

## STANDARD NURSE PROTOCOL FOR ABNORMAL LIPID TESTS WHILE USING HORMONAL CONTRACEPTIVES

<b>DEFINITION</b>	<p>Increased blood cholesterol levels are causally related to an increased risk of coronary heart disease. Coronary risk rises progressively with cholesterol levels, particularly when total cholesterol levels rise above 200 mg/dL. Borderline total cholesterol levels are 200-239 mg/dL and high levels are 240 mg/dL or greater. Desirable levels of low-density lipoprotein cholesterol (LDL) are less than <b>100</b> mg/dL. Desirable levels of high-density lipoprotein cholesterol (HDL) are greater than <b>60</b> mg/dL and are as significant as total cholesterol levels.</p> <p>Ethinyl estradiol increases HDL cholesterol and reduces LDL cholesterol. Progestins diminish the magnitude of the favorable impact; the more androgenic formulations have a more pronounced negative effect. Although triglyceride levels increase somewhat with estrogen-containing contraception, there is little concern because those remnants are not atherogenic. However, estrogen-containing contraceptives should be avoided if their use will be anticipated to raise triglycerides levels to more than 350 mg/dL and place the woman at risk for pancreatitis.</p>
<b>SUBJECTIVE</b>	<p>Patient may have:</p> <ol style="list-style-type: none"><li>1. Family history of cardiovascular disease prior to age 50.</li><li>2. History of hypertension.</li><li>3. History of smoking cigarettes.</li><li>4. Diabetes or gestational diabetes.</li><li>5. BMI of 27 or greater.</li></ol>
<b>OBJECTIVE</b>	<ol style="list-style-type: none"><li>1. <b>Fasting</b> total cholesterol 200 mg/dL or greater. <b>AND/OR</b></li><li>2. <b>Fasting</b> high-density lipoprotein cholesterol (HDL) less than <b>50</b> mg/dL. <b>AND/OR</b></li><li>3. <b>Fasting</b> low-density lipoprotein cholesterol (LDL) greater than 130 mg/dL. <b>AND/OR</b></li><li>4. <b>Fasting</b> triglycerides greater than 150mg/dL.</li></ol>
<b>ASSESSMENT</b>	<p>Elevated Cholesterol and/or Triglycerides (hypertriglyceridemia).</p>

## PLAN

### DIAGNOSTIC STUDIES

Fasting total cholesterol and lipid profile (to include HDL, LDL) and triglycerides. Assessment cannot be made on screening total cholesterol only.

### THERAPEUTIC

#### PHARMACOLOGIC

Change to **nonhormonal contraceptive method, such as IUD.**

### PATIENT EDUCATION/COUNSELING

1. Discuss risk factors associated with smoking, hypertension, diabetes and obesity.
2. If smoker or tobacco user, refer to local cessation program and/or Georgia Tobacco Quit Line, 1-877-270-STOP (7867).
3. Discuss lifestyle changes such as diet modifications to lower blood cholesterol, diet low in fat, high in fiber (plenty of whole grains, vegetables and fruits).
4. Advise patient to increase exercise and/or physical activity.
5. Lower dose OCs probably do not adversely affect lipid levels in most women.

### FOLLOW-UP

Recheck lipid profile in 3–6 months.

### CONSULTATION/REFERRAL

1. Refer to physician **immediately**, if total cholesterol is **200** mg/dL or greater, HDL less than **50** mg/dL, LDL greater than **130** mg/dL, and/or Triglycerides greater than **150** mg/dL. Must have physician approval to **restart hormonal contraceptives**.
2. Refer to nutritionist for dietary counseling as needed.

## REFERENCES

1. Robert Hatcher, et al., *Contraceptive Technology*, **19<sup>th</sup> ed.**, Ardent Media, Inc., New York, 2007.
2. Joellen Hawkins, et al., *Protocols for Nurse Practitioners in Gynecological Settings*, **9<sup>th</sup> ed.**, Springer Publishing Co., New York, **2007**.
3. *Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III)*, Executive Summary, NIH, Publication No. 01-3670, National Heart, Lung, and Blood Institute, HHS, Bethesda, MD, **2002. (Current)**
4. "Facts and Comparisons," *Facts and Comparisons 4.0 Online*, Wolters Kluwer Health, Inc., 2009, <<http://online.factsandcomparisons.com>>.
5. **C. L. Shufelt and C. N. Bairey Merz, "Contraceptive Hormone Use and Cardiovascular Disease," *Journal of American College of Cardiology*, 2009, 53:221-231.**
6. "Cholesterol Levels," American Heart Association, 2010, <<http://www.americanheart.org/presenter.jhtml?identifier=4500>>.