Complete Summary

GUIDELINE TITLE

Preventive services in adults.

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Preventive services in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2005 Oct. 81 p. [145 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Preventive services for adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2004 Sep. 51 p.

COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
QUALIFYING STATEMENTS
IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

Preventable diseases or conditions, such as:

- Cardiovascular disease
- Tobacco or alcohol use/abuse
- Infectious diseases, such as pneumococcal pneumonia and influenza
- Cervical cancer, colon cancer, breast cancer
- Diabetes
- Hypertension
- Vision impairment

- Sexually transmitted diseases (chlamydia, gonorrhea, human immunodeficiency virus [HIV], syphilis)
- Dyslipidemia
- Depression
- Hearing impairment
- Traumatic injury due to motor vehicle and bicycle accidents, fire injury, falls, hot water burns, firearm injuries
- Obesity
- Osteoporosis

The guideline developers also discuss, but make not specific recommendations for, preventive services related to the following conditions:

- Anxiety and stress
- Dental and periodontal diseases
- Domestic violence and abuse
- Drug abuse
- Menopause
- Preconception/maternal health
- Skin cancer
- Unintended pregnancy

GUIDELINE CATEGORY

Counseling
Evaluation
Prevention
Risk Assessment
Screening

CLINICAL SPECIALTY

Family Practice
Geriatrics
Internal Medicine
Obstetrics and Gynecology
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To provide a comprehensive approach to the provision of preventive services, counseling, education, and disease screening for average-risk, asymptomatic adults
- To increase regular use of health risk assessments
- To increase the percentage of patients with all priority preventive services up-to-date

TARGET POPULATION

Average-risk, asymptomatic adults

Note: This guideline generally does not address the needs of pregnant women, individuals with chronic disorders, or high-risk populations (there are occasional exceptions where noted).

INTERVENTIONS AND PRACTICES CONSIDERED

Screening

Screening maneuvers including:

- Risk stratification and health assessment
- Tobacco use screening
- Papanicolaou smear
- Colon cancer screening
- Hypertension screening via blood pressure measurement
- Vision screening via objective visual acuity testing (Snellen chart)
- Mammogram
- Testing for sexually transmitted diseases (STDs) (chlamydia, gonorrhea, human immunodeficiency virus [HIV], syphilis)
- Problem drinking screening
- Total cholesterol and high-density lipoprotein (HDL) measurement
- Depression screening
- Subjective hearing testing
- Height and weight measurement and calculation of body mass index (BMI)
- Osteoporosis screening via bone mineral density (BMD) testing

Counseling

Counseling and education on the following topics:

- Tobacco cessation
- Alcohol use/abuse
- STD prevention
- Injury prevention
- Nutrition
- Physical activity

Prevention

1. Aspirin prophylaxis
2. Immunizations, including:

- Influenza vaccine
- Pneumococcal vaccine

Additionally, the following preventive services are discussed, but there is insufficient evidence to warrant a recommendation:

- Genital herpes screening
- Counseling about advance directives
- Counseling about anxiety and stress
- Clinical breast examination
- Counseling about dental and periodontal health
- Screening for and counseling about domestic violence and abuse
- Screening for and counseling about drug abuse
- Hormone replacement therapy for menopause
- Preconception counseling
- Screening for and counseling about skin cancer
- Counseling about unintended pregnancy prevention

MAJOR OUTCOMES CONSIDERED

- Effectiveness of screening tests
- Effectiveness of counseling and education
- Effectiveness of immunization and chemoprophylaxis
- Predictive value of screening tests

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Key conclusions (as determined by the work group) are supported by a conclusion grading worksheet that summarizes the important studies pertaining to the conclusion. Individual studies are classed according to the system presented

below, and are designated as positive, negative, or neutral to reflect the study quality.

Conclusion Grades:

Grade I: The evidence consists of results from studies of strong design for answering the question addressed. The results are both clinically important and consistent with minor exceptions at most. The results are free of any significant doubts about generalizability, bias, and flaws in research design. Studies with negative results have sufficiently large samples to have adequate statistical power.

Grade II: The evidence consists of results from studies of strong design for answering the question addressed, but there is some uncertainty attached to the conclusion because of inconsistencies among the results from the studies or because of minor doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from weaker designs for the question addressed, but the results have been confirmed in separate studies and are consistent with minor exceptions at most.

Grade III: The evidence consists of results from studies of strong design for answering the question addressed, but there is substantial uncertainty attached to the conclusion because of inconsistencies among the results of different studies or because of serious doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from a limited number of studies of weak design for answering the question addressed.

Grade Not Assignable: There is no evidence available that directly supports or refutes the conclusion.

Study Quality Designations:

The quality of the primary research reports and systematic reviews are designated in the following ways on the conclusion grading worksheets:

Positive: indicates that the report or review has clearly addressed issues of inclusion/exclusion, bias, generalizability, and data collection and analysis.

Negative: indicates that these issues (inclusion/exclusion, bias, generalizability, and data collection and analysis) have not been adequately addressed.

Neutral: indicates that the report or review is neither exceptionally strong nor exceptionally weak.

Not Applicable: indicates that the report is not a primary reference or a systematic review and therefore the quality has not been assessed.

Classes of Research Reports:

A. Primary Reports of New Data Collection:

Class A:

- Randomized, controlled trial

Class B:

- Cohort study

Class C:

- Nonrandomized trial with concurrent or historical controls
- Case-control study
- Study of sensitivity and specificity of a diagnostic test
- Population-based descriptive study

Class D:

- Cross-sectional study
- Case series
- Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports:

Class M:

- Meta-analysis
- Systematic review
- Decision analysis
- Cost-effectiveness analysis

Class R:

- Consensus statement
- Consensus report
- Narrative review

Class X:

- Medical opinion

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

The guideline developers reviewed published cost analyses.

METHOD OF GUIDELINE VALIDATION

Clinical Validation-Pilot Testing
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Institute Partners: System-Wide Review

The guideline annotation, discussion, and measurement specification documents undergo thorough review. Written comments are solicited from clinical, measurement, and management experts from within the member groups during an eight-week review period.

