Consistency between Clinical Reminders and VHA Clinical Preventive Services Guidance Statements: Additional Information

This information is intended to assist facilities to be in compliance with VHA Directive 1120.2, section 5h:

“Each VA facility HPDP Program Manager is responsible for...Collaborating with facility staff to develop consistency between facility strategies (e.g., local policies and procedures, local protocols, clinical reminders, and standardized templates) and VHA CPS guidance statements.”


General Guidance:

This guidance does NOT establish a requirement that a clinical reminder be used for the implementation of any guidance statement. This information is provided as a resource only so that IF a facility chooses to use a clinical reminder to implement a clinical preventive service, there is information available that can assist in efforts to make the reminder consistent with the guidance statement.

- In general, the clinical preventive services that are most likely to be appropriate for implementation using a clinical reminder include those with:
  - a high burden of disease (i.e. high prevalence and/or detection of disease that is associated with high morbidity/mortality)
  - a strong level of evidence for the service
  - evidence that the service is being under-delivered
  - Necessary data fields in CPRS/VistA.

- Expansion of a clinical reminder cohort beyond what is recommended in the VHA Guidance Statement for prevention (as it is specified in the guidance statement) should be based on individual decision making by a clinician, and should not be programmed into clinical reminder logic (for whole populations).

- Restriction of the cohort to a narrower population than is recommended by the VHA Guidance Statement is not encouraged but may be appropriate in some cases:
  - It is NOT appropriate to do this because the evidence for the service is interpreted differently at the local facility
  - It may be appropriate to do this if the local informatics or clinical resources are limited, for example:
    - There is no national or model reminder available and creation of a reminder to capture the full cohort that is recommended is considered too technically
complex to accomplish

- A specialty clinic is equipped to implement a reminder for their specific population (for example Hepatitis B immunization in an HIV clinic where all patients are in the recommended cohort), however a different approach that does not use a clinical reminder is taken in general primary care clinics (for example, individual decision-making by provider.)

- The VHA Clinical Preventive Service Guidance Statement should always be reviewed and considered the authoritative source of guidance for each service (http://vaww.prevention.va.gov/Guidance_on_Clinical_Preventive_Services.asp).

- If there is a known unresolved inconsistency between a Guidance Statement and other requirements, recommendations or performance indicators that could reasonably prevent the alignment of local clinical reminders with the guidance statement, a special note will be added.

- For questions please contact Jane Kim, Chief Consultant for Preventive Medicine, NCP, at jane.kim3@va.gov, 919-383-7874, ext.2510.

Information on potential reminders for individual Clinical Preventive Services:

- Some guidance statements recommend against providing a service, for example, using aspirin or NSAIDs to prevent colorectal cancer. In these cases, it would be inappropriate to have a clinical reminder that prompts clinicians to provide this service and that is noted below.

- Some national-level reminders or model reminders already exist. These are noted below.

- In some cases, there may be reasons NOT to use a clinical reminder. If known, these reasons are specified below.

- Finally, specific information on potential clinical reminder cohort, resolution, frequency and other comments is provided.

- Initial posting of this document done on 6/3/11. As content is updated or added the dates next to the title of each specific statement will changed.

- Information about clinical reminders for ALL of the Immunization guidance statements was re-organized on 7-10-12 to include the precautions for each immunization under this new entry:
  - “Additional options could be added to the reminder that enable clinicians to temporarily or permanently exclude individual patients based on case by case decision-making, and/or for those patients who have certain ‘precautions’ for the vaccine. For example: …”
Clinical Preventive Services Guidance Statements Topics

1. **ASA or NSAIDS for the Primary Prevention of Colorectal Cancer** (6/3/11)
2. **AAA Screening** (6/3/11)
3. **ASA for the Prevention of Cardiovascular Disease** (6/3/11)
4. **Breast Cancer Screening** (8/18/11, 9/1/11, 12/12/11, 10/3/2012, 10/26/12, 6/27/13, updated 8/29/13, 10/16/17)
5. **Cervical Cancer Screening** (10/3/12, 10/26/12, 6/27/13, 8/29/13, 10/16/17)
6. **Colorectal Cancer Screening** (6/3/11, 10/3/2012, 10/26/12, 10/16/17)
7. **Dementia Screening (Insufficient Evidence)** (6/10/11)
8. **Gonorrhea and Chlamydia Genital Infection Screening** (6/3/11, 4/7/16)
9. **Hepatitis C Screening** (6/3/11, 12/12/11, 3/5/12, 01/21/14, 4/7/16)
10. **Hepatitis A Immunization** (8/18/11, 7/10/12, 4/7/16, 10/16/17)
11. **Hepatitis B Immunization** (8/18/11, 7/10/12, 10/16/17, 10/29/18)
12. **Hepatitis B Screening** (8/18/11, update 12/2/14)
13. **Herpes Zoster (Shingles) Immunization** (6/3/11, 3/5/12, 7/10/12, 6/26/14, 4/7/16, 10/16/17, 03/06/18)
14. **High Blood Pressure Screening** (3/5/12)
15. **HIV Screening** (6/3/11, 4/7/16)
16. **HPV Immunization** (7/10/12, 4/7/16, 10/16/17)
17. **Lipid Disorders Screening** (6/3/11, correction 8/18/11, 10/3/12)
18. **Lung Cancer Screening** (10/16/17)
19. **Meningococcal Immunization** (6/3/11, 7/10/12, 4/25/14, 10/16/17)
20. **Osteoporosis Screening** (10/19/11, update 7/11/14)
21. **Overweight and Obesity Screening** (4/7/16)
22. **Pneumococcal Immunization** (6/3/11; 3/5/12, 7/10/12, 8/29/13, 12/2/14, 4/7/16)
23. **Prostate Cancer Screening** (8/29/13)
24. **Seasonal Influenza Immunization** (10/28/13, 12/2/14, 10/4/16, 10/9/17)
25. **Syphilis Screening** (7/21/14)
26. **Tetanus/ Diphtheria (Td) and Tetanus/ Diphtheria and Pertussis (Tdap) Immunization** (6/10/11, 3/5/12, 7/10/12, 11/28/12, 6/27/13, 4/7/16)
27. **Tobacco Use Screening and Counseling** (date: 7/10/12, 10/3/2012)
28. **Varicella Immunization** (7/21/14)
1. ASA or NSAIDS for the Primary Prevention of Colorectal Cancer

Please note: Since this guidance statement recommends against providing this service, it would be inappropriate to have a clinical reminder that prompts clinicians to provide this service.

2. AAA Screening

**Availability of a national reminder for use in CPRS:** YES: It is recommended that the VA-AAA Screening clinical reminder be used.

**Potential reasons to NOT use a clinical reminder for this topic:** None known.

**Cohort:**

- Includes:
  - Men ages 65-75 who have ever smoked (defined as a lifetime consumption of 100 or more cigarettes in a lifetime).
- Excludes:
  - Patients with a known AAA or previous repair of an AAA.
  - Life expectancy less than 6m-1 year, enrolled in hospice, cancer of esophagus, liver or pancreas.
  - Determination by a provider that patient would not be a surgical candidate for repair of an aneurysm if one was found.
  - Additional patients may be excluded based on case by case decision-making by a provider.

**Resolution:**

Any of the following tests, as long as the test was done when the patient was age 60-75 years of age:

- Abdominal
- CT
- Patient

**Frequency:** Once

**Comments:** Although CT, MRI or any other imaging in which the infra-renal aorta was measured and that measurement was documented can be used to resolve the reminder, the reminder dialog
should not be structured to prompt ordering of these exams for screening purposes. Abdominal ultrasound is the intended screening exam.

### 3. ASA for the Prevention of Cardiovascular Disease

**Availability of a national reminder for use in CPRS:** No

**Potential reasons to NOT use a clinical reminder for this topic:** The complexity of the risk assessment and benefit/harm calculations involved in this recommendation as well as the possibility of non-VA aspirin use by many patients.

**Cohort:**

- Includes:
  - Men ages 45-79 when the potential benefit due to a potential reduction in myocardial infarctions outweighs the potential harm due to an increase in hemorrhage
  - Women ages 55-79 when the potential benefit due to a potential reduction in ischemic strokes outweighs the potential harm due to an increase in hemorrhage

- Excludes:
  - This guidance statement applies to the use of aspirin only for the primary prevention of CHD and stroke. It does not apply to the use of aspirin for patients with existing CHD, stroke, or other atherosclerotic diseases. (Patients with pre-existing vascular disease are likely to significantly benefit from regular aspirin use to prevent recurrent vascular events and therefore the risk assessment is different).
  - Patients with terminal illness (life expectancy less than 6 months-1 year), enrolled in hospice, or cancer of esophagus, liver or pancreas.
  - Additional patients may be excluded based on case by case decision-making by a provider.

**Resolution:**

- Patient declines risk assessment or patient declines ASA (resolution timeframe is site specific),
- Patient already on ASA 81mg once daily or 325mg every other day.

**Frequency:**

- Risk assessment every 5 years or more frequently if additional risk factors are detected
- ASA daily or every other day
Comments:

If clinical reminders are used for this topic, a second reminder or some other mechanism may be needed for the initial risk assessment and benefit/harm calculation in addition to a reminder for use of aspirin. The age and gender cohort for this second reminder (if used) should be the same as defined above. The following tools are recommended:

- **Risk of MI in men**
  - Diabetes: [http://www.mcw.edu/calculators/CoronaryHeartDiseaseRisk.htm](http://www.mcw.edu/calculators/CoronaryHeartDiseaseRisk.htm)

4. Breast Cancer Screening

**Availability of a national reminder for use in CPRS**: Yes – the national reminder for breast cancer screening was updated to match the change in screening and to match the ACS recommendations. The updated reminder was released on October 2017.

**Special Note**:

- As of May 2017, VA has adopted the American Cancer Society recommendations for breast cancer screening. The national clinical reminders have been updated and are to be deployed in October 2017.
- The ACS recommendations are as follows:
  - The ACS recommends that women with an average risk of breast cancer should undergo regular screening mammography starting at age 45 years (strong recommendation).
  - Women aged 45 to 54 years should be screened annually (qualified recommendation).
  - Women 55 years and older should transition to biennial screening or have the opportunity to continue screening annually (qualified recommendation). Women should have the opportunity to begin annual screening between the ages of 40 and 44 years (qualified recommendation).
  - Women should continue screening mammography as long as their overall health is good and they have a life expectancy of 10 years or longer (qualified recommendation).
ACS does not recommend clinical breast examination for breast cancer screening among average-risk women at any age (qualified recommendation).

