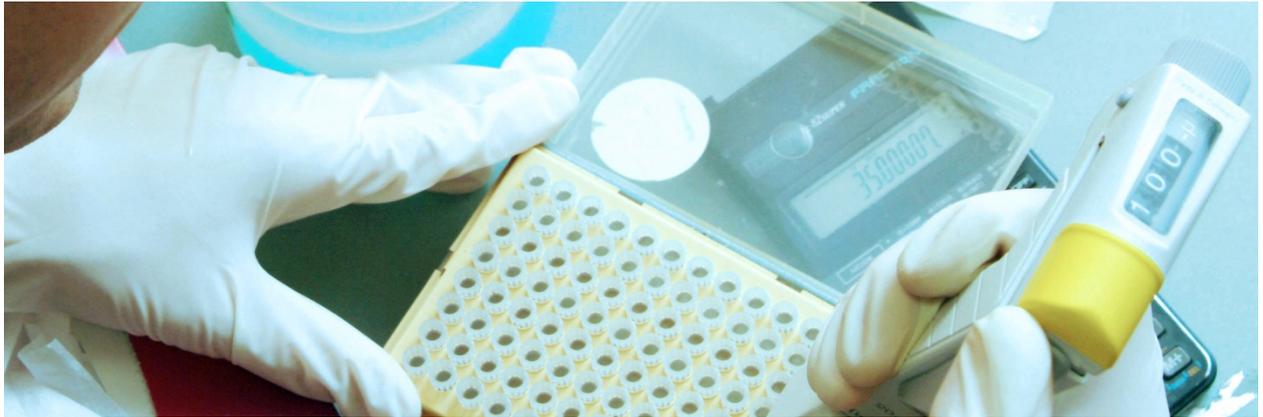


Oral or parenteral therapy to treat iron deficiency



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Summary

Iron is an important element for the human body, being the central constituent of the red blood pigment hemoglobin, and therefore responsible for supplying the cells with oxygen. Iron also plays a key part in a large number of metabolic processes. Substantial iron deficiency leads to considerable impairment of physical and mental capacity (with fatigue, headaches, and concentration disorders), and can also lead to anemia. In addition, iron deficiency can be a substantial risk factor, particularly in the context of surgical interventions.

Although iron-rich nutrition or measures for improved iron absorption can generally prevent deficiency, in some cases iron needs to be substituted using medication. There are basically two types of therapies: oral and parenteral.

This report seeks to determine whether using parenteral iron preparations to treat severe symptomatic iron deficiency has advantages for the patient in comparison with using an oral therapy, with regard to efficacy and quality of life. In this context, the potential side effects and the cost-efficacy ratio of treatment are also taken into consideration.

On the basis of the existing literature, it can be concluded that

- both forms of administration can exert a positive influence on the symptoms of iron deficiency and on the surrogate parameters of iron metabolism (hemoglobin concentration, ferritin, transferrin) to a sufficient degree, and that this is not based on a placebo effect.
- parenteral therapy achieves this effect more rapidly and with distinct quantitative advantages, in particular in cases of severe symptomatic iron deficiency.

Based on the considerations presented, the following recommendations are made:

- **Parenteral substitution therapy is recommended for patients with severe symptomatic iron deficiency or iron deficiency anemia after careful examination. Patients should be closely monitored during treatment and staff should be prepared to take action if side effects occur.**
- **At the same time, suitable treatment of the cause(s) of the iron deficiency should be initiated.**
- **In addition, it should always be assessed whether patients could benefit from parenteral iron substitution therapy in the context of surgical interventions.**