A Review on How to Access and Implement AHRQ’s Evidence-Based Resources to Inform Your Clinical Practice

Supplemental Material and References to Accompany the Recorded Webinar

Register for other recordings in this series at: http://ce.ahrq.gov/nurses/.

Questions about the handout? Please contact us via email at educationservices@hayesinc.com, or via phone at 267-498-7926.

AHRQ’s Mission and Priority Areas of Focus

Mission

Slide #8

“…To produce evidence to make health care safer, higher quality, more accessible, equitable, and affordable, and to work with HHS and other partners to make sure that the evidence is understood and used.”

Priority Areas of Focus

Four priority areas of focus for AHRQ:

Slide #9

• Improve quality through dissemination and implementation of patient-centered outcomes research (PCOR) findings.
• Make health care safer.
• Increase accessibility by evaluating Affordable Care Act (ACA) coverage expansions.
• Improve health care affordability, efficiency, and cost transparency.

Source: AHRQ Profile: http://www.ahrq.gov/about/index.html

Definition of Evidence-based Clinical Practice

Slide #13

“…Evidence-based clinical practice is an approach to decisionmaking in which the clinician uses the best evidence available, in consultation with the patient, to decide upon the option which suits that patient best.”

A systematic review critically assesses and evaluates all of the research addressing a particular clinical issue.

**Step #1** in the systematic review process is *Topic Preparation.*
- The topic to be evaluated is identified and fully defined.
- Key questions are formulated.
  - The key questions guide the next steps in the review process in terms of the literature search, inclusion and exclusion criteria for literature, types of data to be extracted, and how the data are synthesized and reported.
- The analytic framework is developed.
  - The analytic framework is an overview of the topic being evaluated and defines any assumptions being made about the intervention and its effect on patients. It establishes a context for the report and clarifies links between intermediate and health outcomes.
  - Components of an analytic framework:
    - Population of interest
    - Intervention
    - Linkages that demonstrate key questions
    - Intermediate outcomes
    - Ultimate health outcomes (including harms)
Step #2 is the search for and selection of clinical studies for analysis
- Before searching the literature, selection criteria (also called inclusion and exclusion criteria) established as part of the analytic framework are used to determine which studies will be included in the analysis.
- The literature is searched and studies are selected for evaluation and analysis.
- Strict systematic scientific methods are used to guide the research process to ensure that all of the appropriate studies are included.
- Multiple databases are searched.
  - Data sources include: Sources of peer-reviewed published evidence, e.g., PubMed (Medline), Cochrane Database, AIDSLINE, Embase, TOXNET, PsycLIT, CINAHL, evidence-based clinical practice guidelines, etc.

Step #3 is data extraction.
- This is a very time-consuming step and needs to be carried out methodically and systematically.
- This step requires personnel who are familiar with the content being evaluated and who have knowledge of epidemiologic principles and statistical concepts.

Step #4 involves analysis and synthesis of the published data.
- During this step, the strength and quality of the published evidence are graded. The evidence grade guides conclusions and recommendations issued in the review. (Grading of the strength of evidence is done after the quality of the individual articles is rated.)
- Grading the evidence helps users of systematic reviews understand the body of evidence and how much confidence they can have in making decisions based on that evidence.
- Once the research is completed, a draft report is presented to scientific and/or medical experts who review the findings and conclusions for accuracy.

Step #5 is the reporting or dissemination of results of the review.
- A standard format used for systematic reviews often includes:
  - Abstract and Executive Summary
  - Chapter 1. Introduction
  - Chapter 2. Methods
  - Chapter 3. Results
  - Chapter 4. Discussion
- AHRQ and the USPSTF publish their draft systematic reviews for public comment as a way to ensure that the research process is as transparent as possible.
- Once the systematic review is completed, it is usually published in a peer-reviewed journal. The information is then made publicly available and can be translated into tools and aids to support clinical decisionmaking.

Sources:
- The EHC Program Slide Library [scroll down to Methods Training Materials and click on AHRQ Training Modules for the Systematic Reviews Methods Guide]: http://effectivehealthcare.ahrq.gov/index.cfm/tools-and-resources/slide-library/#slidetrainingmodules
Institute of Medicine (IOM) Definition of Clinical Practice Guideline (2011)

“Clinical practice guidelines are statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options.”

NGC Criteria for Guideline Inclusion – effective June 2014:

A. Clinical practice guidelines should include systematically developed statements. Recommendations should optimize patient care by assisting health care practitioners and patients to make informed health care decisions for specific clinical circumstances.

B. The clinical practice guideline must be produced under the auspices of a medical specialty association; relevant professional society; public or private organization; government agency at the Federal, State, or local level; or health care organization or plan. A clinical practice guideline developed and issued by an individual(s) not officially sponsored or supported by one of the above types of organizations does not meet the inclusion criteria for NGC.

