Treatment with beta blockers or ace inhibitors
- Systemic inflammatory disease (e.g. JIA, lupus, systemic mastocytosis)
- Prior infusion reaction to IV iron

Discharge Considerations

Patients with IDA secondary to abnormal uterine bleeding: consider adolescent consult

Patients with IDA secondary to cows milk intake: counsel family on milk restriction and nutritional strategies

If no clear source for IDA: consider discussing with hematology

After IV iron: Follow up in 4-8 weeks

Observe patient in ED for 30 minutes after infusion

Disposition Considerations

If concern about discharge home/need for admission, discuss with hematology

****Signs of hypersensitivity reaction to IV iron**

altered mental status, arthralgias, chest tightness, chills, dyspnea, fever, flushing, myalgias, paresthesias, pruritis, purpura, seizures, syncope, urticaria

Considerations for admission:

- Symptomatic, cannot safely ambulate
- Diagnostic uncertainty
- Barriers to follow up

Admission service:

- Otherwise healthy -> Heme/onc
- Established GI patient -> GI
- Medically complex -> Hospitalist
- Hemodynamically unstable -> PICU