Interpretation of serum and red cell folate results. A comparison of microbiological and radioisotopic methods.

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OBJECTIVE AND METHODS: Serum folate and red blood cell folate levels were measured in 167 patients using a microbiological method (Lactobacillus casei) and a commercial 125I radioassay kit. The results of the two methods were compared and related to the clinical findings to see which method more truly reflected the physiological folate status of the patient.

RESULTS: There was a good linear correlation between the methods for both serum folate and red cell folate over the whole range encountered and the mean results obtained with each method were nearly identical. Both methods seemed to perform equally well in distinguishing low serum folate levels, but when the red cell folate results were compared to the clinical and other laboratory findings, the radioassay more closely related to the folate status of the patient.

CONCLUSION: The study again emphasized the high number of low serum folate levels found in hospital patients and the importance of measuring the red cell folate.

PMID: 107505