C. *New element for 2014* The clinical practice guideline is based on a systematic review of evidence as demonstrated by documentation of each of the following features in the clinical practice guideline or its supporting documents.
   a. An explicit statement that the clinical practice guideline is based on a systematic review.
   b. A description of the search strategy that includes a listing of database(s) searched; a summary of search terms used; the specific time period covered by the literature search, including the beginning date (month/year) and end date (month/year); and the date(s) when the literature search was conducted.
   c. A description of the study selection that includes the number of studies identified, the number of studies included, and a summary of inclusion and exclusion criteria.
   d. A synthesis of evidence from the selected studies, e.g., a detailed description or evidence tables.
   e. A summary of the evidence synthesis (see item d above) included in the guideline that relates the evidence to the recommendations, e.g., a descriptive summary or summary tables.

   Note: The NGC includes systematic reviews that identify specific gaps in the evidence base for some of the guideline recommendations.

D. *New element for 2014* The clinical practice guideline or its supporting documents contain an assessment of the benefits and harms of recommended care and alternative care options.

E. The full-text guideline is available in English to the public upon request (for free or for a fee). Upon submission of the guideline to the NGC, it must also be noted whether the systematic review or other supporting documents are available in English to the public upon request (for free or for a fee).

F. The guideline must have been developed, reviewed, or revised within the past 5 years, as evidenced by appropriate documentation (e.g., the systematic review or detailed description of methodology).

Source: NGC Inclusion Criteria: [http://www.guideline.gov/about/inclusion-criteria.aspx](http://www.guideline.gov/about/inclusion-criteria.aspx)

The Effective Health Care Program produces three primary products:

1. **Research Reviews** are comprehensive reports evaluating studies of head-to-head comparisons of different types of health care interventions. The EHC Program produces two types of Research Reviews—comparative effectiveness and effectiveness reviews, and technical briefs.
   - **Comparative effectiveness and effectiveness reviews** outline the effectiveness, or the benefits and harms, of treatment options.
     - **Examples:**
       - Update of Comparative Effectiveness of Lipid-Modifying Agents
       - Otitis Media With Effusion: Comparative Effectiveness of Treatments
   - **Technical briefs** explain what is known or not known about new or emerging health care tests or treatments. They may be developed when there is insufficient published evidence to complete a full comparative effectiveness review.
     - **Examples:**
       - Whole Body Vibration Therapy for Osteoporosis
       - Multidisciplinary Pain Programs for Chronic Noncancer Pain

2. **Original Research Reports** are the second category of reports produced by the EHC Program. These reports are based on clinical research and studies that use health care databases and other scientific resources and approaches to explore the practical questions about the effectiveness (benefits and harms) of certain treatments.
   - **Examples:**
     - ADHD Medications and Risk of Serious Coronary Heart Disease in Young and Middle-Aged Adults
     - Research on the Comparative Management of Uterine Fibroid Disease
     - Comparative Effectiveness and Safety of New Therapies for Glucose Control in Diabetes Mellitus

3. **Research Summaries** are the third category of reports. They are short summaries written in plain language and tailored to a specific audience (clinicians, consumers, or policymakers).
   - These summaries include information appropriate for the reader.
   - For example, background information on health conditions and treatments may be available for consumers, while information about the strength of the evidence behind a report’s conclusions will be provided for clinicians and policymakers.
   - **Examples:**
     - **For Consumers:**
       - Allergy Shots and Allergy Drops for Adults and Children
       - Having a Breast Biopsy: A Guide for Women and Their Families
       - Treating Prostate Cancer: A Guide for Men With Localized Prostate Cancer
       - Therapies for Children With Autism Spectrum Disorders: A Review of the Research for Parents and Caregivers
     - **For Clinicians:**
       - Gestational Diabetes
       - Caring for Women During and After Pregnancy
       - Managing Chronic Gastroesophageal Reflux Disease
       - Analgesics for Osteoarthritis

**Source:** What Is the Effective Health Care Program: [http://www.effectivehealthcare.ahrq.gov/index.cfm/what-is-the-effective-health-care-program1/](http://www.effectivehealthcare.ahrq.gov/index.cfm/what-is-the-effective-health-care-program1/)
Other EHC resources:

- The EHC Program Library, which has many helpful offerings, including the following:
  - **Patient Decision Aids** are available online and as downloadable brochures. They are written in consumer-friendly language and are designed for patients with certain conditions to help them think about what is important to them when talking with their clinician about treatment options.
  - **CE Activities** are available for various types of clinicians. The requirements for earning CE credits are available online along with information about accreditation and instructions for completion.
  - The **EHC Slide Library** contains prepared talks and PowerPoint slide presentations for educating clinicians, researchers, and other health professionals in training. Each talk contains speaker notes, references, and keywords to find slides on a similar topic. Individual talks can be downloaded or the Slide Library can be searched to find appropriate slides to assemble a custom presentation.

