NEIGHBORHOOD HEALTH PLAN OF RHODE ISLAND	
Section: Clinical Practice Guideline	**Subject**: Pediatric Routine Preventive Care
Effective: 3/1999	**Updated**: 7/00, 7/02, 7/04, 7/06, 6/08, 7/10

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 non routine immunizations. 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** for vaccine alerts, updates and advisories periodically and when you need additional information.

Health Maintenance Visit	**0-23 mo. Infancy/toddler**	**2-4yrs. Early childhood**	**5-10yrs. Middle childhood**	**11-17yrs. Adolescence**
▪ History and physical exam; ▪ Developmental assessment and anticipatory guidance; ▪ Psychosocial & behavioral assessment ▪ Immunizations	Newborn[1], age 3-5 days[2], then at 1, 2, 4, 6, 9, 12, 15, and 18 months	At age 24 months, 30 months, 3 years and 4 years	Annually	Annually
	Physical exam should be age-appropriate. Infants should be totally unclothed; older children should be undressed and suitably draped.			
Routine exam/labs				
Newborn Screening	Newborn Screening for metabolic, endocrine, and hemoglobin conditions is required by RI Law. The Rhode Island Newborn Screening Program will notify the primary care provider if repeat screening and follow-up is needed. For screening results or to confirm screening, call the Rhode Island Department of Health Information Line at 800-942-7434.			
Growth assessment; obesity screening	Assess growth parameters using length/height, weight, weight for length, and head circumference	Assess growth parameters using height, weight, and BMI percentile Screen annually for underweight/overweight; consult CDC's growth and body mass index (BMI) percentile charts for ages 2-18 Screen annually for eating disorders starting in middle childhood by asking about body image and dieting patterns.		
	Physicians should be alert to the signs of obesity and its comorbidities among their younger patients; familiarize themselves with the current, albeit sometimes conflicting, recommendations; and decide how best to incorporate prevention into their daily practice.			

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Routine exam/labs (cont'd)				
Blood pressure	Not routine; BP measurement in infants and children with specific risk conditions should be performed at visits before age 3.	At every routine visit starting at 3 years of age		
Hemoglobin or Hematocrit	Hemoglobin or -hematocrit once between 9-12 mo. Assess risk for anemia including assessment of diet at 4 and 18 mo. with appropriate action to follow if necessary. For iron deficiency, iron supplementation for infants aged 6-12 mo. at risk for iron deficiency (premature, low birth weight). Provide education regarding high iron foods.	Perform risk assessment for iron deficiency anemia at each annual visit with appropriate action to follow if necessary. Adolescents at risk include females who are on fad diets or are obese.		
Cholesterol/lipids	Not routine	Risk assessment[3] every 2 years with appropriate action to follow if necessary		Risk assessment annually
		Preferred screening tests are TC and HDL-C on fasting or nonfasting samples		
Glucose /blood sugar		The American Diabetes Association suggests that children with a BMI at or above the 85th percentile and two additional risk factors (i.e., family history of type 2 diabetes; Native American, Mexican American, Hispanic American, or Asian/South Pacific Islander ancestry; or signs of insulin resistance or associated conditions, such as acanthosis nigricans, hypertension, hyperlipidemia, or polycystic ovary syndrome) have a fasting blood glucose test every other year starting at 10 years of age.		
Lead	Test once between 9 and 15 months, then again 12 months later (21-27 months)	Screen all children at least annually up to 6 years of age. If 2 tests by 36 mo were normal (<10 µg/dL), use RI Department of Health Risk Assessment Questionnaire (RAQ) to screen for lead exposure If any abnormal tests or positive RAQ, do blood lead test annually until age 6. See www.health.ri.gov/lead/pdf/LeadGuidelines for details		