Each of the Institute's participating member groups determines its own process for distributing the guideline and obtaining feedback. Clinicians are asked to suggest modifications based on their understanding of the clinical literature coupled with their clinical expertise. Representatives from all departments involved in implementation and measurement review the guideline to determine its operational impact. Measurement specifications for selected measures are developed by the Institute for Clinical Systems Improvement (ICSI) in collaboration with participating member groups following implementation of the guideline. The specifications suggest approaches to operationalizing the measure.

Guideline Work Group

Following the completion of the review period, the guideline work group meets 1 to 2 times to review the input received. The original guideline is revised as necessary, and a written response is prepared to address each of the responses received from member groups. Two members of the Committee on Evidence Based Practice carefully review the input, the work group responses, and the revised draft of the guideline. They report to the entire committee their assessment of four questions: (1) Is there consensus among all ICSI member groups and hospitals on the content of the guideline document? (2) Has the drafting work group answered all criticisms reasonably from the member groups? (3) Within the knowledge of the appointed reviewer, is the evidence cited in the document current and not out-of-date? (4) Is the document sufficiently similar to the prior edition that a more thorough review (critical review) is not needed by the member group? The committee then either approves the guideline for release as submitted or negotiates changes with the work group representative present at the meeting.

Pilot Test

Member groups may introduce the guideline at pilot sites, providing training to the clinical staff and incorporating it into the organization's scheduling, computer, and other practice systems. Evaluation and assessment occurs throughout the pilot test phase, which usually lasts for three-six months. At the end of the pilot test phase, ICSI staff and the leader of the work group conduct an interview with the member groups participating in the pilot test phase to review their experience and gather comments, suggestions, and implementation tools.

The guideline work group meets to review the pilot sites' experiences and makes the necessary revisions to the guideline, and the Committee on Evidence Based Practice reviews the revised guideline and approves it for release.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC) and the Institute for Clinical Systems Improvement (ICSI): In addition to updating their clinical guidance, ICSI has developed a new format for all guidelines. Key additions and changes include combination of the annotation and discussion section; the addition of "Key Points" at the beginning of most annotations; the inclusion of references supporting the recommendations; and a complete list of references in the Supporting Evidence section of the guideline. For a description of what has changed since the previous version of this guidance, refer to "Summary of Changes -- October 2005."

Recommendations for preventive services in adults are presented in the form of an algorithm with 8 components, accompanied by detailed annotations. An algorithm is provided for Preventive Services in Adults. Clinical highlights and selected annotations (numbered to correspond with the algorithm) follow.

The services in this guideline are organized into three groups, based on their evidence of effectiveness and their priority ranking, as follows:

I. High ranking, evidence-based services
II. Lower ranking, evidence-based services
III. Services that address important health issues, but with insufficient evidence of effectiveness to warrant recommendation or ranking

Class of evidence (A-D, M, R, X) and conclusion grade (I-III, Not Assignable) definitions are repeated at the end of the "Major Recommendations" field.

Clinical Highlights

1. All clinic visits, whether acute, chronic, or for preventive services are opportunities for prevention. Incorporate assessment of preventive service needs as appropriate. (Annotation #3)
2. Assess patients for risk factors at periodic intervals. (Annotation #2)
3. Address or initiate priority services as indicated:

a. Aspirin prophylaxis
b. Tobacco cessation counseling
c. Influenza vaccination
d. Cancer screening (colon, breast, & cervical)
e. Hypertension screening
f. Vision screening
g. Chlamydia & gonorrhea screening
h. Pneumococcal vaccination
i. Problem drinking
j. Total cholesterol and high-density (HDL) cholesterol screening

(Annotation #4)

Preventive Services for Adults Algorithm Annotations

2. Perform Risk Stratification and Health Assessment at Least Every Five Years

   In order to provide preventive services, it is first necessary to know which services are needed by individual patients. This includes both knowing when their last services were provided and what risk factors they have. This information may be most efficiently collected through the use of questionnaires or automated ways of combining information from the medical record with patient-collected information. Nursing or reception staff can collect this information, or increasingly it may be collectible through internet and web-based technologies. As important as collecting it thoroughly once, though, is to have some way to update the information at regular intervals. One-on-one interviews by clinicians are the least efficient way to obtain or update this information.

   Sample preventive risk assessment forms are available through the ICSI Knowledge Products in the "Support for Implementation" section of the original guideline document.

4. Address or Initiate High Priority Services as Indicated

   Preventive Services Delivery Schedule: High Priority Services

Service	19-39 Years	40-64 Years	Over 65 Years
Aspirin Prophylaxis	Discuss with postmenopausal women, men above age 40, and younger men and women who are at increased risk for coronary heart disease (CHD).		
Tobacco Cessation Counseling	Assess adults for tobacco use and provide ongoing cessation services		
Influenza Vaccine	Annually between October and March for individuals age 50 and older, those at high risk, and others.		
Cervical Cancer Screening - Pap Smear	Beginning at age 21 or three years after first sexual intercourse,	Every 3 yrs after 3 consecutive normal results	65yr + women with new sexual partner

Service	19-39 Years	40-64 Years	Over 65 Years
	whichever is earlier; every 3 yrs after 3 consecutive normal results		
Colon Cancer Screening		Ages 50-79 years	
Hypertension Screening	Blood pressure every 2 years if less than 120/80; every year if 120-139/80-89 mmHg		
Vision Screening			Asymptomatic elderly adults
Breast Cancer Screening		Annual mammogram for women age 40 to 49 years with high risk factors. Mammogram every 1 to 2 yrs for women age 50 to 75 years.	Mammogram every 1 to 2 yrs for women age 50 to 75 years.
Chlamydia and Gonorrhea Screening	All sexually active women aged 25 years and younger, and other asymptomatic women at increased risk for infection		
Pneumococcal (PPV 23) Vaccine	Immunize high-risk groups once. Re-immunize those at risk of losing immunity once after 5 years.		Immunize at 65 if not done previously. Re-immunize once if 1st received > 5 years ago and before age 65.
Problem Drinking Screening	Screen for problem drinking among adults and provide brief counseling.		
Total Cholesterol and HDL Cholesterol	Fasting fractionated lipid screening for men over age 34 every five years	Fasting fractionated lipid screening for men over age 34 and women over age 44 every five years.	