**Source:** Tools and Resources: [http://www.effectivehealthcare.ahrq.gov/index.cfm/what-is-the-effective-health-care-program1/](http://www.effectivehealthcare.ahrq.gov/index.cfm/what-is-the-effective-health-care-program1/)
The USPSTF updated its definition of and suggestions for practice for the grade C recommendation. This new definition applies to USPSTF recommendations voted on after July 2012. Describing the strength of a recommendation is an important part of communicating its importance to clinicians and other users. Although most of the grade definitions have evolved since the USPSTF first began, none has changed more noticeably than the definition of a C recommendation, which has undergone three major revisions since 1998. Despite these revisions, the essence of the C recommendation has remained consistent: at the population level, the balance of benefits and harms is very close, and the magnitude of net benefit is small. Given this small net benefit, the USPSTF has either not made a recommendation “for or against routinely” providing the service (1998), recommended “against routinely” providing the service (2007), or recommended “selectively” providing the service (2012). Grade C recommendations are particularly sensitive to patient values and circumstances. Determining whether or not the service should be offered or provided to an individual patient will typically require an informed conversation between the clinician and patient.”

### Grade Definitions (After July 2012)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Suggestions for Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is substantial.</td>
<td>Offer or provide this service.</td>
</tr>
<tr>
<td>B</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.</td>
<td>Offer or provide this service.</td>
</tr>
<tr>
<td>C</td>
<td>The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.</td>
<td>Offer or provide this service for selected patients depending on individual circumstances.</td>
</tr>
<tr>
<td>D</td>
<td>The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.</td>
<td>Discourage the use of this service.</td>
</tr>
<tr>
<td>I Statement</td>
<td>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, or poor-quality, or conflicting, and the balance of benefits and harms cannot be determined.</td>
<td>Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.</td>
</tr>
</tbody>
</table>
### Levels of Certainty Regarding Net Benefit

<table>
<thead>
<tr>
<th>Level of Certainty</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td><strong>High</strong></td>
<td>The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.</td>
</tr>
</tbody>
</table>
| **Moderate**       | The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by such factors as:  
  - The number, size, or quality of individual studies.  
  - Inconsistency of findings across individual studies.  
  - Limited generalizability of findings to routine primary care practice.  
  - Lack of coherence in the chain of evidence.  

As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion. |
| **Low**            | The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:  
  - The limited number or size of studies.  
  - Important flaws in study design or methods.  
  - Inconsistency of findings across individual studies.  
  - Gaps in the chain of evidence.  
  - Findings not generalizable to routine primary care practice.  
  - Lack of information on important health outcomes.  

More information may allow estimation of effects on health outcomes. |
Finding and Using Task Force (USPSTF) Recommendations  

- USPSTF Web Site
    - Recommendations: [http://www.uspreventiveservicestaskforce.org/recommendations.htm](http://www.uspreventiveservicestaskforce.org/recommendations.htm)

- Consumer Tool
  - MyHealthFinder – two ways to access:
      - Scroll down and look for the MyHealthFinder box on the right side toward the bottom of the page.

- Electronic Preventive Service Selector (ePSS)
  - Available online and as a mobile application for handheld devices or smart phone: [http://epss.ahrq.gov/PDA/index.jsp](http://epss.ahrq.gov/PDA/index.jsp)
  - Two other ways to access the ePSS tool:
    - From the USPSTF home page, scroll down and look for the AHRQ ePSS icon on the right side of the page ([http://www.uspreventiveservicestaskforce.org/index.html](http://www.uspreventiveservicestaskforce.org/index.html)).
    - From the AHRQ home page ([http://www.ahrq.gov/](http://www.ahrq.gov/)), place your cursor over the For Professionals tab, from the Search Professional Resources menu on the far right, select Electronic Preventive Services Selector ([http://epss.ahrq.gov/PDA/index.jsp](http://epss.ahrq.gov/PDA/index.jsp)).

Recommendations for Immunizations  

Recommendations for immunizations for all ages are established by the Advisory Committee on Immunization Practices (ACIP) at the Centers for Disease Control and Prevention (CDC): [http://www.cdc.gov/vaccines/schedules/index.html](http://www.cdc.gov/vaccines/schedules/index.html).
Case Studies

Case Study #1

A 62-year-old man comes to the clinic for his annual physical. His current weight is within normal limits but he was diagnosed with type 2 diabetes 4 years ago. Until now, he has not required any medications but he recently had a free blood sugar screening at a health fair and was told his blood sugar was 147. In addition to the diabetes, he has a history of hypertension that is well controlled with daily medication. He has been married for 40 years and the relationship is monogamous. He reports he had a colonoscopy at age 50 but has not had another since then. He began smoking as a young man but quit about 25 years ago and has experienced no apparent negative effects. He drinks occasionally but only in social situations.

Question #1: What preventive services would be appropriate for this patient?

Answer: Using the ePSS (http://epss.ahrq.gov/ePSS/GetResults.do?new=true) tool to search USPSTF recommendations and eliminating those recommendations that do not apply based on the patient’s history, six relevant A or B recommendations remain.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Title</th>
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<tbody>
<tr>
<td>A</td>
<td>Aspirin to Prevent CVD: Men age 45-79 years to prevent myocardial infarctions</td>
</tr>
<tr>
<td>A</td>
<td>Colorectal Cancer: Screening – Adults, beginning at age 50 years and continuing until age 75 years</td>
</tr>
<tr>
<td>A</td>
<td>High Blood Pressure: Screening – Adults 18 years and over</td>
</tr>
<tr>
<td>A</td>
<td>Lipid Disorders in Adults: Screening – Men 35 years and older</td>
</tr>
<tr>
<td>B</td>
<td>Healthy Diet: Counseling – Adults with hyperlipidemia and other risk factors for CVD</td>
</tr>
<tr>
<td>B</td>
<td>Obesity: Screening for and management of – All adults</td>
</tr>
</tbody>
</table>

Patient Questions: During his exam, the patient’s provider recommends lab work to check the patient’s blood sugar due to his elevated blood sugar reading at the health screening. The provider wants to determine whether the patient needs diabetes medications. The patient is asked to return to the clinic after his lab results are available to discuss his test results and options for further treatment if needed. Oral medications were mentioned during their discussion and the patient asks for more information about the medications he might need in the future.


