

American Academy of Pediatrics

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Medical Home Modules for Pediatric Residency Education

The medical home modules are endorsed by the Association of Pediatric Program Directors Curriculum Task Force. Development of the modules was funded by the American Academy of Pediatrics Friends of Children Fund.

Foreword

While inception of the medical home began with pediatrics over five decades ago^{1,2,3}, adult and specialty care embraced this concept over the last ten years. Many national, regional, and local efforts surrounding adoption and implementation of medical home in existing practices demonstrate favorable results. Yet, only recently have residency programs addressed medical home in training for a new era of physicians. As a result, despite growing need and evidence that medical home education in residency trainings seems to demonstrate beneficial outcomes in most studies, there is no systematic approach to education of trainees on fundamental building blocks of the patient- and family-centered medical home and its central tenants.

In response to this gap, a Medical Home Resident Education Initiative Work Group (REIWG) was created in 2011 to understand the current state of pediatric residency programs nationally and respond to identified goals, gaps, or perceived barriers to pediatric medical home residency education. The REIWG conducted a needs assessment of pediatric residency training programs, which suggested a need for improved medical home education, coupled with limits in faculty time, expertise, resources, and time in training. Resulting from the needs assessment, a medical home curriculum was developed by an interprofessional group of educators, medical home experts and stakeholders, and families. The modules are based on this curriculum. They serve as an effective strategy for dissemination of the curriculum and provide a needed resource for pediatric residency programs.

With an evolving landscape of medical home, residency education, and health care marketplace, it is paramount that residency training programs ensure their trainees are prepared as providers in a health care environment addressing care coordination/integration, practice transformation, value based payments, and the patient- and family-centered medical home. It is our hope, that these modules foster medical home adoption and implementation across a heterogeneous cohort of pediatric residency programs.

The authors would like to acknowledge the work and contributions of the REIWG for their ideas, support, and development of this work. The REIWG represented members from: American Academy of Pediatrics (AAP), The Academic Pediatric Association (APA), Association of Pediatric Program Directors (APPD), Association of American Medical Colleges (AAMC), parents and caregivers, resident members, and staff. We would also like to acknowledge AAP staff for their technical assistance in organizing the REIWG, materials, coordinating with our web designer, meetings, dissemination, and compiling of results.

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¹ American Academy of Pediatrics Council on Pediatric Practice. Pediatric records and a 'medical home.' In: *Standards of Child Care*. Evanston, IL: American Academy of Pediatrics; 1967:77–79

² American Academy of Pediatrics Medical Home Initiatives for Children with Special Needs Project Advisory Committee. The medical home. *Pediatrics*. 2002;110(1):184-186.

³ American Academy of Pediatrics, American Academy of Family Physicians, American College of Physicians, American Osteopathic Association. Joint principles of the patient-centered medical home. 2007.
http://www.aafp.org/dam/AAFP/documents/practice_management/pcmh/initiatives/PCMHJoint.pdf. Accessed August 6, 2015

Background

The American Academy of Pediatrics (AAP) is the leading membership organization of the pediatric profession dedicated to the attainment of optimal physical, mental and social health and well-being for all infants, children, adolescents and young adults. The AAP is widely recognized as the standard bearer for the pediatric profession and through its membership of over 64,000 primary care pediatricians, pediatric medical sub-specialists and pediatric surgical specialists. The AAP impacts the lives of millions of families with children from birth to age 21.

A Medical Home Resident Education Initiative Work Group (REIWG) was convened under the auspices of the National Center for Medical Home Implementation (NCMHI) (www.medicalhomeinfo.org) to assess and address the needs in the area of resident education related to medical home for all children, including children with special health care needs, care coordination, and family-centered care, respectively.

The overarching goal of this initiative is to provide direction, tools and resources to residency program directors, faculty and others in their efforts to educate trainees regarding the core tenets of medical home including the promulgation of suggested strategies for medical home implementation at the hospital, practice and community levels.

One of the major activities of the REIWG was the development of a pediatric residency curriculum that addresses the core tenets of medical home. As part of this effort, a needs assessment was developed and disseminated to pediatric residency program directors through the Association of Pediatric Program Directors membership listserv to assess and define the current state of education and/or curricula for pediatric residents around medical home, care coordination, and children and youth with special health care needs (CYSHCN). The results of the needs assessment were reviewed and utilized to inform curriculum content.

The curriculum and related activities are aligned with 2013 Accreditation Council for Graduate Medical Education (ACGME) core competencies and are organized around five topic areas, or “building blocks,” of medical home: Care Partnership Support; Clinical Care Information and Organization; Care Delivery Management; Practice Performance Measurement; and Resources and Linkages.

Instructional design documents have been developed, which outline a set of learning objectives organized by residency program year with accompanying educational strategies for each of the five topic areas. Educational strategies are identified as being either “core” or “supplemental.” Educational strategies include those that are more self-study in nature that can be done independently or within a small group setting along with those that are experiential (interview, site visit, focus group, etc).

The curriculum is extremely comprehensive, and in that regard, allows residency program directors and faculty the flexibility to implement the objectives and strategies that are feasible for the program and that best meet the needs of learners.

In order to increase the availability, utility and flexibility of the curriculum for residency program directors, faculty and residents, a series of five educational modules on medical home were developed. The curriculum topic areas and learning objectives served as the foundation of each module.

Ideas for Use

Each educational module, both as a full set and individually, is designed to be incorporated into existing curriculum by residency program directors and faculty. It is anticipated that directors and faculty may choose only some, or all, modules to use with residents. If all modules are used, it is recommended that they be adequately spaced throughout a residency program. The modules are best applied to pediatric residency programs. These modules may help programs meet requirements in formal teaching about Systems Based Practice, provide a foundation for medical home principles as part of training in quality and formally teach residents about interdisciplinary team work.

The content of the modules address 2013 ACGME core competencies of Patient Care and Procedural Skills; Medical Knowledge; Practice- Based Learning and Improvement; Interpersonal and Communication Skills; Professionalism; and Systems-Based Practice:

Patient Care and Procedural Skills: Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health; competently perform all medical, diagnostic, and surgical procedures considered essential for practice.

Medical Knowledge: Demonstrate knowledge of established and evolving biomedical, clinical, epidemiologic, and social and behavioral sciences, as well as apply it to patient care.

Practice-Based Learning and Improvement: Demonstrate an ability to investigate and evaluate the care of patients, appraise and assimilate scientific evidence, and continuously improve patient care based on constant self-evaluation and lifelong learning.

Interpersonal and Communication Skills: Demonstrate interpersonal and communication skills that result in effective exchange of information and collaboration with patients, their families, and health care professionals.

Professionalism: Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

Systems-Based Practice: Demonstrate awareness of and responsiveness to the larger context and system of health care, as well as an ability to call effectively on other resources in the system to provide optimal health care.

Each module is organized in the following format:

- Learning Objectives
- Pre-Test
- Topic Overview/Commentary
- Case Study
- Summary
- Post-Test
- Reflections to Consider
- References
- Resources

The amount of time needed to complete each module is estimated at approximately 30 – 60 minutes. The modules are designed to be utilized in various residency training program settings. Examples include:

- Residents complete modules independently as a longitudinal curriculum over Program Year One to receive basic training in medical home principles.
- Residents complete a selected module in a pre-pediatric continuity clinic teaching session together as a small group and engage in small group discussion.
- Residents independently complete a selected module in preparation for a small group discussion as part of the pediatric continuity clinic curriculum.
- Residents complete a selected module and present on same to other residents during pediatric continuity clinic teaching time.
- Residents complete modules during specific rotations (eg, Module 4: Facilitating the Transition From Pediatric to Adult Care during an adolescent medicine rotation or all the modules during an outpatient rotation).

The modules are available for download on the American Academy of Pediatrics Web site, www.aap.org/medicalhome. Pediatric residency program directors and faculty may consider tracking results of residents' pre- and post-tests over time to identify learning gaps and the degree to which educational strategies to address these gaps are effective.

Resources for Faculty Development

Pediatric residency program directors and faculty who would like additional information and guidance related to a specific area of medical home prior to implementing the modules with residents may wish to closely review the references and resources listed at the end of each module. Both sections include links to helpful articles, tools and other resources.

Pediatric residency program directors and faculty may find the following specific resources helpful in building greater knowledge of, and familiarity with, medical home principles and application of same into practice.

- Table 1 within "Patient- and family-centered care coordination: a framework for integrating care for children and youth across multiple systems." *Pediatrics*. 2014;133(5):e1451–e1460. (<http://pediatrics.aappublications.org/content/133/5/e1451>.)
- "What is Medical Home?" National Center for Medical Home Implementation (<https://medicalhomeinfo.aap.org/overview/Pages/Whatisthemedicalhome.aspx>)
- Fostering Partnership and Teamwork in the Pediatric Medical Home: A "How-To" Video Series (<https://medicalhomeinfo.aap.org/tools-resources/Pages/How-To-Videos.aspx>)

**Module 1:
Laying the
Foundation for a
Patient- and Family-
Centered Medical
Home**

Module 1: Laying the Foundation for a Patient- and Family-Centered Medical Home

Learning Objectives

- Discuss key characteristics and benefits of the patient- and family-centered medical home (PFCMH) to a practice, patients, and their families, including the role of residents, families, and clinical and community partners.
- Describe the value of establishing a collaborative partnership with patients and families.
- Elicit and incorporate patient and family feedback during a child's medical visit or encounter with the practice.

Pretest

1. How would you describe a patient- and family-centered medical home (PFCMH)?
2. Which practice characteristic best describes a PFCMH?
 - a. It offers patients and families more robust coordinated care during their entire journey through the health care process.
 - b. It provides 24/7 access to clinicians.
 - c. It makes use of health information technology to improve clinical outcomes, lower the cost of care, and favorably affect patient and family satisfaction.
 - d. All of the above.
3. Which of the following features can help distinguish a PFCMH from a traditional pediatric practice?
 - a. It offers variable appointment options so that a patient/family can best choose a time that is convenient.
 - b. It creates patient registries to better monitor and track patients' needs.
 - c. It ensures a smooth transition of care from hospital to home by arranging to receive hospital discharge summaries within 14 days of discharge.
 - d. A and B.
4. Clinicians in a PFCMH should not violate parents' or patients' privacy by inquiring about how their social lives affect their ability to adhere to a treatment/care plan regimen. True or false?

Overview

Over the last few decades, there have been numerous attempts by clinicians and policy makers to create a primary care practice model that increases the quality of care patients receive while lowering costs. One of the approaches—the patient- and family-centered medical home (PFCMH)—can provide health care professionals with practical tools needed to accomplish these objectives.

While the term *patient- and family-centered medical home* is often shortened to *patient-centered medical home*, it is important to include the word *family* in any discussion of medical homes because families are key to promoting health and wellness, managing chronic and complex conditions, and assisting with transitions and ongoing care for children and youths of all ages.¹

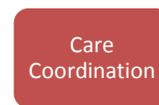
The PFCMH is not a physical location, but rather a model for providing patients with comprehensive, family-oriented, around-the-clock care. This approach is not only informed by the best available medical science and supported by peer-reviewed evidence, but builds on a philosophy of care that emphasizes compassion and a deep commitment to the patient and families' wellbeing.



Several key principles form the building blocks upon which the PFCMH rests. The American Academy of Pediatrics has collaborated with the American Academy of Family Physicians, the American College of Physicians, and the American Osteopathic Association to draft a series of core PFCMH concepts. These principles describe the patient- and family-centered care that is at the heart of a medical home as “healthcare that establishes a partnership among practitioners, patients, and their families (when appropriate) to ensure that decisions respect patients’ wants, needs, and preferences and that patients have the education and support they need to make decisions and participate in their own care.”²

The concept of the PFCMH was introduced by the American Academy of Pediatrics in 1967.³ Since its inception, it has evolved into a set of foundational principles and an approach that clinicians can incorporate into their everyday routine. Several of these principles are outlined below. The case study that follows is not designed to provide residents with the full clinical picture of a patient but to illustrate how PFCMH concepts can be put into action in everyday medical practice.

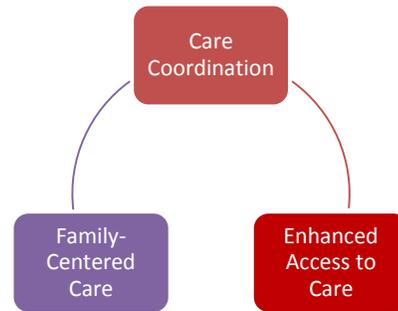
Care coordination is one of the most important foundational principles upon which a PFCMH is built. The American Academy of Pediatrics describes care coordination as “an essential element of a transformed American health care delivery system that emphasizes optimal quality and cost outcomes, addresses family-centered care, and calls for partnership across various settings and communities.”⁴ This means every patient has access to a personal physician who serves as the patient’s primary contact and who makes certain that the patient’s journey through the health care system is seamless, regardless of what physical location she receives actual care in. Coordination is facilitated with the help of patient registries, information technology, health information exchanges, and a variety of other tools.



Enhanced access to care is another component in the delivery of high-quality care to patients. In traditional primary care practices, patients often express concern about having to wait weeks or months to see their health care professional. The PFCMH addresses this problem by putting in place several mechanisms, including 24/7 nurse triage, an electronic patient portal for access

to educational materials and laboratory results, and access to the practice by means of telephone, secure e-mail, or secure text messaging (or a combination of those). Some medical homes also offer same-day appointments, weekend hours, and flexible appointment scheduling that allows patients to choose a time slot most convenient to their schedule.

Emphasis on family-centered care, another important component of the PFCMH, calls for clinicians and their practice team (the medical home team) to ensure that any decisions made by the team respect not only the patient’s needs and preferences but also the family’s concerns and preferences. Self-management is an important component of patient- and family-centered care, and a patient’s family can help encourage and facilitate self-management if the child is old enough to take on this responsibility. Whether it’s encouraging patients to take their medication correctly, helping them adhere to a special diet, or helping them avoid harmful health habits, enlisting the family’s support can be incredibly beneficial.



Family-centered care also means the PFCMH staff knows each patient and family they care for well enough to be able to communicate with them in a way they are most comfortable with, whether that be via secure text-messaging, by telephone, or in person. Similarly, it requires members of the medical home team to be sensitive to issues that concern each family, including, for example, transition to adult systems, discussion of sexually transmitted infections, or any number of other health-related issues.



Team-based care is another important component of family-centered care. The National Center for Medical Home Implementation outlines several key “ingredients” needed to transform a medical staff into a team. It explains that “[t]eamwork involves a set of skilled cross-disciplinary interactions that are learned, practiced, and refined to provide better health care services, promote safety, and enhance outcomes.”⁵ In practical terms, that means members of an effective team need several skills, including the ability to communicate effectively and respectfully with all other members of the team, and the ability to share ideas freely.

A team huddle is one effective strategy used within the PFCMH to implement a team-based approach to patient care. It can improve team efficiency, communication, and coordination. With a huddle, typically teams come together physically for 5 to 10 minutes at the beginning of each work day or clinical session to plan the day’s activities. This technique allows teams to strategize and anticipate needs of patients and their families.

Team-based care also means including the patient and family in addition to the clinicians and administrators. In fact, patients and their families are the most essential members of the team. Moreover, team members extend beyond confines of the practice. Community partners, specialists,

educational partners, and anyone participating in enhancing the life of a child and his family are part of the PFCMH team.

Focus on quality improvement is essential for a PFCMH to be effective. It requires that clinicians adhere to evidence-based treatment and management protocols and use clinical decision support tools to inform their day-to-day decision making. Concern for quality care also translates into a sense of accountability and a willingness to voluntarily engage in ongoing performance measurement and improvement.



Case Study

The following case study highlights both an approach to take and the items that need to be explored if a practice wants to truly provide holistic, comprehensive care—the cornerstones of a PFCMH.

Jonathan Mendez, 8 years of age, has moderate persistent asthma. His mother, a single working parent, had to lose a day’s pay in order to bring him to his pediatrician’s office because of a flare-up not responding to his albuterol inhaler. Jonathan has been hospitalized several times in the last year for his asthma. In a follow-up visit after his last hospital stay, he presents with a low-grade fever. Physical examination reveals wheezing, increased work of breathing, and tachypnea. The medical history reveals no comorbidities.

Patients like Jonathan and his mother can benefit in numerous ways from experiencing care in a PFCMH. Given that Ms Mendez has a busy schedule, offering her an online portal that allows her to schedule a visit at her convenience is valuable. The Web-based portal is also useful because it is hard for her to take time during her workday to call the office for an appointment. Similarly, offering appointments late into the evening and on weekends is also beneficial because they do not interfere with her work schedule.



A PFCMH can also help prevent many problems among patients with asthma. Through use of a patient registry, for instance, the medical home staff has a mechanism to make sure Jonathan’s family is notified to schedule and receive flu vaccination. Similarly, a PFCMH can provide a way to coordinate care with the child’s school so that he receives the correct medications on time and has them available in school if needed. A medication portal will also allow Jonathan’s mother to request a refill for his prescribed preventive and rescue medication, ensuring the prescriptions get filled on time.

Equally important for patients like Jonathan is a coordinated care plan for his asthma, including a working or action plan, providing a smooth transition from one treatment setting to another. Jonathan was released from the community hospital a week before this office visit. Fortunately, because communication between the hospital and medical home is good, the office was informed of hospital discharge recommendations and received a copy of the discharge and hospitalization summary within 24 hours of his release. Had that not been the case, important information to be included in the coordinated care plan may have been missed.



Ideally, an information technology–enabled health information exchange would exist that automatically sends a copy of the patient’s discharge summary to the child’s pediatrician. Once the medical home has that in hand, the team can meet to decide on the best course of action and schedule a follow-up visit in the office for the patient, ensuring adherence, understanding, and incorporation of patient and family feedback into the action plan. When a health information exchange is not in place, other arrangements can be made between the hospital and medical home, ensuring receipt of discharge recommendations. That can include secure faxes, secure e-mails, and phone calls.

During the follow-up visit, a member of the medical home team (in this case, a nurse educator), meets with Ms Mendez to evaluate the family situation and determine any obstacle that would hinder her full involvement in Jonathan’s care. The conversation reveals she needs to frequently leave her son with the maternal grandparents, one of whom is a heavy smoker. That will necessitate a discussion with the mother about ways to mitigate the effects of secondhand smoke on his condition, ensure his grandparents understand the implications of their smoking on his asthma, and review how to use a spacer for his inhalers.



The conversation between the nurse or care coordinator and Ms Mendez is also a good time to assess her educational level, language and literacy skills (if English is her second language), and ability to comprehend educational materials on asthma so that the medical home team can make necessary adjustments to working with Ms Mendez to ensure she is a full partner in her son’s care.

A medical home looks beyond usual medical issues that affect a patient’s health. It attempts to delve into psychosocial and other issues that may make it difficult for patients to adhere to a treatment protocol. For instance, during the office visit, someone on the team will want to inquire about Jonathan’s ability to manage his condition at school and in other social situations.

- Is he embarrassed about having to use an inhaler in class?
- Are his classmates harassing him because he can’t participate in sports because of his asthma?
- Is the school aware that he has an asthma action plan and if so, do they understand how to use it?
- Does Jonathan recognize his symptoms indicating when he needs to use his rescue inhaler?

Similarly, the medical home is in a position to identify possible mental health problems in the child or his family, including the stress of caring for a child with a chronic disease. Turchi and Mann explain that “[p]articularly for low-income families whose only point of access to the health care system may be the child’s medical home, screening for social needs during the child’s visits provides opportunities to evaluate and link the families to appropriate resources. This may lead to improved outcomes for low-income children’s health and development.”⁶

Any office visit with a patient with asthma would be incomplete without a detailed conversation about the asthma action plan. Because Jonathan has been a patient in this practice for several months, he already has a current asthma action plan. The visit described in this case study affords clinicians an opportunity to review the action plan to determine if it needs to be adjusted.

A PFCMH thrives on family feedback and their involvement as partners in the decision-making process. Respect for a patient’s and family’s preferences and culture must play a vital role in creating and adjusting the treatment protocol, including the aforementioned action plan. For instance, when reviewing the long-term control and quick-relief medications listed in the action plan, this is a good time to solicit Ms Mendez’s input.

- Is she struggling to pay for Jonathan’s medications?
- Do the cultural beliefs of the Mendez family interfere with adherence to the regimen?
- Does she believe, for instance, that herbal remedies are more effective and less likely to cause adverse effects?

Team-based Care

Clinicians in a PFCMH will also want to reach out to specialists that Jonathan’s family are seeing to get details on their visits and solicit information about the family’s interactions with specialists. Since Jonathan has also been seeing an allergist and pulmonologist, the medical home team needs to coordinate these patient encounters with the specialists and obtain the family’s feedback on those visits. Questions worth asking the family include:

- Did the specialist explain why she performed additional testing not done during the family’s visit to the pediatrician?
- Do they understand the treatment plan prescribed by the specialist, or did she use too many technical terms?
- Do they know if the specialist is communicating with the medical home team and if the care plans or treatment plans will be combined?
- Do they have concerns about paying for these tests and treatments?
- Do they know when follow-up with the specialist team is needed?

If English is not the preferred language by which the family communicates or they lack the necessary literacy, professionals may also want to arrange interpretation services when they visit the practice or the specialists’ practices.

Fortunately, applying the PFCMH principles outlined above help Jonathan and his mother bring his symptoms under control. Coordination and integration of care; care planning, along with some adjustments to his medications; better communication with his specialists; and linkages with community resources stabilize his condition and give Jonathan and Ms Mendez the tools and self-confidence to address any medical and psychosocial challenges ahead.

Summary

The PFCMH is a model of care for providing patients with comprehensive, family-oriented, 24/7 access to care. The model emphasizes better care coordination and integration, expanded access to clinicians, a team-based approach, more focus on the family’s needs and preferences, and a concerted effort to improve the quality of care patients receive. As the case of Jonathan Mendez illustrates, this model of care relies on open, respectful communication with patients and their families and an appreciation for the psychosocial issues that affect their lives outside the health care setting.

Posttest

1. How would you describe a patient- and family-centered medical home (PFCMH)?
2. Which practice characteristic best describes a PFCMH?
 - a. It offers patients and families more robust coordinated care during their entire journey through the health care process.
 - b. It provides 24/7 access to clinicians.
 - c. It makes use of health information technology to improve clinical outcomes, lower the cost of care, and favorably affect patient and family satisfaction.

d. All of the above.

Explanation:

Care coordination is one of the most important foundational principles of a PFCMH. It ensures that patient care is organized across all elements of a broader health care system, including specialty care, hospitals, home health care, community services and support, and public health. It requires every patient and family to have a personal physician who serves as the patient's primary contact and who makes certain that the patient's journey through the health care system is seamless, regardless of where she receives actual care. Coordination of care is facilitated with the help of tools such as: patient registries, care planning, information technology, health information exchanges, secure text messaging, and secure e-mails. Enhanced access to care is another key PFCMH principle. In traditional primary care practices, patients often express concern about having to wait weeks or months to see their health care professional. A PFCMH attempts to deliver 24/7 nurse triage, an electronic patient portal for access to educational materials and laboratory results, and quick access to practice services as methods to enhance access to care.

3. Which of the following features can help distinguish a PFCMH from a traditional pediatric practice?
 - a. It offers appointments at a time that is convenient for the patient and family.
 - b. It creates patient registries to better monitor patients' needs.
 - c. It ensures a smooth transition of care from hospital to home by arranging to receive hospital discharge summaries within 14 days of discharge.
 - d. A and B.

Explanation:

A medical home arranges with local hospitals to receive patients' discharge summaries within 24 hours of their release. Ideally, an information technology-enabled health information exchange or work flow would exist that automatically sends a copy of the patient's discharge summary to the child's physician, but, when this is not feasible, secure faxes, secure e-mails, and phone calls are acceptable ways to exchange information about the patient's discharge. Electronic health records are valuable tools for a medical home, but all too often, it is not possible for one record to communicate with another, making it impossible to share discharge summaries in this way.

4. Clinicians in a PFCMH should not violate parents' or patients' privacy by inquiring about how their social lives affect their ability to adhere to a treatment regimen. True or false?

Explanation:

One advantage of a PFCMH is that it seeks to help patients address obstacles to care that occur outside the 4 walls of a medical practice. In the case study above, for instance, it was appropriate for the medical home team to inquire about Jonathan's ability to manage his condition at school and in other social situations. While still respecting the patient's privacy, one can ask a child, or his parent or family member, whether psychosocial issues will prevent him from adhering to the treatment regimen, for instance.

Reflections to Consider

The following questions are meant to prompt thought and discussion either individually or in a small group. There are no right or wrong answers.

- How would enhancing and/or adopting PFCMH improve the health of your patient population?
- What aspects of the PFCMH would most improve your ability to care for children and families?
- What aspects of PFCMH are you currently employing in your practice?
- What are the barriers to the PFCMH in your current practice? What can you do to address these barriers?

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Resources

American Academy of Pediatrics

- “AAP Medical Home Resources” Web page (<http://aap.org/medicalhome>)
- “The Medical Home” policy statement (<http://pediatrics.aappublications.org/content/110/1/184.full.ht>)

National Center for Medical Home Implementation Web site (www.medicalhomeinfo.org) Patient Centered Primary Care Collaborative *Transforming Patient Engagement: Health IT in the Patient Centered Medical Home* handout (www.pcpc.org/sites/default/files/media/pep-report.pdf)

Module 2: Leveraging the Power of Care Coordination

Module 2: Leveraging the Power of Care Coordination

Learning Objectives

- Describe the purpose of and resources needed for effective care coordination within the context of a patient- and family-centered medical home.
- Describe effective use of a comprehensive electronic health record to exchange necessary information to promote patient care.
- Describe effective partnerships for patient/family centered care among the primary care physician, families, community partners, and various specialists caring for a patient within a patient- and family-centered medical home model.

Pretest

1. Care coordination differs from case management in that it focuses on the medical needs of patients and utilization of health services, while case management takes a broader approach that includes patients' psychosocial needs and connection with community social service and education professionals. True or false?
2. Recent federal and state health care reform initiatives may not incorporate adequate payment from public and private insurers for care coordination activities within a medical home. True or false?
3. *Current Procedural Terminology* codes can be used to partially cover the additional work involved in coordinating a child's medical care. True or false?
4. The American Academy of Pediatrics Council on School Health offers the following guidelines to help clinicians coordinate care with a child's school:
 - a. Become recognized as a reliable medical expert, not just an advocate.
 - b. Don't use medical jargon.
 - c. Don't be turned off by educational jargon—speak up and ask for explanations of acronyms or unfamiliar phrases.
 - d. Make no assumptions about health care staffing in the school; realize that while funding is decreasing, demands for health programs are increasing.
 - e. All of the above.
5. Bright Futures is an American Academy of Pediatrics program that fosters care coordination by offering health promotion and disease prevention resources that can help clinicians and families work together to better meet children's needs. True or false?

Overview

"Simply put, care coordination improves outcomes." That assessment, from a recent policy statement of the American Academy of Pediatrics (AAP), sums up the importance of care coordination.¹ *Patient- and Family-Centered Care Coordination: A Framework for Integrating Care for Children and Youth Across Multiple Systems* cites research to show that providing care coordination is positively associated with patient- and family-reported "receipt of family-centered care," stronger partnerships among

professionals, enhanced patient satisfaction, easier access to referrals, and lowered out-of-pocket expenses for families. The policy statement, developed by the AAP Council on Children With Disabilities and the Medical Home Implementation Project Advisory Committee, also explains that better coordination results in favorable associations with parental employment and fewer school absences and emergency department visits.^{1,2}

The AAP policy Statement explains:

Care coordination is a cross-cutting system intervention that is the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services.... Successful care coordination takes into consideration the continuum of health, education, early child care, early intervention, nutrition, mental/behavioral/emotional health, community partnerships, and social services....¹

In other words, care coordination takes a truly holistic approach to patient care, recognizing that a patient's and family's health needs continue when they exit the office doors.

To better understand the role of care coordination in a patient- and family-centered medical home (PFCMH), it helps to compare it with another component of medical care: case management. The AAP policy statement points out that disease or case management concentrates primarily on patients' medical issues.

Case managers work with and guide services intrinsic to their specific agency, often within the constraints of eligibility criteria. In contrast, care coordinators work with and guide the team process, which includes and is driven by the needs of patients and families for services across the community. These functions include care planning and building collaboration/partnerships with all medical and nonmedical providers working with a patient/family.¹

Of course, applying all of the features of a PFCMH takes time and resources in practice, necessitating a payment system that recognizes this additional work. While payment for care coordination services has been met with limited success, there has been some progress on this front. For instance, the American Medical Association has added codes 99487 through 99489 to the Current Procedural Terminology manual.¹

These codes, in turn, have been adopted by the Centers for Medicare and Medicaid Services; they allow payment for complex chronic care coordination provided by a physician or other qualified health care professional and clinical staff. Keep in mind that payment for services is ultimately negotiated at the practice level with individual payers and contracts.

Additionally, health information technology (IT) plays an important role in improving care coordination in PFCMHs. Health IT allows clinicians to create care plans in an EHR, which can be viewed by interdisciplinary team members using the same EHR system.

The role of medical home teams also needs to be considered in implementation of care coordination. For true care coordination to take place, members of a medical practice, including administrators and office staff, plus community partners and educators, function as a team and must maintain regular and candid communication with one another, work to improve the quality of communication, and build strong relationships with one another, patients, and their families. After all, patients and families are the most important members of the team.

Applying principles outlined in the AAP policy statement can have a significant effect on a physician's daily practice routine, as is illustrated in the following case study. Please keep in mind that the patient scenario that follows is not designed to provide residents with the full clinical picture and management of a patient but to illustrate how care coordination can be put into action in everyday medical practice.

Case Study

Thomas Harris, 12 years of age, has attention-deficit/hyperactivity disorder, as well as a seizure disorder requiring care by a neurologist. His seizures recently required hospitalization to bring them under control. Fortunately, his pediatric practice has adopted the medical home model, so the entire practice staff is committed to providing comprehensive care, focusing on all Thomas' needs including medical, psychosocial, financial, and educational. The following scenario highlights the importance of care coordination in care transitions from hospitalization back to home.

An essential component of care coordination is good communication.

An essential component of care coordination is good communication between inpatient and outpatient clinicians and team members. Thomas was discharged from the hospital 7 days ago. Two days before the family comes in for a post-hospitalization follow-up visit, the medical home team ensures proper communication with the hospital, making sure that the discharge summary has arrived. Since the

The medical home team begins the day with a team huddle.

hospital and medical home don't share the same electronic health record (EHR) system, a nurse in the practice proactively reached out to the hospital by telephone to request a secure faxed copy of his records from this recent hospital admission. Those records indicated that his medication had been changed to help control the seizures.

Before patients arrive, the medical home team meets briefly to discuss all patients scheduled in clinic each morning. The National Center for Medical Home Implementation recommends daily pre-clinic meetings, called huddles, and suggests they improve the quality of patient care and allow for ongoing review of the practice's operations. The morning of Thomas' visit, the medical home team discusses his case and checks that all necessary information is in hand for his visit.

When the Harris family arrives, the pediatrician reviews all of his medications to make sure Thomas and his family understand and are following the latest drug recommendations since his discharge from the hospital. Laboratory tests done during his recent hospitalization revealed elevated levels of liver enzymes, so the pediatrician explains possible implications of those results. He asks a nurse to communicate the laboratory test results and coordinate any follow-up visit with the neurologist. That is especially

The medical home team reviews medication changes, communicates lab results to Thomas' neurologist and works with Thomas' parents to update his care plan.

important since the changes in levels of liver enzymes may suggest anticonvulsant toxicity and may necessitate an adjustment in his anticonvulsant regimen. Fortunately, the neurologist shares the same EHR system as the medical home, which makes sharing laboratory test results much easier.

Thomas' parents indicate his care plan was not updated since his hospitalization reflecting the change in medication dosing. A care plan encompasses a child's entire life course and takes into account his transition into adulthood. "Ingredients" of that plan may include diagnoses, surgeries, relevant medical history, medications, allergies, therapies (occupational, physical, speech), insurance information, needed medical equipment, and home nursing services, as well as a child's needs and strengths.

Many useful resources help medical homes in care planning and care plan development, including the Lucile Packard Foundation for Children's Health Report *Achieving a Shared Plan of Care with Children and Youth with Special Health Care Needs*.³ Care planning will be discussed in more detail in the next module in this educational series.

The pediatrician works with Thomas' parents to update his care plan. The pediatrician explains that his new care plan will be accessible on the patient portal for retrieval after the office visit. Patient portals are another useful IT tool that can improve care coordination, allowing families to gain quick access to laboratory test results, portions of medical records, and immunization records, as well as make appointments or referral requests more easily. The pediatrician then does a warm handoff with the family to the practice care coordinator who will work with family on other aspects of Thomas' care.

The care coordinator obtains basic information related to Thomas' school that will be important to coordinating his care, including the school name and primary contact person⁴ and asks the following school-related questions:

- How well is Thomas doing in school?
- How many days of school has he missed during the last semester?
- Were any of those absences due to specific symptoms or health issues?
- Are the teacher and school nurse cooperating with administering his medication regimen?
- Is the school fully on board, ensuring any change in his medication regimen is in his records?
- When was his last Individualized Education Program (IEP) meeting? How can the medical home assist with the IEP and be aware of any changes?

According to the AAP Council on School Health, "Pediatricians are well-respected members of the community and can serve as a bridge between the education and health systems. Your opinions are highly regarded and school officials often appreciate your expertise and support." The council offers the following tips on interacting with schools:

- Work with, not against, the education system; consider its goals and primary responsibilities.
- Recognize the education system is as complex as the health care system.
- Recognize education systems have a different culture than health care systems; learn as much as possible about this culture and respect it.
- Become recognized as a reliable medical expert, not just an advocate.
- Don't use medical jargon.
- Don't be turned off by educational jargon—speak up and ask for explanations of acronyms or unfamiliar phrases.
- Make no assumptions about health care staffing in schools; realize that while funding is decreasing, demands for health programs are increasing.

- Are his IEP and family goals being addressed? If not, how can the medical home team and community partners assist his family in meeting these needs?

Care coordination is associated with easier access to referrals.

To more fully coordinate care between the Harris family and Thomas' school, the care coordinator working with the family prints his care plan from the medical home's patient portal and sends it by secure fax to the school nurse, with parental permission. Alternatively, a secure e-mail containing the care plan could be sent to the school nurse.

Also during the meeting with the care coordinator, several patient and family resources were identified that may be helpful to Thomas and his parents, and referral information was provided. Linking patients and families to resources in their community and working collaboratively with community partners is critical in care coordination. As children are active in their communities, and care coordination occurs in the community setting, it is essential that care be integrated between community partners and the medical home. Linking families to others with similar experiences is invaluable as parents like Mr and Mrs Harris have needs of their own as caregivers. Fortunately, several options are available to parents.

Family Voices, for instance, is a grassroots network, providing families with children and youth with special health care needs or disabilities with resources and support. The National Center for Medical Home Implementation explains, "[Family Voices] provides families with tools to advocate for improved public and private policies, and build partnerships among professionals and families."⁵ This resource is available at www.familyvoices.org.

Family Voices provides assistance and training to state-based Family-to-Family Health Information Center. Each state or commonwealth has its own Family-to-Family Health Information Center, which is an accessible resource for patients, families, and professionals. Family-to-Family Health Information Centers referenced above can assist families in connecting with their state's Title V program.

Title V programs are valuable resources to improve care coordination for many patients enrolled in a medical home. Begun in 1935 as part of the Social Security Act, these programs offer several valuable services for families and youth with special health care needs. Part of the Health Resources and Services Administration Maternal and Child Health division, they offer block grants to states and fund a set of national centers and partners to help children and youth gain access to quality health care, including comprehensive general health, oral health, mental health, and substance abuse prevention and treatment services.

Bright Futures, a valuable resource from the AAP, is a national health promotion and disease prevention initiative that can help clinicians and families better meet children's needs. It provides educational materials that cover mental, physical, and emotional health issues for infants, children, and youths through age 21. Among the resources for families is a series on nutrition, socialization, and a variety of other topics. Among the professional tools offered by Bright Futures is *Performing Preventive Services: A Bright Futures Handbook*, which includes guidelines on assessing and managing attention-deficit/hyperactivity disorder.⁶

The family is provided an after visit summary and can access the summary via an online patient portal.

At the end of the follow-up visit, a nurse in the practice provides the family with a printed after-visit summary that includes an updated medication list, future appointments, individualized patient instructions, and relevant laboratory test results. This same information is accessible via the patient portal. In addition, the nurse adds Thomas' name to a Health IT enabled registry for patients with seizure disorder, allowing the practice to track appropriate scheduling of laboratory tests and clinic visits.

Summary

Research shows that care coordination has a significant effect on clinical outcomes while, at the same time, strengthening bonds between clinicians and families, enhancing patient satisfaction, and lowering out-of-pocket expenses. To implement this core PFCMH principle, pediatricians and their colleagues need to improve the lines of communication with specialists or other professionals caring for their patients; reach out and collaborate with educational systems (eg, schools, teachers, school nurses) to help bolster the child's chances of succeeding academically by coordinating any medical care and discussing aspects of a child's Individualized Education Program when appropriate; and offer families referrals to other needed community resources, when necessary.

Posttest

1. Care coordination differs from case management in that it focuses on the medical needs of patients, while case management takes a broader approach that includes patient's psychosocial needs and connection with community social service and education professionals. True or false?

Explanation:

Disease or case management concentrates primarily on patients' medical issues. Case managers work with and guide services intrinsic to their specific agency, often within the constraints of eligibility criteria. In contrast, care coordinators work with and guide the team process, which includes and is driven by the needs of patients and families for services across the community. These functions include care planning and building collaboration and partnerships with all medical and nonmedical professionals working with a patient and family.¹

2. Recent federal and state health care reform initiatives may not incorporate adequate payment from public and private insurers for care coordination activities within a medical home. True or false?

Explanation:

While payment for care coordination services has been met with limited success, there has been some progress on this front. The American Medical Association has added codes 99487 through 99489 to the *Current Procedural Terminology* manual that take into account the additional work involved.¹ These codes, in turn, have been adopted by the Centers for Medicare and Medicaid Services; they allow for complex chronic care coordination provided by a physician or other qualified health care professional and clinical staff to be paid for. Clinicians must keep in mind, however, that payment for services is ultimately negotiated at the practice level with individual payers.

3. *Current Procedural Terminology* codes can be used to partially cover the additional work involved in coordinating a child's medical care. True or false?

Explanation:

The American Medical Association has added codes 99487 through 99489 to the *Current Procedural Terminology* manual that take into account some of the additional work involved in providing care coordination for patients.

4. The American Academy of Pediatrics Council on School Health offers the following guidelines to help clinicians coordinate care with a child's school:
 - a. Become recognized as a reliable medical expert, not just an advocate.
 - b. Don't use medical jargon.
 - c. Don't be turned off by educational jargon—speak up and ask for explanations of acronyms or unfamiliar phrases.
 - d. Make no assumptions about health care staffing in the school; realize that while funding is decreasing, demands for health programs are increasing.
 - e. All of the above.

Explanation:

Following the American Academy of Pediatrics recommendations listed above will reinforce the status of pediatricians as well-respected members of the community and help bridge the gap that sometimes exists between education and health systems. It will also help patients receive individualized attention in school and optimize your relationship with school officials.

5. Bright Futures is an American Academy of Pediatrics program that fosters care coordination by offering health promotion and disease prevention resources that can help clinicians and families work together to better meet children's needs. **True** or false?

Explanation:

Bright Futures is a collaborative initiative that combines the expertise of the American Academy of Pediatrics and the Maternal and Child Health Bureau, a branch of the Health Resources and Services Administration. Bright Futures is a national health promotion and disease prevention initiative that can help clinicians and families better meet children's needs. It provides educational materials that cover mental, physical, and emotional health issues for infants, children, and youths through age 21. Among the resources for families are series on nutrition, socialization, and a variety of other topics. Among the professional tools offered by Bright Futures is *Performing Preventive Services: A Bright Futures Handbook*, which includes guidelines on assessing and managing attention-deficit/hyperactivity disorder.

Reflections to Consider

The following questions are meant to prompt thought and discussion either individually or in a small group. There are no right or wrong answers.

- How would care coordination improve the care of your patients?
- What has been your experience with care coordination in practice? What was similar and different about your experience with case management?
- What aspects of your practice provide opportunities for care coordination to better meet the needs of your patients and families?

- What approach(es) would you take to encourage patient and families to engage them in care coordination?
- What things could you do to foster care coordination and partnerships with communities and educational partners in your practice?

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5. National Center for Medical Home Implementation. *Community Resource List*. Elk Grove Village, IL: American Academy of Pediatrics. <https://medicalhomes.aap.org/Documents/CommunityResourceList.pdf>. Accessed July 22, 2015
6. Tanski S, Garfunkel LC, Duncan PM, Weitzman M, eds. *Performing Preventive Services: A Bright Futures Handbook*. Elk Grove Village, IL: American Academy of Pediatrics; 2010. <https://brightfutures.aap.org/materials-and-tools/PerfPrevServ/Pages/default.aspx>. Accessed July 22, 2015

Resources

American Academy of Pediatrics Council on Children With Disabilities, Medical Home Implementation Project Advisory Committee. Patient- and family-centered care coordination: a framework for integrating care for children and youth across multiple systems. *Pediatrics*. 2014;133(5):e1451–e1460. (<http://pediatrics.aappublications.org/content/133/5/e1451>.)

American Academy of Pediatrics HealthyChildren.org
(www.healthychildren.org/English/Pages/default.aspx)

Bright Futures

- “Clinical Practice” Web page (<https://brightfutures.aap.org/clinical-practice/Pages/default.aspx>)

- “Family-centered Care” Web page (<https://brightfutures.aap.org/families/Pages/default.aspx>)
- “Resources for Families” Web page (<https://brightfutures.aap.org/families/Pages/Resources-for-Families.aspx>)

National Center for Medical Home Implementation *Community Resource List* handout
(<https://medicalhomes.aap.org/Documents/CommunityResourceList.pdf>)

Module 3: Developing an Effective Care Plan

Module 3: Developing an Effective Care Plan

Learning Objectives

- Develop and manage a comprehensive care plan in partnership with the child or youth, his or her family, and others involved in the care team (including specialists and community partners).
- Describe communication strategies that can be used when developing a care plan with children and their families that demonstrate respect for varied cultural and linguistic beliefs and practices.

Pretest

1. All children in a pediatric practice should have a care plan created to guide their treatments. True or false?
2. A care plan should not only outline a child's medical treatment but also include an assessment of which of the following issues?
 - a. The child's and family's strengths and needs.
 - b. Social and developmental issues.
 - c. The child's educational needs.
 - d. Financial concerns.
 - e. All of the above.
3. Research suggests that failure to plan and coordinate care may be common in many primary care practices and can disrupt continuity of care. True or false?
4. The care planning process can include reaching out to specialists through the use of any available electronic health record system, e-mail system, or text-messaging application. True or false?

Overview

The American Academy of Pediatrics states that “care plans are an essential part of the medical home.”¹ They include all pertinent current and historical, medical, and social aspects of a child's and family's needs. They also contain information about interventions; each partner involved in the patient's care; contact information for specialists, community partners, and others involved in the child's care; and an action plan that is created in partnership with the patient and his family. According to the American Academy of Pediatrics policy statement *Patient- and Family-Centered Care Coordination: A Framework for Integrating Care for Children and Youth Across Multiple Systems*,

[c]are planning includes the use of an “actionable” care plan with assigned tasks/roles, a care plan document, an emergency information form, and/or a medical summary, including past medical history and salient specialist information. These care plans are developed and implemented with input from members of the team caring for a child, including community partners, educational specialists, primary care providers, dental providers, medical subspecialists and surgical specialists, and, most importantly, the family and patient themselves.²

Note that care planning happens over time and is not a “one and done” approach to patient care. Nor is it necessarily required for all children. A child who comes into the office with an acute ear infection, for instance, but who is otherwise healthy, might receive an after-visit summary with patient instructions and have no need for a care plan, but many other children require a care plan.

For children who would benefit from a care plan, it becomes the central repository in their charts and can be incorporated into most electronic health record (EHR) systems. This plan is managed by the medical home but informed by anyone involved in care of the child. As the following case study illustrates, the phases of care planning include:

- Assessing which child needs a care plan
- Ensuring the family is central to creation of the care plan
- Ensuring the care plan is maintained, updated, and shared with all appropriate parties, including specialists and community partners

The care planning process starts with an understanding of the child’s and family’s needs and strengths. This can happen only when the medical home team develops a strong, trusting relationship with the family. Once that takes shape, the team can “perform a comprehensive assessment of strengths, needs and gaps, and address interrelated medical, social, developmental, psychological, behavioral, educational, environmental and family financial concerns.”³

Results of that assessment can be used to create partnerships among medical home team members, the child and family, specialists, and community service professionals (eg, mental health, educational system) who may be contributing to the child’s care. As these partners work together, they develop shared goals and outcomes for the child in a coordinated effort.

The next step is creating a care plan and putting it into action. Care plans are especially valuable for children with chronic conditions that should be carefully monitored. Care plans are also valuable for children when they face emergency situations allowing rapid exchange of salient information; the care plan should outline a set of specific actions to be taken in such circumstances.³ The care plan also helps summarize the child’s history, ensuring families do not have to repeat all details of their child’s past medical history in each clinical and/or community encounter with their child. Finally, it fosters shared decision making and provides families with a memorialized summary and understanding of who is responsible for what aspects of their child’s care. Links to sample care plan templates can be found under “Resources” at the end of this module.

The case study that follows is **not** designed to provide residents with the full clinical picture of a patient but to illustrate how patient- and family-centered medical home concepts can be put into action in everyday medical practice.

Case Study

Visit 1: Explaining the Care Planning Process

Jennifer Marconi, aged 7, was recently diagnosed with type 1 diabetes. She and her parents have already met with an endocrinologist and received basic education about the condition and how to manage it (with insulin injections, diet, physical activity, and blood glucose monitoring). The family is now in for their first visit with her pediatrician, since meeting with the endocrinologist.

At the initial post-diagnosis visit, one of the pediatrician’s first priorities is reinforcing the education Jennifer already received from the endocrinologist. The next task is to improve coordination of her care. Research suggests that failure to coordinate care is common in primary care practices and can have serious consequences.⁴ For instance, communication between primary care physicians and specialists is often inadequate, with too little information changing hands to ensure the best continuity of care. Part of the solution is to develop a care plan that is shared among all caregivers and providers to optimize care coordination.

It is not enough to share information between pediatricians and specialists. A child and her family need to be involved in the care planning process.

During the visit, the pediatrician shows the family a sample care plan and explains that it is more than just a summary of the child’s medical history and treatment plan. It also includes shared strategies, what the team and family hope to accomplish over time, and a list of agreed-upon tasks and interventions. The care plan addresses a child’s needs, not just clinical ones but also developmental, educational, social, and financial ones, and includes durable medical equipment, if necessary or appropriate, and insurance information. It also contains the names and phone numbers of specialists, equipment suppliers, and pharmacies, as well as information about how to obtain lancets and glucometers. Finally, the care plan allows a family to have a summary of salient information for other caregivers and schools. The pediatrician asks the family open-ended questions to solicit their feedback about the care plan and to gauge their understanding of its use and utility and also asks if there are other sections of the care plan that aren’t included that the family would like to add.

-
- Potential Care Plan Components
- Diagnosis
 - Provider contact information
 - Presenting problems
 - Patient and family strengths
 - Patient challenges
 - Prior surgeries and/or procedures
 - Recent laboratory and other diagnostic studies
 - Assistive technology
 - Patient and family goals
-

Because of this discussion, the family sees the value of a care plan in helping manage Jennifer’s blood glucose levels, nutritional needs, and insulin regimen—as well as numerous non-medical concerns. The Marconi family is pleased that they have a say in how Jennifer’s treatment will unfold and agree to schedule a second office visit to work with the medical home team to complete the care plan in full.

Visit 2: Designing the Individualized Care Plan

During a next visit, a nurse in the practice and the family begin filling out the necessary sections of a care plan template together. This includes documenting emergency contact information, diagnoses, allergies, medications and their dosages, the names and contact details for her specialist, and school name and contacts. Equally important, the nurse discusses what Jennifer and her parents hope to accomplish from clinical, educational, and psychosocial perspectives. They have two primary goals, which are documented in the care plan, which are management of type 1 diabetes and improved communication, collaboration, and coordination of care among Jennifer, her family, providers, and her school. While many practices work on the entire care plan together with the family while they are in the office, others will have the child and family fill out some portion of the form at home, accessing it through an online patient portal and giving input electronically.

Here are some clinical issues the nurse discusses with the family. Once discussed, they are incorporated into the care plan.

- Is Jennifer comfortable self-monitoring blood glucose?
- Does she need more training on the procedure?
- What's her hemoglobin A1c goal?
- Is Jennifer comfortable with her medication regimen? Does Jennifer need more education on how to administer insulin?
- Does she understand the carbohydrate dose calculation to determine the amount of insulin to inject?
- Do she and her family know who to call for the various aspects of her care?
- Does the family know what to do when they run out of supplies?
- Do she and her family know what signs and symptoms of hypoglycemia to watch for?

This nurse also discusses with the Marconi family their cultural values and norms and how they may affect Jennifer's course of treatment. For example, they spend time discussing how Jennifer can navigate social family gatherings where traditional foods are served, which tend to be high in carbohydrates, in order to maintain appropriate blood sugar levels. These strategies are documented in Jennifer's care plan.

The Marconis are concerned with how diabetes and its management will affect Jennifer when she is in school, such as how insulin therapy will be administered while she is in class. Similarly, they want to know how her physical education class will affect her insulin and nutritional needs and what role her teacher will have to take on in case of a hypoglycemic incident. Once the medical home, family, and school work out a plan, these details will be documented in the care plan as well and shared with all involved parties.

They also express concern that their daughter's special needs may be imposing an unreasonable burden on the school's staff. It is important for the family to understand that Jennifer's school has a legal obligation to accommodate her needs. The nurse explains Section 504 of the Rehabilitation Act, the federal law prohibiting discrimination against people with disabilities. That law requires schools to take steps to ensure that students with diabetes are medically safe, have access to the same educational opportunities as other children, and are treated fairly.⁵ As the US Department of Health and Human Resources Office of Civil Rights explains,

Section 504 forbids organizations and employers from excluding or denying individuals with disabilities an equal opportunity to receive program benefits and services. It defines the rights of individuals with disabilities to participate in, and have access to, program benefits and services.... People who have a history of, or who are regarded as having a physical or mental impairment that substantially limits one or more major life activities, are also covered.... Some examples of impairments which may substantially limit major life activities, even with the help of medication or aids/devices, are the following: AIDS, alcoholism, blindness or visual impairment, cancer, deafness or hearing impairment, diabetes, drug addiction, heart disease, and mental illness.⁶

Even the most optimal care plan would be of limited value if it were not readily available to every member of the care team who would benefit from it, including the family. Care plans need to be

accessible, retrievable, and available. To accomplish that goal, at end of this particular visit, a medical assistant inputs Jennifer's care plan into her EHR. One option is to scan the document in as a pdf, though many EHR systems contain a template that is populated with such information during a visit or encounter. The practice also makes the care plan available to the Marconi family by putting it up on its patient portal. The family can access this portal after the visit from any location with Internet access. Lastly, because the family signed a release of records form, the medical assistant sends a secure e-mail to the school nurse containing the care plan to foster care coordination and co-management. Co-management involves enhanced communication and sharing of care among families and professionals. Chronic condition management tools, such as co-management letters and care-sharing agreements, support these communications.⁷

Following the visit, the nurse also reaches out to Jennifer's endocrinologist to coordinate care. Care planning includes the development of a strong relationship with Jennifer's endocrinologist. Some patients are comfortable managing communication between their primary care physician and specialists; others are not. A conversation with the Marconis revealed that they prefer the medical home team take the lead on this, and the nurse follows through to make sure there is good two-way communication with the endocrinologist staff. She reaches out personally to introduce herself by phone and sends a secure, encrypted HIPAA (Health Insurance Portability and Accountability Act)-compliant e-mail to the endocrinologist's medical assistant to make sure the connections are working properly.⁸ Once that's been accomplished, she sends the child's care plan to the staff as an e-mail attachment. Some clinical sites allow sharing of documents through their EHRs, which allows all professionals to access the same patient-related information without requiring additional steps.

Visit 3: Readjusting Jennifer's Care Plan

Although a care plan has been put in place and all members of the care team have been doing their best to help Jennifer maintain control of her condition, she experiences several episodes of hypoglycemia that have her and her parents worried. These problems prompt another visit to her pediatrician to determine the cause and to take a second look at the care plan and make appropriate adjustments.

A candid conversation between the pediatrician and Jennifer reveals that she is embarrassed to let others at school know about her diabetes and has tried to hide it from her classmates. At times, that has resulted in her not taking her insulin on time and, at other times, not timing her meals and snacks to coordinate with her insulin shot. Further, she is self-conscious about her weight and sometimes skips meals to avoid gaining weight; this has also contributed to hypoglycemic episodes.

To address these issues, the pediatrician reviews the signs and symptoms of hypoglycemia with Jennifer to make sure she knows how to identify when hypoglycemia may be occurring, what to expect, and how to respond when the situation emerges. He confirms that she has glucose tablets on hand at all times, especially at school, to address the problem. Jennifer confirms that she can identify the signs and symptoms of hypoglycemia if or when they emerge and has foods available to increase her blood sugar levels. The next step is to address psychosocial issues related to her condition.

The pediatrician delves a little deeper into these issues. Upon questioning, Jennifer admits to being bullied by a few of her classmates. To avoid drawing attention to herself, she has been trying to hide her condition and has not followed all instructions spelled out in the care plan that was originally agreed upon. The pediatrician offers some tips on how to cope with the situation, and also discusses the situation with Jennifer's parents. Now that the parents are aware of the underlying problem, they make

arrangements to address it with the Jennifer's teacher.

The American Academy of Pediatrics offers professional resources to help pediatric medical home teams address bullying and cyberbullying,⁹ as well as patient education tools to cope with the problem.¹⁰ The pediatrician shares these materials with Jennifer and her parents and adds them to the care plan.

Summary

For patients like Jennifer Marconi, a care plan is an essential part of treatment; it allows her pediatrician, her parents, her school, specialists, community partners, and Jennifer to manage her diabetes. Everyone is on board with the care plan, and Jennifer is gradually developing the skills needed to manage her condition and all clinical and psychosocial issues it entails. She has become more expert at calculating her insulin and carbohydrate needs, her blood glucose levels are now under better control, her hypoglycemic episodes are less frequent, and she and her classmates have developed better relationships.

Posttest

1. All children in a pediatric practice should have a care plan created to guide their treatments. True or **false?**

Explanation:

A care plan is not necessarily required for all patients. A child who comes into the office with an acute ear infection, for instance, but who is otherwise healthy, might receive a visit summary with patient instructions and have no need for a care plan.

2. A care plan should not only outline a child's medical treatment but also include an assessment of which of the following issues?
 - a. The child's and family's strengths and needs.
 - b. Social and developmental issues.
 - c. The child's educational needs.
 - d. Financial concerns.
 - e. All of the above.**

Explanation:

The care planning process starts with an understanding of the patient's and family's needs, strengths, and goals. This can happen only when the medical home team develops a strong, trusting relationship with the family. Once that takes shape and is solidified, the team can perform a comprehensive assessment of strengths, needs, and gaps, as well as address interrelated medical, social, developmental, psychological, behavioral, educational, environmental, mental health, community partnership, and financial concerns or needs.

3. Research suggests that failure to plan and coordinate care may be common in many primary care practices and can disrupt continuity of care. **True** or false?

Explanation:

Research suggests that poor care coordination is common in primary care practices and can have serious consequences. Research shows, for instance, that communication between primary care physicians and specialists is often inadequate, with too little or poor quality information changing hands to ensure the

best continuity of care. Part of the solution to this problem is a care plan that is shared among all caregivers and anyone working with a family and child to optimize his potential and functioning. This includes those in and outside the medical arena.

4. The care planning process can include reaching out to specialists through the use of any available electronic health record system, e-mail system, or text-messaging application. True or false?

Explanation:

Developing a good relationship when you're the specialist that your patients see is an important part of the care planning process. Any electronic communication with other professionals, however, must adhere to federal regulations spelled out in the HIPAA (Health Insurance Portability and Accountability Act). All text messages and e-mails should be sent through a secure, encrypted system that is HIPAA compliant.⁸

Reflections to Consider

The following questions are meant to prompt thought and discussion either individually or in a small group. There are no right or wrong answers.

- What are some critical components of a care plan you think should be included in caring for your patients?
- Think about a time you have developed a care plan for a child. What went well? What are some areas of opportunities for improvement? If you have never developed a care plan with a family before, think about how you would approach creating that care plan. What strategies would you employ to ensure the family/youth engage in the creation of the care plan?
- Which community partners have you partnered with that would be helpful to engage in care planning. Think about how you would approach partnering with them.

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Accessed July 16, 2015
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Resources

Achieving a Shared Plan of Care with Children and Youth with Special Health Care Needs
(http://www.lpfch.org/sites/default/files/field/publications/achieving_a_shared_plan_of_care_full.pdf)

Building Your Medical Home: Sample Pediatric Care Plan
(<https://medicalhomes.aap.org/Documents/PediatricCarePlan.pdf>)

American Academy of Pediatrics "Bullying: It's Not OK" Web page
(www2.aap.org/connectedkids/samples/bullying.htm)

American Diabetes Association

- "Safe at School" Web page (www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school-)
- "Written Care Plans" Web page (www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/written-care-plans)

National Center for Medical Home Implementation "Resources for Practices" Web page
(<https://medicalhomeinfo.aap.org/tools-resources/Pages/For-Practices.aspx>)

National Institute for Children's Health Quality Care Planning Resources
(<http://medicalhome.nichq.org/resources/mh-care-planning-resources>)

**Module 4:
Facilitating
the Transition
From
Pediatric to
Adult Care**

Module 4: Facilitating the Transition From Pediatric to Adult Care

Learning Objectives

- Describe the role and importance of a medical home in the transition of pediatric patients to adult-oriented systems, including planning this transition during the preteen years.
- Demonstrate successful transition of care to an adult medical and community professional using a transition plan and transition resources.

Pretest

1. The goal of planned health care transition is to maximize lifelong functioning and well-being for youths who have special health care needs. True or false?
2. The transition planning process should begin when a youth is between 12 and 14 years of age. True or false?
3. When all youths reach the age of majority, parents need to choose an adult primary care physician for their child and arrange for the first adult office visit. True or false?
4. Which of the following documents should be included in the final transition materials sent by a pediatrician to an adult physician?
 - a. Transfer letter, including effective date of transfer of care to adult primary care physician.
 - b. Final transition readiness assessment of the youth and family.
 - c. Care plan, including goals and actions.
 - d. Updated medical summary and emergency care plan.
 - e. All of the above.

Overview

One role of the patient- and family-centered medical home is to plan a youth's transition from pediatric to adult health care and adult-oriented systems. Another role is to support the youth's readiness to assume responsibility for his own care. The American Academy of Pediatrics clarifies that planned health care transition allows us to "maximize lifelong functioning and well-being for all youth, including those who have special health care needs and those who do not. This process includes ensuring that high-quality, developmentally appropriate health care services are available in an uninterrupted manner as the youth moves from adolescence into adulthood."¹

Transitioning youths to adult care can be quite challenging in today's health care setting. Got Transition (www.gottransition.org), a program of the National Alliance to Advance Adolescent Health, has created a list of 6 core elements to help health care professionals work through the process.² The *Six Core Elements of Healthcare Transition 2.0* are aligned with the *Clinical Report on Transition from Adolescence to Adulthood in the Medical Home* from the American Academy of Pediatrics, American Academy of Family Physicians, and American College of Physicians.

Core element 1, a transition policy, describes the process taken by a medical home to transition a youth

to an adult care practice and is critical to the transition process. The policy needs to have input from youths and their families and should include information about privacy and consent. The policy should also be posted for all patients to see and should be shared with youths and their families beginning around ages 12 to 14. It should be included in a new patient packet, posted in a visible area, and informed or reviewed with input from the entire medical home team.

Core element 2, transition tracking and monitoring, calls for a medical practice to create criteria that help identify youths who should be transitioned to adult care and involves creation of a process to accomplish such transitions. Data generated during the transition process, such as a transfer letter and final transition readiness assessment, should be managed by flow sheet or a patient registry within the electronic health record.

Core element 3, transition readiness, requires the medical home to conduct periodic readiness assessments starting at age 14. The purpose of these assessments is to help identify each youth's self-care needs and goals. These goals should be developed jointly with the youth and her parents and documented in a care plan. Got Transition provides sample tools, including "Transition Readiness Assessment for Youth" (www.gottransition.org/resourceGet.cfm?id=224) and "Transition Readiness Assessment for Parents/Caregivers" (www.gottransition.org/resourceGet.cfm?id=240).

Core element 4, transition planning, requires the medical home team to develop and regularly update the care plan (www.gottransition.org/resourceGet.cfm?id=241) and should include findings of the transition readiness assessments, goals of the youth and family, and prioritized actions, as well as a medical summary and details on what to do in emergencies. The transition care plan should also address vocation, specialists, education, guardianship (if applicable), and self-care. As the Got Transition Six Core Elements document explains, this plan should

[p]repare youth and parent/caregiver for adult approach to care at age 18, including legal changes in decision-making and privacy and consent, self-advocacy, and access to information, ... obtain consent from youth/guardian for release of medical information... [and] assist youth in identifying an adult provider and communicate with selected provider about pending transfer of care.²

The transition care plan can be available on an electronic patient portal, and copies can be given to the family, youth, and all involved with caring for him.

Core element 5, transition of care, is when the medical home team confirms the date of the youth's first visit with an adult physician and completes a transfer package that includes the most recent transition readiness assessment, care plan, medical summary, and emergency care plan, as well as any letter of medical necessity or nursing orders (if applicable). At this point, the medical home team should also create a letter to send along with all of these documents to the adult physician and make certain that the new practice has received the information. The transition letter, a sample of which is available at www.gottransition.org/resourceGet.cfm?id=230, includes the youth's primary condition, date of the transfer, a medical summary, and several other relevant facts about the patient. A transfer package should also include the names and contact information for community supports and partners. The new adult physician should confirm receipt of these documents.

Core element 6, transfer completion, is the final phase of the transition process, when the medical home

should reach out to the youth and parents 3 to 6 months after he has left the pediatric practice to gain their feedback to determine how well the transition went. The medical home team will also want to offer any consultation to the adult physician and continue to build partnerships with the physician.

The case study that follows illustrates how to put these elements into action.

Case Study

Hannah Johnson has hypothyroidism and has been receiving care from a patient- and family-centered medical home for several years. Now that she has turned 12, her pediatrician initiates a discussion with Hannah and her parents that will empower Hannah to begin thinking about taking greater responsibility for her own care, as well as a discussion about the process of transitioning to adult care. During today's office visit, Mr and Mrs Johnson express surprise that the process is starting before Hannah has even entered adolescence, which gives the pediatrician an opportunity to explain the value of getting the family ready for the move to an adult physician. The pediatrician explains that it usually takes several years for pediatric patients to adjust to taking responsibility for their own care. Initiating the conversation about transition now and consistently over the next few years will help Hannah develop the skills needed to make the transition and allow the pediatrician and Hannah to partner in this journey.

The pediatrician explains that the practice has a transition policy in place to guide them through the process and to ensure a smooth transition to adult care. He points out that the purpose of the policy is to prepare a youth and their family for the change from a pediatric approach to care, in which Mr and Mrs Johnson are making most of the decisions, to an adult approach, in which Hannah will be taking responsibility and making decisions related to her care.

The pediatrician also explains how the transition policy dictates that when Hannah reaches age 18, the practice will recognize her as a legal adult, at which point the medical home team will discuss personal health information with family members only if Hannah gives her consent. Finally, the policy recommends that transition to an adult practice take place before she turns 22. (There are special circumstances, however, in which, if mutually agreeable to the pediatrician, the youth, and, when appropriate, the youth's family, services of the pediatrician may continue past the age of 21, according to American Academy of Pediatrics.³)

At this point, the pediatrician also explains to Mr and Mrs Johnson that he needs to spend some time alone with Hannah to help her set her own health goals and support her as she starts thinking about becoming more independent with her health care. Once he receives permission from her parents to talk with Hannah alone, he explores Hannah's understanding of the transition process. During this discussion, he also explores any vocational and educational goals with Hannah. The pediatrician reassures Hannah and her parents that he remains committed to caring for them and that this discussion does not negate their working relationship.

The Transition Flow Sheet and Registry

This practice uses a separate flow sheet for each patient to track his progress as he transitions to adult care. These sheets are used to populate a transition registry that will help the practice monitor the transition process for its entire patient population. Got Transition offers a sample "Individual Transition Flow Sheet" on its Web site (www.gottransition.org/resourceGet.cfm?id=222) for that purpose.⁴ A nurse

had downloaded the template and begins working with the Johnson family to fill out the form.

One advantage of using a flow sheet is that it keeps the team on track by reminding them of each step in the transition process. For instance, a section on the chart requires notation of the specific date on which the transition policy was shared with the youth and her parents. It includes space to document each time a transition readiness assessment was conducted. Similarly, the flow sheet asks that the practice document the name, location, and contact information for the adult physician once selected by the youth. There is also a space to list the date of the first completed appointment with the adult physician. As Hannah moves through her adolescent years, the pediatrician and nurse will use this form to monitor her progress.

A medical assistant in the medical home has been assigned the responsibility of maintaining the transition registry (www.gottransition.org/resourceGet.cfm?id=223) mentioned above. It will help keep Hannah, as well as other youths who are transitioning to an adult physician, on track. It lists Hannah's date of birth, her name and age, the primary diagnosis, the transition complexity, the specialist involved in her care, and the date of her next scheduled appointment. Eventually, it will also list the date of her first appointment with her adult physician. Equally important, the registry includes a record that the transition policy has been shared with Hannah's family. The medical assistant also uses the registry to post the dates that the readiness assessments are administered and the dates when her care plan, medical summary, and emergency care plan are updated and shared with Hannah and her family. When Hannah is older, the assistant will also document that the medical home has sent a transfer package to the adult physician and communicated with said physician.

