HIV/AIDS MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN HIV/AIDS MEASURES GROUP:
#47 Care Plan
#134 Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan
#160 HIV/AIDS: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis
#205 HIV/AIDS: Sexually Transmitted Disease Screening for Chlamydia, Gonorrhea, and Syphilis
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#338 HIV Viral Load Suppression
#339 Prescription of HIV Antiretroviral Therapy
#340 HIV Medical Visit Frequency

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

  G8491: I intend to report the HIV/AIDS Measures Group

- Report the patient sample method:

  **20 Patient Sample Method via registries:** 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the HIV/AIDS Measures Group are patients aged 13 years and older with a specific diagnosis of HIV/AIDS accompanied by a specific patient encounter

  One of the following diagnosis codes indicating HIV/AIDS:
  ICD-10-CM: B20, Z21

  Accompanied by:

  One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, G0402

- To satisfactorily report the HIV/AIDS Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #47 need only be reported on patients 65 years and older.

- Measure #134 need only be reported on patients without an active diagnosis of Depression or a diagnosed Bipolar Disorder.

- Measure #226 need only be reported on patients aged 18 years and older.

- Instructions for qualifying numerator option reporting for each of the measures within the HIV/AIDS Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.
**Composite QDC G8500:** All quality actions for the applicable measures in the HIV/AIDS Measures Group have been performed for this patient

- **Measure Group Reporting Calculations:**

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
**Measure #47 (NQF 0326): Care Plan -- National Quality Strategy Domain: Communication and Care Coordination**

**DESCRIPTION:**
Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

**NUMERATOR:**
Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

**Numerator Instructions:** If patient’s cultural and/or spiritual beliefs preclude a discussion of advance care planning, report **1124F**.

**Definition:**
Documentation that Patient did not Wish or was not able to Name a Surrogate Decision Maker or Provide an Advance Care Plan – May also include, as appropriate, the following:
- That the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship.

**NUMERATOR NOTE:** The CPT Category II codes used for this measure indicate: Advance Care Planning was discussed and documented. The act of using the Category II codes on a claim (or equivalent medical record documentation) indicates the provider confirmed that the Advance Care Plan was in the medical record (that is, at the point in time the code was assigned, the Advance Care Plan in the medical record was valid) or that advance care planning was discussed. The codes (or equivalent medical record documentation) are required annually to ensure that the provider either confirms annually that the plan in the medical record is still appropriate or starts a new discussion.

The provider does not need to review the Advance Care Plan annually with the patient to meet the numerator criteria; documentation of a previously developed advanced care plan that is still valid in the medical record meets numerator criteria.

**Numerator Options:**

**Performance Met:**
Advance Care Planning discussed and documented; advance care plan or surrogate decision maker documented in the medical record (**1123F**)

**OR**

**Performance Met:**
Advance Care Planning discussed and documented in the medical record; patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan (**1124F**)

**OR**

**Performance Not Met:**
Advance care planning not documented, reason not otherwise specified (**1123F with 8P**)
Measure #134 (NQF 0418): Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 12 years and older screened for clinical depression on the date of the encounter using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen.

NUMERATOR:
Patients screened for clinical depression on the date of the encounter using an age appropriate standardized tool AND, if positive, a follow-up plan is documented on the date of the positive screen.

Numerator Instructions: The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record. The depression screening must be reviewed and addressed in the office of the provider filing the code on the date of the encounter.

Definitions:
Screening – Completion of a clinical or diagnostic tool used to identify people at risk of developing or having a certain disease or condition, even in the absence of symptoms.

Standardized Depression Screening Tool – A normalized and validated depression screening tool developed for the patient population in which it is being utilized. The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record.

Examples of depression screening tools include but are not limited to:
- **Adolescent Screening Tools (12-17 years)**
  Patient Health Questionnaire for Adolescents (PHQ-A), Beck Depression Inventory-Primary Care Version (BDI-PC), Mood Feeling Questionnaire (MFQ), Center for Epidemiologic Studies Depression Scale (CES-D), and PRIME MD-PHQ2
- **Adult Screening Tools (18 years and older)**
  Patient Health Questionnaire (PHQ-9), Beck Depression Inventory (BDI or BDI-II), Center for Epidemiologic Studies Depression Scale (CES-D), Depression Scale (DEPS), Duke Anxiety-Depression Scale (DADS), Geriatric Depression Scale (GDS), Cornell Scale Screening, and PRIME MD-PHQ2

