CT Children's CLASP Guideline Algorithm
Lipid Abnormalities: LDL Screening

UNIVERSAL SCREENING: once at ages 9-11 and 17-21

Initial Screening: Obtain Non-Fasting Lipid Panel

Abnormal Screening?
- **Age < 20 y/o:** non-HDL-C ≥145 or HDL-C <40
- **Age 20-21 y/o:** non-HDL-C ≥190 or HDL-C <40

NO → Routine care. Proceed with Universal Screening.

YES → **Obtain Fasting Lipid Panel (FLP) x2 to calculate average results** (repeat FLP 2 weeks to 3 months after initial FLP)

TARGETED SCREENING: (start at age 2 if any of the below are present)
- Positive family history[1]
- Parent with total cholesterol ≥240 or known dyslipidemia
- Patient has established ≥1 moderate or high level risk factors (RFs)[2,3]

[1]***POSITIVE FAMILY HISTORY***: Myocardial infarction; angina; stroke; coronary artery bypass graft/stent/angioplasty; sudden cardiac death in parent, grandparent, aunt, or uncle, male < 55 y, female < 65 y

***Lipid Measurement units expressed in mg/dL**
FLP: Fasting Lipid Panel

[2]**HIGH-LEVEL RISK FACTORS (RF):**
- Diabetes mellitus (Type 1 or Type 2)
- Hypertension requiring drug therapy
- Severe Obesity (BMI ≥ 97th percentile)
- End stage renal disease/post renal transplant
- Predialysis chronic kidney disease
- Current cigarette smoker
- Kawasaki disease with persistent coronary aneurysms
- Childhood cancer survivor (stem cell recipient, chest radiation, cardiotoxic chemotherapy)
- Solid organ transplant vasculopathy
- Aortic stenosis or coarctation

[3]**MODERATE-LEVEL RISK FACTORS (RF):**
- Obesity (BMI > 95th to < 97th percentile)
- Insulin resistance with comorbidities (e.g., SLD, PCOS)
- Hypertension not requiring drug therapy
- Chronic inflammatory disease (SLE, JIA, HIV, IBD)
- Kawasaki disease with regressed coronary aneurysms
- Cardiomyopathy
- Pulmonary hypertension
- Surgically repaired congenital heart disease involving coronary artery translocation (e.g., TGA repair)

Average LDL-C <110
- Routine care.
- If positive family history[1] is only risk factor, can return to universal screening

Average LDL-C 110-129
- Implement CHILD-1 Diet (see Appendix C)
- Repeat FLP in 12 months

Average LDL-C 130-189
- Refer to Nutrition for CHILD1→ CHILD2 LDL diet x6 months
- Repeat FLP in 6 months*

Average LDL-C ≥190 → REFER TO CONNECTICUT CHILDREN'S LIPID CENTER
Note: if provider prefers to initiate statin treatment, see Appendix D

***Repeat LDL-C <130**
- Continue CHILD-2 LDL
- Repeat FLP in 12 months

***Repeat LDL-C 130-159**
2 high-level RFs[2] or 1 high-level RF[2] plus ≥2 mod-level RFs[3]
- YES → REFER TO CONNECTICUT CHILDREN'S LIPID CENTER
  Note: if provider prefers to initiate statin treatment, see Appendix D
- NO → Continue to follow with Dietician and follow CHILD-2 LDL (See Appendix C)
  - Repeat FLP in 6 months**

***Repeat LDL-C 160-189**
Positive Family Hx[1] OR 1 high-level RF[2] or ≥ 2 mod-level RFs[3]
- NO → Continue to follow with Dietician and follow CHILD-2 LDL (See Appendix C)
  - Repeat FLP in 6 months**
- YES → REFER TO CONNECTICUT CHILDREN'S LIPID CENTER
  Note: if provider prefers to initiate statin treatment, see Appendix D

***Repeat LDL-C ≥190** → REFER TO CONNECTICUT CHILDREN'S LIPID CENTER

****Repeat FLP LDL-C < 130**
- Continue CHILD-2 LDL diet (see Appendix C)
- Follow FLP q 12 months

****Repeat FLP LDL-C 130-159**
- Continue CHILD-2 diet (see Appendix C)
- Follow FLP q 6 months

****Repeat FLP LDL-C ≥ 160** → REFER TO CONNECTICUT CHILDREN'S LIPID CENTER

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