



Memorandum

Date: October 21, 2016

To: Calgary Zone Emergency Department Physicians, Nurse Managers and Nurse Educators

From: Dr. Hossein Sadrzadeh, Section Chief Clinical Biochemistry
Dr. Isolde Long, Clinical Biochemist Foothills Medical Center

Re: **Interference from Biotin with Laboratory Test Results**

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Messages:

- High dose Biotin supplement can interfere with many of the laboratory tests offered by CLS, including β hCG and high sensitivity Cardiac Troponin T. This can result in falsely low results for these tests.

Importance/Impact:

- Due to the large number of laboratory tests affected by this supplement, biotin use should be discontinued for a period of 48 hours prior to any laboratory testing, including pregnancy testing.

Background:

- Biotin (alternate names: Vitamin H, Vitamin B7, or coenzyme R) supplementation has become more prevalent in the last few years. Historically, the small doses of biotin in multivitamins were insufficient to interfere with laboratory tests, however new formulations of high dose biotin of >1 mg (1000 microgram) may cause several laboratory tests to be either falsely high or falsely low.
- The new higher dose formulations are available over the counter at pharmacies and marketed for improvement of hair/skin/nail quality. Mega dose formulations of 100 – 300 mg/day are currently in clinical trials for Multiple Sclerosis patients.

Action Required:

- Request that all patients discontinue biotin supplementation for 48 hours prior to specimen collection for laboratory tests. If Biotin interference is suspected based on clinical history and testing cannot be delayed, please contact the laboratory.

Inquiries and feedback may be directed to:

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