SCREENING

No need to fast before lipid level tests

Measuring serum lipid levels in the nonfasted state is as good, if not better, than obtaining measurements in the fasted state, according to findings of a new study.

Currently measurement of blood lipid levels is recommended only after a >8 h fast. However, this requirement is inconvenient for patients and could lead to reduced adherence to testing schedules. Several studies have suggested that fasting and nonfasting lipid levels are equally indicative of coronary-heart-disease and stroke risks, and that nonfasting lipid levels can be even better predictors of cardiac events than fasting lipid levels.

The researchers examined test results from 209,180 individuals who presented at the clinic over a 6-month period for blood lipid level testing. “I was getting numerous patient complaints about patients showing up in the clinic and being turned away because they were not fasting,” says senior investigator Christopher Naugler, Chemistry Department Head of Calgary Laboratory Services in Alberta, Canada. “We do ~36,000 cholesterol tests a month and are the only lab to do such tests for a

city of ~1.4 million people, so we quickly accumulated cross-sectional data for a community-based population.”

“We found that HDL cholesterol and total cholesterol levels varied minimally with length of fasting time (~2%),” says Naugler. “Triglyceride and LDL cholesterol levels varied more with length of fasting time (~10% and ~20%, respectively), but HDL and total cholesterol levels are the values used in cardiovascular disease risk calculation algorithms.”

This evidence suggests that measuring lipid levels in the nonfasting state is sufficient for cardiovascular disease screening in most individuals. The investigators plan to follow-up this study by measuring lipid levels after different fasting times in single individuals.

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Original article Sidhu, D. & Naugler, C. Fasting time and lipid levels in a community-based population: a cross-sectional study. *Arch. Intern. Med.* doi:10.1001/archinternmed.2012.3708