

*Mentzer Index (MI) can help predict the likelihood of the Thalassemia trait and iron deficiency.

- MI >13 is suggestive of iron deficiency of anemia
- MI <13 is suggestive of Thalassemia
- This is a screening tool and must be used in conjunction with other screening tools

Anemia by lab or POCT Hgb (asymptomatic patients with hgb <9 or hgb >6 with likely iron deficiency)

- **History + PE:** infectious/inflammatory disease, chronic disease, kidney disease, nutritional deficiencies, blood loss, hemolysis, jaundice
- **FHx:** thalassemia trait
- **Obtain labs:** CBC with reticulocyte count, ferritin, serum iron and total iron binding capacity (TIBC) *

Anemia confirmed by CBC*

If patient is symptomatic, consider **Emergency Department vs Urgent Referral to Hematology** via One Call. For more information on how to place referrals to Connecticut Children's, click [here](#).

MCV
below normal

MCV
normal

MCV high

REFER TO HEMATOLOGY
(routine referral)

Is clinical picture c/w iron
deficiency w/elevated RDW, low
MCV and low ferritin?

NO

YES

REFER TO HEMATOLOGY
(routine referral)
Consider thalassemia testing
prior to appointment (see
[Appendix D](#))

- Trial oral iron
- Repeat Hgb& Hct, ferritin, serum iron, TIBC after 1 month of oral iron supplementation

Adequate response
to iron?

YES

NO

Continue iron supplementation for 4
months and ensure normalization of labs

REFER TO HEMATOLOGY
(routine referral)

Hgb < 9

REFER TO HEMATOLOGY
○ Routine Referral: Hgb 7-8.9
○ Urgent Referral: Asymptomatic
anemia Hgb 5-6.9

Hgb ≥ 9

- Consider starting iron supplementation if reticulocyte is normal
- Repeat CBC with retic count and iron studies in 1-2 weeks
- CMP to screen for liver and kidney issues
- Peripheral smear

Retic ct >4% or
persistently anemic without signs of
obvious chronic disease?

NO

YES

Continue iron supplementation
for 3 months and ensure
normalization of labs

REFER TO HEMATOLOGY
(routine referral)