Some families and pediatricians may question the need for such an extensive transition process and worry that it will consume too much time. A recent case report in the May 2015 issue of *WebM&M*, a publication of the Agency for Healthcare Research and Quality, which is outlined in the box at the end of this module, illustrates the danger of not fully preparing youths for the transition to adult care.

Hannah Reaches the Age of Majority

Hannah is a patient in a practice that sees the value of an expansive care transition process. In the years between the first transition visit at age 12 and Hannah's pediatric visit at age 21, she has matured physically and emotionally. During that time, the pediatrician has been conducting periodic assessments to evaluate her readiness to take on her new role as an adult and now Hannah is eager to accept additional responsibilities for her own health care. At today's visit, she is almost ready to transition to an adult physician, so the pediatrician reviews the basics she will need to manage on her own. Some of the many issues they discuss are

- Has she chosen an adult physician, and does she have all the necessary contact information?
- Has she made arrangements with the health center at the college in which she is about to enroll to coordinate care and manage emergencies?
- Can she recognize the signs and symptoms of an overdose of her levothyroxine?
- Does she know the symptoms that suggest she needs a higher dose of medication?
- Does she know what pharmacy her family is currently using to fill her Levothyroxine prescription, and if she chooses another pharmacy, does she know how to renew her prescription?
- Does she see the importance of having thyroid-stimulating hormone and thyroxine levels checked periodically to monitor her condition and adjust her dosage?
- Does Hannah understand the long-term prognosis for patients with hypothyroidism? Is she

aware that she may have to remain on thyroid medication for the rest of her life? Has she considered the effect of the condition on any future pregnancy?

In the past, Hannah did not give much thought to these issues because her parents had always handled them. But she is at the stage of her life in which she wants to be considered an adult and appreciates that her pediatrician wants to help her transition into that role.

Now that Hannah is almost ready to take on the role of an adult patient, the nurse provides her with all necessary links to insurance resources and self-care management materials, including fact sheets on hypothyroidism, proper nutrition, physical exercise, and other basic health education materials as they pertain to her condition.

The nurse also discusses the importance of the practice's online patient portal with Hannah, ensuring she is aware of how to access her medical records through the portal and demonstrates accessing the portal in the office. She also asks Hannah if she wants to provide her new adult physician and college health center access to this information. Sharing Hannah's records with the college health center does not mean her care is being transferred there.

Many youths receive care in a college health center during the school year, but when out of school, they continue to receive care through their pediatrician or adult physician. An online patient portal can serve as a valuable asset for youths transitioning to adult care, as long as the practice takes time to explain its features and encourage its use.⁵ Many electronic health record systems have a patient portal component that allows patient access to prescription refills, laboratory results, medication history, and patient education materials.

Practices that rely on paper medical records can still use hard copies and faxes to facilitate the care transition process.

Summary

At Hannah's final pediatric visit at age 21, her pediatrician "closes the loop" with the adult physician, making sure that all correct documents have been received by the new adult practice team. The nurse also confirms that Hannah has made an appointment with her new adult physician.

At this last visit, the pediatrician confirms that all necessary information has been incorporated into her transition package. Necessary information includes the

- Transfer letter, including effective date of transfer of care to an adult physician
- Final transition readiness assessment completed by Hannah with her pediatrician at her last visit
- Transition care plan, including goals and actions
- Updated medical summary and an emergency care plan
- Community resources supporting the transition process
- Educational and vocational supports

For many patients, the transition package will include additional legal documents and medical records, depending on complexity of their care.

Three months after Hannah’s last pediatric visit, the nurse from the pediatric medical home reaches out by phone to see how Hannah’s health is, sends her a feedback form, and confirms that she is seeing her new adult physician. The nurse also reaches out to the new adult physician to elicit feedback and foster an ongoing collaborative relationship.

The feedback form that Hannah completes—also available from Got Transition (www.gottransition.org/resourceGet.cfm?id=243)—confirms that she is adjusting well to her new role as an informed health care consumer and her hypothyroidism remains under control.⁶

Posttest

1. The goal of planned health care transition is to maximize lifelong functioning and well-being for youths who have special health care needs. True or **false**?

Explanation:

The American Academy of Pediatrics sums up the goal of planned health care transition by stating that its purpose is to “maximize lifelong functioning and well-being for all youth, including those who have special health care needs and those who do not. This process includes ensuring that high-quality, developmentally appropriate health care services are available in an uninterrupted manner as the person moves from adolescence to adulthood.”

2. The transition planning process should begin when a youth is between 12 and 14 years of age. **True** or false?

Explanation:

A transition policy describes the process taken by a medical home to transition a youth to an adult care practice and is important in helping a medical practice manage this responsibility. The policy needs to have input from the patient and his family and should include information about privacy and consent. Said policy should also be posted for all patients to see and should be shared with youths and their families beginning around ages 12 to 14, allowing for ample time to plan the transition journey or process.

3. When all youths reach the age of majority, parents need to choose an adult primary care physician for their child and arrange for the first adult office visit. True or **false**?

Explanation:

During early childhood, parents manage all important medical decisions for their children, but by the time youths reach age 18, they are at the stage of their life when they should be encouraged to take on the responsibility of caring for themselves. That includes deciding who will act as their adult physician.

4. Which of the following documents should be included in the final transition materials sent by a pediatrician to an adult physician?
 - a. Transfer letter, including effective date of transfer of care to adult primary care physician.
 - b. Final transition readiness assessment of the youth and family.
 - c. Care plan, including goals and actions.
 - d. Updated medical summary and emergency care plan.
 - e. All of the above.**

Explanation:

To ensure that an adult physician is fully prepared to accept a youth from a pediatric practice, it is important to make certain that all necessary documents have been received by the new practice. If the youth has a relatively rare disorder that the adult physician may not be familiar with, the pediatrician can also send a fact sheet with details on the condition. It is recommended that the transition process be finished before the youth turns 22.

Reflections to Consider

The following questions are meant to prompt thought and discussion either individually or in a small group. There are no right or wrong answers.

- What aspects of transition to adult oriented systems do you feel are most critical?
- What aspects of transition to adult oriented systems do you anticipate will be the most challenging for the patients and families in your practice?
- Think about some of the youth in your practice. How might you approach the transition process?
- How might you engage adult health care providers in caring for your patients as they transition to adult care?

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Resources

American Academy of Pediatrics Transitions “Clinical Guidance and Resources” Web page

(www.aap.org/en-us/about-the-aap/Committees-Councils-Sections/Council-on-Children-with-Disabilities/Pages/Policy-Resources.aspx)

Florida Health and Transition Services Web site (www.floridahats.org) GotTransition.org

- “Youth & Families: Healthcare Transition FAQs” Web page (www.gottransition.org/youthfamilies/index.cfm)
- “Health Care Transition Resources: Six Core Elements of Healthcare Transition” Web page (www.gottransition.org/resources/index.cfm)

Illinois Healthcare Transition Project *Finding Adult Providers* handout (<http://illinoisAAP.org/wp-content/uploads/FindingAdultProviders.pdf>)

National Center for Medical Home Implementation “Transitions Videos” Web page (www.medicalhomeinfo.org/how/care_delivery/transitions.aspx)

Transition of Care Process Requires More Than Referral to an Adult Care Doctor

A case study from the May 2015 issue of *WebM&M* involved a pregnant 21-year-old woman with Marfan syndrome and aortic root dilation who found herself in the emergency department with abdominal pain. She required urgent surgery to repair the vascular damage and avert a life-threatening aortic rupture. It turns out, 4 years earlier, her pediatrician and pediatric cardiologist advised her to have aortic surgery during a previous pregnancy because they recognized the risk of a rupture. They referred her to an adult physician and cardiologist when she turned 18, but the referral was not followed up upon. Fortunately, her visit to the emergency department at age 21 resulted in reparative surgery without complications.

In a commentary about the case presented by Megumi Okumara, MD, assistant professor of pediatrics at the University of California, San Francisco, and her colleague, they point out that the emergency surgery could have been averted if her pediatrician had a more formal health care transition process in place long before the youth turned 18. They summarize by stating

The transfer from pediatric to adult care is, indeed, a point in the transition process, but it takes years of preparation for young adult patients to become fully independent in their medical care. In this vignette, there were failures of two processes: the process of transitioning the patient to prepare her for the future as an adult with congenital heart disease, and the process of transfer to ensure that the woman's care would be monitored to minimize poor outcomes.⁵

Module 5: Developing Effective Team-Based Care

Module 5: Developing Effective Team-Based Care

Learning Objectives

- Describe the operational strategies in developing a medical home team to support the patient- and family-centered medical home in clinical practice.
- Assess a practice's performance and the quality of its care as a team-based medical home.

Pretest

1. The difference between working in a group and working in a team is that a group is a collection of clinical and administrative personnel coming together to care for patients and families, while a team also requires interdependent and collaborative efforts on the part of all members of the group. True or false?
2. During team huddles, the pediatrician or lead clinician gathers only members of the clinical staff for a short meeting (5–15 minutes) to prepare for the day's patients. True or false?
3. Which of the following indicators should be included when a medical home team decides to evaluate its performance?
 - a. Patient outcomes.
 - b. Patient care processes.
 - c. Patient and family satisfaction.
 - d. All of the above.
4. Which of the following characteristics of team-based care is important?
 - a. Open communication among all members of the team.
 - b. Strong leadership from the pediatrician or lead clinician.
 - c. Clear goals and measurable objectives.
 - d. All of the above.

Overview

"Optimal pediatric care is best delivered in a team-based approach that is led by a primary physician, ideally a pediatrician, who assumes responsibility for managing the patient's care," according to a policy statement from the American Academy of Pediatrics.¹ This statement explains that "[l]earning to work in teams should begin in pediatric residency training, where collaborative learning with non-physician clinicians can expose future pediatricians to the benefits of team-based care." This educational module will discuss several of those benefits.

It is important to understand the critical differences between working in a *group* and working in a *team*. A pediatrician, nurse practitioner, medical assistant, front desk assistants, and anyone coming into contact with the patient and family who come together to care for patients are, by definition, a group. For that group to work as a team, all members must engage in interdependent and collaborative efforts. A sports analogy can illustrate the difference.

A football team is far more than a group of players who show up in the first quarter and start playing. They spend many hours practicing, getting to know one another, and developing an understanding of how

other members of the team think and perform. A sports team also works together to understand everyone's strengths and responsibilities, as well as how they relate to one another.

Similarly, a medical home team works together before it actually offers direct patient care. Researchers who have studied the difference between groups and teams explain the issue in the following way: "It is ironic indeed to realize that a football team spends 40 hours a week practicing teamwork for the two hours on Sunday afternoon when their teamwork really counts. Teams in organizations seldom spend two hours per year practicing when their ability to function as a team counts 40 hours per week."²

Among the many characteristics that distinguish a team from a group are

- Clear goals, measurable objectives
- A well-defined division of labor among staff members
- Adequate training
- Well thought-out clinical and administrative systems
- Effective communication²

Team goals should be shared among the entire team, including the patient and family members. A report from the Institute of Medicine explain that these goals should be "clearly articulated, understood, and supported by all team members."³ The same report also emphasizes the importance of measurable processes and outcomes, mutual trust, and effective communication. Finally, the report lists the need for clear roles for each member of the medical home team, explaining that "[t]here are clear expectations for each team member's functions, responsibilities, and accountabilities, which optimize the team's efficiency and often make it possible for the team to take advantage of division of labor, thereby accomplishing more than the sum of its parts."

