

# Module 3

## Antiretroviral Therapy Initiation Adherence and Retention in Care

# Fast-Track Cities Initiative

Attain the UNAIDS 90-90-90 targets

Increase utilization of combination HIV prevention services

Reduce to zero the negative impact of stigma and discrimination

Establish a common, web-based platform for real-time monitoring of progress



**The purpose of this module is to inform current recommendations and best practices for the initiation of ART and for increasing rates of treatment adherence and retention in care among ART patients. After completing this module, you will be able to:**

- Explain the treatment and prevention benefits of ART
- Describe existing recommendations and the latest evidence on initiation of ART
- Describe how emerging HIV initiation, adherence and retention practices can maximize the proportion of your HIV patients who are virally suppressed

# Learning Objectives



FAST-TRACK  
**CITIES**



INTERNATIONAL ASSOCIATION  
OF PROVIDERS OF AIDS CARE

# **What We Know about Antiretroviral Therapy**

## The Health Benefits of Antiretroviral Therapy

- ART substantially improves health and well-being for PLHIV
- PLHIV can now have a near-normal life span
- ART has sharply lowered AIDS-related deaths and disability
- More than 6-fold decline in deaths in U.S.
- Continuous ART likely to serve as central HIV treatment strategy for some time

Katz IT, et al, Marcus et al, Murray CJL et al. Grinsztejn B et al, Fidler S et al, HIV in the United States: At a Glance, 2018, Atlanta: U.S. Centers for Disease Control and Prevention

EMPRANO ANRS 12136 Study Group, INSIGHT START Study Group

## The Prevention Benefits of Antiretroviral Therapy

- Clinical trials have found that ART sharply lowers the risk of HIV transmission
- Prevention benefits of ART have been confirmed in the real world (Vancouver, KwaZulu-Natal, PEPFAR studies)
- No linked seroconversion in studies of serodiscordant partners (U=U)

Sources: Montaner JS et al., Cohen M et al., Rodger A et al.,  
Montaner JSG et al., Tanser F et al.,

PHIA (Population-Based HIV Impact Assessment) Project, Data  
Summaries, <https://phia.icap.columbia.edu/resources/>.

# Maximizing the Benefits of ART



## Initiating ART

- When to start ART
- What to use as first-line therapy
- Dolutegravir and pregnancy

## Adherence and retention interventions

- Why adherence and retention are important
- Peer interventions
- mHealth interventions
- Patient navigation
- Data to care
- Clinic practices



# When to Start ART



# When to Start ART



Treatment  
Guidelines



The Importance of the Earliest  
Possible Treatment Initiation



Fast-Tracking  
Treatment  
Initiation

# Test-and-Treat: Clinical Guidelines



- ART is recommended for all individuals with HIV, regardless of CD4 count
  - to reduce morbidity and mortality and to prevent new HIV infections
  - NIH, European AIDS Clinical Society, IAS-USA. Australasian Society of HIV Medicine
- Treatment must remain voluntary in all cases
  - counseling and support should be given to patients who are not ready to begin ART

Panel on Antiretroviral Guidelines for Adults and Adolescents, Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents Living with HIV, Department of Health and Human Services, 2018, <http://aidsinfo.nih.gov/guidelines>. Guidelines Version 9.0, 2017, European AIDS Clinical Society.

Saag MS et al., Antiretroviral Drugs for Treatment and Prevention of HIV Infection in Adults: 2018 Recommendations of the International Antiviral Society-USA Panel, JAMA 2018;320:379-396.

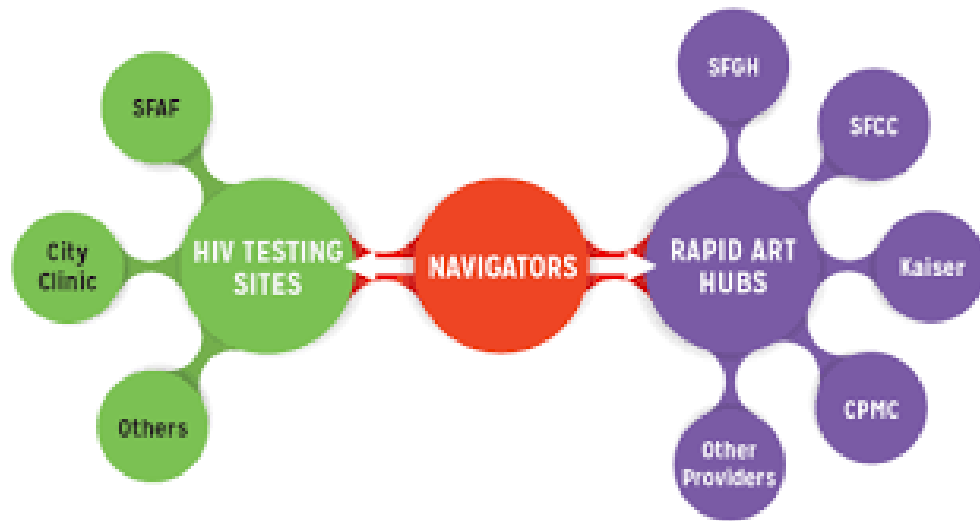
Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) Sub-Committee for Guidance on HIV Management in Australia

