

Nutritional supplement sprinkles with zinc and micronutrients

Submission date
12/02/2010

Recruitment status
No longer recruiting

☐ Prospectively registered

☐ Protocol

Registration date
16/03/2010

Overall study status
Completed

☐ Statistical analysis plan

☐ Results

Last Edited
15/03/2011

Condition category
Nutritional, Metabolic, Endocrine

☐ Individual participant data

☐ Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

Contact name
Dr Nelly Zavaleta

Contact details
Av. La Molina 1885
La Molina
Lima
Peru
Lima 12

Additional identifiers

Protocol serial number
IIN-270

Study information

Scientific Title
Efficacy of the nutritional supplement sprinkles with zinc and micronutrients on anaemia and acute diarrhoea in Peruvian children

Acronym
SUNSZIM

Study objectives

1. Children 6 to 17 months of age that consume the nutritional supplement sprinkles with zinc and micronutrients for a 6 month period will have a lower prevalence of anaemia than will those children that consume the nutritional supplement sprinkles with iron alone.
2. Children 6 to 17 months of age that consume the nutritional supplement sprinkles with zinc and micronutrients for a 6 month period will have a lower incidence and prevalence of acute diarrhoea than will those children that consume the nutritional supplement sprinkles with iron alone.
3. Children 6 to 17 months of age that consume the nutritional supplement sprinkles with zinc and micronutrients for a 6 month period will have better growth than those children that consume the nutritional supplement sprinkles with iron alone.
4. The adherence of the nutritional supplement sprinkles with zinc and micronutrients and the nutritional supplement sprinkles with iron alone will be similar, in both cases greater than 75% of the offered doses.

Ethics approval required

Old ethics approval format

Ethics approval(s)

1. Instituto de Investigacion Nutricional (IIN) Institutional Review Board (IRB) approved on the 26th of June 2009 (ref: 284-2009/CEI-IIN)
2. Mount Sinai Hospital IRB approved on the 22nd of October 2009
3. Peruvian NIH authorisation received on the 18th of September 2009

Primary study design

Interventional

Study design

Interventional single centre phase III double blind randomised controlled trial

Study type(s)

Prevention

Health condition(s) or problem(s) studied

Anaemia and diarrhoea

Interventions

Research product:

Micronutrient supplement as sprinkles, packaged into individual sachets, each sachet intended for once daily use to be mixed with food. The iron portion of the powder is lipid encapsulated to prevent changing the taste, texture, or colour of the food. The composition used in this study is outlined in the table below.

Micronutrient Amount

Iron as fumarate 12.5mg

Zinc as gluconate 10 mg

Folic Acid 160mcg

Vitamin A 300mcg RE

Vitamin C 30mg

Control Product:

The control group is also a powdered sprinkles form having the following composition per sachet.

Micronutrients Quantity

Iron as fumarate 12.5mg

Route of administration (both groups): Oral

Presentation Form: Powder

Duration of supplementation per subject: 6 months.

Intervention Type

Other

Phase

Phase III

Primary outcome(s)**1. Anemia:**

Haemoglobin (Hb) is measured by HemoCue® at baseline and 6 months later (end of the study participation). Prevalence of anaemia is the percentage of children with Hb below 11 g/dl (WHO definition). We will also compare mean Hb values at baseline and end of the study.

2. Diarrhoea:

Morbidity is recorded by home surveillance once a week and we register the daily morbidity, prevalence of diarrhoea is registered as the days with morbidity over the number of observation days x 100, incidence as number of episodes of diarrhoea per 100 days of observations.

Key secondary outcome(s)**1. Incidence of severe diarrhoea:**

Severe diarrhoea is defined as ≥ 6 liquid or loose stools in the last 24 hr, number of episodes of severe diarrhoea per 100 days of observations.

2. Duration of diarrhoea:

Number of days with diarrhoea (≥ 3 liquid or loose stools in the last 24 hr).

3. Adherence to supplementation:

Number of sachets consumed during the study per over the number of sachets given x 100.

4. Changes in weight and length:

Anthropometric measures weight and length will be taken on infants at baseline and monthly through 6 months of intervention, and Z scores determined for weight-for-age (WAZ), length-for-age (LAZ), and weight-for-length (WLZ) compared to WHO references.

5. Serum zinc:

Measured at entry and 6 months post supplementation.

Completion date

31/01/2011

Eligibility**Key inclusion criteria**

1. Aged between 6 months and 17 months, 29 days of age
2. Residents of Villa El Salvador, Lima, Peru
3. Born at term
4. Birth weight equal or higher than 2500g

5. Healthy
6. Parents agree to sign the informed consent form

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Child

Lower age limit

6 Months

Upper age limit

17 Months

Sex

All

Key exclusion criteria

1. Age less than 6 months, or equal to/greater than 18 months
2. Not residents in the area of intervention
3. Children with an initial haemoglobin equal to or less than 8g/dL will be evaluated by a doctor to rule out some additional pathology and will receive treatment according to Peruvian Ministry of Health (Ministerio de Salud [MINSA]) norms
4. Weight/Length less than -2 Standard Deviations (SD)
5. Any chronic, congenital, or severe illnesses
6. Children that regularly consume other micronutrient supplements

Date of first enrolment

07/01/2010

Date of final enrolment

31/01/2011

Locations**Countries of recruitment**

Peru

Study participating centre

Av. La Molina 1885

Lima

Peru

Lima 12

Sponsor information

Organisation

Instituto de Investigación Nutricional (IIN) (Peru)

ROR

<https://ror.org/05by4rq81>

Funder(s)

Funder type

Charity

Funder Name

United Nations Children's Fund (UNICEF) (USA)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration