Growth Surveillance and Linear Growth Failure

Potential Barriers and Suggested Ideas for Change

Key Activity: Measure and Plot Growth
Rationale: Accurate and regular monitoring of growth data can help clinicians recognize and effectively treat growth failure.

*Note: Throughout this course the term **pediatrician** refers to a pediatric patient's primary healthcare provider.*

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
Gap: Growth data (height, weight, BMI, OFC) are not measured and plotted at all pediatric health supervision visits or all endocrinologist visits.		
Clinicians and/or staff do not recognize the importance of accurately and consistently measuring and documenting patients' growth.	• Review the guidelines and recommendations that outline clinician responsibilities for accurate and reliable growth measurements for pediatric patients: ✓ AAP Bright Futures Recommendations for Preventive Pediatric Health Care ✓ Evidence-based clinical practice guideline on linear growth measurement of children National Guideline Clearinghouse (NCG) Rockville, MD; Agency for Healthcare Research and Quality (AHRQ)	• Discuss with staff the importance of reliable growth measurement for clinical decision-making and intervention: ✓ To detect growth abnormalities ✓ To detect abnormalities in nutritional status ✓ To detect diseases that affect growth ✓ To track the effects of medical or nutritional intervention
The practice does not have a systematic approach for measuring and documenting patients' growth.	• Establish clear office procedures for obtaining and plotting growth measurements. Consider the following: ✓ Meet with staff to gather information and ideas about establishing an office-wide procedure for measuring and documenting patient growth. ✓ Identify roles and responsibilities for measurement and plotting growth. ✓ Develop a visit flow for obtaining and recording growth measurements that considers the patient/family, physician, and staff members' time, office efficiency, equipment, and backup contingencies. ✓ Use AAP-recommended tools for documenting growth: – WHO Growth Charts for Children 0–2 Years of Age – CDC Growth Charts for Children 2 Years of Age and Above (available in English, French, and Spanish) ✓ Train staff and provide cross-training: – To take and record measurements accurately	• Consult with other practices about their office procedures for growth measurement, documentation, and family discussions; adapt them for your practice. • Stress with staff the importance of documentation as a necessary component of high-quality care. Help them recognize that actions that are not documented are considered not done. • Consider the online training course, Using the WHO Growth Charts to Assess Growth in the United States Among Children Ages Birth to 2 Years This online training course was developed by the CDC to train health care providers and others who measure and assess child growth on how to use the World Health

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	– To follow established visit flow ✓ Include checks and balances in office procedures to ensure that: – All growth measurements are documented. – The clinician reviews the growth chart at each visit. – The growth summary is shared with the patient and family. ✓ Identify a single, preferred location for all measurement equipment and materials. ✓ Document the schedule and procedure for calibrating and maintaining equipment. Use a calibration log for measurement equipment. ✓ Utilize a tool like the Growth Assessment Flow Diagram to make a plan to evaluate a child with short stature or linear growth failure. ✓ Periodically audit office procedures to assure they are effective and that staff members follow them consistently and correctly.	Organization (WHO) growth standards to assess growth among infants and children ages birth to 2 years.
Measurements taken or plotted may not be accurate.	• Ensure use of proper equipment: ✓ Utilize the following equipment: Wall-mounted stadiometer; supine infantometer; infant scale; child and adolescent scale; head circumference tape. ✓ Consult and share with staff articles and websites to identify proper equipment features: – Byrne MW, Lenz, ER. Reliability of transportable instruments for assessment of infant length. *Journal of Nursing Measurement.* 2002;*10*(2):111-121. – Principles of Growth Assessment. *Pediatrics in Review.* 2006 May;27(5):196-198. – National Health and Nutrition Examination Survey (NHANES) Anthropometry Procedures Manual – National Guideline Clearing House Measurement Instruments Evidence-based clinical practice guideline on linear growth measurement of children ✓ Calibrate equipment daily. • Educate/train staff to ensure accurate and consistent measurement and	• Budget for new equipment, as needed. • Consider implementing an internal quality control process wherein the staff measures and plots 10 patients on the appropriate growth charts. Then, the clinician remeasures the same 10 patients and compares results. The goal is to verify accuracy of measurements and to identify training needs. • Encourage staff to take online learning courses such as this EQIPP course and others. MCHB (Maternal and Child Health Bureau) modules: ✓ Developing & Rating Your Measurement Technique ✓ Accurately Weighing and Measuring Infants, Children and Adolescents: Equipment

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	plotting. ✓ Share resources such as the following: – Lipman TH, et al. A multicentre randomized controlled trial of an intervention to improve the accuracy of linear growth measurements. *Arch Dis Child.* 2004;89:342-346 – US Department of Health and Human Services (HRSA) Developing & Rating Your Measurement Technique – WHO Multicentre Growth Reference Study Group. Reliability of anthropometric measurements in the WHO Multicentre Growth Reference Study Group. *Acta Paediatrica, Suppl.* 2006;*450:*38-46. ✓ Ask patients to remove all outerwear (eg, coats, jackets, vests, and sweaters), shoes, and hair ornamentation prior to measurements. ✓ Use the same scale for obtaining measurements. ✓ To reduce error, obtain two to three measurements. If the first two are different, obtain a third. The median measurement can then be used for recording and plotting. ✓ Use appropriate growth charts: – WHO Growth Charts for Children 0–2 Years of Age – Your practice may currently be using CDC growth charts, or an electronic health record system that does not support WHO charts. It is advisable to discover the type of charts your EHR supports. When available, your practice should be plotting on WHO Growth Charts for children under 2 years of age. – CDC Growth Charts for Children 2 Years of Age and Above (available in English, French, and Spanish) ✓ Plot growth accurately. – Use the correct chart for age and gender. – Plot at the patient's exact age (year, month). – Record growth in kilograms and centimeters and round to the nearest 0.1 kg/0.1 cm for weight and height (if using standard	✓ Accurately Weighing and Measuring Infants, Children and Adolescents: Technique ✓ Using the CDC Growth Charts for Children with Special Health Care Needs ✓ Poor Growth in Young Children ✓ Head Circumference ✓ Adolescent Physical Development: Uses and Limitations of Growth Charts CDC modules: ✓ Using the WHO Growth Charts to Assess Growth in the United States Among Children Ages Birth to 2 Years ✓ Overview of the CDC Growth Charts ✓ Using the BMI-for-Age Growth Charts ✓ Overweight Children and Adolescents: Recommendations to Screen, Assess and Manage

