| **Author, Year** | **Study Design** | **Setting Country** | **Interventions (N)** | **Study Duration Mean Followup** | **Baseline Demographics** | **Eligibility Criteria** | **Exclusion Criteria** |
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| Barton 199443 | RCT | Maternity hospital  Ireland | A. 120 mg elemental iron daily starting at 14 weeks’ gestation (n=53) B. Placebo (n=44) | 12 weeks’ gestation through delivery | Race: NR (Ireland) Nulliparous: 47% vs. 45% Smoking: 47% vs. 31%; p>0.05 Mean hemoglobin: 143 vs. 144 g/L Mean ferritin: 47.53 vs. 43.93 µg/L | Women with a singleton pregnancy and hemoglobin ≥14 g/dL | Recent blood transfusion, chronic respiratory disease, chronic hypertension, renal disease, diabetes mellitus, history of a hematological disorder, or alcohol dependence |
| Chan 200944 | RCT | Single center  Hong Kong | A: 60 mg daily iron supplement (ferrous sulfate) <16 weeks’ gestation until delivery (n=565) B: Placebo (n=599) | April 2005 to March 2007 women followed through delivery | A vs. B Mean age: 31.3 vs. 31.3 years Race: NR (Hong Kong) Mean hemoglobin: 12.5 vs. 12.6 g/dL Mean ferritin: 182.0 vs. 196.9 pmol/L BMI: 20.8 vs. 21.0 kg/m2 Parity >2: 0.50% vs. 0.18% Family history of diabetes: 24% vs. 23% SES: NR | 1,164 women with singleton pregnancy at <16 weeks’ gestation with hemoglobin level of 8–14 g/dL and no pre-existing diabetes or hemoglobinopathy | >16 weeks’ gestation, gestational diabetes, history of diabetes, or hemoglobin <8 or >14 g/dL |
| Cogswell 200347 | RCT | Prenatal clinic  Ohio | Week 20–27: A. 30 mg ferrous sulfate (n=146) B. Placebo (n=129) Week 28: Reassigned to either 30 mg (n=54), 60 mg (n=118), placebo (n=15), or medical intervention (n=9) based on iron measures; unknown reassessed iron measures (n=79) Week 38: Again reassigned based on iron measures (details NR) | Weeks 20–27 for RCT, but followed up through delivery after intervention reassignment at weeks 28 and 38 | A vs. BAge: 24.3 vs. 24.5 years Race: 56% vs. 57% white, 24% vs. 26% black, 16% vs. 17% Hispanic Smokers: 40% vs. 36% Gestational age at entry: 11 vs. 11 weeks Mean hemoglobin: 129 vs. 127 g/L Mean ferritin: 45 vs. 49 µg/L; p=0.0168 MCV: 89 vs. 89 fL Erythrocyte protoporphyrin: 54 vs. 56 µg/dL Prepregnancy weight: 72.5 vs. 77.9 kg; p=0.049 SES: 100% enrolled in WIC Parity ≥2: 31% vs. 24% | Legally competent, nonimprisoned pregnant women at <20 weeks of gestation, enrolled in Cleveland WIC June 1995 to September 1998 | NR |