4a. Aspirin Prophylaxis

Services

Aspirin prophylaxis should be discussed with postmenopausal women, men above the age of 40, and younger men and women who are at increased risk for coronary heart disease (CHD) because of tobacco use, dyslipidemia, hypertension, or family history of premature CHD.

Efficacy

U.S. Preventive Services Task Force (USPSTF) guideline recommends a discussion of aspirin therapy for primary prevention of myocardial infarction with patients at risk of coronary heart disease (CHD).

Estimates of the magnitude of benefits and harms of aspirin therapy vary with an individual's risk for CHD. Estimates of benefits and harms of aspirin therapy to 1,000 individuals is as follows: CHD events avoided, 1-20; major gastrointestinal bleeding events caused, 2-4; hemorrhagic strokes caused, 0-2.

Using a risk calculator provides a more accurate estimate of cardiovascular risk. Prior to publication of the nurses health study results, the USPSTF concluded that the balance of benefits and harms from aspirin chemoprophylaxis is most favorable in patients at high risk for CHD (5-year risk greater than or equal to 3%), including all postmenopausal women and all men over the age 40.

The optimum dosage of aspirin therapy is not known. Doses of 81 mg per day appear as effective as higher doses.

Evidence supporting this recommendation is of classes: A, M

4b. Tobacco Use (and Dependence)

Services

Establish tobacco use status for all patients. Provide ongoing cessation services at every opportunity to all tobacco users.

Establish secondhand smoke exposure status for all patients. Advise all patients exposed to secondhand smoke that exposure is harmful. Encourage a smoke-free living and working environment for patients, and assist the exposed patient to communicate with other household members about decreasing smoke in their house. Encourage the patient to support smoking cessation efforts among other household members who use tobacco.

Efficacy

Tobacco use is the single most preventable cause of death and disease in our society. There is good evidence that office-based interventions are effective. Tobacco cessation services are most effective when offered on a regular basis to all patients who use tobacco. The key components of successful office tobacco cessation interventions are:

- Ask about tobacco use and smoke exposure at every opportunity.
- Advise all users to quit.
- Assess willingness to make a quit effort.
- Assist users who are willing to make a quit attempt.
- Arrange follow-up.

These components are best carried out when the entire office staff is organized to provide these services.

Three treatment elements are effective for tobacco cessation intervention: pharmacotherapy, social support for cessation, and skills training/problem-

solving. The more intense the treatment, the more effective it is in achieving long-term abstinence from tobacco.

The recommended office intervention incorporates the scientifically-based concept of readiness stages for behavior change. It appears that these stages can focus the clinician message and make it more effective and feasible.

The recommended intervention includes promoting a smoke-free living environment because secondhand smoke is a major contributor to tobacco-related health problems.

Structured physician office-based smoking cessation counseling is more effective in reducing smoking rates than usual care. The addition of telephone-based counseling may result in further improvements in cessation. [Conclusion Grade II: See Conclusion Grading Worksheet -- Appendix A -- Annotation #4b (Smoking Cessation Counseling) in the original guideline document]

Counseling Messages

- Advise tobacco users to quit.
- Assess user's willingness to make a quit attempt.
- Provide counseling depending on readiness-to-quit stage. Provide a motivational intervention if the user is not ready to make a quit effort.
- Assist (in quitting) if ready to make a quit effort. Negotiate a quit date. Counsel to support cessation and build abstinence skills. Discuss pharmacotherapy. Offer phone line for more assistance.
- Arrange follow-up.

References/Related Guidelines

See the NGC summary of the ICSI guideline Tobacco Use Prevention and Cessation for Adults and Mature Adolescents.

Evidence supporting this recommendation is of class: R

4c. Influenza Vaccine

Services

Annually between October and March for individuals age 50 and older, those at high risk, and others.

References/Related Guidelines

See the NGC summary of the ICSI guideline Immunizations.

Evidence supporting this recommendation is of class: R

4d. Cancer Screening (Colon, Breast and Cervical)

Colorectal Cancer

Key Points:

- Patients between the ages of 50 and 79 should be screened for colorectal cancer at appropriate intervals as determined by whichever screening method is chosen.
- Several different screening methods (fecal occult blood testing, flexible sigmoidoscopy, total colon evaluation, or a combination of methods) are all effective.
- The screening method utilized should be determined by joint decision making by the patient and provider.

Services

The ICSI Colorectal Cancer Screening guideline recommends screening for colorectal cancer in average risk patients 50 to 79 years of age. While the best data available support screening between ages 50 and 79, otherwise healthy individuals over the age of 80 may be candidates for screening if their presumed life expectancy is 8 or more years.

Average-risk patients are considered to be individuals with no personal history of polyps or colorectal cancer, no family history of colorectal cancer (one first order relative diagnosed before age 65 or two first order relatives diagnosed at any age), and no family history of adenomatous polyps (first order relative diagnosed before age 60).

Patients with a history of prior adenomatous polyp with villous component or any adenomatous polyp >10 mm, long-standing chronic ulcerative colitis, or a family history of familial polyposis coli or non-polyposis hereditary colorectal cancer are considered to be at high-risk for developing colorectal cancer. These individuals require colonoscopic surveillance every 3 to 5 years and fall outside the scope of this guideline.

There is no single "best" test for colorectal cancer screening and the final choice is often best made jointly, based on the clinical judgment of a well informed provider and the preferences of a well informed patient.

Efficacy

The guideline summarizes the evidence for the effectiveness of the various screening tests commonly used for colorectal cancer screening.

Both annual fecal occult blood testing (FOBT) and 60 cm flexible sigmoidoscopy performed every five years have proven benefit in detecting colorectal cancer and adenomatous polyps. The guideline workgroup did not reach absolute consensus as to which screening test is preferable, but does advocate screening by one or both tests. The high false positive rate of FOBT, the inability of flexible sigmoidoscopy to visualize the entire colon, and at least one report that one time combined screening failed to detect 24% of advanced colonic neoplasia, were all noted.

