RETICULOCYTE HAEMOGLOBIN CONTENT CLINICAL USE

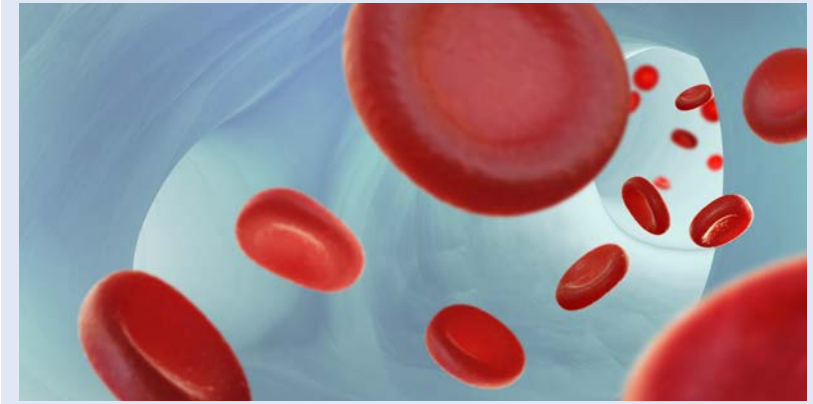
Know more.
Decide with confidence.
Act faster.

sysmex | Lighting the way with diagnostics

Information on iron deficiency early on

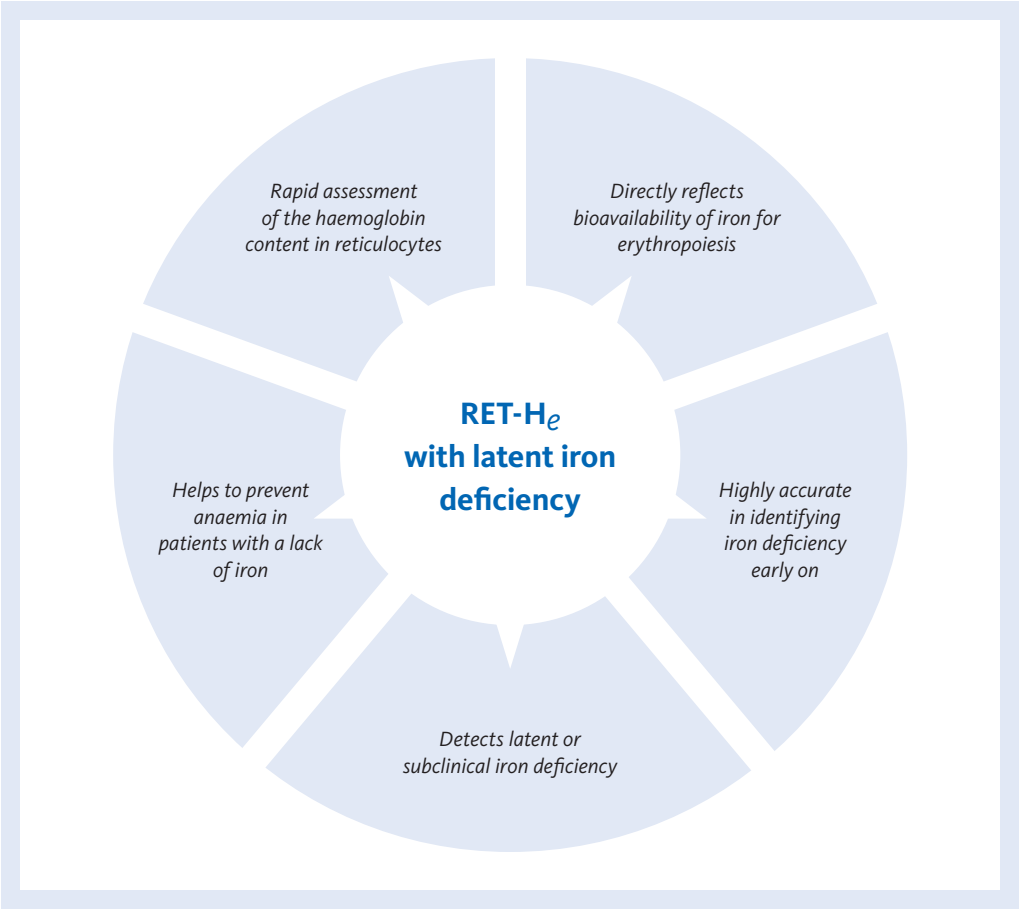
Latent iron deficiency, or iron-deficient erythropoiesis, is a medical condition with evident iron deficiency but without anaemia. It is important to assess this condition early on because it will shortly after progress to iron-deficiency anaemia if affected individuals are not treated with iron supplementation. A sensitive and easily accessible blood test marker rapidly detecting latent iron deficiency would therefore be beneficial. With the reticulocyte haemoglobin equivalent (RET-H_e), there is a routine blood count parameter available that fulfils these criteria.

A pregnant woman expecting twins presented to her physician for a scheduled evaluation. The routine full blood count showed HGB, MCH and MCV values all within normal limits. In addition, the physician had ordered reticulocyte panel results. When evaluating them, RET-H_e was extremely low at 20.6 pg suggesting evidence of iron-deficient erythropoiesis. A low ferritin of 6.8 ng/mL subsequently confirmed that the patient had absolute iron deficiency. Interestingly, the blood smear of this patient showed an overall normal morphology with only very few microcytic and hypochromic cells but no clear indication of iron deficiency. In this case, the basic blood count and morphologic analysis alone would not have been helpful in detecting the iron deficiency. Without the initial alert from the RET-H_e parameter, this woman would not have been proactively treated for iron deficiency. The lack of iron would have impacted not only her well-being but could have led to potentially serious consequences for the twins' health.



What is the reticulocyte haemoglobin equivalent, or RET-H_e?

- RET-H_e is a haematology parameter which reflects the haemoglobin content of reticulocytes – immature red blood cells
- RET-H_e provides an early, direct assessment of the available iron that was utilised in the red blood cell production over the previous 2 – 4 days
- RET-H_e reference range: 29.7 – 35.4 pg
- RET-H_e has been reported to have high accuracy, sensitivity and specificity for identifying iron deficiency
- The test methodology is based on fluorescence flow cytometry
- RET-H_e is readily available from a routine laboratory analysis of an EDTA blood sample



With RET-H$_e$, an inexpensive parameter for the diagnosis and monitoring of latent iron deficiency is available.

Benefits of RET-H$_e$ with latent iron deficiency

- Assesses the content of haemoglobin in reticulocytes
- Reflects directly the bioavailability of iron for erythropoiesis
- Detects latent or subclinical iron deficiency – the lack of iron before the onset of anaemia

Benefit from more background information in our freely accessible white papers:
www.sysmex-europe.com/whitepapers

Accessing our literature lists will give you an overview of peer-reviewed articles on this topic:
www.sysmex-europe.com/publications

ZE004080.EN.N.05/20

Authorised representative (EC REP): Sysmex Europe GmbH
Bornbarch 1, 22848 Norderstedt, Germany · Phone +49 40 52726-0 · Fax +49 40 52726-100 · info@sysmex-europe.com · **www.sysmex-europe.com**

Manufacturer: Sysmex Corporation
1-5-1 Wakinohama-Kaigandori, Chuo-ku, Kobe 651-0073, Japan · Phone +81 78 265-0500 · Fax +81 78 265-0524 · **www.sysmex.co.jp**

You will find your local Sysmex representative's address under www.sysmex-europe.com/contacts