Screening for Autism Spectrum Disorder:

Case Examples Using the M-CHAT

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Example M-CHAT Administrations

4 Case Studies
Example #1

Abigail (19-month-old, non-verbal female)

Background: Abigail’s mother brought her to her well-child visit. Abigail clung tightly to her mother while in the waiting room, and began to make whining sounds when the doctor greeted her mother. During the visit, the pediatrician administered the M-CHAT as an interview with the mother while Abigail played on her mother’s lap.

Initial M-CHAT Results:

3. Does your child like climbing on things, such as up stairs? (No)
5. Does your child ever pretend, for example, to talk on the phone or take care of dolls, or pretend other things? (No)
13. Does your child imitate you? (e.g., you make a face—will your child imitate it?) (No)
14. Does your child respond to his/her name when you call? (No)
15. If you point at a toy across the room, does your child look at it? (No)
16. Does your child walk? (No)
20. Have you ever wondered if your child is deaf? (Yes)
21. Does your child understand what people say? (No)

Example #1

Follow-up Interview: The pediatrician administered the follow-up interview at the end of Abigail’s well-child visit. She found that Abigail failed the same items excluding item 15. In the interview it was reported by her mother that Abigail occasionally pointed across the room.

Example #1 Questions

1. Does Abigail have autism spectrum disorder?
   ANSWER: The M-CHAT is a screening tool and is appropriate to identify red flags or those children who may be at risk for ASD. It should not be used to make a diagnosis but would instead be used to support a referral indicating concerns in key areas typically identified for children suspected of ASD.

2. What follow-up is needed by the pediatrician?
   ANSWER: A child who fails two critical items or three or more other items, after the follow-up interview should be automatically referred for a developmental evaluation. Whether or not a child receives a diagnosis, these red flags indicate that a child is likely to have some developmental challenge and would benefit from intervention. The pediatrician should provide information regarding where to go for an evaluation. Additionally, the pediatrician should provide information regarding early intervention services.
Example # 1

Conclusion: A follow up interview was completed, the failed items were confirmed, and Abigail was referred to the Infant Toddler Program (for children birth to 3 with or at risk for developmental disabilities) for a developmental evaluation and to begin intervention. She was also referred to a developmental pediatrics program and later diagnosed with Autism and received early intervention services.

Example # 2

Enrique (48 month-old verbal male)

Background: Enrique’s mother brought him in to his well-child visit. When they arrived, the receptionist asked the mother to fill out the M-CHAT while waiting. Enrique played with the blocks by himself while his mother worked on the paperwork. The M-CHAT was then scored by a nurse in the office who had been trained to score the screener.

Initial M-CHAT:
Item 9. Does your child ever bring objects over to you (parent) to show you something? (No)
Item 17. Does your child look at things you are looking at? (No)
Item 18. Does your child make unusual finger movements near his/her face? (Yes)

Example # 2

QUESTION: Should Enrique be referred for further evaluation or should a follow-up phone call be made?

ANSWER: Because Enrique failed three items (and only one critical item [#9]), the recommendation is for Enrique’s mother be contacted within two weeks by phone for a follow-up interview to determine if the three failed items continued to be a concern prior to making a referral for further evaluation.
Example # 2

Follow-up Interview:

Within 2 weeks, the nurse from the pediatric office contacted Enrique’s mother and used the follow-up question algorithm to determine if Enrique was still failing items 9, 17 and 18. The response to each of these questions indicated a failure.

Example # 2 Questions

1. What should be the pediatrician’s next step?
   **ANSWER:** Enrique should be referred to a specialist for a developmental evaluation as screening results indicate further referral is appropriate.

2. Does Enrique have ASD?
   **ANSWER:** The results of the M-CHAT screening tool suggest Enrique is at risk for a diagnosis of ASD but would require further evaluation and should take part in intervention with ongoing follow-up to track his progress.

Example # 2

Conclusion:

Enrique was evaluated by a developmental pediatrician and was diagnosed with PPD-NOS. He began attending an early childhood special education program in his home school. He continued to make progress in his language although his ability to engage socially was not typical compared to his peers.
Example # 3

Brittany (24-month-old non-verbal female)

Background: Brittany’s adoptive father and mother brought Brittany to her well-child visit. Brittany was interested in touching different textures and hugging the legs of the pediatrician and nurses she met in the hallway as she came into the exam room. During the beginning of the visit, Brittany’s adoptive parents described the traumatic events surrounding Brittany’s early childhood. The pediatrician administered the M-CHAT to the family.

Initial M-CHAT:
Brittany failed the following items:
11. Does your child ever seem oversensitive to noise? (e.g., plugging ears) (Yes)
18. Does your child make unusual finger movements near his/her face? (Yes)
22. Does your child sometimes stare at nothing or wander with no purpose? (Yes)

The pediatrician immediately followed the survey with the associated follow up questions.

Example # 3

Follow-up Interview:
The family mentioned that Brittany calmly covers her ears when she hears loud noises such as people yelling on the television. It was also determined that she only rarely moves her fingers in front of her face. Brittany’s mom noted that her daughter continued to stare or wander off with no specific purpose.

Example # 3 Questions

1. Did Brittany continue to fail items 11, 18 & 22?
   ANSWER: The parents’ responses during the follow-up interview indicated that items 11 & 18 were now passed but item 22 was considered a failure.

2. Are there any concerns that would warrant further assessment?
   ANSWER: The M-CHAT results indicate it is unlikely that ASD is characteristic of this child’s profile. Considering Brittany’s adoptive history, however, it is likely that Brittany may be having some difficulties adjusting or attaching to her environment.
Example # 3

Conclusion:
While Brittany passed the M-CHAT follow-up interview, the pediatrician still recommended that the family contact the local early intervention program for further assessment related to a potential Attachment Disorder. Brittany was later diagnosed with Disinhibited Attachment Disorder.

Example # 4

Timothy (non-verbal, 22-month old male)

Background: Timothy is slightly microcephalic. His father and mother filled out the M-CHAT survey in the waiting room. A nurse scored the M-CHAT during the first part of the well-child visit.

Initial M-CHAT Survey:
Timothy’s parents reported that he failed items:
11. Does your child ever seem oversensitive to noise? (e.g., plug ears) (Yes)
14. Does your child respond to his/her name when you call? (No)
15. If you point at a toy across the room, does your child look at it? (No)
20. Have you ever wondered if your child is deaf? (Yes)
21. Does your child understand what people say? (No)
22. Does your child sometimes stare at nothing or wander with no purpose? (Yes)

Example # 4

QUESTION: Did Timothy fail any critical items on the M-CHAT, and if so, what were they? Should an interview be completed?

ANSWER: Timothy failed six items total and two critical items (14 and 15); therefore, the pediatrician administered the M-CHAT follow-up interview.
Example # 4

Follow-up Interview:
On the follow-up interview, parent responses did not change, therefore, Timothy continued to fail the previously identified failed items.

Conclusion:
The pediatrician referred the child for a developmental assessment and to the early intervention program. Timothy was later diagnosed with a global developmental delay, and the developmental pediatrician recommended additional surveillance for risk of Autism through his 3rd birthday.

AUTISM A.L.A.R.M.

A: Autism is prevalent
L: Listen to parents
A: Act early
R: Refer
M: Monitor

Centers for Disease Control and Prevention
http://www.cdc.gov/ncbddd/autism/screening.html

References

References Continued

References Continued


