



program to enhance the
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OF INFANTS AND CHILDREN

A program of the American Academy of Pediatrics in cooperation with the Centers for Disease Control & Prevention

Neuromotor Screening Initiative

Neuromotor Screening Focus Group and QuIIN Survey Executive Summary March 2012

Many pediatricians focus on developmental screening for social-emotional concerns such as autism, paying less attention to motor delays. Information gathered from focus groups of primary care providers conducted during the 2010 AAP National Conference and Exhibition and a 2011 online survey of the AAP Quality Improvement Innovation Network (QuIIN) informed a neuromotor screening expert panel (EP) assembled by the AAP and CDC to address identification, workup and referral of children with possible neuromotor problems or delays.

Major questions addressed by the focus groups and survey were:

- What factors influenced primary care practice with regard to continued surveillance or work-up?
- What factors influenced referral?
- What factors influenced whether to follow-up?
- What screening tools do primary care providers use?
- What resources do primary care providers need to assist them in identifying motor delays?

Forty-nine primary care providers participated in 3 focus groups and 71 (24% of the QuIIN membership) completed the online survey. Along with several questions about screening, resources, referrals and communication with parents, a series of three vignettes were posed to focus group and survey respondents, varying the age of the child with surveillance indicating an abnormal motor finding followed by either a normal or abnormal physical exam. Quantitative and qualitative analyses of the focus groups and survey results revealed several factors influencing practice.

Sample Vignette: In the course of developmental surveillance during a health supervision visit with a 15-month-old, you note that she cannot walk without assistance.

Factors influencing primary care practice - A major factor that led to continued surveillance or continued observation rather than a work-up, was the possibility of *children's limited exposure to activities* that stimulate motor development.

"Make sure the infant has adequate 'tummy time;' if not, instruct parents to practice" (Survey respondent)

The focus group participants generally agreed that parents were better able to observe and report on children's motor development than they were to report more subtle language and speech delays and therefore, providers took *parental reports seriously*.

"... What the parents say [I take it] pretty seriously. Even if I don't necessarily agree, I take it pretty seriously. And I'll do a little bit more of an exam or assessment when they do have a concern" (Focus group participant)

However, differences in parental perceptions about the effectiveness of early intervention, low literacy rates and concerns that parents may feel their child will be stigmatized contributed to whether a referral for early intervention services was made.

*“Some people turn down early intervention because they confuse it with social services”
(Focus group participant)*

Despite concerns about parent’s responses, direct contact and observation of the child in the office setting was extremely important for deciding the severity of delay and how to proceed.

“Nothing substitutes for laying hands on child because parents are unreliable”

For survey respondents, the younger the child, the less likely they were to continue to observe and the more likely they were to work-up the child immediately. Also, if they chose to continue observations and to reassure parents rather than immediately follow-up, they were more likely to discuss the implications with parents and note to check it on the next visit rather than call it “normal”.

Referral - Some focus group participants said they made immediate referrals for occupational and physical therapy because of the long waiting period to see a developmental pediatrician or neurologist. This referral pattern was confirmed by the survey respondents. The top 4 community referrals in rank order were: 1) Early intervention program (EI or 0-3 program)/school system (90%); 2) Pediatric neurologist (81%); 3) Developmental pediatrician (66%); and 4) Physical therapist (56%).

Follow-up - When asked, the majority of surveyed providers (> 82%) said they would follow-up a child with a motor concern at a later date; the younger the child the sooner the follow-up.

Screening - Many providers reported using the Ages and Stages Questionnaire (ASQ) to screen children for developmental concerns. However, because the ASQ is meant to be administered by parents themselves, low parental literacy rates and compliance limited how useful it really was. Many providers relied on repeated visits to get a handle on what might be happening.

“You have to rely on repeated visits to make a determination as to what's going on”

Resources Requested - The majority of providers requested an algorithm to guide diagnosis and referral, provider educational modules/learning opportunities, a motor delay fact sheet and patient educational materials.

Conclusions and Recommendations - The AAP and CDC partnered to conduct focus groups and surveys of primary care providers’ neuromotor screening practices. As a result of data gathered from these sources an expert panel of AAP representatives from the Bright Futures Steering Committee, Council on Children with Disabilities, Committee on Genetics, Section on Developmental and Behavioral Pediatrics, Section on Neurology, Section on Orthopaedics, members of the CDC/NCBDDD, and American Academy of Cerebral Palsy and Developmental Medicine developed a clinical report on motor evaluation of children and guidelines for the clinician regarding an approach to children who demonstrate motor delays and variations in muscle tone.

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