Follow-Up Plan – Documented follow-up for a positive depression screening must include one or more of the following:
- Additional evaluation for depression
- Suicide Risk Assessment
- Referral to a practitioner who is qualified to diagnose and treat depression
- Pharmacological interventions
- Other interventions or follow-up for the diagnosis or treatment of depression

Not Eligible – A patient is not eligible if one or more of the following conditions are documented:
- Patient refuses to participate
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status
- Situations where the patient’s functional capacity or motivation to improve may impact the accuracy of results of standardized depression assessment tools. For example: certain court appointed cases or cases of delirium
- Patient has an active diagnosis of Depression
- Patient has a diagnosed Bipolar Disorder
NUMERATOR NOTE: The follow-up plan must be related to a positive depression screening, example: “Patient referred for psychiatric evaluation due to positive depression screening.”

Numerator Options:

Performance Met:
- Screening for clinical depression is documented as being positive AND a follow-up plan is documented (G8431)

OR
- Performance Met:
  - Screening for clinical depression is documented as negative, a follow-up plan is not required (G8510)

OR
- Other Performance Exclusion:
  - Screening for clinical depression not documented, documentation stating the patient is not eligible (G8433)

OR
- Other Performance Exclusion:
  - Screening for clinical depression documented as positive, a follow-up plan not documented, documentation stating the patient is not eligible (G8940)

OR
- Performance Not Met:
  - Clinical depression screening not documented, reason not given (G8432)

OR
- Performance Not Met:
  - Screening for clinical depression documented as positive, follow-up plan not documented, reason not given (G8511)
Measure #160 (NQF 0405): HIV/AIDS: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis --
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 6 weeks and older with a diagnosis of HIV/AIDS who were prescribed Pneumocystis Jiroveci Pneumonia (PCP) prophylaxis

NUMERATOR:
Patients who were prescribed pneumocystis jiroveci pneumonia (PCP) prophylaxis within 3 months of CD4 count below 200 cells/mm³

Definition:
Prescribed – May include prescription given to the patient for PCP prophylaxis therapy at one or more visits in the 12-month period OR patient already taking PCP prophylaxis therapy as documented in current medication list.

NUMERATOR NOTE: The reporting numerator options contained within this specification are represented differently than the corresponding individual measure. Reference this specification only in order to satisfactorily report the measures group.

Numerator Options:
Performance Met:
Pneumocystis jiroveci pneumonia prophylaxis prescribed within 3 months of low CD4+ cell count below 200 cells/mm³ (G9222)

AND

CD4+ cell count < 200 cells/mm³ (3494F)

OR

Medical Performance Exclusion:
Pneumocystis jiroveci pneumonia prophylaxis not prescribed within 3 months of low CD4+ cell count below 200 cells/mm³ for medical reason (i.e., patient’s CD4+ cell count above threshold within 3 months after CD4+ cell count below threshold, indicating that the patient’s CD4+ levels are within an acceptable range and the patient does not require PCP prophylaxis) (G9219)

AND

CD4+ cell count < 200 cells/mm³ (3494F)

OR

Other Performance Exclusion:
CD4+ cell count 200 – 499 cells/mm³ (3495F)

OR

Other Performance Exclusion:
CD4+ cell count ≥ 500 cells/mm³ (3496F)

OR

Performance Not Met:
PCP prophylaxis was not prescribed within 3 months of low CD4+ cell count below 200 cells/mm³, reason not given (G9217)

AND

CD4+ cell count < 200 cells/mm³ (3494F)

OR
Performance Not Met: CD4+ cell count not performed, reason not otherwise specified (3494F with 8P)
**Measure #205 (NQF 0409): HIV/AIDS: Sexually Transmitted Disease Screening for Chlamydia, Gonorrhea, and Syphilis -- National Quality Strategy Domain: Effective Clinical Care**

**DESCRIPTION:**
Percentage of patients aged 13 years and older with a diagnosis of HIV/AIDS for whom chlamydia, gonorrhea, and syphilis screenings were performed at least once since the diagnosis of HIV infection

**NUMERATOR:**
Patients with chlamydia, gonorrhea, and syphilis screenings performed at least once since the diagnosis of HIV infection