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	U.S system round to nearest ounce or 1/8th inch). ✓ Establish office procedures that ensure the clinician's responsibility to verify the accuracy of measurements.	
Growth data is not obtained for patients with mobility limitations.	• Train staff on alternate measurement techniques for children with special health care needs. For length/height (See HRSA Measurement Considerations for Children with Special Healthcare Needs): ✓ Take supine measurements of body segments from the unaffected or least affected side of the body and add together. ✓ Substitute arm span measurement (See MCHB) and plot on height chart. ✓ Measure on recumbent board and plot on either CDC stature-for-age or length-for-age. For weight without a wheelchair scale: ✓ Identify resources where the patient can be weighed, such as the physical therapy office, and obtain measurement from them. ✓ Use fat caliper and measure around waist and hip as supplemental information. For weight with a wheelchair scale: ✓ Record empty wheelchair weight plus usual accessories. ✓ Remove variable weight at time of weigh-in. ✓ Weigh patient in the wheelchair. ✓ Subtract the wheelchair and accessories weight. • Schedule additional time during health supervision visits for measurement purposes. • Coordinate schedule so trained personnel are available for measurement and extra assistance.	• Ask the family where the patient was last measured to obtain existing data and to determine if the site can be an ongoing resource. • Consult with other practices about community resources available for this purpose. • Review appropriate references for additional suggestions, such as: Measurement of growth in children with developmental disabilities. *Developmental Medicine & Child Neurology.* 1996 September;38(9):855-860.
There is not enough time in the visit to take all measurements, or staff is rushed and forgets to document measurements taken.	• Revisit the scheduling system to ensure adequate time is allotted to appointments. • Re-evaluate the office procedures, including visit flow and roles and responsibilities, to be sure they are effective and have adequate checks and balances in place. Modify office procedures as needed.	• Consult with other practices and pediatric endocrinologists about how growth measurements are taken. Adapt ideas that work for other practices into your office procedures.

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	• Use the age-appropriate Bright Futures Visit Forms *(scroll down from the Web page and click on title to reveal forms)* for a place to record and as a way to remind staff to record measurement information.	
Patients/families are not keeping regularly scheduled health supervision appointments due to one or more of the following reasons: • They forget to make or keep the appointment. • They do not recognize or value the importance of well care visits. • They have limited access to care, including financial (lack of insurance coverage or inability to take time off from employment), transportation, other care-taking responsibilities, or conflicts with parents' work schedules and/or child's school/activity schedule.	• Set up a registry or other system that tracks patients who are not being seen regularly. Designate a staff member to reach out to families that are behind with appointments. • Schedule a health supervision visit when the patient comes in for a sick visit. • Implement a reminder and recall system using Electronic Medical Record (EMR) system, internal memo, or chart reminder. • Consider ways to improve access to care within the practice—for example, additional evening or Saturday appointments. • Educate patients/families about the importance of ongoing health supervision visits to monitor growth and well-being. Review the recommended assessments and timeframes that support favorable health outcomes. • Direct patients/families to seek social service support for transportation, visiting nurse, respite, or other needed services that are limiting access to care. • Consider alternative ways to connect families to needed services such as the following: ✓ Employ an outside service such as a Web-based company to provide appointment reminders. ✓ Use email, text messages, postcards or letters to remind families of needed services. ✓ Schedule walk-in clinic services once a week or once a month in which no appointment is needed. ✓ Consider a policy of no-prescription refills without an in-person visit for safety reasons.	• Educate patients and family about importance of health supervision visits. • Adhere to a policy of no prescription refills without adequate general health supervision, stressing patient safety. • Engage social workers or case managers in the attempt to improve adherence to regular health supervision. Refer patients/families with psychosocial issues for counseling.

Growth Surveillance and Linear Growth Failure

EQIPP
Helping You Improve Care for Children

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
Gap: Growth measurements are not consistently shared with the patient and family.		
There is a lack of a process to share growth data, or the discussion with the family takes place, but is not documented.	• Include an office procedure to share the growth summary with the patient/family and to document sharing it: ✓ Utilize EMR electronic reminders or flags to remind practitioners to discuss growth data with families at all health supervision visits. ✓ Build a question or check box in the patients chart, the EMR, the after-visit summary, or the clinician's dictation or progress template to document that growth data is shared with the patient and family.	• Use a written or electronic check list at the end of well visits to ensure key topics such as growth data are addressed.
Gap: If abnormal growth is suspected, follow-up measurements, work-up plan, or tests are not completed.		
The practice does not have a systematic process for following up when abnormal linear growth is suspected. There is no process to follow up to ensure ordered tests were completed.	• Establish clear office procedures for following up on suspected growth failure and testing. Consider the following: ✓ Identify additional growth data to collect, including: – Growth velocity – Mid-parental height (may not be obtainable, ie, one parent not involved, child adopted without biological parent information) – Upper- to lower-body segment ratio ✓ Make a plan to evaluate a child with short stature or linear growth failure. Utilize a tool like the Growth Assessment Flow Diagram to assist in developing the evaluation plan. Consider the following: – Recommend patient follow-up visit within the suggested interval (see the Growth Assessment Flow Diagram for intervals). – Work-up plan to include scheduling of laboratory tests and imaging, as needed. – Ensure tests results are completed and reviewed by the physician. – If tests are not completed, follow up and document the reason for noncompletion. ✓ Document test results in the patient's care plan.	• Pediatrician and endocrinologist consult to discuss a growth assessment plan that works effectively for your practices. • Implement a reminder and recall system using Electronic Medical Record (EMR) system, internal memo, or chart reminder to check on test completion. Establish staff responsibility for follow-up if tests are not completed.

Growth Surveillance and Linear Growth Failure

Key Activity: Assess Pubertal Development
Rationale: Accurate and consistent assessment and documentation of the timing and tempo of pubertal development can aid in the early identification and treatment of disorders that affect growth. An accurate understanding of normal and abnormal pubertal development and common variants is necessary to recognize the need for further investigation or referral.

*Note: Throughout this course the term **pediatrician** refers to a pediatric patient's primary healthcare provider.*

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
Gap: Pubertal development is not assessed and documented at every pediatric health supervision visit and at the initial endocrinologist visit.		
Clinicians and/or staff do not recognize the importance of assessing patients' pubertal development on a regular basis.	• Review and discuss with staff AAP Bright Futures recommendations concerning assessment of pubertal development: ✓ Hagan JF, Shaw JS, Duncan P. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, third edition. Performing Preventive Service: Physical Examination. (pp. 79-85) ✓ Hagan JF, Shaw JS, Duncan P. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, Third Edition. Pocket Guide. Elk Grove Village, IL: American Academy of Pediatrics, 2008. (p. 63: Table of Sexual Maturity Ratings for Males and Females.) • Note the following Bright Futures recommendations: ✓ A detailed description of pubertal status should be documented at least once yearly and include that the breast and genitalia (for girls) or genitalia alone (for boys) have been examined. ✓ Sexual Maturity Rating documentation is recommended for both males and females. – In female patients, it is appropriate to document that the external genital anatomy is that of a normal female. – In male patients, it is appropriate to document that the genitalia are normal and specifically that both testes are scrotal. – Any anatomic variants or issues of early or delayed onset should be specifically described and a plan established for appropriate	• Review articles such as the following and share with staff: ✓ Kaplowitz P. Delayed puberty. *Pediatrics in Review.* 2010;31:189. ✓ Muir A. Precocious puberty. *Pediatrics in Review.* 2006;27:373. • Review online articles from HealthyChildren.org: ✓ Stages of Puberty ✓ When Puberty Starts Early ✓ Delayed Puberty • Share insight with staff about how the assessment of pubertal development (or lack thereof) affects patient outcomes.