| Eskeland 199752 | RCT | Single center  Norway | A. 3 tablets containing 1.2 mg heme iron and 8 mg iron fumerate per tablet, plus 1 placebo tablet (n=31) B. 1 tablet containing 27 mg iron fumerate, plus 3 placebo tablets (n=30) C. 4 placebo tablets (n=29) Timing: 20th week of gestation through delivery | <13 weeks through 6 months postpartum | A vs. B vs. C Mean age: 28 vs. 26 vs. 28 years Race: NR (Norway) BMI: 23 vs. 22 vs. 23 kg/m2 Parity ≥2: 10% vs. 0% vs. 10% Single: 3% vs. 17% vs. 3% Low education: 3% vs. 7% vs. 10% | Healthy women at <13 weeks of gestation | Uncertain gestational age, hemoglobin <110 or >148 g/L, chronic disease or pregnancy complications, multiple pregnancy, liver enzymes out of normal range, or practical difficulties such as planned on moving during study period |
| Falahi 201149 | RCT | Prenatal clinic  Khorramabad City, Iran | A. Ferrous sulfate 60 mg elemental iron (n=70) B. Placebo (n=78) | <20 weeks through delivery | A vs. B Age: 24.6 vs. 23.1 years; p=0.02 Race: NR (Iran) BMI: 24.8 vs. 24.4 kg/m2 Gestational age at study entry: 12.2 vs. 11.9 weeks | Nonanemic pregnant women with gestational age <20 weeks, primigravidae, age between 20 and 35 years, BMI >25 and <30 kg/m2, hemoglobin >100 g/L, and serum ferritin >20 µg/L | Diabetes mellitus, coronary heart disease, thalassemia, renal disease, respiratory disease, use of supplementary multivitamins or minerals, drug use, special diet. Anemic or iron deficient women were referred for medical evaluation and treatment |
| Makrides 200342  Followup study: Zhou 200754 | RCT | Australia | A: 20 mg daily iron supplement (ferrous sulfate) starting at 20 weeks’ gestation until delivery (n=216) B: Placebo (n=214) | December 1997 to April 1999 Followup through 6 months postpartum | A vs. B Age: 28.5 vs. 28 years Race: 95.4% vs. 95.3% white, 0.9% vs. 3.3% Aboriginal, 2.3% vs. 1.4% Asian, 1.4% vs. 0.0% other Maternal smoking: 19% vs. 20% Multiparous: 52% vs. 53% BMI: 26 vs. 26 kg/m2 Highest level of education: 12% vs. 15% year ≤10, 27% vs. 28% year 11, 33% vs. 28% year 12, 5% or 8% trade certificate or diploma, 21% vs. 21% tertiary degree Baseline rate of IDA in population: 11.5% | Attending antenatal clinics at the Women & Children’s hospital in Adelaide | Preexisting anemia, thalassemia, history of drug or alcohol abuse, already taking vitamin and mineral preparations containing iron |
| Meier 200345 | RCT | Prenatal clinic  Wisconsin | A. Iron supplementation 60 mg elemental iron + 1 mg folic acid (n=58, including 20 adolescents) B. Placebo + 1 mg folic acid (n=53, including 17 adolescents) If iron deficiency anemia occurred at 2nd trimester, 180 mg elemental iron was initiated (3 women in iron group and 9 women in placebo group) | 1st prenatal visit through delivery | A vs. B *Adolescents:* Age: 18.2 vs. 17.7 years Race: NR Gestational age: 14.1 vs. 12.1 weeks Serum ferritin: 31.1 vs. 34.0 ng/mL Hemoglobin: 12.6 vs. 13.1 g/dL *Adults:* Age 25.2 vs. 28.8 years Gestational age: 10.6 vs. 12.3 weeks Serum ferritin: 39.3 vs. 37.0 ng/mL Mean hemoglobin: 13.0 vs. 12.9 g/dL | Pregnant adolescents and adults age ≥15 years seeking prenatal care at a private group practice | Patients with iron deficiency anemia at 1st prenatal visit |