The full report is based on a systematic review of more than 100 clinical studies and provides conclusions about the comparative effectiveness, benefits, and adverse effects of the available single-drug and two-drug combinations of medications for adults with type 2 diabetes. Information addressing the benefits and side effects of each drug are included in the full report and the Consumer Summary.
A young couple comes to the clinic with their infant son for a routine 2-month check up. They are of African descent and new to this country, reporting that the baby was born outside the U.S. The infant is doing well, growing normally, and appears to be well nourished. The mother is breastfeeding and reports no feeding difficulties. When questioned about what types of newborn screening tests were done in the country where the baby was born, the parents were unsure.

**Question #1:** What screening and preventive services would be appropriate for this infant?

**Answer:** Using the ePSS (http://epss.ahrq.gov/ePSS/GetResults.do?new=true) tool and eliminating those recommendations that do not apply based on the patient’s age, 2 recommendations with grades A or B remain. (Age 0 is used to obtain newborn recommendations in the ePSS tool.)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A*</td>
<td>Sickle Cell Disease: Screening – Newborns</td>
</tr>
<tr>
<td>B*</td>
<td>Hearing Loss in Newborns: Universal Screening – Newborns</td>
</tr>
</tbody>
</table>

**Parent's Questions:** The physical exam of the patient reveals one undescended testicle, which is a new finding. The parents wonder what the implications are for this condition and ask for information about long-term effects and treatment options for the future.


A companion Consumer Summary and Clinician Summary are available, along with the full comparative effectiveness report (http://www.effectivehealthcare.ahrq.gov/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productid=1352). This report focuses primarily on surgical correction of the problem, but the parents were cautioned that this problem can correct itself on its own over time and that surgery is not generally considered necessary until infants are at least 6 months old.
Case Study #3

A 50-year-old woman comes to the clinic for her annual physical exam. She is slightly overweight with a BMI of 26 but claims to be otherwise healthy. She has a family history of hypertension and heart disease and she has been taking blood pressure medications for the last 2 years. She is a non-smoker and drinks occasionally. She has been married for 25 years and is in a monogamous relationship.

Question #1: What preventive services would be appropriate for this patient?

Answer: Using the ePSS (http://epss.ahrq.gov/ePSS/GetResults.do?new=true) tool and eliminating those recommendations that do not apply based on the patient’s history, nine recommendations remain with A and B recommendations.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Cervical Cancer: Screening – Women 21-65 years (Pap smear) or 30-65 years (in combo with HPV testing)</td>
</tr>
<tr>
<td>A</td>
<td>Colorectal Cancer: Screening – Adults, beginning at age 50 years and continuing until age 75 years</td>
</tr>
<tr>
<td>A</td>
<td>Lipid Disorders in Adults: Screening – Women 45 years and older, increased risk for CHD</td>
</tr>
<tr>
<td>B</td>
<td>Breast Cancer: Screening with Mammography – Women 50-74 years</td>
</tr>
<tr>
<td>B</td>
<td>Healthy Diet: Counseling – Adults with hyperlipidemia and other risk factors for CVD</td>
</tr>
<tr>
<td>B</td>
<td>Hepatitis C Virus Infection: Screening – Adults at high risk and adults born between 1945 and 1965</td>
</tr>
<tr>
<td>B</td>
<td>Obesity: Screening for and Management of – All adults</td>
</tr>
<tr>
<td>B</td>
<td>Type 2 Diabetes Mellitus: Screening Men and Women – Sustained BP 135/80+</td>
</tr>
</tbody>
</table>

Patient’s Questions: The blood pressure obtained during this office visit was 146/82, which is a little higher than on previous visits. Until now, her blood pressure has been monitored in her provider’s office. She wonders now if monitoring her BP with a home blood pressure cuff would be useful. What does the evidence show about use of a home blood pressure monitor in patients with her clinical picture?


This report examined the use of self-measured blood pressure (SMBP) versus “usual care,” or care and support available in a primary care setting for management of hypertension. According to the findings presented in this report, “SMBP alone improves BP control by only a small amount when compared with usual care.” However, “SMBP plus some form of additional support [i.e., telemonitoring, counseling, education, Web support, behavioral interventions, home visits] improves BP control when compared with usual care at least up to 12 months.”
Answers to the Q&A Session from the Live Event

Q1: Are there any videos for patient education available on ePSS?

