

Agency for Healthcare Research and Quality (AHRQ)

Electronic Preventive Services Selector (ePSS) for iPad

Instructions for Use



Agency for Healthcare Research and Quality

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Overview

This document provides instructions for viewing the US Preventive Service Task Force (USPSTF) recommendations using an iPad device. The user can Search the database for specific recommendations using criteria filters including: age, sex, pregnancy status, tobacco use and sexual activity, Browse for all specific recommendations grouped by clinical topics or retrieve saved recommendations using Bookmarks. In addition, the user can Customize and Save Searches, Bookmark favorite recommendations and topics, and Email and Print results with, or without, patient or clinician personalization. A new feature of the ePSS enables the user to search for recommendations using a Keyword.

Home Screen

The home screen (Figure 1) provides the following navigation buttons:

- Search for Recommendations – Search and display recommendations based on specific criteria
- Browse by Topic - Display recommendations by clinical topic
- Grade Definitions - View grade definitions for recommendations
- Tools – Display and, if configured, access USPSTF recommended screening tools
- What's New
- FAQ – Browse Frequently Asked Questions
- About

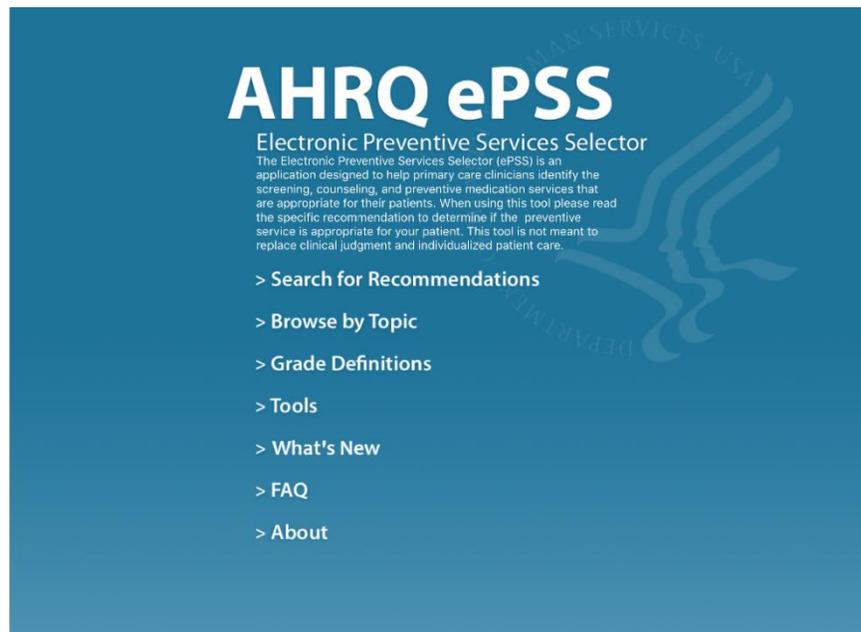


Figure 1: Home Screen

Search for Recommendations

The Search for Recommendations option on the home screen is used to perform a targeted search for specific recommendations. Select the Search button "" to initiate a search. Optional search criteria, as shown in Figure 2, can be entered to filter results based on:

- Age between 0-99 (for infants under the ages of 1 year, enter 0)
- Patient gender by selecting the button "Male" or "Female". If the "Both" button is selected, recommendations for both Male and Female patients are displayed
- Pregnancy status, choose "Yes" to indicate pregnant
- Tobacco User, choose "Yes" for "Tobacco User"
- Sexually Active, choose "Yes" for "Sexually Active"

The Reset button "" is used to clear the search criteria and start a new search; the Cancel button "" is used to return to the Search Results screen.

The Search screen can be accessed from anywhere within the application by selecting the Search button ".