## **Importance of the Earliest Possible Treatment Initiation**

- Clinical benefit: reduce morbidity and mortality
- Prevention benefits: Reducing duration of unsuppressed virus
- Melbourne:
  - Duration of infectiousness among gay men fell five-fold
    - from 49.0 months to 9.6 months
    - 2007-2016
    - Changes in guidelines and recommendations cited

Sources: Grinsztejn B et al., Medland NA et al., TEMPRANO ANRS 12136 Study Group, INSIGHT START Study Group

# Fast-Track Treatment Initiation



- Numerous cities have moved to provide same-day treatment initiation, including
  - Melbourne, New York, San Francisco
- Same-day treatment initiation is associated
  - with reduced loss to follow-up
  - increased uptake of antiretroviral therapy
  - increased viral suppression
  - improved retention in care
- Same-day treatment initiation must always be voluntary

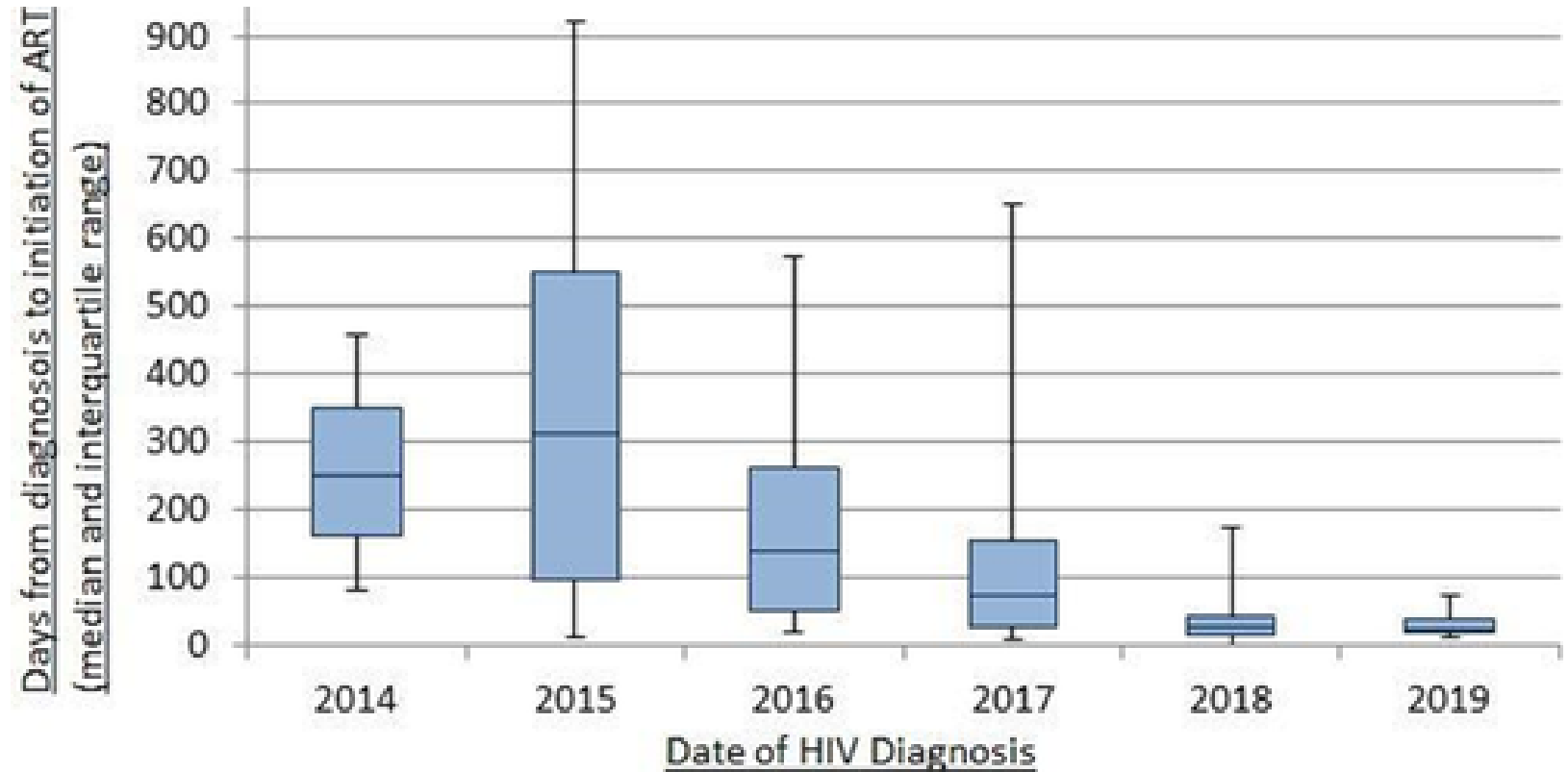
# Experience in San Francisco and Melbourne

