

<b>NEIGHBORHOOD HEALTH PLAN OF RHODE ISLAND</b>	
<b>Section:</b> Clinical Practice Guideline	<b>Subject:</b> Pediatric Routine Preventive Care
<b>Effective:</b> 3/1999	<b>Updated:</b> 7/00, 7/02, 7/04, 7/06, 6/08

**RATIONALE**

The aim of this guideline is to provide routine screening and immunization recommendations for children birth through 17 years with the intent of assisting the clinician in the evaluation and treatment of patients. They are not meant to replace a physician’s judgment or to establish a specific approach toward all patients with a particular condition. Nearly every patient contact for any reason should be used to identify and address preventive service needs. Many services can be provided during routine visits. Similarly, an assessment of preventive services needs can be incorporated into any visit.

The recommendations are based on evidence that supports the value of their induction in periodic health evaluations. They target the general population of low-risk, asymptomatic, non-pregnant children and adolescents, and they identify particular groups of individuals for more intensive screening or immunization. Not included in this guideline are screening recommendations for pregnant adolescents (see *Prenatal Care Guidelines*).

Immunization recommendations are based on those issued by the Advisory Committee on Immunization Practices (ACIP). As it is impossible to foresee all possible immunization changes and/or recommendations, we request that you visit the Rhode Island Department of Health’s website at [www.health.ri.gov](http://www.health.ri.gov) for vaccine alerts, updates and advisories periodically and when you need additional information.

<b>Health Maintenance Visit</b>	<b>0-23 mo. Infancy/toddler</b>	<b>2-4yrs. Early childhood</b>	<b>5-10yrs. Middle childhood</b>	<b>11-17yrs. Adolescence</b>
Includes history and physical exam; developmental assessment and anticipatory guidance; behavioral health assessment; immunizations	At ages 1-2 weeks, then at 1, 2, 4, 6, 9, 12, 15, and 18 months  Assess breastfeeding infants between 3-5 days of age	At age 24 months, 30 months, 3 years and 4 years	Annually	Annually
<b>Routine exam/labs</b>				
<b>Growth assessment; obesity screening</b>	Assess growth parameters using height, weight, and head circumference	Assess growth parameters using height, weight, BMI Screen annually for healthy weight; consult CDC’s growth and body mass index (BMI) charts for ages 2-18 Screen annually for eating disorders starting in middle childhood.		
<b>Blood pressure</b>	Not routine	At every routine visit starting at 3 years of age		
<b>Anemia</b>	Hemoglobin/hematocrit once between 9-12 m	As needed, at clinician discretion		
<b>Cholesterol</b>	Not routine	Test at least once if family history of premature cardiovascular disease, parent with known lipid disorder, and/or parent with BMI >85 percentile		
<b>Lead</b>	Test once between 9 and 15 months, then annually	At least 2 screenings prior to 36mo. If normal (all tests < 10 µg/dL), use RI Department of Health Risk Assessment Questionnaire (RAQ) to screen for lead exposure and test if any answers positive. If any abnormal tests or positive RAQ, test annually until age 6.		

	<b>0-2 Infancy/toddler</b>	<b>2-4 Early childhood</b>	<b>5-10 Middle childhood</b>	<b>11-17 Adolescence</b>
<b>Universal screening</b>				
<b>Development</b>	Structured developmental screen at 9mo. and 18mo.	Structured developmental screen at 30 mo.		
<b>Autism</b>	Autism specific screen at 18 mo.	Autism specific screen at 24 mo.		
<b>Sensory screening</b>				
<b>Hearing</b>	Assess by 1 month; subjective assessment at all other routine visits	Audiologic monitoring every 6m until age 3 if there is language delay or risk of hearing loss	Objective hearing screening every 1-2 years. Subjective hearing assessment at all other routine checkups.	
<b>Vision/eye care</b>	Assess/objective at every visit <sup>1</sup>	Visual acuity test annually from age 3; Screen for strabismus and amblyopia between ages 3 and 5	Vision screening required by RI law before entering kindergarten. Visual acuity test every other year from age 6.	
<b>Infectious disease screening</b>				
<b>Sexually transmitted infections (chlamydia, gonorrhea, HPV, syphilis)</b>	Not routine	Not routine	HPV: counsel on schedule for HPV vaccine.	<b>Chlamydia:</b> annually for all sexually active patients <b>Gonorrhea:</b> annually for all sexually active female patients <b>Syphilis:</b> test if at risk <sup>2</sup> <b>HPV:</b> counsel on schedule for HPV vaccine
<b>Hepatitis C (HCV)</b>	Test after age 12m in children with Hep C virus-infected mothers	Not routine	Not routine	Periodic testing of all patients at high risk <sup>3</sup>
<b>HIV</b>				Routine/annual testing for all patients at increased risk <sup>4</sup> Universal assessment age 13 and above for HIV risk factors
<b>Tuberculosis</b>	Tuberculin testing (PPD) at/after 12m for all patients at high risk <sup>5</sup>			
<b>Other screening</b>				
<b>Pelvic exam/Pap test</b>				Perform first Pap test and pelvic exam 3 years after first sexual intercourse, then annually-at the clinicians discretion