**NUMERATOR NOTE:** Report G9228 when results are documented for all of the 3 screenings

**Numerator Options:**

- **Performance Met:** Chlamydia, gonorrhea, and syphilis screening results documented (report when results are present for all of the 3 screenings) *(G9228)*

- **Other Performance Exclusion:** Chlamydia, gonorrhea, and syphilis screening results not documented (Patient refusal is the only allowed exclusion) *(G9229)*

- **Performance Not Met:** Chlamydia, gonorrhea, and syphilis screening not documented as performed, reason not otherwise specified *(G9230)*
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

Definitions:
Tobacco Use – Includes use of any type of tobacco.
Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

OR Performance Met: Current tobacco non-user (1036F)

OR Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)

OR Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
Measure #338 (NQF 2082): HIV Viral Load Suppression -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
The percentage of patients, regardless of age, with a diagnosis of HIV with a HIV viral load less than 200 copies/mL at last viral load test during the measurement year

NUMERATOR:
Number of patients with a HIV viral load less than 200 copies/mL at last viral load test

Numerator Options:
- Performance Met: Documentation of viral load less than 200 copies/mL (G9243)

OR
- Performance Not Met: Documentation of viral load equal to or greater than 200 copies/mL or viral load not performed (G9242)
**Measure #339 (NQF 2083): Prescription of HIV Antiretroviral Therapy -- National Quality Strategy**

**Domain:** Effective Clinical Care

**DESCRIPTION:**
Percentage of patients, regardless of age, with a diagnosis of HIV prescribed antiretroviral therapy for the treatment of HIV infection during the measurement year

**NUMERATOR:**
Number of patients prescribed HIV antiretroviral therapy during the reporting period

**Definition:**
Antiretroviral Therapy - HIV antiretroviral therapy is described as the prescription of at least one U.S. Food and Drug Administration approved HIV antiretroviral medication.

**Numerator Options:**

**Performance Met:**
Antiretroviral therapy prescribed (G9245)

**OR**

**Performance Not Met:**
Antiretroviral therapy not prescribed (G9244)
Measure #340 (NQF 2079): HIV Medical Visit Frequency -- National Quality Strategy Domain: Efficiency And Cost Reduction

DESCRIPTION:
Percentage of patients, regardless of age with a diagnosis of HIV who had at least one medical visit in each 6 month period of the 24 month measurement period, with a minimum of 60 days between medical visits.

NUMERATOR:
Number of patients who had at least one medical visit in each 6 month period of the 24 month measurement period, with a minimum of 60 days between medical visits.

Numerator Options:
Performance Met: Patient had at least one medical visit in each 6 month period of the 24 month measurement period, with a minimum of 60 days between medical visits (G9247)

OR

Performance Not Met: Patient did not have at least one medical visit in each 6 month period of the 24 month measurement period, with a minimum of 60 days between medical visits (G9246)
HIV/AIDS MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #47- CARE PLAN

RATIONALE:
It is essential that the patient's wishes regarding medical treatment be established as much as possible prior to incapacity. The Work Group has determined that the measure should remain as specified with no required timeframe based on a review of the literature. Studies have shown that people do change their preferences often with regard to advanced care planning, but it primarily occurs after a major medical event or other health status change. In the stable patient, it would be very difficult to define the correct interval. It was felt by the Work Group that the error rate in simply not having addressed the issue at all is so much more substantial (Teno, 1997) than the risk that an established plan has become outdated that we should not define a specific timeframe at this time. As this measure is tested and reviewed, we will continue to evaluate if and when a specific timeframe should be included.

CLINICAL RECOMMENDATION STATEMENTS:
Advance directives are designed to respect patient's autonomy and determine his/her wishes about future life-sustaining medical treatment if unable to indicate wishes. Key interventions and treatment decisions to include in advance directives are: resuscitation procedures, mechanical respiration, chemotherapy, radiation therapy, dialysis, simple diagnostic tests, pain control, blood products, transfusions, and intentional deep sedation.

Oral statements
- Conversations with relatives, friends, and clinicians are most common form; should be thoroughly documented in medical record for later reference.
- Properly verified oral statements carry same ethical and legal weight as those recorded in writing.

Instructional advance directives (DNR orders, living wills)
- Written instructions regarding the initiation, continuation, withholding, or withdrawal of particular forms of life-sustaining medical treatment.
- May be revoked or altered at any time by the patient.
- Clinicians who comply with such directives are provided legal immunity for such actions.