Potential reasons to NOT use a clinical reminder for this topic: N/A

Cohort:

- Includes: Women ages 45 and above
- Excludes:
  - Women with bilateral mastectomies,
  - Women with terminal cancer, under the care of hospice or documented life expectancy less than 6 months, or terminal cancer
  - Additional patients may be excluded based on case by case decision-making by a provider. Examples include:
    - Providers should consider whether or not to screen patients of any age who, although not terminally ill, they consider are unlikely to experience a net benefit from breast cancer screening, i.e. no benefit is expected or benefits are not expected to outweigh harms because of one or both of the following:
      - Life expectancy is <10 years AND/OR
      - Patient could not tolerate the further work-up or treatment (if the screen was positive) because of co-morbidities
      - The accurate determination of net benefit and life expectancy is difficult. Net benefit can vary by patient values and their assessment of the balance of known benefits and harms. For these reasons consideration of making this determination should be done on a case-by-case basis by a provider who knows the patient well and is able to include patient preferences in the decision to screen or not screen.

Resolution:

- Bilateral or Screening mammogram completed
- Patient declines screening

Frequency:

- Every year for ages 45-54, every 2 years for ages 55 and up
- Option to begin annual screening at age 40
- Option to stop screening due to comorbid conditions, life expectancy or declination
- Option for more frequent screening due to risk or preference
Comments: Although the guidance statement does not apply to high risk women, these women should not be excluded from the reminder if they will need more frequent mammograms. The national reminder is set up to increase the base frequency as specified by a clinician and is also set up to facilitate f/u of women who had an abnormal screening exam and need continued f/u.

5. Cervical Cancer Screening

Availability of a national reminder for use in CPRS: Yes (VA-WH PAP SMEAR SCREENING).

Special Note:

- The revised national clinical reminder released in July, 2013 with Patch PXRM 2.0*28 has a default frequency of q3yrs and is resolved primarily by a Pap Test. The revised reminder also specifies that for women ages 30 through 65 the frequency can either be q3yrs if resolved by a Pap test or may be q5yrs if resolved by a Pap test and an HPV test. This reminder was updated in the Fall of 2017 based on recommendations from the IG and Women’s Health.

Potential reasons to NOT use a clinical reminder for this topic: N/A

Cohort:

- Includes: Women ages 21 through 65
- Excludes:
  - Women who have had a hysterectomy with cervix removed
  - Women with terminal cancer, under the care of hospice or documented life expectancy less than 6 months, or cancer of esophagus, liver or pancreas
  - Additional patients may be excluded based on case by case decision-making by a provider. Examples include:
    - Male to female transgender patient who does not have a cervix
    - Providers should consider whether or not to screen patients of any age who, although not terminally ill, they consider are unlikely to experience a net benefit from cervical cancer screening, i.e. no benefit is expected or benefits are not expected to outweigh harms because of one or both of the following (resolve the reminder for 5 years):
      - Life expectancy is <5-10 years AND/OR
      - Patient could not tolerate the further work-up or treatment (if the screen was positive) because of co-morbidities
      - The accurate determination of net benefit and life expectancy is difficult. Net benefit can vary by patient values and their assessment of the balance of known benefits and harms. For these reasons
consideration of making this determination should be done on a case-by-case basis by a provider who knows the patient well and is able to include patient preferences in the decision to screen or not screen. (Note the performance measure specifies that this be documented by the Primary Care Provider.)

**Resolution:**

- Pap test (ages 21-65) or Pap test and HPV test (ages 30-65) completed
- Patient declines screening

**Frequency:**

- Every 3 years for women ages 21-29 and every 3 years or every 5 years for women ages 30-65 depending on method of testing

**Comments:** Although the guidance statement does not apply to certain high risk women, these need not be excluded from the reminder if they will need more frequent Pap tests. The national reminder is set up to increase the base frequency as specified by a clinician and is also set up to facilitate f/u of women who had an abnormal screening exam and/or those >65 who had cervical cancer.

### 6. Colorectal Cancer Screening

**Availability of a national reminder for use in CPRS:** Yes, a national reminder for screening became available for phased roll-out to the field in October 2017. This reminder was deployed with 3 other reminders to support 1) CRC screening, 2) f/u of positive screens, 3) repeat colonoscopies and 4) entry of needed information to determine when a repeat colonoscopy is needed after an initial procedure.

**Potential reasons to NOT use a clinical reminder for this topic:** A second reminder or some other mechanism may be needed to gather family history information on patients less than 50 years old

**Cohort:**

- Includes:
  - Men and women ages 50-75
  - Men and women age 18-40 with a first-degree relative (parent, sibling or child) with CRC diagnosed at age less than 60 years of age, or two or more first-degree relatives diagnosed with CRC at any age. These patients may be advised to have a screening
colonoscopy (unless medically contraindicated) starting at age 40 years or 10 years younger than the earliest diagnosis in their family, whichever comes first.

- Men and women age 40-49 who have a first-degree relative with CRC diagnosed at >60 years, or with two or more second-degree relatives (grandparent, aunt, or uncle) diagnosed with CRC at any age may be advised to have screening colonoscopies starting at age 40.

**Excludes:**

- Patients with known colorectal adenomas or cancer or patients who have had a total colectomy
- Patients with polyposis syndrome or with inflammatory bowel disease since these patients are at more than average risk and should be followed as part of a disease management program as opposed to routine screening.
- Patients with terminal illness (life expectancy less than 6 months–1 year), enrolled in hospice, or cancer of esophagus, liver or pancreas.
- Additional patients may be excluded based on case by case decision-making by a provider. Examples include:
  - Providers should consider whether or not to screen patients of any age who, although not terminally ill, they consider are unlikely to experience a net benefit from colorectal cancer screening, i.e. no benefit is expected or benefits are not expected to outweigh harms because of one or both of the following (resolve the reminder for 5 years):
    - Life expectancy is <5 years AND/OR
    - Patient could not tolerate the further work-up or treatment (if the screen was positive) because of co-morbidities
    - The accurate determination of net benefit and life expectancy is difficult. Net benefit can vary by patient values and their assessment of the balance of known benefits and harms. For these reasons consideration of making this determination should be done on a case-by-case basis by a provider who knows the patient well and is able to include patient preferences in the decision to screen or not screen.

**Resolution and Frequency:**

- Fecal Occult Blood Test (FOBT) annually with:
  - FDA approved guaiac-based (gFOBT): high sensitivity products (>70% sensitivity for detecting cancer) are preferred or
  - FDA approved fecal immunochemical testing (iFOBT/FIT): products with a sensitivity of >70% for detecting cancer and a specificity of >90% are preferred.
- Sigmoidoscopy every 5 years with or without mid-interval FOBT
• Colonoscopy every 10 years
• Double-contrast barium enema (DCBE) is no longer considered to be a recommended modality.
• CTC (Computer tomographic colonography or ‘virtual colonoscopy’) within the past 5 years
• Patient declines (resolution timeframe is site specific)

Comments:

• Since colonoscopy is the preferred screening test for those with a positive family history as described above, this should be noted in the reminder dialog, OR a separate reminder may be developed for this cohort.
• Refer to companion document for guidance on laboratory reporting naming conventions for gFOBT and iFOBT
  (http://vaww.prevention.va.gov/docs/LABORATORY_REPORTING_OF_FECAL_OCCULT_BLOOD_TESTING_110510.pdf)
• Sigmoidoscopy may be with or without interval FOBT (no preference is expressed by the guidance). If an interval FOBT is included, the recommended interval is 3 years after the sigmoidoscopy.
• There are certain conditions under which CTC may be considered appropriate (see below), however this should not be offered in the dialog as a primary choice for all patients:
  o After a failed screening colonoscopy where the operator did not reach the cecum (estimated to occur in 1-15% of colonoscopies)
  o In patients with relative contraindications to screening colonoscopy (e.g., patients on anticoagulants or those with relative contraindications to sedation), but recognize that a portion of these patients will still require diagnostic colonoscopy if suspicious lesions are found; therefore, CTC should not be considered the default approach for all patients on anticoagulation therapy.
• Additional patients may be included for screening based on case by case decision making by a provider. Example:
  o Veterans ages 76-85 who are in very good health status who lack adequate previous screening
• The Custom Due Date field in the clinical reminder definition was created specifically for use for reminders such as this one where the next date due may not be based on the most recent finding. The national reminder does not use this field but it may be useful to use this for any local reminders that are created. For example, a colonoscopy done in 2014 and a FIT done for some other reason in 2015. The repeat screening is not due until 2024 if the colonoscopy was clear. Example of Custom Date Due:
  o CUSTOM_DATE_DUE:
    MAX_DATE(10+10Y,4+5Y,3+1Y,16+5Y,19+5Y)
**7. Screening for Dementia (Insufficient Evidence)**

**Availability of a national reminder for use in CPRS:** No

**Reason to NOT use a clinical reminder for this topic:** There is insufficient evidence to recommend for or against screening so a clinical reminder is not appropriate old.

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**8. Gonorrhea and Chlamydia Genital Infection Screening**

**Availability of a national reminder for use in CPRS:** No

**Potential reasons to NOT use a clinical reminder for this topic:** A second reminder or some other mechanism may be needed to gather risk information on patients ages 25 and older.

**Cohort:**

- Includes:
  - Women ages 18-24 who are sexually active
  - Women age 25 and older who are sexually active and who are at increased risk for infection (see risk factors in comment section)
  - Sites may add an option to include additional patients based on case by case decision-making by a provider, including screening for:
    - Chlamydia and gonorrhea in asymptomatic women 25 years and older who are at low risk for infection only if other clinical considerations support providing this service in an individual patient (for example if patient is in a population with increased prevalence of disease)
    - Chlamydial infection in asymptomatic men (for example if patient is in a population with increased prevalence of disease)
    - Gonorrheal infection in asymptomatic men who are at increased risk for infection (note: screening for gonorrhea in these men is NOT recommended if at low risk)
- Excludes:
  - Screening is no longer indicated for patients with a terminal illness and/or under hospice care.
  - Additional patients may be excluded based on case by case decision-making by a provider.

**Resolution:**
• All of the tests listed in the guidance statement under Comments on Method of delivery acceptable testing methods for women.
• Patient declines (resolution timeframe is site specific)

**Frequency:** There is insufficient evidence on optimal screening frequency for chlamydia and gonorrhea infections. The U.S. Preventive Services Task Force (USPSTF) recommends screening at least once, or when a patient’s sexual history reveals new or ongoing risk factors since the last negative test result.

