Surveillance and Screening Algorithm: Autism Spectrum Disorders (ASDs)

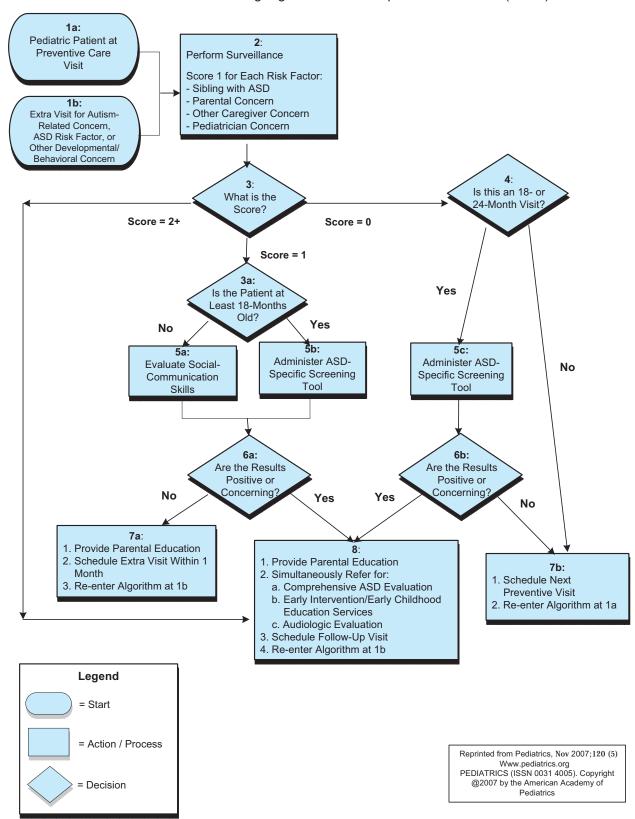


FIGURE 1 Surveillance and screening algorithm: ASDs. (Reproduced with permission from Pediatrics)

Surveillance and Screening Algorithm: Autism Spectrum Disorders (ASDs)

1a: Pediatric Patient at Preventive Care Visit

1a - Developmental concerns. including those about social skill deficits, should be included as one of several health topics addressed at each pediatric preventive care visit through the first 5 years of life. (Go to step 2)

1b: Extra Visit for Autism-Related Concern, ASD Risk Factor, or Other Developmental/ Behavioral Concern

1b - At the parents' request, or when a concern is identified in a previous visit, a child may be scheduled for a "problem-targeted" clinic visit because of concerns about ASD. Parent concerns may be based on observed behaviors, social or language deficits, issues raised by other caregivers, or heightened anxiety produced by ASD coverage in the media. (Go to step 2)

2. Perform Surveillance

Score 1 for Each Risk Factor:

- Sibling with ASD
- Parental Concern
- Other Caregiver Concern
- Pediatrician Concern

2 - Developmental surveillance is a flexible, longitudinal, continuous, and cumulative process whereby health care professionals identify children who may have developmental problems. There are 5 components of developmental surveillance: eliciting and attending to the parents' concerns about their child's development, documenting and maintaining a developmental history, making accurate observations of the child, identifying the risk and protective factors, and maintaining an accurate record and documenting the process and findings. The concerns of parents, other caregivers, and pediatricians all should be included in determining whether surveillance suggests that the child may be at risk of an ASD. In addition, younger siblings of children with an ASD should also be considered at risk, because they are 10 times more likely to develop symptoms of an ASD than children without a sibling with an ASD. Scoring risk factors will help determine the next steps. (Go to step 3)

For more information on developmental surveillance, see "Identifying Infants and Young Children With Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening" (*Pediatrics* 2006;118:405-420).



