



## Evaluation of Iron Deficiency Anemia in Children: An in Vitro Study

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**ABSTRACT**

Since its launch at the World Health Assembly (WHA) in 1988, the Global Polio Eradication Initiative (GPEI) has reduced the global incidence of polio by more than 99% and the number of countries with endemic polio from 125 to 3. More than 10 million people are walking today who otherwise would have been paralysed. The year 2012 ended with the fewest polio cases in the fewest countries ever; now is the best opportunity to finally put an end to this terrible, yet preventable, disease. At the beginning of 2013, polio – a highly infectious viral disease that causes swift and irreversible paralysis – was a distant memory in most of the world. There were still a few hundred cases of WPV-related paralysis each year (416 cases in 2013 and 359 in 2014). The number of wild poliovirus type 1 cases reported in the last 6 months is 25 (Pakistan- 23, Afghanistan- 2).(2)

**KEYWORDS**

**Introduction:** Anemia or anaemia is usually defined as a decrease in the amount of red blood cells (RBCs) or the amount of hemoglobin in the blood. It can also be defined as a lowered ability of the blood to carry oxygen. There are three main types of anemia, that due to blood loss, that due to decreased red blood cell production and that due to increased red blood cell breakdown.

**Material & Methods:** The material for this study was obtained from children aged 6 months to 12 years. These were the children who either attended outpatient department or were those who were admitted to pediatrics ward of our hospital. Hemoglobin percentage was estimated in all cases diagnosed clinically as anaemic. Those, whose hemoglobin level was below 10gm percent, were taken to be anemic for the purpose of the study.

**Results:** The incidence of anemia was high in children below 3 years of age. The maximum incidence was between 1-3 years. In older children anemia was less frequently seen. The mean hemoglobin values were higher in younger children as compared to older children, the difference however, was not very significant (0.4gm%).

**Conclusion:** Primary prevention of Iron deficiency Anemia is recommended; the role of secondary prevention through screening programs remains inconclusive but recommended by some professional organizations. Iron deficiency Anemia in children remains a public health problem and certain populations of children are at particularly high risk. Iron deficiency Anemia is associated with poor developmental outcomes in children; the impact of iron deficiency is less well understood. Laboratory investigations include hemoglobin and iron tests, such as serum ferritin. Treatment of children identified with IDA includes both dietary counseling and oral iron supplementation.