If in the judgment of the provider an examination of the whole colon and rectum is desired, this can be accomplished by either colonoscopy every 5 to 10 years, double contrast barium enema (DCBE) every 5 years, or flexible sigmoidoscopy combined with fluoroscopic barium enema every 5 years. While it is reasonable to assume that these screening methods are as effective as FOBT or flexible sigmoidoscopy, they are not supported by direct evidence that they reduce colorectal cancer mortality. The increased cost, greater risk of colonic perforation, more extensive preparation, and need for greater sedation were all noted.

Computed tomography (CT) colonography (CTC, or "virtual colonoscopy") is superior to FOBT, flexible sigmoidoscopy, and barium enema, and is a viable alternative to colonoscopy for colorectal cancer screening. Its use is limited by cost and reimbursement issues, the high number of extracolonic findings requiring further evaluation, and other issues. CTC may be indicated in settings where the proximal colon cannot be examined by conventional colonoscopy, or in patients where colonoscopy is relatively contraindicated (e.g., anticoagulation).

References/Related Guidelines

See the NGC summary of the ICSI guideline Colorectal Cancer Screening.

Evidence supporting this recommendation is of class: R

Breast Cancer -- Mammogram

Services

Screening mammogram every 1 to 2 years is recommended for women age 50 to 75 years.

Mammograms may be performed at the mutual consent of the patient and provider in women over the age of 75.

Women age 40 to 49 years with high risk factors should initiate annual screening. High risk factors include:

- Previous breast biopsy demonstrating atypical hyperplasia
- Family history of breast cancer in the patient's mother, sister, or daughter
- Past personal history of breast cancer

The evidence for mortality reduction for low risk women of this age group is less clear.

Efficacy

The most important tool in the early detection of breast cancer is screening mammography. The USPSTF updated its recommendation in 2002, finding "fair evidence that mammography screening every 12 to 33 months

significantly reduces mortality from breast cancer." They concluded that the evidence is strongest for women aged 50 to 69 and that the clinical trials reveal no clear difference due to interval within the 12 to 33-month time range. Their recommendation is for "mammography, with or without clinical breast exam (CBE) every 1 to 2 years for women aged 40 and older." This extension to the 40 to 49 year old group has been controversial.

References/Related Guidelines

See the NGC summary of the ICSI guideline Diagnosis of Breast Disease.

Evidence supporting this recommendation is of classes: M, R

Cervical Cancer

Services

Initially, all women should have annual Pap smear screening beginning at age 21 or three years after first sexual intercourse, whichever is earlier. After three consecutive normal Pap smears, women may have their screening performed less frequently at the discretion of the clinician and patient. Screening for cervical cancer should be performed every three years.

Patients with a history of dysplasia should have Pap smears at least annually until they no longer have a history of dysplasia within the last five years. At this point they need not be repeated more frequently than the standard recommendation.

For women who have had a total hysterectomy for benign disease, who also have no history of cervical intraepithelial neoplasia (CIN) 2/3, no Pap smear is indicated. For those with a history of CIN 2/3, screening may be discontinued once three consecutive normal Pap smears, within a ten-year period, have been obtained.

After age 65, there is no clear evidence on the need for Pap smears in women who have had previous adequate screening. Women age 65 and older who have a new sexual partner should resume routine screening.

Counseling Messages

Implementing the decrease in frequency of Pap smear screening will require a transitional time of education for patients and physicians and will require clinics to reconsider what should be recommended to women for frequency of preventive health visits. This will be complicated by the need to readdress protocols for contraceptive and hormone refill visits and mammogram scheduling. Hopefully further recommendations will be forthcoming in the literature regarding these issues.

It is important to be aware of most recent Pap smear screening at the time of visits other than scheduled preventive care, as multiple studies indicate that over 50% of cervical cancers occur in women who have never been screened.

References/Related Guidelines

See the NGC summary of the ICSI guideline Cervical Cancer Screening.

Evidence supporting this recommendation is of classes: B, R

4e. Hypertension

Key Points:

- Check blood pressure at least every 2 years.
- Promote a healthy lifestyle to optimize blood pressure control.
- Target blood pressure goal in context of additional cardiovascular risk factors.

Services

To detect and monitor hypertension, blood pressure should be measured at least every two years for adults with BP less than 120/80 and every year if BP is 120-139/80-89 mmHg. Higher blood pressures should be confirmed and managed per protocol. As a practical matter, this standard may be most reliably implemented if blood pressure is measured at every patient visit.

Efficacy

Periodic Screening in Adults at Patient Visits

Hypertension is an important public health problem that affects 25 to 30% of adult Americans. Hypertension is a major risk factor for ischemic heart disease, left ventricular hypertrophy, renal failure, stroke, and dementia. Conversely blood pressure control is correlated with a reduction in incidence of myocardial infarctions, strokes, and heart failure.

Standardized Blood Pressure Measurement

Accurate, reproducible blood pressure measurement is necessary to ensure correct blood pressure classification and to allow valid comparisons among serial pressure recordings.

Blood Pressure Screening Classification

The relationship between blood pressure measurement and vascular risk is continuous and graded. The risk of cardiovascular disease doubles with each increment of 20/10 above 115/75. Thus the classification of adult blood pressure is somewhat arbitrary.

Confirming Elevation/Education and Risk Factor Assessment

A proposed follow-up schedule based on the initial blood pressure level as well as diabetes, cardiovascular or renal disease and risk factors is noted in

the Hypertension Diagnosis and Treatment guideline (see NGC summary of the ICSI guideline). Recommend blood pressure confirmation and follow-up within 2 months if the blood pressure is 140-159/90-94. Recommend blood pressure confirmation and follow-up within 1 month if the blood pressure is > 160/100.

Counseling Messages

- If BP is greater than 120/80, it needs to be confirmed and evaluated in the context of the patient's risk factors.

While the evidence is limited, clinicians may consider encouraging patients to modify lifestyle to promote blood pressure control, especially in the presence of additional risk factors for vascular disease, such as dyslipidemia or diabetes mellitus. Important modifications include weight loss if overweight, limiting alcohol use, nicotine abstinence, increased physical activity and reduced dietary sodium and increased potassium and calcium intake.

References/Related Guidelines

See the NGC summary of the ICSI guideline Hypertension Diagnosis and Treatment.