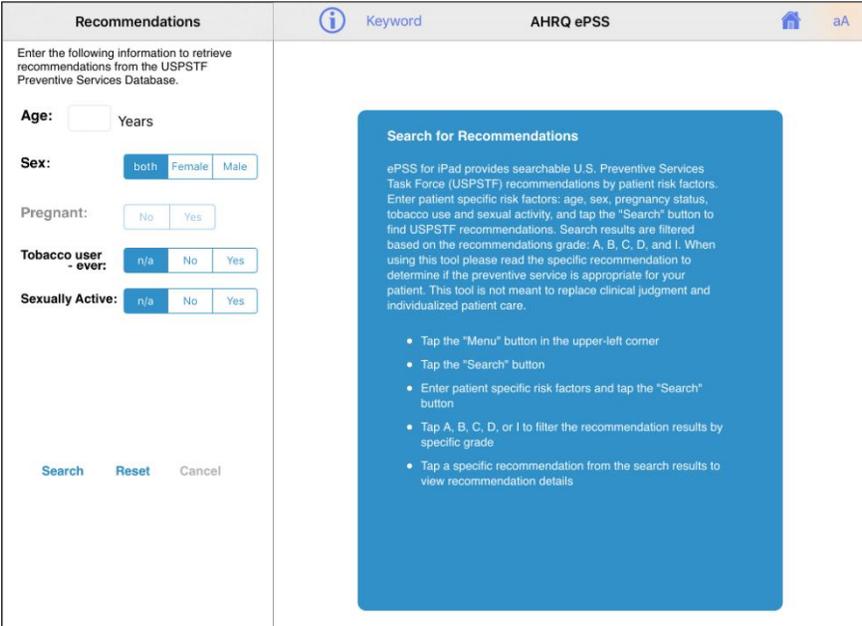


Figure 2: Search for Recommendations Screen

Search Results Display and Navigation

As shown in Figure 3, the current Search Criteria is displayed above the search results, followed by a list of all recommendations matching the search criteria grouped into five grade tabs: A, B, C, D, and I. Selecting the Grade tab changes the display to include only recommendations for the corresponding grade level. In general, recommendations with grades A or B are grouped under the Category Recommended, grade C is grouped under the Category Selectively Recommended, grade D is grouped under the Category Not Recommended, and grade I is grouped under the Category Uncertain. An asterisk, "*", in front of the recommendation, indicates that the old grade definition is associated. Selecting the Search Icon "🔍" displays a new search screen. The Browse "Browse" and Bookmark "Bookmarks" buttons enable the user to switch between search modes.

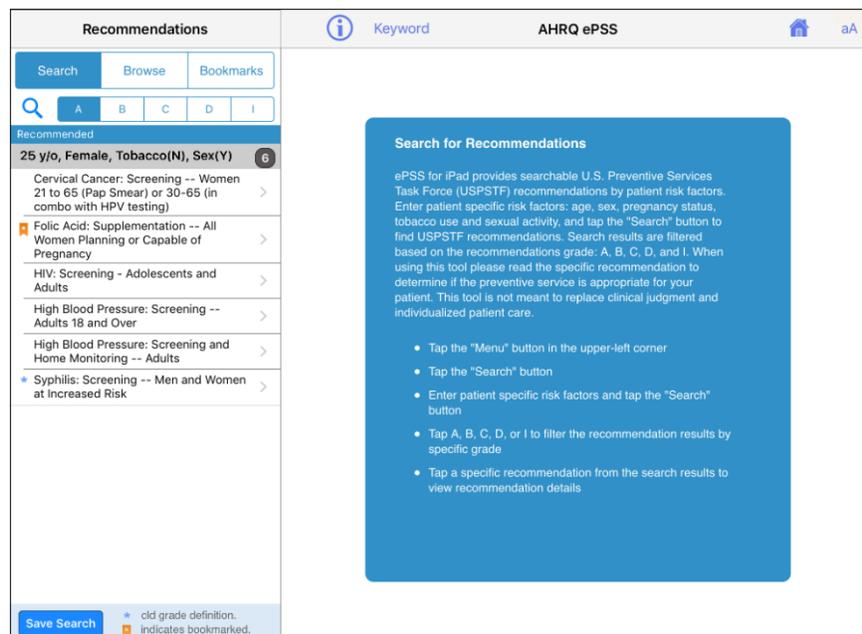


Figure 3: Search Results Screen

Selecting a Recommendation in a Search Results list displays the Recommendation Details Screen (Figure 4), providing General Information about the Recommendation with the following tabs:

- **General (Default Display):** Displays the Detail, Grade, Frequency of Service (if available) and Risk Information (if available) for the selected Recommendation.
- **Rationale:** This tab displays the Rationale information for the Specific Recommendation, or the Rationale information for the associated Clinical Topic, if available
- **Clinical:** This tab displays the Topic-level Clinical Consideration information for the selected Recommendation
- **Other:** This tab displays the Discussion and Other sections information for the selected Recommendation
- **Tools:** This tab provides the Specific Recommendations, grades and qualified Screening Tools

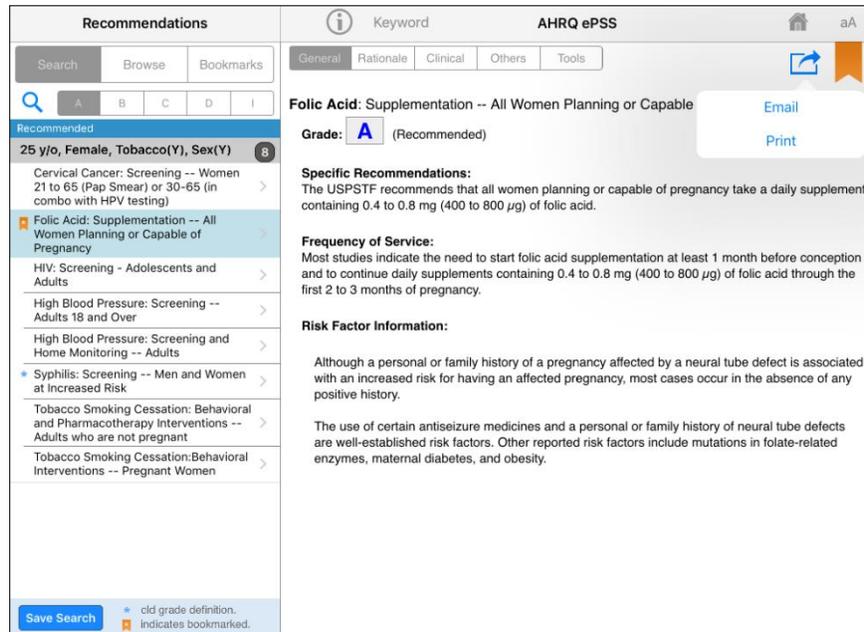


Figure 4: Recommendation Details Screen

Save Search

The ePSS application provides the capability to save a search for later retrieval. Select the Save Search button "Save Search" on the Search Results screen (Figure 3) to open the Save Search screen (Figure 5), and enter a title for the saved search and any additional notes. Select the Save button "Save", to save the search criteria and results list. Saved searches are accessed using the Information icon "i", as described below.