3 - Scoring risk factors:

- If the child does not have a sibling with an ASD and there are no concerns from the parents, other caregivers, or pediatrician: Score=0 (Go to step 4)
- If the child has only 1 risk factor, either a sibling with ASD or the concern of a parent, caregiver, or pediatrician: Score=1 (Go to step 3a)
- If the child has 2 or more risk factors: Score=2+ (Go to step 8)



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- If the child's age is <18 months, Go to step 5a
- If the child's age is ≥18 months, Go to step 5b



4 - In the absence of established risk factors and parental/provider concerns (score=0), a level-1 ASD-specific tool should be administered at the 18- and 24-month visits. (Go to step 5c) If this is not an 18- or 24-month visit, (Go to step 7b).

Note: In the AAP policy, "Identifying Infants and Young Children With Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening", a general developmental screen is recommended at the 9-, 18-, and 24-or 30-month visits and an ASD screening is recommended at the 18-month visit. This clinical report also recommends an ASD screening at the 24-month visit to identify children who may regress after 18 months of age.

5a: Evaluate Social-Communication Skills

5a - If the child's age is <18 months, the pediatrician should use a tool that specifically addresses the clinical characteristics of ASDs, such as those that target socialcommunication skills. (Go to step 6a)

5b: Administer ASD-Specific Screening Tool

5b - If the child's age is ≥18 months. the pediatrician should use an ASD-specific screening tool. (Go to step 6a)

5c: Administer ASD-Specific Screening Tool

5c - For all children ages 18 or 24 months (regardless of risk factors), the pediatrician should use an ASDspecific screening tool. (Go to step 6b)

AAP-recommended strategies for using ASD screening tools: "Autism: Caring for Children with Autism Spectrum Disorders: A Resource Toolkit for Clinicians" (in press)*



6a - When the result of the screening is negative. Go to step 7a

When the result of the screening is positive, Go to step 8



6b - When the result of the ASD screening (at 18and 24-month visits) is negative, Go to step 7b

When the result of the ASD screening (at 18- and 24month visits) is positive, Go to step 8

7a: 1. Provide Parental Education 2. Schedule Extra Visit Within 1 3. Re-enter Algorithm at 1b

7a - If the child demonstrates risk but has a negative screening result, information about ASDs should be provided to parents. The pediatrician should schedule an extra visit within 1 month to address any residual ASD concerns or additional developmental/ behavioral concerns after a negative screening result. The child will then re-enter

the algorithm at 1b. A "wait-and-see" approach is discouraged. If the only risk factor is a sibling with an ASD, the pediatrician should maintain a higher index of suspicion and address ASD symptoms at each preventive care visit, but an early follow-up within 1 month is not necessary unless a parental concern subsequently arises.

7b: 1. Schedule Next Preventive Visit 2. Re-enter Algorithm at 1a 7b - If this is not an 18- or 24-month visit, or when the result of the ASD screening is

negative, the pediatrician can inform the parents and schedule the next routine preventive visit. The child will then re-enter the algorithm at 1a.

- 1. Provide Parental Education
- 2. Simultaneously Refer for:
- a. Comprehensive ASD Evaluation b. Early Intervention/Early Childhood **Education Services**
- c. Audiologic Evaluation
- 3. Schedule Follow-up Visit 4. Re-enter Algorithm at 1b

8 - If the screening result is positive for possible ASD in step 6a or 6b, the pediatrician should provide peer reviewed and/or consensus-developed ASD materials. Because a positive screening result does not determine a diagnosis of ASD, the child should be referred for a comprehensive ASD evaluation, to early intervention/early childhood education services (depending on child's age), and an audiologic evaluation. A categorical diagnosis is not needed to access intervention services. These programs often provide evaluations and other services even before a medical evaluation is complete. A referral to intervention services or school also is indicated when other developmental/behavioral concerns exist, even though the ASD screening result is negative. The child should be scheduled for a follow-up visit and will then re-enter the algorithm at 1b. All communication between the referral sources and the pediatrician should be coordinated.

AAP information for parents about ASDs includes: "Is Your One-Year-Old Communicating with You?" and "Understanding Autism Spectrum Disorders."

*Available at www.aap.org

FIGURE 1 Continued