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	further evaluation. • Become acquainted with the following literature on pubertal development: ✓ Bordini B, Rosenfield R. Normal Pubertal Development: Part I: The Endocrine Basis of Puberty. *Pediatrics in Review.* 2011;32:223. ✓ Bordini B, Rosenfield R. Normal Pubertal Development: Part II: Clinical Aspects of Puberty. *Pediatrics in Review* 2011;32:281.	
The practice does not have a systematic approach for assessing and documenting pubertal development.	• Establish clear office procedures for assessing and documenting pubertal development. Consider the following: ✓ Assess and document pubertal development (Sexual Maturity Rating) at every health supervision visit and at every age. – Keep visual and descriptive tools of the stages of normal puberty handy and available—for example, as described in the following: ○ Muir A. Precocious puberty. *Pediatr Rev*. 2006;27:373-338. ○ Marshall, WA, Tanner JM. Variations in pattern of pubertal changes in boys. *Arch. Dis. Child*. 1970;45:13-23. ○ Hayward C. Gender Differences in Puberty. Cambridge United Kingdom: University Press, Cambridge; 2003. ○ Kappy MS, Allen DB, Geffner ME, eds. *Pediatric Practice Endocrinology*. New York: McGraw-Hill; 2009. – Determine where and how to document gender-specific pubertal development staging in the medical record. Recognize that incomplete or nonspecific documentation (for example, "normal for age") does not clearly reflect assessments done. ✓ Notify the office staff that a complete physical examination that includes pubertal development status will take place at every health supervision visit. Create a short statement that staff may use when rooming patients. For example, *As part of the health supervision visit today, your son/daughter will have a complete physical examination of his/her anatomy from head to toe.*	• Consult with other practices (ie, pediatric endocrinologist or pediatric/adolescent gynecologist) about their procedures for assessing and documenting pubertal development and adapt them for your purposes. • Recognize the importance of documentation as a necessary component of high-quality care. Realize that actions that are not documented may not have been done.

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	✓ Determine and communicate to staff the clinician's preferences for disrobing timing (before or during visit) and use of gowns. – For younger children, the staff may ask the child to be placed in a gown. – For older children and adolescents, the gown may be placed on the table for later use after the physician has completed the interview. ✓ Determine and communicate the process for chaperones. ✓ Discuss and present solutions for special accommodations needed for your patient population. ✓ Make it a practice to share the general state of the child's pubertal development with the parents/guardians at the visit. ✓ Put checks and balances in place to ensure that pubertal development is documented each time it is assessed and that the documentation is located in a consistent place in the medical record. Also document family discussions. ✓ Periodically audit office procedures to assure they are effective and are followed consistently and correctly.	
The patient or parent/guardian is not comfortable with a pubertal development examination.	• Identify the reason for such discomfort or hesitancy by considering the following possibilities: ✓ The patient is embarrassed. ✓ The patient is afraid that the examination will cause pain. ✓ The patient has a history of sexual and/or physical abuse. ✓ The patient has cognitive, behavioral, or physical limitations. ✓ There are cultural or religious beliefs opposing the examination. ✓ There are gender issues, ie, the patient/family is uncomfortable allowing a clinician of the opposite sex to perform the examination. ✓ There are chaperone privacy issues, ie, the patient/family is uncomfortable with the unrelated chaperone or the parent is uncomfortable in the role of chaperone.	• Postpone the examination and suggest that the parent and child return to discuss at a follow-up visit. • Refer the patient to a same gender clinician as needed and if available. • Refer the patient or family to social work or psychotherapy, as appropriate. • Consider sedation for patients with emotional or intellectual disabilities, as needed.

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	• Build clinician/patient rapport: ✓ Validate the patient's or family's concerns. ✓ Normalize the procedure by explaining that a pubertal development examination is a standard component of every child's health supervision visit. ✓ Have a frank discussion with patients/families about the benefits of a pubertal development examination and the consequences of failure to examine. Make every attempt to convince, but not coerce. ✓ Offer options to maximize the patient's comfort (ie, accommodate patient preference to wear a gown or to wear loose clothing). ✓ Explain the examination process ahead of time to ease fears: – Explain what the exam involves. – Explain how long the exam will take. – Explain the exam should not cause pain. – Explain that a parent or chaperone will be present. – For younger children, use the good touch/bad touch understanding to explain that the exam is safe. – Allow the choice of a chaperone (parent or staff member). – Attempt to have repeat visits with same provider to aid comfort and build rapport.	
The clinician is not comfortable performing a pubertal assessment.	• Review the guidelines described in row one of this grid that outline clinicians responsibilities for assessing pubertal development. • Reflect on the reasons for discomfort or hesitancy as described in the row above. • Review materials such as the following: ✓ Balk S, Dreyfus N, Harris P. Examination of genitalia in children: 'The remaining taboo.' *Pediatrics.* 1982;70(5):751-753. ✓ Herman-Giddens ME, Bourdony CJ, Dowshen SA. Assessment of sexual maturity stages in girls and boys. *American Academy of Pediatrics*. 2011.	• Consider consulting a pediatric endocrinologist to answer questions about the pubertal examination. • Review additional materials such as the following: ✓ Pediatric care online for Web-based content on puberty: normal and abnormal and related topics ✓ Zitelli BJ, McIntire SC, Nowalk AJ. Zitelli and Davis' Atlas of Pediatric Physical Diagnosis, 6th Edition. 2012;370-375.

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
The clinician is not adept at assessing pubertal staging or the timing and tempo of pubertal development.	• Act as a chaperone for other clinicians to increase exposure to and comfort with the examination. Practice the examination with an experienced clinician acting as a chaperone who can provide tips and strategies after the exam. • If a general pediatrician, consult a pediatric endocrinologist for guidance on the timing and tempo of pubertal development as well as strategies for performing the examination and handling discussions with families. • Keep visual and descriptive tools of the stages of normal puberty handy and available, as described earlier.	• Complete the AAP PediaLink Essentials course, Endocrinology: Pubertal Variation. • Review articles such as the following: ✓ Bordini B, Rosenfield R. Normal Pubertal Development: Part I: The Endocrine Basis of Puberty. *Pediatrics in Review.* 2011 June 1;32(6). ✓ Bordini B, Rosenfield R.Normal Pubertal Development: Part II: Clinical Aspects of Puberty. *Pediatrics in Review.* 2011 July 1;32(7). ✓ Kaplowitz PB. Delayed Puberty. *Pediatrics In Review.* 2010.
Gap: Pubertal development is not discussed with the patient/family at the pediatric health supervision visit, if applicable. For endocrinologists, it is not discussed at the initial visit.		
Pubertal development may be assessed and documented, but not shared with the patient and family.	• Include a process for discussing pubertal development with the patient/family in your office procedure. For example, build a question or check box in the patient chart, the EMR, the after-visit summary, or the clinician's dictation or progress template to ensure growth data is shared with the patient and family.	• Review with staff the need to document all family discussions to confirm they have been done. Discuss obstacles for consistent documentation and strategies to overcome such barriers.
Patient/family is not asked about any concerns about pubertal development, or concerns are not addressed.	• Routinely ask patient and family about concerns about growth and puberty and address concerns. For example, ask: ✓ What concerns do you/does your family have about your child's growth or development? ✓ What concerns do you /does your family have about managing life with <name of condition or issue>? ✓ How do you feel you/your family are doing in handling your <name of condition or issue>? ✓ In what ways has <name of condition or issue> affected your/your family's everyday lifestyle? Or, for a parent, "How has having a child with this issue or condition affected your family?" ✓ Have I adequately addressed all your concerns?	• Develop a post-visit process, for example, the discharging nurse could ask patients and families if all their concerns were addressed at this visit.

