Update to Pediatric Preventive Care

October 11, 2015

UNECOM
Kyla Scarponi, DO, FAAP

Disclosure

- I have no actual or potential conflict of interest in relation to this program or presentation

Objectives

- To review the updated 2015 recommendations from the American Academy of Pediatrics
- To provide the tools and references for various pediatric screenings.
- To promote a forum for providers to share office procedures and tools for preventive care.

Well-Child Care

- Well care is one of the hallmarks of a family-centered medical home
- Incorporates all things important to the health of a child
- Time to review necessary vaccinations, check on growth, development, and behavior
- Allows time for sharing information that is pertinent to child’s well being

2015 Recommendations

- Consensus by the American Academy of Pediatrics (AAP) and Bright Futures
- Emphasizes continuity of care and comprehensive health supervision
- Not exclusive
- Recommendations

- Published as a Policy Statement in the journal PEDIATRICS Volume 136, number 3, September 2015

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

2015 Recommendations for Preventive Pediatric Health Care

Bright Futures/American Academy of Pediatrics

Bright Futures. prevention and health promotion for infants, children, adolescents, and their families™

Each child and family is unique; therefore, these Recommendations for Preventive Pediatric Health Care are designed for the care of children who are receiving competent parenting, have no manifestations of any important health problems, and are growing and developing in satisfactory fashion. Additional visits may become necessary if circumstances suggest variations from normal.

Developmental, psychosocial, and chronic disease issues for children and adolescents may require frequent counseling and treatment visits separate from preventive care visits.

These guidelines represent a consensus by the American Academy of Pediatrics (AAP) and Bright Futures. The AAP continues to emphasize the great importance of continuity of care in comprehensive health supervision and the need to avoid fragmentation of care.

Refer to the specific guidance by age as listed in Bright Futures guidelines (Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures Guidelines for Health Supervision of Infants, Children and Adolescents*. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2008).

The recommendations in this statement do not indicate an exclusive course of treatment or standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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	INFANCY								EARLY CHILDHOOD						
AGE[1]	Prenatal[2]	Newborn[3]	3-5 d[4]	By 1 mo	2 mo	4 mo	6 mo	9 mo	12 mo	15 mo	18 mo	24 mo	30 mo	3 y	4 y
HISTORY Initial/Interval	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MEASUREMENTS															
Length/Height and Weight		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Head Circumference		●	●	●	●	●	●	●	●	●	●	●			
Weight for Length		●	●	●	●	●	●	●	●	●	●				
Body Mass Index[5]												●	●	●	●
Blood Pressure[6]		★	★	★	★	★	★	★	★	★	★	★	★	●	●
SENSORY SCREENING															
Vision		★	★	★	★	★	★	★	★	★	★	★	★	●[7]	●
Hearing		●[8]	★	★	★	★	★	★	★	★	★	★	★	★	●
DEVELOPMENTAL/BEHAVIORAL ASSESSMENT															
Developmental Screening[9]								●			●		●		
Autism Screening[10]											●	●			
Developmental Surveillance		●	●	●	●	●	●		●	●		●		●	●
Psychosocial/Behavioral Assessment		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Alcohol and Drug Use Assessment[11]															
Depression Screening[12]															
PHYSICAL EXAMINATION[13]		●	●	●	●	●	●	●	●	●	●	●	●	●	●
PROCEDURES[14]															
Newborn Blood Screening[15]		←	●	→											
Critical Congenital Heart Defect Screening[16]		●													
Immunization[17]		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hematocrit or Hemoglobin[18]						★			●	★	★	★	★	★	★
Lead Screening[19]							★	★	● or ★[20]		★	● or ★[20]		★	★
Tuberculosis Testing[21]				★			★		★			★		★	★
Dyslipidemia Screening[22]												★			★
STI/HIV Screening[23]															
Cervical Dysplasia Screening[24]															
ORAL HEALTH[25]							★	★	● or ★		● or ★	● or ★	● or ★	●	
Fluoride Varnish[26]							←				●				
ANTICIPATORY GUIDANCE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

	MIDDLE CHILDHOOD						ADOLESCENCE										
AGE[1]	5 y	6 y	7 y	8 y	9 y	10 y	11 y	12 y	13 y	14 y	15 y	16 y	17 y	18 y	19 y	20 y	21 y
HISTORY Initial/Interval	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MEASUREMENTS																	
Length/Height and Weight	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Head Circumference																	
Weight for Length																	
Body Mass Index[5]	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Blood Pressure[6]	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SENSORY SCREENING																	
Vision	●	●	★	●	★	●	★	●	★	★	●	★	★	●	★	★	★
Hearing	●	●	★	●	★	●	★	★	★	★	★	★	★	★	★	★	★
DEVELOPMENTAL/BEHAVIORAL ASSESSMENT																	
Developmental Screening[9]																	
Autism Screening[10]																	
Developmental Surveillance	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Psychosocial/Behavioral Assessment	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Alcohol and Drug Use Assessment[11]							★	★	★	★	★	★	★	★	★	★	★
Depression Screening[12]							●	●	●	●	●	●	●	●	●	●	●
PHYSICAL EXAMINATION[13]	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PROCEDURES[14]																	
Newborn Blood Screening[15]																	
Critical Congenital Heart Defect Screening[16]																	
Immunization[17]	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hematocrit or Hemoglobin[18]	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Lead Screening[19]	★	★															
Tuberculosis Testing[21]	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Dyslipidemia Screening[22]		★		★	←	●	→	★	★	★	★	★	★	←		●	→
STI/HIV Screening[23]							★	★	★	★	★	←	●	→	★	★	★
Cervical Dysplasia Screening[24]																	●
ORAL HEALTH[25]		●															
Fluoride Varnish[26]	→																
ANTICIPATORY GUIDANCE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

1. If a child comes under care for the first time at any point on the schedule or if any items are not accomplished at the suggested age, the schedule should be brought up to date at the earliest possible time.
2. A prenatal visit is recommended for parents who are at high risk, for first-time parents, and for those who request a conference. The prenatal visit should include anticipatory guidance, pertinent medical history, and a discussion of benefits of breastfeeding and planned method of feeding, per the 2009 AAP statement "The Prenatal Visit" (http://pediatrics.aappublications.org/content/124/4/1227.full).
3. Every infant should have a newborn evaluation after birth, and breastfeeding should be encouraged (and instruction and support should be offered).
4. Every infant should have an evaluation within 3 to 5 days of birth and within 48 to 72 hours after discharge from the hospital to include evaluation for feeding and jaundice. Breastfeeding infants should receive formal breastfeeding evaluation, and their mothers should receive encouragement and instruction, as recommended in the 2012 AAP statement "Breastfeeding and the Use of Human Milk" (http://pediatrics.aappublications.org/content/129/3/e827.full). Newborn infants discharged <48 hours after delivery must be examined within 48 hours of discharge, per the 2010 AAP statement "Hospital Stay for Healthy Term Newborns" (http://pediatrics.aappublications.org/content/125/2/405.full).
5. Screen, per the 2007 AAP statement "Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report" (http://pediatrics.aappublications.org/content/120/Supplement_4/S164.full).
6. Blood pressure measurement in infants and children with specific risk conditions should be performed at visits before age 3 years.
7. If the patient is uncooperative, rescreen within 6 months, per the 2007 AAP statement "Eye Examination in Infants, Children, and Young Adults by Pediatricians" (http://pediatrics.aappublications.org/content/111/4/902.abstract).
8. All newborns should be screened, per the AAP statement "Year 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs" (http://pediatrics.aappublications.org/content/120/4/898.full).
9. See 2006 AAP statement "Identifying Infants and Young Children With Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening" (http://pediatrics.aappublications.org/content/118/1/405.full).
10. Screening should occur per the 2007 AAP statement "Identification and Evaluation of Children with Autism Spectrum Disorders" (http://pediatrics.aappublications.org/content/120/5/1183.full).
11. A recommended screening tool is available at http://www.ceasar-boston.org/CRAFFT/index.php.
12. Recommended screening using the Patient Health Questionnaire (PHQ)-2 or other tools available in the GLAD-PC toolkit and at http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Mental-Health/Documents/MH_ScreeningChart.pdf.
13. At each visit, age-appropriate physical examination is essential, with infant totally unclothed and older children undressed and suitably draped. See 2011 AAP statement "Use of Chaperones During the Physical Examination of the Pediatric Patient" (http://pediatrics.aappublications.org/content/127/5/991.full).
14. These may be modified, depending on entry point into schedule and individual need.
15. The Recommended Uniform Newborn Screening Panel (http://www.hrsa.gov/advisorycommittees/mchbadvisory/heritabledisorders/recommendedpanel/uniformscreeningpanel.pdf), as determined by the Secretary's Advisory Committee on Heritable Disorders in Newborns and Children and state newborn screening laws/regulations (http://genes-r-us.uthscsa.edu/sites/genes-r-us/files/nbsdisorders.pdf), establish the criteria for and coverage of newborn screening procedures and programs. Follow-up must be provided, as appropriate, by the pediatrician.
16. Screening for critical congenital heart disease using pulse oximetry should be performed in newborns, after 24 hours of age, before discharge from the hospital, per the 2011 AAP statement "Endorsement of Health and Human Services Recommendation for Pulse Oximetry Screening for Critical Congenital Heart Disease" (http://pediatrics.aappublications.org/content/129/1/190.full).
17. Schedules, per the AAP Committee on Infectious Diseases, are available at: http://aapredbook.aappublications.org/site/resources/izschedules.xhtml. Every visit should be an opportunity to update and complete a child's immunizations.
18. See 2010 AAP statement "Diagnosis and Prevention of Iron Deficiency and Iron Deficiency Anemia in Infants and Young Children (0–3 Years of Age)" (http://pediatrics.aappublications.org/content/126/5/1040.full).
19. For children at risk for lead exposure, see the 2012 Centers for Disease Control and Prevention Advisory Committee on Childhood Lead Poisoning Prevention statement "Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention" (http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf).
20. Perform risk assessments or screenings as appropriate, based on universal screening requirements for patients with Medicaid or in high prevalence areas.
21. Tuberculosis testing per recommendations of the Committee on Infectious Diseases, published in the current edition of *AAP Red Book: Report of the Committee on Infectious Diseases*. Testing should be performed on recognition of high-risk factors.
22. See AAP-endorsed 2011 guidelines from the National Heart Blood and Lung Institute, "Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents" (http://www.nhlbi.nih.gov/guidelines/cvd_ped/index.htm).
23. Adolescents should be screened for sexually transmitted infections (STIs) per recommendations in the current edition of the *AAP Red Book: Report of the Committee on Infectious Diseases*. Additionally, all adolescents should be screened for HIV according to the AAP statement (http://pediatrics.aappublications.org/content/128/5/1023.full) once between the ages of 16 and 18, making every effort to preserve confidentiality of the adolescent. Those at increased risk of HIV infection, including those who are sexually active, participate in injection drug use, or are being tested for other STIs, should be tested for HIV and reassessed annually.
24. See US Preventive Services Task Force recommendations (http://www.uspreventiveservicestaskforce.org/uspstf/uspscerv.htm). Indications for pelvic examinations before age 21 are noted in the 2010 AAP statement "Gynecologic Examination for Adolescents in the Pediatric Office Setting" (http://pediatrics.aappublications.org/content/126/3/583.full).
25. Assess whether the child has a dental home. If no dental home is identified, perform a risk assessment (http://www2.aap.org/oralhealth/docs/RiskAssessmentTool.pdf) and refer to a dental home. If primary water source is deficient in fluoride, consider oral fluoride supplementation. Recommend brushing with fluoride toothpaste in the proper dosage for age. See 2009 AAP statement "Oral Health Risk Assessment Timing and Establishment of the Dental Home" (http://pediatrics.aappublications.org/content/111/5/1113.full), 2014 clinical report "Fluoride Use in Caries Prevention in the Primary Care Setting" (http://pediatrics.aappublications.org/cgi/doi/10.1542/peds.2014-1699), and 2014 AAP statement "Maintaining and Improving the Oral Health of Young Children (http://pediatrics.aappublications.org/content/134/6/1224.full)."
26. See US Preventive Services Task Force recommendations (http://www.uspreventiveservicestaskforce.org/uspstf/uspsdnch.htm). Once teeth are present, fluoride varnish may be applied to all children every 3 to 6 months in the primary care or dental office. Indications for fluoride use are noted in the 2014 AAP clinical report "Fluoride Use in Caries Prevention in the Primary Care Setting" (http://pediatrics.aappublications.org/cgi/doi/10.1542/peds.2014-1699).

KEY ● = to be performed ★ = risk assessment to be performed with appropriate action to follow, if positive ←—— ● ——→ = range during which a service may be provided

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Schedule

- http://www.aap.org/en-us/professional-resources/practice-support/Periodicity/Periodicity%20Schedule_FINAL.pdf

Summary of Changes Made to the 2015 Bright Futures/AAP Recommendations for Preventive Pediatric Health Care (Periodicity Schedule)

This schedule reflects changes approved in May 2015 and published in September 2015. For updates, visit www.aap.org/periodicityschedule

Changes Made May 2015

- **Oral Health**- a subheading has been added for fluoride varnish, with a recommendation from 6 months through 5 years.

Changes Made March 2014

Changes to Developmental/Behavioral Assessment

- **Alcohol and Drug Use Assessment**- information regarding a recommended screening tool (CRAFFT) was added.
- **Depression**- screening for depression at ages 11 through 21 has been added, along with suggested screening tools.