**Comments:**

• Risk factors for chlamydia and/or gonorrhea infections include a history of previous chlamydia, gonorrhea, or other sexually transmitted infection, new or multiple sexual partners, a sexual partner with an STI, inconsistent condom use, exchanging sex for money or drugs, and drug use. The dialog could prompt a discussion of these factors with the patient in order to identify women age 25 and older and men who are at increased risk.
• There is insufficient evidence to support the practice of screening for gonorrhea or chlamydia in any asymptomatic male, but some providers may consider screening for these infections in populations known to be at higher risk, including men who have sex with men (MSM), or men living in high-prevalence communities.
• Although there are many tests that can resolve this reminder, the test(s) listed as most preferred (highest on the list) that is available at the facility should be the tests that are included in the dialog for orders.
• Considerations for resolving the remainder:
  o Women:
    ▪ Optimal specimen source: vaginal swab (provider- or patient- collected, depending on package instructions).
      • Vaginal swabs, including those collected by patients, are as sensitive and specific as endocervical swabs.
    ▪ Other acceptable specimens:
      • Endocervical swab, if pelvic exam performed.
      • Endocervical specimens collected into a liquid cytology medium for Pap screening are acceptable for NAAT screening for chlamydia and gonorrhea infections, so long as the NAAT has been cleared by the FDA for such specimen types.
      • First-catch urine (not clean-catch), if pelvic exam not performed.
      • First-catch urine specimens, while acceptable for screening, may detect up to 10% fewer gonorrhea and chlamydia infections, compared with vaginal and endocervical specimens. Clean-catch urine is not an acceptable specimen. Pharyngeal and rectal
specimens are also acceptable for NAAT testing, if clinically warranted.

- **Men:**
  - If clinical judgment prompts screening of a male patient, the following NAAT specimens are recommended by the CDC:
  - Urethral specimen (for men engaging in insertive anal intercourse): first-catch (not clean-catch) urine is preferred, but urethral swab is acceptable. Clean-catch urine is not an acceptable specimen.
  - Rectal specimen (for men engaging in receptive anal intercourse): rectal swab.
  - Pharyngeal specimen (for men engaging in receptive oral intercourse): pharyngeal swab. Note: pharyngeal specimens should be tested only for gonorrhea infections. CDC does not recommend testing pharyngeal specimens for chlamydia infections.

9. **Hepatitis C Screening**

**Availability of a national reminder for use in CPRS:** Yes, use of the 2 national reminders is recommended. These were released in patch PXRM*2*52 on May 21, 2015. The national reminders include a reminder to prompt for screening for risk for patients not born in the birth cohort (1945-65) and a new national reminder for lab testing of those at risk and also those in the 1945-65 birth cohort.

**Potential reasons to NOT use a clinical reminder for this topic:** None

**Risk Screening Cohort:**

- Includes:
  - Men and women age 18 and older
- Excludes:
  - Those born 1945-1965 inclusive
  - Those with a diagnosis of alcoholic hepatitis or a diagnosis (DSM-IV) of alcohol or drug abuse or dependence
  - Patients with known Hepatitis C
  - Patients with terminal illness (life expectancy less than 6 months-1 year), enrolled in hospice, or cancer of esophagus, liver or pancreas
  - Completed serologic assays that detect specific antibody to hepatitis C virus (anti- HCV) and molecular assays that detect viral nucleic acid (HCV RNA). (See page A1 of VHA Directive 2009-063 Reflex Confirmatory Testing for Chronic Hepatitis C Infection, available at: [Link])
Risk Screening Resolution:

- Patient declines (resolution timeframe is site-specific)
- Health factor for at increased risk or not at increased risk

Lab Testing Cohort:

- Includes:
  - Men and women age 18 and older who are at increased risk or who have a diagnosis of alcoholic hepatitis, alcohol or drug abuse or dependence and patients with HIV
  - Patients born 1945-1965 inclusive
  - Sites may add an option to include additional patients for laboratory testing based on case by case decision-making by a provider.
- Excludes:
  - Patients with known Hepatitis C
  - Patients with terminal illness (life expectancy less than 6 months-1 year), enrolled in hospice, or cancer of esophagus, liver or pancreas
  - Additional patients may be excluded based on case by case decision-making by a provider. Examples include:
    - Patients of all ages who, although not terminally ill, have a limited life expectancy and are unlikely to benefit from screening or those who would be unable to tolerate further diagnostic work-up and/or treatment due to severe co-morbidities

Lab Testing Resolution:

- Patient declines (resolution timeframe is site-specific)
- Health factor indicating that provider thinks it is clinically not indicated to test for Hepatitis C
- Note: patients with a positive serology must have an HCV RNA performed. The national reminders are set up to prompt for this if it has not been done.

Frequency:
• Risk assessment: At least once. Periodic reassessment may be considered, however the optimal interval for reassessment is unknown. Risk assessment not required if lab testing already completed.

• Lab testing for Hepatitis C virus (HCV): Once if risk factors present or born between 1945-1965 inclusive. Consideration can be given to re-testing for HCV when new risk factors occur.

Comments:

• Use the updated list of risk factors in the guidance statement for risk assessment.

• Note: Retroactive risk assessment and/or lab testing of patients who previously screened negative for risk using the list of risk factors provided with the national clinical reminder (which did not include Vietnam era of service or incarceration) is not required or recommended at this time unless they were born 1945-65 inclusive.

• Lab testing of patients born 1945-1965 who previously screened negative for risk is recommended.

10. Hepatitis A Immunization

Availability of a national reminder for use in CPRS: No

Potential reasons to NOT use a clinical reminder for this topic: Many of the indications for this immunization are not coded data fields in CPRS.

Cohort:

• Includes:
  o Persons traveling to or working in countries that have high or intermediate endemicity of infection;
  o Men who have sex with men;
  o Users of injection or non-injection illicit drugs;
  o Persons with chronic liver disease (including those with Hepatitis B infection, Hepatitis C infection, liver cirrhosis (diagnosed by labs, imaging and/or biopsy), liver fibrosis and any patient with other clinical syndromes consistent with chronic liver disease (e.g. esophageal varices) and those awaiting or who have received liver transplant);
  o Persons who work with HAV-infected primates or with HAV in a research laboratory setting;
  o Persons with clotting-factor disorders
  o Or all other persons seeking protection from HAV infection

• Excludes:
Those who were previously immunized when they were infants, children, adolescents or adults or those who already have a positive serology for Hepatitis A.

Contraindications: history of a severe allergic reaction to a previous dose of hepatitis A vaccine or to a vaccine component.

Additional options could be added to the reminder that enable clinicians to temporarily or permanently exclude individual patients based on case by case decision-making, and/or for those patients who have certain ‘precautions’ for the vaccine. For example:
- Pregnancy
- Vaccination of persons with moderate or severe acute illnesses (with or without fever) should generally be deferred until the acute illness has improved or resolved.

Resolution:

- Administration of 2 doses of Hepatitis A vaccine or 3 doses of Twinrix® (combination Hepatitis A and Hepatitis B vaccines) at the recommended intervals
- Written documentation from an outside source is available and this is entered in the patient record as a historical immunization
- Patient declines immunization

Frequency: Two doses are required at recommended intervals unless patient has previously had Hepatitis A Infection and had laboratory confirmation of immunity after the infection.

Comments:

- If a clinical reminder is used, patients with known diagnoses that are indications for the immunization can be included; however, not all indications are diagnoses. Therefore, a risk assessment for other indications would have to be completed in some way to accurately trigger this reminder.
- Once a patient has been given the first dose of vaccine, a clinical reminder or clinical reminder report may be useful to prompt staff to administer the second dose (and third) within the recommended timeframes.
- Sites may choose to implement a clinical reminder for specific populations that are easily identifiable via coded fields in Vista such as patients HIV/AIDS and/or other subgroups.
- Note that Twinrix contains only half the antigen dose of Havrix and therefore, patients need 3 doses of Twinrix to have been adequately vaccinated for Hepatitis A.
11. **Hepatitis B Immunization**

**Availability of a national reminder for use in CPRS:** Yes

**Potential reasons to NOT use a clinical reminder for this topic:** Many of the indications for this immunization are not coded data fields in CPRS.

**Cohort:**

- Includes:
  - Household contacts and sex partners of HBsAg-positive persons;
  - Current or recent injecting-term, mutually monogamous relationship (for example, persons with more than one sex partner in the past 6 months);
  - Men who have sex with men;
  - Persons with HIV infection;
  - Persons seeking evaluation or treatment for a sexually transmitted disease (STD);
  - Persons with end-stage renal disease including patients receiving dialysis;
  - Persons with chronic liver disease (including those with Hepatitis C infection, liver cirrhosis (diagnosed by labs, imaging and/or biopsy), liver fibrosis and any patient with other clinical syndromes consistent with chronic liver disease (e.g. esophageal varices) and those awaiting or who have received liver transplant);
  - Persons ages 19-59 who have diabetes mellitus;
  - Healthcare personnel and public safety workers with reasonably anticipated risk for exposure to blood or other potentially infectious body fluids;
  - Clients and staff in the following settings:
    - Institutions and non-residential daycare facilities for persons with developmental disabilities;
    - STD treatment facilities;
    - HIV testing and treatment facilities
    - Facilities providing drug abuse treatment and prevention;
    - Health care that target services to injection-drug users or men who have sex with men;
    - Correctional facilities and facilities for chronic hemodialysis patients;
    - International travelers to countries with high or intermediate prevalence of HBV infection;
    - All other persons seeking protection from HBV infection. Acknowledgment of a specific risk factor should not be a requirement for vaccination.

- Excludes:
  - Persons who were previously immunized when they were infants, children, adolescents or adults or those who have a prior infection (HBcAb+ or HBsAb+) or who have evidence of immunity (HBsAb+).
  - Additional options could be added to the reminder that enable clinicians to temporarily or permanently exclude individual patients based on case by case decision-making, and/or for those patients who have certain ‘precautions’ for the vaccine. For example:
Pregnancy
• Vaccination of persons with moderate or severe acute illnesses (with or without fever) should generally be deferred until the acute illness has improved or resolved.

Resolution:
• Administration of 3 doses of Hepatitis B vaccine or Twinrix vaccine (combination Hepatitis A and B vaccines)
• Administration of 2 doses of adjuvant vaccine (HepB-CPG, Heplisav-B)
• Written documentation from an outside source is available and this is entered in the patient record as a historical immunization
• Patient declines immunization

Frequency: of standard or combination vaccine or 2 doses of adjuvant vaccine are required at recommended intervals.

