



CARE FOR KIDS



Early & Periodic Screening, Diagnosis & Treatment

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Developmental Assessment

What is it? Why should I do it?

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Revised and updated from the Winter 1995 EPSDT Care for Kids Newsletter

As a health care professional who provides care to children, you are frequently requested to “assess” a child’s development. A number of excellent references are available that document solid reasons for your participation and provide excellent guides [see boxed material, at right] for your use in the assessment process. We are hopeful you provide assessment services for children enrolled in the EPSDT Care for Kids program because as a group they are at greater risk for developmental concerns than those children whose care is privately funded.

This article is based on two perspectives. First is the fact that at least 10% of all children experience some type of developmental problem during their school years.



Second, early identification of developmental concerns leading to the early initiation of appropriate intervention can be beneficial not only for the child but for the child’s family. (For information on Iowa’s Early ACCESS program, an important referral resource for these children and their families, see insert page 2.)

SCREENING TOOLS

AAP Learning Module on Developmental and Behavioral Screening, at <http://www.dbpeds.org/articles/dbtesting/>, with several developmental screening questionnaires discussed at <http://www.dbpeds.org/articles/dbtesting/developmental.cfm>.

Overview. Glascoe, F. Early Detection of Developmental and Behavioral Problems. *Peds in Review* 21, 8-00: 272-8.

Parent-completed, such as the Denver Prescreening Development Questionnaire (PDQ) (Frankenburg, 1990).

Checklists, such as the Revised Gesell and Amatruda Screening Inventory.

Direct child screening, such as the Denver Developmental Screening Test (Frankenburg et al., 1990).

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What is developmental assessment?

Developmental assessment is the collective effort you spend to ensure that children who require special developmental supports and services are identified and referred, if necessary, as soon as is practical. It is an approach that combines both objective and subjective methods, and that asks you to keep an eye on development during each and every opportunity you have to interact with your young patients.

Objective methods of developmental assessment

Objective methods include the medical diagnostic processes that lead to the identification – at birth, or as soon as possible – of those children who have discernible disabilities, such as spina bifida or major metabolic disorders. When such children are identified, they should be enrolled immediately in programs that provide not only needed medical and health care, but ongoing developmental monitoring as well.

Other objective methods include the systematic use of specific developmental screening instruments, such as the Denver Developmental Screening Test II, for those children whose births were linked with events such as the occurrence of an IVH (intra-ventricular hemorrhage) in a low birth-weight child. In this circumstance we now know there is an increased likelihood the child will ultimately show the signs of cerebral palsy spastic diplegia. Such

manifestation might have been suspected almost from birth, but because of a number of factors to be explained later, there is no way the diagnosis of cerebral palsy can be made earlier than during the second half of the first year of life.

Another group of children has also been identified who require a more formalized, objective method of developmental observation over time. This group includes children at “environmental risk.” For example, the infant of a teenage mother who has dropped out of school, and whose social support system is inadequate, has a greater likelihood of developmental problems than the child who is being nurtured in a more stable and supportive environment.

Similarly, when screening identifies a child whose development is delayed, or when the developmental profile is quite unbalanced (for example, motor development is quite delayed although language development is age-appropriate), then a focused screening may be in order. This focused screening should be conducted by the health professional, and is devoted exclusively to determination of the child’s developmental status. It should not be considered “diagnostic,” but rather is done to confirm or rule out the necessity for referral to a developmental specialist.

Subjective methods

Subjective assessment involves the close observation of the child’s developmental progress at every health supervision interaction. When a child’s medical and social history does not indicate the

Developmental Absolutes

An experienced clinician should carry out a developmental assessment of any child who has not achieved the developmental skills below by the ages cited.

The child should be able to:

2 mo.

- Demonstrate a social response



3 mo.

- Absolutely affirm the ability to hear



9 mo.

- Move into and maintain an unsupported sitting position



12 mo.

- Use a pincer grasp



20 mo.

- Speak single words



24 mo.

- Climb stairs
- Run
- Bend over from a standing position and pick up an object from the floor



presence of previous or current life events that are typically associated with high risk factors, periodic probes of the child’s family and peer interactions, combined with your observation of the child’s behavior and interactions with the family, often provide an adequate developmental assessment. However, it must be emphasized that such “eyeball” examinations should be used only when there

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is good evidence that children in your care who have discernible disabilities have been identified, and that those who are at higher risk are engaged in a systematic process of developmental monitoring.

Why careful developmental assessment is important

There is good evidence that at least 2% of all newborns have a discernible disability; that is, a major malformation or a sensory or physiological condition that will probably lead to the child's encountering problems in his or her educational or functional life. This figure is quite consistent throughout the United States.

In addition, those children will be joined by an additional 8% during the first six years of life, with the result that 10% of all school age children will demonstrate the need for special education or "related services" during their educational years.

The major reason for performing developmental assessment relates to the 8% of children who were not identified at birth as having a disability, but who will require special accommodations during their school years. Where did they come from? You might wonder if they have the residuals of childhood infection, or of some type of head trauma, but neither of these hypotheses is correct.

A portion of the group is made up of children who inherited a sensory, metabolic, or motor condition that does not manifest itself during the first year or so of life,

but will do so over time, such as muscular dystrophy. Another portion arises among children whose births or neonatal course was affected by a metabolic or infectious process that caused a brain lesion, but because of the type or degree of the insult the developmental problem was not demonstrated until the child was required to use that particular brain mechanism later in life (e.g., a mild IVH resulting in mild cerebral palsy hemiplegia).

A third portion includes children who have mental retardation, but who, for obvious reasons, do not display their disability in the newborn period. Put simply, they will not be challenged by the functional tasks of life until well into their second year of life, and therefore will not demonstrate their disability until they come under rigorous developmental scrutiny. In most instances, the first indications of such delays can be detected during the first year of life by well-trained developmentalists.

The largest portion of the 8% comes from those who will ultimately demonstrate learning disabilities, Attention deficit with hyperactivity disorder (ADHD), mild mental retardation, or language dysfunctions. The concerns of most of these children will not surface until they are challenged with formal academic work in kindergarten or later. Some of these disorders are more significant and do begin to affect a child's development during the preschool years. Most such dysfunctions, however, are relatively mild and should not exclude the child from inclusion in regular education, as long as learning problems have

been appropriately identified and a course of special instruction has been tailored to their needs.

A final subset of the 8% includes children who require speech therapy because of developmental speech problems. Often these can be rather quickly modified using one or two years of education-oriented speech therapy.

Approximately one-tenth of those children who require special assistance from the education system will have a mental health or emotional disorder serious enough to interfere with their normal developmental progress. Therefore, the majority of the 8% who ultimately join the initial 2% of children to constitute the "special education" population demonstrate problems with intellectual or "processing" concerns, exclusive of those with sensory, motor, physiologic, or mental health disorders. In addition, the majority of such conditions, although they call for early identification and intervention, are relatively mild to moderate in terms of severity. Only one-half of one percent of all school aged children are estimated to have significant problems with their functional lives – that is, difficulty in moving about, communicating, demonstrating intellectual ability, or forming effective human relationships.

Planning effective developmental assessment for the children in your practice

From the preceding data it should be clear you can formulate and effectively implement a logical

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Identifying Infants at Risk for Hearing Loss

Lenore Holte, supervisor, Speech Pathology and Audiology Services
University Hospital School, University of Iowa Hospitals and Clinics

Recent research has demonstrated that early identification and treatment of hearing loss in infants is crucial. As a result, Iowa and several other states have implemented programs of universal hearing screening for newborns. But even infants who pass the newborn hearing screen can be at risk for progressive hearing loss. Certain indicators can tell you whether an infant in your care needs to be referred to an audiologist for further hearing evaluation.

Newborn Screening is important because:



Most children with hearing loss can develop language skills that are not substantially different from those of other children **IF**:

- Hearing loss is identified before the child is 6 months old
- Professional intervention begins immediately
- The child uses appropriate hearing aids



The indicators below are associated with sensorineural or conductive hearing loss **in newborns from birth to 28 days old**:

1. *In utero* infection, such as cytomegalovirus (CMV), rubella, syphilis, herpes, or toxoplasmosis.
2. An illness or condition requiring admission of 48 hours or longer to an NICU, including hyperbilirubinemia at a serum level requiring exchange transfusion, persistent pulmonary hypertension, and conditions requiring the use of extracorporeal membrane oxygenation (ECMO).
3. Other findings associated with a syndrome known to include hearing loss.
4. Craniofacial anomalies.
5. Family history of permanent childhood hearing loss.

When any of these indicators exist, the primary care provider should refer the child to an audiologist for hearing evaluation.