Evidence supporting this recommendation is of classes: B, C, M, R

4f. Vision Screening

Services

Objective vision testing (Snellen chart) is recommended only for asymptomatic elderly adults.

Efficacy

No studies have directly demonstrated a relationship between vision screening and improved usual corrected vision, improved quality of life, or activities of daily living. Vision screening has been recommended for elderly adults by the USPSTF based upon separate evidence of high prevalence of under-corrected impairments, the accuracy of screening tests, the effectiveness of eye glasses, and the willingness of some individuals to follow-through with additional screening and purchase of eye glasses.

A review of epidemiologic studies conducted in the United States, United Kingdom, and Australia concluded that the prevalence of under-corrected visual impairment is about 10% between the ages of 65 and 75 and 20% above the age of 75. These summary estimates include only one U.S. study, but are generally consistent with other U.S. studies.

Evidence supporting this recommendation is of classes: A, B, C, R

Sexually Transmitted Diseases

Services

Routine screening for gonorrhea and chlamydia by endocervical sampling is recommended for all sexually active women aged 25 years and younger, and other asymptomatic women at increased risk for infection. Risk assessment is determined by a history of:

- Commercial sex work
- Repeated episodes of sexually transmitted diseases (STD's) or
- Sexually active women age 25 and younger

Screening in high-risk men lacks sufficient evidence, and routine screening of low-risk adults is not recommended.

Routine screening for human immunodeficiency virus (HIV) should be offered to all persons at high risk after assessing the following risk factors:

- Those seeking treatment for any standard STD
- Men who have had sex with men after 1975
- Any history of injection drug use
- Commercial sex work
- Past or present sex partner with HIV, bisexuality, or injection drug use
- History of blood transfusion between 1978 and 1985

There is insufficient evidence to recommend for or against routine HIV screening in low-risk persons.

Routine screening for syphilis is recommended for all persons at high risk after assessing the following risk factors:

- Commercial sex work
- Presence of other STDs
- Sexual contact with active syphilis

Routine screening for genital herpes simplex in asymptomatic persons is not recommended.

Efficacy

The most efficacious means of reducing the risk of acquiring acquired immune deficiency syndrome (AIDS) or other sexually transmitted diseases through sexual contact is either abstinence from sexual relations or maintenance of a mutually monogamous sexual relationship with an uninfected partner. Condoms have been shown in the laboratory to prevent transmission of chlamydia trachomatis, herpes simplex virus, trichomonas, cytomegalovirus, and HIV. Even under optimal conditions, however, condoms are not always efficacious in preventing transmission. Condom failures occur at an estimated rate of 10 to 15% either as a result of product failure or as a result of incorrect or inconsistent use. There have been few studies examining the effectiveness of physicians in influencing the sexual behavior of patients. Studies of clinic-based educational programs, which in some cases have

included physician counseling as a component, have reported increased rate of return for test-of-cure and reduced incidence of certain sexually transmitted diseases, but these studies involved select populations and provided little evidence of change in sexual behavior. Although it has not been proven that physicians can change the sexual behavior of patients, there is evidence that the frequency of high-risk behaviors can be reduced in response to information provided through public education. Clinicians can play an important role in asymptomatic persons by reinforcing and clarifying educational messages, providing literature and community resource references and dispelling misconceptions about unproven modes of transmission.

Counseling Messages

Empathy, confidentiality, and a non-judgmental, supportive attitude are important when discussing issues of sexuality. Messages should be delivered both verbally and in the form of educational materials.

A complete sexual and drug history should be obtained on all adolescents and adults.

Please note that this guideline discusses primary prevention of STDs through the adoption of safer sexual practices. It does not address patient education messages after an STD is diagnosed.

Preventive counseling should be given at preventive care visits beginning at age 12, or earlier if sexually active. These visits will frequently include education and counseling regarding contraception and pregnancy. These messages should also be given as indicated by clinical discretion (e.g., genitourinary symptoms).

- Reinforce the fact that abstinence is the most effective means to decrease STD risk.
- Reinforce the fact that a mutually monogamous relationship with a partner known not to be infected is effective in decreasing STD risk.
- Encourage safer sexual practices including regular use of latex condoms.
- Reinforce increased risk of contractive STDs associated with multiple partners.
- Reinforce avoiding sexual contact with high-risk partners (e.g., intravenous drug users, commercial sex workers, and persons with numerous sexual partners).
- Emphasize that alcohol/drug use is associated with high-risk sexual behavior.
- Inform women at risk that spermicides and female barrier contraceptive methods (e.g., diaphragm or cervical cap) can reduce the risk of gonorrhea and chlamydia.
- More information is available including the proper use of condoms if indicated; see the "Recommended Resources" in the Support for Implementation section of the original guideline document.

References/Related Guidelines

See Annotation Appendix C, "Counseling and Education Tools: Sexual Practices" in the original guideline document and the ICSI Preventive Services Risk Assessment Forms for tools regarding obtaining a sexual and drug history.

Evidence supporting this recommendation is of classes: C, D, R

4h. Pneumococcal Vaccination

Services

Immunize high-risk groups once. Re-immunize those at risk of losing immunity once after 5 years. Immunize at 65 if not done previously. Re-immunize once if 1st received >5 years ago and before age 65.

References/Related Guidelines

See the NGC summary of the ICSI guideline Immunizations

Evidence supporting this recommendation is of class: R

4i. Problem Drinking

Services

The goal is to identify those with risky or hazardous drinking as well as those who have carried that behavior to the point of meeting criteria for dependence, and then provide a brief intervention. In the U.S., risky/hazardous drinking is defined as the number of standard drinks (12 oz. beer, 1 glass of wine, or mixed drink) in a given time period:

- Women: greater than 7 drinks/week or greater than 3 drinks/occasion
- Men: greater than 14 drinks/week or greater than 4 drinks/occasion

This can be done by having the clinician or (preferably) rooming nurse simply ask about the quantity drunk, using a simple questionnaire with the same questions on it, or using a formal validated screening questionnaire, of which the AUDIT is best (10 questions, created by the World Health Organization [WHO], extensively validated, and included in Appendix B, "Counseling and Education Tools: Problem Drinking" of the original guideline document).

