NEIGHBORHOOD HEALTH PLAN OF RHODE ISLAND	
Section: Clinical Practice Guideline	**Subject**: Adult 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 adults ages 18 and over 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 individuals, and they identify particular groups of individuals for more intensive screening or immunization. Not included in this guideline are screening recommendations for pregnant women (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	**18-29 years**	**30-39 years**	**40-49 years**	**50-64 years**	**65+ years**
• Initial/interval history • Age-appropriate physical exam. • Preventive screenings and counseling • Update immunizations.	Ages 18-21 Annually,with patient suitably undressed and draped. Ages 22-29: Every 1-3 years depending on risk factors	Every 1-3 years depending on risk factors	Every 1-3 years depending on risk factors	Annually	Annually
Cancer Screening					
Breast Cancer	**ACS***: clinical breast exam (CBE) every 3 years; breast self-exam (BSE) an option. **USPSTF***: recommends against teaching BSE	**ACS**: CBE every 3 years; BSE an option	**ACS:** Annual CBE; yearly mammograms	**ACS**: Annual CBE; yearly mammograms as long as woman in good health. **USPSTF**: Mammogram every 2 years ages 50-74; screening mammography ≥ age 75 at clinician/patient discretion..	
	***ACS** - American Cancer Society **USPSTF** – U.S. Preventive Services Task Force	**USPSTF**: decision to start regular, biennial screening mammography before the age of 50 years should be an individual one and take patient context into account, including patient's values regarding specific benefits and harms.			

Genetic Risk Assessment and BRCA Mutation Testing for Breast and Ovarian Cancer Susceptibility	Women whose family history is associated with an increased risk for deleterious mutations in BRCA1 or BRCA2 genes should be referred for genetic counseling and evaluation for BRCA testing. Certain specific family history patterns[1] are associated with an increased risk for deleterious mutations in the BRCA1 or BRCA2 gene. Both maternal and paternal family histories are important.				
Cancer Screening (con't)	**18-29 years**	**30-39 years**	**40-49 years**	**50-64 years**	**65+ years**
Cervical Cancer (Pelvic Exam & Pap Test)	Initiate Pap test at age 21. Pap test (standard or liquid-based) every 2 years.	Pap test every 3 years for women >30 with 3 consecutive negative Pap tests. Women at risk[2] may need more frequent screening. Discontinue Pap tests in women with total hysterectomy (cervix + uterus) for noncancerous reasons if no history of high-grade CIN			Screening can be discontinued in women >65-70 if ▪ 3 or more normal Pap tests in a row and ▪ no abnormal Pap test results in past 10 years.

Colorectal cancer	Not routine except for patients at high risk.[3]	Beginning at age 50 follow one of these schedules[4]: **Tests that find polyps and cancer** • Colonoscopy every 10 years; OR • Flexible sigmoidoscopy every 5 years*; OR • Double-contrast barium enema every 5 years*; OR •CT colonography (virtual colonoscopy) every 5 years*; **Tests that find cancer** • Annual fecal occult blood test (FOBT) or fecal immunochemical test (FIT)*; OR • stool DNA test (sDNA), interval uncertain.* *If test is positive, colonoscopy should be done. Screening ages 76-85 at clinician/patient discretion. Screening not recommended after age 85. Please check the Neighborhood website for benefit coverage (www.nhpri.org)
Prostate cancer	Discuss pros and cons of PSA testing starting at age 45 for patients at risk. Risk is increased for African-Americans and men with a brother or father who had prostate cancer before age 65.	Discuss pros and cons of testing; testing (PSA test with or without digital rectal exam) at clinician/patient discretion. Frequency of testing depends on PSA level. Screening after age 75 not recommended.
Skin cancer	Clinicians should remain alert for skin lesions with malignant features noted in the context of physical examinations performed for other purposes, especially in at-risk patients. [5]	

Infectious Disease Screening	
Sexually transmitted infections	**Chlamydia –**annually until age 25 for sexually active females and for sexually active older women at risk. [6] **Gonorrhea –** annually for sexually active females at risk [7] **Syphilis –** test sexually active men and women if at risk[8]
Hepatitis C	Not routine except for patients at high risk [9]
HIV	Routine/annual testing of all patients at increased risk.[10] Routine screening of all patients for HIV risk factors.
Tuberculosis	Tuberculin skin test (PPD) for adults at high risk for TB exposure/infection [11]

Sensory Screening	**18-29 years**	**30-39 years**	**40-49 years**	**50-64 years**	**65+ years**
Vision screening	Ages 18-20: test at age 18; risk assessment ages 19-20 with appropriate action to follow. Ages 21-64: test only if symptomatic				Objective vision testing every 1-2 years (Snellen chart)
Hearing screening	Ages 18-20: risk assessment with appropriate action to follow if positive. Ages 21-49: test only if symptomatic.			Ask about hearing impairment Counsel, refer as appropriate.	
Other recommended screening					
Body Mass Index (BMI)	Screen at every visit for overweight/underweight. Consult the CDC's growth and BMI charts. Screen annually for eating disorders. Ask about body image and dieting patterns. Offer intensive counseling (>1 session/month for at least 3 months) for adults with BMI > 30 to promote weight loss. Use waist circumference if BMI 25 -34.9 to identify increased disease risk[12]				
Blood Pressure	At every medical encounter and/or at least once a year for ages 18-20. At every medical encounter and at least once every 2 years if BP<120/80 or every year if BP 120-139/80-89.				
Hemoglobin/ hematocrit	Ages 18-20: Risk assessment for iron deficiency anemia with appropriate action to follow if positive. Ages 20+: routine screening only for pregnant women; all others risk assessment for iron deficiency anemia with appropriate action to follow if positive. Those at risk of iron deficiency include females and recent immigrants,				
Lipids	Age 18-20: one-time dyslipidemia screening at annual exam with appropriate action to follow if positive. Initial fasting lipoprotein profile *(total cholesterol, LDL cholesterol, HDL cholesterol, and triglyceride)* for men at age 35 and for women at age 45. Fasting lipid profile every 5 years after initial screen. Earlier (ages 20-35/45)and/or more routine screening for patients with high-risk at clinician discretion.[13]				
Diabetes	Screen asymptomatic adults if sustained BP >135/80 mm Hg (treated or untreated. Consider screening when BP ≤135/80 if knowledge of diabetes status would help inform decisions about coronary heart disease (CHD) prevention strategies, including assessment of CHD risk. Consider testing if BMI >25 and one or more other risk factors present. [14]		Screen every 3 years beginning at age 45.		
Osteoporosis	Counsel about preventive measures: dietary calcium and vitamin D intake, weight-bearing exercise.				
				Begin routine bone density screening at age 60 for women at increased risk.[15]	Provide bone density testing with central DEXA scan for all women. Counsel on measures to prevent falls.
Abdominal aortic aneurysm					One-time screening by ultrasonography in men 65-75 who have ever smoked
Depression	Screen adults for depression when staff-assisted depression care supports are in place to ensure accurate diagnosis, effective treatment, and follow-up				

	Routinely screening adults for depression is not recommended when staff-assisted depression care supports are not in place. There may be considerations that support screening for depression in an individual patient.
Tobacco use	Ask all adults about tobacco use and provide tobacco cessation interventions and referral for ongoing services for those who use tobacco products.
Alcohol, substance abuse	Screen for problem drinking or drug use among adults by use of screening tools such as CAGE or AUDIT. Provide effective intervention in the primary care setting and/or refer for counseling as appropriate. Counsel against drinking and driving.
Family violence	All clinicians examining adults should be alert to physical and behavioral signs and symptoms associated with abuse or neglect. Patients in whom abuse is suspected (domestic partner, older adult) should receive proper documentation of the incident and physical findings; treatment for physical injuries; arrangements for skilled counseling by a mental health professional; and the telephone numbers of local crisis centers, shelters, and protective service agencies.
Developmental Surveillance	Ages 18-20: required surveillance consists of 5 components: eliciting and attending to parents' concerns about patient's development; documenting and maintaining a developmental history; making accurate observations about the patient; identifying protective and risk factors; maintaining an accurate record and documenting the process and findings. Concerns raised during developmental surveillance should be promptly addressed.

General Counseling	**18-29 years**	**30-39 years**	**40-49 years**	**50-64 years**	**65+ years**
Advanced directives	It is the expectation that this discussion occurs and is documented for those ages ≥40. See www.health.ri.gov for further information				
Anticipatory Guidance	Ages 18-20: age-appropriate guidance to parents and adolescents on topics such as injury and illness prevention, developmental surveillance and milestones, sexuality, and substance abuse.				
Aspirin for prevention of CHD			Recommend use of aspirin 75 mg/day for men 45-79 years of age when potential benefit of reduction in myocardial infarctions outweighs potential harm due to increase in GI hemorrhage. Recommend use of aspirin 75 mg/day for women 55-79 years when potential benefit of reduction in ischemic strokes outweighs potential harm due to increase in GI hemorrhage.[16] Recommend against use of aspirin chemoprevention in women <55 years and men <45 years.		
Diet, nutrition	Limit dietary fat Maintain portion-size control and caloric balance; choose foods containing high fiber. Calcium, vitamin D consumption Use of folic acid supplements for women of childbearing age. Intensive behavioral dietary counseling for adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease; counseling by primary care clinicians or by referral.				
Family planning, preconception counseling	Discuss contraceptive use, emergency contraception to prevent unintended pregnancy Discuss appropriate/safe birth intervals Encourage folate supplement (0.4 mg folate) during childbearing years Emphasize risk of alcohol, drugs, tobacco in pregnancy, even very early pregnancy Stress importance of oral health and routine dental care				
Injury prevention	Seatbelt use Helmet use for sports (cycling, skiing, in-line skating) Firearm risks and safety				
Menopause management			Counsel all women on management of menopause, including non-hormonal therapies Recommend against routine use of combined estrogen and		

			progestin for prevention of chronic conditions in post menopausal women. Recommend against routine use of unopposed estrogen for prevention of chronic conditions in postmenopausal women who have had a hysterectomy.		
Physical activity	Discuss importance of regular physical activity including aerobic, strength, and flexibility training. Encourage nontraumatic weight-bearing exercise (e.g. walking) for osteoporosis prevention.				
Sexuality, safe sex practices	If sexually active, discuss pregnancy prevention, family planning, Discuss STD prevention: limit partners, use latex condoms and other barriers correctly				
Transition to adult services	Ages 18-20: Prepare adolescent and family for the transfer from pediatric to adult health care by age 21; this process should begin at age 14.				
Immunizations	**18-29 years**	**30-39 years**	**40-49 years**	**50-64 years**	**65+ years**
Hepatitis A vaccine	2 doses at least six months apart for persons who wish immunity or persons at risk[17], if not previously immunized.				
Hepatitis B vaccine	3 doses on a 0, 1,4- 6 month schedule Immunize persons who wish immunity and all high-risk persons[18] if not previously immunized.				
***Haemophilus influenzae* type b (Hib) vaccine**	Administering 1 dose of Hib vaccine to high-risk persons [19] who have not previously received Hib vaccine is not contraindicated.				
Human papillomavirus (HPV) vaccine	3 doses (HPV2 or HPV4) on a 0, 1-2, 6m schedule for unvaccinated females ≤ 26 yrs. HPV4 may be administered to males ≤26 years to reduce likelihood of acquiring genital warts.				
Seasonal Influenza vaccine*	1 dose annually (fall or winter) if at risk[20] or if desired by patient LAIV only for healthy, nonpregnant persons ≤ 49 years			1 dose annually, TIV only	
Measles, mumps and rubella (MMR)	For adults born during/after 1957: **Measles/mumps**: 1 dose MMR unless they have medical contraindication, documentation of previous vaccination, laboratory evidence of immunity, or documentation of physician-diagnosed measles. 2nd dose MMR 4 wks later for those at risk.[21] **Rubella**: 1 dose MMR for women with no documentation of rubella vaccination and/or no laboratory evidence of immunity.			2 doses MMR for all healthcare workers born before 1957 who have no proof of immunity (serology or vaccination) to measles and/or mumps. 1 dose MMR for all healthcare workers born before 1957 who have no proof of immunity (serology or vaccination) to rubella.	
Meningococcal vaccine	1 dose for college freshmen living in dormitories, persons with anatomic or functional asplenia or persistent complement component deficiencies, military recruits,travelers to countries where meningitis is hyperendemic or epidemic (e.g. sub-Saharan Africa), and laboratory workers routinely exposed to *N. meningitidis*.. Meningococcal conjugate vaccine (MCV4) preferred for adults ≤55 years; meningococcal polysaccharide vaccine (MPSV4) preferred for adults >55 years. Revaccination with MCV4 after 5 years recommended for adults previously vaccinated with MCV4 or MPSV4 who remain at increased risk for infection.				
Pneumococcal (polysaccharide) (PPSV) vaccine	1 dose if at risk[22] and not previously immunized. One-time revaccination after 5 years recommended for persons with chronic renal failure or nephotic syndrome, functional or anatomic asplenia, and persons with immunocompromising conditions.				1 dose after 65 years of age Revaccinate if vaccinated before age 65; allow 5

		year interval.
Tetanus, Diphtheria, Acellular Pertussis vaccine (Td/Tdap)	For adults <65 years of age with uncertain or incomplete history of primary vaccination series with Td and/or Tdap: administer primary vaccination series of 3 doses Td, the first 2 doses at least 4 weeks apart and the 3rd 6-12 months after the 2nd. Tdap can substitute for any of the doses of Td in the series. A dose of Tdap is recommended for postpartum women, close contacts of infants <12 months of age, and all health-care personnel with direct patient contact if they have not previously received Tdap; the interval from the last Td can be ≤2 years. **Booster**: Tdap should replace a single dose of Td as a booster for adults 19-64 who have not received a dose of Tdap previously; then boost with Td every 10 years.	3 doses of Td if not previously immunized Td booster every 10 years
Varicella vaccine	2 doses administered 4-8 weeks apart, if not previously immunized and no history of chickenpox or shingles	
Zoster		1 dose for all adults ≥60 years of age, regardless of history of herpes zoster.

* Trivalent inactivated influenza vaccine (TIV) or Live attenuated influenza vaccine (LAIV)

[1] For non-Ashkenazi Jewish women, these patterns include 2 first-degree relatives with breast cancer, 1 of whom received the diagnosis at age 50 years or younger; a combination of 3 or more first- or second-degree relatives with breast cancer regardless of age at diagnosis; a combination of both breast and ovarian cancer among first- and second-degree relatives; a first-degree relative with bilateral breast cancer; a combination of 2 or more first- or second-degree relatives with ovarian cancer regardless of age at diagnosis; a first- or second-degree relative with both breast and ovarian cancer at any age; and a history of breast cancer in a male relative.
For women of Ashkenazi Jewish heritage, an increased-risk family history includes any first-degree relative (or 2 second-degree relatives on the same side of the family) with breast or ovarian cancer.

[2] At risk women include those who have HIV, are immunosuppressed, were exposed to diethylstilbestrol (DES) *in utero*, and have been treated for cervical intraepithelial neoplasia (CIN) 2, CIN 3, or cervical cancer.

[3] Risk factors include: diagnosis in a first-degree relative under age 60 or 2 such relatives of any age; specific genetic syndromes; inflammatory bowel disease; and noncancerous polyps. High-risk patients should be screened more frequently using complete colonoscopy at clinician/patient discretion.

[4] Each of the screening strategies has advantages and disadvantages. Screen patients after discussion of the effectiveness, strength of evidence, risks, and complexity of each testing strategy to ensure an informed choice.

[5] At risk: fair-skinned men and women older than 65 years, patients with atypical moles, and those with more than 50 moles constitute known groups at substantially increased risk for melanoma. Other risk factors for skin cancer include family history and a considerable past history of sun exposure and sunburns.