Durable power of attorney for health care or health care proxy
- A written document that enables a capable person to appoint someone else to make future medical treatment choices for him or her in the event of decisional incapacity. (AGS)

The National Hospice and Palliative Care Organization provides the Caring Connection web site, which provides resources and information on end-of-life care, including a national repository of state-by-state advance directives.

MEASURE #134 - PREVENTIVE CARE AND SCREENING: SCREENING FOR CLINICAL DEPRESSION AND FOLLOW-UP PLAN

RATIONALE:
The World Health Organization (WHO), as seen in Pratt & Brody (2008), found that major depression was the leading cause of disability worldwide. Depression causes suffering, decreases quality of life, and causes impairment in social and occupational functioning. It is associated with increased health care costs as well as with higher rates of many chronic medical conditions. Studies have shown that a higher number of depression symptoms are associated with poor health and impaired functioning, whether or not the criteria for a diagnosis of major depression are met. Persons 40-59 years of age had higher rates of depression than any other age group. Persons 12-17, 18-39 and 60 years of age and older had similar rates of depression. Depression was more common in females than in males. Non-Hispanic black persons had higher rates of depression than non-Hispanic white persons. In the 18-39 and 40-59 age groups, those with income below the federal poverty level had higher rates of depression than those with higher
income. Among persons 12-17 and 60 years of age and older, raters of depression did not vary significantly by poverty status.

Overall, approximately 80% of persons with depression reported some level of difficulty in functioning because of their depressive symptoms. In addition, 35% of males and 22% of females with depression reported that their depressive symptoms make it very or extremely difficult for them to work, get things done at home, or get along with other people. More than one-half of all persons with mild depressive symptoms also reported some difficulty in daily functioning attributable to their symptoms.

15–20 percent of adults older than age 65 in the United States have experienced depression (Geriatric Mental Health Foundation, 2008). 7 million adults aged 65 years and older are affected by depression (Steinman, 2007). Chronically ill Medicare beneficiaries with accompanying depression have significantly higher health care costs than those with chronic diseases alone (Unützer, 2009). People aged 65 years and older accounted for 16 percent of suicide deaths in 2004 (Centers for Disease Control and Prevention, 2007).

The negative outcomes associated with early onset depression, make it crucial to identify and treat depression in its early stages. As reported in Borner (2010), a study conducted by the World Health Organization (WHO) concluded that in North America, primary care and family physicians are likely to provide the first line of treatment for depressive disorders. Others consistently report a 10% prevalence rate of depression in primary care patients. But studies have shown that primary care physicians fail to recognize up to 50% of depressed patients, purportedly because of time constraints and a lack of brief, sensitive, easy-to-administer psychiatric screening instruments. Coyle et al. (2003), suggested that the picture is more grim for adolescents, and that more than 70% of children and adolescents suffering from serious mood disorders go unrecognized or inadequately treated. Healthy People 2020 recommends routine screening for mental health problems as a part of primary care for both children and adults (U.S. Department of Health and Human Services, 2014).

Major depressive disorder (MDD) is a debilitating condition that has been increasingly recognized among youth, particularly adolescents. The prevalence of current or recent depression among children is 3% and among adolescents is 6%. The lifetime prevalence of MDD among adolescents may be as high as 20%. Adolescent-onset MDD is associated with an increased risk of death by suicide, suicide attempts, and recurrence of major depression by young adulthood. MDD is also associated with early pregnancy, decreased school performance, and impaired work, social, and family functioning during young adulthood (Williams et al., 2009). Every fifth adolescent may have a history of depression by age 18. The increase in the onset of depression occurs around puberty. According to Zalsman et al., (2006) as reported in Borner et al. (2010), depression ranks among the most commonly reported mental health problems in adolescent girls.

The economic burden of depression is substantial for individuals as well as society. Costs to an individual may include suffering, possible side effects from treatment, fees for mental health and medical visits and medications, time away from work and lost wages, transportation, and reduced quality of personal relationships. Costs to society may include loss of life, reduced productivity (because of both diminished capacity while at work and absenteeism from work), and increased costs of mental health and medical care. In 2000, the United States spent an estimated $83.1 billion in direct and indirect costs of depression (USPSTF, 2009).