Other questionnaires, especially the 4 question CAGE (also in Appendix B of the original guideline document) are primarily designed to identify those with dependence, so don't include questions about the quantity/frequency.

Efficacy

The U.S. Preventive Services Task Force in 2004 "found good evidence that screening in primary care settings can accurately identify patients whose levels or patterns of alcohol consumption do not meet criteria for alcohol dependence, but place them at risk for increased morbidity and mortality." It

also "found good evidence that brief behavioral counseling interventions with follow-up produce small to moderate reductions in alcohol consumption that are sustained over 6- to 12-month periods or longer." It gave these recommendations a B rating.

Counseling Messages

Brief counseling should follow the 5A model (a variation on tobacco intervention guideline):

- Assess current and historical use of alcohol.
- Advise patients to reduce use to moderate levels.
- Agree on individual goals for reduction or abstinence.
- Assist with motivation, skills, and supports.
- Arrange follow-up support and repeated counseling, including referral if needed.

Other messages that may be of value include:

- Advise all females of childbearing age of the harmful effects of alcohol on a fetus and the need for cessation during pregnancy.
- Reinforce not drinking and driving.
- Don't ride with someone under the influence of alcohol and prevent them from driving.

Evidence supporting this recommendation is of classes: M, R

4j. Dyslipidemia (Total Cholesterol and HDL-Cholesterol)

Key Points:

- Screen men over age 34 and women over age 44 with serum cholesterol fractionation measurement every five years.
- The decision to screen men aged 20 to 34, and women aged 20 to 44, should be based on risk for coronary heart disease (CHD) and the individual preferences of the patient.
- Patients with low-density lipoprotein (LDL)-cholesterol 130 mg/dL or more, or HDL-cholesterol less then 40 mg/dL, or with a triglyceride level of 200 mg/dL or more should be case managed.

Services and Counseling Messages

A fasting fractionated lipid screening is recommended for men over age 34 and women over age 44 every five years.

If probability of a return visit is low and patient is not fasting, consider checking total cholesterol and HDL-cholesterol.

If available, also consider measuring direct LDL-cholesterol.

Based on risk assessment, patients and providers should discuss the issues surrounding lipid screening with men between the ages of 20 and 34 years and women between the ages of 20 and 44 years. A specific example would be the need to screen those men aged 20 to 34 years and women aged 20 to 44 years with first-degree relatives with total cholesterol greater than 300 or history of premature CHD. Refer to the NGC summary of the ICSI's guideline Lipid Screening in Children and Adolescents.

Individuals with total cholesterol less than 200, LDL less than 130, triglyceride less than 200, and HDL of 40 or above have a desirable cholesterol level and should be advised to repeat cholesterol fractionation in 5 years.

Individuals with total cholesterol greater than or equal to 200, LDL greater than or equal to 130, triglyceride greater than or equal to 200, and HDL less than 40 may be at higher risk of vascular disease and these patients should be case managed.

Patients should not be screened who:

- Have histories of CHD, cerebrovascular disease (CVD), peripheral vascular disease (PVD), diabetes mellitus (DM), metabolic syndrome, or who are being case managed for dyslipidemia. Their disease management will involve a more aggressive approach to lipid monitoring.
- Have health status or life expectancy which would not be affected by knowledge of their lipid status (e.g., those with comorbid conditions such as terminal cancer).
- Are in circumstances where cholesterol levels may not represent their usual levels. These situations include acute illness, hospitalization, unintended weight loss, pregnancy, or lactation within the previous three months. Screening should be delayed under these circumstances.

Lipid testing is recommended because elevated LDL, elevated triglycerides, or/and low HDL are important risk factors for CHD. Treatment of these risk factors is readily available and significantly decreases the risk for CHD.

Efficacy

There is good evidence that lipid measurements can identify in men greater than age 34 years and women greater than age 44 years individuals at increased risk of CHD and good evidence that treatment substantially reduces the incidence of CHD.

No clinical trials address the treatment of dyslipidemia among men aged 20 to 34 years and among women aged 20 to 44 years. Screening should be individualized for patients in these age groups.

Fractionated cholesterol is the most effective screening test for dyslipidemia because elevated LDL and triglycerides or low HDL are risk factors for vascular disease.

Some patients should not be offered lipid screening as outlined in this guideline. It is well recognized that cholesterol interpretation depends on the presence of other risk factors for large vessel disease. Patients with diabetes mellitus are at high risk for large vessel disease and for that reason should undergo aggressive lipid management. Patients with CAD, PVD, and/or CVD should also be aggressively managed for dyslipidemia.

References/Related Guidelines

See the NGC summary of the ICSI guideline Lipid Management in Adults.

Evidence supporting this recommendation is of classes: A, B, C, M, R

5. Address or Initiate Other Services As Indicated

Lower Ranking, Evidence-Based Services

Abdominal Aortic Aneurysm

The new USPSTF recommendation for screening in adults ages 65 to 75 has not been processed for this edition of the guideline and will be reviewed upon the next revision.

Depression

Services

The USPSTF has recommended routine screening for adult patients with depression, but only if the practice has "systems in place to ensure that positive results are followed by accurate diagnosis, effective treatment, and careful follow-up. Benefits from screening are unlikely to be realized unless such systems are functioning well" (B level evidence). There is now considerable evidence from many randomized trials that it is possible to improve treatment (both medications and counseling) in primary care settings for patients with depression, but these trials have all implemented systematic ways to:

- Provide care management with close follow-up by a non-physician working with the primary care physician
- Enhance planned collaboration with mental health providers
- Provide education and self-management support

There are many instruments that have been well tested and validated for screening, ranging from two questions to the PHQ-9, a 9-question survey that is being increasingly used in primary care settings to estimate severity and provide monitoring over time as well as for initial screening. See the NGC summary of the ICSI guideline for Major Depression in Adults in Primary Care for example instruments and recommendations about management.

Efficacy

When combined with systematic management, screening can be very effective.

Counseling Messages

There is no evidence that simple brief messages have any effect.

Evidence supporting this recommendation is of classes: C, M, R

Hearing Screening

Services

Subjective hearing screening (by questionnaire) followed by counseling on the availability of hearing aid devices and making referrals as appropriate is recommended for older adults.

