



**Figure 1: Diagnosis of Iron Deficiency Anemia (IDA)/
Iron Deficiency (ID) in Children (APPHON/ROHPPA)**

All lab value results are in relation to reference ranges for age, sex and gestation.

- If IDA/ID is suspected draw CBCD, reticulocyte count and ferritin
- If clinical evidence of systemic inflammation, draw CRP.

Abbreviations

- IDA:** iron deficiency anemia (if Hb decreased)
- ID:** iron deficiency (without anemia)
- CRP:** C- reactive protein test
- Retic Hb:** reticulocyte hemoglobin
- TIBC:** total iron binding capacity

- Hemoglobin (Hb) normal (suspected ID)
- Hemoglobin (Hb) decreased (suspected IDA)
- Mean corpuscular volume (MCV) may or may not be decreased
- Reticulocyte hemoglobin content reduced

- Serum ferritin below normal

- Confirmed IDA/ID
- Identify and manage cause (Fig 2 and Table 1).
- Begin iron replacement therapy (Table 2).

- Ferritin normal or high **AND**
- Signs of inflammation e.g. chronic/acute disease or high CRP

- Consider clinical context
- Obtain interpretation of peripheral blood film
- Measure retic Hb, serum iron, TIBC and saturation index/transferrin saturation

- One or more of the following present?
- TIBC high
 - Retic Hb low
 - Saturation index/transferrin saturation low

- Consistent with IDA/ID
- Consider discussion with pediatric hematologist

- Serum ferritin normal **AND**
- No acute inflammation

- IDA or ID unlikely
- Consider alternate diagnosis (if anemic, discuss with hematology)

No

Yes

