



Complete Summary

GUIDELINE TITLE

Screening for hepatitis C in adults: recommendation statement.

BIBLIOGRAPHIC SOURCE(S)

Screening for hepatitis C virus infection in adults: recommendation statement.
Ann Intern Med 2004 Mar 16;140(6):462-4. [3 references] [PubMed](#)

GUIDELINE STATUS

This is the current release of the guideline.

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)

Hepatitis C virus infection

GUIDELINE CATEGORY

Prevention
Screening

CLINICAL SPECIALTY

Family Practice
Infectious Diseases
Internal Medicine
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To summarize the U.S. Preventive Services Task Force (USPSTF) recommendations on screening for hepatitis C virus (HCV) infection based on the USPSTF's examination of evidence specific to asymptomatic persons for HCV testing and treatment

TARGET POPULATION

Asymptomatic adults seen in primary care settings

INTERVENTIONS AND PRACTICES CONSIDERED

1. Screening for hepatitis C virus (HCV) infection using HCV screening tests including:
 - Enzyme immunoassay (EIA), second and third generation
 - Strip recombinant immunoblot assay (RIBA)
 - Polymerase chain reaction (PCR)
2. Interventions for asymptomatic, HCV-infected individuals, such as counseling to avoid alcohol misuse and immunization against hepatitis A and hepatitis B, are considered but no recommendation is made either for or against use.

MAJOR OUTCOMES CONSIDERED

- **Key Question 1:** Does screening for hepatitis C reduce the risk or rates of harm and premature death and disability?
- **Key Question 2:** Can clinical or demographic characteristics identify a subgroup of asymptomatic patients at higher risk for hepatitis C virus (HCV) infection?
- **Key Question 3:** What are the test characteristics of HCV antibody testing?
- **Key Question 4:** What is the predictive value of a positive screening test and what are the harms associated with screening for HCV?
- **Key Question 5:**
 - a. What are the test characteristics of the work-up for active disease?
 - b. In patients found to be positive for HCV antibody, what proportion of patients would qualify for treatment?
- **Key Question 6:** What are the harms associated with the work-up for active HCV disease?
- **Key Question 7:**
 - a. How well does antiviral treatment reduce the rate of viremia, improve transaminase levels, and improve histology?
 - b. How well does antiviral treatment improve health outcomes in asymptomatic patients with hepatitis C?

- c. How well do counseling and immunizations in asymptomatic patients with hepatitis C improve clinical outcomes or prevent spread of disease?
- **Key Question 8:** What are the harms (including intolerance to treatment) associated with antiviral intervention?
- **Key Question 9:** Have improvements in intermediate outcomes (liver function tests, remission, histologic changes) been shown to reduce the risk or rate of harm from hepatitis C?

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Oregon Health & Science University Evidence-based Practice Center (EPC) for the Agency for Healthcare Research and Quality (AHRQ) for use by the U.S. Preventive Services Task Force (USPSTF) (see the "Companion Documents" field).

Search Strategy

Key questions, which were determined in conjunction with liaisons from the U. S. Preventive Services Task Force, guided the literature review. The topic of hepatitis C virus (HCV) was searched in the MEDLINE and Cochrane Library databases from 1989 (the year HCV was characterized) through July 2002, and updates of these databases were searched through February 2003. Three MEDLINE searches were originally performed, one for screening for HCV infection, one for work-up of HCV infection, and one for treatment of HCV infection. For screening, the medical subject headings (MeSH) *hepatitis C* and *hepacivirus* were combined with the terms *mass screening*, *hepatitis C antibodies*, *predictive value of tests*, and *sensitivity* and *specificity*, and the text words *antibody testing*. For work-up, the MeSH headings *hepatitis C* and *hepacivirus* were combined with the terms *ultrasonography*, *liver function tests*, *liver biopsy*, and *viral load*. For treatment, the MeSH headings *antiviral agents*, *interferons*, and *ribavirin* were combined with the terms *hepatitis C* and *hepacivirus*.

A search was conducted for controlled studies of treatment of hepatitis C infection in the Cochrane Library databases, using the phrase *hepatitis C* in title, abstract, or keywords combined with terms for clinical trials. The complete reference list was retrieved from a recent Agency for Healthcare Research and Quality (AHRQ) evidence report commissioned by the National Institutes of Health (NIH) to update their consensus statement on management of HCV infection. Periodic hand searching of hepatology, gastroenterology, and major medical journals and review of the reference lists of retrieved articles supplemented the electronic searches.