A: The ePSS tool does not include patient education videos. However, AHRQ provides a number of useful tools specifically for patients on their “Patients and Consumers” page at: http://www.ahrq.gov/patients-consumers/index.html. The Effective Healthcare Program has resources for patients here: http://www.effectivehealthcare.ahrq.gov/index.cfm/research-summaries-for-consumers-clinicians-and-policymakers/.

In addition, you may find the following resources helpful:

- Free patient education videos are available at:
- An AHRQ video centering on patients with multiple chronic conditions is available at: http://www.ahrq.gov/professionals/prevention-chronic-care/decision/mcc/video/
- AHRQ videos on how to implement self-management support in your clinical practice is available at: http://www.orau.gov/ahrq/sms_home.html

Q2: What does the search tool for the mobile ePSS search for and where is it looking? It seems different than the one online that has a condition topic and then the keyword?

A: There are multiple ways to search topics and USPSTF recommendations using the USPSTF website and the ePSS tool. The mobile ePSS app and the online version ePSS tool search the same U.S. Preventive Services Task Force database. The ePSS tool allows entry of individual patient parameters including age and sex, along with other selected behavioral risk factors to identify recommendations. (http://epss.ahrq.gov/ePSS/GetResults.do?method=search&new=true).
EHC Program
The EHC Program reports are accessed using the EHC Web site and search form, which allows selection of various topics and the ability to enter keywords to enhance the search (http://effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/). There is also a simple text search box in the upper right corner of each EHC page.

The EHC Program database includes reports targeting different audiences, i.e., clinicians, consumers, and policymakers. All of the reports are available in PDF format and many Consumer Summaries are available as audio files. Some have been translated into Spanish as well.

Q3: My question is looking at this from the hospitalist perspective. Are there general screening essentials that would apply to hospitalized patients, by age perhaps?

A: The USPSTF conducts scientific evidence reviews of a broad range of clinical preventive health care services (such as screening, counseling, and preventive medications) and develops recommendations for primary care clinicians and health systems. These recommendations are published in the form of “Recommendation Statements.” The USPSTF makes recommendations about preventive services for use in primary care settings.
Q4: There was a section on systematic reviews. Do you update these SRs with regards to latest analysis techniques?

A: AHRQ recognizes the importance of regularly updating systematic reviews and comparative effectiveness reviews (CERs) as new evidence is produced. The USPSTF aims to update topics every 5 years. Each systematic review begins with the development of an analytical framework that helps to frame the key questions to be covered in the review and also to guide the most appropriate analysis techniques.

The EHC Program has updated a number of its systematic reviews and has conducted methodology work on updating. Here is a screen print of the results of a search using the keywords “updating+methods+ EPC” (see search box for how the terms were checked).
Q5: I am looking for network meta-analysis of survival outcomes in WinBUGs. Has this been done in any oncology review at AHRQ?

A: Search for Research Reviews on the EHC Program Web site at: http://www.effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/. Select “Research Summaries, Reviews, and Reports” as the search function, and select “All Cancer” as the health condition. This search provides a list of 16 research reports. To determine which reports looked at survival as an outcome and conducted a meta-analysis using WinBUGs as the statistical package, you will need to refer to the methods section of each relevant report. You may also do a simple text search for the term “WinBUGs” in the search box in the upper right corner. As you probably know, text searches are not always fully informative, but it is another option for a quick search.

Q6: How often does insurance not cover A and B recommendations by the task force?

Q10: Even though immunization recommendations are not part of USPSTF, are immunizations included in the “no additional cost” provision of the ACA?

A: For health care coverage questions, The Healthcare.gov Web site has a list of the preventive services that must be covered by most health plans at no cost to the patient. Available at: https://www.healthcare.gov/what-are-my-preventive-care-benefits/#part=1.

Q7: Having trouble finding the correct site to download epss using my iphone. Can you tell me how to get started?

Q8: FYI-I just went to the EPSS site on my phone and got an “under construction” screen.

A: Go to the following address and choose the mobile device you would like to download to: http://epss.ahrq.gov/PDA/index.jsp. Follow the download steps. You can also go to the iTunes store (https://www.apple.com/itunes/) or to GooglePlay (https://play.google.com/store?hl=en) and do a search for ePSS—it will be a free download.

If you continue to have trouble please email us at Educationservices@hayesinc.com.

Q9: Besides Spanish, is there consideration of other language translations (i.e., Creole, Chinese?)

A: There are currently no plans to translate the Consumer Summaries into languages other than Spanish. However, these documents are copyright-free and may be translated to benefit your local population. If you do translate these materials, please let us know by emailing us at EHC_Outreach@ahrq.hhs.gov.

Q10: Is the CE credit only for Nurse Practitioners, or all Advanced Practice Nurses?

Q11: Is this Webinar available for Nurse Practitioner students?

A: CE credit is available to all APRNs. The Webinar recording is open to all interested individuals.
Q12: Are there plans to make an app for the Effective Healthcare Program?

A: Not currently.

Q13: Does the net benefit consider economic value as well?

A: The USPSTF does not consider costs or cost-effectiveness when making recommendations.

