

Developmental Screening Implementation

April 4

2009

Dr. Lipeles and Dr. Krishnankutty of Sierra Vista Medical Clinic Ventura County California successfully implement a system for screening patients for developmental issues, while promoting more comprehensive patient care and system change in a large medical clinic setting.

A handbook for
Implementation
of PEDS

Developmental/Autism Screening Test Implementation
Sierra Vista Family Medical Clinic, May 9, 2008

INTRODUCTION

Pediatrics is fundamentally different from other medical specialties in that childhood is primarily characterized by growth and development. Growth and developmental progression are sensitive markers for the health and well being of children. While growth stops at puberty, development continues throughout life but is most rapid during early childhood. Since subsequent skill achievement is dependent on acquisition of prerequisite skills, it is important to assure that every child has the best possible start in life; his/her life-long learning, career and social relationships are dependent upon it. Pediatricians, in their “medical home” role, are in a position to provide ongoing surveillance and age-appropriate screening and to evaluate, diagnose and treat or refer for treatment when problems are identified. Repeated screenings over time are more likely to detect problems than a single screen, especially for later-emerging skills.

TERMINOLOGY:

Child Development = A child’s progressive increase in physical, intellectual and social abilities

Milestone = **acquisition of a new ability**. There are established ages associated with certain milestones. There is much variation in the achievement of milestones, even in normal children

Developmental monitoring or surveillance = the process of recognizing children at risk and is recommended at every well child visit.

Developmental screening = the use of standardized screening tests, such as PEDS or the Ages and Stages Questionnaire to identify risk of abnormal child development (recommended at the

age 9, 18 and 24-30 month visits) and MCHAT to screen for autism (recommended at the age 18 and 24 month visits).

Aspects of Child Development

Motor development: Movement and coordination skills, often divided into gross motor (using large muscles groups, e.g., sitting, crawling, walking) and fine motor (using small muscles, e.g. pincer grasp, using a crayon, use of fingers) skills.

Cognitive (thought processes) development: recognizing, remembering, problem solving

Social-Emotional development: Interacting with other people: (e.g., smiling, stranger-anxiety, empathy, self-help, awareness of the feelings of others)

Language: receptive (understanding speech) vs. expressive (cooing, babbling, words, sentences, conversation)

Developmental delay = progression of a child's development at a slower rate than that of most children. Detecting developmental delays early is difficult. Early detection and intervention can improve a child's abilities, allowing him/her to better function in society.

Autism = a pattern of symptoms, including impaired social interaction and communication, restricted interests and repetitive behavior. Many children with autism have limited meaningful relationships and future employment opportunities. Many parents of children with autism notice their child's unusual behaviors by age 18-24 months, but some autistic people have more subtle manifestations and the diagnosis is delayed. The American Academy of Pediatrics recommends that all children be screened for autism spectrum disorders at the 18- and 24-month visits, using autism-specific formal screening tests (i.e., Modified Checklist of Autism in Toddlers, or MCHAT). Postponing treatment may affect long-term outcome. Intensive, sustained special education programs and behavior therapy early in life can help children improve in independent functioning, social skills and quality of life.

□ Tri-Counties Regional Center.

Use of secondary screening test, time constraints, billing, etc

WHY DO SCREENING/SURVEILLANCE?

- Many developmental disorders are, currently, not identified until the child is in school, getting him/her off to a disadvantaged start in school.
- Early identification of developmental disorders is critical to the well-being of children and their families. Some developmental delays or aberrations are caused by specific medical conditions that require further evaluation, diagnosis, and treatment.
- Early intervention is available for many developmental disorders; prompt identification and appropriate therapeutic interventions can improve a child's chance for success in school
- Specific diagnoses may affect family planning decisions.

WHEN?

Developmental surveillance (or monitoring) is performed informally by most pediatricians and family practitioners at every well child visit and observations are made at all visits.

Formal screening is recommended by AAP at 9, 18 and 24-30 month visit. At 9 months of age, many issues involving motor skills development can be reliably identified. Early communication skills (vocalizations and gestures) are also emerging. Evidence suggests symptoms of autism, such as lack of eye contact, orienting to name being called, or pointing, may be recognizable in the first year of life. At 18 months of age, delays in communication and language development are often evident.

HOW?