| Milman, 199450  Followup to Milman, 199155 | RCT | Denmark | A: 66 mg elemental iron daily starting at 14–16 weeks’ gestation (n=63) B: Placebo (n=57) | 14–16 weeks’ gestation through birth | Groups were comparable with respect to age, height, weight, parity, and pregnancy duration (data not shown) A vs. BMean hemoglobin: 122 vs. 119 g/L Mean ferritin: 45 vs. 40 µg/L | Healthy women with a normal single pregnancy, 14–16 weeks’ gestation, and an uncomplicated delivery | Uterine bleeding, placenta previa, abruptio placentae, preeclampsia, excessive smoking (<9 cigarettes/day) |
| Romslo 198353 | RCT | Prenatal clinic  Norway | A. 200 mg elemental iron daily starting within 10 weeks’ gestation (n=22) B. Placebo (n=23) | Within 10 weeks’ gestation through birth | A vs. B Age: 27.8 vs. 26.7 years Nonpregnant weight: 125 vs. 131 lb Race: NR (Norway) | Healthy women with a normal pregnancy ending in an uncomplicated delivery of a single, normal infant at between 37 and 42 weeks’ gestation | NR |
| Siega-Riz 200648 | RCT | Prenatal clinic  North Carolina | A. Prenatal supplementation with 30 mg iron ferrous sulfate (n=218) B. Prenatal supplementation without iron until 26–29 weeks’ gestation (n=211) | 1st prenatal visit through 26–29 weeks’ gestation; followed through delivery | A vs. BAge 19–24 years: 73% vs. 71% Race: 65% vs. 58% black, 31% vs. 37% white Single marital status: 75% vs. 75% High school education or less: 76% vs. 73% Previous live births: 68% vs. 66% Gestational age at study entry: 12.3 vs. 12.4 weeks Mean hemoglobin: 124 vs. 124 g/L Mean ferritin: 83.1 vs. 84.2 µg/L Parity ≥2: 44% vs. 41% SES: 100% eligible for WIC | Pregnant women at <20 weeks’ gestation, hemoglobin ≥110 g/L and serum ferritin ≥40 µg/L, spoke English, had not taken supplements that contained iron in the last month, singleton pregnancy, receiving prenatal care during 1997–1999 at Wake County Human Services clinic and therefore eligible for WIC | NR |
| Ziaei 200746 | RCT | Tehran, Iran | A: 1 150mg tablet ferrous sulfate daily starting at 20 weeks’ gestation through end of pregnancy (n=370) B: Placebo (n=357) | Early stage of the 2nd trimester through 6 weeks postpartum | A vs. B Age: 25.7 vs. 25.7 years Race: NR (Iran) BMI: 23.6 vs. 23.8 kg/m2 Mean hemoglobin: 13.98 vs. 14.01 g/dL Parity: 1.7 | Pregnant women in early stage of 2nd trimester with hemoglobin >13.2 g/dL and BMI of 19.8–26 kg/m2, single pregnancy, age 17–35 years, nonsmoking, no diseases related to polycythemia (such as asthma or chronic hypertesion), and no history of threatened abortion in this pregnancy | Smoking, disease related to polycythemia; asthma, chronic hypertension; history of threatened abortion in present pregnancy |
| Ziaei 200851 | RCT | Iran (location NR) | A: 1 150mg tablet ferrous sulfate daily starting at 20 weeks’ gestation through end of pregnancy (n=122) B: Placebo (n=122) | March 2005 to August 2006 Followup through 6 weeks postpartum | A vs. B Age: 26.9 vs. 25.7 years Race: NR (Iran) BMI: 24.11 vs. 23.69 kg/m2 Mean hemoglobin: 13.99 vs. 13.94 g/dL Parity: 1.6 vs. 1.7 Educational level: 11% vs. 7% primary school, 77% vs. 83% high school, 12% vs. 10% university Occupation: 92% vs. 90% housewife, 8% vs. 10% employed | All women ages 17–35 years receiving care at a prenatal clinic in Iran with a hemoglobin concentration ≥13.2 g/dL and serum ferritin >15 µg/L between 13 and 18 weeks’ gestation; BMI of 19.8–26 kg/m2; singleton pregnancy | Smoking, disease related to polycythemia; asthma, chronic hypertension; history of threatened abortion in present pregnancy |

| **Author, Year** | **Number Screened Number Eligible Number Enrolled Number Analyzed Withdrawals  Loss to Followup** | **Adjusted Variables for Statistical Analysis** | **Intermediate**  **Outcome Results** | **Clinical Health**  **Outcome Results** | **Adverse**  **Events** | **Quality Rating** | **Funding**  **Source** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Barton 199443 | Screened: NR Eligible: Approximately 500 Enrolled: 97 Analyzed: varied per outcome and timepoint (hemoglobin at week 36: 89% vs. 91%; week 40: 57% vs. 40%; ferritin at week 36: 81% vs. 77%) | Adjusted for smoking | A vs. B *Maternal outcomes at 36 weeks* Mean hemoglobin: 135 vs. 126 g/L; p=0.043 (adjusted for smoking, p=0.25) Mean ferritin: 32.6 vs. 12.8 µg/L; p=0.04 *Maternal outcomes at* *40 weeks* Mean hemoglobin: 137 vs. 120 g/L; p<0.001 Anemia: “No patients were withdrawn from the study due to anemia” | A vs. B *Infant outcomes* Low birthweight <2,700 g: 9.4% (5/53) vs. 15.9% (7/44); p=0.34 Perinatal death: 1.9% (1/53) vs. 0% (0/44); p=0.57 *Maternal outcomes* Cesarean delivery: 7.6% (4/53) vs. 9.1% (4/44); p=0.78 | A vs. B Hypertension disorder: 7.5% (4/53) vs. 9.0% (4/44); p=0.78 Antepartum hemorrhage: 5.7% (3/53) vs. 4.5% (2/44); p=0.81 | Fair | NR |
| Chan 200944 | Screened: 1,400 Eligible: 1,164 Enrolled: 1,164 Analyzed: 1,164 A vs. B Returned questionnaires: 54% (306/565) vs. 56% (335/599) | NR | A vs. B *Maternal outcomes at delivery* Mean hemoglobin: 12.2 vs. 11.8 g/L; p<0.001 Mean ferritin: 67.5 vs. 55.9 pmol/L; p<0.003 | A vs. B *Delivery method* Vaginal: 63.5% (290/456) vs. 56.0% (262/468); p=0.021 Cesarean: 25.2% (115/456) vs. 33.1% (155/468); p=0.008 *Neonatal outcomes* Mean gestational age at delivery: 38.8 vs. 38.7 weeks; p=0.322 Preterm delivery: 6.4% (27/419) vs. 6.8% (30/443); p=0.85 Apgar score at 1 min: 8.8 vs. 8.8; p=NS Apgar score at 5 min: 9.8 vs. 9.7; p=NS SGA: 3.58% (15/419) vs. 7.45% (33/443); p=0.013 Birthweight for term infants: 3,247.3 vs. 3,151.9 g; p=0.001 | A vs. B Gestational diabetes: 10% (56/565) vs. 10% (60/599); OR, 1.04 95% (95% CI, 0.7 to 1.53) Nonadherence: 46% overall; p=NS | Fair | Research Grant Council, Hong Kong |