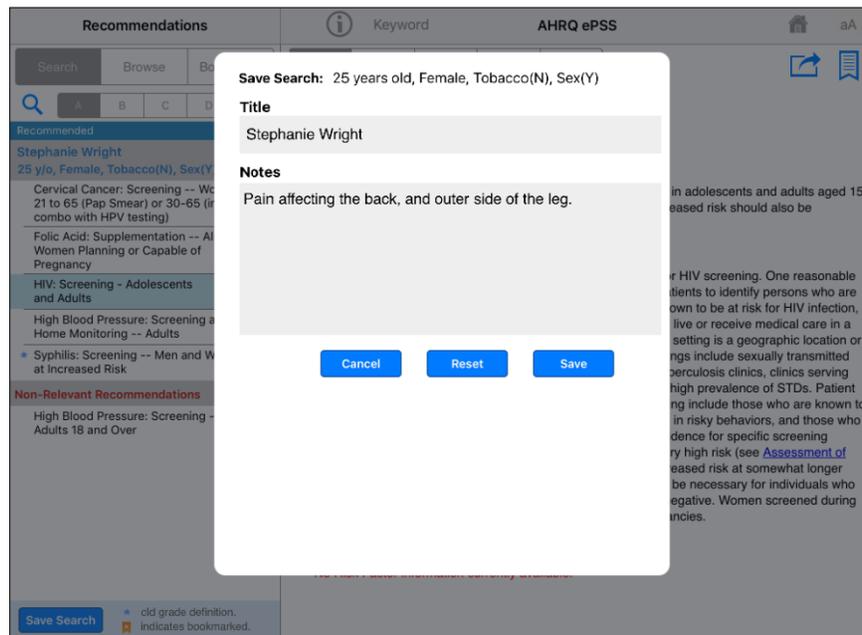


Figure 5: Save Search Screen

Customized Search Results

Search Results can be edited to produce a customized recommendations list by categorizing Recommendations as relevant and non-relevant. Recommendations designated as non-relevant are removed from the results list. Removal only reclassifies the Recommendation in the Results List without deletion. Recommendations are removed by swiping a recommendation (Figure 6) and selecting Remove button "Remove", to move the selected recommendation to the non-relevant recommendation list which appears at the bottom of the Results List. A recommendation can be moved back to relevant list by swiping the title and selecting Add button "Add". Customized Result Lists can be saved for later retrieval as previously described in SAVE SEARCH.

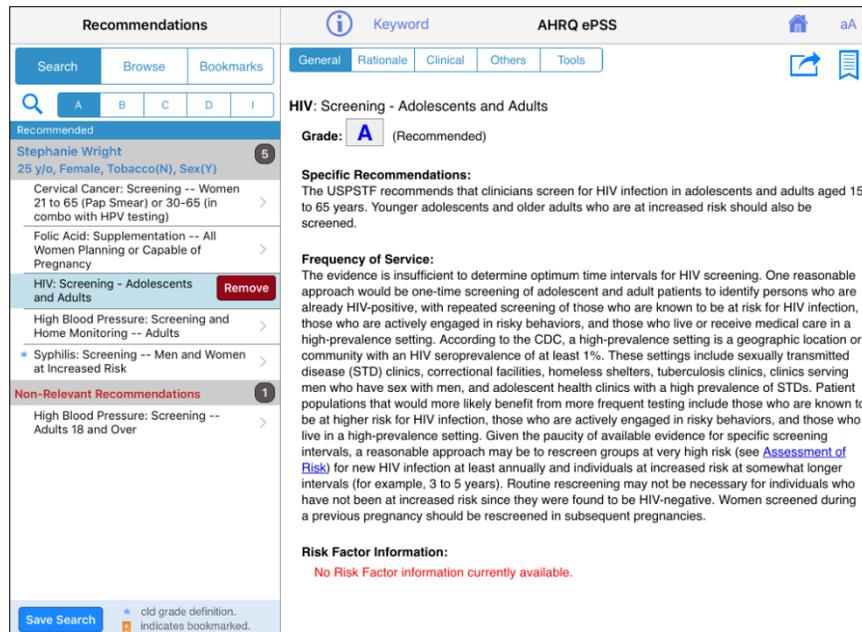


Figure 6: Customized Search Results Screen

Browse Recommendations by Topic

Browse by Topic displays recommendations by Clinical Topics, as shown in Figure 7. Browse by Topic can be initiated through selection on the Home screen, or by selecting the Browse button "Browse" on the Recommendation Search Results Display. The Topic Display is controlled using four tabs:

- View All: This tab displays a list of all USPSTF topics sorted in alphabetical order.
- Counseling: This tab displays the list of USPSTF topics by Counseling category.
- Preventive: This tab displays the list of USPSTF topics by Preventive Medication category.
- Screening: This tab displays the list of USPSTF topics by Screening category.

