

To the editor:

Oral vitamin B₁₂ therapy: a cautionary note

Although absorption of dietary vitamin B₁₂ requires gastric intrinsic factor and an intact terminal ileum, pharmacologic doses of the vitamin can be absorbed by passive diffusion throughout the small intestine.^{1(pp96-97)} Indeed, an oral dose of 2000 μg per day of cyanocobalamin was found to be effective treatment for clinically significant vitamin B₁₂ deficiency even in subjects with classic pernicious anemia.² Ease of administration and low cost make oral vitamin B₁₂ a more attractive option than traditional intramuscular therapy. However, over-the-counter vitamin B₁₂ preparations are not subject to regulation and standardization.

When one subject was noted to be using vitamin B₁₂ tablets labeled as a “timed release” preparation, pharmacies in the New Haven, CT, area were surveyed. In the 9 pharmacies visited, 10 of 12 brands of tablets containing 1000 μg or 2000 μg of vitamin B₁₂ were found to be “timed release” preparations. Dissolution times were indicated on the labels of 4 of these preparations and ranged from 3 hours to 6 hours. Only “timed release” preparations were available in 5 of 6 major chain discount pharmacies visited.

The most recent study of therapy with oral vitamin B₁₂ used two 1000-μg tablets of the Nature’s Bounty brand (Bohemia, NY) which is not labeled as a “timed release” preparation.²

Thus, the effectiveness of “timed release” tablets has not been established. Since prompt treatment of vitamin B₁₂-deficient subjects is required to prevent progressive, irreversible neurologic and cognitive impairment,^{1(pp287-290),3} caution is warranted in the use of oral vitamin B₁₂ therapy particularly with “timed release” tablets, and particularly in the setting of pernicious anemia or disorders of the terminal ileum.

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