Growth Surveillance and Linear Growth Failure

Key Activity: Educate Family, Address Concerns and Psychosocial Issues
Rationale: Investigation of deviations from standard growth can cause parental/caregiver anxiety about the health of their children. Addressing family concerns will help avoid confusion, build trust, eliminate potential barriers to care, and promote a long-term partnership in the child's care. It is important to routinely assess psychosocial issues for patients with growth failure and their families so that treatment and/or referral for appropriate services can be initiated.

*Note: Throughout this course the term **pediatrician** refers to a pediatric patient's primary healthcare provider.*

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
Gap: *Concerns regarding growth and/or pubertal development are not elicited, addressed, or documented.* (Addressing concerns includes providing education and/or linking families to community resources and support.)		
The procedures for eliciting and addressing patient and family concerns regarding growth and/or pubertal development are inadequate or unsystematic, or such discussions are not documented.	• Establish ways to routinely elicit and address patient and family concerns, such as the following: ✓ Routinely use a previsit questionnaire or prompts on the intake form that asks about family concerns at every health supervision visit or follow up for growth concerns. See Bright Futures Pediatric Symptom Checklist, a psychosocial screen designed to facilitate the recognition of cognitive, emotional, and behavioral problems so that appropriate interventions can be initiated. Includes a parent-completed version (PSC) and the youth self-report (Y-PSC). The Y-PSC can be administered to adolescents ages 11 years and up. ✓ Consider a patient portal that allows patients and families to interact and communicate their concerns with the practice via the Internet or email. ✓ Develop a post-visit process that queries patients and families about whether their concerns were addressed at this visit or if plans were made to address them. Ask if the family understands and is satisfied with the plan or if they have any additional concerns. ✓ Establish a routine for documentation of concerns and plan of care in the medical record	• Establish a "check and balance" procedure—perhaps conducted by another staff person—that asks patients and families if their questions were answered before they leave the office. The "check and balance" could extend to reviewing documentation—were all family discussions resulting from concerns noted in the previsit questionnaire or intake form documented?
You do not know how effectively your practice communicates with patients and families or invites family participation in their child's	Assess the patient and family experience of your practice—perhaps by using existing surveys available from the Consumer Assessment of Healthcare Providers and Systems (CAHPS). ✓ Consumer Assessment of Healthcare Providers and Systems	• Add patient and family partners to your Quality Improvement (QI) team or advisory committee, if available. Identify families who might be amenable to giving

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
care.	(CAHPS) Ambulatory Care Survey ✓ Center for Medical Home Improvement (CMHI) Family Index and Survey ✓ Family-Centered Care Self-Assessment Tools from Family Voices consisting of a Family Tool, Provider Tool, and User Guide These tools provide a starting point for assessing current areas of strength, identifying areas for growth, and planning efforts to improve the overall family experience. This, in turn, can guide efforts toward improving the family experience around concerns of growth and/or pubertal development in their child.	feedback.
Gap: Education is not routinely part of the visit when patient/family concerns are identified.		
Clinician or staff does not recognize the important role of education.	• Review guidelines that stress the importance of education and family involvement: ✓ AAP Bright Futures: Guidelines for Health Supervision of Infants, Children and Adolescents. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics, 2008. Hagan JF, Shaw JS, Duncan PM, eds. Promoting Family Support and Promoting Mental Health ✓ Cohen P, et al. Consensus Statement on the Diagnosis and Treatment of Children with Idiopathic Short Stature: A Summary of the Growth Hormone Research Society, the Lawson Wilkins Pediatric Endocrine Society, and the European Society for Paediatric Endocrinology Workshop. *The Journal of Clinical Endocrinology & Metabolism.* 2008;93(11):4210-4217.	• Discuss with staff the need to provide education and to engage families as partners. Also discuss obstacles for making education part of the visit, then brainstorm and implement ways to overcome the barriers. • Identify a growth/pubertal development champion in the practice who can serve as a resource for education.
The practice does not distribute educational materials. Or, clinicians/staff lack confidence delivering such education.	• Locate educational materials from sources such as AAP.org, Healthychildren.org, Hormone.org and.Pediatric Endocrine Society to provide to patients/families. • Develop your own educational materials by culling information from a variety of reputable sources and your practice's expertise and experiences.	• Consult with other clinicians about the educational materials they provide to families and use or adapt them for your practice. • Attend CME courses, workshops, or seminars to glean educational materials that are suitable for families.
The cultural background, language, and literacy levels of families are not specifically	• Review the following resources to assess and develop your practice's cultural competency: ✓ National Center for Medical Home Implementation	• Recognize how cultural backgrounds influence the family's decisions about health care for their child by reviewing

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
considered in family discussions and education.	✓ Culturally Competent Care ✓ Effective Communication Tools for Healthcare Professionals ✓ Health Disparities in Endocrine Disorders: Biological, Clinical, and Nonclinical Factors—An Endocrine Society Scientific Statement (Links to abstract; requires subscription for full text) ✓ CDC's health literacy Web site, which includes health literacy activities by state ✓ National Center for Cultural Competence (NCCC), including: – A description of the NCCC's mission to increase the capacity of health-care programs to design, implement, and evaluate culturally and linguistically competent service delivery systems to address issues of diversity, disparity, and health equity – Links to information and practice assessments for providers on cultural competence ✓ An article describing how your practice's cultural competence begins at the front desk • Recognize the important role that the community plays in supporting healthy behaviors among families. Assess your practice's focus on community activities and its identification of community resources by using the following tools: ✓ Bright Futures Generating Community Resources ✓ Bright Futures Community Pediatrics Self-Assessment ✓ Bright Futures Community Resources Check Sheet	articles such as the following with staff: ✓ Galanti GA. *Caring for Patients from Different Cultures.* 4th ed. Philadelphia, PA: University of Pennsylvania Press; 2008. ✓ Galanti GA. An introduction to cultural differences. *West J Med.* 2000;172(5):335–336. ✓ Weiss BD. *Health Literacy and Patient Safety: Help Patients Understand.* 2nd ed. Chicago, IL: American Medical Association Foundation and American Medical Association; 2007.
There is not enough time in the visit for patient and family education.	• Schedule a follow-up visit (counseling appointment) to discuss the concern or issue further. • Use teachable moments during history or physical examination to provide education. • Provide handouts (prepared by practice or from sources such as AAP) to help facilitate the educational message and for families to review at home. • Establish a process for trained office staff to deliver educational	• Identify an education champion that follows up with the patient after the examination.

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	materials. • Direct families to online and community educational resources that have been previewed for reputable content. • Use alternative messaging forums such as telephone or a patient portal.	
Gap: The side effects and benefits of treatment are not communicated and documented.		
Review of benefits and side effects as well as documentation of the discussion is not part of the visit flow.	• Revise the visit flow to review and document communication of benefits and side effects of treatment. ✓ Elicit questions from the patient/family and ensure understanding of the benefits and side effects. ✓ Document the discussion and which, if any, written educational materials were provided. ✓ Obtain patient/family educational materials and brochures that document benefits and side effects of treatment.	• Research additional available education materials that provide benefits and side effects of common treatments.
Gap: Psychosocial issues are not assessed or addressed.		
The clinician does not proactively assess psychosocial issues during the visit and waits until the patient/family demonstrates or communicates issues or concerns.	• Recognize the varied types of psychosocial issues associated with growth or pubertal development problems, including social immaturity, infantilization, low self-esteem, being bullied, stress experiences, parental attitudes, and prevailing cultural opinions. • Routinely ask patient and family about concerns about growth and puberty—for example, ask: ✓ *What concerns do you/does your family have about your child's growth or development?* ✓ *What concerns do you/does your family have about managing life with <name of condition or issue>?* ✓ *How do you feel you/your family are doing in handling your <name of condition or issue>?* ✓ *In what ways has <name of condition or issue> affected your/your family's everyday lifestyle? Or, for a parent, "How has having a child with this issue or condition affected your family?"* • Use tools such as the Pediatric Symptom Checklist (PSC) to facilitate the recognition of cognitive, emotional, and behavioral problems so that interventions can be initiated.	• Develop a post-visit process; for example, the discharging nurse could ask patients and families if all their concerns were addressed at this visit. • Review with staff the need to document all family discussions to confirm they have been done. Discuss obstacles for consistent documentation and strategies to overcome such barriers.

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	✓ Instructions for Use ✓ 35-question PSC tool ✓ Other Bright Futures tools, including a downloadable 17-question PSC tool available at: http://brightfutures.aap.org/tool_and_resource_kit.html	
The clinician lacks knowledge or comfort addressing psychosocial issues.	• Depersonalize the conversation; review the wide range of what is normal growth and development and inform the child where he or she fits on the continuum. • Identify appropriate referral avenues and, when appropriate, refer patients to specialized behavioral medicine professionals who are specifically trained for psychological and social assessments and care. Indications for referral to a mental health specialist may include coping/adjustment concerns, noncompliance with medical regimen, depression (with or without the possibility of self-harm), and anxiety, among other issues.	• Discuss with your multidisciplinary care team ways to use depression screening tools and how to interpret results. Administration and scoring should be completed by professionals or paraprofessionals that are familiar with testing procedures and with appropriate supervision. • Share articles with staff: ✓ Committee on Psychosocial Aspects of Child and Family Health. Pediatrics and the psychosocial aspect of child and family health. *Pediatrics.* 1982;70:126. ✓ Sandberg D. Short stature: a psychosocial burden requiring growth hormone therapy? *Pediatrics.* 1994;94;832. • Arrange training sessions on specific skills such as motivational interviewing techniques. • If the patient has a specific diagnosis, consider referral to appropriate support groups (Turner syndrome, etc.). Support groups can provide valuable interaction with peers experiencing similar psychological, emotional, and physical issues.
There is not enough time in the visit to discuss psychosocial	• Use tools such as the Pediatric Symptom Checklist (PSC) previously described to facilitate the recognition of cognitive, emotional, and	• Consider alternative communication methods—phone or email, for example—in

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
concerns.	behavioral problems. Then make appropriate referrals immediately for patients/families needing one-on-one counseling. • Revisit the scheduling system to ensure adequate time is allotted to appointments for dealing with psychosocial issues. Or offer an extra visit to specifically discuss the patient's psychosocial issues and barriers to achieving treatment goals, if needed. • Consider support groups to provide a forum for families to discuss their concerns with trained mental health providers.	between visits to discuss and address ongoing psychosocial concerns. • Identify easy-to-use survey tools to assess symptoms of depression, etc., if there is a staff member available to interpret. • Consider including psychological/behavioral services as a standard component of multidisciplinary clinic care. Establish a protocol in which these team members administer and interpret brief mood, adjustment, and/or quality of life screening measures in clinic.

Growth Surveillance and Linear Growth Failure

Key Activity: Develop or Obtain the Care Plan
Rationale: For patients with growth and/or development issues, an effective long-term care plan is essential to successfully meet all of the patient/family's medical, psychosocial, and educational needs. A comprehensive guideline-based care plan should be developed in partnership with the family and provided in a coordinated and comprehensive manner to the patient's medical home and referral provider(s). The plan should include a medical summary with condition-specific action plans. It should consider a formalized approach to transitioning patients to an adult care model when appropriate.

*Note: Throughout this course the term **pediatrician** refers to a pediatric patient's primary healthcare provider.*

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
Gap: A written care plan developed by the pediatric endocrinologist is not available. *It is the **endocrinologist's** responsibility to develop and share the care plan with team members and communicate important care plan updates after every visit.*		
The importance of developing or maintaining a written care plan with input from the patient and family is not recognized.	• Review the policies and guidelines that outline clinician responsibilities for developing and maintaining patient care plans, including: ✓ The 2002 AAP Medical Home Policy Statement (reaffirmed 2008), which defines the concept of the medical home and outlines the importance of care coordination between the pediatric medical home, the specialty care team, and other providers ✓ The 2011 transition guidelines clinical report from the AAP, AAFP, and ACP, Supporting the Health Care Transition From Adolescence to Adulthood in the Medical Home ✓ The 2012 AAP clinical report, Home Care of Children and Youth with Complex Health Care Needs and Technology Dependencies, which addresses the development of an interdisciplinary and coordinated plan of care for the child with complex medical needs with technology dependencies	• Review examples of care plans that have helped in the care of patients in your practice. • Discuss with staff the importance of developing and maintaining a care plan. ✓ To improve patient care and long-term patient outcomes ✓ To determine the need for referral and treatment ✓ To monitor the effects of intervention • Identify families in your practice willing to be part of a team of staff and patient users who jointly develop a written policy for how your practice will develop and maintain care plans. • Use online resources such as national listservs to share ideas.
A ready-made care plan template to use for the patient's medical condition is not available to the endocrinologist.	• Identify elements of a complete written patient care plan and adapt for the practice's two or three most common specific conditions. Consider the following elements: ✓ Diagnosis	• Use the sample care plan provided with this course and adapt for your purposes: ✓ Growth Care Plan Blank Example ✓ Growth Care Plan Completed Example