Changes to Procedures

- **Dyslipidemia screening**- an additional screening between 9 and 11 years of age has been added. The reference has been updated to the AAP-endorsed National Heart Blood and Lung Institute policy (http://www.nhlbi.nih.gov/guidelines/cvd_ped/index.htm).
- **Hematocrit or hemoglobin**- a risk assessment has been added at 15 and 30 months. The reference has been updated to the current AAP policy (http://pediatrics.aappublications.org/content/126/5/1040.full).
- **STI/HIV screening**- a screen for HIV has been added between 16 and 18 years. Information on screening adolescents for HIV has been added in the footnotes. STI screening now references recommendations made in the *AAP Red Book*. This category was previously titled "STI Screening."
- **Cervical dysplasia**- adolescents should no longer be routinely screened for cervical dysplasia until age 21. Indications for pelvic exams before age 21 are noted in the 2010 AAP statement "Gynecologic Examination for Adolescents in the Pediatric Office Setting" (http://pediatrics.aappublications.org/content/126/3/583.full).
- **Critical Congenital Heart Disease**- screening for critical congenital heart disease using pulse oximetry should be performed in newborns, after 24 hours of age, before discharge from the hospital, per the 2011 AAP statement, "Endorsement of Health and Human Services Recommendation for Pulse Oximetry Screening for Critical Congenital Heart Disease" (http://pediatrics.aappublications.org/content/129/1/190.full).

Footnote 25 wording has been edited and also includes reference to the 2014 clinical report, "Fluoride Use in Caries Prevention in the Primary Care Setting" (http://pediatrics.aappublications.org/cgi/doi/10.1542/peds.2014-1699) and 2014 policy statement, "Maintaining and Improving the Oral Health of Young Children" (http://pediatrics.aappublications.org/content/134/6/1224.full).

For several recommendations, the AAP Policy has been updated since 2007, but there have been no changes in the timing of recommendations on the Periodicity Schedule. These include the following:

- Footnote 2- The Prenatal Visit (2009): http://pediatrics.aappublications.org/content/124/4/1227.full
- Footnote 4- Breastfeeding and the Use of Human Milk (2012): http://pediatrics.aappublications.org/content/129/3/e827.full and Hospital Stay for Healthy Term Newborns (2010): http://pediatrics.aappublications.org/content/125/2/405.full
- Footnote 8- Year 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs (2007): http://pediatrics.aappublications.org/content/120/4/898.full
- Footnote 10- Identification and Evaluation of Children With Autism Spectrum Disorders (2007): http://pediatrics.aappublications.org/content/120/5/1183.full
- Footnote 17- Immunization Schedules (2014): http://aapredbook.aappublications.org/site/resources/IZSchedule0-6yrs.pdf, http://aapredbook.aappublications.org/site/resources/IZSchedule7-18yrs.pdf, and http://aapredbook.aappublications.org/site/resources/IZScheduleCatchup.pdf
- Footnote 19- Centers for Disease Control and Prevention Advisory Committee on Childhood Lead Poisoning Prevention statement "Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention" (2012): http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf
- Footnote 22- AAP-endorsed guideline "Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents" (2011): http://www.nhlbi.nih.gov/guidelines/cvd_ped/index.htm
- Footnote 25- Preventive Oral Health Intervention for Pediatricians (2008): http://pediatrics.aappublications.org/content/122/6/1387.full and Oral Health Risk Assessment Timing and Establishment of the Dental Home (2009): http://pediatrics.aappublications.org/content/111/5/1113.full. Additional information from the policies regarding fluoride supplementation and fluoride varnish has been added to the footnote.

Footnote 26 has been added to the new fluoride varnish subheading: see US Preventive Services Task Force recommendations (http://www.uspreventiveservicestaskforce.org/uspstf/uspsdnch.htm). Once teeth are present, fluoride varnish may be applied to all children every 3 to 6 months in the primary care or dental office. Indications for fluoride use are noted in the 2014 AAP clinical report "Fluoride Use in Caries Prevention in the Primary Care Setting" (http://pediatrics.aappublications.org/cgi/doi/10.1542/peds.2014-1699).

New references were added for several footnotes, also with no change to recommendations in the Periodicity Schedule:

- Footnote 5- Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report (2007): http://pediatrics.aappublications.org/content/120/Supplement_4/S164.full
- Footnote 13- Use of Chaperones During the Physical Examination of the Pediatric Patient (2011): http://pediatrics.aappublications.org/content/127/5/991.full
- Footnote 15- The Recommended Uniform Newborn Screening Panel (http://www.hrsa.gov/advisorycommittees/mchbadvisory/heritabledisorders/recommendedpanel/uniformscreeningpanel.pdf), as determined by the Secretary's Advisory Committee on Heritable Disorders in Newborns and Children, and state newborn screening laws/regulations (http://genes-r-us.uthscsa.edu/sites/genes-r-us/files/nbsdisorders.pdf), establish the criteria for and coverage of newborn screening procedures and programs. Follow-up must be provided, as appropriate, by the pediatrician.

For consistency, the title of "Tuberculin Test" has been changed to "Tuberculosis Testing." The title of "Newborn Metabolic/Hemoglobin Screening" has been changed to "Newborn Blood Screening."

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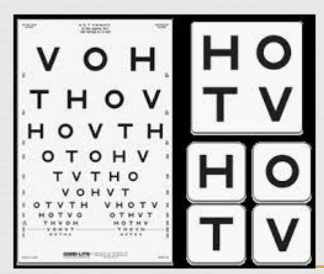
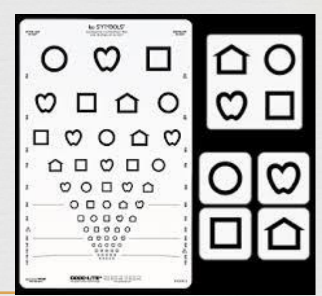
Every Visit

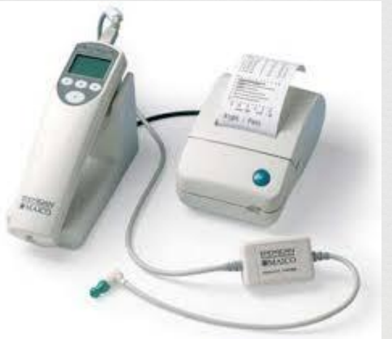
- History
- Measurements
  - Weight and height/length
  - Head Circumference (newborn-24 months)
  - Weight for length (newborn -18 months)
  - BMI (24 months-21 years)
  - Blood Pressure (3 years-21 years)*
- Physical Exam
- Anticipatory Guidance
- Psychosocial/Behavioral/Developmental Assessment



Sensory Screening



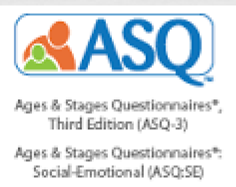
- Vision
  - 3yr, 4yr, 5yr, 6yr, 8yr, 10yr, 12yr, 15yr, 18yr
  - Ages 3-5
    - HOTV, Lea Chart, Snellen Chart
  - Older-Snellen Chart
- Hearing
  - Newborn, 4yr, 5yr, 6yr, 8yr, 10yr
  - OAE, ABR, Behavioral Pure Tone Audiometry, Impedance testing



Developmental/Behavioral Assessment

- **Developmental Screening**
- 9 months, 18 months, 30 months*
- CPT Code 96110

- Ages & Stages Questionnaires (ASQ)



  - Parent completed, 10-15 minutes

  - Assesses communication, gross motor, problem-solving, and personal adaptive skills
  - Ages 2 months through 5 years

- http://pediatrics.aappublications.org/content/118/1/405.full

1 Pediatric Patient at Preventive Care Visit

2 Perform Surveillance

3 Does Surveillance Demonstrate Risk?

Yes → 5a Administer Screening Tool → 6a Are the Screening Tool Results Positive/Concerning?