Efficacy

No studies have directly demonstrated a relationship between hearing screening and improved hearing function, hearing-related quality of life, or activities of daily living. Hearing screening has been recommended for elderly adults by the USPSTF based upon separate evidence of high prevalence of hearing impairment, the accuracy and inexpensiveness of simple screening questionnaires, the effectiveness of hearing aids, and the willingness of 40 to 60% of individuals to follow through with additional screening and purchase of hearing aids. The prevalence of uncorrected hearing loss in the elderly is approximately 25%.

Evidence supporting this recommendation is of classes: A, C

Injury Prevention

Key Points:

- When riding in a motor vehicle, all individuals need to be properly restrained and should avoid riding with an impaired driver. Safety helmets should be worn when biking and motorcycling.
- Advise patients on the proper use of smoke and carbon monoxide detectors, avoiding smoking near bedding or upholstery, and creating a fire escape plan.
- Assess and modify the environment to reduce the risk of falls for the elderly. Discuss safe use and locked storage of firearms.

Refer to the original guideline document for information on motor vehicle safety, bicycle safety, fire prevention, fall prevention, water safety, and firearm injury prevention.

Nutrition and Physical Activity

Key Points:

- Eat calories appropriate to age and activity level.
- Make healthy food choices and encourage parents to be role models for healthy eating.
- Physical activity can reduce risk for cardiovascular disease, hypertension, osteoporosis, obesity, diabetes, depression, and other conditions.

Refer to the original guideline document for additional information on nutrition and physical activity.

Osteoporosis

Key Points:

- Assess and discuss risk factors for osteoporosis with all patients presenting for preventive health.
- Routinely record serial height measurements and observe for kyphosis.
- Recommend bone mineral density testing for patients at risk for osteoporosis.

Services

The ICSI guideline, Diagnosis and Treatment of Osteoporosis recommends assessing and discussing risk factors for osteoporosis, and its primary prevention, with all patients presenting for preventive health visits.

Record accurate serial height measurements with a stadiometer and observe posture for kyphosis.

All women over age 65, as well as younger women at risk for osteoporosis and subsequent fracture should have bone mineral density testing (BMD) to further define their fracture risk and guide treatment.

Refer to the original guideline document for additional information on osteoporosis, including risk factors.

Evidence supporting this recommendation is of class: R

Also, refer to the original guideline document for information on services with insufficient evidence of effectiveness, including

- Advance directives
- Anxiety and stress
- Clinical breast exam
- Dental and periodontal disease
- Domestic violence and abuse
- Drug abuse
- Menopause and hormone therapy
- Preconception counseling
- Skin cancer
- Unintended pregnancy prevention

Definitions:

Conclusion Grades:

Grade I: The evidence consists of results from studies of strong design for answering the question addressed. The results are both clinically important and consistent with minor exceptions at most. The results are free of any significant doubts about generalizability, bias, and flaws in research design. Studies with negative results have sufficiently large samples to have adequate statistical power.

Grade II: The evidence consists of results from studies of strong design for answering the question addressed, but there is some uncertainty attached to the conclusion because of inconsistencies among the results from the studies or because of minor doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from weaker designs for the question addressed, but the results have been confirmed in separate studies and are consistent with minor exceptions at most.

Grade III: The evidence consists of results from studies of strong design for answering the question addressed, but there is substantial uncertainty attached to the conclusion because of inconsistencies among the results of different studies or because of serious doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from a limited number of studies of weak design for answering the question addressed.

Grade Not Assignable: There is no evidence available that directly supports or refutes the conclusion.

Classes of Research Reports:

A. Primary Reports of New Data Collection:

Class A:

- Randomized, controlled trial

Class B:

- Cohort study

Class C:

- Nonrandomized trial with concurrent or historical controls
- Case-control study
- Study of sensitivity and specificity of a diagnostic test
- Population-based descriptive study

Class D:

- Cross-sectional study
- Case series
- Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports:

Class M:

- Meta-analysis
- Systematic review
- Decision analysis
- Cost-effectiveness analysis

Class R:

- Consensus statement
- Consensus report
- Narrative review

Class X:

- Medical opinion

CLINICAL ALGORITHM(S)

A detailed and annotated clinical algorithm is provided for Preventive Services in Adults.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The guideline contains a bibliography and discussion of the evidence supporting each recommendation. The type of supporting evidence is classified for selected recommendations (see "Major Recommendations").

The guideline represents a synthesis of recommendations from other Institute for Clinical Excellence (ICSI) guidelines, primary evidence through literature reviews, recommendations from other organizations (particularly the United States Preventive Services Task Force, or USPSTF), and workgroup consensus.

In addition, key conclusions contained in the Work Group's algorithm are supported by a grading worksheet that summarizes the important studies pertaining to the conclusion. The type and quality of the evidence supporting these key recommendations (i.e., efficacy of screening for diabetes) is graded for each study.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Overall Benefits

Improved use of a comprehensive approach to the provision of preventive services, counseling, education, and disease screening for low-risk, asymptomatic adults as demonstrated by:

- Increased regular use of health risk assessments
- Increased percentage of patients who are up-to-date with all priority preventive services

POTENTIAL HARMS

Aspirin Prophylaxis

Aspirin prophylaxis has been associated with an increased incidence of gastrointestinal bleeding and hemorrhagic strokes.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- This clinical guideline is designed to assist clinicians by providing an analytical framework for the evaluation and treatment of patients, and is not intended either to replace a clinician's judgment or to establish a protocol for all patients with a particular condition. A guideline will rarely establish the only approach to a problem.
- This clinical guideline should not be construed as medical advice or medical opinion related to any specific facts or circumstances. Patients are urged to consult a health care professional regarding their own situation and any specific medical questions they may have.
- It is the guideline development group's assumption that this guideline will primarily serve as a guide for medical groups to develop practice systems for their delivery. While individual clinicians are welcome to refer to this guide, the group does not expect that to be common and it certainly is not the best way to provide important services at high rates. Such an achievement clearly requires the establishment of systems that rely on standing orders, task delegation, reminders, and other automatic ways to identify needs and provide the services.
- Most of the elements of the traditional physical examination are notably absent from these recommendations. The physical examination was originally developed and taught as a way to thoroughly evaluate the patient with a significant health problem or complaint, particularly one in a hospital setting. It was not designed as a screening test for an asymptomatic person, and it fails nearly all of the criteria for a screening test for an asymptomatic person identified by most authorities and the Institute for Clinical Systems Improvement (ICSI) Technology Assessment Committee.
- While there is good evidence that modifying certain behaviors has positive health benefits (unsafe sex, accidents and safety, nutrition, physical activity), there is unfortunately, minimal evidence at present that screening for these conditions or asking about them in the context of a risk assessment, even if