**CLINICAL RECOMMENDATION STATEMENTS: Adolescent Recommendation (12-18 years)**

The USPSTF recommends screening of adolescents (12-18 years of age) for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up (AHRQ, 2010, p.141).

Clinicians and health care systems should try to consistently screen adolescents ages 12-18 for major depressive disorder, but only when systems are in place to ensure accurate diagnosis, careful selection of treatment, and close follow-up (ICSI, 2013, p.16).
Adult Recommendation (18 years and older)
The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up (AHRQ, 2010, p.136).

A system that has embedded the elements of best practice and has capacity to effectively manage the volume should consider routine screening of all patients, based on the recommendations of the U.S. Preventive Services Task Force (ICSI, 2013, p.7). Clinicians should use a standardized instrument to screen for depression if it is suspected based on risk factors or presentation. Clinicians should assess and treat for depression in patients with some comorbidities. Clinicians should acknowledge the impact of culture and cultural differences on physician and mental health. Clinicians should screen and monitor depression in pregnant and post-partum women (ICSI, 2013, p.4).

MEASURE #160 - HIV/AIDS: PNEUMOCYSTIS JIROVECI PNEUMONIA (PCP) PROPHYLAXIS
RATIONALE:
Although advances in the management of HIV and AIDS diseases have been made, Pneumocystis carinii pneumonia (PCP) remains an important complication and cause of morbidity. Without PCP prophylaxis, patients with HIV/AIDS are at increased risk of developing PCP, especially when CD4 cell counts fall 200mm3-250mm3 (Kaplan, 1998; Phair, 1990). PCP prophylaxis is very effective and has been demonstrated to prolong life.

Data from Kaiser Permanente suggests that a gap exists between what is recommended for patients with HIV infection, and what is actually performed. According to 2005-2006 data from Kaiser Permanente California (both Northern and Southern), Georgia, and Oregon, only 71% of HIV-infected persons with a CD4<200mm3 received PCP prophylaxis (personal communication, 2007).

CLINICAL RECOMMENDATION STATEMENTS:
HIV-infected adults and adolescents, including pregnant women and those on HAART, should receive chemoprophylaxis against PCP if they have a CD4+T lymphocyte count of <200/mL or a history of oropharyngeal candidiasis. (USPH/IDSA, 2002)

MEASURE #205 - HIV/AIDS: SEXUALLY TRANSMITTED DISEASE SCREENING FOR CHLAMYDIA, GONORRHEA, AND SYPHILIS
RATIONALE:
Sexually transmitted diseases that cause mucosal inflammation (such as gonorrhea and chlamydia) increase the risk for HIV-infection (as these diseases and other sexually transmitted diseases can increase the infectiousness of and a person’s susceptibility to HIV) (Galvin, 2004).

CLINICAL RECOMMENDATION STATEMENTS:
All patients should be screened with laboratory tests for STDs at the initial encounter (A-II for syphilis, for trichomoniiasis in women, and for chlamydial infection in women aged less than 25 years; B-II for gonorrhea and chlamydial infection in all men and women), and thereafter, depending on reported high-risk behavior, the presence of other STDs, and the prevalence of STDs in the community (B-III). (Aberg, 2004)

Consideration should be given to screening all HIV-infected men and women for gonorrhea and chlamydial infections. However, because of the cost of screening and the variability of prevalence of these infections, decisions about routine screening for these infections should be based on epidemiologic factors (including prevalence of infection in the community or the population being served), availability of tests, and cost. (Some HIV specialists also recommend type-specific serologic testing for herpes simplex virus type 2 for both men and women.) (B-II, for identifying STDs) (CDC, HRSA, NIH, HIVMA of IDSA, 2003)
MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION

RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (i.e., pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #338 - HIV VIRAL LOAD SUPPRESSION

RATIONALE:
Sustained viral load suppression is directly related to reduction in disease progression and to reduction in potential for transmission of infection. Among persons in care, sustained viral load suppression represents the cumulative effect of prescribed therapy, ongoing monitoring, and patient adherence. The measure will direct providers’ attention and quality improvement efforts towards this important outcome.