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<b>General counseling</b>				
<b>Nutrition</b>	<ul style="list-style-type: none"> <li>▪ Promote breastfeeding as sole source of nutrition first 6m</li> <li>▪ Recommend breastfeeding for at least 1 yr.</li> <li>▪ Begin whole milk at 1yr.</li> <li>▪ Iron-fortified formula if bottle-feeding</li> </ul>	<ul style="list-style-type: none"> <li>▪ Switch to low-fat milk at 2 yr.</li> <li>▪ Iron-rich diet</li> <li>▪ Bottle weaning</li> <li>▪ Food groups</li> <li>▪ Calcium</li> <li>▪ Healthy snacks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Food groups</li> <li>▪ Calcium</li> <li>▪ Body image</li> <li>▪ Safe weight management</li> <li>▪ Limit saturated fat intake</li> </ul>	<ul style="list-style-type: none"> <li>▪ Limit dietary fat</li> <li>▪ Body image</li> <li>▪ Folate supplement for female patients</li> <li>▪ Calcium</li> </ul>
<b>Injury prevention<sup>6</sup></b>	Car seats, seatbelts Childproof home Use of helmets (bicycle, scooter, skiing) Poison awareness Falls Fire Safety Firearms Strangers: child's name and phone number		Seat belt use Use of safety helmets Poison awareness Fire safety Firearms Water safety	Seat belts Use of safe helmets Fire safety Firearms
<b>Sun safety</b>	Encourage limits on time in sun, covering skin with clothing and hats when outdoors Encourage use of sunscreen SPF 15			
<b>Physical activity</b>	Encourage opportunities for physical activity	Ask about physical activities Encourage daily physical activity	Ask about frequency, type, duration of physical activities Encourage daily activity: ≥1 hour daily	
<b>Dental health</b>	Don't put infant to sleep with bottle	Assess oral health at each visit Begin brushing teeth by age 2 Encourage dental visits by 1st birthday and every 6months thereafter.		
<b>Sleep habits</b>	Place infants to sleep on their backs until ≥6m Encourage proper sleep amounts: 3-11m = 14-15hrs 1-3y = 12-14hrs	Encourage proper sleep amounts: 3-5y = 11-13hrs 5-12y – 10-11hrs Teen = 9-10hrs.		
<b>Tobacco</b>	Benefits of maintaining a smoke-free home Refer parents who smoke for smoking-cessation intervention		Counsel not to begin smoking	Counsel not to begin smoking Smoking cessation intervention for any patient who smokes
<b>Alcohol/substance abuse</b> (including use of OTC or prescription drugs for nonmedical purposes)	Ask parent(s) about family history of alcoholism/substance abuse Ask parents about attitudes about alcohol use			Ask about alcohol or substance use Counsel not to drink and drive or ride with someone who is under influence of alcohol or drugs
<b>Family violence or sexual abuse</b>	Be alert to signs of family violence Be alert to signs of child physical/sexual abuse Promote nonviolent problem-solving Adolescents: Promotion of nonviolent problem-solving Safe and appropriate dating and relationships			

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<b>Sexuality</b>			Sexuality, sexual development	Sexuality, safe sex practice, family planning and contraception, preconception counseling
<b>Scholastic performance</b>			Input from parent and child/adolescent	
<b>Immunizations</b>				
<b>Hepatitis B</b>	At birth, 1-2m and 6-18m Children of HbsAg-positive mothers should also receive HBIG within 12 hours of birth. Give 3 dose series at any age if not previously immunized <sup>7</sup>			
<b>Rotavirus vaccine (Rota)</b>	At 2, 4, and 6m Do not start series later than 12 wks (3m) Administer final dose no later than 32 wks.			
<b>DTaP</b> (diphtheria, tetanus, acellular pertussis)	At 2, 4, 6, and 15-18m <sup>8</sup>	Final dose in series at age 4-6 yrs.		
<b>Tdap</b> (tetanus, diphtheria, acellular pertussis), <b>and Td</b> (tetanus, diphtheria)				Tdap at 11-12 yrs <sup>9</sup> Tdap at 13-18 yrs if 11-12 dose missed or Td only given <sup>10</sup>
<b>Hib</b> (Haemophilus Influenzae Type B)	At 2, 4, 6, and 12-15m <sup>11</sup>			
<b>IPV</b> (Inactivated polio vaccine)	At 2, 4, and 6-18m	Final dose at 4-6 yrs.		
<b>MMR</b> (measles, mumps, and rubella)	At 12-15m	Second dose at 4-6 yrs. <sup>12</sup>		If not previously vaccinated, administer 2 doses (>4 wks apart)
<b>PCV</b> (pneumococcal conjugate)	At 2, 4, 6, and 12-15m	Administer one dose to all healthy children 24-59 months having any incomplete schedule		
<b>PPV</b> (pneumococcal polysaccharide)		Administer PPV to children aged $\geq 2$ yrs. with underlying medical conditions <sup>13</sup> or in certain high risk groups		
<b>Varicella</b>	At 12-15m	Second dose at 4-6 yrs <sup>14</sup> . Administer 2 doses at least 3m apart if not previously immunized and no history varicella		Administer 2 doses $\geq 4$ wks apart if no evidence of immunity
<b>MCV4</b> (meningococcal conjugate vaccine) <sup>15</sup>		One dose for children age 2-10 with terminal complement deficiencies or anatomic or functional asplenia and certain other high risk groups		One dose at age 11-12 yrs. One dose at age 13-18 if not previously vaccinated One dose to previously unvaccinated college freshmen living in dormitories.

