

**EFFECTIVENESS OF PREVENTIVE TREATMENT OF IRON DEFICIENCY ANEMIA
IN AN AMBULANCE STATION
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Iron deficiency Anemia (IDA) - a widespread disease in Kyrgyzstan. This disease affects more than 60% of women at the reproductive age, 50% of girls at the adolescent age and almost 90-100% of pregnant women. By other words, about 1,5 million of 2,2 million women in the republic suffer from iron deficiency. Importance of this problem is that iron deficiency frequently causes spontaneous abortion, postdelivery atonic uterine bleeding that can results in fatal outcome. According to the WHOTs data, death rate in anemic women has increased 5-10-fold, as compared with healthy women. Besides of it, IDA exerts negative influence on genofund of nation because anemic pregnant women bears infants with low level of hemoglobin. These children suffer from mental and physical retardation, predisposition to tuberculosis, pneumonia and severe infections. In 2009 in some regions of Kyrgyzstan have shown that IDA affects 47% of women of reproductive age, 75% of pregnant women and 64% of children under 3 years of age. Now this disease often meets at men of middle age various bleedings, and at old men¹. IDA influences ability of the person to think, work, reduces immunity. Until 2000, all studies comparing the efficacy of intermittent iron supplementation (with or without folic acid) using daily and/or weekly regimes were conducted only during pregnancy, usually with supplementation supervised to investigate maximum achievable effect under ideal research conditions. Weekly iron-folic acid supplementation, however, was conceived as a preventive approach aimed at ensuring satisfactory iron and folic acid status throughout the reproductive life of a woman, enabling her to start pregnancy with optimal iron reserves and to avoid iron deficiency during pregnancy. Although not the focus of the weekly iron-folic acid supplementation studies reported herein, an additional benefit of including folic acid in the supplement taken before conception is the reduced risk of neural tube defects due to folic acid deficiency. For patients of advanced age use of the combined preparations fills up deficiency of vitamins.

For definition of efficiency of the use of preventive doses of iron 126 patients with IDA have been selected. Treatment Program strategies included promoting the regular intake of weekly iron-folic acid supplements in combination with a diet rich in iron and other micronutrients. Prescribed prophylactic dose combination preparation of iron (Fersinol - 1 capsule containing 150 mg of ferrous sulfate, 0.5 mg of folic acid, vitamin B₆ - 1 mg, 2 mg of

vitamin B₁, vitamin B₂ - 2 mg, 50 mg of ascorbic acid, 10 mg of nicotinamide, 25 mg - zinc sulfate). The drug contains 46.87 mg of elemental iron. Available in capsules, so does not have an unpleasant odor and taste. It has few side effects. Observed the following groups:

- 1) Non-pregnant women and men with a variety of blood loss;
- 2) Pregnant women;
- 3) Patients with gastric resection and different parts of the intestine.

The groups were comparable with each other by sex, age. In view of the data on the patients' awareness about the causes of IDA, the clinical, treatment, prevention measures we have filled in questionnaires, lectures, roses, special materials and the factors influencing the bioavailability of iron, a diet rich in trace elements of iron, the possible consequences of red blood cells transfusion, the need to eliminate diseases that cause iron deficiency. Method of presenting information is a simple and affordable, at Russian and Kyrgyz languages, with special information for patients, who do not have special medical education. Patients asked to accept a preparation after meal in an hour for reduction of by-effects and for achievement of good absorption of iron. Duration of treatment, the possibility of side effects when taking iron supplements, diet, indicating the content of iron in different foods, the role of self-control was accentuated. In carrying out the program as prescribed specialized iron preparations, and preparations of local, natural origin, affecting the absorption and bioavailability of iron. Part of patients accepted an iron preparation daily, other part – weekly. Visiting the doctor with a clinical examination, laboratory studies were conducted controlling every 3 months. In laboratory investigated hemoglobin, iron of blood serum and ferritin. Baseline levels of anemia patients surveyed three groups were moderate and severe, the values of serum iron, ferritin was low, did not differ significantly. After reception of daily norm of a preparation compared results within several months. The program purpose - to define duration of application of the preparation necessary for prevention of anemia and increase in stocks of iron in above specified groups was reached. As a result of treatment, in patients all groups during the observation period was mild anemia or not, the values of hemoglobin, iron of serum blood, ferritin levels were significantly higher than the data pre-treatment. Decreased the number of days, respectively, temporary disability, hospitalization and repeated indications for transfusion of erythrocyte mass in these groups was not. The main challenge was to ensure that the supplements would be purchased and taken regularly for periods of months and even years to take full advantage of the greater efficiency of weekly intake of iron compared with daily intake. From the literature it is known, that the daily use of iron can be connected with risk of oxidative stress.² Weekly application of iron does not allow to appear to surpluses in level of ferritin.

As a result it was concluded:

- Educated women in the future could prevent the development of IDA severe in themselves and their children, addressing timely advice to ambulatory doctors.
- Education of patients with iron deficiency anemia improves quality of life and significantly reduce the economic costs of treatment IDA.
- Weekly application of iron more efficiently.

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