Developmental surveillance (or monitoring) may be done by asking parents about their child's behavior and developmental milestones (e.g. by asking "What changes have you seen in your child's development since our last visit?", asking about acquisition of specific abilities at specific ages) and by observing the child during the office visit. Specific, simple, age-specific developmental goals can be identified, and parents should be encouraged to schedule recheck appointments if the child is not attaining those goals. Because parents do not necessarily differentiate between behavior and development and have varying degrees of knowledge and experience with other children, the absence of parental concern does not preclude the possibility of serious developmental delays. Even normally developing children may behave immaturely and not exhibit their skills during the physician's presence observation of the parent-child interaction. However, all concerns of parents, other caregivers and medical professionals should be taken seriously and fully evaluated. Regression, the loss of developmental skills, is a very serious developmental problem suggestive of an active, ongoing neurologic problem and may indicate additional tests and/or consultations with neurology and/or genetics. Surveillance is an important and necessary but not sufficient step in the process of identifying children with special needs.

Developmental screening improves the ability of the child health professional to identify developmental risks and abnormalities

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Choice of screening tools: Many of the screening tools previously

used (e.g., Denver developmental screen) have not been validated or standardized and are no longer considered sufficiently reliable. There are a number of validated developmental screening tests available either for purchase or free of charge (see reference #1).

If screening results are concerning, the child should be scheduled for developmental and medical evaluations, including hearing and vision tests. If any delays are suspected, the child should be referred to an early intervention program such as Tri-Counties Regional Center, or the High Risk Developmental Clinic in Ventura.

Child health professionals should identify protective factors as well as risk factors in children's lives. Resiliency, strong connections within a loving, supportive family, along with opportunities to interact with other children and grow in independence in an environment with appropriate structure, are important assets in a child's life.

OUR EXPERIENCES:

At Sierra Vista Medical Clinic, a number of different providers care for children, including 2 pediatricians, a physician's assistant and several family practitioners. The recommendations by the American Academy of Pediatrics for formal developmental screening prompted the pediatricians at Sierra Vista to begin the process of implementing a screening program in our clinic. We considered the different screening tools that could be used, and

decided on the following three validated tests:

PEDS (Parents' Evaluation of Developmental Status)

The same form is used for each age, and it is available in both English and Spanish. It elicits parental concerns and involvement. It is less time consuming during the office visit, increasing compliance by staff and parents. Disadvantage is that it is proprietary, cannot be copied, must be purchased (about \$0.55 per copy) and is subjective and dependent on parental knowledge and experience with other children..

ASQ (Ages and Stages Questionnaires) These are age specific questionnaires for various ages from 4 months to 5 years, in both English and Spanish. Advantages are that it is free and legal to copy and that it is more age specific and objective. It is useful for use as a second step if concerns are elicited by surveillance or PEDS, or for parents who have less knowledge or experience with other children and may know less about normal expectations. Disadvantage is that it is longer, takes more time to fill out and score. Because it is age-specific, it is necessary to store more copies or print on demand from a computer.

MCHAT (Modified Checklist of Autism in Toddlers) In addition to general developmental screening, we also felt that it was important to be routinely and formally screening children for autism. We found the MCHAT to be a standardized and easily accessible (free and legal to copy), simple to administer screening tool for autism. It is performed at 18 and 24 months. It is also available in both English and Spanish.

Once we had decided on the tools to be used, we had to get the rest

of the clinic to “buy-in” to the idea of formal screenings. We began by first introducing the idea to the other providers, discussing how our identification of developmentally at-risk children could be greatly improved by using a formal screening test. We recommended that our clinic use the PEDS as our initial screening tool, the Ages and Stages Questionnaire (ASQ) as a secondary screen, and the MCHAT for autism screening.

Our medical director and the other providers agreed that we should utilize formal developmental and autism screening, but there were concerns about the time constraints and details of administration of the screening tests. We all decided to introduce the concept to the clinic as a whole, especially including our medical assistants, who were expected to actually administer the tests. We were given funds to provide lunch for the attendees and set aside 2 hours at lunchtime for a child developmental screening “workshop.” Employees were appropriately paid for this time. The purpose was to describe child development and the importance of formal screening tests, as well as to explain how the tests are administered and scored. But one of our main goals was also to brainstorm as a group about how we could implement the screening without adversely affecting patient flow and the workloads of the providers and medical assistants.

During the workshop, we discussed the importance of informal developmental surveillance at each visit, regardless of the method used. Preprinted checklists on the well child visit forms are often helpful. Observations made by staff while child is playing in the waiting room can also be useful, as can observation throughout all well and sick child encounters. But we also made it clear that this informal assessment of child development is likely to fail to identify some of the children at risk. Formal screening at certain intervals will improve our ability to identify and help children with developmental problems. We addressed the fact that the screening

tests can be somewhat time-consuming and require some training of staff and a lot of cooperation. Already over-worked staff may find it difficult to add additional tasks to their responsibilities. On the other hand, MA involvement in developmental screening allows the MA to be an even more vital part of the patient care team. It was very helpful that our pediatric medical assistant had already been administering the screening test (like a pilot trial) for several weeks prior to the meeting; in this way, she was able to reassure the other medical assistants about the simplicity and ease of administration. We found that eliciting ideas from the clinic staff about how to make it easier for them, and also letting them know how important their work would be, went a long way to developing their enthusiasm for the program. We felt that their ideas were very valuable in planning the implementation of the screening program. We believe that inclusion of staff in planning this type of program is crucial for maximizing both efficiency and staff satisfaction.

