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Screening for Developmental Delays During the Well-Child Visit

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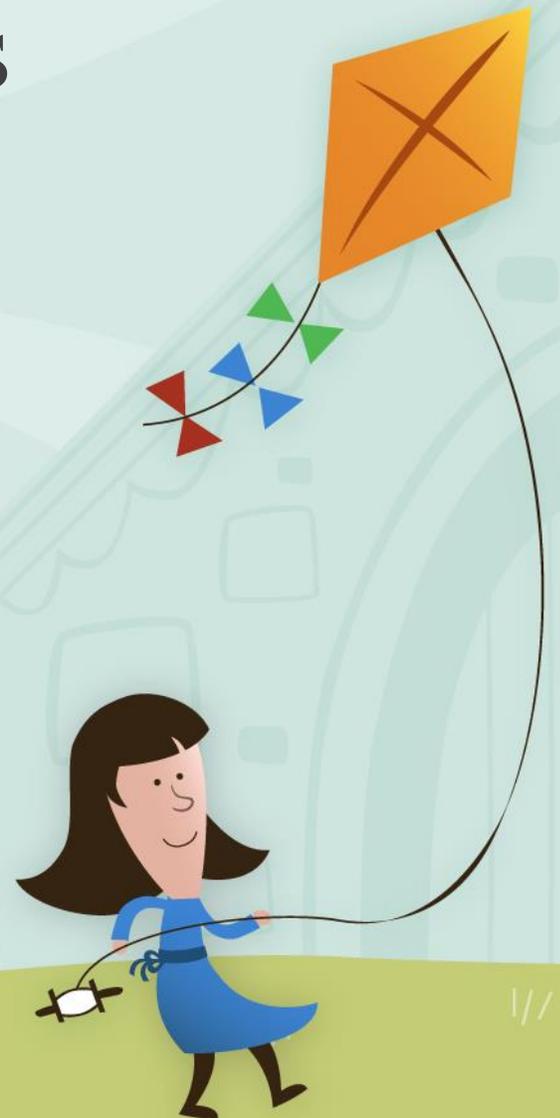## Recommended Citation

Screening for Developmental Delays During the Well-Child Visit

Danbury, CT

Ellen Seyller

September 2019

Mentor: Dr. Eurica Chang

Problem Identification

- Due to recent organization and staffing transitions, Newtown Primary Care no longer has a pediatrician operating out of their practice

- Family medicine physicians are now managing the care of many of these pediatric patients, performing an increasing number of well-child visits

  - Typically these are 30-min appointments

- Most practitioners use age-specific templates within the Electronic Medical Record to guide the well-child exam, which includes a "Development" section to assess patients for developmental concerns

  - However, this section can be challenging to perform and interpret in the clinical setting, sometimes leaving parents and clinicians unsure about the presence or absence of development delays in a child

  - A screening tool that can be quickly administered and interpreted would be helpful for clinicians to assess development in pediatric patients during well-child visits

Public Health Considerations

- 2017 National Health Interview Survey Data (from 2014-2016) showed a significant national increase (5.76% to 6.99%) in prevalence of children who were ever diagnosed with a developmental disability

  - The increase was largely attributed to developmental delays other than autism spectrum disorder or intellectual disability

- The American Academy of Pediatrics recommends:

  - Standardized & validated developmental screening at 9mo, 18mo, and 30mo visits

  - Developmental surveillance at all other well-child visits

- A policy statement by the American Academy of Pediatrics (*Pediatrics, 2006*) emphasized early identification of developmental disorders as being critical for:

  - Ensuring timely and appropriate medical evaluation

  - Initiating long-term interventions/management

  - Connecting children and their families to appropriate community resources

Community Perspective (4A)

"It is important to screen [children] early to identify and intervene if there are any issues. The electronic medical record templates can be cumbersome and inefficient to manage, but there is flexibility to alter and improve them over time.

"Some additional challenges for providing comprehensive pediatric care include making sure we have resources such as specialists and support services available to patients and ensuring that we know how to communicate with [these other community services] in a timely manner."