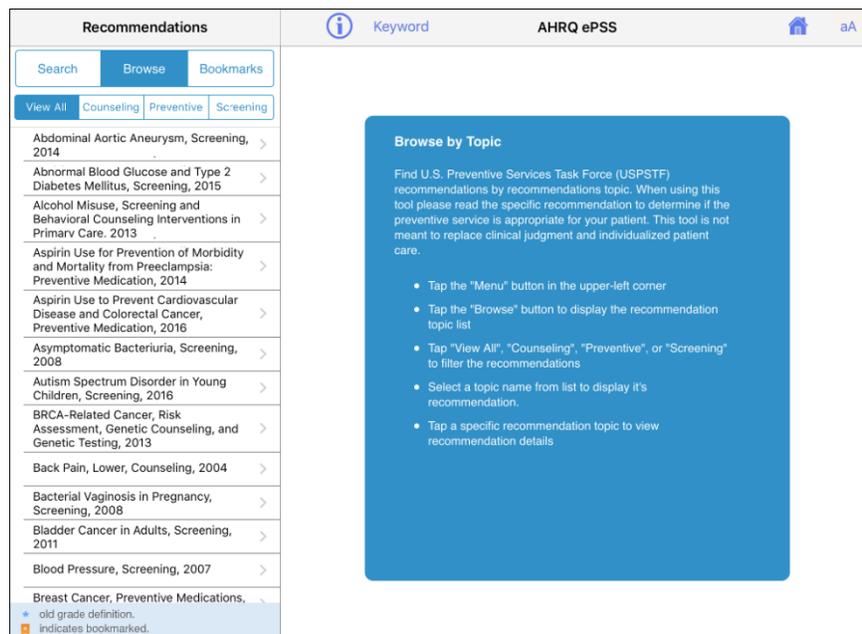


Figure 7: Topic List Screen

Selecting a topic name displays the Specific Recommendations related to that Clinical Topic, as shown in Figure 8, and provides the following tabs:

- General (Default): Displays the Detail, Grade, Frequency of Service (if available), and Risk Information (if available), for each Specific Recommendation associated with the Topic
- Rationale: Displays the Rationale information for Specific Recommendations, or the Rationale information for the selected topic, as available
- Clinical: Displays the Clinical Consideration information for the selected Topic
- Others: Displays the Discussion and Other sections information for the selected Topic
- Tools: Displays the list of Specific Recommendations, their Grade and qualified Screening Tools

The screenshot shows the AHRQ ePSS interface on an iPad. The top navigation bar includes a search icon, a keyword field, and the text 'AHRQ ePSS'. Below this is a tabbed interface with 'General', 'Rationale', 'Clinical', 'Others', and 'Tools'. The 'General' tab is active. On the left, a list of recommendations is shown, with 'Alcohol Misuse, Screening and Behavioral Counseling Interventions in Primary Care, 2013' selected and highlighted in blue. The main content area displays details for this topic, including a grade of 'B' (Recommended), specific recommendations from the USPSTF, and information on the frequency of service and risk factors. A second recommendation for adolescents is also visible below.

Recommendations

Search Browse Bookmarks

View All Counseling Preventive Screening

Abdominal Aortic Aneurysm, Screening, 2014 >

Abnormal Blood Glucose and Type 2 Diabetes Mellitus, Screening, 2015 >

Alcohol Misuse, Screening and Behavioral Counseling Interventions in Primary Care, 2013 >

Aspirin Use for Prevention of Morbidity and Mortality from Preeclampsia: Preventive Medication, 2014 >

Aspirin Use to Prevent Cardiovascular Disease and Colorectal Cancer, Preventive Medication, 2016 >

Asymptomatic Bacteriuria, Screening, 2008 >

Autism Spectrum Disorder in Young Children, Screening, 2016 >

BRCA-Related Cancer, Risk Assessment, Genetic Counseling, and Genetic Testing, 2013 >

Back Pain, Lower, Counseling, 2004 >

Bacterial Vaginosis in Pregnancy, Screening, 2008 >

Bladder Cancer in Adults, Screening, 2011 >

Blood Pressure, Screening, 2007 >

Breast Cancer, Preventive Medications, >

old grade definition.
Indicates bookmarked.

Keyword AHRQ ePSS aA

General Rationale Clinical Others Tools

Alcohol Misuse, Screening and Behavioral Counseling Interventions in Primary Care, 2013

- **Alcohol Misuse:** Screening and Behavioral Counseling Interventions in Primary Care -- Adults

Grade: **B** (Recommended)

Specific Recommendations:
The USPSTF recommends that clinicians screen adults aged 18 years or older for alcohol misuse and provide persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce alcohol misuse.

Frequency of Service:
Evidence is lacking to determine the optimal interval for screening for alcohol misuse in adults.

Risk Factor Information:
No Risk Factor Information currently available.

- **Alcohol Misuse:** Screening and Behavioral Counseling Interventions in Primary Care -- Adolescents

Grade: **I** (Uncertain)

Specific Recommendations:
The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening and behavioral counseling interventions in primary care settings to reduce alcohol misuse in adolescents.

Frequency of Service:
No Frequency of Service information currently available.