6a No → Schedule Early Return Visit → Visit Complete

6a Yes → 7

3 No → 4 Is This a 9-, 18-, or 30-mo[a]/ Visit?

4 Yes → 5b Administer Screening Tool → 6b Are the Screening Tool Results Positive/Concerning?

6b Yes → 7 Make Referrals for: Developmental and Medical Evaluations and Early Developmental Intervention/Early Childhood Services

6b No → Schedule Next Routine Visit

4 No → Schedule Next Routine Visit → Visit Complete

Related Evaluation and Follow-up Visits

8 Developmental and Medical Evaluations

9 Is a Developmental Disorder Identified?

No → Schedule Early Return Visit → Visit Complete

Yes → 10 Identify as a Child With Special Health Care Needs. Initiate Chronic Condition Management → Visit Complete

Start

Action / Process

Decision

Stop

Increasing Developmental Concern

Council on Children With Disabilities et al. Pediatrics 2006;118:405-420

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Pediatric Patient at Preventive Care Visit

1. Developmental concerns should be included as one of several health topics addressed at each pediatric preventive care visit throughout the first 5 years of life.[6]

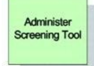
2. ***Developmental surveillance*** is a flexible, longitudinal, continuous, and cumulative process whereby knowledgeable health care professionals identify children who may have developmental problems. There are 5 components of developmental surveillance: eliciting and attending to the parents' concerns 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.

Perform Surveillance

3. The concerns of both parents and child health professionals should be included in determining whether surveillance suggests the child may be at risk of developmental delay. If either parents or the child health professional express concern about the child's development, a developmental screening to address the concern specifically should be conducted.

4. All children should receive developmental screening using a standardized test. In the absence of established risk factors or parental or provider concerns, a general developmental screen is recommended at the 9-, 18-, and 30-month[a] visits. Additionally, autism-specific screening is recommended for all children at the 18-month visit.

Is This a 9-, 18-, or 30-mo[a] Visit?



5a and 5b. ***Developmental screening*** is the administration of a brief standardized tool aiding the identification of children at risk of a developmental disorder. Developmental screening that targets the area of concern is indicated whenever a problem is identified during developmental surveillance.

6a and 6b. When the results of the periodic screening tool are normal, the child health professional can inform the parents and continue with other aspects of the preventive visit. When a screening tool is administered as a result of concerns about development, an early return visit to provide additional developmental surveillance should be scheduled even if the screening tool results do not indicate a risk of delay.

Are the Screening Tool Results Positive/ Concerning?

Make Referrals for: Developmental and Medical Evaluations and Early Developmental Intervention/Early Childhood Services

Developmental and Medical Evaluations

7-8. If screening results are concerning, the child should be scheduled for developmental and medical evaluations. ***Developmental evaluation*** is aimed at identifying the specific developmental disorder or disorders affecting the child. In addition to the developmental evaluation, a ***medical diagnostic evaluation*** to identify an underlying etiology should be undertaken. ***Early developmental intervention/ early childhood services*** can be particularly valuable when a child is first identified to be at high risk of delayed development, because these programs often provide evaluation services and can offer other services to the child and family even before an evaluation is complete.[25] Establishing an effective and efficient partnership with early childhood professionals is an important component of successful care coordination for children.[40]

9. If a developmental disorder is identified, the child should be identified as a child with special health care needs and chronic condition management should be initiated (see No. 10 below). If a developmental disorder is not identified through medical and developmental evaluation, the child should be scheduled for an early return visit for further surveillance. More frequent visits, with particular attention paid to areas of concern, will allow the child to be promptly referred for further evaluation if any further evidence of delayed development or a specific disorder emerges.

Identify as a Child With Special Health Care Needs

Initiate Chronic Condition Management

10. When a child is discovered to have a significant developmental disorder, that child becomes a child with special health care needs, even if that child does not have a specific disease etiology identified. Such a child should be identified by the medical home for appropriate chronic condition management and regular monitoring and entered into the practice's children and youth with special health care needs registry.[41]

Council on Children With Disabilities et al. Pediatrics 2006;118:405-420

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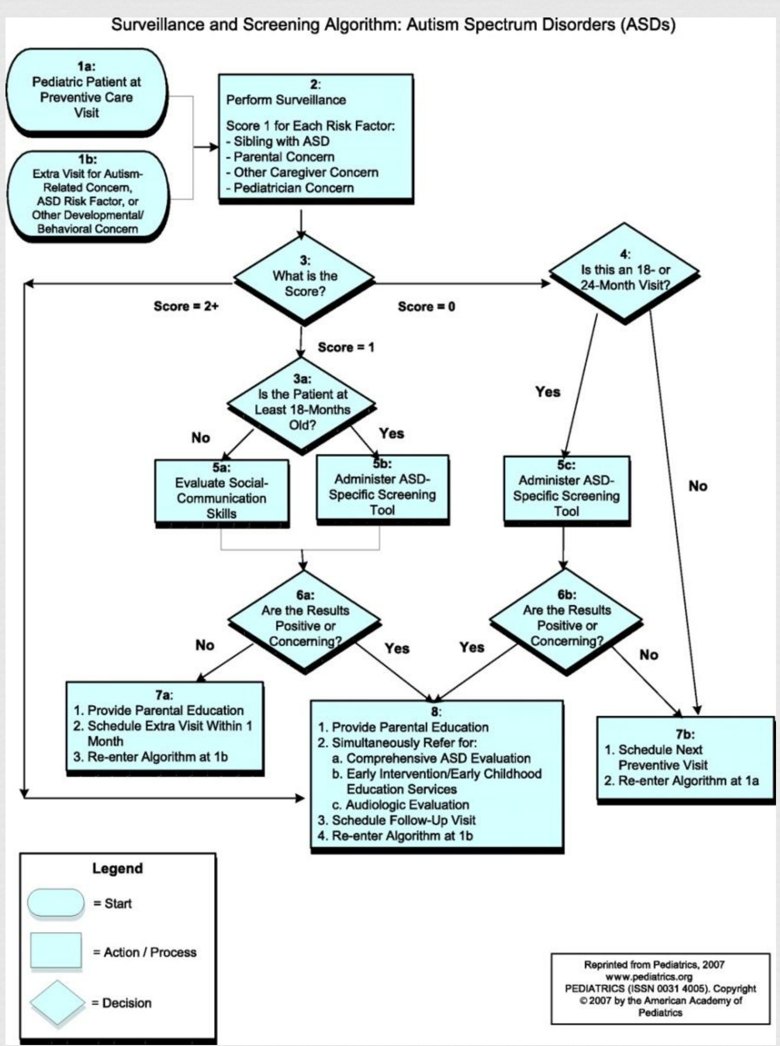
Developmental/Behavioral Assessment

- **Autism Screening**
- 18 months and 24 months
- CPT Code 96110

- M-CHAT-R/F
  - https://www.m-chat.org/_references/mchatdotorg.pdf
- Parent completed, 5-10 minutes

- http://pediatrics.aappublications.org/content/120/5/1183.full



Chris Plauché Johnson, and Scott M. Myers Pediatrics 2007;120:1183-1215

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Surveillance and Screening Algorithm: Autism Spectrum Disorders (ASDs)

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)*

3a –

- 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 - 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 social-communication skills. *(Go to step 6a)*

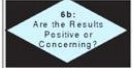
5b - If the child's age is ≥18 months, the pediatrician should use an ASD-specific screening tool. *(Go to step 6a)*

5c – For all children ages 18 or 24 months (regardless of risk factors), the pediatrician should use an ASD-specific 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 18- and 24-month visits) is *negative, Go to step 7b*

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

7a:
1. Provide Parental Education
2. Schedule Extra Visit Within 1 Month
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.