Dr. Eurica Chang

Family Medicine Physician at Newtown Primary Care

Community Perspective (4B)

"A surprising number of children in our community enter preschool with an undiagnosed developmental delay that gets noticed by teachers and staff, sometimes during the preschool readiness interview. Also, there are some children entering preschool were misdiagnosed as having a speech-language delay when they really have more global delays that don't get picked up right away.

"It's important that all [well-child] visits look for development delays, but it's also important that children are regularly assessed for age-appropriate behavioral responses, which could be easy to miss during a clinic visit if not directly addressed.

"Regular behavior and development screenings can also help parents feel more comfortable being honest with their providers about concerns with their child's development. These conversations can help alleviate some parent's feelings of guilt or responsibility [about their child's development/behavior] and help families gain quicker access to support when they need it."

Anonymous

Faculty at Danbury Public Schools

Intervention & Methodology

- A screening tool was created for clinicians to assess development during well-child visits

  - 10 questions about milestones at each age group

  - A scoring guide to quickly assess for major concerns and open a dialogue about development

  - A list of concerning signs to watch for at each age

- Ages covered:

  - 1mo, 2mo, 4mo, 6mo, 12mo, 15mo, 2yo, 3yo, 4yo

  - 9mo, 18mo, 30mo ages were not included as more standardized & validated testing is indicated at these visits

- The tool is based on developmental milestones compiled from educational and screening materials by American Academy of Pediatrics, Bright Futures, Children's Hospital of Orange County, Floating Hospital for Children at Tufts Medical Center, HealthyChildren.org, and UVM LCOM

Results/Response (6A)

- The screening tool was distributed to clinicians at Newtown Primary Care

- An electronic copy was given to Mentors to more easily incorporate into their practices or EMR templates

  - This also allows the document to be shared electronically with colleagues at NPC and other primary care practices

Patient Name: _____ Age: _____ Today's Date: _____

Developmental Milestones: 15 months

Ask caregiver about their child's ability to do the following things:

	Milestone	Not Yet	Sometimes	Frequently
1	Walks alone with uneven steps / walks backwards	0	1	2
2	Builds a 2-block tower	0	1	2
3	Drinks from a cup	0	1	2
4	Scribbles spontaneously	0	1	2
5	Simple gestures, like shaking head "no"	0	1	2
6	Uses ≥5 words	0	1	2
7	Follows one-step directions	0	1	2
8	Walks up the stairs with assistance	0	1	2
9	Understands the function of everyday items	0	1	2
10	Can point to own body part	0	1	2
	Total			

Total Score Overall: _____/20

Scoring Guide:

A score of ≥11 likely indicates normal development.

Lower scores (≤10) or the presence of concerning signs should be explored further, depending on clinical judgement.

Concerning signs to watch for:

- Difficulty standing or walking
- Immature grasp (non-pincer)
- Doesn't use simple gestures or say simple words
- Doesn't recognize or know function of everyday items
- Limited emotional attachment to caregiver

Patient Name: _____ Age: _____ Today's Date: _____

Developmental Milestones: 2 years

Ask caregiver about their child's ability to do the following things:

	Milestone	Not Yet	Sometimes	Frequently
1	Runs	0	1	2
2	Climbs furniture or ladder at playground	0	1	2
3	Builds a 6-block tower	0	1	2
4	Copies a line	0	1	2
5	Uses 2-word sentences	0	1	2
6	Vocabulary of ≥50 words	0	1	2
7	Names at least one color	0	1	2
8	Follows simple two-step instructions	0	1	2
9	Engages in parallel play	0	1	2
10	Imitates behavior of others	0	1	2
	Total			

Total Score Overall: _____/20

Scoring Guide:

A score of ≥12 likely indicates normal development.

Lower scores (≤11) or the presence of concerning signs should be explored further, depending on clinical judgement.