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<b>HPV</b> (human papillomavirus)				3 dose series (0, 2, 6m) to females age 11-12 <sup>16</sup> 3 dose series to females age 13-18 yrs if not previously vaccinated.
<b>Hepatitis A</b>	2 doses 6m apart to all children age 12-23m	Children not fully vaccinated by age 2 yrs. can be vaccinated at subsequent visits 2 doses 6m apart for children at risk, if not previously vaccinated.		
<b>Influenza</b> (TIV/trivalent inactivated or LAIV/live attenuated)	Administer annually 6-59m (TIV only for children <2 or with health problems; TIV or LAIV for healthy children ages 2-5 yrs.)	Annually to all close contacts of children aged 0-59m. Annually to children with certain risk factors		
	Administer 2 doses (separated by $\geq 4$ wks) to children <9 yrs. who are receiving influenza vaccine for the first time.			

## REFERENCES

1. Agency for Healthcare Research and Quality, *The Guide to Clinical Preventive Services, 2007*, Recommendations of the U.S. Preventive Services Taskforce
2. Massachusetts Health Quality Partners, *Pediatric Routine Preventive Care Recommendations 2007/8*
3. American Academy of Family Physicians, *Summary of Recommendations for Clinical Preventive Services*, Revision 6.4, August 2007
4. American Academy of Pediatrics, *Bright Futures – Guidelines for Health Supervision of Infants, Children, and Adolescents*, 3<sup>rd</sup> edition 2008 update
5. Institute for Clinical Systems Improvement (ICSI). *Preventive services for children and adolescents*. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2007 Oct.
6. Immunization Action Coalition - Advisory Committee on Immunization Practices' (ACIP) *Summary of Recommendations for Childhood and Adolescent Immunization*, 2008
7. [www.health.ri.gov](http://www.health.ri.gov)

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<sup>1</sup> Newborn = red reflex; 6-24m = red reflex, fix and follow, corneal light, alternate occlusion

<sup>2</sup> Risk factors for syphilis include: history of and/or current infection with another sexually transmitted infection; having more than one sexual partner within the past 6 months; exchanging sex for money or drugs; and men having sex with other men.

<sup>3</sup> Risk factors for HCV infection include current or past intravenous drug use, transfusion before 1990, dialysis, being a child of an HCV infected mother, high-risk sexual behavior (particularly sex with someone infected with HCV) and the use of illegal drugs, such as cocaine or marijuana

<sup>4</sup> Risk factors include: men having sex with other men; IV drug use; history of prior sexually transmitted infections; new or multiple sex partners; and inconsistent use of condoms.

<sup>5</sup> Risk factors include having spent time with someone with known or suspected TB; coming from a country where TB is very common; having HIV infection; having injected illicit drugs; living in U.S. where TB is more common (*e.g., shelters, migrant farm camps, prisons*); or spending time with others with these risk factors. Determine the need for repeat skin testing by the likelihood of continued exposure to infectious TB.

<sup>6</sup> For a complete listing/discussion of safety and injury prevention topics, see [www.brightfutures.org](http://www.brightfutures.org)

<sup>7</sup> Minimum spacing between doses: 4 wks between #1 and #2, 8 wks between #2 and #3, and at least 16 wks between #1 and #3.

<sup>8</sup> The fourth dose may be administered as early as 12m if at least 6m have elapsed since the third dose

<sup>9</sup> For those who have completed the childhood DTaP series and have not received a Td booster dose.

<sup>10</sup> Administer 5 yrs. after the last Td/DTaP dose.

<sup>11</sup> Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax® [Merck] ) is administered at ages 2 and 4 months, a dose at age 6 months is not required. The final dose of the series should be administered at age  $\geq$  12 months.

<sup>12</sup> The second dose of MMR is recommended routinely at 4-6 years but may be administered during any visit, provided at least 4 weeks have elapsed since the first dose and both doses are administered beginning, at, or after age 12 months.

<sup>13</sup> Sickle cell disease and other sickle cell hemooglobinopathies, congenital or acquired asplenia or splenic dysfunction, and conditions associated with congenial immunodeficiency's such as chronic renal failure, nephrotic syndrome, lymphoma, and HIV along with conditions such as chronic heart disease or chronic lung disease and diabetes mellitus.

<sup>14</sup> May be administered 3m or more after first dose.

<sup>15</sup> MPSV4 (meningococcal polysaccharide vaccine) is an acceptable alternative. Persons who received MPSV4 three or more years prior and remain at increased risk should be vaccinated with MCV4.

<sup>16</sup> Vaccination (3 dose series) allowed for girls beginning at 9 years.