8:
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

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Alcohol and Drug Use Assessment

- Risk assessment to be performed with appropriate action to follow, if positive
- Ages 11 years through 21 years

- Screening tool: CRAFFT
  - http://www.ceasar-boston.org/CRAFFT/index.php
  - https://brightfutures.aap.org/Bright%20Futures%20Documents/Screening.pdf

Depression Screening

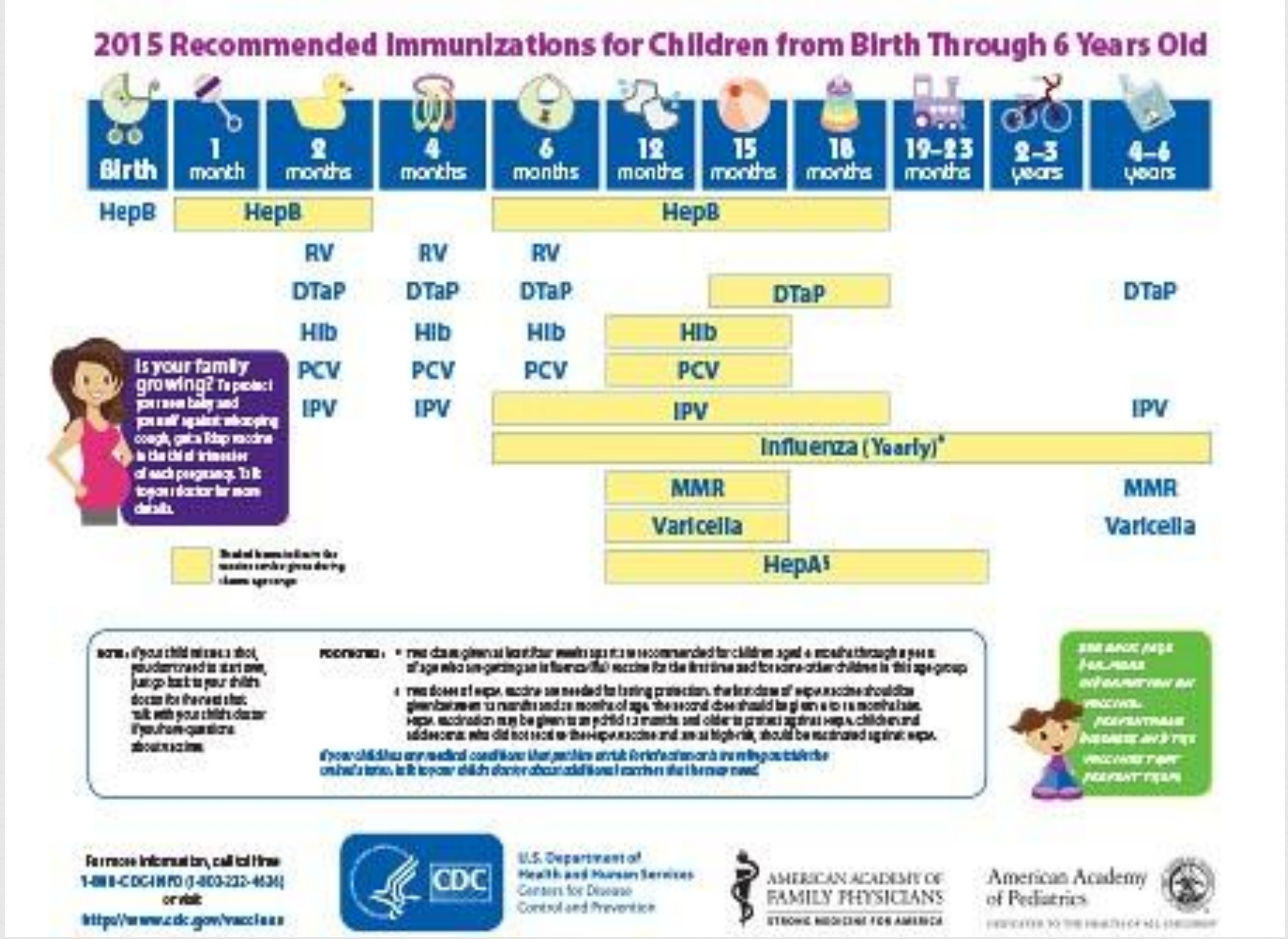
- Ages 11-21 years
- Patient Health Questionnaire (PHQ)-2 or other tools available in the GLAD-PC tookit
  - https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Mental-Health/Documents/MH_ScreeningChart.pdf
- PHQ-2 Bright Futures and Instructions:
  - https://brightfutures.aap.org/Bright%20Futures%20Documents/PHQ-2%20Questionnaire.pdf
  - https://brightfutures.aap.org/Bright%20Futures%20Documents/PHQ-2%20Instructions%20for%20Use.pdf
- PHQ-9 Modified for Teens
  - http://www.pedpsychiatry.org/pdf/depression/PHQ-9%20Modified%20for%20Teens.pdf
  - http://www.cappcny.org/home/documents/phq%209%20teens%20scoring.pdf