Comments:
• The national reminders for Hepatitis B immunization were released in September 2018. The first reminder prompts for serology or to initiate vaccine. The second reminder prompts for immunization if serology is negative or if the vaccine series has been initiated and the next dose is due. Options as described above for inclusion and exclusion criteria are included. A detailed description of the logic of the national reminders is available in VistA in the reminder definition
• If a local clinical reminder is used, patients with known diagnoses that are indications for the immunization can be included; however, not all indications are diagnoses. Therefore, a risk assessment for other indications would have to be completed in some way to accurately trigger this reminder.
• Once a patient has been given the first dose of vaccine, a clinical reminder or clinical reminder report may be useful to prompt staff to administer the second and third doses within the recommended timeframes if the reminder does not come back on for those subsequent doses.
• Sites may choose to implement a clinical reminder for specific populations that are easily identifiable via coded fields in Vista such as patients HIV/AIDS and/or other sub-groups.

12. Hepatitis B Screening

Availability of a national reminder for use in CPRS: No
Reasons to NOT use a clinical reminder for this topic:

- The guidance statement specifies that a neither a standardized risk assessment nor routine laboratory screening is recommended in the asymptomatic patient population.
- Instead the guidance states that discovery of risk factors for hepatitis B may occur in individualized encounters in the course of providing usual care, and that clinicians should perform laboratory testing for Hepatitis B virus infection in patients who are found to be at high risk for infection.
- Most of the risk factors are not coded data fields in CPRS.
- Therefore, this activity does not lend itself to implementation via a clinical reminder.

13. Herpes Zoster (Shingles) Immunization

Availability of a national reminder for use in CPRS: Yes, a national reminder for Herpes Zoster (shingles) immunization was released in April 2016 in patch PXRM*2*63. The reminder was updated in March 2018 in Reminder Update 40. The updated reminder uses the new recombinant zoster vaccine (RZV – Shingrix).

Potential reasons to NOT use a clinical reminder for this topic: None known.

Cohort:

- Includes:
  - Men and women age 50 and older
- Excludes:
  - Immunosuppressed persons (AIDS with CD4+ T-lymphocyte values <200 per mm or <15% of total lymphocytes or other clinical manifestations of HIV, leukemia, lymphomas, or other malignant neoplasms affecting the bone marrow or lymphatic system.
  - Persons on immunosuppressive therapy, including high-dose corticosteroids (>20 mg/day of prednisone or equivalent) lasting two or more weeks.
    - The national reminder has a reminder term for inclusion of a local definition of high dose steroids. A separate local clinical reminder is available to insert in this term that searches for days’ supply and dose to make a rough determination if the patient is on a high dose that might be an exclusion.
    - Zoster vaccination with RZV should be deferred for at least 2 months after a dose of the zoster vaccine live (ZVL – Zostavax).
    - Determining exact dosage of steroid from information on tablet size and days’ supply from Pharmacy data is difficult. The national reminder makes an attempt to exclude patients who are on high dose steroids but clinical judgement should be used.
Patients with recent prescriptions for chemotherapeutic agents are excluded from the cohort in the national reminder for 60 days after their most recent supply of drug was available.

- Persons receiving the recombinant human immune mediators and immune modulators, especially the antitumor necrosis factor agents, such as adalimumab, infliximab, etanercept and certolizumab pegol.
  - If it is not possible to administer zoster vaccine to patients before initiation of therapy, physicians should assess the immune status of the recipient on a case-by-case basis to determine the relevant risks and benefits.

- A prior reaction to ZVL is not a contraindication to use of RZV.
- Additional options could be added to the reminder that enable clinicians to temporarily or permanently exclude individual patients based on case by case decision-making, and/or for those patients who have certain ‘precautions’ for the vaccine. For example:
  - Zoster vaccination of persons who have moderate or severe acute illness should be postponed until recovery (temporary resolution). (Note: Zoster vaccine can be administered to persons who have mild acute illnesses with or without fever.)
  - Immunosuppression is no longer an absolute contraindication to use of RZV as it was with ZVL. However, use of RZV in immunocompromised patients is not well studied. Patients receiving immunosuppressive medications are excluded from the cohort by the national reminder. Immunization may be appropriate in some of these patients. VHA clinicians should use individual clinical judgment for these patients. Clinicians should have (and document) a conversation using shared decision making with these patients about potential benefits and harms before ordering zoster immunization.

**Resolution:**

- Record of or patient reports receipt of recombinant zoster vaccine (RZV)
- Written documentation from an outside source is available and this is entered in the patient record as a historical immunization
- Temporary resolution can be achieved by placing an order for the vaccine if this is mapped to the reminder term for the orders
- Patient declines (resolution timeframe is site specific)

**Frequency:** 2 doses – second dose is ideally given 2-6 months after the first dose. If the second dose is given, after 6 months, the first dose does not have to be repeated

**Comments:**

- Always include link to current Vaccine Information Statement (VIS) for the immunization in dialog.
• It is not necessary to ask about a prior history of vaccination with varicella vaccine or check for varicella antibodies before administering zoster vaccine.

14. **High Blood Pressure Screening**

**Availability of a national reminder for use in CPRS:** No

**Potential reasons to NOT use a clinical reminder for this topic:** BP is commonly checked at every visit.

**Cohort:**

- **Includes:**
  - All patients age 18 and older

- **Excludes:**
  - Patients who are already known to have a diagnosis of Hypertension.
  - Patients with terminal illness (life expectancy less than 6 months-1 year), enrolled in hospice, or cancer of esophagus, liver or pancreas.
  - Additional patients may be excluded based on case by case decision-making by a provider.

**Resolution:**

- Blood Pressure measurement recorded in Vital Signs package

**Frequency:** Annually

**Comments:**

- Object could be created (with health factors) and displayed in dialog that would remind staff which arm to measure BP.
- Key points of recommended procedure could be included in dialog as read-only text.

15. **HIV Screening**

**Availability of a national reminder for use in CPRS:** Multiple sites have available reminders for HIV screening. Please contact your VISN CHIO or Clinical Reminder Manager for information.

**Potential reasons to NOT use a clinical reminder for this topic:** None known

**Risk Screening Cohort:**
• Includes:
  o All patients age 18 and older

• Excludes:
  o Patients who are already known to be HIV+ or known to have AIDS
  o Patients with terminal illness (life expectancy less than 6 months-1 year),
    enrolled in hospice, or cancer of esophagus, liver or pancreas
  o Additional patients may be excluded based on case by case decision-making by
    a provider.

Resolution:

• HIV-1/2 antigen/antibody combination immunoassay (4th generation test) on blood
  specimens, with confirmation by HIV-1/ HIV-2 antibody differentiation immunoassay if
  positive.
• Rapid HIV antibody testing may be used in the appropriate clinical setting (e.g. homeless
  clinics, substance use clinics, or Emergency Departments), but must be followed by
  confirmatory testing with the above mentioned series of tests. Patient declines
  (resolution timeframe is site specific).

Frequency: At least once.

Comments:

• Repeat screening at least annually in documented HIV negative adults with new or
  ongoing risk factors is recommended by the guidance statement but may be difficult to
  include in a reminder because of the inability to accurately determine this information.
  This difficulty is one of the reasons that universal testing is recommended. Use of a
  reminder that prompts for one time screening is sufficient, however, if a site chooses to
  utilize a reminder to trigger re-screening, see next bullet below.
• Adults with risk factors include the following (considerations for repeat testing):
  o Men who have had sex with men after 1975
  o Men and women having unprotected sex with partners of unknown HIV status
  o Past or present injection drug users
  o Men and women who exchange sex for money or drugs or have sex partners
    who do
  o Individuals whose past or present sex partners were HIV-infected, bisexual, or
    injection drug users
  o Heterosexual individuals who have had or whose sexual partners have had more
    than one sexual partner since their most recent HIV test
  o Persons being treated for sexually transmitted infections(STIs)
  o Persons with a history of blood transfusion between 1978 and 1985
Persons who request an HIV test without disclosure of risk factors may also be at increased risk due to unreported high risk behaviors.

Note: HIV screening should be included in the routine panel of prenatal screening tests for all pregnant women. This information is contained in the VA/DoD Clinical Guideline for Management of Pregnancy:
http://vaww.oqsv.med.va.gov/functions/integrity/cpg/cpgOnline/mpg/COVER_mpg.htm

16. Human Papillomavirus Immunization (HPV)

Availability of a national reminder for use in CPRS: Yes

Potential reasons to NOT use a clinical reminder for this topic: None – but note that it may be difficult to electronically and reliably identifying men who have sex with men to include in the reminder cohort

Cohort:

- Includes:
  - All women ages 19-26
  - All men ages 19-21
  - Men ages 22-26 who are immunocompromised includes those who are immunocompromised. The national reminder includes a taxonomy for a broad range of diagnoses that represent immunocompromised. The cohort of the national reminder does not include specific drugs that might result in an immunocompromised state because this national reminder is due for all men up to age 26 whether or not they are immunocompromised. The patients undergoing immunosuppressive therapies should be vaccinated prior to starting those treatments. The taxonomy includes patients with ICD and SNOMED-CT codes for the following:
    - Congenital or acquired immunodeficiencies
    - HIV infection
    - Leukemia
    - Lymphoma
    - Hodgkin disease
    - Multiple myeloma
    - Generalized malignancy
    - Chronic renal failure
    - Nephrotic syndrome
Other conditions associated with immunosuppression (e.g., solid organ or bone marrow transplantation); and or radiation therapy

- The national reminder does not include a list of drugs such as:
  - Immunosuppressive chemotherapy, including long-term systemic corticosteroids
  - Other immunosuppressive medications including monoclonal antibodies such as rituximab, biologic therapies such as interferon alpha and anti-TNF drugs such as etanercept.
    - Also includes regimens that may be considered ‘low dose’ such as methotrexate ($\leq 0.4 \text{ mg/Kg/week}$), azathioprine ($\leq 3.0 \text{ mg/Kg/day}$), or 6-mercaptopurine ($\leq 1.5 \text{ mg/Kg/day}$).
- Excludes:
  - The national reminder excludes patients with an allergy to a vaccine component and allows clinicians to defer vaccination of persons with moderate or severe acute illnesses (with or without fever) until the acute illness has improved or resolved.

**Resolution:**

- Administration of 3 dose series of HPV vaccine.
- Written documentation from an outside source is available and this is entered in the patient record as a historical immunization.
- Patient declines (resolution timeframe is set to 3 months in the national reminder but can be set inside the reminder term to be site specific).

