## Study Eligibility & Data Collection Form

#### **General Information**

| <b>Study ID</b><br>(e.g. author name, year)                 | Kavakli 2004                 |
|---|------------------------------|
| Form completed by   | Ritzzaleena Rosli Mohd Rosli |
| Study author contact details                                | ritzz.rosli@student.usm.my   |
| Publication type<br>(e.g. full report, abstract,<br>letter) | Full report                  |
| List of included publications                               | -                            |
| References of similar trial*                                | -                            |

\*This is when the authors published the same study in several reports. All these references to a similar trial should be linked under one *Study ID* in RevMan.

## Study eligibility

|                        | Yes | No | Unclear | Further details |
|------------------------|-----|----|---------|-----------------|
| RCT/Quasi/CCT          | /   |    |         | RCT             |
| Relevant participants  | /   |    |         |                 |
| Relevant interventions | /   |    |         |                 |
| Relevant outcomes*     | /   |    |         |                 |

\*Include only if the presence of outcomes form the inclusion criterion

If the above answers are 'YES', proceed to Section 1.

If any of the above answers are 'NO\*', record below the information for 'Excluded studies'

#### Reason(s) for exclusion

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# Section 1. Characteristics of included studies

This section is to be completed by only one reviewer. State initials: RRMR

| METHODS   | Descriptions as stated in paper  |
|---|--|
| Aim of study (e.g.<br>efficacy,<br>equivalence,<br>pragmatic)               | The first aim of this study is to investigate the oxidant effects of oral<br>iron supplementation through determining the LDL oxidation and<br>copper stimulated LDL oxidation as well as antioxidant status and<br>MDA levels in erythrocytes of children with IDA.<br>The second aim of this study is to determine the possible side effects<br>of different iron preparations during the treatment process. |
| <b>Design</b> (e.g.<br>parallel, crossover,<br>cluster)                     | Parallel, randomised group study of Fe2+ (Ferro-Sanol suspension) and Fe3+ (Ferrum suspension)   |
| Unit of allocation<br>(by individuals,<br>cluster/ groups or<br>body parts) | Individuals  |
| Start & end dates   | November 1999 and March 2001   |
| Total study duration  | Total study duration was 1 year 3 months. Treatment duration was 6 months  |
| Sources of<br>funding<br>(including role of<br>funders)                     | -  |
| Possible<br>conflicts of<br>interest<br>(for study authors)                 | -  |

| PARTICIPANTS           | Description   |
|------------------------|---|
|                        | (include information for each intervention or comparison group) |
| Population             | Children with iron deficiency anaemia                           |
| description            |   |
| (Company/companie      |   |
| s; occupation)         |   |
| Setting                | Pediatrics Outpatient   |
| (including location    | Clinic in Ege University, Turkey.                               |
| (city, state, country) |   |
| and single centre /    |   |
| multicenter)           |   |
| Inclusion criteria     | 1. The children with IDA, aged between 6 months and 15          |
|                        | years   |
|                        | 2. IDA was defined as hemoglobin (Hb) below 10 g/dL for         |
|                        | children below or at the age of 12 months and below 11          |
|                        | g/dL for children older than 12 months age, haematocrit         |
|                        | below 35%, transferrin saturation below 16%, and a serum        |
|                        | ferritin value below 20 ng/mL.                                  |

| Exclusion criteria                          | 1. iron preparations in last 3 months                                      |
|---|--|
|   | 2. had acute infection   |
|   | 3. had a history of chronic disease, parasites, suffered blood             |
|   | loss for any reason  |
|   | 4. had occult blood in stools  |
| Method of                                   | Consecutive patients who attended the Pediatrics Outpatient                |
| recruitment of                              | Clinic in Ege University, Turkey   |
| participants (e.g.                          |  |
| priorie, mail, cimic<br>natients voluntary) |  |
| Total no.                                   | 72   |
| randomised                                  | 12   |
| Clusters                                    | -  |
| (if applicable, no.,                        |  |
| type, no. people per                        |  |
| cluster)                                    |  |
| No. randomised per                          | Intervention: 33 patients (male/female: 26/7).                             |
| group                                       | Control: 39 natients (male/female: 23/16)                                  |
| (specily whether no.                        | Control. 33 patients (male/lemale. 23/10)                                  |
| No. missing                                 |  |
| (if overall, e.g.                           | Intervention: 14   |
| exclusions &                                | Control: 19  |
| withdrawals, whether                        |  |
| or not missing from                         |  |
| analysis)                                   |  |
| Reasons missing                             | Did not continue the treatment after 3rd month.                            |
| Baseline                                    | There was no difference between the patients who completed 6th month       |
| imbalances                                  | treatment and those who did not, according to their age, sex, and initial, |
| Age   | 8- 168 months  |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,     |  |
| Sex (proportion)                            | Intervention: 19; male/female:16/3   |
|   | Control: 20; male/female: 9/11   |
|   |  |
| Race/Ethnicity                              | -  |
| Other relevant                              | -  |
| sociodemographics                           |  |
| Subarouns                                   |  |
| measured (ea solit                          |  |
| by age or sex)                              |  |
|   |  |
| Subgroups reported                          | -  |
|   |  |

## Section 2. Risk of bias assessment

We recommend you refer to and use the method described in the Cochrane Handbook.

