



U.S. Preventive Services Task Force Topic Development Background Document

Title: Screening for iron deficiency anemia in young children

Literature surveillance date: July 2023

Recommendation Summary: In 2015, the Task Force concluded that the current evidence was insufficient to assess the balance of benefits and harms of screening for iron deficiency anemia (IDA) in children ages 6 to 24 months (**Grade: I statement**).

Research Gaps from Previous Task Force Review: The Task Force identified important gaps and recommends further research on:

- The effect of routine screening for or treatment of IDA on growth or child cognitive, psychomotor, or neurodevelopmental outcomes;
- The performance of risk assessment tools to identify children who are at increased risk for IDA;
- The harms of screening for or treatment of IDA; and
- The short- and long-term effects of change in iron status on health outcomes in settings similar to the US with respect to nutrition, hemoparasite burden, and socioeconomic status.

Summary of New Evidence: Literature scans in the MEDLINE database and Cochrane Library were limited to English language, core and specialty clinical journals, August 2014 to present.

We identified one study focused on **screening and treatment** for IDA in Canadian children.¹ Children (N=1,478) aged 1 to 3 years were screened for iron deficiency in a primary care setting using serum ferritin. In a sub-study, 130 of these children aged 12 to 40 months were enrolled in 4 months of treatment based on their screen-detected iron status categories. Outcomes at one year include cognitive and functioning measures and serum ferritin and hemoglobin levels; harms are not addressed.

Four articles report on the effects of **routine iron supplementation**.²⁻⁵ An RCT in Argentina randomized 227 infants without anemia to daily, weekly, or no iron supplementation. Rates of iron deficiency and anemia at 6 months and intervention-related harms are reported.⁵ Three publications report long-term followup from an RCT included in the prior USPSTF review.²⁻⁴

References

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