# PEDIATRIC LIPID REFERRAL GUIDELINE

## HIGH RISK

### SUGGESTED EMERGENT CONSULTATION

#### SYMPTOMS AND LABS

Assess risk (below)

If has risk factors, consider early screening between age 2-9

If family has known diagnosis of familial hypercholesterolemia or high LPa (Lipoprotein A)

#### SUGGESTED PREVISIT WORKUP

Levels defined as "High":

- Non-HDL-C: >145 mg/dL
- TC: >200 mg/dL
- LDL: > 160 mg/dL
- TG > 885**
- HDL: <40 mg/dL

Refer to endocrinology for treatment of high LDL unless patient also has obesity and wants treatment for both obesity and high LDL, then refer to MH Weight Management.

More likely familial hypercholesterolemia if LDL > 160 mg/dl

High TG and low HDL are common in obesity and reflect evolving insulin resistance

See below for when to refer to pediatric endocrinology

## MODERATE RISK

### SUGGESTED CONSULTATION OR CO-MANAGEMENT

#### SYMPTOMS AND LABS

Assess risk (below)

If has risk factors, consider early screening between age 2-9

#### SUGGESTED WORKUP

Levels defined as "Borderline":

- Non-HDL-C: 120-144 mg/dL
- TC: 170-199 mg/dL
- LDL: 110-129 mg/dL*
- TG up to 9 years old: 75-99 mg/dl
- TG older than age 9: up to 129 mg/dl**
- HDL: 40 mg/dL or above ("good" cholesterol)

*Note LDL <160 is less likely to be familial hypercholesterolemia. Statin/ Referral should be considered with LDL 130-159 only if 2 or more high risk conditions are present.

**Some clinicians advise TG levels up to 885 mg/dL do not need pediatric endocrinology referral as are less likely to be genetic and should respond to diet.

Most cases in this category are well served with dietician consult and repeat in 3-6 months.

## LOW RISK

### SUGGESTED ROUTINE CARE

#### SYMPTOMS AND LABS

Assess risk (below)

If low risk, screen twice:
Age 9-11
Age 17-21

Nonfasting lipid panel is acceptable for initial screening (recommend fasting with patients who have obesity)

#### SUGGESTED MANAGEMENT

Levels defined as "Acceptable" that need no further evaluation or management:

- Non-HDL-C: < 120 mg/dL
- TC: < 170 mg/dL
- LDL: < 110 mg/dL
- TG up to 9 years old: <75 mg/dL
- TG older than age 9: < 90 mg/dL

## CLINICAL PEARLS

- Refer to pediatric endocrinology if LDL is >160 or >130 with risk factors, or concerns for high LPa (>50 mg/dL or > 100 nmol/L).
- Other risk factors that may prompt earlier screening: Obesity, diabetes, hypothyroidism, renal or liver disease, known congenital or acquired heart disease, anorexia nervosa, medications (beta-blockers, steroids, anticonvulsants)
    - *High triglycerides up to 885 mg/dL with high BMI is usually reflective of evolving insulin resistance. Consider recheck fasting or after carbohydrate reduction or referral to Weight Management. Levels > 885 can be more genetically influenced and can consider referral to pediatric endocrinology.
- Use of statins is now common in carefully selected pediatric patients and well known to prevent future heart attack and stroke.
- Newer therapies including PCSK9 inhibitors are used in select pediatric patients who do not reach target LDL on oral therapy.

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