An additional MEDLINE search was performed in February 2003 for other interventions (counseling on alcohol use, immunizations, and preventing spread of disease) in patients with HCV. For this search, the MeSH headings *hepatitis C*, *hepacivirus*, or *hepatitis C, chronic* were combined with the MeSH headings *patient education*, *counseling*, *alcohol drinking*, *viral hepatitis vaccines*, *hepatitis A*, or *vaccination*.

Selection Strategy

A single EPC staff reader reviewed all English abstracts. Papers were selected for full review if they were about HCV infection, were relevant to key questions in the analytic framework, and met other key-question specific inclusion criteria. Reviews, policy statements, and other papers with contextual value were also obtained from the searches. Studies published as abstracts were not included in the search; although pertinent abstracts may be referred to in the text, they are not included in evidence tables.

Inclusion Criteria

For all key questions, articles were limited to those that evaluated the general adult population with chronic HCV infection. Studies that only focused on patients with end-stage liver disease, cirrhosis, or hepatocellular cancer were excluded. Although the population of interest was asymptomatic adults with chronic HCV infection who would be identified by screening, studies of patients with a broad spectrum of chronic HCV disease were included in order to get a picture of the benefits and adverse effects of screening and treatment in patients with different degrees of liver disease. Studies on HCV populations who had undergone transplantation were excluded, as were studies of pregnant patients, children, or those with end-stage renal disease or human immunodeficiency virus (HIV) infection. Studies of non-human subjects were also excluded, and studies had to include original data. Foreign language papers were considered if they were clinical trials and an abstract was available in English. Also, EPC staff searched for relevant systematic reviews for all key questions.

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

The U.S. Preventive Services Task Force grades the **quality of the overall evidence** for a service on a 3-point scale (good, fair, poor):

Good

Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.

Fair

Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes.

Poor

Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.

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

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Oregon Health & Science University Evidence-based Practice Center (EPC) for the Agency for Healthcare Research and Quality (AHRQ) for use by the U.S. Preventive Services Task Force (USPSTF) (see the "Companion Documents" field).

Data Extraction

EPC staff used predefined criteria from the USPSTF to assess the internal validity of included systematic reviews, trials, and observational studies, which were rated as "good," "fair," or "poor." They also rated the applicability of each study to the population that would be identified by screening. The rating system was developed by the USPSTF and is described in detail elsewhere.

For included trials and systematic reviews, EPC staff abstracted information about setting, patients, interventions, and outcomes. For clinical trials, when possible they recorded the difference between the probability of a response in the treatment and control groups for each outcome studied. The applicability of reviewed studies to the population likely to be identified by screening was evaluated. EPC staff developed evidence tables for those key questions related to antiviral treatment of hepatitis C virus infection (key questions 7a and 7b). They rated the overall body of evidence for each key question using the system developed by the USPSTF.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

When the overall quality of the evidence is judged to be good or fair, the U.S. Preventive Services Task Force (USPSTF) proceeds to consider the magnitude of net benefit to be expected from implementation of the preventive service. Determining net benefit requires assessing both the magnitude of benefits and the magnitude of harms and weighing the two.

The USPSTF classifies benefits, harms, and net benefits on a 4-point scale: "substantial," "moderate," "small," and "zero/negative."

"Outcomes tables" (similar to 'balance sheets') are the USPSTF's standard resource for estimating the magnitude of benefit. These tables, prepared by the topic teams for use at USPSTF meetings, compare the condition specific outcomes expected for a hypothetical primary care population with and without use of the preventive service. These comparisons may be extended to consider only people of specified age or risk groups or other aspects of implementation. Thus, outcomes tables allow the USPSTF to examine directly how the preventive services affects benefits for various groups.

When evidence on harms is available, the topic teams assess its quality in a manner like that for benefits and include adverse events in the outcomes tables. When few harms data are available, the USPSTF does not assume that harms are small or nonexistent. It recognizes a responsibility to consider which harms are likely and judge their potential frequency and the severity that might ensue from implementing the service. It uses whatever evidence exists to construct a general confidence interval on the 4-point scale (e.g., substantial, moderate, small, and zero/negative).