**Frequency:** A series of three vaccinations are required. See guidance statement for spacing of doses.

**Comments:**

- Men ages 22-26 who are immunosuppressed as well as men who have sex with men are recommended to receive this vaccine however men in this age group without these two risk factors MAY be given this vaccine series based on an individual decision by provider (this is a permissive recommendation and not one that is normally included in reminders). However, MSM are not identifiable electronically in CPRS. Any of these options to address this are acceptable and include:
  - Include all men 22-26 in cohort and inform them that if they are a MSM they may automatically receive the vaccine AND if they would like to receive the vaccine for other reasons they should discuss with their provider. This approach may facilitate receipt of the vaccine by MSM who do not wish to disclose their MSM status. This is the approach used in the national reminder.
Include men 22-26 in the cohort only if they are immunosuppressed and do not address the MSM issue in the reminder. Provide guidance to clinicians in other way about the MSM indication so that this can be addressed in the context of (more confidential) patient provider clinical interactions.

- Do not have a clinical reminder at all for this immunization, provide guidance to clinicians in other ways.

- Ask all patients about allergies or previous serious reaction immunizations before administering.
- Syncope may occur after vaccination. Care providers may consider observing patients after administering HPV vaccine for 15 minutes.
- Always include link to current Vaccine Information Statement (VIS) for the immunization in dialog.

17. Lipid Disorders Screening

Special Note:

- SI p10 is inconsistent with the guidance statement as follows:
  - Age based screening for women (>45) rather than risk based screening
  - Q2yr screening instead of q5 yr screening for some populations (tobacco users, patients with HTN treated by meds, certain family history
  - Specific risk factors listed for younger men

Availability of a national reminder for use in CPRS: No

Potential reasons to NOT use a clinical reminder for this topic: In order to determine if patient is at risk, an initial risk assessment reminder or some other mechanism may be needed (especially to gather information about the family history and waist circumference factors). These factors are not currently collected in a standardized way.

Cohort:

- Includes:
  - Men ages 35 and older who are or are not at increased risk of coronary heart disease (CHD)
  - Men ages 20-34 (correction of previous typo) who are at increased risk of CHD
  - Women age 20 and older who are at increased risk of CHD
  - Increased risk of CHD for this purpose is defined as:
    - Diagnosis of hypertension
- Family history of premature coronary heart disease: family history of heart attacks or strokes before age 50 in male relatives or age 60 in female relatives
- Current tobacco use
- Obesity: Body Mass Index >30; elevated waist circumference (male >40 inches, female >35 inches)
- Note: It is possible that a combination of multiple risk factors above could raise the 10 yr risk of CHD to >20% which is essentially a CHD equivalent (example risk calculator: http://hp2010.nhlbihin.net/atpiii/calendar.asp). If that is the case, the VA/DoD Clinical Practice Guideline for CHD should be consulted and followed.
  - Additional patients may be included based on case by case decision-making by a provider. For example:
    - Determinations to routinely screen men between the ages of 20–34 (correction of previous typo) and women age 20 or older who are not at increased risk for coronary heart disease should be individualized. This decision should take into account factors such as individual patient preferences and presence of other co-morbid conditions.
- Excludes:
  - Patients who do have known CHD, CHD-equivalent conditions (such as abdominal aortic aneurysm, peripheral artery disease, carotid artery stenosis or diabetes) or known dyslipidemia.
  - Additional patients may be excluded based on case by case decision-making by a provider. For example:
    - For patients in whom screening is routinely indicated, a definitive age for stopping screening is not established. It may be appropriate to screen elderly patients who have never been screened. Cholesterol is less likely to increase after the age of 65; however, there is an increased risk for coronary heart disease in the elderly.
    - Patients with terminal illness (life expectancy less than 6 months-1 year), enrolled in hospice, or cancer of esophagus, liver or pancreas.
    - Providers should discuss whether to screen patients of all ages who, although not terminally ill, have a limited life expectancy and are unlikely to benefit from screening or those who would be unable to tolerate further diagnostic work-up and/or treatment due to severe co-morbidities.

Resolution:
• Optimal screening labs include, at minimum, measurement of both total serum cholesterol (TC) and HDL-C levels, fasting or non-fasting.
• Patient declines (resolution timeframe is sitespecific).

**Frequency:** Every 5 years.

**Comments:**

• In order to determine if patient is at risk an initial risk assessment reminder or some other mechanism may be needed (especially to gather information about the family history and waist circumference factors). If this approach is taken, this initial risk determination should include all women over the age of 20 and men 24-34 who do not have known HTN or current tobacco use (because if they are already known to have these risk factors, no further risk assessment is required for this purpose)
• The Guidance Statement’s recommendation to screen every 5 years is based on existing guidelines and expert opinion, as evidenced-based optimal screening intervals are uncertain. NCP’s preference is that the frequency be q5yrs for the population covered by this statement (i.e. patients who do NOT have known CHD, CHD equivalent conditions or known dyslipidemia but who ARE in specified age groups with certain diseases or conditions that put them at increased risk for coronary heart disease.) Although the clinical reminder could give providers the option to screen these patients more often, it is recommended that the default frequency for this group of patients be q5years.

18. **Lung Cancer Screening**

**Availability of a national reminder for use in CPRS:** No. But a series of 3 reminders were developed by NCP and used at 8 VA pilot sites for a national pilot project sponsored by NCP. The reminders were designed to facilitate lung cancer screening (LCS).

**Potential reasons to NOT use a clinical reminder for this topic:** Pack year history and quit date, if applicable, must be collected as computable numbers in order to allow reminders to work correctly.

**Cohort:**

• Includes:
  o Current and former tobacco smokers who:
    ▪ Have a 30 pack year history or more and
    ▪ Who are ages 55-80.
• Excludes:
  o Patients who quit more than 15 years ago
  o Patients who are already known to have a diagnosis of lung cancer
  o Patients with terminal cancer or life expectancy less than 6 months
  o Additional patients may be excluded based on case by case decision-making by a provider after discussion with the patient on the risk/benefit of screening.

Resolution:

• Low dose CT scan done annually.

Frequency: Annually.

Comments:

• The 3 reminders available from the pilot project are:
  o LCS TOBACCO PACK YEAR HISTORY
  o LCS INITIAL LUNG CA SCREEN (PROVIDER)
  o LCS REPEAT LUNG CA SCREEN (PROVIDER)

• The Tobacco Pack Year History reminder collects packs per day smoked along with the number of years of tobacco smoking. It also collects the date that the patient quit if they are no longer smoking. The packs per day and the years smoked are multiplied to obtain pack years which is used in the second reminder. The Initial LCS reminder provides the opportunity for the provider to discuss with the patient the risk/benefit, enter other exclusions or prior screening and to order the initial CT. The Repeat LCS reminder will be due every year until the patient has quit for more than 15 years, becomes older than 80, develops lung cancer or a terminal illness or declines to continue screening.

• An additional reminder dialog template is available that was developed by the Minneapolis VA LCS Coordinator to record and manage abnormal findings on CT found during the screening process. Many patients will have abnormal findings that will need to be tracked more frequently than annually and many of these patients may need other procedures done to investigate these abnormal findings. This dialog allows tracking of patients in a separate database that is based on the health factors entered into the patient record from the dialog by the Coordinator.

• Sites that are interested in developing a LCS program should review the documentation provided on this SharePoint site: Lung Cancer Screening (LCS) Toolkit.

• Even if a facility is not ready to implement a full screening program (systematically identifying and offering screening to all appropriate patients), processes must still be in place to screen patients who request LCS, meet the criteria, and make an informed, shared decision to be screened.
19. Meningococcal Immunization

**Availability of a national reminder for use in CPRS:** Yes – separate national reminders for Meningococcal ACWY immunization and Meningococcal B immunization were made available to the field in August 2017.

The national reminder required mapping of the correct local vaccine entries to the reminder terms for conjugate ACWY vaccine, non-conjugate ACWY vaccine and Men B vaccine.

**Potential reasons to NOT use a clinical reminder for this topic:** Some risk factors for meningococcal disease are not available for a clinical reminder such as a microbiology lab worker, residence in a college dormitory, or travel.

**Cohort—Meningococcal ACWY:**

- Initial immunization, **with one dose** of conjugate vaccine for any age for:
  - Certain college freshmen
  - Microbiology personnel with occupational exposure to *Neisseria meningitides*
  - Others who are at high risk or who desire the immunization but not appropriate to include in clinical reminder cohort logic (these criteria could be displayed in reminder dialog for information only):
    - Travelers to high risk areas – this is not a patient characteristic that can be coded.
    - Military recruits – all of our patients are either Veterans or in the service. Note: Those who entered the service during or after 1971 will have already received one dose of either the polysaccharide or the conjugate vaccine. The first conjugate vaccine was FDA approved in January 2005. The immunization information for these patients is often available in JLV for recently discharged patients and will need to be recorded in the reminder dialog to resolve the reminder.
    - Other persons who wish to desire their risk for meningococcal disease.

- Initial immunization **with a series of 2 doses of conjugate vaccine** includes:
  - Persons with anatomic or functional asplenia or with a terminal-complement component deficiency or patients on eculizamab
  - Persons with HIV

- For repeat immunization with conjugate vaccine q5 years for those at prolonged ongoing risk, includes:
  - Persons with persistent anatomic or functional asplenia or with a terminal-complement component deficiency or with HIV
  - Microbiology personnel with occupational exposure to *Neisseria meningitides*
Others who are at high risk but not appropriate to include in clinical reminder cohort logic (these criteria could be displayed in reminder dialog for information only):

- Travelers to high risk areas-this is not a patient characteristic that can be coded.
- Adults who received MPSV4 as an adolescent or child – antibody levels decline rapidly after 2-3 years, and, if indications still exist for vaccination, revaccination with conjugate vaccine might be considered after 5 years

Excludes:

- Severe allergic reaction to (e.g. anaphylaxis) after a previous dose or to a vaccine component including:
  - diphtheria toxoid (for MenACWY)
  - dry natural rubber latex if the product contains latex
  - The national reminder allows deferral for moderate or severe acute illnesses with or without a fever: Vaccination should generally be deferred until they have recovered from the acute phase of their illness.

Men ACWY conjugate vaccine should not be given within one month of Pneumococcal Conjugate vaccine (PCV13). The national reminder for MenACWY is not applicable if the patient has the national reminder for PCV13 due. PCV13 should be given first and then one month or more later, the MenACWY conjugate vaccine may be administered.