| Cogswell 200347 | Screened: NR Eligible: NR Enrolled: 513 Analyzed: 275 (238 excluded because required supplementation or treatment) Loss to followup/missing data: 29% iron status outcomes, 23% birth weight outcomes | Prepregnancy weight and initial ferritin | A vs. B *Maternal outcomes* Week 28 (RCT phase): Mean hemoglobin: 117 vs. 116 g/L; p=0.499 Mean ferritin: 7.4 vs. 7.4 µg/L; p=0.985 MCV: 90.8 vs. 90.3 fL; p=0.443 Erythrocyte protoprophyrin: 59.3 vs. 62.9 µg/dL; p=0.140 Anemia (hemoglobin <110 g/L): 19.8% vs. 26.7%; p=0.251 Absent iron stores (serum ferritin <12 µg/L): 56.4% vs. 65.1%; p=0.214 Iron deficiency anemia (hemoglobin <110 g/L + serum ferritin <12 µg/L): 12.7% vs. 20.9%; p=0.123 After adjustment for prepregnancy weight and initial ferritin: Absent iron stores: 14.3 percentage points lower for those on supplements; p=0.031 Iron deficiency anemia: 10 percentage points lower for those on supplements; p=0.062 | *Infant outcomes, non-RCT phase, segregated by initial assignment* Birthweight: 3,277 vs. 3,072 g; p=0.010 Gestational age at delivery: 38.9 vs. 38.3 weeks; p=0.049 Low birthweight: 4.3% vs. 16.7%; p=0.003 Preterm delivery: 12.8% vs. 12.5%; p=0.944 Preterm delivery with low birthweight: 2.6% vs. 10.4%; p=0.017 Term delivery with low birthweight: 1.7% vs. 6.3%; p=0.083 SGA: 6.8% vs. 17.7%; p=0.014 Birth length: 49.7 vs. 49.3 cm; p=0.464 | Side effects reported at >1 visit from enrollment to week 28: 24.6% vs. 18.5% Nonadherence at week 28: 36.6% vs. 34.8%; p=NS | Fair | U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, and National Institutes of Health grant |
| Eskeland 199752 | Screened: NR Eligible: 120 Enrolled: 90 Analyzed: 71 A vs. B vs. C Withdrawal: 22.6% (7/31) vs. 20% (6/30) vs. 20.7% (6/29) | NR | A vs. B vs. C *Maternal outcomes* Anemia (hemoglobin <100 g/L) at 1 week postpartum: 9.7% (3/31) vs. 13.3% (4/30) vs. 20.7% (6/29) Iron deficiency, week 38: 29% vs. 52% vs. 85%; p<0.001 for A vs. C and p<0.05 for B vs. C Iron deficiency, 6–10 weeks postpartum: 8% vs. 27% vs. 52%; p<0.01 for A vs. C Iron deficiency, 24 weeks postpartum: 4% vs. 17% vs. 51%; p<0.001 for A vs. C and p<0.05 for B vs. C Median hemoglobin was significantly lower in placebo than intervention groups from 28 weeks to end of pregnancy (data reported in a figure) | A vs. B *Infant outcomes* Birthweight: 3,690 vs. 3,620 vs. 3,610 g | No difference in fatigue or other side effects; p=NS Nonadherence: 19% (combined 2 iron groups) vs. 18%; p=NS | Fair | NR |