According to Section 5 of the USPSTF Procedure Manual, Methods for Arriving at a Recommendation:

“5.4.2 Assessing Magnitude of Harms

…The Task Force also considers the time and effort required by both patients and the health care system (opportunity costs) to implement the preventive care service. If the time and effort are judged to be clinically important these factors are also considered in the “harms” category. The Task Force usually has general rather than precise estimates of opportunity costs.

Although opportunity costs may be considered in the Task Force’s letter grades, financial costs are not. The Task Force understands, however, that many of its audiences are interested in issues of financial cost. In situations where there is likely to be some degree of health benefit, the Task Force searches for information about costs and cost-effectiveness and provides a summary of this information under “Other Considerations” in its recommendation statement…”

A Review on How to Access and Implement AHRQ’s Evidence-Based Resources to Inform Your Clinical Practice

Richard Ricciardi, PhD, NP
Susan A. Levine, MS, DVM, PhD
Sharon Constans, RN, MSN – Presenter

Disclosures

* This Webinar has been funded and developed by the Agency for Healthcare Research and Quality (AHRQ); there has been no outside commercial support.
* Presenter(s)/staff do not endorse any commercial services or products displayed in this Webinar.
* Presenter(s)/staff have no conflicts of interest or relevant financial relationships to disclose.
* This Webinar is not intended to promote any specific clinical intervention or as an evaluation of current clinical practice.

Requirements for Successful Completion, CE

* View entire Webinar recording.
* Complete an online evaluation.
* Pass the posttest with a grade of 80% or higher.
* Complete and submit the evaluation/posttest within 30 days of the Webinar.
* Questions?
  ► Email us: educationservices@hayesinc.com
  ► Call us: 267-498-7926
Designation and Accreditation Statements

• This program is approved for 1.0 contact hour of continuing education.
• The program was planned in accordance with AANP CE Standards and Policies and AANP Commercial Support Standard.

Welcome
Co-President
Angela Golden, DNP, FNP-C, FAANP
A Review on How to Access and Implement AHRQ’s Evidence-Based Resources to Inform Your Clinical Practice

Richard Ricciardi, PhD, NP, FAANP
Center for Primary Care, Prevention, and Clinical Partnerships – AHRQ

AHRQ’s New Mission

To produce evidence to make health care safer, higher quality, more accessible, equitable, and affordable, and to work with HHS and other partners to make sure that the evidence is understood and used.

AHRQ’s Priority Areas of Focus

• Improve health care quality by accelerating implementation of Patient Centered Outcomes Research
• Make health care safer
• Increase accessibility by evaluating Affordable Care Act coverage expansions
• Improve health care affordability, efficiency, and cost transparency
A Review on How to Access and Implement AHRQ’s Evidence-Based Resources to Inform Your Clinical Practice

Webinar Objectives

At the end of this presentation, participants will be able to:

► Describe the five major steps in conducting a systematic review.
► List the evidence-based resources available on the AHRQ Web site, including those available through the Effective Health Care (EHC) Program.
► Locate the resources available on the United States Preventive Services Task Force (USPSTF) Web site, including the Electronic Preventive Services Selector (ePSS) tool.
► Demonstrate how to download the ePSS application to a PDA or mobile device.
► Explain how the EHC Program resources, the USPSTF recommendations, and the ePSS tool can be integrated into APRN clinical decisionmaking.

Presenter:
Sharon T. Constans, RN, MSN
Managing Editor, Search & Summary – Hayes, Inc.
Director, Hayes CARE – Hayes, Inc.
What is Evidence-Based Practice?

“Evidence-based clinical practice is an approach to decisionmaking in which the clinician uses the best evidence available, in consultation with the patient, to decide upon the option which suits that patient best.”


Evidence for Health Care

Systematic reviews
- Considered the “gold standard” for EBP
- Foundation for comparative effectiveness research

Comparative effectiveness research
- Effectiveness, benefits, and harms of different treatment options
- Used to inform health care decisions

Systematic Review Process

1. Topic preparation
2. Search for and select studies for inclusion
3. Extract data from studies
4. Analyze and synthesize studies
5. Report findings
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Resources for the Systematic Review Process

- Summary of Systematic Review process – handout
- Training Modules: http://effectivehealthcare.ahrq.gov/index.cfm/tools-and-resources/slide-library/#slidetrainingmodules

Polling Question #1

Which of the following resources do you use most often when searching for evidence-based information?

(a) Books, e-books, and printed materials
(b) Co-workers and supervisors
(c) General Internet search (e.g., Google)
(d) Targeted Internet search (professional organization, etc.)
(e) Government-sponsored Web sites (e.g., AHRQ, PubMed)

Polling Question #1 Results
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AHRQ Resources for EBP

Key Resources for Nurse Clinicians:
- National Guideline Clearinghouse (NGC)
- Effective Health Care (EHC) Program
- U.S. Preventive Services Task Force (USPSTF)
  - Electronic Preventive Services Selector (ePSS) tool

National Guideline Clearinghouse (NGC)

What is the NGC?

