**Measure Title**: HIV Medical Visit Frequency

**1a.12** **LOGIC MODEL**

HIV

diagnosis

Linkage to medical care

Retention in medical care

Viral suppression

Prescription of HIV ART

Although the above diagram outlines the sequential septs of medical care that people living with HIV go through form initial diagnosis to achieving the goal of viral suppression (also known as the HIV care continuum). For some patients, this is a linear path with sustained viral suppression for many years. For other patients, there may be years between diagnosis and linkage. Yet still for others, retention in medical care is not consistent, which results in missed visits, no prescription for or adherence to HIV antiretroviral therapy (ART), and lack of viral suppression.

**1a.2** **FOR OUTCOME MEASURES including PATIENT REPORTED OUTCOMES State the rationale supporting the relationship between the health outcome (or PRO) to at least one healthcare structure, process (e.g., intervention, or service).**

Regularly attending medical visits (retention) is paramount to monitoring patient’s health status, screenings, and laboratory values. Providers need this information to make an informed decision in order to prescribe HIV antiretroviral therapy (ART). 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. 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.

In 2011, the HIV community saw the emergence of the HIV care continuum.  This simple model outlines the sequential steps of medical care that people living with HIV go through from initial diagnosis to achieving the goal of viral suppression.  The steps include diagnosis, linkage to care, retention in care, receipt of HIV antiretroviral therapy and viral suppression.  This model has been incorporated into the National HIV/AIDS Strategy as it has focused all HIV prevention, care, and treatment efforts in the United States.  As outlined in the model, all though there are five different steps, each step is dependent upon each other.   For instance, you cannot become virally suppressed if you are not receiving HIV antiretroviral therapy or retained in medical care.

The most recent nationwide data from CDC dated 2014 estimates that although 86% of people living with HIV have been diagnosed, only 40% are engaged in care, 37% have been prescribed HIV antiretroviral therapy, and 30% have achieved viral suppression.

Right now, we are at a very special time and place.  Many states and large metropolitan areas across the United States have developed plans to end the HIV epidemic in the communities.  These jurisdictions have used the HIV care continuum and its steps as the framework by which they have developed their plans.

In closing, the measures we have put forth are in alignment with the HIV care continuum.  We see these measures as a suite – each important as individual measures, but work together as a suite to improve health outcomes for people living with HIV in the United States.

**1b.1. Briefly explain the rationale for this measure (e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)**

Prompt linkage to, and sustained retention in, HIV medical care have been clearly shown to maximize patient outcomes. Retention in medical care among people living with HIV is associated with a significantly greater mean increase in baseline CD4 count. Consequently, mortality was higher among those with suboptimal retention.

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.

**1a.4. CLINICAL PRACTICE GUIDELINE RECOMMENDATION**

**1a.4.1. Guideline citation** (*including date*) and **URL for guideline** (*if available online*):

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. Department of Health and Human Services, Accessed November 18, 2016: <http://www.aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf>

World Health Organization (WHO). (2016). Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: recommendations for a public health approach. Accessed November 18, 2016: <http://apps.who.int/iris/bitstream/10665/208825/1/9789241549684_eng.pdf?ua=1>

International Advisory Panel on HIV Care Continuum Optimization (IAPAC). (2015). IAPAC Guidelines for Optimizing the HIV Care Continuum for Adults and Adolescents. Accessed November 18, 2016. <http://www.iapac.org/uploads/JIAPAC-IAPAC-Guidelines-for-Optimizing-the-HIV-Care-Continuum-Supplement-Nov-Dec-2015.pdf>

**1a.4.2. Identify guideline recommendation number and/or page number** and **quote verbatim, the specific guideline recommendation**.

Panel on Antiretroviral Guidelines for Adults and Adolescents: (unrated)

* The critical elements of adherence go hand in hand with linkage-to-care and retention in care. A recently released guideline provides a number of strategies to improve entry and retention in care and adherence to therapy for HIV infected patients. As with adherence monitoring, research advances offer many options for systematic monitoring of retention in care that may be used in accordance with local resources and standards. The options include surveillance of visit adherence, gaps in care, and the number of visits during a specified period of time. (page K-4)
* In addition to maintaining high levels of medication adherence, attention to effective linkage to care, engagement in care, and retention in care is critical for successful treatment outcomes. To foster treatment success, there are interventions to support each step in the cascade of care, as well as guidance on systematic monitoring of each step in the cascade. (page K-4)
* Where youth services are available, they may be helpful to consider as one approach to enhancing HIV care engagement and retention among adolescents. Regardless of the setting, expertise in caring for adolescents is critical to creating a supportive environment for engaging youth in care. (I-9)

World Health Organization:

Section 6. 5 Retention in care (page 251)

* Programmes should provide community support for people living with HIV to improve retention in HIV care (strong recommendation, low-quality evidence).
* The following community-level interventions have demonstrated benefit in improving retention in care:
  + package of community based interventions (children low-quality and adults very low-quality evidence)
  + adherence clubs (moderate-quality evidence)
  + extra care for high-risk people (very low-quality evidence).

