

# Abstract

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## The validity of biochemical assessment of thiamine, riboflavin and folacin nutriture.

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**OBJECTIVE AND MEHTODS:** Nutriture of thiamine, riboflavin and folacin was assessed by two tests: thiamine (109 subjects) by the TPP effect of erythrocyte transketolase activity and urinary excretion of thiamine (mug/g creatinine); riboflavin (81 subjects) by the activation coefficient of erythrocyte glutathione reductase and excretion of riboflavin in urine (mug/g creatinine); and folacin (91 subjects) by estimation of folacin in red blood cells and in serum (ng/ml).

**RESULTS:** The following correlation coefficients (r) were obtained: transketolase activity vs thiamine excretion: -0.33; glutathione reductase vs riboflavin excretion: -33; and red blood cell folacin vs serum folacin: 0.77. When "deficient" and "low" values were defined as "not acceptable" and compared with "acceptable" values, sensitivity of thiamine excretion was 54%, of riboflavin excretion 33% and of serum folacin level 90%. The respective value of specificity were 75%, 83% and 37%.

**CONCLUSION:** Sensitivity of thiamine excretion and of serum folacin level, respectively, increased when stricter criteria of insufficiency were applied and assessment of "deficiency" of these vitamins rather than of "non-acceptability" was attempted.

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