

# Practical Management Approach to Iron Deficiency in Infants and Toddlers

Patient's Name \_\_\_\_\_ Date \_\_\_\_\_

Dear Colleague:

We received a request from your office to evaluate the patient named above. Based upon the laboratory data and other information faxed to us, we are quite certain that this child has **iron deficiency anemia**, probably on a dietary basis. In order to save the child's family the time, inconvenience, and financial commitment of coming to our outpatient unit, we offer the following treatment recommendations for your consideration. If followed, we believe that the child's anemia will be corrected and that a formal consultation may not be necessary.

## Recommended Steps

1. **Review the child's diet with the parent(s)**. It likely includes an excessive quantity of whole cow's milk and/or rather little intake of iron-containing foods. This should be corrected by instituting an iron-fortified formula (if the child is less than 12 months of age), reduction in whole cow's milk intake to a maximum of 16 ounces a day, and encouraging the family to offer to the child meat, chicken, fish, and other foods containing adequate iron. Use of a cup rather than bottle should be encouraged.
2. Inquire about **blood loss** from the gastrointestinal tract, nose, or other sites. If a history indicates that this is the case, the child should be referred.
3. **Additional laboratory testing is not necessary**. The diagnosis and management of iron deficiency does not require extensive laboratory testing. Based upon the information submitted to us, an alternative diagnosis is highly unlikely.
4. **Treat the child with oral medicinal iron**, given as **ferrous sulfate** elixir or drops. The elixir contains 44 mg of elemental iron per 5 cc, and the drops contain 15 mg of elemental iron per 0.6 cc (or 25 mg per 1.0 cc). **The correct dose of elemental iron is 4 to 6 mg/kg/day in 2 divided doses**. The iron can be taken either with food or on an empty stomach, once in the morning and once in the evening. We prefer to use the elixir for all children > 12 months of age. For example, a 12 kg toddler prescribed 5 mg/kg/day, would require 60 mg or approximately 3.5 cc of ferrous sulfate elixir twice daily. The parents should be told that the stools may turn dark and that the teeth may temporarily become stained.
5. A **follow-up** visit about 2 weeks after the initiation of iron therapy is recommended to be certain that the diet has been improved and that the child is taking the iron as prescribed. A repeat blood count should show a slight rise in hemoglobin and MCV. If there is no improvement, then the child should be referred. Otherwise, the child should continue to receive iron for an additional 6 to 8 weeks. Another blood count then should be performed at this time, and the hemoglobin concentration should be within the normal range (between 11 and 13 gm/dl). The MCV may still be slightly low and the RDW increased. If the child does not respond, then he or she should be referred. If the child has demonstrated an appropriate hematologic response, then the iron dose should be reduced by half (e.g., 3.5 cc of elixir once daily for a 12 kg infant) and **continued for three more months to reconstitute the iron stores**. By this time the child's diet should have greatly improved.
6. **The approach described here is effective in more than 95% of children with nutritional iron deficiency anemia**. By following these recommendations a time consuming and expensive referral might be avoided.

We have brochures in English and in Spanish describing for parents the importance of diagnosing and treating iron deficiency. Please feel free to call 214-456-2978 to request brochures from us if you desire.

We realize that every child is different and that the suggestions offered here may not be appropriate to your patient. If you feel that that is the case, please have your office call us at **214-456-2978** to discuss the case with one of us or to request an appointment for the patient in our Dallas or Legacy (Plano) office. Our goal is to do everything possible to expeditiously and accurately diagnose and manage your patient. Thank you for your interest in having us consult one of your patients.

Sincerely yours,

The Hematology Team  
Center for Cancer and Blood Disorders  
Children's Medical Center  
The University of Texas Southwestern Medical Center