

ECCO IRON DEFICIENCY AND ANAEMIA GUIDELINES 2015

Diagnosis and management of iron deficiency and anaemia in inflammatory bowel diseases ¹

Diagnosis

Iron deficiency

active IBD



serum ferritin ↑

iron stores ↓↓

inactive IBD



serum ferritin < 30 µg/L

Anaemia



Hb < 12



< 13 g/dL

Treatment

Iron therapy

recommended in all IBD patients when IDA is present

i.v. iron 1st line

active IBD



Hb < 10 g/dL



intolerance to oral iron



need for ESA



Oral iron

inactive IBD



mild anaemia



tolerance to oral iron



Treatment goals

normalisation of Hb levels and iron stores

Hb increase ≥ 2 g/dL within 4 weeks

Prevention

Monitoring and treating for recurrent iron deficiency

retreatment with i.v. iron as soon as:

serum ferritin < 100 µg/L

Hb < 12 g/dL

Hb < 13 g/dL



goal is to maintain Hb and ferritin in normal range

Diagnosis of anaemia

All patients with IBD should be assessed for the presence of anaemia (women Hb <12 g/dL, men Hb <13 g/dL).

The risk of developing anaemia relates to disease activity, because both blood loss and anaemia of chronic disease are triggered by intestinal inflammation.

Diagnosis of iron deficiency (ID)

Diagnostic criteria for ID depend on the level of inflammation.

In patients without clinical, endoscopic or biochemical evidence of active disease, serum ferritin <30 µg/L is an appropriate criterion.

Treatment need

Iron supplementation is recommended in all IBD patients when IDA is present.

I.v. iron 1st line

I.v. iron should be considered as first line treatment in patients with

- clinically active IBD
- previous intolerance to oral iron
- a Hb <10 g/dL
- a need for an ESA

I.v. iron is safe, effective and well-tolerated both in the correction of IDA and maintenance of iron stores in patients with IBD.

Determination of patient's total iron dose need

Hb (g/dL)	Body weight <70kg	Body weight ≥70kg
10–12 (women) 10–13 (men)	1000 mg	1500 mg
7–10	1500 mg	2000 mg

Oral iron

Oral iron is effective in patients with IBD and may be used in patients

- with mild anaemia*
- whose disease is clinically inactive
- who have not been previously intolerant to oral iron

Treatment goals

The goal of iron supplementation is to normalise haemoglobin levels and iron stores.

An increase in haemoglobin of at least 2 g/dL within 4 weeks of treatment is an acceptable speed of response.

Prevention of iron deficiency anaemia

IBD patients should be monitored for recurrent ID

- every 3 months for at least a year after correction
- between 6 and 12 months thereafter
- using a combination of Hb, ferritin, transferrin saturation, and CRP

After successful treatment of IDA with i.v. iron, retreatment with i.v. iron should be initiated as soon as:

- Serum ferritin drops below 100 µg/L or
- Hb <12 g/dL (woman) or <13 g/dL (men)
- Goal of preventive treatment is to maintain Hb and serum ferritin in the normal range

IBD-associated ID and anaemia recur frequently and fast, even after treatment with i.v. iron.

- Recurrence of iron deficiency is lower in patients with higher post-treatment ferritin levels
- Accordingly, it was suggested that i.v. iron replacement might want to target for ferritin levels of up to 400 µg/L
- The FERGI main study demonstrates that ferric carboxymaltose can prevent recurrence of anaemia in IBD patients.

* Hb 11.0–11.9 g/dL in non-pregnant women, 11.0–12.9 g/dL in men

IDA = iron deficiency anaemia

ESA = erythropoiesis-stimulating agent

RLS = restless-leg syndrome

CRP = C-reactive protein

IBD = inflammatory bowel diseases

Reference:

1. Dignass Axel *et al.* European Consensus on the diagnosis and management of iron deficiency and anaemia in inflammatory bowel diseases. *Journal of Crohn's and Colitis*, 2015, 1-12, doi:10.1093/ecco-jcc/jju009