CLINICAL RECOMMENDATION STATEMENTS:
Plasma HIV RNA (viral load) should be measured in all patients at baseline and on a regular basis thereafter, especially in patients who are on treatment, because viral load is the most important indicator of response to antiretroviral therapy (ART) (Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents PDF Sections E-1 and C-3. Accessed May 18, 2015) (Strength of Evidence = AI, AIII, BIII). Thus, viral load testing serves as a surrogate marker for treatment response and can be useful in predicting clinical progression (Murray, 1999)
Optimal viral suppression is generally defined as a viral load persistently below the level of detection (<20–75 copies/mL, depending on the assay used). In addition, low-level positive viral load results (typically <200 copies/mL) appear to be more common with some viral load assays than others, and there is no definitive evidence that patients with viral loads quantified as <200 copies/mL using these assays are at increased risk for virologic failure. For the purposes of clinical trials the AIDS Clinical Trials Group (ACTG) currently defines virologic failure as a confirmed viral load >200 copies/mL, which eliminates most cases of apparent viremia caused by blips or assay variability. Effective treatment reduces HIV-associated morbidity and mortality and reduces transmission of HIV (Mocoff, 1998; Palella, 1998; Vittinghoff, 1999; ART CC AC, 2008; Moferson, 1999; Wood, 2009; Quinn, 2000; Dieffernbach, 2009; Montaner, 2006; Cohen, 2011). The mechanism for the impact of treatment is viral load suppression.

Multiple studies demonstrate that viral load suppression is associated with slowing disease progression. Analysis of 18 trials that included more than 5,000 participants with viral load monitoring showed a significant association between a decrease in plasma viremia and improved clinical outcome (Murray, 1999). Viral load testing serves as a surrogate marker for treatment response and can be useful in predicting clinical progression (Hughes, 1997; Marschner, 1998; Thiebaut, 2000). As a result, the Department of Health and Human Services (HHS) Guidelines include a recommendation for measuring viral load at baseline and on a regular basis because viral load is the most important predictor of response to therapy (Strength of Evidence = A1, AIII, BIII). This recommendation is graded A1. The review of the evidence focuses on the evidence for the treatment and prevention recommendations.

The U.S. Department of Health and Human Services Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents recommends antiretroviral therapy for all HIV-infected individuals to reduce the risk of disease progression (Strength of Evidence = A1, AII, and BIII) and well as to prevention transmission of HIV (Strength of Evidence = A1 and AII). These guidelines also recommended the frequency at which viral load testing is to be performed (Strength of Evidence = A1, AIII, BIII) (Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents PDF Sections E-1 and C-3. Accessed May 18, 2015).

MEASURE #339 - PRESCRIPTION OF HIV ANTIRETROVIRAL THERAPY
RATIONAL:
The primary goal of antiretroviral therapy (ART) is to reduce HIV-associated morbidity and mortality and reduce transmission (Mocoff, 1998; Palella, 1998; Vittinghoff, 1999; ART CC AC, 2008; MOferson, 1999; Wood, 2009; Quinn, 2000; Dieffernbach, 2009; Montaner, 2006; Cohen, 2011). This is best accomplished by using antiretroviral therapy to maximally inhibit HIV replication, as measured by consistent plasma HIV RNA (viral load) values below the level of detection using commercially available assays. Measure reflects important aspect of care that significantly impacts survival, mortality and hinders transmission.

CLINICAL RECOMMENDATION STATEMENTS:
The U.S. Department of Health and Human Services Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents recommends antiretroviral therapy for all HIV-infected individuals to reduce the risk of disease progression and well as to prevention transmission of HIV. These guidelines also recommended the frequency at which viral load testing is to be performed (Strength of Evidence = A1, AII, BIII) (Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents PDF Sections E-1 and C-3. Accessed May 18, 2015).