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Universal screening				
Developmental Surveillance[4]	At every visit except where developmental screening is being done. Any concerns raised during developmental surveillance should be promptly addressed. Should consider a formal developmental assessment (such as Denver Developmental Screening Test).			
Developmental Screening[5]	Structured developmental screen at 9mo. and 18mo.	Structured developmental screen at 30 mo.		
Autism Screening[6]	Screen at 18 mo.with validated autism-specific standardized screening tool	Screen at 24 mo.with validated autism-specific standardized screening tool		
Sensory screening				
Hearing	Universal newborn hearing screening required by RI law. Subjective assessment at all routine visits	Subjective hearing assess at all routine checkups; objective hearing test at age 4. Audiologic monitoring every 6m until age 3 if there is language delay or risk of hearing loss	Objective hearing screening at ages 5, 6, 8, and 10 years. Subjective hearing assessment at all other routine checkups.	
Vision/eye care	Assess/objective at every visit[7] Including Strabismus, corneal, light reflex, ptosis)	Visual acuity test annually from age 3[8]; Screen for strabismus and amblyopia between ages 3 and 5	Vision screening required by RI law before entering kindergarten. Visual acuity test at ages 5, 6, 8, 10, 12, 15, 18	
Infectious disease screening				
Sexually transmitted infections (chlamydia, gonorrhea, HPV, syphilis)	Not routine	Not routine	HPV: Counsel on schedule for HPV vaccine	**Chlamydia:** testing at least annually for all sexually active females **Gonorrhea:** testing at least annually for all sexually active female patients at risk[9] **Syphilis:** test if at risk[10] **HPV**: counsel on schedule for HPV vaccine
Hepatitis C (HCV)	Test after age 18mos. in children with Hep C virus-infected mothers	Not routine		Periodic testing of all patients at high risk[11]
HIV				Routine/annual testing for all patients at increased risk[12] Universal assessment age 13 and above for HIV risk factors
Tuberculosis	Tuberculin testing (PPD) at/after 12m for all patients at high risk[13] Determine the need for repeat skin testing by the likelihood of continued exposure to infectious TB.			

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Other screening				
Pelvic exam/Pap test				Pelvic exams as needed for STI screening at onset of sexual activity.. Pap test not recommended before age 21
General counseling/Anticipatory Guidance[14]				
Nutrition	▪ Promote breastfeeding as primary source of nutrition first 6m ▪ Recommend breastfeeding for at least 1 yr. ▪ Begin whole milk at 1yr. (limit intake to 20-24 oz. daily) ▪ Iron-fortified formula from birth if bottle-feeding	▪ Switch to low-fat milk (skim or 1%) at 2 yr. ▪ Iron-rich diet ▪ Bottle weaning ▪ Food groups ▪ Calcium ▪ Healthy snacks	▪ Food groups ▪ Calcium ▪ Body image ▪ Safe weight management ▪ Limit saturated fat intake	▪ Limit dietary fat ▪ Body image ▪ Folate supplement for female patients ▪ Calcium
Injury prevention[15]	Car seats, seatbelts Childproof home including hot water/hot liquids 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
Sun safety	For children under 6 months of age avoid sun exposure, Encourage covering skin with light clothing and hats when outdoors. When unable to avoid sun parents can apply a minimal amount of sunscreen with at least 15 SPF (sun protection factor) to small areas such as the infant's face and the back of the hands.. On both sunny and cloudy days encourage use of sunscreen SPF 15 or higher for children over 6 months of age.			
Physical activity	Encourage opportunities for physical activity Discourage television viewing for children younger than 2 years	Ask about physical activities Encourage daily physical activity Limit children's total media/screen time to no more than 1 to 2 hours per day. Encourage removing television sets from children's bedrooms.	Ask about frequency, type, duration of physical activities Encourage daily activity: ≥1 hour daily	
Oral health	Don't put infant to sleep with bottle Begin brushing teeth by age 12 mo. Refer to dental home by age 12 mo.[16] Consider oral fluoride supplementation if primary water source is deficient in fluoride.	Assess oral health at each visit Encourage dental visits every 6 months; stress importance of dental home Consider oral fluoride supplementation if primary water source is deficient in fluoride up to age 16. Years.		

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General Counseling (cont’d)				
Sleep habits	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. Discourage having a television in the child’s bedroom.		
Tobacco	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
Alcohol/substance abuse (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			Discuss confidentiality issues with both the parent and patient for adolescent visits. Interview the patient without the parent present. Ask about alcohol or substance use Counsel not to drink and drive or ride with someone who is under influence of alcohol or drugs
Family violence or sexual abuse	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			
Sexuality				As part of the clinical interview, health-care providers should routinely and regularly obtain sexual histories from their patients and address management of risk Provide behavioral counseling to prevent sexually transmitted infections for all sexually active adolescents. Sexuality, safe sex practice, family planning and contraception, preconception counseling.