Figure 8: Topic Details Screen

Email/Print/Bookmark Results

Select the "✉" icon to initiate Print and Email functions (Figure 9) from a results screen. Select the "Email" option to open the Compose a Message screen. Enter the recipient email addresses, subject and send the email. Recommendations are included as an HTML attachment to the email message. The ability to email requires an appropriately configured and iPad accessible email account.

Open the "🖨" icon and select the "Print" option to choose the printer, specify a page range, number of copies and print Search or Browse results as described above.

Similarly, select the bookmark icon "🔖" save Recommendations and Topics for later recall using the Bookmark button "🔖".

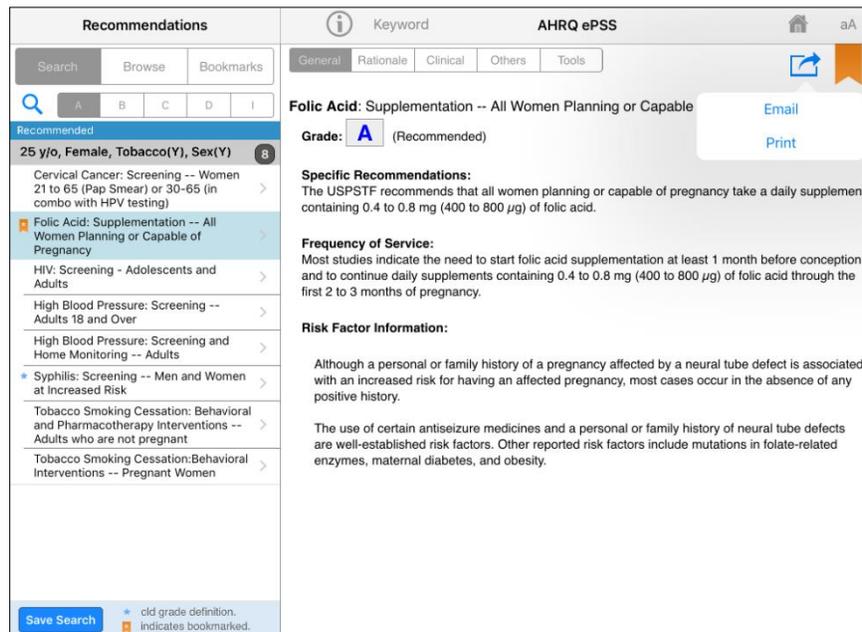


Figure 9: Email/Print Options Screen

Bookmark Search

Select the Bookmarks button "Bookmarks" to open a list of bookmarked recommendations and topics, as shown in Figure 10. The bookmark titles are displayed by results type, Search and Browse by Topics. Bookmarked recommendations can be removed by highlighting the bookmark and selecting the bookmark icon "🔖". Selecting a bookmark displays the recommendation details, as appropriate for the Specific Recommendation or Topic. All Navigation and features appropriate for the type of bookmark are active when the bookmark results are displayed.

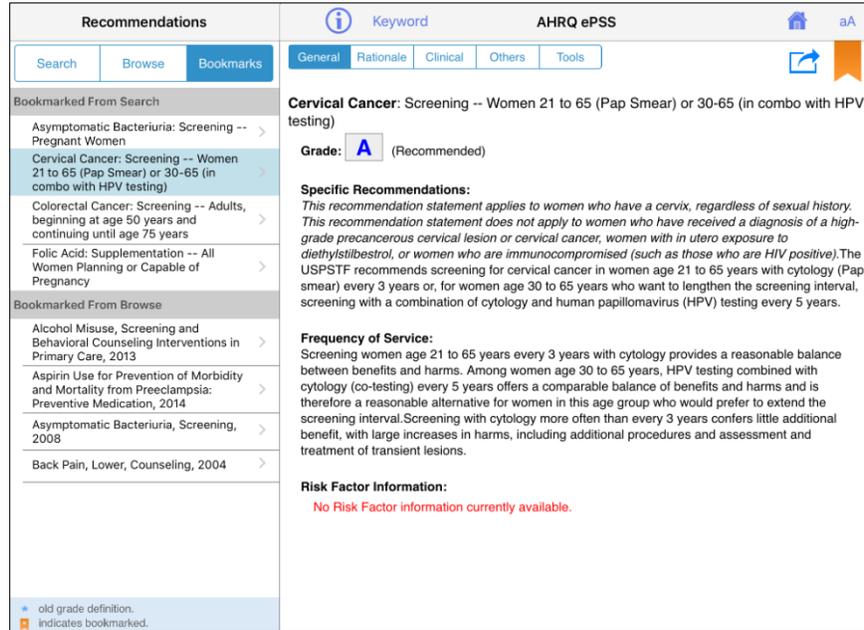


Figure 10: Bookmarks Screen

View/Print/Email Saved Searches

Choose the information popover icon "i" (Figure 11), and select "Saved Searches", to view the list of saved searches (Figure 13).

