

Description

Pregnancy Anaemia: Improving Treatment Success with Oral Iron

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Effects of anaemia in pregnancy

The physiological adaptation of pregnancy brings complex haematological changes. To meet feto-placental requirements, blood plasma volume increases by 30 to 50%.[1] This results in haemodilution, as red blood cell mass rises by 15 to 18%. However, those who take regular iron supplements, red blood cell production increases to 25 to 33%.[1] The continuum of iron insufficiency ranges from iron depletion to iron deficiency anaemia (IDA).2 Anaemia in pregnancy is defined as a haemoglobin less than 110g/l in the first trimester, and less than 105g/l in the second and third trimester.[2]

Iron deficiency anaemia impact and consequences

The cause of IDA in pregnancy is multifactorial, attributed to lack of supplementation, mal-absorption and diet deficiency.[3]

Those symptomatic of anaemia experience fatigue, dizziness, shortness of breath, headaches and tachycardia.[4] Moreover, IDA can increase the risk of postpartum haemorrhage, neonatal mortality, pre-term birth and low birth weight.[5]

Iron supplements and absorption

IDA is a global health issue, prevalent in 37% of pregnant women worldwide, primarily due to poor nutrition, deficiencies in Vitamin A, B12, folate and riboflavin.[4] In low and middle- income countries, the occurrence of IDA reaches 50%. Due to the presence of thalassemia and haemoglobin variants combined with poor nutrition and disease,[4] it is predicted that 1,000mg of iron on average is lost during pregnancy and lactation.[5] Fetal iron requirements peak within the third trimester in preparation for rapid growth and development post birth, yet IDA is associated with lower levels of ferritin in umbilical cord bloods at birth.[5] Therefore, it is vital midwives discuss the necessity of maintaining a healthy dietary iron intake. It is also paramount that populations at risk of developing IDA are identified through appropriate antenatal screening. Informed discussion should include complementing with folic acid and vitamin C to aid absorption, whilst limiting tea and coffee as these inhibit iron absorption.[2]

The Royal College of Obstetricians and Gynaecologists stipulate oral supplements as the first line of treatment for IDA.[2]

A lack of uptake in supplementation can lead to IDA, defined by low haemoglobin and low iron stores, below 30gl.[3] However, iron metabolism is dependent on the functionality of the digestive system, with only 10 to 15% of iron being absorbed.[5]

Furthermore, many report distressing symptoms such as nausea and constipation, resulting in cessation of treatment in an estimated 50% of those on oral supplementation.[6]

Intravenous (IV) iron is indicated when oral iron is not tolerated or absorbed. However it is invasive and expensive and requires additional clinical competency.[2]

Early intervention through preventative measures could be instrumental in improving treatment success. IDA is progressive but can be prevented. And so early intervention with lower dose iron would reduce lapsed usage, encouraging maintenance of iron levels throughout pregnancy and possibly avoiding progression to IDA and the need for unpleasant high dose oral iron or costly IV iron.

Therefore, communication is key in discussing iron intake alongside preventive measures in the form of early intervention with low dose iron. **TPM**

Head over to All4Maternity HUB to complete the brand new Essential course (available to anyone) The Importance of Iron Supplementation Throughout Pregnancy and Beyond click here: ESSENTIAL COURSE ALL4 MATERNITY HUB

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