Concerning signs to watch for:

- Difficulty walking or walks only on toes
- Limited vocabulary <20 words
- Doesn't use two-word sentences
- Doesn't imitate actions or words of others
- Doesn't follow simple instructions

Patient Name: _____ Age: _____ Today's Date: _____

Developmental Milestones: 3 years

Ask caregiver about their child's ability to do the following things:

	Milestone	Not Yet	Sometimes	Frequently
1	Goes up and down stairs using alternating feet	0	1	2
2	Rides a tricycle	0	1	2
3	Copies simple shapes (circle or square)	0	1	2
4	Draws a person with 2-4 body parts	0	1	2
5	Uses 3-word sentences	0	1	2
6	Speaks clearly enough to be understood by strangers	0	1	2
7	Compares things / understands "same" vs "different"	0	1	2
8	Tells stories / can recount stories	0	1	2
9	Cooperative play with peers / shares toys	0	1	2
10	Enjoys fantasy play	0	1	2
	Total			

Total Score Overall: _____/20

Scoring Guide:

A score of ≥12 likely indicates normal development.

Lower scores (≤11) or the presence of concerning signs should be explored further, depending on clinical judgement.

Concerning signs to watch for:

- Cannot scribble or grasp utensils
- Cannot build a 4-block tower
- Little interest in playing with other children
- Limited vocabulary or sentence use
- Persistent separation anxiety from parents

Patient Name: _____ Age: _____ Today's Date: _____

Developmental Milestones: 4 years

Ask caregiver about their child's ability to do the following things:

	Milestone	Not Yet	Sometimes	Frequently
1	Hops and stands on one foot	0	1	2
2	Catches and throws a ball	0	1	2
3	Dresses and undresses without assistance	0	1	2
4	Draws a person with ≥4 body parts	0	1	2
5	Uses 3-5-word sentences	0	1	2
6	Says own name and address	0	1	2
7	Enjoys rule-based games / bargains to change rules	0	1	2
8	Follows 3-step instructions	0	1	2
9	Knows at least 4 colors	0	1	2
10	Enjoys playing with peers	0	1	2
	Total			

Total Score Overall: _____/20

Scoring Guide:

A score of ≥14 likely indicates normal development.

Lower scores (≤13) or the presence of concerning signs should be explored further, depending on clinical judgement.

Concerning signs to watch for:

- Fearful, timid, or aggressive behavior
- Little interest in interacting with peers
- Unhappy or sad much of the time
- Trouble with eating, sleeping, or toileting
- Cannot follow simple two-step instructions
- Issues with coordination or going up/down the stairs

Evaluation of Effectiveness & Limitations

Evaluation of Effectiveness

- Time constraints of this project prevented initial assessment of the intervention

- Future evaluation could include:

  - Examining how often the screening tool was used during well-child visits

  - Feedback from clinicians about the usefulness and efficiency of the screening tool

  - Feedback from caregivers about whether using the screening tool helped start some conversations about their child's development with their healthcare providers

  - Survey of caregivers about their level of confidence in their child's progression through developmental milestones due to regular surveillance using the screening tool

Limitations

- Screening tool use relies on patients' families and providers spending time with it during the brisk-paced 30-min visit

- The tool's accuracy relies on caregivers' observations and recollections of a child's specific behaviors

- Only common developmental milestones are covered by the tool, which is not a substitute for nationally validated developmental screening tools

- If developmental delays suspected, it is imperative to act on this information and set up the child with additional testing & local services/resources

Recommendations for Future Interventions

One of the most important elements of these types of tools is the convenience of their use by busy practitioners and parents

Future project ideas:

- Continuing to modify this developmental screenings/surveillance tool to format a template within the electronic medical record

- Look into sending the survey home with families before or after visit to complete in a more familiar/comfortable setting

- Conduct surveys of parents and practitioners to see if the tools were helpful in identifying delays, providing reassurance, and/or improving comprehensive care

- Expand to include other surveillance tools requiring quick clinical administration and interpretation & modify into an electronic medical record template
    - Examples: HEADSS or CRAFFT assessments, ACEs surveys

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