

Intermittent iron-folic acid supplementation (menstruating women where anaemia is public health problem)

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Description of condition and intervention

This is a public health intervention recommended in settings where prevalence of anaemia in non-pregnant women is 20% or higher. Although there are multiple causes that may lead to anaemia in non-pregnant women, iron deficiency is considered as the most common risk factor. This can occur due to insufficient iron intake in diet, inadequate absorption of iron or chronic loss due to bleeding. Therefore, menstruating women are at higher risk of anaemia due to iron deficiency. Development of iron deficiency anaemia hampers resistance to infections and reduces physical capacity and work performance. Further, non-pregnant women with deficient iron reserves entering pregnancy have higher possibility of unfavourable maternal and neonatal outcomes. Thus, intermittent iron and folic acid supplementation is recommended in non-pregnant women in settings with high prevalence of anaemia. Evidence indicates that these intermittent regimens are well taken up by women and may improve their iron and folate reserves. This evidence brief details assessment of intermittent iron-folic acid supplementation in menstruating women in context relevant settings. (Source: [WHO](#)) This evidence brief assesses effects and costs for one intervention being analyzed in FairChoices: DCP analytical tool (For an overview of other interventions, see appendix below and the separate evidence briefs for these):

NUTR01-05

Intermittent Iron-folic acid supplementation (Menstruating women)

International guidelines

Organization	Indications/recommendations	Applicability in LIC & Lower MIC settings
World Health Organization	One supplement per week consisting of 60 mg of elemental iron and 2.8 mg folic acid, for three months duration; followed by no supplementation for next 3 months and subsequently resuming the same schedule of supplementation in all menstruating women. This 60 mg of elemental iron corresponds to 300 mg of ferrous sulphate heptahydrate, 180 mg of ferrous fumarate or 500 mg of ferrous gluconate.	In settings with prevalence of anaemia in non-pregnant women of reproductive age

Source: WHO 2011

Intervention attributes

Type of interventions & delivery platform

Table 1: Type of interventions & delivery platform

Intervention	Type	Delivery platform
4. Intermittent Iron folic acid supplementation	Prevention	Community

Equity

In addition to considerations like cost-effectiveness and health systems factors, dimensions of equity can be relevant for priority setting. The opportunity for a long and healthy life varies according to the severity of a health condition that individuals might have, so there are inequities in individuals' opportunities for long and healthy lives based on the health conditions they face. Metrics used to estimate the severity of illness at an individual level can be used to help prioritize those with less opportunity for lifetime health. FairChoices: DCP Analytics Tool uses Health adjusted age of death (HAAD), which is a metric that estimates the number of years lived from birth to death, discounting years lived with disability. A high HAAD thus represents a disease less severe in terms of lifetime health loss, while a low HAAD represents a disease that is severe on average, causing early death or a long period of severe disability. It is also possible to estimate the distribution of HAAD across individuals with a health condition. FairChoices shows for each intervention an average HAAD value of the conditions that are affected by respective interventions that have health effects. Additionally, a plot shows HAAD values for around 290 conditions (Johansson KA et al 2020).

Time dependence

Low level of urgency. Treatment outcomes not highly affected by some days of delay.

Population in need of interventions

Table 2: Population in need of interventions

Intervention	Treated population		Affected population		Disease state addressed
	Treated age	Treated fraction	Affected age	Affected fraction	
Intermittent iron-folic acid supplementation, non-pregnant women	15 to 49 years	Prevalence cases: According to Henriksen et al. Treated fraction will be 1 (Unpublished work in progress)	15 to 49 years	Those with the condition: According to Henriksen et al. All women of fertile age with the condition will be affected, treated fraction is 1 (Unpublished work in progress)	Dietary iron deficiency

Intervention effect and safety

Table 3: Effect and safety of intervention

Effect of intervention	Certainty of evidence
Prevalence of anaemia (population: non-pregnant women) Gaxiola -Fernandez et al. found that relative risk of anemia RR 0.65 (0.49 to 0.87) in menstruating women and adolescent girls with the intervention	⊕⊕⊖⊖ Low

Model assumptions

Table 4: Summary of model parameters and values used in FairChoices – DCP Analytical Tool

Category	Model parameter	Notes
Intervention	Intermittent iron-folic acid supplementation to non-pregnant women	
Cost parameters		
Treated population	Women of reproductive years (15 to 49 years)	Global Burden of Disease study
Effect calculation		
Affected Population	Women of reproductive years	
Affected gender	Female	

Affected fraction age	15 to 49 years	
Affected fraction	1	
Comparison	Placebo	
Prevalence Reduction (RRR)	0.35	

Intervention Cost

The total unit cost is estimated to be USD 0.67 (Year: 2020) per non-woman per case for preventing anaemia according to Henriksen et al. (Work in progress).

References

Guideline: Intermittent Iron and Folic Acid Supplementation in Menstruating Women. WHO Guidelines Approved by the Guidelines Review Committee. Geneva2011.

Fernández-Gaxiola AC D-RL. Intermittent iron supplementation for reducing anaemia and its associated impairments in adolescent and adult menstruating women (Review). Cochrane Database Syst Rev.

Appendix

Literature Review for effectiveness & safety

This literature search is an example of level 4 evidence(meta-analysis) for intervention inputs taken from DCP3. (Despite low significant level for efficacy)

Level of evidence of efficacy studies:

1. Low (expert opinions, case series, reports, low-quality case control studies)
2. Moderate (high quality case control studies, low quality cohort studies)
3. High (high quality cohort studies, individual RCTs)
4. Very high (Multiple RCTs, meta-analysis, systematic reviews, clinical practice guidelines)

EVIDENCE BRIEF

NUTRITION: Intermittent iron-folic acid
supplementation in menstruating women
(DCP4 ID: NUTR01-05)
Cluster: Nutrition

FairChoices
DCP Analytic Tool

An overview of all NUTR interventions in FairChoices-DCP analytical tool (Interventions assessed in this evidence brief are marked in bold)

NUTR01-01	Daily Iron Folic acid supplementation (pregnant women)
NUTR01-02	Calcium supplementation, pregnancy
NUTR01-03 households	Food and caloric supplementation to pregnant women in insecure
NUTR01-04-02	Promotion of breastfeeding and/ or complementary feeding
NUTR01-05	Intermittent Iron-folic acid supplementation (Menstruating women)
NUTR01-06	Food to non-pregnant women in insecure households
NUTR01-02-01-01	Daily iron supplementation for children 6 to 23 months
NUTR01-02-01-02	Daily iron supplementation in children health center
NUTR01-02-02	Intermittent iron supplementation in children (24 -59 months)
NUTR01-02-03	Vitamin A supplementation to children 6 to 59 months
NUTR01-02-04	Zink to children 6 to 59 months
NUTR01-02-05	Food to children, if below basic food poverty line
NUTR01-03-01	Management of severe acute malnutrition without medical complications
NUTR01-03-02	Management of severe acute malnutrition associated with medical complications