This section is completed by two reviewers. State initials: (i) RRMR (ii) NMN

| Domain  | Risk of bias<br>High<br>Unclear<br>Low | Support for judgement<br>(include direct quotes where available<br>with explanatory comments)  | Location<br>in text or<br>source<br>(page,<br>table) |
|---|--|--|--|
| Random sequence<br>generation<br>(selection bias)               | unclear                                | <i>"were randomly included in Fe2+ and Fe3+group,"</i><br>Comment: Not clearly describe.   | Page 2   |
| Allocation concealment<br>(selection bias)                      | unclear                                | Not mentioned in full text   | -  |
| Blinding of participants and<br>personnel<br>(performance bias) | unclear                                | Not mentioned in full text   | -  |
| Blinding of outcome<br>assessment<br>(detection bias)           | low                                    | <i>"Hemogram and ferritin levels were detected on the same day."</i>   | Page 3   |
| Incomplete outcome data<br>(attrition bias)                     | low                                    | "While 20 of the children in the<br>Fe2+ group (male/female: 9/11)<br>and Fe3+ 19 of the children in<br>the<br>group (male/female:16/3)<br>completed the whole duration of<br>the study, 19 patients in the<br>Fe2+<br>group and 14 in the Fe3+ group<br>did not continue the treatment<br>after 3rd month."<br>"There was no difference<br>between the patients who<br>completed 6th month treatment<br>and those who did not,<br>according to their age, sex, and<br>initial, 1st, and 3 <sup>rd</sup> month<br>parameters evaluated." | Page 4   |
| Selective outcome reporting (reporting bias)                    | low                                    | Study protocol not available.<br>However, all pre-specified and<br>expected outcomes of interest<br>are reported   | -  |

| Other bias | low | No other bias identified. | - |
|------------|-----|---------------------------|---|
|            |     |                           |   |

Random sequence generation = Process used to assign people into intervention and control groups

Allocation concealment = Process used to prevent foreknowledge of group assignment in a RCT

Blinding of participants and personnel = Presence or absence of blinding for participants and health personnel

Blinding of outcome assessment = presence or absence of blinding for assessment of outcome

Incomplete outcome data = application of intention-to-treat analysis is one in which all the participants in a trial are analysed according to the intervention to which they were allocated

Selective outcome reporting = Selection of a subset of the original variables recorded

### Section 3. Intervention groups

This section is completed by two reviewers. State initials: (i) RRMR (ii) NMN

| Outcomes relevant to<br>your review<br>(Copy and paste from<br>'Types of outcome<br>measures') | Reported<br>in paper<br>(Yes /<br>No) | Outcome<br>definition (with<br>diagnostic criteria<br>if relevant) | Unit of<br>measurement<br>& tool<br>(if relevant) | Reanalysis<br>required?<br>(specify) |
|--|---------------------------------------|--|---|--------------------------------------|
| 1. Hemoglobin (Hb)   | Yes                                   | level at end of treatment  | (g/dL)  | No                                   |
| 2. Serum Ferritin  | No                                    | -  | -   | -                                    |
| 3. Serum iron  | No                                    | -  | -   | -                                    |
| 4. Serum mean<br>corpuscular volume<br>( <b>MCV</b> )  | No                                    | -  | -   | -                                    |
| 5. Serum mean<br>corpuscular<br>hemoglobin ( <b>MCH</b> )                                      | No                                    | -  | -   | -                                    |
| <ol> <li>Gastrointestinal<br/>disturbances as side<br/>effects</li> </ol>                      | Yes                                   | stomachache,<br>constipation,<br>diarrhea, and<br>nausea           | -   | No                                   |

### Section 4. Data and analysis

| DICHOTOMOUS   | Interve          | ention group           | Control group    |                        |  |
|---|------------------|------------------------|------------------|------------------------|--|
| OUTCOME   | Number of events | Number of participants | Number of events | Number of participants |  |
| Gastrointestinal<br>disturbances as side<br>effects | 8                | 19                     | 5                | 20                     |  |

State details if outcomes were only described in text or figures.

| CONTINUOUS Unit of measurement | Unit of | Interve   | Intervention group |           | Control group |  |
|--------------------------------|---------|-----------|--------------------|-----------|---------------|--|
|                                | n       | Mean (SD) | n                  | Mean (SD) |               |  |
| 1. Hemoglobin (Hb)             | (g/dL)  | 19        | 11.4 (1.2)         | 20        | 12.5(1.2)     |  |

State details if outcomes were only described in text or figures.

### Section 5. Other information

|  | Description as stated in paper  |
|--|---|
| Key conclusions of study<br>authors  | When the Fe2+ type of iron is used in children, no toxic effect arises in terms of the increase in free oxygen radicals. Therefore, the first choice for the treatment of IDA in childhood must be Fe2+ sulfate preparations, because they are more efficient, do not cause any toxic effects, and are considerably cheaper products. |
| Results that you calculated using a formula  | -   |
| References to other relevant<br>studies<br>(Did this report include any<br>references to unpublished data<br>from potentially eligible trials not<br>already identified for this review?<br>If yes, give list contact name and<br>details) |   |
| <b>Correspondence required for</b><br><b>further study information</b> (from<br>whom, what and when)   | -   |

#### Sources:

Higgins JPT, Green S (editors). Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0 [updated March 2011]. The Cochrane Collaboration, 2011.Available from www.cochrane-handbook.org.