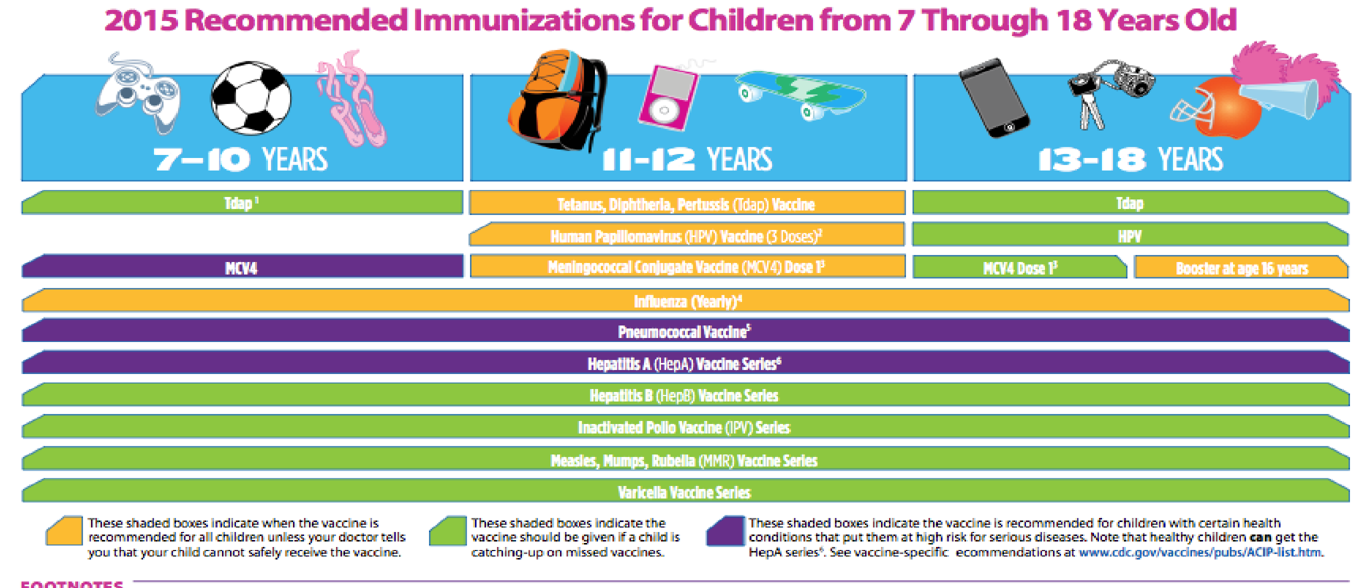
Depression Screening

- **PHQ-2**
- Over the past 2 weeks, how often have you been bothered by any of the following problems?
  - Little interest or pleasure in doing things
  - Feeling down, depressed, or hopeless
- Answers options:
  - 0 = not at all
  - 1 = several days
  - 2 = more than half the days
  - 3 = nearly every day
- A score of 3 points or more on this version has a sensitivity of 83% and specificity of 92% for major depressive episode
- If score is 3 or higher, evaluated using PHQ-9

Immunizations

Should be addressed at every visit





FOOTNOTES

[1] Tdap vaccine is combination vaccine that is recommended at age 11 or 12 to protect against tetanus, diphtheria and pertussis. If your child has not received any or all of the DTaP vaccine series, or if you don't know if your child has received these shots, your child needs a single dose of Tdap when they are 7 -10 years old. Talk to your child's health care provider to find out if they need additional catch-up vaccines.

[2] All 11 or 12 year olds – both girls *and* boys – should receive 3 doses of HPV vaccine to protect against HPV-related disease. Either HPV vaccine (Cervarix®) or Gardasil®) can be given to girls and young women; only one HPV vaccine (Gardasil®) can be given to boys and young men.

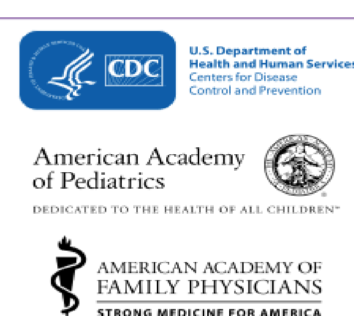
[3] Meningococcal conjugate vaccine (MCV) is recommended at age 11 or 12. A booster shot is recommended at age 16. Teens who received MCV for the first time at age 13 through 15 years will need a one-time booster dose between the ages of 16 and 18 years. If your teenager missed getting the vaccine altogether, ask their health care provider about getting it now, especially if your teenager is about to move into a college dorm or military barracks.

[4] Everyone 6 months of age and older—including preteens and teens—should get a flu vaccine every year. Children under the age of 9 years may require more than one dose. Talk to your child's health care provider to find out if they need more than one dose.

[5] Pneumococcal Conjugate Vaccine (PCV13) and Pneumococcal Polysaccharide Vaccine (PPSV23) are recommended for some children 6 through 18 years old with certain medical conditions that place them at high risk. Talk to your healthcare provider about pneumococcal vaccines and what factors may place your child at high risk for pneumococcal disease.

[6] Hepatitis A vaccination is recommended for older children with certain medical conditions that place them at high risk. HepA vaccine is licensed, safe, and effective for all children of all ages. Even if your child is not at high risk, you may decide you want your child protected against HepA. Talk to your healthcare provider about HepA vaccine and what factors may place your child at high risk for HepA.

For more information, call toll free 1-800-CDC-INFO (1-800-232-4636) or visit http://www.cdc.gov/vaccines/teens



Vaccine Schedules

Hep B #1 given in hospital

- 1 month-Hep B #2
- 2, 4, & 6 months-Pentacel (DTaP, IPV, Hib), Prevnar, Rotateq
- 9 months-Hep B #3
- 12 months-Prevnar #4, ActHib #4, Hep A #1
- 15 months-MMR, Varicella
- 18 months-DtaP #4, Hep A #2

Hep B #1 NOT given in hospital

- 2, & 4 months-Pediarix (DtaP, Hep B, IPV), Prevnar, Pedvax (Hib), Rotateq
- 6 months-Pediarix #3, Prevnar #3, Rotateq #3
- 12 months-Prevnar #4, Pedvax #3, Hep A #1
- 15 months-MMR, Varicella
- 18 months-DtaP #4, Hep A #2

Vaccine Schedule

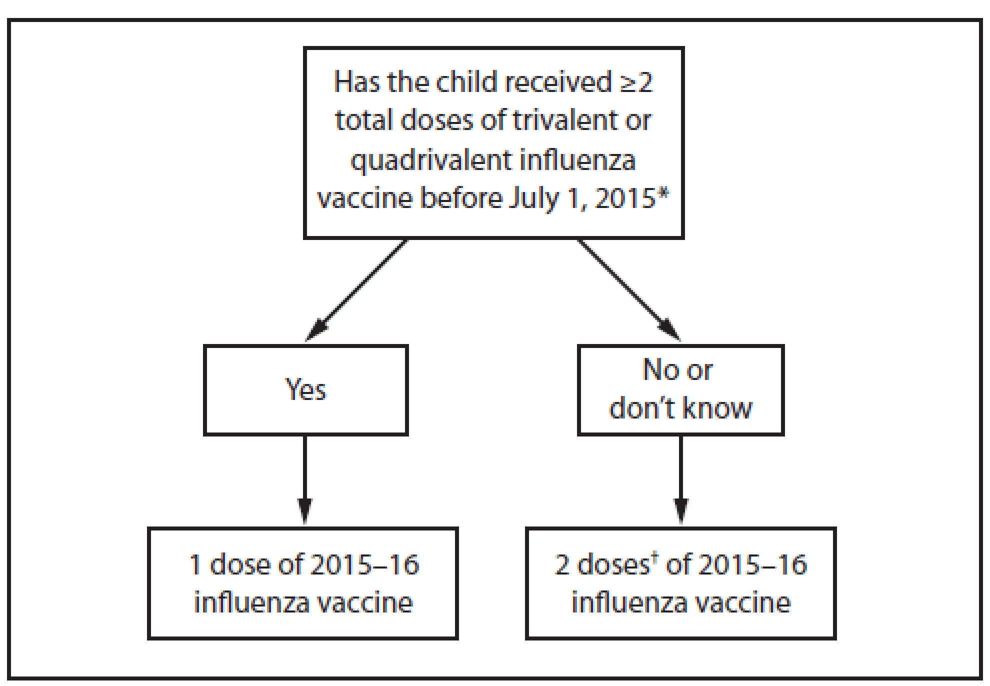
- 4/5 yo – ProQuad (MMR/Varicella), Kinrix (Dtap/IPV)
- 11 yo – TdaP, Menactra #1, HPV #1
  - HPV #2 and HPV #3 at nurse visits
- 16 yo – Menactra #2