Later-onset risk indicators

are usually identified in the medical home during early well-baby visits. The hearing of infants with any of the following indicators should be monitored every six months:

1. Parental or caregiver concern about hearing, language use, or developmental delay.
2. Infections associated with sensorineural hearing loss, including bacterial meningitis.
3. Presence of syndromes or conditions associated with progressive hearing loss, such as neurofibromatosis, osteopetrosis, Usher syndrome, Hunter syndrome, Friedreich's ataxia, or Charcot-Marie-Tooth syndrome.
4. Head trauma.
5. Recurrent or persistent otitis media with effusion for at least 3 months.

Again, when any of these indicators exist, the primary care provider should refer the child to an audiologist for hearing evaluation.

The hearing of a newborn with any of the early- or late-onset indicators listed above should be closely monitored at least every six months until the child is three years old.

Defining a “Medical Home” for Iowa Children

The *medical home* is the place where a child and his or her family know that they can get effective, trustworthy health care that is:

Accessible

- The child has access to health care near the child’s home, in the community.
- Care is affordable; Medicaid is accepted and changes are accommodated.

Ongoing

- The child has the same primary health care providers from birth through adolescence.
- As a result, a caring relationship exists between the child, family, and care providers.

Family centered

- The family is recognized as the child’s primary source of strength and support.
- The open sharing of unbiased, understandable information provides the foundation for care.

Comprehensive

- A qualified physician supervises the many facets of the child’s health care.
- Health care is available 24 hours a day, 7 days a week.
- Preventive, primary and tertiary needs are addressed.

Preventive

- Care includes periodic screenings, evaluation of growth and development, immunizations and health care supervision.
- The physician offers the child and the family guidance on health and psychosocial issues.
- Preparation for transitions — from newborn nursery to home, home to school, school to adult life — make these transitions easier.

Coordinated, collaborative, compassionate, and culturally competent

- Referrals to and consultations with subspecialties occur as needed; the physician serves as a liaison between the child and family, and subspecialty care providers.
- The physician links the child and family to other resources, such as support, education, and community-based services.
- The child and family understand that their well being — physical, emotional, and social — is their physician’s primary concern.
- The physician recognizes, values, and responds to the culture of the child and family.

Well-documented

- The medical home maintains careful records of all pertinent medical information about the child.
- Information is centralized and accessible, while confidentiality is maintained.

Statewide Planning: *The Medical Home Model*

Robert F. Anderson, MD

In January 2001, the Iowa chapter of the American Academy of Pediatrics (IACHAAP) hosted an afternoon dialogue about implementing a “medical home” model for all children in Iowa. The timing was fortunate, since at that time the Iowa Academy of Family Practice (IAAFP) was in the process of planning an April conference that would also focus on this concept. At the April conference, representatives from physician

organizations, provider groups, third party payers, and Title 5 funding streams continued to identify barriers to children’s health care, and furthered the viewpoint of the medical home model as a sound foundation for effective services. Since *Healthy Iowans 2010* also makes a commitment to the medical home model, discussion should lead to action.

As primary care practitioners, keep up with these efforts and assess the medical home that you provide to the children you serve. Let the *EPDST Care for Kids Newsletter* Editorial Board know your thoughts; contact information is provided on the back page of the newsletter.



Iowa's Early ACCESS Program

For families with children (0-3) who have a known condition or delay in development

Putting a family in touch with Iowa's Early ACCESS program will link them to resources they can use to help their children grow and develop.

Iowa ACCESS is a partnership between families with young children and staff from the Iowa Department of Public Health, the Iowa Department of Human Services, Iowa Child Health Specialty Clinics, Iowa's Area Education Agencies, and a variety of other community programs.

Iowa ACCESS serves children from birth through age 3 years, regardless of family income:

- Who have a condition that is known to have a high probability of later delay if early intervention is not provided, or
- Who have a 25% delay in one or more areas of growth and development.

When a family participates in the Early ACCESS program, they work with a service coordinator to determine eligibility. Then they create an individualized family service plan, or IFSP.

Early ACCESS services include

- Service coordination
- Screenings, evaluations, assessments
- Creation of the IFSP
- Assistive technology
- Audiology
- Family training, counseling
- Health services
- Nursing
- Nutrition
- Occupational therapy
- Physical therapy
- Psychology
- Social work
- Special instruction
- Speech-language therapy
- Vision
- Transportation

In the IFSP the family and the service coordinator work together to identify concerns and priorities for the growth and development of the child and the family. The IFSP is an ongoing plan that addresses concerns with action steps and specific resources provided by community programs.