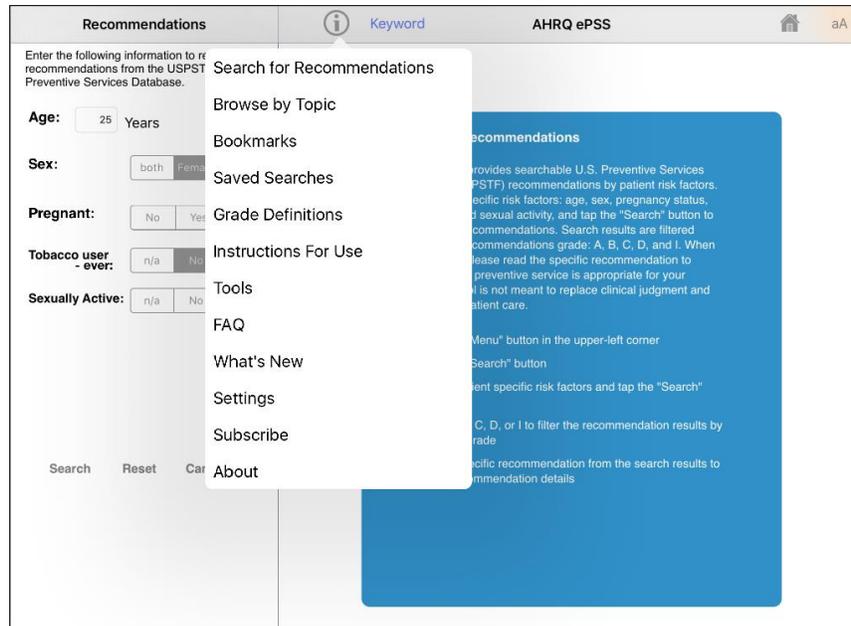


Figure 11: Information Popover Screen

Select a saved search from the Saved Searches List, to view the search details (Figure 12).

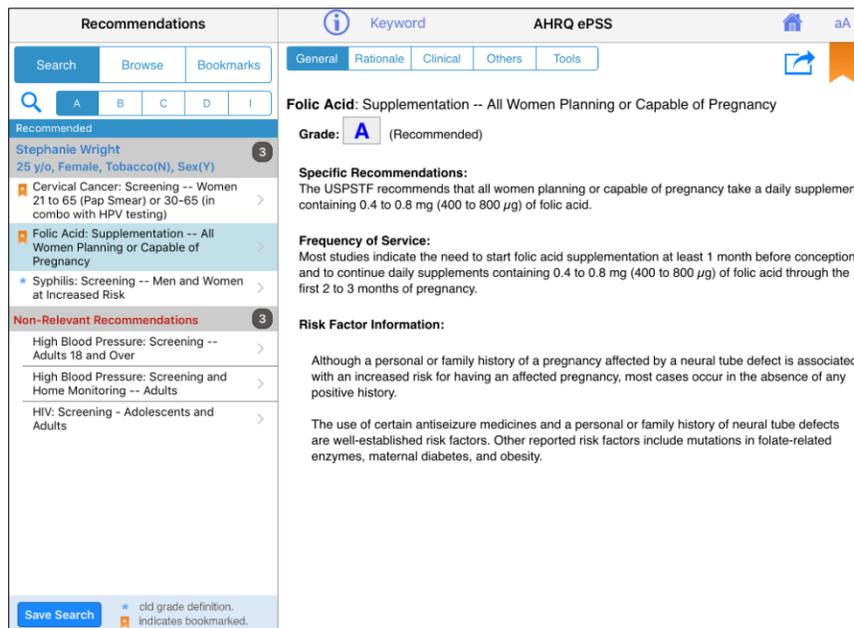


Figure 12: Saved Search Details Screen

The saved searches can be emailed or printed. Swipe a saved search to display the Email & Print "Email & Print" and Delete "Delete" buttons (Figure 13). Select "Email & Print", to display the Email and Print popover screen. Select the "Grades" option, to include the recommendations associated with Grade "A&B", or "All" Grades in the email or printed copy. Select "Full", to include all recommendation information, or "Topic only", to include the recommendation titles only. In addition, personalization data, as described below, can be included in the email or printout to provide a customized Rx look and feel for emailed and printed results.

Select the Delete button "Delete" to remove the selected search from the list.

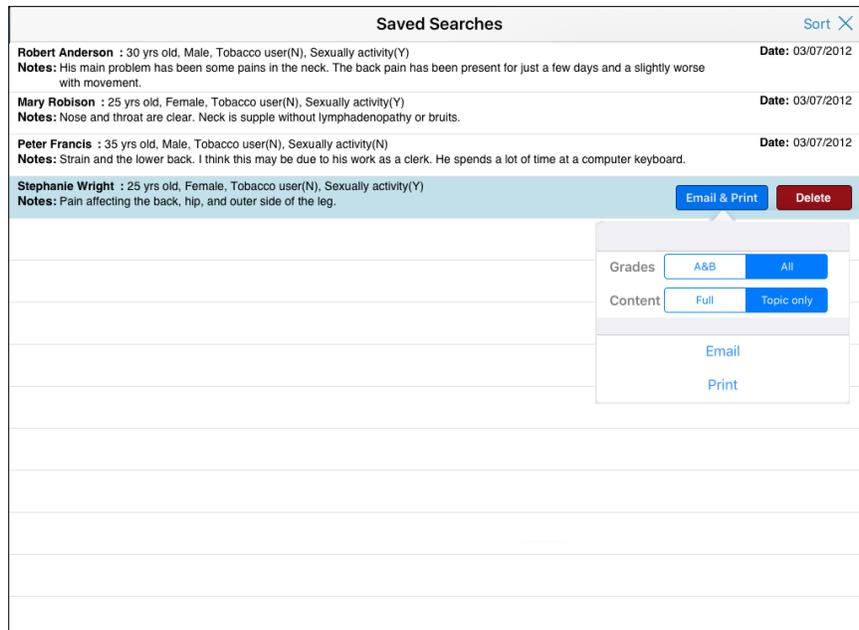


Figure 13: Email & Print and Delete Buttons

Personalization

The Setting feature provided by ePSS can be used to enter information that is included in emails, and in the header of printed results. Select the "Settings" option on the Information popover screen (Figure 11), to open the Settings Screen (Figure 14).