By the end of this discussion, we had agreed to perform the PEDS developmental screening tests at ages 9, 15 and 24 months (instead of the AAP recommended ages of 9, 18 and 30 months). We decided this for a few reasons: one was the fact that our routine well child visits do not include a 30 month visit; also, that the 18 month and 24 month visits would already include the MCHAT screening, so we tried to slightly alleviate the workload of the MA's by doing the PEDS at 15 months instead of 18 months. We had to accept the increased MA workload of doing both PEDS and MCHAT at the 24 month visit because after 24 months there is no routine visit until 36 months; we felt that identifying developmental risk at age 3 years would be less effective, especially since our local early intervention program does not accept children over the age of 3 years.

Who does it? Who scores? Where? When?

We decided that the MA would give the questionnaire to the parent to fill out while waiting in the exam room for the provider prior to the visit, so that the test might be quickly scored before the patient leaves the office. This provides privacy and allows the provider to score and discuss the results with the parents, to clarify any confusing questions/answers, and then explain any further screening or referrals that are necessary. The tests can also be given at the end of the visit or, occasionally, can be taken by parents to complete at home and return; these options are not ideal. The MA would ask the parent whether he/she wants to fill it out independently or wants help. Failure to fill it out may be a marker for parental illiteracy, giving us an opportunity to refer the parent to a literacy program.

All of the three tests that we decided to use can be scored by a trained MA, but we agreed that providers at Sierra Vista would do the scoring. We felt that it would help lessen the intensity of training MAs, but we also realized that parents often add comments to the questionnaires that make the test more complex to interpret.

A suggestion made by a staff member that was included in the plan was to create packets for each age-specific routine well child visit that would include age-appropriate questionnaires, handouts, VIS's, chart supplies, etc. This would allow the MA to pick up a single packet and immediately have all needed handouts and questionnaires for that visit at hand.

FEES AND CODING:

Because developmental screening is considered part the CHDP visit, Medi-cal does not pay separately for the developmental screening. If screening is done at a non-CHDP visit the following CPT codes can be used:

96110: for limited developmental testing --. Screening tool administered to the parent and scored by a nonphysician. The physician's review and interpretation of the screening results is included in the evaluation and management code used for the child's visit and code does not include any additional payment for medical provider service.

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96111: extended developmental testing, includes medical provider work. This code would more appropriately be used when the medical provider observes the child performing a task and demonstrating a specific developmental skill.

If non-Medi-cal carriers are involved, the preventive care code is used with the modifier -25 appended and 96110 listed for each screening tool administered.

WHAT TO DO WHEN SCREENING RESULTS ARE POSITIVE:

We discussed that the ASQ could be used to further screen a child who had concerning findings on the PEDS screen, but once a concern has been raised, by surveillance, screening, the child should be referred for a formal developmental evaluation. In our

community, the Tri-Counties Regional Center (TCRC) is a good option for developmental referral for a number of reasons. One is that most of our patients are publicly insured and rarely have access to private developmental specialists. Also, the TCRC will usually send therapists to the home to evaluate and treat the child, so that our patients do not have to travel in order to access services and the therapist has the opportunity to assess the home environment and the family's abilities and resources. The limitation of the TCRC is simply that the large numbers of children they serve create longer waiting times for both evaluation and treatment. Another good option for our patients is the High-Risk Developmental Clinic in Ventura, CA, where public insurance is accepted; the limitation for our Simi Valley patients is the long distance and lack of public transportation.

Post-implementation Experiences

We began implementation of our developmental screening program in approximately June 2008. The only real difficulty we have had is supply of PEDS questionnaires, since they have to be ordered and paid for in advance. There has been some impact on time spent per patient, but as providers and MA's have become accustomed to the tools, this impact has not been significant enough to elicit complaints from the staff. Although the idea for age-specific well child packets had initially created some enthusiasm, the packets are no longer being used; the staff seems to feel that the convenience of the packets did not really offset the added work of organizing the packets in advance. Thus far we have not formally evaluated the effectiveness of our screening program, but we feel that we are now providing a higher standard of well child care for our patients by implementing this program.

We have been very fortunate, in this endeavor, to have a highly

motivated staff dedicated to improving the healthcare of all children, especially the less advantaged children of our community. We greatly appreciate the extra time and effort they have selflessly devoted to this and other projects.

References:

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