Resolution:

- Receipt of the meningococcal conjugate vaccine: meningococcal conjugate vaccine MCV4 (Menactra™) or MenACWY-CRM (Menveo™), is required for all patients receiving the vaccine due to immunocompromise or if repeat doses are required. The 2 dose primary series with conjugate vaccine is required for all immunocompromised patients.
- Written documentation from an outside source is available and this is entered in the patient record as a historical immunization.
- Patient declines – the national reminder resolves for 3 months (resolution time frame is site specific and may be set in the reminder term).

Frequency: Once or twice depending on the cohort listed above under initial immunization; then every 5 years for those who remain in the cohort described above.

Cohort– Meningococcal B:

- Includes:
- Patients with splenectomy, complement deficiency or who are receiving eculizamab. The cohort also includes any patient who has received one or more doses of MenB vaccine but who has not completed the primary series.
- Patients should complete the primary series of MenB vaccination with the same formulation of vaccine that was given for the first dose. The national reminder prompts for the appropriate time periods for the 2 different MenB formulations. Bexsero is on the VA Formulary, Trumenba is not on the formulary but some patients have received this formulation. See the Meningococcal Guidance statement for details on the various approved schedules for these 2 different formulations.
- Men B vaccine may be administered at the same visit as MenACWY vaccine.

**Resolution:** 2 or 3 doses of MenB vaccine depending on the formulation and the timing of doses. The national reminder evaluates a dose as invalid if given too close to a prior dose. Written documentation should be reviewed and entered as a historical vaccination if available. Taking a verbal report from a patient is not appropriate.

**Important Note:**

- Both national meningococcal reminders have options in the reminder dialog to indicate whether the patient is at risk or not. Patients who have a risk that is otherwise not coded (microbiology worker, dormitory living, etc.) may have one of these options checked in order to prompt for future doses of vaccine. If that risk resolves and the patient is no longer at risk OR if the patient has a code for splenic disease that does not represent complete loss of splenic function, then the option for “no longer at risk” should be used to turn the reminder(s) off.
- ICD9 had a code for splenic dysfunction that was used for splenectomy and for other splenic diseases that may not have put the patient at risk for meningococcal disease. Use this option of “no longer at risk” to turn the reminder off for these patients who have this ICD9 code and who still have some splenic function.

**Comments:**

- Ask all patients about allergies or previous serious reaction immunizations before administering
- Always include link to current VIS for the immunization in dialog.

### 20. Osteoporosis Screening

**Availability of a national reminder for use in CPRS:** N/A
Potential reasons to NOT use a clinical reminder for this topic: None known

Cohort:

- Includes:
  - Women age 65 and older
  - Women age 50-64 who are found to be at risk equal to that of a 65 year old woman by use of the FRAX tool (i.e. a 9.3% or higher 10 year risk of a major osteoporotic fracture)
- Excludes:
  - Patients with known osteoporosis or osteopenia.

Resolution:

- Receipt of bone density measured at the both the femoral neck and the lumbar spine by dual-energy x-ray absorptiometry (DXA)
- Patient declines (resolution timeframe is sitespecific)
- Record of or patient reports receipt of screening elsewhere

Frequency: Once.

Comments:

- May need a risk assessment reminder for women aged 50-64 that includes link to FRAX.
- Include link to FRAX in dialog, consider including link also on Tools bar in CPRS.

21. Overweight and Obesity Screening

Availability of a national reminder for use in CPRS: No

Potential reasons to NOT use a clinical reminder for this topic: Screening may be done as a routine part of medical care and may not require a reminder.

Cohort:

- Includes:
  - All Patients age 18 and up
- Excludes:
Screening is not indicated for patients who are terminally ill and/or under hospice care. Providers should discuss whether to screen patients of all ages who, although not terminally ill, have a limited life expectancy and are unlikely to benefit from screening, or those who would be unable to tolerate further diagnostic work-up and/or treatment due to severe co-morbidities.

Screening for overweight and obesity in adults ages 70 years and older should take into account an individual’s health goals, medical conditions and overall functional status.

Resolution:

- Height and weight recorded in vitals package.
- Waist circumference measurement provides an indication of abdominal adiposity and therefore may be useful as a risk-stratification tool for overweight (BMI 25.0 – 29.9) and Class 1 obese (BMI 30.0 – 34.9) patients. Waist circumference measurement has limited risk prediction utility beyond that of BMI for patients with a BMI ≥ 35. Additionally, waist circumference measurement may not be applicable to adults less than 5 feet in height.

Frequency: The optimal frequency for overweight and obesity screening in the clinical setting has not been established. However, annual screening increases the opportunity to diagnose overweight and obesity, and allows providers and patients to have regular educational discussions about the benefits of maintaining and striving for a healthy weight.

Comments:

- Patients with overweight and obesity are at increased risk for multiple obesity-associated conditions, including hypertension, type 2 diabetes and pre-diabetes, dyslipidemia, metabolic syndrome, obstructive sleep apnea, degenerative joint disease, and non-alcoholic fatty liver disease. Providers should assess overweight and obese patients for the presence of these conditions as clinically indicated, since there is evidence that a weight loss of ≥5% of initial body weight can improve these conditions. For specific guidance on assessing for and managing obesity-associated conditions, please refer to the VA/Department of Defense (DoD) Clinical Practice Guideline for Screening and Management of Overweight and Obesity at: http://www.healthquality.va.gov/guidelines/CD/obesity/VADoDCPGManagementOfOverweightAndObesityFINAL070714.pdf.

- Overweight patients with one or more obesity-associated conditions and obese patients should be referred to an intensive, multi-component behavioral intervention for weight management. Such an intervention is characterized by at least 12 to 26 contacts over 1 year and targets diet, physical activity and behavioral modification. MOVE!® is VHA’s national program for weight management. MOVE! is currently available at all VHA
hospital facilities and most VHA community-based outpatient clinics upon referral by the primary care team. There are several different modalities available, including face-to-face individual and group visits, telephone support, TeleMOVE! secure home messaging and interactive voice response, MOVE! telephone lifestyle coaching and the MOVE! Coach smartphone application (app). Please refer to the MOVE! website (https://www.move.va.gov/) for more information.

22. **Pneumococcal Immunization**

**Availability of a national reminder for use in CPRS:** Two national clinical reminders are available which will remind staff to give PPSV23 (Pneumovax) and/or PCV13 (Prevnar 13). The reminders were released in January 2014 and have been updated to meet the new guidance for use of PCV13 in all patients age 65 and older. The most recent update to the reminders was released in patch PXRM*2*63 in April 2016 and updated the time period to wait between vaccines.

**Potential reasons to NOT use a clinical reminder for this topic:** None known

a. **Pneumococcal polysaccharide vaccine** (PPSV23-Pneumovax)

**PPSV23 Cohort:**

- For **initial vaccination**, includes:
  - Men and women age 65 and older
  - Men and women age 18-64 who:
    - smoke cigarettes;
    - are at increased risk for pneumococcal disease or its complications if they become infected. Persons at increased risk for severe disease include those with chronic illness such as:
      - chronic cardiovascular disease (e.g., congestive heart failure [CHF] or cardiomyopathies but no hypertension)
      - chronic pulmonary disease (e.g., COPD or emphysema, asthma)
      - diabetes mellitus
      - alcoholism
      - chronic liver disease including (cirrhosis)
      - CSF leaks
      - cochlear implants;
    - are immunocompromised, including those with:
      - congenital or acquired immunodeficiencies
      - HIV infection
      - Leukemia
• Lymphoma
• Hodgkin disease
• multiple myeloma
• generalized malignancy
• chronic renal failure (includes CKDIII-IV)
• nephrotic syndrome
• other conditions associated with immunosuppression (e.g., solid organ or bone marrow transplantation); and persons receiving immunosuppressive chemotherapy, including long-term systemic corticosteroids or radiation therapy.
  ▪ have functional or anatomic asplenia (e.g., sickle cell disease, other hemoglobinopathies or congenital or acquired asplenia, splenic dysfunction or splenectomy). When elective splenectomy is planned, pneumococcal vaccine should be administered at least 2 weeks before surgery.
  ▪ are living in environments or social settings in which the risk for invasive pneumococcal disease or its complications is increased (e.g., persons living in nursing homes and other long-term care facilities).
  o Sites may add an option to include additional patients based on case by case decision-making by a provider.
• Repeat PPSV23 vaccination 5 years after the initial vaccination, includes:
  o Persons aged 65 and older who received vaccination before age 65;
  o Persons at highest risk for serious pneumococcal disease and those most likely to have rapid declines in antibody levels, including persons:
    ▪ with functional or anatomic asplenia (e.g., sickle cell disease or splenectomy)
    ▪ who are (or have been) immunocompromised (see above):
      • HIV infection
      • Leukemia
      • Lymphoma
      • Hodgkin disease
      • multiple myeloma
      • generalized malignancy
      • chronic renal failure (includes CKDIII-IV)
    ▪ nephrotic syndrome other conditions associated with immunosuppression (e.g., organ or bone marrow transplantation); and persons receiving immunosuppressive chemotherapy, including long-term systemic corticosteroids
• PPSV23 Excludes:
  o Severe allergic reaction (e.g. anaphylaxis) to a vaccine component
Re-vaccination is contraindicated for persons who had a severe reaction (e.g. anaphylactic reaction or localized arthrus-type reaction) to the initial dose they received

Additional options are recommended to be added to the reminder that enable clinicians to temporarily or permanently exclude individual patients based on case by case decision-making, and/or for those patients who have certain ‘precautions’ for the vaccine. For example:

- Patients who received chemotherapy in the past 1 year: Use branching logic if this is true and provide this text warning: Recent or ongoing chemotherapy. Patients undergoing chemotherapy should be evaluated on an individual basis for pneumococcal immunization. Patients vaccinated within 14 days before starting or while receiving immunosuppressive therapy should be considered unimmunized and should be revaccinated at least 3 months after therapy is discontinued if immune competence has been restored.

- Patients who received Zoster vaccine in the prior 4 weeks: It is suggested that branching logic be used and this text displayed if Zoster was given in the past 4 weeks: (Display object that providers the date Zoster was received). Patient recently received Zoster vaccine. Consider waiting 4 weeks from date of zoster before giving PPSV23 per PPSV23 package insert. However, per CDC and VA, PPSV23 may be given now if, in the judgment of the provider, the patient may not return soon for PPSV23.