While the most important goal of a professional football team may be winning a Super Bowl, the goals of a patient- and family-centered medical home include providing accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective medical care.

There are various ways to help medical homes develop into effective teams. The first step is designating a pediatrician as the leader for the team. This leader can also put into place cross-training of certain team members so that the practice can function well when someone is on vacation and ill.⁴ Such cross-training must keep in mind, however, the scope of practice of each licensed professional so as not to violate state law.

It is also important to recognize patients and their families as integral parts of every medical home team. Including patients and families on the team provides them an opportunity to take part in shared decision making and demonstrates respect for their input.

Of course, team-based care includes more than patient and family involvement. It is also fostered by collaboration with community partners, including the youth's school and any subspecialists she may be seeing. Team-based care also includes staff from home nursing agencies, case managers, physical therapists, and anyone else who provides or optimizes care for patients.

The following case study illustrates the principles of team-based care by describing a routine day in a medical practice that follows the medical home model of care.

Case Study

Janet Blackstone, MD, FAAP, recently finished a pediatric residency and has joined a pediatric practice that includes 2 pediatric nurse practitioners (NPs), a registered nurse, 2 medical assistants, and 2 front desk assistants. Dr Blackstone has been well trained to take on the overall responsibility of primary care pediatrics. However, she also realizes the complexities of medicine make it impossible for her to accomplish everything on her own. She is determined to build a successful team that can provide the high-quality patient care she was taught to deliver during residency. Her goal is fostering a medical home model and incorporating principles discussed in the educational modules in this series on patient- and family-centered medical homes, which highlight the importance of care coordination, the need for enhanced access to care, the critically important role of family in the decision-making process, and the value of care planning.

Below, we provide a snapshot of a day in the life of a medical home team as it strives to provide high-quality patient- and family-centered care.

8:15 am.

The team gathers for the first meeting of the day, where they discuss how they will care for patients on the day's schedule. All 8 members of the practice attend to review each patient's needs. Many pediatric practices start their day by immediately seeing patients.

However, Dr Blackstone has learned that setting aside 15 minutes makes the entire day go smoother and empowers all practice team members to work to their highest potential.

On this particular day, Dr Blackstone sets the tone at the meeting, asking for suggestions on how to manage the heavy patient load for the day. Because one of the NPs has to unexpectedly leave early, Dr Blackstone asks if anyone else on the team is available to help care for the NP's patients. Also, one of the front office staff mentions that a child from their practice was admitted to the hospital, and she volunteers to obtain the discharge summary from the hospital.

8:30 am.

The pediatrician sees Mr and Mrs Milstein to discuss their son's hiatal hernia. Surgical repair is one option, but Dr Blackstone also mentions watchful waiting, since the infant's gastrointestinal symptoms are relatively mild. The practice strives to include families on the team and encourages shared decision making. During the 8:15 am meeting, the medical home team had identified previously documented concerns about difficulties the Milsteins have in understanding medical jargon. To address this, they had identified appropriate patient education materials for Dr Blackstone to use to help support the Milsteins in making decisions related to their child's condition.

The next patient that Dr Blackstone sees, Michelle Nelson, age 12, has just been diagnosed with type 2 diabetes, and the pediatrician helps her and her family develop a care plan. Dr Blackstone explains the basics on how to manage Michelle's diabetes at home and then asks the nurse to follow up with the Nelsons to provide more in-depth patient education. The nurse asks the family's permission to reach out to Michelle's school nurse to help coordinate her diabetes care and contribute to the care plan. The National Diabetes Education Program, which is a joint venture between the National Institutes of Health and Centers for Disease Control and Prevention, recommends that each student with diabetes have a written individualized care plan that incorporates the physician's orders and parents' requests and is tailored to the child's specific developmental, physical, and cognitive abilities.⁵ The parents agree to this arrangement, so the NP gives them a copy of the care plan to take to the school.

9:00 am - noon.

Jasmine Smith presents for her 9-month-old health maintenance visit with an NP. However, since the NP is tied up with another patient, Dr Blackstone plans to see this child for her. To manage clinical flow, the team decided to have a medical assistant administer Jasmine's immunizations prior to the pediatrician coming into the examination room. But the medical assistant had recalled that Jasmine's mother usually prefers discussion with the pediatrician regarding all interventions, so the team's plan would not work. Fortunately, Dr Blackstone's leadership and communication style have encouraged other members of the team to freely express themselves. This openness had allowed the medical assistant to challenge the team's decision and request that Dr Blackstone alter the plan.

Dr Blackstone is pleased that the medical assistant feels comfortable enough to make the suggestion and wants to do all she can to empower him. She first meets with Ms Smith, who agrees to the plan regarding administration of immunizations; then the medical assistant administers the immunizations while Dr Blackstone sees her other patient. Then Dr Blackstone returns to Jasmine to finish her visit. This approach addresses the needs of the patients while facilitating clinic flow.

Dr Blackstone finishes her health maintenance visit with Jennifer Morales. She explains to Mr and Mrs Morales the importance of obtaining family feedback on how well the medical home is doing in accomplishing its goals of providing comprehensive, holistic care. In the past, patients were directed to the front desk staff to complete a patient satisfaction survey. Surveys like this are among the many tools that patient- and family-centered medical home teams can use to assess their performance and continually strive for quality improvement. Practice performance evaluation and a quality improvement initiative are important components of any team effort. In fact, a team-based approach to medical care is only effective if improvements are measurable and demonstrated.

During the earlier team meeting, the team had noted a recent decline in survey participation. For today, they had decided on a trial of placing copies of the surveys in the patient rooms. The Morales family is directed to the survey in the room and completes it prior to leaving.

Patient and family satisfaction surveys are only one of many practice evaluation tools. Dr Blackstone has heard about a variety of other assessment tools in residency and is considering bringing them to the practice team to explore possibly implementing them as a strategy for improving team-based care.

The Center for Medical Home Improvement, for example, offers a tool to help evaluate practice performance. *The Medical Home Index: Pediatric* measures organization and delivery of pediatric care for children, youth, and families and is located on the CMHI Web site (www.medicalhomeimprovement.org/pdf/CMHI-MHI-Pediatric_Full-Version.pdf).⁶ The assessment tool allows medical homes to evaluate organizational capacity, care coordination, community outreach, data management, quality improvement, and their ability to manage chronic conditions.

Summary

Although Dr Blackstone has been out of residency for only a short time, she is already seeing the benefits of a team-based approach to patient care. Through her openness and willingness to listen to suggestions from her entire staff, along with many hours of training and the implementation of well thought-out clinical and administrative systems, the medical home is developing into a well-trained team that is on its way to accomplishing the overall goals of providing accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective medical care.

Posttest

1. The difference between working in a group and working in a team is that a group is a collection of clinical and administrative personnel coming together to care for patients, while a team also requires interdependent and collaborative efforts on the part of all members of the group. True or false?

Explanation:

A sports team is more than a group of players who show up on the field to start playing. They require many hours practicing, getting to know one another, and developing an understanding of how other members of the team think and perform. Similarly, a pediatric medical home team needs a great deal of preparation and planning before they can successfully begin offering direct patient care.

2. During team huddles, the pediatrician or lead clinician gathers only members of the clinical staff for a short meeting (5–15 minutes) to prepare for the day's patients. True or false?

Explanation:

Team huddles need to include *all* members of the practice, not just the clinical staff but all administrative personnel as well. All members of a medical home team have something to contribute. Similarly, the purpose of a team huddle goes beyond just preparing the team for the day's patients and can include a wide variety of practice issues, including discussing ways in which team members can share responsibilities or fill in for one another in an emergency.

3. Which of the following indicators should be included when a medical home team decides to evaluate its performance?
 - a. Patient outcomes.
 - b. Patient care processes.
 - c. Patient and family satisfaction.
 - d. All of the above.

Explanation:

To provide comprehensive, team-based patient care, a medical home needs to perform a comprehensive analysis of its performance. All 3 of the above issues need to be addressed using one or more self-assessment tools.

4. Which of the following characteristics of team-based care is important?
 - a. Open communication among staff members.
 - b. Strong leadership from the pediatrician.
 - c. Clear goals and measurable objectives.
 - d. All of the above.

Explanation:

Open communication starts with a pediatrician who serves as a strong leader as well as a role model, showing respect for other members of the team, encouraging others to speak up, and providing them with a safe environment in which to express their opinions. Clear goals and measurable objectives are 2 additional elements that distinguish a group from a team. It also helps to achieve the triple aim of health care—improving patient experience, improving patient health, and reducing the cost of care—and to foster patient- and family-centered care.

Reflections to Consider

The following questions are meant to prompt thought and discussion either individually or in a small group. There are no right or wrong answers.

- Think about the members of your care team in your practice. In your experience, how does working in a team differ from group work? How might you foster team building and buy-in for the medical home model?
- Have you participated in a team huddle in practice? How did it go? What could be done differently? If you have not been part of a team huddle, what do you feel the value of a huddle could be in your practice?
- How would you approach a parent/caregiver to become part of your medical home team?
- What are ways to maintain a medical home team and foster sustained quality improvement?

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http://www.medicalhomeimprovement.org/pdf/CMHI-MHI-Pediatric_Full-Version.pdf. Accessed July 22, 2015

Resources

Agency for Healthcare Research and Quality “Creating Quality Improvement Teams and QI Plans: Forming a Quality Improvement Team at a Practice” Web page
(www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/mod14.html)

Institute for Patient- and Family-Centered Care

- *Advancing the Practice of Patient- and Family-Centered in Primary Care and Other Ambulatory Settings: How to Get Started* handout (<http://www.ipfcc.org/pdf/GettingStarted-AmbulatoryCare.pdf>)
- *Partnering with Patients and Families to Design a Patient- and Family-Centered Health Care*

System: A Roadmap for the Future; A Work in Progress

- *Partnering with Patients and Families to Design a Patient- and Family-Centered Health Care System: Recommendations and Promising Practices* handout (<http://www.ipfcc.org/pdf/PartneringwithPatientsandFamilies.pdf>)
- *Partnering with Patients and Families to Enhance Safety and Quality: A Mini Toolkit* (<http://www.ipfcc.org/tools/Patient-Safety-Toolkit-04.pdf>)
- *Patients and Families as Advisors in Primary Care: Broadening Our Vision* handout (<http://www.ipfcc.org/pdf/pc-vision.pdf>)

National Center for Medical Home Implementation

- “Practice Management Measurement” Web page (www.medicalhomeinfo.org/how/performance_management.aspx#tools)
- “Preparing the Office” Web page (www.medicalhomeinfo.org/how/care_delivery/#office)

National Institute for Children’s Health Quality

- *Creating a Patient and Family Advisory Council: A Toolkit for Pediatric Practices* (<http://medicalhome.nichq.org/resources/pfac-toolkit>)
- *Family Engagement Guide: The Role of Family Health Partners in Quality Improvement Within a Pediatric Medical Home* handout (<http://medicalhome.nichq.org/resources/family-engagement-guide>)
- *Powerful Partnerships: A Handbook for Families and Providers Working Together to Improve Care* (www.nichq.org/how%20we%20improve/resources/powerful%20partnerships)