

Practical Aspects of Implementing a Paper-based ASQ Surveillance and Screening System with Supplemental Psychosocial, Social-Emotional and Post-partum Mood Disorder Screening

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1. **SCHEDULER:** For 3-4 targeted visits (Ideal goal = ASQ at 9 (vs. 12) + 18 + 24 + 36 months), the scheduler tells the parent to come in 15 min earlier than normal to complete the ASQ in a quiet corner of the reception area with available "ASQ toys".

2. **RECEPTIONIST:** For those targeted well-child visits, the receptionist gives the parent the correct age-interval ASQ. The receptionist is responsible for asking 3 questions. 1)"How many months old is your child?" 2)"Is your child receiving early intervention services / involved with EC Cares already?" 3)"Was your child a preemie?" If the child is already involved with EI services-- no ASQ given. If the child was a preemie, then the nurse or physician is responsible for giving the correct, adjusted age-interval ASQ-- so the receptionist doesn't give the ASQ to the parent. The receptionist then says: "The ASQ is a fun and important part of the well-visit. Please fill it out." The receptionist makes sure the parent has a pen + clipboard. (This detail sounds trivial but it makes a difference with ASQ return rates.)

3. **NURSE:** Double-checks to make sure the parent got the correct age-interval ASQ. If the child has a preemie history, the nurse is supposed to give the correct, age-adjusted ASQ before the doctor comes in the room. The nurse makes sure the parent has a pen and says: "The ASQ is a fun and important part of the well-visit. Please fill it out."

4. **PHYSICIAN:** Routine practice—at every well-visit, the physician asks: "Compared to other children the same age, do you have any developmental or behavioral concerns?" If the parent says, "yes", then give the correct age-interval ASQ. For 3-4 targeted well-child visits, ideally, the physician quickly reviews the completed ASQ and asks additional questions. The physician checks to see that no questions were skipped (skipped questions makes scoring difficult for the resource staff.) and asks the parent if the child tried the developmental task for the items marked "not yet". Many times, the ASQ hasn't been completed by the time the physician enters the room. For Medicaid, younger and Spanish-speaking parents, they should fill it out 1) while waiting for vaccines or 2) after the visit in a quiet corner of the reception area. For other parents, they are allowed to take it home and mail it in an envelope addressed to the physician's clinic.

5. **RESOURCE STAFF:** Collects and scores the ASQ. Sends the scored ASQ to the physician who adjusts care as needed (see #6).

6. **PHYSICIAN:** After thoughtfully reviewing the ASQ results, recommendation options =
___ Observe, parents to schedule next routine well-child visit.
___ Add to the patient's problem list
___ Mail age-appropriate ASQ activity sheets to the home
___ Repeat ASQ in ___(2 – 6) months
___ Refer to EI/ ECSE (Part C or Part B) developmental agency
___ Arrange follow-up office visit for repeat developmental and medical evaluation
___ Other secondary developmental and/or medical referral _____
(e.g. Developmental-Behavioral or Neuro-Developmental Pediatrician, Audiologist, ENT, Pediatric Psychologist +/- Psychiatrist, Pediatric Neurologist, Genetic or Metabolic clinic, Occupational or Physical Therapist, Speech & Language Pathologist, High teacher/child ratio daycare or preschool, etc.)

7. **RESOURCE STAFF:** Generates necessary referrals and follows up on other physician recommendations. All done!

Supplemental Screening Tools

2 weeks: The Pediatric Intake Form from Bright Futures: If psychosocial risk factors are identified, it would increase the need for supplemental social-emotional early childhood screening + interventions (e.g. more in-depth counseling about TV viewing habits, parenting classes, domestic violence programs, drug and/or alcohol treatment centers, etc.). If (+) concerns, then consider using the ASQ:SE later in early childhood as needed if there are behavioral concerns and the child is “above cut-off” on the ASQ.

2 months: Edinburgh Postnatal Depression Screen (EPDS): Universally. The forms are kept in a folder in each exam room. Clinician has the parent fill out the EPDS while completing the physical exam. Typically, the clinician finishes the exam and the parent finishes the EPDS simultaneously. The EPDS can easily be scored by the clinician in the exam room. If the score is 10 or above, a post-partum mood disorder handout + community resource phone # is given to the mother + the clinic note should be sent to the mother’s PCP (FP, obstetrician, nurse midwife, etc.) If the score is 12 or above, the recommendation is for the mother to schedule an office visit ASAP with her PCP. If there are concerns of a post-partum psychosis or severe mood disorder, then a personal phone call should ideally be made to the mother’s PCP.

4 months: EPDS: If the score was 10 or above at 2 months. Same procedures as above.

6 months: ASQ:SE? It’s easy for parents to complete because there are no developmental tasks to observe. Providing EI to children with SE concerns between 3 to 8 months might be the key to preventing a future behavioral d/o. Another option = **ASQ at 6 & 12 months?**.. instead of at 9 months only. 6 months is a good time to identify gross motor delays. 12 months is a good time to identify early signs of ASD.

18 & 24 months: M-CHAT: There has been pediatrician resistance to implement both a general and an autism-specific screening tool together but here’s a helpful M-CHAT tip-- a transparent scoring sheet that highlights the 6 critical items. The clinician just puts the transparent scoring sheet over the completed M-CHAT and it can be scored in < 15 seconds. Use especially if there’s a FH or ASD or if there are parental, other caregiver or clinician ASD concerns. It’s best to just follow the 11/2007 AAP’s ASD algorithm. Anecdotally (no hard data to share), pediatricians have noticed a fair # of missed delays (less referrals compared to the ASQ) 18 months when using an autism-specific screening tool only. Anecdotally, the ASQ seems to pick up children with early signs of autism just fine. Dr Nickel, a DB pediatrician at OHSU is currently doing a retrospective study on this—preliminary findings = 45/46 (97.8%) of ASD cases were previously ASQ delayed ($\geq 2SD$) in 1 or more domains. Another thought = **ASQ:SE for 15-20 months?**

4-5 years: ASQ:SE Universal developmental and/or social-emotional screening should have been an AAP recommendation between 3 to 5 years. Social-emotional screening seems especially important if there are/ is 1) behavioral concerns (in self-regulation, compliance, communication, adaptive functioning, autonomy, affect, or interaction with people) 2) moderate-high psychosocial risk factors, 3) a FH of a behavioral disorder in a parent or sibling and 4) a h/o prematurity. I hope that once the online-ASQ has evolved, the ASQ:SE will be incorporated into that program to systematically capture those children with “above cut-off” ASQs but an identifiable behavioral disorder. Cultural issues should be monitored.

Secondary Screening Tools

M-CHAT: Can be used to expedite “r/o ASD referrals” between 16 – 48 months if the ASQ has a certain profile (2SD delay in the communication + personal-social domains +/- “behavioral & hearing concerns”) at a f/u office visit (in addition to an EI/ ECSE agency referral for the concerning primary screen (ASQ)). If the M-CHAT is (+) at the f/u office visit, refer to a developmental-behavioral pediatrician + audiologist + autism evaluation team per the 11/2007 AAP ASD algorithm.

ASQ:SE: How does a clinic best incorporate the ASQ:SE into an ASQ surveillance & screening system? While it would be ideal to implement both the ASQ and ASQ:SE < 3 years of age, there is currently no evidenced-based research on how to best interconnect them. One could use the ASQ:SE as a secondary screen if the ASQ was 1.5 SD below the mean in the communication and/or personal-social domains. I suspect the ASQ:SE has good ASD sensitivity but there is no available data to prove that theory.