Value judgments are involved in using the information in an outcomes table to rate either benefits or harms on the USPSTF's 4-point scale. Value judgments are also needed to weigh benefits against harms to arrive a rating of net benefit.

In making its determinations of net benefit, the USPSTF strives to consider what it believes are the general values of most people. It does this with greater confidence for certain outcomes (e.g., death) about which there is little disagreement about undesirability, but it recognizes that the degree of risk people are willing to accept to avert other outcomes (e.g., cataracts) can vary considerably. When the USPSTF perceives that preferences among individuals vary greatly and that these variations are sufficient to make trade-off of benefits and harms a 'close-call', then it will often assign a C recommendation (see the "Recommendation Rating Scheme" field). This recommendation indicates the decision is likely to be sensitive to individual patient preferences.

The USPSTF uses its assessment of the evidence and magnitude of net benefit to make recommendations. The general principles the USPSTF follows in making recommendations are outlined in Table 5 of the companion document cited below. The USPSTF liaisons on the topic team compose the first drafts of the

recommendations and rationale statements, which the full panel then reviews and edits. Recommendations are based on formal voting procedures that include explicit rules for determining the views of the majority.

From: Harris RP, Helfand M, Woolf SH, Lohr KN, Mulrow, CD, Teutsch SM, Atkins D. Current methods of the U.S. Preventive Services Task Force: a review of the process. Methods Work Group, Third U.S. Preventive Services Task Force. Am J Prev Med 2001 Apr;20(3S):21-35.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

The USPSTF grades its **recommendations** according to one of 5 classifications (A, B, C, D, I) reflecting the strength of evidence and magnitude of net benefit (benefits minus harms):

A

The USPSTF strongly recommends that clinicians provide [the service] to eligible patients. The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.

B

The USPSTF recommends that clinicians provide [this service] to eligible patients. The USPSTF found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.

C

The USPSTF makes no recommendation for or against routine provision of [the service]. The USPSTF found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of benefits and harms is too close to justify a general recommendation.

D

The USPSTF recommends against routinely providing [the service] to asymptomatic patients. The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.

I

The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. Evidence that the [service] is effective is lacking, of poor quality, or conflicting and the balance of benefits and harms cannot be determined.

COST ANALYSIS

Data from the Healthcare Cost and Utilization Project database indicated that in 1998, 140,000 discharges listed a hepatitis C virus (HCV) diagnosis, accounting

for approximately 2% of all discharges in the database, and were associated with an estimated total hospital charge in excess of \$1 billion, a substantial increase from only a few years earlier. Although the incidence of HCV infection has declined, the morbidity, mortality, and costs associated with chronic HCV infection are expected to increase 2- to 4-fold in the next 2 decades because of the delay between acute infection and presentation with serious liver disease.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Peer Review: Before the U.S. Preventive Services Task Force (USPSTF) makes its final determination about recommendations on a given preventive service, the Evidence-based Practice Center and the Agency for Healthcare Research and Quality send a draft systematic evidence review to 4 to 6 external experts and to federal agencies and professional and disease-based health organizations with interests in the topic. They ask the experts to examine the review critically for accuracy and completeness, and to respond to a series of specific questions about the document. After assembling these external review comments and documenting the proposed response to key comments, the topic team presents this information to the Task Force in memo form. In this way, the Task Force can consider these external comments and a final version of the systematic review before it votes on its recommendations about the service. Draft recommendations are then circulated for comment from reviewers representing professional societies, voluntary organizations and Federal agencies. These comments are discussed before the whole U.S. Preventive Services Task Force final recommendations are made.

Recommendation of Others: Recommendations for screening for hepatitis C virus from the following groups were discussed: National Institutes of Health (NIH) Consensus Panel and the Centers for Disease Control and Prevention (CDC).

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The U.S. Preventive Services Task Force (USPSTF) grades its recommendations (A, B, C, D, or I) and the quality of the overall evidence for a service (good, fair, poor). The definitions of these grades can be found at the end of the "Major Recommendations" field.