followed by advice from a physician or other provider, will result in a change in behavior or positive outcomes. Therefore, this guideline makes:
    - Minimal recommendations for risk assessment to drive counseling for what are largely lifestyle issues
    - Specific recommendation that risk assessment and counseling about lifestyle not be considered suitable parameters for systematic implementation measures
    - Counseling messages for those clinicians who want to provide such counseling or whose patients express an interest in receiving this information
- There is insufficient evidence to recommend one prevention visit schedule over another in terms of lowering mortality and morbidity, recognizing disability, promoting optimal growth and development, or helping patients achieve longer, more productive lives. Many services can be provided during routine visits. There have been no studies comparing the efficacy of various scheduled frequencies of preventive services visits. Furthermore, little information is available about what patients prefer for preventive visits, although their behavior suggests that a fairly large minority either doesn't believe in the value of existing approaches or cannot afford them. Thus, all existing schedules are attempts to combine various medical opinions with the frequency required for certain preventive services, especially immunizations.
- The guideline development group recognizes that changing the content of the physical examination will be difficult for some providers and some patients. Therefore, they leave the inclusion of specific examinations to the desires of individual medical groups, while encouraging them to focus primarily on the provision of essential services and the elimination of services which are clearly of no overall value.
- Evidence is insufficient to warrant recommendations for a number of preventive services. Refer to the original guideline document for more information.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Once a guideline is approved for general implementation, a medical group can choose to concentrate on the implementation of that guideline. When four or more groups choose the same guideline to implement and they wish to collaborate with others, they may form an action group.

In the action group, each medical group sets specific goals they plan to achieve in improving patient care based on the particular guideline(s). Each medical group shares its experiences and supporting measurement results within the action group. This sharing facilitates a collaborative learning environment. Action group learnings are also documented and shared with interested medical groups within the collaborative.

Currently, action groups may focus on one guideline or a set of guidelines such as hypertension, lipid treatment, and tobacco cessation.

Detailed measurement strategies are presented in the original guideline document to help close the gap between clinical practice and the guideline recommendations. Summaries of the measures are provided in the National Quality Measures Clearinghouse (NQMC).

IMPLEMENTATION TOOLS

Clinical Algorithm
Quality Measures
Resources

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

RELATED NQMC MEASURES

- Preventive services in adults: percentage of patients with all priority preventive services up-to-date according to the guideline delivery schedule.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Preventive services in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2005 Oct. 81 p. [145 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1995 Jun (revised 2005 Oct)

GUIDELINE DEVELOPER(S)

Institute for Clinical Systems Improvement - Private Nonprofit Organization

GUIDELINE DEVELOPER COMMENT

Organizations participating in the Institute for Clinical Systems Improvement (ICSI): Affiliated Organizations participating in the Institute for Clinical Systems Improvement (ICSI): Affiliated Community Medical Centers, Allina Medical Clinic, Altru Health System, Aspen Medical Group, Avera Health, CentraCare, Columbia Park Medical Group, Community-University Health Care Center, Dakota Clinic, ENT Specialty Care, Fairview Health Services, Family HealthServices Minnesota, Family Practice Medical Center, Gateway Family Health Clinic, Gillette Children's Specialty Healthcare, Grand Itasca Clinic and Hospital, HealthEast Care System, HealthPartners Central Minnesota Clinics, HealthPartners Medical Group and Clinics, Hutchinson Area Health Care, Hutchinson Medical Center, Lakeview Clinic, Mayo Clinic, Mercy Hospital and Health Care Center, MeritCare, Mille Lacs Health System, Minnesota Gastroenterology, Montevideo Clinic, North Clinic, North Memorial Care System, North Suburban Family Physicians, Northwest Family Physicians, Olmsted Medical Center, Park Nicollet Health Services, Pilot City Health Center, Quello Clinic, Ridgeview Medical Center, River Falls Medical Clinic, Saint Mary's/Duluth Clinic Health System, St. Paul Heart Clinic, Sioux Valley Hospitals and Health System, Southside Community Health Services, Stillwater Medical Group, SuperiorHealth Medical Group, University of Minnesota Physicians, Winona Clinic, Ltd., Winona Health

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GUIDELINE COMMITTEE

Committee on Evidence Based Practice

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

In the interest of full disclosure, Institute for Clinical Systems Improvement (ICSI) has adopted the policy of revealing relationships work group members have with companies that sell products or services that are relevant to this guideline topic. The reader should not assume that these financial interests will have an adverse impact on the content of the guideline, but they are noted here to fully inform users. Readers of the guideline may assume that only work group members listed below have potential conflicts of interest to disclose.

Gaither Bynum, MD, John Butler, MD, and Mike Maciosek, PhD, have not returned disclosure information.

No other work group members have potential conflicts of interest to disclose.

ICSI's conflict of interest policy and procedures are available for review on ICSI's website at www.icsi.org.

GUIDELINE STATUS

This is the current release of the guideline.

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GUIDELINE AVAILABILITY

Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Preventive services in adults. Executive summary. Bloomington (MN): Institute for Clinical Systems Improvement, 2005 Oct. 1 p. Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.

- Counseling and education tools: problem drinking. Annotation appendix B in the original guideline document. Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.
- Counseling and education tools: sexual practices. Annotation appendix C in the original guideline document. Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.
- Counseling and education tools: stress/coping skills. Annotation appendix D in the original guideline document. Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.
- ICSI pocket guidelines. May 2005 edition. Bloomington (MN): Institute for Clinical Systems Improvement, 2005. 362 p.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

PATIENT RESOURCES

None available

NGC STATUS

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