Public online database: [www.guideline.gov](http://www.guideline.gov)

Includes only evidence-based guidelines

Updated weekly

NGC Inclusion Criteria

Current criteria based on 1990 Institute of Medicine (IOM) definition of clinical practice guidelines

In June 2014 – new inclusion criteria go into effect and are based on newer 2011 IOM definition

- New: Guideline should be based on a systematic review of evidence.
- New: Guideline or accompanying supporting documents must contain an assessment of the benefits and harms of recommended care and alternative care options.
Polling Question #2

How often do you use Patient Decision Aids as part of your clinical practice?

(a) Often
(b) Sometimes
(c) Never
(d) I am not familiar with Patient Decision Aids.

Polling Question #2 Results

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td>20%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>21%</td>
</tr>
<tr>
<td>Not at all</td>
<td>3%</td>
</tr>
<tr>
<td>I am not familiar with Patient Decision Aids</td>
<td>55%</td>
</tr>
</tbody>
</table>
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AHRQ Resources for EBP

Key Resources for Nurse Clinicians:
- National Guideline Clearinghouse (NGC)
- Effective Health Care (EHC) Program
- U.S. Preventive Services Task Force (USPSTF)
  - Electronic Preventive Services Selector (ePSS) tool

Effective Health Care (EHC) Program

Created in 2003 – Medicare Prescription Drug, Improvement, and Modernization Act (MMA)
Provides funding for comparative effectiveness and effectiveness research
- Evidence-based Practice Centers (EPC)
- Rigorous synthesis and analyses of the scientific literature
- Committed to transparency of the review process – draft reports posted online for public review and comment

EHC Program Activities

Primary activities of EHC Program:
- Reviews and synthesizes published and unpublished evidence
- Generates new evidence and tools
- Compiles evidence and translates it for various audiences
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EHC Products for Clinicians

- Research Reviews
  - Comparative effectiveness and effectiveness reviews
  - Technical briefs (new and emerging tests or treatments)
- Original Research Reports
  - Based on clinical research
  - Explore benefits and harms
- Research Summaries
  - Short, plain-language summaries for consumers
  - Summaries for clinicians and policymakers
- Another EHC resource
  - EHC Program Library
    - Patient Decision Aids (online and downloadable brochures)
    - CE Activities
    - Slide Library

Navigating the EHC Program Website

Polling Question #3

Do you review USPSTF recommendations to determine appropriate preventive care for your patients?

(a) Always
(b) Sometimes
(c) Never
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Polling Question #3 Results

AHRQ Resources for EBP

Key Resources for Nurse Clinicians:
- National Guideline Clearinghouse (NGC)
- Effective Health Care (EHC) Program
- U.S. Preventive Services Task Force (USPSTF)
  Electronic Preventive Services Selector (ePSS) tool

U.S. Preventive Services Task Force (USPSTF)

What is the USPSTF?
- Created in 1984 by the U.S. Public Health Service
- Supported by AHRQ since 1998
- *Independent, volunteer* panel of national experts
- Purpose: To improve the health of all Americans by developing evidence-based recommendations about clinical preventive services.
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USPSTF Recommendations

Task Force recommendations are:
Based on a rigorous review of the peer-reviewed evidence (systematic reviews)
Intended for use in the primary care setting
- For individuals who have no signs or symptoms of the specific disease or condition related to the recommendation, AND
- Only for services offered in the primary care setting or services referred by a primary care clinician.

USPSTF Grade Definitions

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Suggestions for Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is substantial.</td>
<td>Offer or provide this service.</td>
</tr>
<tr>
<td>B</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is moderate.</td>
<td>Offer or provide this service.</td>
</tr>
<tr>
<td>C</td>
<td>The USPSTF recommends selectively offering or providing the service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.</td>
<td>Offer or provide this service for selected patients depending on individual circumstances.</td>
</tr>
<tr>
<td>D</td>
<td>The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.</td>
<td>Discontinue the use of this service.</td>
</tr>
<tr>
<td>I</td>
<td>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms.</td>
<td>Report the clinical considerations section of the USPSTF Recommendation Statement. If the uncertainty affects your practice, consider the proportion of patients affected and the balance of benefits and harms.</td>
</tr>
</tbody>
</table>

Developing USPSTF Recommendations

*Draft selection
*Work plan development
Evidence-based Practice Center, CFT, recommendations, and other literature
Draft standards and a draft policy (SIA, SII, or SIII), standards
Reports of evidence/evaluation to staff recommendation advisors developed in the task force
Draft report and Task Force recommendations voted for public review and comment
*Opportunity to public comment and publish
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USPSTF Recommendations – Grade Revisions & Mandates

- Evolution of USPSTF Grades
  - 2007 – Last full update of all grades
  - 2012 – C grade and Suggestions for Practice updated

- Affordable Care Act
  - Grade A and B recommendations – mandated coverage at no additional charge

Recommendations for Preventive Immunizations

- Not issued by the Task Force

  - Issued by the Advisory Committee on Immunization Practices (ACIP) at the Centers for Disease Control and Prevention (CDC):
    - [http://www.cdc.gov/vaccines/schedules/index.html](http://www.cdc.gov/vaccines/schedules/index.html)

EHC Program and USPSTF

In summary:

- Both provide excellent evidence-based resources for clinicians.
- Both consider systematic reviews as the “gold standard” for evidence-based practice.
- Both use the same methodology for developing systematic reviews.
- EHC is supported and funded by AHRQ.
- Task Force is an independent panel, but receives support from AHRQ for scientific and administrative activities, and dissemination of recommendations.
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Finding and Using Task Force Recommendations

Task Force Web Site

MyHealthFinder
  ► Consumer tool

Electronic Preventive Services Selector (ePSS)
  ► Available online and as a mobile application for handheld devices or smart phone

Accessing Task Force Recommendations

ePSS for Mobile Devices

ePSS app available for:
  Android, Blackberry, iPad, iPhone/iPod Touch, Palm, and Windows phone

Recent enhancements
  ► Keyword searchability with the keywords highlighted
  ► Ability to bookmark recommendations or topics for later use
  ► Save search feature
  ► Automatic update of ePSS data and software when connected to wireless network
  ► Ability to email recommendations
  ► Ability to print recommendations or saved searches
Polling Question #4

After this Webinar, will you be able to download and use the ePSS?

(a) Yes  
(b) No  
(c) Not sure, may need help
Case Studies

Case Study #1

Patient Info:
- 62-year-old man
- Diagnosed with type 2 diabetes 4 years ago, current weight WNL
  - Recent blood sugar = 147
- History of hypertension, well controlled with daily medication
- Married for 40 years and the relationship is monogamous
- Smoked as a young man but quit about 25 years ago
- Drinks occasionally in social situations

Question:
What preventive services would be appropriate for this patient?
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Case Study #1 – A & B
Recommendations

<table>
<thead>
<tr>
<th>Grade</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Aspirin to Prevent CVD: Men age 45–79 years to prevent myocardial infarctions.</td>
</tr>
<tr>
<td>A</td>
<td>Colorectal Cancer: Screening – Adults, beginning at age 50 years and continuing until age 75 years</td>
</tr>
<tr>
<td>A</td>
<td>High Blood Pressure: Screening – Adults 18 years and over</td>
</tr>
<tr>
<td>A</td>
<td>Lipid Disorders in Adults: Screening – Men 35 years and older</td>
</tr>
<tr>
<td>B</td>
<td>Healthy Diet: Counseling – Adults with hyperlipidemia and other risk factors for CVD</td>
</tr>
<tr>
<td>B</td>
<td>Obesity: Screening for and management of – All adults</td>
</tr>
</tbody>
</table>

Case Study #1 – Patient’s Questions

Provider suggests:
- Reevaluate diabetes due to increased blood sugar
- Discuss treatment options at future clinic visit after diagnostics
  - Begin on oral medications and/or insulin therapy.

Patient’s Questions:
- What medications might be prescribed for me?
- Where can I get information about them?

Case Study #1 – EHC Search

EHC Resources:
- Comparative effectiveness report – Oral Diabetes Medications for Adults With Type 2 Diabetes: An Update
  - Companion documents – Consumer Summary and Clinician Summary
Case Study #2

**Patient Info:**
- 2-month-old male infant for routine checkup
- Parents of African descent, infant born outside of U.S.
- Growth and development WNL, feeding well
- Parents unsure about screening tests at birth

**Question:**
What screening and preventive services would be appropriate for this infant?

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Case Study #2 – ePSS Search

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Case Study #2 – A & B

<table>
<thead>
<tr>
<th>Grade</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A*</td>
<td>Sickle Cell Disease: Screening – Newborns</td>
</tr>
<tr>
<td>B*</td>
<td>Hearing Loss in Newborns: Universal Screening – Newborns</td>
</tr>
</tbody>
</table>
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Case Study #2 – Parent’s Questions

Physical Exam Findings:
• Undescended testicle – new finding

Parent’s questions:
What does this mean? Could there be permanent injury or problems for our child? What is the treatment?

Case Study #2 – EHC Search

EHC Resources:
• Comparative Effectiveness Report – Evaluation and Treatment of Cryptorchidism
• Companion documents – Consumer Summary and Clinician Summary

Case Study #3

Patient Info
• 50-year-old female for annual physical
• Slightly overweight with a BMI of 26
• Family history of hypertension and heart disease
• Personal history of hypertension, on blood pressure medication for 2 years
• Non-smoker, drinks occasionally
• Married for 25 years and is monogamous

Question:
What preventive services would be appropriate for this patient?
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Case Study #3 – ePSS Search

Case Study #3 – A & B Recommendations

| Case Study #3 – Patient’s Questions |

Discussion after Physical Exam:
- BP today = 146/82
- Until now, BP always monitored in Provider’s office
- Patient wondering if she should be checking her BP at home

Patient’s Question:
Should I be checking my blood pressure at home between office visits?
Case Study #3 – EHC Search

EHC Resources
• Comparative Effectiveness Report – Self-Measured Blood Pressure Monitoring: Comparative Effectiveness
  ▶ Companion documents – Consumer Summary and Clinician Summary

Thank You

Participate in an AHRQ ALLNurses forum at:
http://allnurses.com/ahrq-effective-health/

Wrap up
If you have any problems, please contact us at:
  o educationservices@hayesinc.com
  o Phone: 267-498-7926

Willing to participate in a case study?