The screenshot shows a settings form with the following fields and values:

- First Name:** John A.
- Last Name:** Smith
- Title:** Dr.
- Institution:** Shady Grove Hospital
- Institution Address & Contact Information:** 5xxx Shady Grove Rd, Rockville, MD 20850

At the bottom, there is a toggle switch for "Include the above information in email or print" which is currently set to "Yes".

Figure 14: Settings Screen

Figure 15 provides an example of personalized email attachments using the data entered into the Settings Screen (Figure 14).

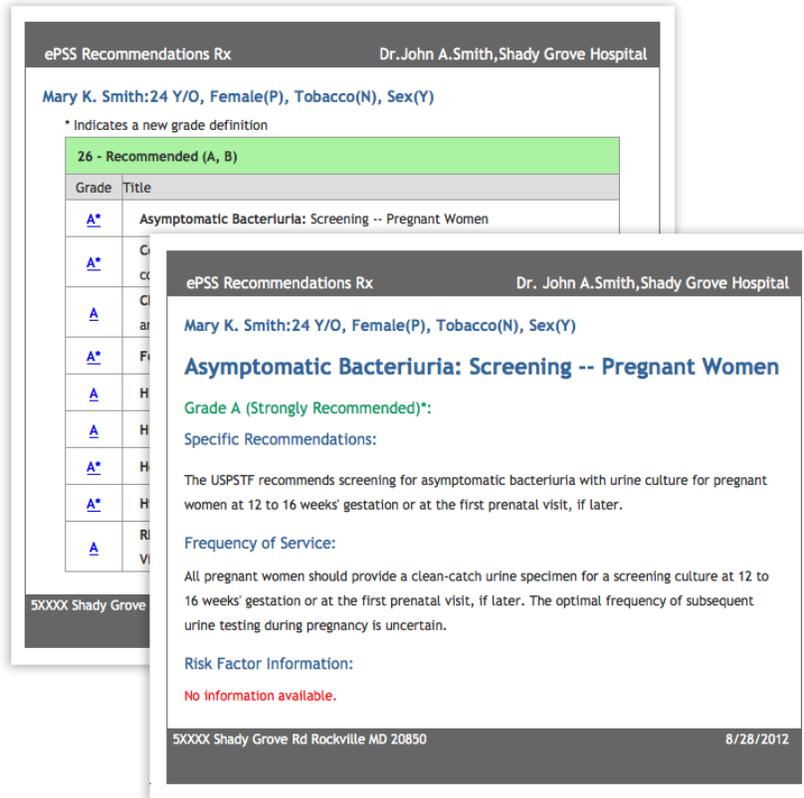


Figure 15: Personalized Email Attachments

Figure 16 provides an example of personalized printouts using the data entered into the Settings Screen (Figure 14).

ePSS Recommendations Rx Dr. John Smith, Shady Grove Adventist Hospital

Mary K. Smith: 24 Y/O, Female (P), Tobacco (N), Sex (Y)

Asymptomatic Bacteriuria: Screening -- Pregnant Women

Grade A (Strongly Recommended)*

Specific Recommendations:
The USPSTF recommends screening for asymptomatic bacteriuria with urine culture for pregnant women at 12 to 16 weeks' gestation or at the first prenatal visit, if later.

Frequency of Service:
All pregnant women should provide a clean-catch urine specimen for a screening culture at 12 to 16 weeks' gestation or at the first prenatal visit, if later. The optimal frequency of subsequent urine testing during pregnancy is uncertain.

Risk Factor Information:
No information available.

Clinical Considerations:

Patient Population
This recommendation applies to the general adult population, including adults with diabetes. The USPSTF did not review evidence for screening certain groups at high risk for severe urinary tract infections, such as transplant recipients, patients with sickle cell disease, and patients with recurrent urinary tract infections.

Screening Tests
The screening tests used commonly in the primary care setting (dipstick analysis and direct microscopy) have poor positive and negative predictive value for detecting bacteriuria in asymptomatic persons. Urine culture is the gold standard for detecting asymptomatic bacteriuria but is expensive for routine screening in populations with a low prevalence of the condition. However, no currently available tests have a high enough sensitivity and negative predictive value in pregnant women to replace the urine culture as the preferred screening test.

Treatment
Pregnant women with asymptomatic bacteriuria should receive antibiotic therapy directed at the cultured organism and follow-up monitoring.

Screening Intervals
All pregnant women should provide a clean-catch urine specimen for a screening culture at 12 to 16 weeks' gestation or at the first prenatal visit, if later. The optimal frequency of subsequent urine testing during pregnancy is uncertain.

Rationale:

Importance: In pregnant women, asymptomatic bacteriuria has been associated with an increased incidence of pyelonephritis and low birthweight (birthweight <2500 g).

