Revamped Lipids Clinic Looks to Trim the (Blood) Fat

Hyperlipidemia, a health problem with crushing complications, can be quite simple to combat.

The medical name for excessively high levels of cholesterol in the blood, hyperlipidemia is a primary contributor to cardiovascular disease, the nation’s number-one killer. According to the Centers for Disease Control and Prevention, some 71 million Americans have elevated levels of low-density lipoproteins (LDLs, or “bad” cholesterol), a population that helped to drive $37 billion in sales of cholesterol-lowering medications in 2010.

Yet many of the ways to lower cholesterol levels are simple: eat fewer fatty foods, maintain a balanced diet, and exercise regularly.

“The clinic is part of the larger whole of the Cardiac & Vascular Center” and an important part of the preventive piece of cardiac care, said Marc-Andre Cornier, MD, a Lipid Disorders Clinic provider.

“Our ultimate goal is to decrease the risk of cardiovascular disease, myocardial infarction and stroke,” he said.

Yet Cornier and his physician colleagues – Robert Eckel, MD, who directs the clinic, and Marybeth Allian-Sauer, MD – are endocrinologists by training, not cardiologists. Shannon Christen, who also plays a key role, is a dietitian and diabetes educator.

Multiple risks. The arrangement illustrates the interconnectedness of disease. Type 2 diabetes is a secondary risk factor for hyperlipidemia, as are hypothyroidism, obesity, and chronic renal failure, all of which have links to endocrine abnormalities. Very high levels of circulating triglycerides are associated with the development of acute and sometimes chronic pancreatitis, Cornier said.

Recognizing the link between cardiology and endocrinology underlies what CVC Executive Director Lorna Prutzman, RN, MSN, calls the “rebranding” of the Lipid Disorders Clinic under the CVC banner.

“We’re trying to embed cholesterol management in the fabric of the cardiology program,” she said, “and make it a viable part of our services to patients with a very special set of needs.”

Toughest cases. The clinic’s physicians don’t spend their time simply churning out scripts for cholesterol-lowering medications, however. The prime targets, Cornier said, are patients who have struggled to manage dangerously high levels of cholesterol even with medications such as statins and those with relatively rare genetic disorders.

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So if relatively cheap prescription medications and straightforward lifestyle changes are reliable fixes for high cholesterol, why does University of Colorado Hospital need a Lipid Disorders Clinic?

Part of the answer lies in the CDC’s estimate that only one American in three with high cholesterol controls it.
Some patients, Cornier said, are intolerant of statins, a widely prescribed treatment that helps clear cholesterol that builds up in the arteries. These patients may suffer side effects such as muscle aches and in very rare cases myopathies, or muscle injury. In such cases, the clinic might change once-a-day dosages to once-a-week dosing or prescribe a “cocktail” of other medications, he said.

The clinic also handles cases of familial hypercholesterolemia, a rare genetic disorder that prevents the body from removing LDL cholesterol from the blood. It causes fatty deposits to build up in different areas on the body and vastly increases the risk of heart attack. Diet, exercise, and medications help patients manage the condition, but in severe cases, patients may need LDL apheresis, a process that removes blood plasma, filters out the cholesterol, and returns the cleansed plasma to the body.

Patients who qualify for apheresis must repeat the treatment at regular intervals in infusion bays in the Cancer Center. The hospital is the only medical facility in the state and region that performs the procedure; it now has 19 active patients, Cornier said.

**Looking up and out.** Currently, Cornier, Eckel, and Allian-Sauer see patients twice a week. A visit includes the standard history and physical and review of medications, as well as lab work to identify proteins that are biomarkers for high LDL counts. Some patients may receive CT scans, Cornier added, to measure the amount of plaque that has built up inside their arteries.

The upshot of the visit is a plan of action for the patient, developed in consultation with a nurse and dietitian.

Cornier said the clinic is looking to expand its reach. For example, it could recruit patients from University of Colorado Health’s North and South campuses for initial visits, then return them to their community providers for care management. Grand rounds and outreach to internal medicine and family medicine providers in the community are additional possibilities, he added.

“There clearly is room for growth,” he said.