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
The endocrinologist is not aware of what information should be included in a care plan.	✓ Treatment plan ✓ Coexisting diagnoses ✓ Medications, supplements, vitamins, dosages ✓ Other therapies ✓ Allergies ✓ Recent clinical exam results (measurements, BP, etc.) ✓ Recent diagnostic test results ✓ Extracurricular activity involvement ✓ Hospitalizations ✓ Educational status (school, homeschooling, IEP, etc.) ✓ Sleep habits ✓ Psychosocial issues ✓ Patient or family concerns ✓ Recommended physical activity, with any needed adaptations ✓ Recommended dietary adaptations or changes ✓ Patient or family limitations to following the plan ✓ Educational materials that were provided to patient/family ✓ A medical summary with condition-specific action plans ✓ Team members, elucidating roles, responsibilities and contact information; consider patient, family, general pediatrician, pediatric endocrinologist, other subspecialists, school staff, mental health professional, social worker, nurse specialist ✓ Transition plan to adult care (as appropriate)	
A systematic approach for creating, reviewing, and updating the care plan is not in place.	• Establish clear office procedures for creating and maintaining a care plan for each patient with a growth disorder. Consider the following: ✓ Meet with staff to gather information and ideas about establishing an office-wide procedure for creating and maintaining care plans. ✓ Identify roles and responsibilities for documenting and maintaining information in the plan, including specific responsibilities for updating elements of the case plan (as identified above). ✓ Develop a visit flow for documentation and maintenance of the care plan that considers the patient/family, physician, staff members, office efficiency, equipment, and backup contingencies. ✓ Include checks and balances in office procedures to ensure that: – The clinician reviews the care plan at each visit. – All care plan elements are documented or updated.	• Consult with other practices about their office procedures for care plans and adapt them for your purposes. • Stress with staff the importance of care plan documentation as a necessary component of high-quality care. Help them recognize that actions that are not documented may not have been done.

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	– The care plan is shared with the patient, family, and essential team members. – The benefits and possible side effects of treatment are communicated to the patient/family. – Any identified diagnostics tests have been completed, reviewed, documented, and communicated to the patient/family. – If tests are not completed, follow up to identify the reason and document the reason for noncompletion. • Periodically audit office procedures to assure their effectiveness and that staff members follow them consistently and correctly. • Standardize how and where the care plan is documented and maintained: ✓ After visit summary ✓ Care plan as a separate document ✓ EMR ✓ Other	
There is not enough time in the visit to create/update the care plan.	• Revise the practice schedule to ensure adequate time for appointments. • Reevaluate office procedures, including visit flow and roles and responsibilities, to improve efficiency and have adequate checks and balances in place. Modify office procedures as needed. • Revisit the care plan format and select a form (after visit summary, EMR, progress notes, etc.) that is most effective and efficient for the clinician and for staff maintaining care plan data.	• Consult with other practices about how their care plans are created and updated. Adapt ideas that work for other practices into your office procedures.
The care plan does not include provisions for transitioning the patient to an adult care model, as age appropriate.	• Develop a written transition policy for your practice in accordance with the 2011 transition guidelines, Supporting the Health Care Transition From Adolescence to Adulthood in the Medical Home, that does the following: ✓ Describes clearly your practice's approach to transition ✓ Introduces families to the concept and process of transition at an early age and helps normalize the process ✓ Sets a target final transition age, typically between ages 18 and 21, but pays special attention to the complex issues that may accompany transition of youth with special health care needs ✓ Educates youth and families on roles and expectations that promotes	• Consult with other practices about their practice's transition policy and how their transition plans are created and updated. Adapt ideas that work for other practices into your office procedures. • Review transition policies, programs, and information from souces such as the following and adapt for your purposes: ✓ The National Health Care Transition Center Web site, got transition?, a national resource for health care

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	participation in health care decisions and routines • Educate staff regarding the role of a transition policy as a method of preparing a child, beginning many years before the actual move, for transition to adult medical practices. See resources such as the following and adapt for your purposes: ✓ Keys to Independence: Transitioning from the Pediatric to the Adult Health Care Team ✓ Transition Toolkit for Professionals & Patients from the Pediatric Endocrine Society Team • Review literature about transitioning adolescents with growth hormone deficiencies to an adult model of care, including the following: ✓ Molitch ME. Growth hormone treatment in adults with growth hormone deficiency: the transition. *J Endocrinol Invest*. 2011 Feb;34(2):150-154. ✓ Shea HC, Levy RA. Transition care of growth hormone deficient patients from pediatric endocrinologists to adult endocrinologists. *Endocr Pract*. 2011 Nov;8:1-34. [Epub ahead of print]	professionals, families, youth, and state policy makers focusing on the transition from pediatric to adult health care. This site serves as the basis for an information exchange about health care transition, particularly as pertaining to youth with special health care needs. ✓ The Medical Home Portal, Transition to Adulthood page, which provides information for parents and providers to help support youth in their growing independence. A Transition Action Care Plan and other resources are included.
Patients miss follow-up visits, thereby making health supervision and care plans out of date.	• Set up a registry or other system to track patients who are not being seen regularly. Designate a staff member to reach out to patients/families that are behind with appointments. • Schedule a return appointment at the time the patient comes in for a visit. • Implement a reminder and recall system (using EMR, internal memo, or chart reminder). • Educate patients/families about the importance of ongoing health supervision visits to monitor growth and well-being. Review the recommended assessments and timeframes that support favorable health outcomes. • Check to see if financial or psychosocial factors play a role in visit noncompliance and consider involving social services as needed. • Consider ways to improve access to care within the practice—by providing additional evening or Saturday appointments, for example. • Consult with other care team members regarding barriers to keeping	• Educate patients and families about the importance of health supervision visits and the gradual educational process of transition. • Adhere to a written policy of no prescription refills without adequate general health supervision, stressing the importance of patient safety. • Engage social workers or case managers in an attempt to improve adherence to regular health supervision. Refer patients/families with psychosocial issues for counseling.

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	regular appointments and strategize approaches for return visits.	
Gap: The care plan is not routinely shared with the patient/family.		
A systematic approach for sharing the care plan reviewing the care plan with the patient/family is not in place.	• Include checks and balances in office procedures to ensure that: ✓ The clinician reviews the care plan at each visit. ✓ The care plan is shared with the patient/family. ✓ The benefits and possible side effects of treatment are communication to the patient/family.	• Consult with other practices about their office procedures for communicating and documenting patient/family discussions.
There is not enough time in the visit to review the care plan with the patient and family.	• Revise the practice schedule to ensure adequate time for appointments. • Reevaluate office procedures, including visit flow and roles and responsibilities, to improve efficiency.	• Consult with other practices about their scheduling methods to ensure enough time is available in the appointment.
Gap: The benefits and side effects of treatment are not communicated and documented.		
Review of benefits and possible side effects and documentation of the discussion is not part of the visit flow.	• Revise the visit flow to review and document communication of benefits and possible side effects of treatment. ✓ Elicit questions from the patient/family and ensure understanding of the benefits and side effects. ✓ Document the discussion and which, if any, written educational materials were provided. • Obtain patient/family educational materials and brochures that document benefits and side effects of treatment.	• Research additional available education materials that provide benefits and side effects of common treatments.
Gap: The current care plan is not obtained or important health updates are not shared on a timely basis. *It is the **generalist's** responsibility to send essential information with the initial referral, to obtain and support the care plan, and to communicate important health status changes. It is the **endocrinologist's** responsibility to develop and share the care plan with team members and communicate important care plan updates after every visit.*		
All team members are not identified in the care plan or their contact information is incomplete or unavailable.	• Identify essential care team members and designate a staff member to update contact information in the care plan. Create processes for keeping this information up-to-date and communicated to essential stakeholders in the child's care. ✓ Help patients/families create/maintain a list of team members that supports the patient's care. (See My Medical Support Team as an example.) Communicate to patients/families their responsibility to maintain the contact list.	• Consult with other practices about how their care teams are documented and updated in the patient's medical record. Adapt ideas that work for other practices into your office procedures.