[6] Risk factors include: history of chlamydial or other sexually transmitted infection, new or multiple sexual partners, inconsistent condom use, and exchanging sex for money or drugs**.**

[7] 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.

[8] 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.**.**

[9] Risk factors for HCV infection include current or past intravenous drug use, transfusion before 1990, dialysis, 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.

[10] 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.

[11] Persons at risk include: close contacts of persons known or suspected to have TB; having HIV infection; coming from a country where TB is very common; having injected illicit drugs; living in U.S. where TB is more common *(e.g., shelters, migrant farm camps, prisons)*; health care worker; or spending time with others with these risk factors.
[12] If BMI ≥25, then as a general rule, an unhealthy waist circumference if >35 in. (women) or >40 in. (men)
[13] High risk factors include diabetes; personal history of CHD or non-coronary atherosclerosis (e.g. abdominal aortic aneurysm, peripheral artery disease, carotid artery stenosis); family history of premature heart disease (before age 50 in male relatives or age 60 in female relatives); hypertension;; tobacco use; obesity (BME ≥30).
[14] Risk factors include: physical inactivity; first-degree relative with diabetes; member of high-risk ethnic population (e.g. African American, Latino, Native American, Asian-American, Pacific Islander); women who delivered baby weighing ?9 lb or were dignosed with GDM; HDL cholesterol level <35 mg/dl and/or triglyceride level >250 mg.dl; women with polysystic ovarian syndrome, impaired glucose tolerance on previous testing; history of cardiovascular disease

[15] Risk factors include: lower body weight (<70 kg); no current use of estrogen therapy and low weight

[16] See risk charts in USPSTF pocket *Guide to Clinical Preventive Services 2009* pp. 57-64.
[17] [17] "At risk" includes: persons with chronic liver disease, including persons with hepatitis B and C; persons who use injection drugs; men who have sex with men; persons who receive clotting-factor concentrates; persons who work with hepatitis A virus in experimental lab settings; persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A. Persons who anticipate close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60 days after arrival of the adoptee should consider vaccination.

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[18] At risk includes: household contacts and sex partners of HBsAg-positive persons; injection drug users; sexually active persons not in a long-term, mutually monogamous relationship; men who have sex with men; persons seeking evaluation or treatment for a sexually transmitted disease; persons with HIV infection; persons receiving hemodialysis and those with renal disease that may result in dialysis; healthcare personnel and public safety workers who are exposed to blood or other potentially infectious body fluids; clients and staff of institutions for the developmentally disabled; inmates of long-term correctional facilities; persons with chronic liver disease; international travelers to countries with high or intermediate prevalence of Chronic HBV infection..
[19] High risk persons include those with sickle cell disease, leukemia, or HIV infection and those who have had a splenectomy.

[20] At risk persons include: those with chronic disorders of cardiovascular or pulmonary systems, including asthma; those with chronic metabolic diseases, including diabetes mellitus; those with renal or hepatic dysfunction, hemoglobinopathies, or immunocompromising conditions; those with cognitive, neurologic or neuromuscular disorders; those who are pregnant during the influenza season; all healthcare personnel and caregivers of children <5 yrs.; residents of nursing homes and other long-term care and assisted-living facilities; and persons likely to transmit influenza to persons at high risk.
[21] At risk includes adults living in community experiencing a mumps or measles outbreak, students in postsecondary schools, those working in a health-care facility, those who plan to travel internationally; and (for measles) at risk includes those recently exposed to measles, those vaccinated previously with killed measles vaccine, those vaccinated with unknown type of measles vaccine during 1963-1967.

[22] At risk includes persons who have chronic cardiovascular or pulmonary disease including asthma, chronic liver diseases, cirrhosis, alcoholism, diabetes, functional or anatomic asplenia, immunocompromising conditions including chronic renal failure or nephritic syndrome, and cochlear implants and cerebrospinal fluid leaks. Vaccinate as close to HIV diagnosis as possible. Others at risk include residents of nursing homes or long-term care facilities and persons who smoke cigarettes.

REFERENCES

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