

# **Study on Haemo-biochemical Indicators of Iron Status among Pregnant Women in Pyin Oo Lwin Township**

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## **Abstract**

Iron is an essential micronutrient during pregnancy. To determine the haemo-biochemical indicators of iron status among women in the three trimesters of pregnancy, a hospital and laboratory-based cross-sectional descriptive study was done at 300-bedded Civil Hospital (Pyin Oo Lwin) and Pathology Research Division, Department of Medical Research (Upper Myanmar) during the period from August through October in 2012. A total sample size of 100 pregnant women from ante-natal clinic of study hospital was selected by systematic sampling procedure and divided into three groups according to three trimesters of pregnancy. All the attendees were investigated for complete blood picture and biochemical indicator for iron status such as serum ferritin, iron and total iron binding capacity. The mean haemoglobin levels of pregnant women during first trimester was ( $10.55 \pm 0.35$  g/dl) and for the study subjects who were second and third trimester were ( $10.35 \pm 0.15$  g/dl) and ( $11.08 \pm 0.13$  g/dl) respectively. Moreover, both the mean haemoglobin level and haematocrit values of pregnant women during second trimester were significantly lower than those of third trimester group ( $P$  value  $< 0.05$ ). Furthermore, significant positive correlation was observed for serum iron level against haemoglobin level (Pearson correlation = 0.268) ( $P$  value = 0.007). However, both the red cell indices and biochemical markers were not significantly different among the participants. In conclusion, this study depicted about the iron status of pregnant women as the baseline data for the implementation of further activities to reduce the incidence of iron deficiency anaemia.