Influenza 2015-2016

- Available in trivalent and quadrivalent formulation
- Trivalent:
  - A/California/7/2009 (H1N1)-like virus
  - *A/Switzerland/9715293/2013 (H3N2)-like virus*
  - *B/Phuket/3073/2013-like virus (B/Yamagata lineage)*
- Quadrivalent:
  - Plus B/Brisbane/60/2008-like virus (B/Victoria lineage)

Influenza

- Indicated for all children and adolescents 6 months of age and older
- 6 months-8 years
  - 1st timers: need 2nd dose at least 4 weeks after 1st dose
  - 1 dose if had at least 2 doses prior to July 2015



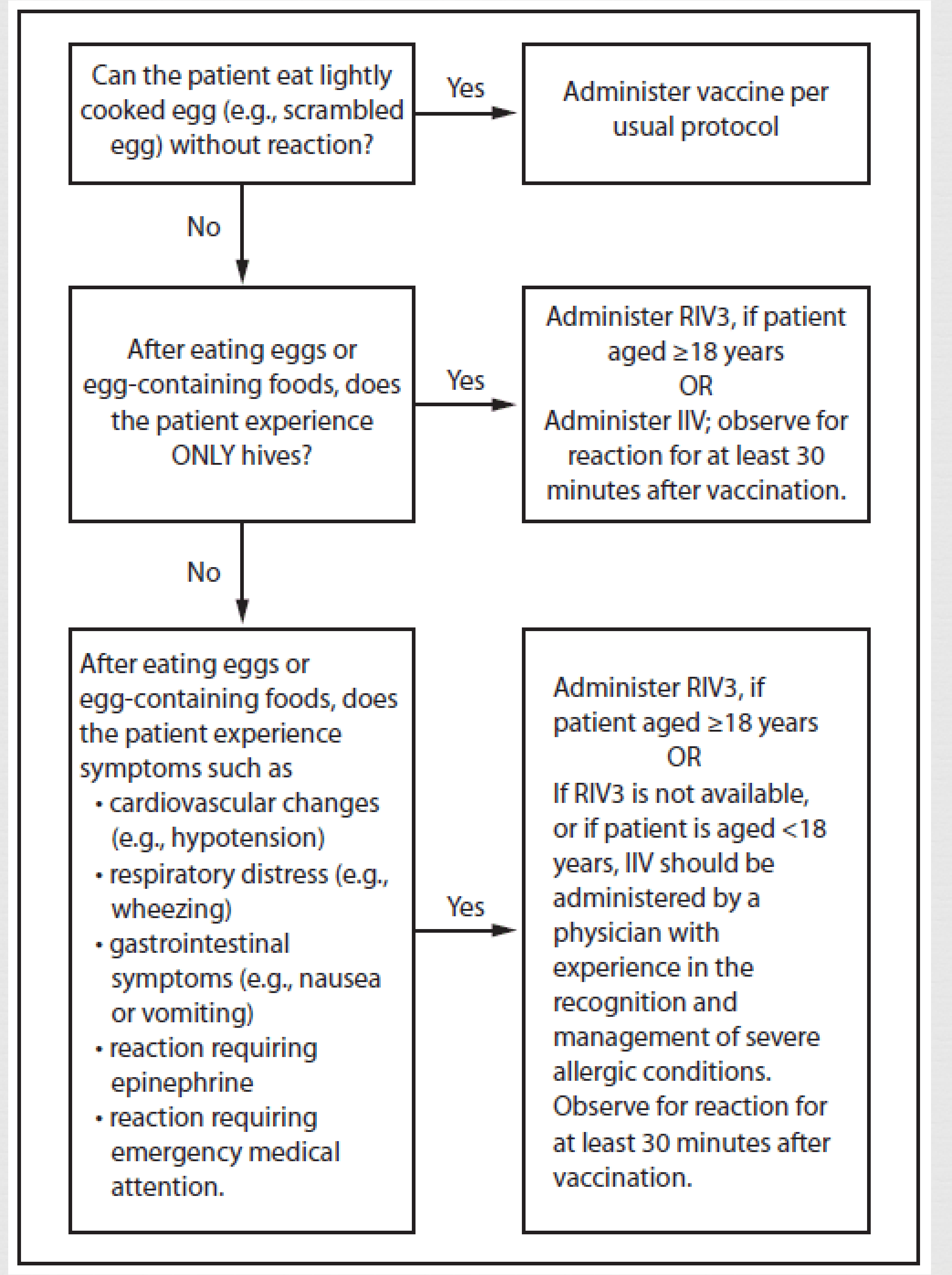
* The two doses need not have been received during the same season or consecutive seasons.

† Doses should be administered ≥4 weeks apart.

Influenza

Special Considerations

- Administration of IIV (inactivated influenza vaccine) for all children and adolescents with underlying medical conditions associated with an elevated risk of complications from influenza, including the following:
  - Children under 2 years old
  - Asthma or other chronic pulmonary diseases, including cystic fibrosis
  - Hemodynamically significant cardiac disease
  - Immunosuppressive disorders or therapy
  - HIV infection
  - Sickle cell anemia and other hemoglobinopathies
  - Diseases that necessitate long-term aspirin therapy, including juvenile idiopathic arthritis or Kawasaki disease
  - Chronic renal dysfunction
  - Chronic metabolic disease, including diabetes mellitus
  - Any condition that can compromise respiratory function or handling of secretions or can increase the risk of aspiration, such as neurodevelopmental disorders, spinal cord injuries, seizure disorders, or neuromuscular abnormalities
  - Morbid obesity
  - Pregnancy
  - Egg allergy


Can the patient eat lightly cooked egg (e.g., scrambled egg) without reaction?
Yes
Administer vaccine per usual protocol
No
After eating eggs or egg-containing foods, does the patient experience ONLY hives?
Yes
Administer RIV3, if patient aged ≥18 years
OR
Administer IIV; observe for reaction for at least 30 minutes after vaccination.
No
After eating eggs or egg-containing foods, does the patient experience symptoms such as
• cardiovascular changes (e.g., hypotension)
• respiratory distress (e.g., wheezing)
• gastrointestinal symptoms (e.g., nausea or vomiting)
• reaction requiring epinephrine
• reaction requiring emergency medical attention.
Yes
Administer RIV3, if patient aged ≥18 years
OR
If RIV3 is not available, or if patient is aged <18 years, IIV should be administered by a physician with experience in the recognition and management of severe allergic conditions. Observe for reaction for at least 30 minutes after vaccination.

Influenza

Contraindications to LAIV

- Children who have a moderate to severe febrile illness.
- Children with an amount of nasal congestion that would notably impede vaccine delivery.
- Children 2 - 4 years of age with a history of recurrent wheezing or a medically attended wheezing episode in the previous 12 months
- Children who have received other live virus vaccines within the past 4 weeks; however, other live virus vaccines can be given on the same day as LAIV.
- Children taking an influenza antiviral medication (oseltamivir or zanamivir), until 48 hours after stopping the influenza antiviral therapy.