- The safety of pneumococcal polysaccharide vaccine during the first trimester of pregnancy has not been evaluated, although no adverse consequences have been reported among newborns whose mothers were inadvertently vaccinated during pregnancy.

- Vaccination of persons with moderate or severe acute illnesses (with or without fever) should generally be deferred until the acute illness has improved or resolved.

**PPSV23 Resolution:**

- Administration of initial and repeat (if indicated) pneumococcal polysaccharide 23 valent vaccine, 0.5mL, given intramuscularly or subcutaneously.
- Written documentation from an outside source is available and this is entered in the patient record as a historical immunization.
- Patient declines (resolution timeframe is site specific).

**PPSV23 Frequency:** One initial immunization for those at risk. A one-time re-vaccination 5 years later for a subgroup of patients (see cohort for repeat vaccination above). One initial (or additional) vaccination at age 65 or older (5 years after the last dose if a prior dose received).
PPSV23 Comments:

- Ask all patients about allergies or previous serious reaction immunizations before administering.
- Always include link to current VIS for the immunization in dialog.
- If patient is in the cohort for both PPSV23 and PCV13, ideally PCV13 should be given first, then after 1 year, PPSV23 given (unless the patient is immunocompromised and then the time from PCV13 to PPSV23 can be as short as 8 weeks). If PPSV23 is given first, there is a 1 year waiting period before a dose of PCV13 should be given.

b. Pneumococcal conjugate vaccine (PCV13-Prevnar 13)

PCV13 Cohort:

- PCV13 includes:
  - Men and women age 65 and older
  - Are at highest risk for pneumococcal disease or its complications if they become infected. Persons at highest risk for severe disease include those with:
    - CSF leaks
    - cochlear implants;
  - are immunocompromised, including those with:
    - congenital or acquired immunodeficiencies
    - HIV infection
    - leukemia
    - lymphoma
    - Hodgkin disease
    - multiple myeloma
    - generalized malignancy
    - chronic renal failure (includes CKD III-IV)
    - nephrotic syndrome
    - other conditions associated with immunosuppression (e.g., solid organ or bone marrow transplantation); and persons receiving immunosuppressive chemotherapy, including long-term systemic corticosteroids or radiation therapy.
  - have functional or anatomic asplenia (e.g., sickle cell disease, other hemoglobinopathies or congenital or acquired asplenia, splenic dysfunction or splenectomy). When elective splenectomy is planned, pneumococcal vaccine should be administered at least 2 weeks before surgery.
  - Sites may add an option to include additional patients based on case by case decision-making by a provider.

- PPSV23 Excludes:
Severe allergic reaction (e.g. anaphylaxis) to a vaccine component

Additional options are recommended to be added to the reminder that enable clinicians to temporarily or permanently exclude individual patients based on case by case decision-making, and/or for those patients who have certain 'precautions' for the vaccine. For example:

- Patients who received chemotherapy in the past 1 year: Use branching logic if this is true and provide this text warning: Recent or ongoing chemotherapy. Patients undergoing chemotherapy should be evaluated on an individual basis for pneumococcal immunization. Patients vaccinated within 14 days before starting or while receiving immunosuppressive therapy should be considered unimmunized and should be revaccinated at least 3 months after therapy is discontinued if immune competence has been restored.
- Safety and effectiveness of Prevnar 13 in pregnant women have not been established.
- Vaccination of persons with moderate or severe acute illnesses (with or without fever) should generally be deferred until the acute illness has improved or resolved.

**PCV13 Resolution:**

- Administration of initial and repeat (if indicated) pneumococcal conjugate 13 valent vaccine, 0.5mL, given intramuscularly ONLY.
- Written documentation from an outside source is available and this is entered in the patient record as a historical immunization (patient report is inaccurate and should not be used).
- Patient declines (resolution timeframe is sitespecific).

**PPSV23 Frequency:** Once as an adult if indicated.

**PPSV23 Comments:**

- Prevnar 13 is licensed for adults 50 and older. However, both ACIP and VA recommend use in adults ages 19 and older who are in the cohorts described above (i.e., off label use for ages 19-49).
- Ask all patients about allergies or previous serious reaction immunizations before administering.
- Always include link to current VIS for the immunization in dialog.
- If patient is in the cohort for both PPSV23 and PCV13, ideally PCV13 should be given first, then after 1 year, PPSV23 given (unless the patient is immunocompromised and then the
time from PCV13 to PPSV23 can be as short as 8 weeks). If PPSV23 is given first, there is a 1 year waiting period before a dose of PCV13 should be given.

23. **Prostate Cancer Screening**

**Availability of a national reminder for use in CPRS:** No

**Reason to NOT use a clinical reminder for this topic:** Screening for prostate cancer is not recommended for populations that are not at increased risk and there is insufficient evidence to recommend for or against screening for those who may be at increased risk, therefore a clinical reminder is NOT APPROPRIATE.

24. **Seasonal Influenza Immunization**

**Availability of a national reminder for use in CPRS:** N/A

**Potential reasons to NOT use a clinical reminder for this topic:** None known

**Cohort:**

- Includes:
  - Men and women age 19 and older
- Excludes:
  - Allergy to Seasonal influenza vaccine (but not egg allergy).
  - Additional patients may be excluded based on case by case decision-making by a provider.
  - Additional options could be added to the reminder that enable clinicians to temporarily or permanently exclude individual patients based on case by case decision-making, and/or for those patients who have certain ‘precautions’ for the vaccine. For example:
    - Vaccination of persons with moderate or severe febrile illnesses (with or without fever) should generally be deferred until the acute illness has improved or resolved.
    - Those with chronic pulmonary, cardiovascular (except isolated hypertension), renal, hepatic, neurologic/neuromuscular, hematologic, or metabolic disorders; persons with asthma.

**Resolution:**
• Patient declines (resolution timeframe is site specific).
• Record of or patient reports receipt of Seasonal Influenza vaccine.

**Frequency:** Once this flu season.

**IMPORTANT NOTE:** Local clinical reminders for seasonal flu vaccination may be set to a frequency of 1 year. However, every site must make sure that the reminder is applicable and due on all patients at the start of each flu season. In order to do this, you must set a begin date for the vaccine so that the prior year’s vaccines are not used by the reminder.

For example, a patient receives the vaccine in Feb 2017. If the reminder is due yearly and nothing else is done, then the flu reminder will not be due until Feb 2018 even though the vaccine should be given in the Fall of 2017 to this patient. If the vaccine has a begin date of 8/1/17, then the prior vaccination will no longer resolve the reminder inappropriately and the display still shows that the vaccine is due yearly.

**Comments:**

• Ask all patients about allergies or previous serious reaction immunizations before administering.
• Suggest that dialog include objects for any known allergies to Seasonal flu vaccine.
• When developing a local reminder dialog for administration of the vaccine, each different vaccine formulation administered at a site should be a separate option for the users. The exact formulation should be recorded when administering a vaccine – do not use the Influenza, unspecified entry for immunizations that are being administered.
• It is appropriate to use the unspecified seasonal flu vaccine entry for historical entries since the patient will often not know which exact formulation they received.
• Patient report of seasonal flu vaccination is acceptable (patient report is not acceptable for other vaccines).
• Always include link to current VIS for the immunization in dialog.

25. **Syphilis Screening**

**Availability of a national reminder for use in CPRS:** No

**Potential reasons to NOT use a clinical reminder for this topic:** A second reminder or some other mechanism may be needed to gather risk information on patients since risks for syphilis infection are often not recorded as a data element that clinical reminders could use.

**Cohort:**
Includes:

- men who have sex with men (MSM) AND who also engage in high risk sexual behavior such as:
  - having multiple current partners
  - having a new partner
  - using condoms inconsistently
  - having sex while under the influence of alcohol or drugs
  - having sex in exchange for money or drugs
- commercial sex workers;
- individuals who trade sex for drugs;
- individuals residing in correctional facilities;
- any other patient who requests testing.

Acknowledgement of being in a specific risk group is not required.

This guidance statement does not cover pregnant women, patients with HIV, or patients with symptoms of syphilis or with known infection.

Excludes:

- Screening is not indicated for patients with a terminal illness and/or under the care hospice.
- Additional patients may be excluded based on case by case decision-making by a provider.

Resolution:

- All of the tests listed in the guidance statement under Comments on Method of screening are acceptable testing methods. Standard testing would be an initial RPR or VDRL followed by an FTA-ABS or TP-PA if initial screening testing is positive.
- Patient declines (resolution timeframe is sitespecific).

Frequency: Once. Consideration for repeat testing may be given to those with ongoing risk.

Comments:

- This guidance statement does not cover pregnant women or patients with HIV. Pregnant women should be screened for syphilis. HIV patients who are sexually active should be evaluated for yearly screening for syphilis. (see “Comments on who to screen”).
- Although there are many tests that can resolve this reminder, the test(s) listed as most preferred (highest on the list) that is available at the facility should be the tests that are included in the dialog for orders.
26. Tetanus/Diphtheria (Td) and Tetanus/Diphtheria/Pertussis (Tdap) Immunization

**Availability of a national reminder for use in CPRS:** Yes – use of the national reminders is recommended (VA-TETANUS/DIPHTHERIA (TD) IMMUNIZATION and VA-TETANUS/DIPHTHERIA/PERTUSSIS (TDAP) IMMUNIZATION). These were released in patch PXRM*2*63 in April 2016.

**Potential reasons to NOT use a clinical reminder for this topic:** None known

**Cohort:**

- Includes:
  - Men and women age 19 and older

- Excludes:
  - Allergy to Tetanus or Diphtheria (permanent exclusion) or any other component of the vaccines
  - Those who had neurologic or severe hypersensitivity reaction following a previous dose of Td (permanent exclusion).
  - Additional options could be added to the reminder that enable clinicians to temporarily or permanently exclude individual patients based on case by case decision-making, and/or for those patients who have certain ‘precautions’ for the vaccine. For example:
    - Moderate or severe acute illnesses with or without a fever: Vaccination should generally be deferred until they have recovered from the acute phase of their illness. This precaution avoids superimposing adverse effects of the vaccine on the underlying illness or causing diagnostic confusion between manifestations of the underlying illness and possible adverse effects of vaccination (temporary resolution).
    - Unstable neurologic condition (e.g., cerebral-vascular events and acute encephalopathic conditions) (temporary resolution).
    - A history of encephalopathy (e.g., coma or prolonged seizures) not attributable to an identifiable cause within 7 days of administration of a vaccine with pertussis components. This contraindication is for the pertussis components, and these persons should receive Td instead of Tdap.
    - Guillain-Barré syndrome ≤6 weeks after previous dose of a tetanus toxoid-containing vaccine. If a decision is made to continue vaccination with tetanus toxoid, Tdap is preferred to Td if otherwise indicated.
    - History of an Arthus reaction following a previous dose of a tetanus toxoid-containing vaccine.
toxoid-containing and/or diphtheria toxoid-containing vaccine, including meningococcal conjugate vaccine (MCV4) (provider makes case by case determination in this situation).