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	✓ Verify care team members with the patient/family at every visit and update the contact list after Intake appointment. ✓ Flag changes in team members when patient notifies you.	
There is no process in the **endocrinologist's** office for communicating the current care plan and important updates to all team members. There is no process in the **pediatrician's** office for obtaining the patient's care plan or communicating important health status changes to all team members.	• Establish clear office procedures for sharing/obtaining the care plan and important changes to all team members. Consider the following: ✓ Who (staff) is responsible for sharing/obtaining the care plan ✓ What should be included in the communication ✓ Whom should be included in the communication ✓ Ensure that the patient/family has a copy of the current care plan. ✓ Establish the form of team communications, eg, fax the care plan to the primary care office and request verification that it was received and understood. Alternatively, submit electronically to practices sharing the same EMR system and have one staff person in clinic responsible for transmission of the updated plan at every encounter ✓ Establish the frequency of communication for changes to the plan, eg, after every visit or when clinical changes occur. Consider the following examples: •A child is seen for a health supervision visit by the **pediatrician** and has gained 15 pounds in 3 months. Dietary intervention and physical activity increase are prescribed. This health status update should be communicated to all team members. The care plan should be updated and sent to all team members. •A child is seen by the **pediatric endocrinologist** for follow-up of growth hormone therapy. Growth velocity has declined to 4 cm/year at age 8 years, and IGF1 on replacement growth hormone is below recommended range for SMR 1. The endocrinologist increases the therapy dose and updates the care plan. The endocrine nurse transmits the care plan to all team members.	• Consult with other practices about how care plan changes are communicated to members of the care team. Adapt ideas that work for other practices into your office procedures. • If the practice uses an EMR, consult with EMR management to develop a method for transmitting care plan updates to appropriate team members. • If the practice uses a dictation system, consult with dictation management to develop a method for transmitting plan updates to appropriate team members.

Growth Surveillance and Linear Growth Failure

EQIPP
Helping You Improve Care for Children

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
Gap: If abnormal growth is suspected, follow-up measurements, work-up plan, or tests are not completed.		
The practice does not have a systematic process for following up when abnormal linear growth is suspected. There is no process to follow up to ensure ordered tests were completed and shared with the patient/family. There is no process to document that ordered tests results were shared with the patient/family.	• Establish clear office procedures for following up on suspected growth failure and testing. Consider the following: ✓ Identify additional growth data to collect, including: – Growth velocity – Mid-parental height (may not be obtainable, ie, one parent not involved, child adopted without biological parent information) – Upper-to-lower body segment ratio ✓ Make a plan to evaluate a child with short stature or linear growth failure. Utilize a tool like the Growth Assessment Flow Diagram to assist in developing the evaluation plan. Consider the following: – Recommend patient follow-up visit within the suggested interval (see the Growth Assessment Flow Diagram for intervals) – Work-up plan to include scheduling of laboratory tests and imaging, as needed – Ensure tests results are completed and reviewed by the physician. – If tests are not completed, follow up and document the reason for noncompletion. ✓ Document test results in the patient's care plan. – Ensure tests results are shared with the patient/family.	• Pediatrician and endocrinologist consult to discuss a growth assessment plan that works effectively for your practices. • Implement a reminder and recall system using Electronic Medical Record (EMR) system, internal memo, or chart reminder to check on test completion. Establish staff responsibility for follow-up if tests are not completed.

Growth Surveillance and Linear Growth Failure

Key Activity: Communicate with the Care Team
Rationale: Effective care management of growth-related problems requires the identification of a multi-disciplinary team and frequent, bidirectional communication among all members. Such communication will serve to improve the quality of care provided and health outcomes. In the absence of clear role identification and frequent communication, important issues can be overlooked, patient safety can be compromised, and costs of care can increase unnecessarily.

*Note: Throughout this course the term **pediatrician** refers to a pediatric patient's primary healthcare provider.*

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
Gap: Care team members necessary to manage the child's growth-related problems are not identified.		
Physicians are unaware of the important role the multidisciplinary team plays in the management of growth-related problems. Rather, individuals focus on their specific responsibilities within the care team.	• Review provider and patient perceptions regarding coordination of care and communication: ✓ Generalist-subspecialist communication for children with chronic conditions: a regional physician survey ✓ Generalist-subspecialist communication about children with chronic conditions: an analysis of physician focus groups (Links to abstract only) ✓ Patient experience with coordination of care: the benefit of continuity and primary care physician as referral source (Links to abstract; requires subscription for full text) • Review recommendations for improving communication: ✓ Enhancing continuity of information: essential components of consultation reports ✓ A typology of specialists' clinical roles (Links to first page only; requires subscription for full text) ✓ Coordinating care across diseases, settings, and clinicians: a key role for the generalist in practice (Links to abstract only) ✓ IOM: Crossing the Quality Chasm • Review the 2002 AAP Medical Home Policy Statement (reaffirmed 2008), which defines the concept of the medical home and outlines the importance of care coordination the between pediatric medical home, the subspecialist care team, and other providers.	• Share provider and patient perceptions regarding care coordination and ways to improve communication with staff. • Invite open discussion about the following with staff: ✓ The individual roles of the generalist and the pediatric endocrinologist and the importance of a team-based approach to growth-related care management. ✓ The impact that growth-related problems has on families and ways to mitigate them with collaborative care coordinated among all involved in the child's care.

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	• Encourage open communication channels between the pediatrician and the growth team so that each can contact the other to share important information or to assist with growth-specific issues at the time of intercurrent illnesses or surgeries. • Review the Care Team Bidirectional Communication Flow Diagram, which illustrates communication between multidisciplinary team.	
The patient's current pediatrician is not documented in the medical record—either due to lack of documentation or because the patient does not have an ongoing relationship with a pediatrician in a medical home.	• Discuss with the patient and family the importance of developing an ongoing relationship with a pediatrician for new and ongoing health concerns. Recommend that the patient receive their health supervision visits and immunizations from their pediatrician. In addition, the pediatric medical home generally provides the insurance referrals for specialty visits. • Create processes that require endocrinologist's staff to review with patients/families at check-in (or checkout) an up-to-date name and address of the patient's current pediatrician. This might include having the front desk ask and record the name of the pediatrician at the time of check-in (along with insurance information) or including a prompt in the clinic visit template. It might also include conducting an annual audit to ensure all patient information is accurate and up to date.	• Consult your AAP State Chapter for a directory of member pediatricians to use for referral purposes. (View the Chapter Contact List and Web sites, if needed, to find your state chapter.) Refer the patient to a pediatrician in close proximity to the patient's home. • If still no appointment is made with a pediatrician by the next specialty visit, offer to have the office staff schedule the appointment before the patient leaves the clinic. • Enlist the help of a social worker or case manager to help connect families to needed resources.
Other care team members, i.e., endocrinologist, other subspecialists, and other services providers, are not identified in the patient's medical record and/or their information is not available or up to date.	• Create processes that require pediatric staff to identify and update the patient's care team members and contact information at every visit. Consider the following: ✓ Establish clear roles and responsibilities for obtaining such contact information and identify a clear place in the patient's medical record to record the information. ✓ Train staff to check for missing or erroneous information and to update name and contact information at every visit. Be sure to have parents sign release of medical information forms to remain HIPPA compliant. Train staff to watch for any returned correspondence or failed faxes and make necessary corrections. ✓ Engage the patient/family to keep physician contact information up to date and readily available for all health visits. The My Medical	• Brainstorm obstacles with clinicians and staff for identifying and documenting subspecialists and other services providers and ways to overcome them.