Section 6.7 Frequency of clinical visits and medical pick-up (page 259)

* Less frequent clinical visits (3–6 months) are recommended for people stable on ART (strong recommendation, moderate-quality evidence)
* Less frequent medication pickups (3-6 months) are recommended for people stable on ART (strong recommendation, low-quality evidence)

IAPAC on HIV Care Continuum Optimization: (page 6)

23. Systematic monitoring of retention in HIV care is recommended for all patients. (A II)

23a. Retention in HIV care should be considered as a quality indicator. (B III)

23b. Measuring retention in HIV care using electronic health record and other health system data is recommended. (BII)

23c. Use of clinic databases/surveillance systems for HIV clinical monitoring and population-level tracking is recommended. (B II)

26. Patient education about and offering support for medication adherence and keeping clinic appointments are recommended. (A I)

28. Proactive engagement and reengagement of patients who miss clinic appointments and/or are lost to follow-up, including intensive outreach for those not engaged in care within 1 month of a new HIV diagnosis, is recommended. (B II)

28a. Case management to retain PLHIV in care and to locate and reengage patients lost to follow-up is recommended. (B II)

28b. Transportation support for PLHIV to attend their clinic visits is recommended. (B II)

**1a.4.3. Grade assigned to the quoted recommendation with definition of the grade:**

**Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents and** [**Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV Transmission in the United States**](https://aidsinfo.nih.gov/guidelines/html/3/perinatal-guidelines/0)

Basis for Recommendations

Recommendations in these guidelines are based upon scientific evidence and expert opinion. Each

recommended statement includes a letter (A, B, or C) that represents the strength of the recommendation and a Roman numeral (I, II, or III) that represents the quality of the evidence that supports the recommendation (see Table 2).

Table 2. Rating Scheme for Recommendations

|  |  |
| --- | --- |
| Strength of Recommendation | Quality of Evidence for Recommendation |
| **A:** Strong recommendation for the statement  **B:** Moderate recommendation for the statement  **C:** Optional recommendation for the statement | **I:** One or more randomized trials with clinical outcomes and/or validated laboratory endpoints  **II:** One or more well-designed, non-randomized trials or observational cohort studies with long-term clinical outcomes  **III:** Expert opinion |

**International Advisory Panel on HIV Care Continuum Optimization; IAPAC Guidelines for Optimizing the HIV Care Continuum for Adults and Adolescents.**

Strong (A) = Almost all patients should receive the recommended course of action.

Moderate (B) = Most patients should receive the recommended course of action. However, other choices may be appropriate for some patients.

Optional (C) There may be consideration for this recommendation based on individual patient circumstances. Not recommended routinely.

Quality of the Body of Evidence and its Interpretation:

Excellent (I) = Randomized control trial (RCT) evidence without important limitations; overwhelming evidence from observational studies

High (II) = RCT evidence with important limitations; strong evidence from observational studies

Medium (III) = RCT evidence with critical limitations; observational study without important limitations

Low (IV) = Other evidence, including extrapolations from bench research, usual practice, expert opinion, consensus guidelines; observational study evidence with important or critical limitations

**World Health Organization. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection Recommendations for a public health approach - Second edition.**

**The strength of a recommendation can be either strong or conditional.**

Process of guideline development This edition of the guidelines was revised in accordance with procedures established by the WHO Guidelines Review Committee. New clinical and operational recommendations in the guidelines are based on the GRADE (Grading of Recommendations, Assessment, Development and Evaluation) approach to reviewing evidence. Modelling, expert consultations and country case studies have all strongly informed the guidelines. The

process has also identified key gaps in knowledge that will help to guide the future HIV research agenda. A strong recommendation is one for which there is confidence that the desirable effects of adherence to the recommendation clearly outweigh the undesirable effects.

A conditional recommendation is one for which the Guideline Development Group concludes that the desirable effects of adherence to the recommendation probably outweigh the undesirable effects or are closely balanced, but the Groups are not confident about these trade-offs in all situations. At implementation, monitoring and rigorous evaluation is needed to address these uncertainties, which are likely to provide new evidence that may change the calculation of the balance of trade-offs and to suggest how to overcome any implementation challenges.

Quality of evidence Definition

Table 1.1. GRADE quality of evidence

|  |  |
| --- | --- |
| Quality of evidence | Definition |
| High | We are very confident that the true effect lies close to that of the estimate of the effect |
| Middle | We are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of effect, but there is a possibility that it is substantially different |
| Low | Our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect |
| Very low | We have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of the effect |

**1a.4.4. Provide all other grades and associated definitions for recommendations in the grading system.** (*Note: If separate grades for the strength of the evidence, report them in section 1a.7.*)

All grade and definitions noted in 1a.4.3

**1a.4.5. Citation and URL for methodology for grading recommendations** (*if different from 1a.4.1*)**:**

Citations noted in 1a.4.1

**1a.4.6. If guideline is evidence-based (rather than expert opinion), are the details of the quantity, quality, and consistency of the body of evidence available (e.g., evidence tables)?**

X☐ Yes **→ *complete section 1a.7***

☐ No **→ *report on another systematic review of the evidence in sections 1a.6 and 1a.7; if another review does not exist, provide what is known from the guideline review of evidence in 1a.7***