Ideas for Closing Performance Gaps

Key Activity: Perform Cholesterol Screening and Follow-up

Rationale: "*Significant evidence exists that using family history of premature CVD or of cholesterol disorders as the primary factor in determining lipid screening for children misses approximately 30-60% of children with dyslipidemias, and accurate and reliable measures of family history are not available. (Grade B) In the absence of a clinical or historic marker, identification of children with lipid disorders that predispose them to accelerated atherosclerosis requires universal lipid assessment.*"
Reference: Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents. Summary report. *Pediatrics*. 2011;128(5). Accessed November 13, 2016

Potential Barriers	Suggested Ideas for Change
Gap: A nonfasting cholesterol screen is not completed for patients once between the ages of 9 and 11 years or once between the ages of 17 and 21 years.	

Practice only conducts cholesterol screening for patients with elevated BMI or a family history of heart disease or high cholesterol.	• Provide staff members with knowledge about the importance of preventing the development of cardiovascular risk factors and optimize cardiovascular health.
	  ○ See the American Heart Association's Children and Cholesterol page, available at: http://www.heart.org/HEARTORG/Conditions/Cholesterol/UnderstandYourRiskforHighCholesterol/Children-and-Cholesterol_UCM_305567_Article.jsp
	  ○ Provide clinical staff with training about the revised cholesterol testing guidelines.
	  ○ Review NIH Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents:
	  ▪ Chapter 9, *Lipids and Lipoproteins* recommendations; and
	  ▪ Table 9-5. Evidence-Based Recommendations for Lipid Assessment
	
	Note: Nonfasting is a quicker and more convenient test for children and adolescents in these age ranges, but ONLY if there are no risk factors. If risk factors exist, administer a fasting lipid profile. See an explanation on pages 5–7 of the Promoting Healthier Weight resource from the Vermont Department of Health.

Physicians are unfamiliar with appropriate laboratory tests for pediatric patients.	• Review with staff when to use which screening: fasting vs nonfasting
	  ○ See Chapter 9, Table 9-5. Evidence-Based Recommendations for Lipid Assessment from the NIH Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents.
	  ○ See the recommendations for when to use fasting/nonfasting screens at the end of this document.

Potential Barriers	Suggested Ideas for Change

Practice is not reimbursed appropriately for testing and follow-up services.	• Code correctly.
	  ○ Refer to the AAP Bright Futures and Preventive Medicine Coding Fact Sheet that contains a comprehensive list of codes for the related services:
	  ▪ See ICD-10-CM Code **Z13.220** Encounter for screening for lipoid disorders.
	  ○ Review the AAP Practice Management Online Web site for additional resources.
	  ○ Contact the AAP Private Payer Advocacy Advisory Committee.

Parents are reluctant to perform lab testing.	• Send the parents a letter prior to the visit to cue that the testing may need to occur. • Consider purchasing a finger-stick cholesterol machine (for nonfasting screen) to perform the screen before the family leaves. • For adolescents, consider getting other screening at the same time with the same blood draw (eg, HIV screen).
Gap: Follow-up plan not established for patients with a positive nonfasting cholesterol screen.	
Practice does not have an organized process for follow-up of positive nonfasting cholesterol screens with a fasting lipid profile.	• For computerized offices, add preset order to the EMR. ○ Add clear instructions to provide to families for fasting. See the recommendations for when to use fasting/nonfasting screens at the end of this document. • Access hospital-based clinics or large health care organizations with subspecialty services for testing and treating adult patients, which may provide an organized menu of services/processes that can be adapted for pediatric practice. • Refer the patient to a local resource (Public Health Department or health clinic) for screening and follow-up.

Staff and providers do not provide a personalized treatment plan for patients with a positive screen.	• Develop a handout with basic information about the implications of the test results, treatment goals, management, and monitoring.
	  ○ Note: Be sure that materials are appropriate for the age of the patient.
	  ○ Handout should include information on lifestyle changes, including physical activity, smoking cessation, and nutrition.

Physicians are unsure about when, and which tests, to use pharmacologic interventions for young adults.	• See the NIH Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents.

When to use fasting/nonfasting screen:

The guidelines sponsored by the National Heart, Lung and Blood Institute (NHLBI), part of the National Institutes of Health, and endorsed by the American Academy of Pediatrics (AAP) recommend that **all children be screened for high cholesterol at least once between the ages of 9 and 11 years, and again between ages 17 and 21 years.**

- A nonfasting cholesterol screen is completed for patients once between the ages of 9 and 11 years or once between the ages of 17 and 21 years.
- A follow-up plan is established for patients with a positive nonfasting cholesterol screen.

Age:	New Recommendation:
2–8 years	Obtain **fasting lipid profile only if** family history is positive (+), parent with dyslipidemia, any other RFs (+), or high-risk condition
9–11 years	Obtain **universal lipid screen** with nonfasting non-HDL = TC – HDL, or fasting lipid profile → manage per lipid algorithms as needed.
12–16 years	Obtain **fasting lipid profile if** family history newly (+), parent with dyslipidemia, any other RFs (+), or high-risk condition; manage per lipid algorithms as needed.
17–21 years	Measure **nonfasting non-HDL-C or fasting lipid profile** in all x 1 → review with patient; manage with lipid algorithms per ATP as needed. Measure BP → Review with patient. Evaluate and treat as per JNC guidelines.

Source: Table 15 from the NHLBI report: Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents

Children with special risk conditions

If there are other risk factors, prescribe a fasting lipid screen regardless of the child's age. This includes instances where you identify a risk factor that wasn't present in earlier visits.

See Tables 9-6 and 9-7 from the NHLBI Guidelines, which define risk factors.