Note: the national reminders are never both seen on a patient. If the patient has never had a dose of TdaP, then this reminder is due. If the patient has had TdaP, then the Td reminder will display 10 years later.

Resolution:

- Patient declines (resolution timeframe is site specific).
- Administration of Tetanus/Diphtheria (Td) or Tetanus/Diphtheria/Pertussis (Tdap) immunization.
- Written documentation from an outside source is available and this is entered in the patient record as a historical immunization (patient report is not accurate and should not be used).

Frequency: Every 10 years, with at least one of the vaccinations being with Tdap for all patients.

Pregnant women should receive a dose of Tdap during every pregnancy, preferably during the third trimester (between 27-36 weeks gestation), although Tdap may be given at any time during pregnancy regardless of interval since last Tdap or Td. Adults who should receive Tdap and have not yet received a dose of Tdap or whose immunization status is unknown should receive a dose of Tdap as soon as feasible. Tdap can be administered regardless of interval since the last tetanus or diphtheria containing vaccine.

Comments:

- The national reminder displays prior immunizations and since there are 2 reminders, it is always clear which one is due.
- There is no longer a minimum waiting period between receipt of vaccines that contain tetanus, therefore sites may choose to have a separate one-time reminder for receipt of Tdap and have it become due immediately for patients with no record of Tdap vaccination.
- For Td, ACIP states that although no evidence exists that tetanus and diphtheria toxoids are teratogenic, waiting until the second trimester of pregnancy to administer a routine Td booster is a reasonable precaution for minimizing any concern about the theoretical possibility of such reactions.
- Ask all patients about allergies or previous serious reaction immunizations before administering.
- Suggest that dialog include objects for any known allergies to Pertussis.
- Always include link to current VIS for the immunization in dialog.
27. Tobacco Use Screening and Counseling

**Availability of a national reminder for use in CPRS:** No national reminders, however the Office of Public Health, Clinical Public Health, Tobacco & Health: Policy and Programs developed two model reminders that were designed to meet the Outpatient Tobacco Performance Measures. Host files of the two reminders (one screening, one counseling) have been posted on the Clinical Reminders web site at: [http://vista.med.va.gov/reminders/](http://vista.med.va.gov/reminders/) and are available from James Halloran at [james.halloran@va.gov](mailto:james.halloran@va.gov).

**Potential reasons to NOT use a clinical reminder for this topic:** None known

**Cohort:**

- Includes:
  - Screening: All patients
  - Cessation Interventions: Current tobacco users, may also include recent quitters for relapse prevention counseling
- Excludes:
  - Screening: Re-screening of those who are already known to be lifetime non-users or to have quit > 7 years ago is not required. Continued yearly screening of these patients has an opportunity cost of valuable time in the clinical encounter without evidence of a clinical benefit in this group. Patients with a limited life expectancy (<6 mo) or under the care of hospice may also be excluded.
  - Cessation interventions: Patients with a limited life expectancy (<6 mo) or under the care of hospice.

**Resolution:**

- Patient declines (resolution timeframe is site specific).

**Frequency:**

- Screen at least yearly, can be done more often.
- Provide/offer cessation interventions at least yearly, can be done more often.

**Comments:**

- It is likely that two reminders will be needed: one for screening and one for cessation interventions.
- Cessation interventions include brief counseling and an offer of pharmacotherapy.
Augmented pregnancy-tailored counseling messages (lasting 5-15 minutes) along with self-help materials are recommended for pregnant tobacco users.

28. Varicella Immunization

Availability of a national reminder for use in CPRS: No

Potential reasons to NOT use a clinical reminder for this topic: Identifying those patients with evidence of immunity and those with contraindications may require additional screening questions.

Cohort:

- Includes:
  - All men age 19 and older and all non-pregnant women age 19 and older (who have no contraindications and no evidence of immunity - see exclusions below).
  - Special consideration for ensuring immunization should be given to those who might be at increased risk of exposure or transmission, including:
    - Veterans who are working as health care personnel (HCP)
    - Household contacts of immunocompromised persons
    - Persons who live or work in environments in which transmission of varicella zoster virus (VZV) is likely (e.g. teachers, day-care employees, residents and staff in institutional settings)
  - Persons who live or work in environments in which transmission has been reported (e.g., college students, inmates and staff members of correctional institutions, and military personnel)
  - Non-pregnant women of childbearing age
  - Adolescents and adults living in households with children
  - International travelers

- Excludes:
  - Pregnant women: Because the effects of the varicella virus vaccine on the fetus are unknown, pregnant women should not be vaccinated. (For persons without evidence of immunity, having a pregnant household member is not a contraindication to vaccination.) Prenatal assessment of women for evidence of varicella immunity is recommended – see comments below.
  - Patients with other contraindications
    - Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component, including gelatin and neomycin. A history of contact dermatitis to neomycin is not a contraindication.
    - Known severe immunodeficiency or altered immunity, including persons
with:

- Any malignant condition, including blood dyscrasias, leukemia, lymphomas of any type, or other malignant neoplasms affecting the bone marrow or lymphatic systems
- Cellular immunodeficiencies, hypogammaglobulinemia or dysgammaglobulinemia
- HIV/AIDS who are severely immunocompromised, i.e. CD4+ T-lymphocyte count ≤ 200 cells/µl
- A family history of congenital or hereditary immunodeficiency in first-degree relatives (i.e., parents and siblings) unless the immune competence of the potential vaccine recipient has been clinically substantiated or verified by a laboratory
- High-dose systemic immunosuppressive therapy, including persons on oral steroids ≥ 2 mg/kg of body weight or a total of >20 mg/day of prednisone or equivalent for persons who weigh >10 kg, when administered for ≥ 2 weeks
  - Active untreated tuberculosis
- Patients with evidence of immunity. Evidence of immunity includes:
  - Written documentation with date of prior two doses of varicella vaccine (as infants, children, adolescents or adults)
  - Laboratory evidence of immunity or laboratory confirmation of disease
  - Diagnosis or verification of a history of varicella disease by a health-care provider
  - Birth in the United States before 1980 (this does NOT count as evidence of immunity for Veterans who are health care personnel, pregnant women or immunocompromised persons)
- Vaccination is not indicated for patients with a terminal illness and/or under the care hospice.
- Additional patients may be excluded based on case by case decision-making by a provider.

**Precautions:** These items may need to be part of the reminder dialog to allow them to be included in the decision making process and to be addressed with the patient:

- Vaccination of persons with *moderate or severe* acute illnesses (with or without fever) should generally be deferred until the acute illness has improved or resolved.
- Recent (≤ 11 months) receipt of antibody-containing blood product (see Guidance statement for specific product information)
• Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; if possible, delay resumption of these antiviral drugs for 14 days after vaccination.

Resolution:

• Two 0.5ml doses of single antigen varicella vaccine (Varivax®) given subcutaneously at least 4-8 weeks apart. If greater than 8 weeks elapses between doses (for example if the first dose was given years ago) the second dose may be given without re-starting the schedule.
• Patient declines (resolution timeframe is site specific).

Frequency: One time receipt of 2 doses given at least 4 weeks apart

Comments:

• The following patients may be vaccinated:
  o Persons with impaired humoral immunity
  o Persons who are receiving systemic steroids for certain conditions (e.g., asthma) and who are not otherwise immunocompromised, if they are receiving <2 mg/kg of body weight or a total of <20 mg/day of prednisone or its equivalent. Certain experts suggest withholding steroids for 2–3 weeks after vaccination if it can be done safely.
  o Persons who are receiving high doses of systemic steroids (i.e., >2 mg/kg prednisone) for >2 weeks may be vaccinated once steroid therapy has been discontinued for >1 month, in accordance with the general recommendations for the use of live-virus vaccines.
• If a person is in the target group for both varicella and zoster vaccines, i.e. individuals 60 years of age or older, zoster vaccine should be given. It is not necessary to ask about a prior history of varicella disease or varicella vaccination.
• Pregnancy: Since the effects of the varicella virus vaccine on the fetus are unknown, pregnant women should not be vaccinated.
  o Varivax® is a pregnancy category C drug: Animal reproduction studies have not been conducted with Varivax®. It is also not known whether Varivax® can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Therefore, Varivax® should not be administered to pregnant females.
• Women should be counseled to avoid conception for a time period after vaccination. The ACIP stated this time period as 1 month; however, the package inserts for both the frozen and refrigerated forms of Varivax® recommend 3 months. It is recommended that the more conservative approach of 3 months be considered.
Prenatal assessment of women for evidence of varicella immunity is recommended. Birth before 1980 is not considered evidence of immunity for pregnant women because of potential severe consequences of varicella infection during pregnancy, including infection of the fetus.

Upon completion or termination of their pregnancies, women who do not have evidence of varicella immunity should receive the first dose of vaccine before discharge from the health-care facility. The second dose should be administered 4–8 weeks later, which coincides with the postpartum visit (6–8 weeks after delivery).

ACIP states that postpartum vaccination of women without evidence of immunity need not be delayed because of breastfeeding and that women who have received varicella vaccination postpartum may continue to breastfeed. However, the package inserts state: “It is not known whether varicella vaccine virus is secreted in human milk. Therefore, because some viruses are secreted in human milk, caution should be exercised if Varivax® is administered to a nursing woman.”

Varicella is a live virus vaccine and therefore, the precautions related to live virus vaccinations apply.

- **Simultaneous administration:** No evidence exists that inactivated vaccines interfere with the immune response to other inactivated vaccines or to live vaccines. An inactivated vaccine can be administered either simultaneously or at any time before or after a different inactivated vaccine or live vaccine. Varicella vaccine (a live vaccine) can be administered concomitantly with other vaccines, but in a separate syringe and at a different anatomic site.³

- **Non-simultaneous administration:** Injectable or nasally administered live vaccines not administered on the same day should be administered >4 weeks apart whenever possible. If injectable or nasally administered live vaccines are separated by <4 weeks, the second vaccine administered should not be counted as a valid dose and should be repeated. The repeat dose should be administered >4 weeks after the last invalid dose.³