The USPSTF recommends against routine screening for hepatitis C virus (HCV) infection in asymptomatic adults who are not at increased risk (general population) for infection. **D recommendation.**

The USPSTF found good evidence that screening with available tests can detect HCV infection in the general population. The prevalence of HCV infection in the

general population is low, and most who are infected do not develop cirrhosis or other major negative health outcomes. There is no evidence that screening for HCV infection leads to improved long-term health outcomes, such as decreased cirrhosis, hepatocellular cancer, or mortality. Although there is good evidence that anti-viral therapy improves intermediate outcomes, such as viremia, there is limited evidence that such treatment improves long-term health outcomes. The current treatment regimen is long and costly and is associated with a high patient dropout rate due to adverse effects. Potential harms of screening include unnecessary biopsies and labeling, although there is limited evidence to determine the magnitude of these harms. As a result, the USPSTF concluded that the potential harms of screening for HCV infection in adults who are not at increased risk for HCV infection are likely to exceed potential benefits.

The USPSTF found insufficient evidence to recommend for or against routine screening for HCV infection in adults at high risk for infection. **I recommendation.**

The USPSTF found no evidence that screening for HCV infection in adults at high risk (see Clinical Considerations) leads to improved long-term health outcomes, although the yield of screening would be substantially higher in a high-risk population than in an average-risk population and there is good evidence that anti-viral therapy improves intermediate outcomes, such as viremia. There is, as yet, no evidence that newer treatment regimens for HCV infection, such as pegylated interferon plus ribavirin, improve long-term health outcomes. There is limited evidence from non-U.S. studies that older therapies have some long-term health benefits for patients referred for treatment, but the generalizability of these results to the U.S. population is unknown. Of those infected with HCV, the proportion who progress to liver disease is uncertain. There is limited evidence that 10 to 20% of patients with chronic HCV infection develop cirrhosis within 20 to 30 years after infection. There is also limited evidence that available treatments are effective in preventing cirrhosis in patients with asymptomatic HCV infection. Potential harms of screening and treatment include labeling, adverse treatment effects, and unnecessary biopsies, although there is limited evidence to determine the magnitude of these harms. As a result, the USPSTF could not determine the balance of benefits and harms of screening for HCV infection in adults at increased risk for infection.

Clinical Considerations

- Established risk factors for HCV infection include current or past intravenous drug use, transfusion before 1990, dialysis, and being a child of an HCV-infected mother. Surrogate markers, such as high-risk sexual behavior (particularly sex with someone infected with HCV) and the use of illegal drugs, such as cocaine or marijuana, have also been associated with increased risk for HCV infection. The proportion of people who received blood or blood product transfusions before 1990 will continue to decline, and HCV infection will be associated mainly with intravenous drug use and, to some extent, unsafe sexual behaviors.
- Initial testing for HCV infection is typically done by enzyme immunoassay (EIA). In a population with a low prevalence of HCV infection (e.g., 2%), approximately 59% of all positive tests using the third-generation enzyme immunoassay test with 97% specificity would be false positive. As a result,

confirmatory testing is recommended with the strip recombinant immunoblot assay (third-generation RIBA).

- Important predictors of progressive HCV infection include older age at acquisition; longer duration of infection; and presence of comorbid conditions, such as alcohol misuse, human immunodeficiency virus (HIV) infection, or other chronic liver disease. Asymptomatic individuals with HCV infection identified through screening may benefit from interventions designed to reduce liver injury from other causes, such as counseling to avoid alcohol misuse and immunization against hepatitis A and hepatitis B. However, there is limited evidence of the effectiveness of these interventions.

Strength of Recommendations

The USPSTF grades its **recommendations** according to one of 5 classifications (A, B, C, D, I) reflecting the strength of evidence and magnitude of net benefit (benefits minus harms):

A

The USPSTF strongly recommends that clinicians provide [the service] to eligible patients. The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.

B

The USPSTF recommends that clinicians provide [this service] to eligible patients. The USPSTF found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.

C

The USPSTF makes no recommendation for or against routine provision of [the service]. The USPSTF found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of benefits and harms is too close to justify a general recommendation.

D

The USPSTF recommends against routinely providing [the service] to asymptomatic patients. The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.

I

The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. Evidence that the [service] is effective is lacking, of poor quality, or conflicting and the balance of benefits and harms cannot be determined.

Strength of Evidence

The USPSTF grades the **quality of the overall evidence** for a service on a 3-point scale (good, fair, poor):

Good

Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.

Fair

Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes.