Dyslipidemia Screening

- Once at age 9-11 years (10 yo)
  - Fasting or non-fasting
- Once at 18-21 years (18 yo)
  - Fasting

Obesity Screening

- TSH, FT4, Fasting Lipid panel, Vit D 25-OH, Fasting Glucose
- Provider dependent

STI/HIV Screening

- Detailed history
- All sexually active females and high risk males-test annually for Chlamydia/Gonorrhea.
- Routine screening for HIV should be offered to all adolescents age 16-18 yo
- High risk adolescents should be screened annually for HIV

- **Consider confidentiality**

Cervical Dysplasia Screening

- Cervical Cancer is the 2nd most common cancer in woman worldwide
- Risk factors are persistent infection with high-risk HPV, impaired immunity, cigarette smoking, increased parity, and prolonged oral contraceptive use
- HPV is the most common STI in the US
- 1st Pap test ~ 3 years after onset of vaginal intercourse, no later than 21 years old

Oral Health

- Assess if the child has a dental home
  - If there is no dental home-perform a risk assessment and refer to dental home (age 6 months and up)
  - http://www2.aap.org/oralhealth/docs/riskassessmenttool.pdf
- Recommend brushing with fluoride toothpaste in proper dosage for age
  - Smear - 6 months-3 yrs
  - Pea size - 3 yrs and up = approx 0.25mg -0.38mg of fluoride
- Supervise children younger than 8 years old when brushing

Oral Health

- **Fluoride varnish**
- Medicaid only will reimburse
- Ages 6 months -5 years (up to 6th birthday)
- Should be applied to the teeth of all infants and children at least once every 6 months
  - Dry teeth with gauze
  - Paint varnish onto teeth
- Afterward instructed to eat soft foods and not brush that evening. Resume normal care the next day

Oral Health

- If primary water source is deficient in fluoride (<0.6ppm), consider oral fluoride supplementation
- There are many sources of fluoride in the water supply and in processed food to consider
- The risk of fluorosis is high if supplements are given to a child consuming fluoridated water
- My Water's Fluoride: http://apps.nccd.cdc.gov/MWF/Index.asp

Table 1. Dietary Fluoride Supplement Schedule Approved by the American Dental Association, American Academy of Pediatrics, and American Academy of Pediatric Dentistry.[21]

Age	Fluoride ion level in drinking water (ppm)*		
	<0.3 ppm	0.3 ppm to 0.6 ppm	>0.6 ppm
Birth to 6 months	None	None	None
6 months to 3 years	0.25 mg/day**	None	None
3 years to 6 years	0.50 mg/day	0.25 mg/day	None
6 years to 16 years	1.0 mg/day	0.50 mg/day	None

*1.0 part per million (ppm) = 1 miligram/liter (mg/L) **2.2 mg sodium fluoride contains 1 mg fluoride ion

Car Seat Guidelines

- Rear facing until 2 years old
  - Or until they reach the max weight and height for the seat
- Belt positioning booster seat until they are 4ft 9 inches (57 inches) and are between 8-12 years old
- Children should ride in the rear of the vehicle until they are 13 years old

- https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/aap-updates-recommendation-on-car-seats.aspx
- https://www.healthychildren.org/English/safety-prevention/on-the-go/Pages/Car-Safety-Seats-Information-for-Families.aspx

Other Assessments

- **Newborn Blood Screening** by 2 months old
- **Critical Congenital Heart Defect Screening** after 24 hours of age, before discharge from the hospital
- **Hematocrit or Hemoglobin/Lead** -12 months
- **Tuberculosis Testing** - based on recognition of high-risk factors

Summary

- Developmental Screening- Ages and Stages
  - 2 months through 60 months
  - Give correct ages, can adjust for prematurity
  - Billing for ASQ at 9, 18, and 30 months
- Autism Screening with M-CHAT R/F at 18 and 24 months
- Lead and H/H screening at 12 months
- Vision at 3, 4, 5, 6, 8, 10, 12, 15, and 18 years
- Hearing at 4, 5, 6, 8, and 10 years

Summary Con't

- Lipids
  - 10 yr-fasting or non-fasting
  - 18 yr-fasting
  - If high risk at any time, check between 12-17 years
- Obesity-Provider dependent (TSH, FT4, Fasting lipid panel, vitamin D-25 OH, fasting glucose)
- Depression – ages 11-21 yrs using PHQ-2, then PHQ-9 if positive

Summary Con't

- STIs
  - All sexually active females and high risk males tested annually for Chlamydia/Gonorrhea
  - Routine screening for HIV should be offered to all adolescents age 16-18
  - High risk adolescents should be screened annually for HIV
- Fluoride-assess at 12 month visit for dental home
  - Brush with fluoride toothpaste
  - Assess the need for oral fluoride
  - Fluoride varnish for Mainecare every 6 months if no dental home

References

1. (2015). Retrieved 2015, from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm#Fig1
2. (2015). Retrieved 2015, from http://www.cdc.gov/vaccines/default.htm
3. 2015 Recommendations for Preventive Pediatric Health Care: Committee on Practice and Ambulatory Medicine and Bright Futures Periodicity Schedule Workgroup. (2015). Pediatrics, 136(3).
4. Bright Futures. (n.d.). Retrieved September 1, 2015, from https://brightfutures.aap.org/Pages/default.aspx
5. Clark, M., & Slayton, R. (2014). Fluoride Use in Caries Prevention in the Primary Care Setting. Pediatrics, 134(3), 626-633.
6. Dentistry, S. (2003). Oral Health Risk Assessment Timing and Establishment of the Dental Home. Pediatrics, 111(5), 1113-1116.
7. HealthyChildren.org - From the American Academy of Pediatrics. (2015, August 20). Retrieved September 2, 2015.
8. Identifying Infants And Young Children With Developmental Disorders In The Medical Home: An Algorithm For Developmental Surveillance And Screening. (2006). Pediatrics, 118(1), 405-420.
9. Kroenke, K., Spitzer, R., & Williams, J. (2003). The Patient Health Questionnaire-2. Medical Care, 41, 1284-1292.
10. Maintaining and Improving the Oral Health of Young Children. (2014). Pediatrics, 134(6), 1224-1229.
11. Oral Health Risk Assessment Tool. (n.d.). Retrieved 2015, from http://www2.aap.org/oralhealth/docs/riskassessmenttool.pdf
12. Plauche Johnson, MD, MEd, C., & Myers, MD, S. (2007). Identification and Evaluation of Children with Autism Spectrum Disorders. Pediatrics, 120(5), 1183-1215.
13. Recommendations for Prevention and Control of Influenza in Children, 2015-2016. (2015). Pediatrics,136(4), 1-17.
14. M-CHAT.ORG | Welcome to M-CHAT.ORG | Free, instant, online M ... (2009). Retrieved 2015, from http://m-chat.org/
15. Thibault, J., & Steiner, R. (2004). Efficient identification of adults with depression and dementia. American Family Physician, 70, 1101-1110.