Detection: Asymptomatic bacteriuria can be reliably detected through urine culture. The presence of at least 10⁵ colony-forming units per mL of urine, of a single uropathogen, and in a midstream clean-catch specimen is considered a positive test result.

Benefits of Detection and Early Intervention: In pregnant women, convincing evidence indicates that detection of and treatment for asymptomatic bacteriuria with antibiotics significantly reduces the incidence of symptomatic

9801 Medical Center Drive, Rockville, MD 1 09/01/2012

Figure 16: Personalized Printout

Tools

Based on recommendations from the USPSTF, these tools (Figure 17) are designed to help clinician's access information at the point of care. The ePSS application provides clinicians with a convenient mechanism for accessing available tools directly, without searching and viewing recommendations.

Select the Tools button on the Home screen, or select Tools from the information screen to view the USPSTF recommended screening tools, as shown in Figure 11. A cellular data or WiFi internet connection is required to access these tools.

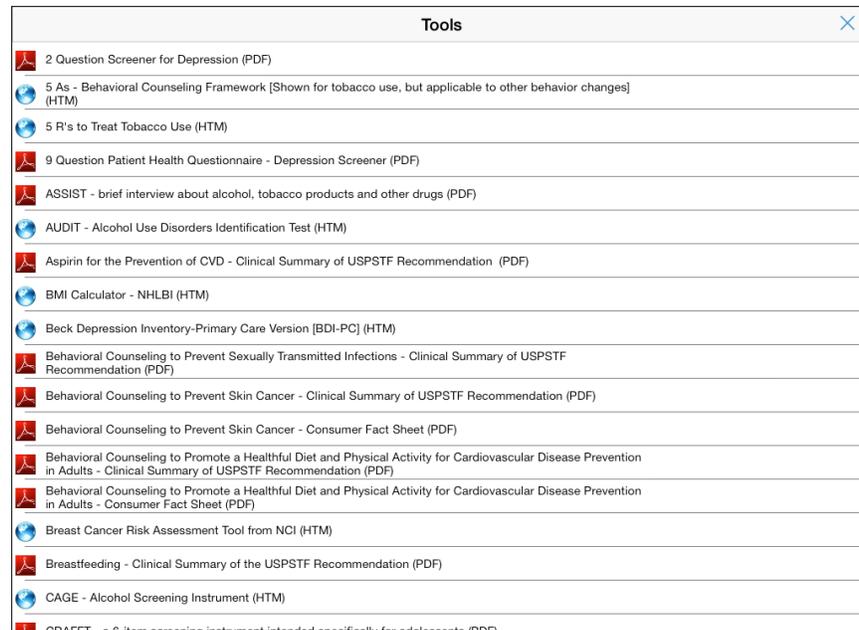


Figure 17: Tools Screen

Keyword Search

The ePSS application provides the capability to search recommendations using a keyword. Tap the Keyword button  on the Toolbar (

Figure 18) to open the Keyword Search field on the left. Enter a keyword and then tap "Search" on iPad keypad to view the search results listed by Clinical Topics. Matching keywords are highlighted.

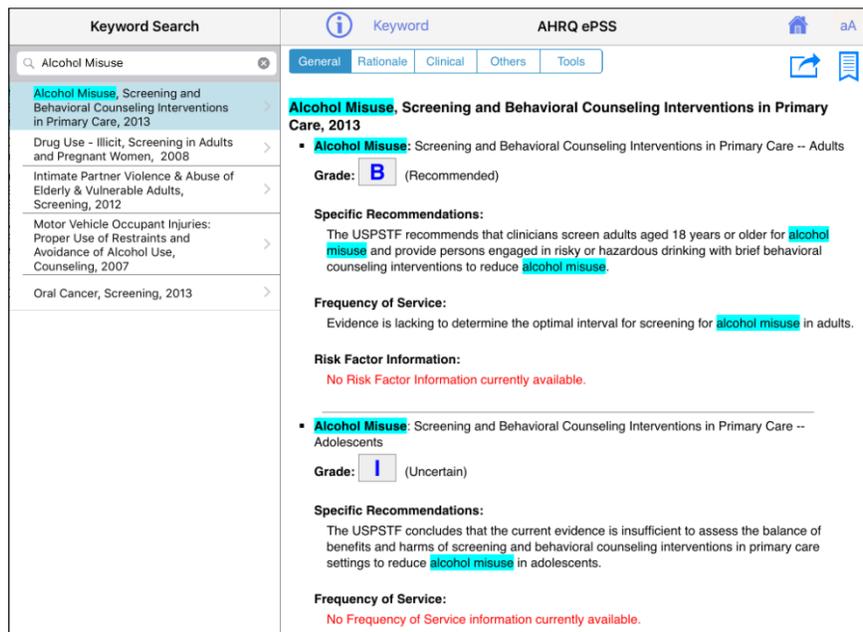


Figure 18: Keyword Search Screen

Information Screens

The Information icon  displayed on each ePSS screen can be used to display general information (Figure 11) about the ePSS application, and to access specific features and customization options including:

- Search for Recommendations
- Browse by Topic
- Bookmarks
- Saved Searches
- Grade Definitions
- Instructions for Use
- Tools
- FAQ
- What's New
- Settings
- Subscribe
- About