Poor

Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is identified in the "Major Recommendations" field.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Effectiveness of Screening Tests

Enzyme immunoassay (EIA) is the initial screening test for anti-hepatitis C virus (HCV) antibodies. Polymerase Chain Reaction (PCR) is considered the gold standard in HCV-infection testing, as it is the only blood test for active infection. In 4 studies reviewed, third-generation EIA had a sensitivity ranging from 94 to 100% when compared with PCR or recombinant immunoblot assay (RIBA). One good quality study found EIA specificity to be 97% using PCR as the reference standard. In populations with a low prevalence of HCV infection (2%), approximately 59% of all positive tests using the third-generation EIA test with 97% specificity would be false-positive tests. Since the prevalence of HCV infection in high-risk groups is 50 to 90%, the yield of screening in individuals at increased risk would be substantially higher. The RIBA has 100% sensitivity when

compared with EIA but is a more expensive test. In 2 other studies, RIBA was found to have a sensitivity of 80% and 100%, respectively, compared with PCR.

Effectiveness of Interventions

Asymptomatic individuals with HCV infection identified through screening may benefit from interventions designed to reduce liver injury from other causes, such as counseling to avoid alcohol misuse and immunization against hepatitis A and hepatitis B. However, there is limited evidence of the effectiveness of these interventions.

POTENTIAL HARMS

Potential harms from screening include effects of both false-positive and true-positive tests, which may lead to anxiety, effects on partner relationships, unnecessary liver biopsies, and treatment regimens that have a high incidence of adverse effects. Although false-positive tests do occur, they are uncommon if proper confirmatory tests are performed. The harmful effects of true-positive results include anxiety and interventions in patients who would not have progressed to chronic liver disease. The majority of patients receiving interferon-based therapies alone or in conjunction with ribavirin experience adverse effects. Patient withdrawal due to adverse effects from interferon monotherapy averaged 5%, and patient withdrawal from combination therapy ranged from 10 to 20%. The most common adverse event was flu-like syndrome, including myalgia, fatigue, headache, and fever.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

The U.S. Preventive Services Task Force recommendations are independent of the U.S. government. They do not represent the views of the Agency for Healthcare Research and Quality (AHRQ), the U.S. Department of Health and Human Services, or the U.S. Public Health Service.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The experiences of the first and second U.S. Preventive Services Task Force (USPSTF), as well as that of other evidence-based guideline efforts, have highlighted the importance of identifying effective ways to implement clinical recommendations. Practice guidelines are relatively weak tools for changing clinical practice when used in isolation. To effect change, guidelines must be coupled with strategies to improve their acceptance and feasibility. Such strategies include enlisting the support of local opinion leaders, using reminder systems for clinicians and patients, adopting standing orders, and audit and feedback of information to clinicians about their compliance with recommended practice.

In the case of preventive services guidelines, implementation needs to go beyond traditional dissemination and promotion efforts to recognize the added patient and clinician barriers that affect preventive care. These include clinicians' ambivalence about whether preventive medicine is part of their job, the psychological and practical challenges that patients face in changing behaviors, lack of access to health care or of insurance coverage for preventive services for some patients, competing pressures within the context of shorter office visits, and the lack of organized systems in most practices to ensure the delivery of recommended preventive care.

Dissemination strategies have changed dramatically in this age of electronic information. While recognizing the continuing value of journals and other print formats for dissemination, the Agency for Healthcare Research and Quality will make all U.S. Preventive Services Task Force (USPSTF) products available through its [Web site](#). The combination of electronic access and extensive material in the public domain should make it easier for a broad audience of users to access U.S. Preventive Services Task Force materials and adapt them for their local needs. Online access to U.S. Preventive Services Task Force products also opens up new possibilities for the appearance of the annual, pocket-size *Guide to Clinical Preventive Services*.

To be successful, approaches for implementing prevention have to be tailored to the local level and deal with the specific barriers at a given site, typically requiring the redesign of systems of care. Such a systems approach to prevention has had notable success in established staff-model health maintenance organizations, by addressing organization of care, emphasizing a philosophy of prevention, and altering the training and incentives for clinicians. Staff-model plans also benefit from integrated information systems that can track the use of needed services and generate automatic reminders aimed at patients and clinicians, some of the most consistently successful interventions. Information systems remain a major challenge for individual clinicians' offices, however, as well as for looser affiliations of practices in network-model managed care and independent practice associations, where data on patient visits, referrals, and test results are not always centralized.

