**Dyslipidemia Fact Sheet**

**Overview**
Dyslipidemia occurs when there are abnormal amounts of lipids (e.g., cholesterol and/or fat) in the blood. This condition is a major risk factor for developing cardiovascular disease (CVD), which is the leading cause of death among men and women worldwide.1,2

The World Health Organization estimates that dyslipidemia is associated with more than half of all cases of ischemic heart disease (damage to the heart muscle caused by blockages in the blood supply to the heart) globally and more than four million deaths per year.1,3 High cholesterol is the most common form of dyslipidemia5, and according to the Centers for Disease Control and Prevention, more than 71 million American adults have high LDL-C, or “bad” cholesterol.4

Cholesterol is a fat-like substance that is found in the cells of the body and is also found in some foods. The body needs some cholesterol to work properly and uses cholesterol to make hormones, vitamin D and substances that help with food digestion. However, if too much cholesterol is present in the blood stream, it builds up in the walls of the arteries, a condition known as atherosclerosis, and increases the risk of heart disease and stroke.6

**Causes/Risk Factors**
Dyslipidemia has primary causes, which are usually genetic, and secondary causes, which are due to lifestyle or underlying conditions like diabetes or hypothyroidism. The majority of dyslipidemia cases, especially in developed countries, are attributed to a sedentary lifestyle combined with excessive dietary intake of saturated fat, cholesterol and trans fats.1

In addition to diabetes and hypothyroidism, other secondary causes include alcohol overuse, liver disease, chronic kidney disease and some drugs, such as thiazides, beta-blockers, retinoids, highly active antiretroviral agents, estrogen and progestins.1

Among the most common genetic disorders that contribute to dyslipidemia is familial hypercholesterolemia (FH). Heterozygous FH (HeFH) results when the genes from one parent carry the hypercholesterolemia trait and occurs in approximately one in 200 to 500 individuals. The less common homozygous FH (HoFH) results when the genes from both parents carry the hypercholesterolemia trait and occurs in approximately one in a million individuals.8,9

Individuals with HeFH or HoFH are characterized by significantly elevated LDL-C that may be diagnosed during childhood and may require aggressive treatment with lipid lowering therapy.8,10

**FAST FACTS**
- Dyslipidemia can be caused by genetics and/or lifestyle choices.1
- The most common form of dyslipidemia is high cholesterol.3
- Dyslipidemia is typically asymptomatic.1
- Dyslipidemia is associated with more than 4 million deaths per year worldwide.3
- More than 71 million American adults have high LDL-C, or “bad” cholesterol.4
- There are approximately 300 million cases of dyslipidemia in the U.S., Japan and Western Europe.5
- Dyslipidemia is a major risk factor for developing CVD.1
Diagnosis

Dyslipidemia is diagnosed through blood tests, which measure lipids, including total cholesterol, triglycerides, high-density lipoprotein cholesterol (HDL-C), known as "good" cholesterol, and LDL-C. Total cholesterol and HDL-C can be measured in the non-fasting state, but most patients should have all lipids measured while fasting for maximum accuracy and consistency.1,11

Signs and Symptoms

Dyslipidemia, including high cholesterol, typically has no symptoms.1 Signs of FH, one of the most common genetic disorders that contribute to dyslipidemia, may include:9

- Fatty skin deposits known as xanthomas over the elbows, knees, tendons and corneal arcus around the cornea of the eye
- Cholesterol deposits in the eyelids (xanthelasmas)
- Chest pain (angina) or other signs of coronary artery disease; may be present at young age

Treatment

The most commonly treated form of dyslipidemia is high cholesterol. Treatment of high cholesterol is focused primarily on lowering a patient’s LDL-C, with secondary goals of addressing high triglycerides and low HDL-C, in order to decrease the risk for heart disease. Health care providers often recommend patients reduce their intake of saturated fat and cholesterol and increase physical activity.9,10,12

In addition statins, HMG-CoA reductase inhibitors, are the class of drugs most widely used to control elevated LDL-C levels.10,12 While statins are effective in reducing LDL-C levels and the risk of heart disease, many patients continue to have cardiovascular events.13 Additionally, it is estimated that five to 15 percent of patients are statin intolerant, primarily due to muscle-related side effects.14 Other therapy options include bile acid sequestrants, nicotinic acid fibrates and cholesterol absorption inhibitors.10,12

Media Inquiries

Wendy Woods Williams, +1 (805) 341-5797, wwoodswi@amgen.com

References