| Falahi 201149 | Screened: NR Eligible: NR Enrolled: NR Analyzed: 148 Withdrawals: NR Loss to followup: NR | Adjusted for age | A vs. B *Maternal outcomes* At delivery: Hemoglobin: 123.2 vs. 120.9 g/L Ferritin: 28.1 vs. 22.1 µg/L Iron deficiency (serum ferritin <12 µg/L): 9.5% vs. 28.2%; p<0.05 Iron deficiency anemia (hemoglobin <110 g/L and serum ferritin <12 µg/L): 0% vs. 0% | A vs. B *Infant outcomes* Birthweight: 3.31 vs. 3.27 kg Birth length: 49.1 vs. 49.3 cm Low birthweight (<2,500 g): 3% vs. 6.8% Preterm delivery (<37 weeks): 3% (2/70) vs. 6.8% (5/78) Gestational age at delivery: 38.9 vs. 38.8 weeks | A vs. B Pregnancy-induced hypertension: 1.4% (1/70) vs. 0% (0/78) | Fair | NR |
| Makrides 200342  Followup study: Zhou 200754 | Screened: NR Eligible: 498 Enrolled: 430 Analyzed: 386 Withdrawals: 32 Lost: 0 | NR | A vs. B *Maternal status at 28 weeks’ gestation* Hemoglobin: 120 vs. 116 g/L; RR, 3.4 (95% CI, 1.7 to 2.3) *Maternal status at delivery, ferritin* Hemoglobin: 127 vs. 120 g/L; RR, 6.9 (95% CI, 4.4 to 9.3) Ferritin: 21 vs. 14 µg/L; RR, 7.1 (95% CI, 4 to 10.2) Iron deficiency: 35% (65/186) vs. 58% (102/176); RR, 0.60 (95% CI, 0.48 to 0.76) Anemia: 7% (14/200) vs. 16% (30/193); RR, 0.45 (95% CI, 0.25 to 0.82) Iron deficiency anemia: 3% (6/198) vs. 11% (20/185); RR, 0.28 (95% CI, 0.12 to 0.68) *Maternal status at 6 months postpartum* Hemoglobin: 135 vs. 134 g/L; RR, 1.6 (95% CI, −0.1 to 3.3) Ferritin: 34 vs. 26; RR, 7.9 (95% CI, 3.5 to 12.3) Iron deficiency: 16% (31/190) vs. 29% (51/177); RR, 0.57 (95% CI, 0.38 to 0.84) Anemia: 3.7% (7/189) vs. 4.5% (8/177); RR, 0.82 (95% CI, 0.30 to 2.21) IDA: 2.6% (5/190) vs. 1.7% (3/177); RR, 1.55 (95% CI, 0.38 to 6.40) *Child outcomes at 6 months postpartum*  Hemoglobin: 121 vs. 119 g/L; p=0.10  Ferritin: 32.5 vs. 30.8 µg/L; p=0.48  Iron deficiency: 6% (11/170) vs. 4% (6/159); p=0.27  Iron deficiency anemia: 0% vs. 0%; p=NS | A vs. B *Pregnancy outcomes* Gestational age at birth: 39.4 vs. 39.2 weeks; p=NS Birthweight: 3,406 vs. 3,449 g; p=NS Apgar score <7 at 5 min: 1.4% vs. 1.9%; p=NS Low birthweight: 5.4% (12/216) vs. 4.2% (9/214); p=NS Birth length: 49.9 vs. 50.0 cm; p=NS Neonatal death: 0.5% (1 case) vs. 0%; p=NS *Maternal outcome*s SF-36: No differences between women receiving iron and placebo in any of the 8 health concepts (physical functioning, role-physical, bodily pain, general health, vitality, social functioning, role-emotional, and general mental health) at 36 weeks’ gestation, 6 weeks postpartum, or 6 months postpartum (specific data only displayed in a figure) Cesarean delivery: 23.6% vs. 22.0% | A vs. B 36 weeks’ gestation Nausea: 29% (58/200) vs. 28% (54/193); RR, 1.04 (95% CI, 0.76 to 1.42) Stomach pain: 35% (70/200) vs. 30% (57/193); RR, 1.19 (95% CI, 0.89 to 1.58) Heartburn: 68% (136/200) vs. 69% (133/193); RR, 0.99 (95% CI, 0.86 to 1.13) Vomiting: 12% (24/200) vs. 13% (26/193); RR, 0.89 (95% CI, 0.53 to 1.50) Rash: 7.5% (15/200) vs. 6.2% (12/193); RR, 1.21 (95% CI, 0.58 to 2.51) Bowel movement ≤3 times/week: 4% (8/200) vs. 1.6% (3/192); RR, 2.56 (95% CI, 0.69 to 9.51) Nonadherence: 14% vs. 15%; p=NS | Good | Channel 7 Children’s Research Foundation, Women & Children’s Hospital Perinatal Pathology Fund, Gunn & Gunn Medical Research Foundation |