IMPLEMENTATION TOOLS

Foreign Language Translations
Patient Resources
Personal Digital Assistant (PDA) Downloads
Pocket Guide/Reference Cards

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

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)

Screening for hepatitis C virus infection in adults: recommendation statement. *Ann Intern Med* 2004 Mar 16;140(6):462-4. [3 references] [PubMed](#)

ADAPTATION

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

DATE RELEASED

2004 Mar 16

GUIDELINE DEVELOPER(S)

United States Preventive Services Task Force - Independent Expert Panel

GUIDELINE DEVELOPER COMMENT

The U.S. Preventive Services Task Force (USPSTF) is a Federally-appointed panel of independent experts. Conclusions of the U.S. Preventive Services Task Force do not necessarily reflect policy of the U.S. Department of Health and Human Services (DHHS) or its agencies.

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

U.S. Preventive Services Task Force (USPSTF)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

*Task Force Members**: Alfred O. Berg, MD, MPH, Chair, USPSTF (Professor and Chair, Department of Family Medicine, University of Washington, Seattle, WA); Janet D. Allan, PhD, RN, CS, Vice-chair, USPSTF (Dean, School of Nursing, University of Maryland Baltimore, Baltimore, MD); Ned Calonge, MD, MPH (Acting Chief Medical Officer, Colorado Department of Public Health and Environment, Denver, CO); Paul Frame, MD (Tri-County Family Medicine, Cohocton, NY, and Clinical Professor of Family Medicine, University of Rochester, Rochester, NY); Joxel Garcia, MD, MBA (Deputy Director, Pan American Health Organization, Washington, DC); Russell Harris, MD, MPH (Associate Professor of Medicine,

Sheps Center for Health Services Research, University of North Carolina School of Medicine, Chapel Hill, NC); Mark S. Johnson, MD, MPH (Professor of Family Medicine, University of Medicine and Dentistry of New Jersey-New Jersey Medical School, Newark, NJ); Jonathan D. Klein, MD, MPH (Associate Professor, Department of Pediatrics, University of Rochester School of Medicine, Rochester, NY); Carol Loveland-Cherry, PhD, RN (Executive Associate Dean, School of Nursing, University of Michigan, Ann Arbor, MI); Virginia A. Moyer, MD, MPH (Professor, Department of Pediatrics, University of Texas at Houston, Houston, TX); C. Tracy Orleans, PhD (Senior Scientist, The Robert Wood Johnson Foundation, Princeton, NJ); Albert L. Siu, MD, MSPH (Professor of Medicine, Chief of Division of General Internal Medicine, Mount Sinai School of Medicine, New York, NY); Steven M. Teutsch, MD, MPH (Senior Director, Outcomes Research and Management, Merck & Company, Inc., West Point, PA); Carolyn Westhoff, MD, MSc (Professor of Obstetrics and Gynecology and Professor of Public Health, Columbia University, New York, NY); and Steven H. Woolf, MD, MPH (Professor, Department of Family Practice and Department of Preventive and Community Medicine and Director of Research Department of Family Practice, Virginia Commonwealth University, Fairfax, VA)

**Members of the Task Force at the time this recommendation was finalized. For a list of current Task Force members, go to www.ahrq.gov/clinic/uspstfab.htm.*

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

The U.S. Preventive Services Task Force has an explicit policy concerning conflict of interest. All members and evidence-based practice center (EPC) staff disclose at each meeting if they have an important financial conflict for each topic being discussed. Task Force members and EPC staff with conflicts can participate in discussions about evidence, but members abstain from voting on recommendations about the topic in question.

From: Harris RP, Helfand M, Woolf SH, Lohr KN, Mulrow, CD, Teutsch SM, Atkins D. Current methods of the U.S. Preventive Services Task Force: a review of the process. Methods Work Group, Third U.S. Preventive Services Task Force. Am J Prev Med 2001 Apr;20(3S):21-35.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#). Also available from [Annals of Internal Medicine Online](#).

Print copies: Available from the Agency for Healthcare Research and Quality (AHRQ) Publications Clearinghouse. For more information, go to <http://www.ahrq.gov/news/pubsix.htm> or call 1-800-358-9295 (U.S. only).

