Complete Summary

GUIDELINE TITLE

Preventive services for adults.

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Preventive services for adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2004 Sep. 51 p. [48 references]

COMPLETE SUMMARY CONTENT

SCOPE
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EVIDENCE SUPPORTING THE RECOMMENDATIONS
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IDENTIFYING INFORMATION AND AVAILABILITY

SCOPE

DISEASE/CONDITION(S)

Preventable diseases or conditions, such as:

- Hypertension, hypotension
- Dyslipidemia
- Breast cancer, cervical cancer, colon cancer, skin cancer, prostate cancer
- Diabetes
- Vision and hearing impairments
- Infectious diseases, such as tetanus, diphtheria, hepatitis B, hepatitis A, pneumococcal pneumonia, influenza, measles, mumps, rubella, varicella, tuberculosis, meningitis
- Obesity
- Cardiovascular disease
- Osteoporosis
- Substance use/abuse
- Traumatic injury due to motor vehicle and bicycle accidents, fire injury, falls, hot water burns, firearm injuries
- Violence and abuse
- Sexual practices: unintended pregnancy, sexually transmitted diseases

- Mental health: depression, anxiety, stress
- Advance directives: terminal illnesses
- Preconception: maternal health
- Dental and periodontal disease: tooth decay, gum and bone disease

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
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To clearly identify those preventive services which are essential to provide to all low-risk/asymptomatic members/patients on the basis of either good or fair evidence for inclusion in a periodic health evaluation (per United States Preventive Services Task Force [USPSTF] rules)
- To identify those services which should not be included in light of similarly strong evidence

TARGET POPULATION

Low-risk, asymptomatic adults aged 19 and over

Pregnant women, individuals with chronic disorders, or high-risk populations are generally not addressed.

INTERVENTIONS AND PRACTICES CONSIDERED

Screening

1. Screening maneuvers including:
    - Risk assessment
    - Height and weight measurement
    - Blood pressure measurement
    - Clinical breast examination
    - Total cholesterol and high-density lipoprotein (HDL) measurement
    - Papanicolaou smear
    - Mammogram
    - Colon cancer screening
    - Objective visual acuity testing after age 74 (Snellen chart)
    - Subjective hearing testing
    - Diabetes screening
    - Osteoporosis screening in women age 65 and older
    - Prostate-specific antigen (PSA) and digital rectal exam (DRE) of the prostate
    - Sexually transmitted disease (STD) testing for high-risk groups
    - Tuberculin skin testing for high-risk groups
2. Screening practices reviewed but not recommended:
    - Routine thyroid disease screening in women older than 45 years of age
    - Diabetes screening
    - Osteoporosis screening in women younger than 65 years
    - Depression screening
    - Screening for dementia
3. Screening practices to consider discontinuing:
    - Routine hemoglobin testing
    - Routine blood chemistries
    - Routine urinalysis
    - Objective vision and hearing screening in adults younger than 74 years
    - Resting electrocardiogram (EKG)
    - CA 125 and pelvic ultrasound screening for ovarian cancer
    - Routine tuberculin skin testing

Counseling

1. Counseling and education on the following topics:
    - Nutrition
    - Tobacco cessation
    - Substance use/abuse
    - Advance directives
    - Physical activity
    - Injury prevention
    - Preconception
    - Cancer prevention
    - Dental and periodontal disease
    - Violence and abuse
    - Sexual practices
    - Mental health
    - Preventive care

Prevention

1. Immunizations and chemoprophylaxis, including:

- Varicella
- Tetanus-diphtheria (Td) booster
- Influenza vaccine
- Pneumococcal vaccine
- Hepatitis A vaccine
- Hepatitis B vaccine
- Meningococcal vaccine
- measles mumps rubella (MMR)

2. Aspirin prophylaxis for those at increased risk of coronary heart disease (CHD)
3. Hormone replacement therapy

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:

- Non-randomized 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

Preventive counseling and education topics are classified according to the available evidence (good, fair, or insufficient per United States Preventive Services Task Force [USPSTF] rules) to support including or excluding the practices from a periodic health evaluation for asymptomatic, low risk patients.