| Meier 200345 | Screened: NR  Eligible: NR  Enrolled: 144  Analyzed: 111  Withdrawals and loss to followup: 30% (33/111, 20 of which had inadequate data or failed to comply with medication requirements) | NR | A vs. B  *Maternal outcomes, weeks 36–40*  Adolescents:  Median serum ferritin: 12.0 vs. 6.2 ng/mL; p=0.010  Median hemoglobin: 12.2 vs. 11.5 g/dL; p=0.024  Iron deficiency anemia (serum ferritin <12 ng/mL + hemoglobin <11 g/dL): 5% (1/20) vs. 29.4% (5/17); p=0.137  Adults:  Median serum ferritin: 12.9 vs. 7.6 ng/mL; p=0.027  Median hemoglobin: 12.1 vs. 11.7 g/dL; p=0.135  Iron deficiency anemia (serum ferritin <12 ng/mL + hemoglobin <11 g/dL): 10.5% (4/38) vs. 22.2% (8/36); p=0.259  *Maternal outcomes, throughout study*  Adolescents:  Iron deficiency anemia (serum ferritin <12 ng/mL + hemoglobin <11 g/dL): 20% (4/20) vs. 59% (10/17); p=0.021  Severe iron deficiency anemia (hemoglobin <10.0 g/dL): 0% (0/20) vs. 11.8% (2/17)  Adults: Iron deficiency anemia (serum ferritin <12 ng/mL + hemoglobin <11 g/dL): 13% (5/38) vs. 42% (15/36); p=0.008 Severe iron deficiency anemia (hemoglobin <10.0 g/dL): 2.6% (1/38) vs. 8.3% (3/36) | A vs. B  *Infant outcomes*  Adolescent mothers:  Apgar score <7 at 1 min: 30% (6/20) vs. 25% (4/16); p=NS  Mean length: 50.0 vs. 51.6 cm; p=NS  Mean gestational age: 39.9 vs. 39.8 weeks; p=NS  Birthweight <2,500 g: 0% vs. 0%; p=NS  Cesarean delivery: 20% (4/20) vs. 6.2% (1/16); p=NS  Adult mothers:  Apgar score <7 at 1 min: 29.7% (11/38) vs. 16.7% (6/36); p=NS  Mean length: 52.4 vs. 51.8 cm; p=NS  Mean gestational age: 39.2 vs. 39.5 weeks; p=NS  Birthweight <2,500 g: 5.4% (2/38) vs. 2.9% (1/36); p=NS  Cesarean delivery: 14.3% (5/38) vs. 25% (9/36); p=NS  Combined Cesarean delivery: 16% vs. 19%; p=NS  Infant death: 0% vs. 0%; p=NS | A vs. B  *Maternal outcomes*  Adolescent mothers:  Nausea: 53% vs. 65%; p=NS  Vomiting: 41% vs. 41%; p=NS  Constipation: 29% vs. 12%; p=NS  Diarrhea: 13% vs. 17%; p=NS  Adult mothers:  Nausea: 63% vs. 53%; p=NS  Vomiting: 35% vs. 21%; p=NS  Constipation: 24% vs. 28%; p=NS  Diarrhea: 14% vs. 24%; p=NS  *Nonadherence*  Adolescent mothers: 4.5% vs. 12.6%; p=0.320  Adult mothers: 2.2% vs. 16.1%; p=0.036 | Fair | National Institutes of Health, Marshfield Medical Research Foundation, Mead-Johnson Nutritional Division, and Hybritech, Inc. |
| Milman, 199450  Followup to Milman, 199155 | Eligible: 35 Enrolled:120 Excluded: 15 Analyzed:120 Lost: NR | NR | A vs. B *Maternal outcomes* *at term* Mean hemoglobin: 127 vs. 116 g/L; p<0.0001 Mean ferritin: 22 vs. 14 µg/L; p<0.0001 Iron deficiency anemia: 0% vs. 17.5%; p=0.03 | A vs. B *Infant outcomes* Median birthweight: 3,350 vs. 3,450 g; p>0.5 | NR | Fair | Sundhedspulgjen and Fonden grants |
| Romslo 198353 | Screened: NR Eligible: NR Enrolled: 52 Analyzed: 43  Withdrawals reported: 7 | NR | A vs. B *Maternal outcomes at 37–40 weeks* Mean hemoglobin: 126 vs. 113 g/L; p=NR Mean ferritin: 24.0 vs. 6.0 µg/L; p=NR Iron deficiency: 0% (0/22) vs. 65.2% (15/23); p=0.02 | A vs. B *Infant outcomes* Gestation: 39.9 vs. 39.5 weeks; p=NR Birthweight: 3,546 vs. 3,510 g; p=NR Apgar score at 1 min: 8.7 vs. 8.8; p=NR Apgar score at 5 min: 9.0 vs. 9.0; p=NR | A vs. B Nonadherence: 45% overall; p=NS “None of the women complained of discomfort that could be attributed to the medication” | Fair | NR |
| Siega-Riz 200648 | Screened: NR Eligible: NR Enrolled: 867 Analyzed: 429 A vs. B Withdrawals and loss to followup varied by outcome: hemoglobin and anemia outcomes, 27% vs. 26%; ferritin, iron depletion, iron deficiency anemia outcomes, 51% vs. 53%; birthweight and low birthweight, 24% vs. 20%; gestational age at delivery and preterm delivery, 21% vs. 18%; SGA, 28% vs. 27% | NR | A vs. B *Maternal outcomes at 26–29 weeks* Mean hemoglobin: 114 vs. 114 g/L; p=0.81 Mean ferritin: 22.0 vs. 20.3 µg/L; p=0.48 Anemia (hemoglobin <110 g/L): 21% vs. 19%; p=0.65 Iron depletion (serum ferritin <20 µg/L): 53% vs. 65%; p=0.08 Iron deficiency anemia (hemoglobin <110 g/L + serum ferritin <20 µg/L): 10% vs. 15%; p=0.23 | A vs. B *Infant outcomes* Mean birthweight: 3,325 vs. 3,217 g; p=0.03 Low birthweight (<2,500 g): 4.8% vs. 9.5%; p=0.09 Mean gestational age at delivery: 39.1 vs. 39.0 weeks; p=0.43 Preterm delivery (<37 weeks): 7.5% vs. 13.9%; p=0.05 SGA (<10th percentile): 10.8% vs. 15.5%; p=0.22 | A vs. B Nonadherence: 34% vs. 37%; p=0.27 | Fair | Association of Schools of Public Health, Centers for Disease Control and Prevention, National Institute of Child Health and Human Development grant to the Carolina Population Center |
| Ziaei 200746 | Screened: 7,429 Eligible: 750 Enrolled: 727 Analyzed: 727 Lost: 21 | NR | A vs. B Mean hemoglobin (3rd trimester): 13.75 vs. 12.45 g/dL; p<0.001 | A vs. B *Pregnancy outcomes* Cesarean delivery: 25.9% (96/371) vs. 23% (82/356); p=NS *Infant outcomes* Apgar score at 10 min: 9.9 vs. 9.8; p=NS SGA: 15% (57/370) vs. 10% (36/357); p=0.035 Perinatal mortality: 0.8% vs. 1.7%; p=NS | A vs. B Hypertension disorder: 10 (2.7%) vs. 3 (0.8%); p=0.05 | Good | NR |
| Ziaei 200851 | Screened: NR Eligible: 244 Enrolled: 234 Analyzed: 205 Withdrawals: 29 Lost: 9 | NR | A vs. B *Maternal outcomes* Hemoglobin at delivery: 13.88 vs. 12.78; p<0.0001 Ferritin level at delivery: 26.18 vs. 19.08; p<0.0001 Hemoglobin at 6 weeks postpartum: 13.33 vs. 12.6; p<0.0001 Ferritin level at 6 weeks postpartum: 21.66 vs. 18.46; p<0.0001 | NR | NR | Good | NR |

**Abbreviations:** BMI=body mass index; MCV=mean corpuscular volume; NR=not reported; NS=not significant; RCT=randomized, controlled trial; SGA=small for gestational age; WIC= Special Supplemental Nutrition Program for Women, Infants, and Children.