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

Evidence Reviews:

- Chou R, Clark EC, Helfand MH. Screening for hepatitis C virus infection: a review of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med*, 2004 Mar 16;140(6):465-79.

Electronic copies: Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#). Also available from [Annals of Internal Medicine Online](#).

- Chou R. Screening for hepatitis C virus infection. Rockville (MD); Agency for Healthcare Research and Quality; 2004 Mar 16 (Systematic Evidence Review No. 24).

Electronic copies: Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#).

Background Articles:

- Woolf SH, Atkins D. The evolving role of prevention in health care: contributions of the U.S. Preventive Services Task Force. *Am J Prev Med* 2001 Apr;20(3S):13-20.
- Harris RP, Helfand M, Woolf SH, Lohr KN, Mulrow, CD, Teutsch SM, Atkins D. Current methods of the U.S. Preventive Services Task Force: a review of the process. Methods Work Group, Third U.S. Preventive Services Task Force. *Am J Prev Med* 2001 Apr;20(3S):21-35.
- Saha S, Hoerger TJ, Pignone MP, Teutsch SM, Helfand M, Mandelblatt JS. The art and science of incorporating cost effectiveness into evidence-based recommendations for clinical preventive services. Cost Work Group of the Third U.S. Preventive Services Task Force. *Am J Prev Med* 2001 Apr;20(3S):36-43.

Electronic copies: Available from [U.S. Preventive Services Task Force \(USPSTF\) Web site](#).

The following are also available:

- The guide to clinical preventive services, 2006. Recommendations of the U.S. Preventive Services Task Force. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ), 2006. 228 p. Electronic copies available from the [AHRQ Web site](#).
- A step-by-step guide to delivering clinical preventive services: a systems approach. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ), 2002 May. 189 p. Electronic copies available from the [AHRQ Web site](#). See the related QualityTool summary on the [Health Care Innovations Exchange Web site](#).
- Screening for hepatitis C. What's New from the USPSTF. Rockville (MD): Agency for Healthcare Research and Quality; 2004. Electronic copies: Available from [USPSTF Web site](#). See the related QualityTool summary on the [Health Care Innovations Exchange Web site](#).

Print copies: Available from the Agency for Healthcare Research and Quality Publications Clearinghouse. For more information, go to <http://www.ahrq.gov/news/pubsix.htm> or call 1-800-358-9295 (U.S. only).

The [Electronic Preventive Services Selector \(ePSS\)](#), available as a PDA application and a web-based tool, is a quick hands-on tool designed to help primary care clinicians identify the screening, counseling, and preventive medication services that are appropriate for their patients. It is based on current recommendations of the USPSTF and can be searched by specific patient characteristics, such as age, sex, and selected behavioral risk factors.

PATIENT RESOURCES

The following is available:

- The pocket guide to good health for adults. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2003.

Electronic copies: Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#). Copies also available in Spanish from the [USPSTF Web site](#). See the related QualityTool summary on the [Health Care Innovations Exchange Web site](#).

Print copies: Available from the Agency for Healthcare Research and Quality (AHRQ) Publications Clearinghouse. For more information, go to <http://www.ahrq.gov/news/pubsix.htm> or call 1-800-358-9295 (U.S. only).

- Screening for hepatitis C virus infection: recommendations from the U.S. Preventive Services Task Force. *Ann Intern Med* 2004 Mar 16;140(6):I62.

Electronic copies: Available from the [Annals of Internal Medicine Online Web site](#).

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

This NGC summary was completed by ECRI on March 5, 2004. The information was verified by the guideline developer on March 12, 2004.

COPYRIGHT STATEMENT

Requests regarding copyright should be sent to: Gerri M. Dyer, Electronic Dissemination Advisor, Agency for Healthcare Research and Quality (formerly the Agency for Health Care Policy and Research), Center for Health Information

Dissemination, Suite 501, Executive Office Center, 2101 East Jefferson Street, Rockville, MD 20852; Facsimile: 301-594-2286; E-mail: gdyer@ahrq.gov.

DISCLAIMER

NGC DISCLAIMER

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at <http://www.guideline.gov/about/inclusion.aspx>.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

© 1998-2008 National Guideline Clearinghouse

Date Modified: 11/3/2008