Sexuality (cont'd)	Every pediatrician should integrate sexuality education into clinical practice with children from early childhood through adolescence. This education should respect the family's individual and cultural values. Counsel children and parents about normal sexual development before the onset of sexual activity, and encourage parent-child communication about sexuality. Preventive services offered should consider the age of the adolescent and provide culturally and developmentally appropriate information as it relates to each patient individually. Identify children at risk for early or coercive and unintended sexual behaviors at an early age. Provide or arrange for counseling about sexuality for these children or adolescents. Refer to mental health services if appropriate.			
Scholastic performance			Input from parent and child/adolescent Consider change in academic performance as "red flag" for drug/alcohol abuse, mental health issues, etc.	
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General Counseling (cont'd)				
Immunizations				
	See Rhode Island Department of Heath website for updated immunization recommendations at http://www.health.ri.gov or visit http://www.cdc.gov			
Routine Preventive Vaccines				
Seasonal Influenza vaccine	**See Rhode Island Department of Heath website for updated Seasonal Influenza vaccine recommendations at http://www.health.ri.gov or visit http://www.cdc.gov**			

[1] Every infant should have a newborn evaluation at birth. Breastfeeding should be encouraged, with instruction and support offered.

[2] Every infant should have an evaluation within 3-5 days of birth and within 48-72 hours after discharge to include evaluation for feeding and jaundice, with instruction and support offered. Breastfeeding infants should have formal breastfeeding evaluation, encouragement and instruction. For infants discharged less than 48 hours after delivery, the infant must be examined within 48 hours of discharge.

[3] Major reasons to check cholesterol levels in children include: positive family history of conditions associated with atherosclerosis (parent, grandparent, or first-degree aunt or uncle who suffered, before the age of 55, one of the following: myocardial infarction, angina pectoris, peripheral vascular disease, cerebrovascular disease, sudden cardiac death or documented coronary atherosclerosis); positive parental history of high cholesterol (≥240 mg.dL); presence of other conditions commonly associated with increased risk of coronary heart disease (e.g. diabetes, obesity, hypertension).

[4] Developmental surveillance consists of five components: eliciting and attending to parents' concerns about their child's development, documenting and maintaining a developmental history, making accurate observations about the child, identifying protective and risk factors, maintaining an accurate record and documenting the process and findings.

[5] Use a standardized tool which aids in the identification of children at risk of a developmental disorder; see http://pediatrics.aappublications.org/cgi/content/full/118/1/405

[6] Use a validated autism-specific standardized screening tool, as indicated in the AAP Clinical Report "Identification and Evaluation of Children with Autism Spectrum Disorders"; see http://aappolicy.aappublications.org/cgi/content/full/pediatrics;120/5/1183

[7] Newborn = red reflex; 6-24m = red reflex, fix and follow, corneal light, alternate occlusion

[8] If the patient is uncooperative, rescreen within 6 months.

[9] Risk factors include: a history of previous gonorrhea infection, other sexually transmitted infections, new or multiple sexual partners, inconsistent condom use, sex work, and drug use.

[10] Populations at increased risk for syphilis infection (as determined by incident rates) include men who have sex with men and engage in high-risk sexual behavior, commercial sex workers, persons who exchange sex for drugs, and those in adult correctional facilities.

[11] Risk factors for HCV infection include current or past intravenous drug use, dialysis, and being a child of an HCV infected mother. Surrogate markers, such as high risk sexual behavior (particularly sex with someone infected with HCV) and the use of illegal drugs, such as cocaine or marijuana, have also been associated with increased risk for HCV infection.

[12] A person is considered at increased risk for HIV infection (and thus should be offered HIV testing) if he or she reports 1 or more individual risk factors or receives health care in a high-prevalence or high risk clinical setting. Individual risk for HIV infection is assessed through a careful patient history. Those at increased risk (as determined by prevalence rates) include: men who have had sex with men after 1975; men and women having unprotected sex with multiple partners; past or present injection drug users; men and women who exchange sex for money or drugs or have sex partners who do; individuals whose past or present sex partners were HIV-

infected, bisexual, or injection drug users; persons being treated for sexually transmitted diseases (STDs); and persons with a history of blood transfusion between 1978 and 1985. Persons who request an HIV test despite reporting no individual risk factors may also be considered at increased risk.

[13] 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.

[14] Refer to the specific guidance by age as listed in Bright Futures Guidelines (Reference 4) at www.brightfutures.org

[15] For a complete listing/discussion of safety and injury prevention topics, see www.brightfutures.org

[16] Inform parents of Rite Smiles program for access to dental services, as needed (http://www.dhs.ri.gov)

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