Indian J Pediatr

. 2015 Jun;82(6):511-4.

 doi: 10.1007/s12098-014-1600-7. Epub 2014 Oct 24.

**Assessment of iron, folate and vitamin B12 status in severe acute malnutrition**

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* PMID: 25338494

* DOI: [10.1007/s12098-014-1600-7](https://doi.org/10.1007/s12098-014-1600-7)

**Abstract**

**Objectives:**To assess iron, folate and vitamin B12 status in hospitalized children aged between 6 mo to 5 y with severe acute malnutrition and its correlation with their clinico-epidemiological profile.

**Methods:**The study was conducted on 50 children with severe acute malnutrition. Anthropometric measurements were taken to determine their nutritional status. The demographic profile and relevant information of individual patient were collected by using structured proforma and an informed consent was taken for enrolling the children into the study. Serum ferritin, folate and vitamin B12 was estimated using electrochemiluminiscence (ECL) method.

**Results:**Seventy eight percent patients had weight/height (WT/HT) Z score < -3 standard deviation (3SD), 72 % with mid upper arm circumference (MUAC) <11.5 cm and 22 % of them had edematous malnutrition. Anemia was prevalent in 47(94 %) and there was significant correlation between WT/HT < -3SD and vitamin B 12 deficiency (p = 0.015). Significantly higher number of these patients had vitamin B12 deficiency as compared to folate and iron deficiency (p = 0.0006 each).

**Conclusions:**Vitamin B12 deficiency was more common than iron and folate deficiencies in these patients with severe acute malnutrition.