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	Support Team worksheet included in this EQIPP course can help patients/families do this.	
The patient does not follow up with secondary referrals, resulting in inaccurate endocrinologist or other subspecialist information in the record.	• Offer an opportunity for the patient/family to make the referral appointment while the patient is in the clinic. Then, record the appointment date/time in the medical record for follow-up purposes. • Help the patient/family identify any potential barriers for keeping the appointment and to find solutions. For example, if transportation is an underlying problem, suggest Medicaid transport or other available services.	• Brainstorm ideas with other members of the multidisciplinary team to help patients and families keep follow-up appointments. • Involve social services as needed to help patients/families overcome barriers for keeping needed appointments. • Copays may add an additional burden for financially strapped families; identify nonintimidating ways to inquire about financial strains. Then, enlist the help of a social worker or case manager to connect families to needed resources.
Gap: Adequate, timely communication among team members may not occur. *It is the **pediatrician's** responsibility to send essential information with the initial referral, to obtain and support the care plan, and to communicate important health status changes. It is the **endocrinologist's** responsibility to develop and share the care plan with team members and to communicate important updates.*		
Pediatrician: Essential information about the growth concern is not sent with the referral.	• Establish a practice protocol that defines *what* information is required by the ***endocrinologist's*** office and should be sent by the **pediatrician's** office with the referral. For example, create a checklist of items such as the following and attach it to the referral: ✓ History ✓ Physical examination ✓ Growth charts ✓ Medications, if any ✓ Laboratory and imaging results, if any ✓ Summary of case (ie, impression of growth concern) ✓ Assessment of psychosocial concerns ✓ Contact information for the referring pediatrician ✓ Contact information for the patient/family • Be aware that HIPPA privacy rules allow those doctors, nurses, hospitals, laboratory technicians, and other health care providers that are covered entities to use or disclose protected health information, such as X-rays, laboratory and pathology reports, diagnoses, and other medical information, for treatment purposes without the patient's	• Review the Growth Assessment Flow Diagram, which may be helpful in developing a general practice-wide plan for patient evaluation. Since clinical practice varies, a discussion between the pediatrician and the referring pediatric endocrinologist is strongly recommended to determine how this flow fits with their particular recommendations for assessing growth. • Review the Care Team Bidirectional Communication Flow Diagram, which underscores the importance of ongoing communication between the entire care team in order to achieve high-quality care.

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	authorization. This includes sharing the information to consult with other providers, including providers who are not covered entities, to treat a different patient, or to refer the patient.	
Endocrinologist: Essential referral information about the patient's growth concern is not received from the referring physician.	• Establish a practice protocol to ensure the necessary information is received from the referring physician and documented in the patient's chart prior to the initial visit. Consider the following: ✓ Document information which should be received and in the chart, such as: – History – Physical examination – Growth charts – Medications, if any – Laboratory and imaging results, if any – Summary of case (ie, impression of growth concern) – Assessment of psychosocial concerns – Contact information for the referring pediatrician – Contact information for the patient/family ✓ When scheduling the appointment, practice staff obtains referring physician's contact information. ✓ Day prior to the appointment, practice staff checks that above referral information has been received. – If referral information has not been received, contact referring physician to obtain referral information.	• Consult with other practices about their office procedures for receiving referral information from the referring pediatrician. • Contact practices that do not send referral information and discuss a procedure for communication between your offices.
There is no process in the **endocrinologist's** office for communicating the current care plan and important updates to all team members. There is no process in the **pediatrician's** office for obtaining the patient's care plan or communicating important health status changes to all team members.	• Establish clear office procedures for sharing/obtaining the care plan and important changes to all team members. Consider the following: ✓ Who (staff member) is responsible for sharing/obtaining the plan ✓ What should be included in the communication ✓ Whom should be included in the communication – The patient and family – The pediatrician in the medical home – Endocrinologist(s) – Other care team members essential to the disease	• Discuss with staff the importance of regular communication with all team members essential to the child's care that accurately and completely reflects the care provided. Quality communication and documentation are essential components of care continuity. • Meet with staff members who are not fulfilling their communication responsibilities and troubleshoot why this is happening. Brainstorm any obstacles and ways to overcome them. Conduct Plan, Do,

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	management process (for example, registered dietician, school personnel, mental health professional) ✓ Ensure that the patient/family has a copy of the current care plan. ✓ Establish the form of team communications, eg, fax the care plan to the primary care office and request verification that it was received and understood. Alternatively, submit electronically to practices sharing the same EMR system and have one staff person in clinic responsible for transmission of the updated plan at every encounter. ✓ Establish the frequency of communication for changes to the plan, eg, after every visit or when clinical changes occur. • Encourage the patient/family to keep an up-to-date copy of their care plan and to communicate changes in health status and care regimen to all members of their medical support team. The My Medical Support Team worksheet included in this EQIPP course can help patients/families do this.	Study, and Act (PDSA) cycles using the ideas presented by the group.
There is a concern about reimbursement for care coordination activities, which do not involve face-to-face patient interaction, or there is not enough time to perform these activities.	• Reevaluate the office procedures, including visit flow and roles and responsibilities, to be sure they are effective and have adequate checks and balances in place. Modify office procedures as needed. • Consult coding tips in the following resources: ✓ The AAP Medical Home Coding Fact Sheet, updated annually ✓ Coding for Pediatrics 2012. American Academy of Pediatrics ✓ AAP Pediatric Coding Newsletter™ Online (requires subscription) • AAP Coding Hotline, 1-800-433-9016 x-4022	• Consult with other practices about effective care coordination practices and how such efforts are appropriately compensated. Adapt ideas that work for other practices into your office procedures.
Gap: Patient/Family discussions are not documented in the patient's chart.		
Practice does not have a process for documenting patient/family discussions in the patient's records.	• Establish a protocol to document pertinent patient/family discussions. Consider discussions including the following: ✓ Growth measurements ✓ Pubertal development, if applicable ✓ Family concerns and psychosocial issues ✓ Educational materials distributed ✓ Care Plan	• Consider adapting your patient record, chart, or care plan to have checkboxes for items for which patient/family discussions commonly occur.

Growth Surveillance and Linear Growth Failure

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	✓ Results of tests ✓ Treatment benefits and side effects	