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

General recommendations for preventive services for adults are presented in the form of an algorithm with 14 components, accompanied by detailed annotations. An algorithm is provided for Preventive Services for Adults. Clinical highlights follow.

Specific recommendations for adult preventive services, including screening maneuvers, counseling and education, and immunizations and chemoprophylaxis, as directed by age group are outlined in the sections below. Recommendations are provided for:

- Preventive services for ages 19–39
- Preventive services for ages 40–64
- Preventive services for ages 65 and over

Refer to the original guideline document for further discussion of these preventive services.

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.

Preventive counseling and education topics are classified according to the available evidence (good, fair, or insufficient per United States Preventive Services Task Force [USPSTF] rules) to support including or excluding the practices from a periodic health evaluation for asymptomatic, low risk patients.

Clinical Highlights

1. Incorporate assessments of preventive service needs and counseling and education as appropriate into acute visits when possible. (Annotations #1, 4--see original guideline document)
2. Assess patients for risk factors at periodic intervals and provide counseling and education for identified risk factors. (Annotation #16--see original guideline document)
3. All clinic visits, whether acute or chronic in nature, are opportunities for preventive counseling. (Annotations #1, 4--see original guideline document)

4. At each preventive visit:
    - Update previously obtained medical and family history
    - Identify risk factors and provide counseling or special testing as needed (Annotation #16--see original guideline document)
    - Subjective vision and hearing testing (Annotation #28--see original guideline document)
    - Sexually transmitted disease testing for patients identified as at-risk (Annotation #22--see original guideline document)

Preventive Services for Adults Algorithm Annotations

5. Address Reason for Visit and Screen for Priority Preventive Care Needs

    Priority preventive care needs that can and should be addressed at every visit include:

    - Discussing tobacco use with every user and recent (<12 months) quitter
    - Immunizations
    - Blood pressure screening
    - Identifying needed cancer screens (breast, cervix, and colon) and scheduling an appropriate visit

    Evidence supporting this recommendation is of class: M

Preventive Services for Ages 19–39

The schedule of visits will largely be determined by completion of necessary preventive services and screening maneuvers. For the purpose of this guideline, a reasonable schedule to follow is: one preventive visit every 5 years for males; every 3 to 5 years for females.

Screening Maneuvers

- Risk assessment every 5 years
- Height and weight every 3 to 5 years
- Blood pressure every 2 years
- Clinical breast exam (every 3 years beginning at age 20)
- Total cholesterol and high-density lipoprotein (HDL)-cholesterol (for men, every 5 years beginning at age 35)
- Papanicolaou smear (maximum interval once every 3 years after 3 consecutive normal results)

Additional Screening Maneuvers for High-risk Groups

- Sexually transmitted disease testing
- Tuberculin skin testing

Counseling and Education

There is good evidence to support counseling on these topics. Counseling should be included in a periodic health examination.	There is fair evidence to support counseling on these topics. Counseling should be included in a periodic health examination.	There may be insufficient direct evidence that counseling on these topics leads to a specific change of behavior; however, there is evidence linking these topics to health conditions and/or diseases.
• Limit dietary fat • Folic acid supplements • Tobacco cessation • Problem drinking • Advance directives	• Caloric balance/nutrient balance • Physical activity • Drinking and driving motor vehicles • Safety belts • Unintended pregnancy prevention • Protection from ultraviolet (UV) light • Dental and periodontal disease	• 5 a day (fruits and vegetables) • Calcium intake • Start of tobacco use • Alcohol and other drugs • Motor vehicle operation • Motor vehicles/bicycles • Helmets for motorcyclists • Safety helmets • Fire safety • Firearm storage • Promotion of nonviolent behavior and screen for family violence • Sexually transmitted disease (STD) prevention • Depression/anxiety awareness • Coping skills/stress reduction • Preventive care visits • Preconception counseling

Immunizations and Chemoprophylaxis

Vaccine	19-39 Years	40-64 Years	65 Years and Older
Td	Booster every 10 years		
MMR	Persons born after 1956 should have 2 doses measles; additional doses should be given as MMR.		
Pneumococcal (PPV 23)	Immunize high-risk groups once. Re-immunize those at risk of losing		Immunize at 65 if not done previously. Re-

Vaccine	19-39 Years	40-64 Years	65 Years and Older
	immunity after 5 years.		immunize if 1st received >5 years ago and before age 65.
Varicella	Persons 50 and younger with no history of varicella, do titre. If negative, immunize. If >50, assume they are immune.		
Hepatitis B	Universal immunization	Immunize those at high risk.	
Influenza	Annually between October and March for individuals age 50 and older, those at high risk, and others.		
Hepatitis A	Immunize those in risk groups.		
Meningococcal	Immunize those in risk groups.		

Abbreviations: Td, tetanus, diphtheria; MMR, measles, mumps, rubella

Practices Reviewed, But Not Recommended

- Diabetes Screening
- Depression Screening

Practices to Consider Discontinuing

- Routine blood chemistries
- Routine hemoglobin testing
- Resting electrocardiogram (EKG)
- CA 125 and pelvic ultrasound screening for ovarian cancer
- Routine urinalysis
- Objective vision and hearing screening

Preventive Services for Ages 40–64

The schedule of visits will largely be determined by completion of necessary preventive services and screening maneuvers. For the purpose of this guideline, a reasonable schedule to follow is: one preventive visit every 5 years for males; every 3 to 5 years for females.

Screening Maneuvers

- Risk assessment every 5 years

- Height and weight every 3 to 5 years
- Blood pressure every 2 years
- Clinical breast exam (annually)
- Total cholesterol and HDL-cholesterol (every 5 years for men older than 34 and women older than 44)
- Papanicolaou smear (maximum interval every 3 years after 3 consecutive normal results)
- Mammograms (optional ages 40–49; recommended annually to biennially for ages 50–75)
- Colon cancer screening (ages 50–80)
- Prostate specific antigen (PSA)/Digital rectal exam (DRE) of the prostate

Additional Screening Maneuvers for High-Risk Groups

- Sexually transmitted disease testing
- Tuberculin skin testing

Counseling and Education

There is good evidence to support counseling on these topics. Counseling should be included in a periodic health examination.	There is fair evidence to support counseling on these topics. Counseling should be included in a periodic health examination.	There may be insufficient direct evidence that counseling on these topics leads to a specific change of behavior; however, there is evidence linking these topics to health conditions and/or diseases.
• Limit dietary fat • Tobacco cessation • Problem drinking • Advance directives	• Caloric balance/nutrient balance • Physical activity • Drinking and driving motor vehicles • Safety belts • Unintended pregnancy prevention • Protection from UV light • Dental and periodontal disease	• 5 a day (fruits and vegetables) • Calcium intake • Alcohol and other drugs • Motor vehicle operation • Motor vehicles/bicycles • Helmets for motorcyclists • Safety helmets • Fire safety • Firearm storage • Promotion of nonviolent behavior and screen for family violence • STD prevention • Depression/anxiety awareness • Coping skills/stress reduction • Preventive care visits • Preconception

There is good evidence to support counseling on these topics. Counseling should be included in a periodic health examination.	There is fair evidence to support counseling on these topics. Counseling should be included in a periodic health examination.	There may be insufficient direct evidence that counseling on these topics leads to a specific change of behavior; however, there is evidence linking these topics to health conditions and/or diseases.
		counseling

Immunizations and Chemoprophylaxis

Vaccine	19-39 Years	40-64 Years	65 Years and Older
Td	Booster every 10 years		
MMR	Persons born after 1956 should have 2 doses measles; additional doses should be given as MMR.		
Pneumococcal (PPV 23)	Immunize high-risk groups once. Re-immunize those at risk of losing immunity after 5 years.		Immunize at 65 if not done previously. Re-immunize if 1st received >5 years ago and before age 65.
Varicella	Persons 50 and younger with no history of varicella, do titre. If negative, immunize. If >50, assume they are immune.		
Hepatitis B	Universal immunization	Immunize those at high risk.	
Influenza	Annually between October and March for individuals age 50 and older, those at high risk, and others.		
Hepatitis A	Immunize those in risk groups.		
Meningococcal	Immunize those in risk groups.		

