Food and nutrition in maternal and neonatal health

Iron deficiency anaemia is still the largest nutritional deficiency disorder in the world, and the only one that remains prevalent in the western world. However, treatments haven't really moved past supplements of soluble iron salts, which cause a host of side effects including diarrhoea, constipation and gastro-intestinal inflammation.

Dr Dora Pereira, a senior researcher at the Wellcome Trust – Cambridge Centre for Global Health Research (Department of Pathology) is leading a large field trial in anaemic young children in rural Gambia to test the efficacy and safety of iron hydroxide adipate tartrate (IHAT) – a novel iron compound recently awarded the Royal Society of Chemistry Emerging Technology Award.

"We need to go to countries where the clinical need for alternative iron supplements is more obvious. Because of the higher background levels of infection in Africa, the side effects of soluble iron supplements are more common and more severe."

Existing evidence strongly supports the contention that IHAT offers very important advantages over any other form of supplemental iron in use or under development. This trial will provide the first clinical evidence that this is indeed the case. It is anticipated that this trial will provide a safer means of combatting pervasive iron deficiency in low-income settings. If IHAT is successful in this initial trial, there could be further investment so that IHAT can be implemented as a novel iron source for use in micronutrient intervention strategies aimed at children and women living in resource-poor countries and, hence, reduce the global burden of iron deficiency anaemia.

Dora's ambition is that the novel iron compound (IHAT) will significantly contribute to the goal of safely eliminating iron deficiency and iron deficiency anaemia in women and children living in resource-poor countries.

The IHAT trial is supported by a grant awarded by the Bill & Melinda Gates Foundation, under their Grand Challenge New Interventions for Global Health Pilot Awards Scheme. The award is worth $1.72m for a period of 24 months. The trial will be conducted in children living in the Upper River Division of The Gambia and will start enrolling in Autumn 2016.