Antiretroviral therapy (ART) reduces HIV-associated morbidity and mortality by maximally inhibiting HIV replication (as defined by achieving and maintaining plasma HIV RNA (viral load) below levels detectable by commercially available assays). Durable viral suppression improves immune function and quality of life, lowers the risk of both AIDS-defining and non-AIDS-defining complications, and prolongs life (HIV Trialist' Collaborative Group, 1999; Hammer, 1997; Zolopa, 2009; MOCroft, 1998; Hogg, 2001; Sterne, 2009; Baker, 2008; Palella, 2003; Cain, 2011; Severe, 2010; Kitahata, 2009; Writing Committee of the CASCADE Collaborative, 2011). Emerging evidence also suggests that additional benefits of ART-induced viral load suppression include a reduction in HIV-associated inflammation and possibly its associated complications (Atta, 2006; Schwartz, 2005; Kalayjan, 2008; Calmy, 2009; Kuller, 2008; Torriani, 2008).
 Measures of viral replication are known to predict HIV disease progression. Among untreated HIV-infected individuals, time to clinical progression and mortality is fastest in those with greater viral loads (Mellors, 1996). This finding is confirmed across the wide spectrum of HIV-infected patient populations such as injection drug users (IDUs), women, and individuals with hemophilia (Vlahov, 1998; Anastos, 1999; O’Brien, 1996). Several studies have shown the prognostic value of pretherapy viral load for predicting post-therapy response (Egger, 2002; Anastos, 2004). Once therapy has been initiated, failure to achieve viral suppression and viral load at the time of treatment failure is predictive of clinical disease progression (O’Brien, 1996; Hughes, 1997; Chene, 2003; Deeks, 2009).

ART has also been shown to reduce transmission of HIV and increases the length of survival. The risk of sexual HIV transmission is highly correlated with HIV viral load in the blood and genital secretions of the infected individual, and ART reduces HIV blood viral load as well as HIV viral shedding in potentially infectious body fluids including semen, cervicovaginal secretions, and anorectal secretions (Quinn, 2000; Chakraborty, 2001; Baeten, 2011; Gulick, 1997; Zhang, 1998; Vernazza, 2000; Cu-Uvin, 2000; Kotler, 1998).

**MEASURE #340 - HIV MEDICAL VISIT FREQUENCY**

**RATIONALE:**
Early linkage to, and long-term retention in HIV care leads to better health outcomes. Linkage to HIV medical care shortly after HIV diagnosis and continuous care thereafter provide opportunities for risk reduction counseling, initiation of treatment, and other strategies that improve individual health and prevent onward transmission of infection (Giordano, 2007; Cohen, 2011; Giordano, 2003; Lucas, 1999; Metsch, 2008; Montaner, 2010). Delayed linkage and poor retention in care are associated with delayed receipt of antiretroviral treatment, higher rate of virologic failure, and increased morbidity and mortality (Metscher, 2008; Montaner, 2010; Ulett, 2009).

Poor retention in care during the first year of outpatient medical care is associated with delayed or failed receipt of antiretroviral therapy, delayed time to virologic suppression and greater cumulative HIV burden, increased sexual risk transmission behaviors, increased risk of long-term adverse clinical events, and low adherence to antiretroviral therapy (Giordano, 2007; Metsch, 2008; Ulett, 2009; Mugavero, 2009). Early retention in HIV care has been found to be associated with time to viral load suppression and 2-year cumulative viral load burden among patients newly initiating HIV medical care (Mugavero, 2012). In this study, each “no show” clinic visit conveyed a 17% increased risk of delayed viral load suppression. A dose-response relationship has been shown between constancy of visits during the first year (i.e. having an HIV primary care visit in each 3-month quarter) and survival (Mugavero, 2009). Another study examining care over a two year period has found that mean increase from baseline CD4 counts was significantly greater among those with optimal retention (visits in all 4 six-month intervals) than among those with suboptimal retention, and that mortality was higher among those with suboptimal retention (Tripathi, 2011).

In an analysis of 9 years (January 1, 2001 through December 31, 2009) of outpatient HIV care utilization from 17,425 HIV infected adults enrolled in the HIV Research Network (HIVRN), a consortium of HIV care clinics, Yehia et al. found that 7179 (41.6%) individuals never experienced an interval between outpatient visits longer than 6 months (no gap), 5426 (31.1%) had one or more 7–12-month gaps in care, and 4820 (27.7%) had one or more gaps of longer than 12 months.

**CLINICAL RECOMMENDATION STATEMENTS:**
Department of Health and Human Service (HHS) guidelines make recommendations regarding the types and frequency of screenings, laboratory testing, and counseling that should be provided to people living with HIV. Screening, testing, and counseling are delivered through comprehensive HIV medical care visits. The frequency of the medical visit are related to the individual patient’s health status and attainment of health outcomes. Based on the frequency of screenings, testing, and counseling, HIV medical visits should occur every six months. (Strength of Evidence = AI, AIII, BIII) ([Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents PDF](Sections E-1 and C-3. Accessed May 18, 2015))