Abbreviations: Td, tetanus, diphtheria; MMR, measles, mumps, rubella

- Aspirin prophylaxis should be discussed with adults between age 50 and 75 who are at increased risk for coronary heart disease (CHD).
- Hormone replacement therapy should be addressed.

Practices Reviewed, but Not Recommended

- Diabetes screening
- Routine thyroid screening in women older than 45 years of age
- Depression screening
- Osteoporosis screening

Note regarding Diabetes Screening: There is still no direct evidence that screening the general population for diabetes improves long-term outcomes. For this reason, the guideline developers do not recommend general screening for asymptomatic patients. Screening high-risk patients may be useful if both the screener and subject are willing to follow up with either lifelong metformin or an intensive lifestyle modification program. There is limited evidence that screening high-risk groups improves outcomes. The randomized studies, to date, have involved very intensive lifestyle interventions that are unlikely to be provided or adhered to in real life practice.[Conclusion Grade III; See Conclusion Grading Worksheet – Appendix A – Annotation #31 (Diabetes Screening – High-risk) in the original guideline document]

Evidence supporting this recommendation is of classes: A, D

There is substantial evidence that aggressive glycemic control compared to very loose glycemic control in newly diagnosed diabetics can reduce diabetic complications, and that excellent blood pressure control also has a powerful effect on complication rate. Institute for Clinical Systems Improvement (ICSI) guidelines that address the treatment of dyslipidemia, hypertension, and coronary artery disease recommend that patients with these conditions be screened for diabetes. Screening patients with other risk factors for developing diabetes is left to provider/patient preference.

Although early intervention appears to reduce the burden of diabetes and its complications, there is no direct evidence that screening the general population improves outcomes.[Conclusion Grade Not Assignable; See Conclusion Grading Worksheet – Appendix B – Annotation #31 (Diabetes Screening – General Population) in the original guideline document]

Evidence supporting this recommendation is of classes: A, R

Practices to Consider Discontinuing

- Routine blood chemistries
- Routine tuberculin skin testing
- Routine hemoglobin testing
- Resting EKG
- CA 125 and pelvic ultrasound screening for ovarian cancer
- Routine urinalysis
- Objective vision and hearing screening

Preventive Services for Ages 65 and Over

The schedule of visits will largely be determined by completion of necessary preventive services and screening maneuvers. For the purposes of this guideline, a reasonable schedule to follow is one preventive visit every 1 to 2 years.

Screening Maneuvers

- Risk assessment every 1 to 2 years; Review medications
- Height and weight every 1 to 2 years
- Blood pressure every 1 to 2 years
- Clinical breast exam (annually)
- Total cholesterol and HDL-cholesterol every 5 years (for both men and women) until age 75
- Papanicolaou smear (may be performed at the mutual consent of the patient and provider after age 65; recommended for women 65 years of age and older who have a new sexual partner)
- Mammograms (annually to biennially for ages 50–75; may be performed at the mutual consent of the patient and provider after age 75)
- Colon cancer screening (ages 50–80) may be performed after age 80 at the mutual consent of the patient and provider
- Objective visual acuity testing (after age 74); Subjective hearing testing (after age 74)
- Osteoporosis screening (review risk factors and order bone mineral density [BMD] test if indicated)
- PSA/DRE

Additional Screening Maneuvers for High-Risk Groups

- Sexually transmitted disease testing
- Tuberculin skin testing

Counseling and Education

There is good evidence to support counseling on these topics. Counseling should be included in a periodic health examination.	There is fair evidence to support counseling on these topics. Counseling should be included in a periodic health examination.	There may be insufficient direct evidence that counseling on these topics leads to a specific change of behavior; however, there is evidence linking these topics to health conditions and/or diseases.
• Limit dietary fat • Tobacco cessation • Problem drinking • Advance	• Caloric balance/nutrient balance • Physical activity • Drinking and driving motor vehicles	• 5 a day (fruits and vegetables) • Calcium intake • Alcohol and other drugs • Motor vehicle operation • Motor vehicles/bicycles • Helmets for

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directives	• Safety belts • Unintended pregnancy prevention • Protection from UV light • Dental and periodontal disease	motorcyclists • Safety helmets • Fire safety • Falls • Water heater safety • Firearm storage • Promotion of nonviolent behavior and screen for family violence • STD prevention • Depression/anxiety awareness • Coping skills/stress reduction • Preventive care visits

Immunizations and Chemoprophylaxis

Vaccine	19-39 Years	40-64 Years	65 Years and Older
Td	Booster every 10 years		
MMR	Persons born after 1956 should have 2 doses measles; additional doses should be given as MMR.		
Pneumococcal (PPV 23)	Immunize high-risk groups once. Re-immunize those at risk of losing immunity after 5 years.		Immunize at 65 if not done previously. Re-immunize if 1st received >5 years ago and before age 65.
Varicella	Persons 50 and younger with no history of varicella, do titre. If negative, immunize. If >50, assume they are immune.		
Hepatitis B	Universal	Immunize those at high risk.	

Vaccine	19-39 Years	40-64 Years	65 Years and Older
	immunization		
Influenza	Annually between October and March for individuals age 50 and older, those at high risk, and others.		
Hepatitis A	Immunize those in risk groups.		
Meningococcal	Immunize those in risk groups.		

Abbreviations: Td, tetanus, diphtheria; MMR, measles, mumps, rubella

- Aspirin prophylaxis should be discussed with adults between age 50 and 75 who are at increased risk for coronary heart disease (CHD).
- Hormone replacement therapy should be addressed.

Practices Reviewed, but Not Recommended

- Diabetes screening
- Routine thyroid screening in women older than 45 years of age
- Depression screening
- Screening for dementia

Practices to Consider Discontinuing

- Routine blood chemistries
- Routine tuberculin skin testing
- Routine hemoglobin testing
- Resting EKG
- CA 125 and pelvic ultrasound screening for ovarian cancer
- Routine urinalysis
- Objective vision and hearing screening

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 for Adults.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

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

The majority of the evidence concerning burden of suffering, efficacy of screening, and efficacy of early detection is taken from the U.S. Preventive Services Task Force (USPSTF) guidelines.

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 percentage of patients who are up-to-date on preventive services
- Decreased use of inappropriate screening maneuvers
- Increased regular use of health risk assessments
- Reduced risk of illness and/or injury
- Early detection of illness

Subgroups Most Likely to Benefit

Aspirin Prophylaxis

Adults aged 50 to 75 years who are at high risk for coronary heart disease (CHD) because of tobacco use, dyslipidemia, hypertension, or family history of premature CHD.

POTENTIAL HARMS

Aspirin Prophylaxis

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

Subgroups Most Likely to Be Harmed

Aspirin Prophylaxis

The balance of benefits and harms of aspirin therapy is most favorable when 5-year cardiovascular risk is greater than or equal to 3%. Estimates of benefits and harms of aspirin therapy to 1,000 of these individuals are as follows: CHD events avoided, 2-12; major gastrointestinal bleeding events caused, 2-4; hemorrhagic strokes caused, 0-2.

CONTRAINDICATIONS

CONTRAINDICATIONS

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.
- 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).
- 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.

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
Pocket Guide/Reference Cards
Quality Measures

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

RELATED NQMC MEASURES

- Preventive services for adults: percentage of patients who are up-to-date for the ten key preventive services.

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 for adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2004 Sep. 51 p. [48 references]

ADAPTATION

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

DATE RELEASED

1995 Jun (revised 2004 Sep)

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 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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GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previously released version: Preventive services for adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 Sep. 50 p.

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 is available:

- ICSI pocket guidelines. April 2004 edition. Bloomington (MN): Institute for Clinical Systems Improvement, 2004. 404 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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