Costs of Early ACCESS services are determined by factors unique to each child and family. Some services have sliding fees or are free. The service coordinator will work with the family to identify costs and payment options.

Early ACCESS services that are free include:

- Service coordination
- Assessment to determine eligibility for Early ACCESS, and to identify family priorities
- Development and review of the IFSP

To contact your region's Early ACCESS coordinator:

- Phone your Early ACCESS regional coordinator at your Area Education Agency, or
- Call Iowa COMPASS, 1-800-779-2001, and ask for the phone number of your regional Early ACCESS coordinator.



plan to adequately assess the development of all children in your practice. The key is the understanding that different cohorts of children require specific and targeted methods of developmental surveillance.

Likewise, an individual child can move from one cohort to another as circumstances change. A child without previous developmental concerns whose development is being subjectively monitored may experience a serious illness or an abrupt change in family circumstances due to illness, unemployment, divorce, or other disruptive factors. That child must then be identified as one whose development must be more objectively screened on a periodic basis. This, of course, is an excellent reason for health care providers to possess current information regarding the family, school, and living circumstances of each child in their care.

Developmental surveillance: Organization and helpful hints.

The next issue of the *EPSDT Care for Kids Newsletter* will contain specific hints to guide you in creating a solid developmental surveillance plan – and ways for you to evaluate how you are doing. It will discuss motor, sensory, communication, and adaptive activities, as well as how to use the material you gather in such a developmental assessment to make an effective referral.

Coming Your Way:

Pneumococcal Immunization

Ellen Link, MD, Associate Professor, Division of General Pediatrics, Department of Pediatrics, University of Iowa Hospitals and Clinics

The American Academy of Pediatrics recommends that all children younger than 24 months be vaccinated with Prevnar (PCV7), the first pneumococcal vaccine approved for use in children younger than age 2.

Every year in the US, *streptococcus pneumoniae*, also known as pneumococcus, causes 1,400 cases of meningitis, 17,000 cases of bloodstream infections, and 71,000 cases of pneumonia in children younger than 5. Children at high risk of this infection include those who have cerebrospinal fluid leaks; chronic cardiac, lung, or renal disease; diabetes mellitus; HIV infection; immune system dysfunction; or sickle cell disease.

PCV7 targets the strains of pneumococcus that account for about 80% of pneumococcal infection in infants. PCV7 can be administered concurrently with other recommended childhood vaccines at 2, 4, 6, and 12-15 months of age. Children who begin immunization between 7 and 23 months of age receive fewer doses. You can find the complete AAP immunization schedule at: <http://www.aap.org/policy/re9960.html#table1>.

To learn more, visit “Recommendations for the Prevention of Pneumococcal Infection” at: <http://www.aap.org/policy/re9960.html>.

How do I bill for...

Developmental screening.

A basic developmental screen should be included during each EPSDT or well-child examination. Use the HCFA 1500 form with procedure codes 99381-99385 or 99391-99395. These procedure codes must be accompanied by an EPSDT modifier (XA, XB, XC, XD). Billing is allowed for follow-up of concerns found during the screening exam that require further testing. At the follow-up visit, use the appropriate CPT billing code for the test administered; 96110 and 96111 are two codes for developmental testing.

Hearing screening.

Hearing tests such as whispered voice or tuning fork are considered part of the general screening service and are not billed separately. The audiology function tests of 92551-92553 are considered part of the screening exam and are not payable separately on the same date of service. Audiology function tests of 92555-2598 are not included in the health screen and are payable.

Fluoride varnish. Medicaid-enrolled physicians bill for application of fluoride varnish by using code W2203.

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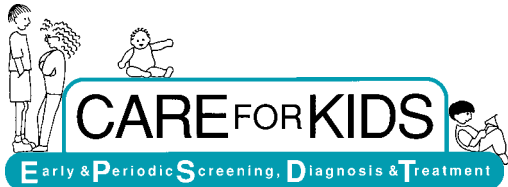
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If you have questions about **billing**
related to EPSDT Care for Kids services, please call
Provider Services: **1-800-338-7909**

If you have questions about **clinical issues**
and EPSDT Care for Kids services, please call
Edward Schor, MD: **1-800-383-3826**

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