- Demonstrates the impact of Fast-Track treatment initiation
- Citywide RAPID program
  - links new HIV diagnoses to care within 5 days
  - treatment initiated at the first visit
- From 2013 to 2016
  - reductions in time from diagnosis to care
  - diagnosis to treatment initiation
  - diagnosis to viral suppression
- New findings from Melbourne
  - HIV incidence declined
  - average time between diagnoses and undetectable viral load fell

For information on San Francisco's RAPID program:

[https://www.gettingtozerosf.org/wp-content/uploads/2016/09/20160822\\_citywide\\_rapid\\_protocol\\_v2.pdf](https://www.gettingtozerosf.org/wp-content/uploads/2016/09/20160822_citywide_rapid_protocol_v2.pdf)

Similar  
results from  
Western  
Europe



- Days from diagnosis to initiation of ART
- Median & interquartile range



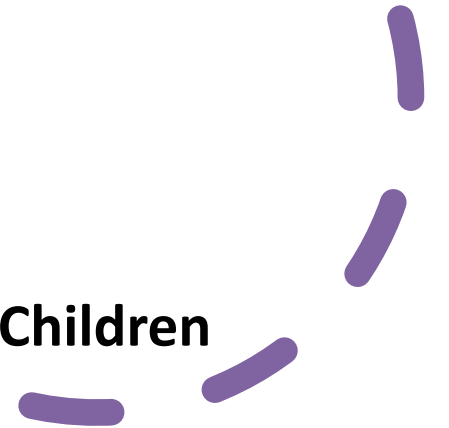
FAST-TRACK  
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## What to Start

- 3-drug regimens
- 2-Drug regimens
- Dolutegravir, Pregnant Women and Children



# Recommended Initial Regimens for Most People

<b>DHHS</b> <b>Australian Antiretroviral Guidelines follow US DHHS Guidelines with Australian commentary</b>	<b>European AIDS Clinical Society</b>	<b>IAS-USA</b>
<p><b>INSTI plus 2 NRTIs</b>                      BIC/TAF/FTC                      DTG/ABC/3TC if HLA-B*5701 negative                      DTG plus (TAF or TDF)a plus (FTC or 3TC)</p> <p><b>INSTI plus 1 NRTI</b>                      DTG/3TC except for individuals with HIV RNA &gt;500,000 copies/mL, HBV coinfection, or in whom ART is to be started before the results of HIV genotypic resistance testing for reverse transcriptase or HBV testing are available/emtricitabine</p>	<p>ABC/3TC + DTG                      ABC/3TC/DTG                      (Must be HLA-B*57:01 negative and HBsAg negative)</p> <p>TAF/FTC or TDF/FTC or TDF/3TC + DTG</p> <p>TAF/FTC/BIC</p> <p>TAF/FTC or TDF/FTC or TDF/3TC + RAL qd or bid</p>	<p>Bictegravir/TAF/emtricitabine                      Dolutegravir/abacavir/lamivudine                      Dolutegravir plus TAF/emtricitabine</p>



# Dolutegravir, Pregnant Women and Children

<b>DHHS</b> <b>Australian Antiretroviral Guidelines follow US DHHS Guidelines with Australian commentary</b>	<b>European AIDS Clinical Society</b>	<b>IAS-USA</b>
<p>Providers should discuss the benefits of using DTG and the risk of NTDs with the person of childbearing potential, to allow the person to make informed decisions about care. DTG may be used as a recommended option</p>	<p>Higher risk of neural tube defects if used preconception.</p>	<p>All individuals of childbearing age should have documentation of a negative pregnancy test result before starting dolutegravir and should be counseled regarding this potential risk.</p>

# Interventions to Enhance Adherence and Retention



## **Importance of Robust Adherence and Retention**

- Goal of treatment is viral suppression
  - Prevents morbidity and mortality
  - Reduces new infections
- A primary cause of treatment failure and drug resistance
  - sub-optimal adherence or discontinuity of care
- Sources: Guidelines Version 9.0, 2017, European AIDS Clinical Society

# Interventions to Enhance Adherence and Retention



- mHealth Interventions
- Peer Support
- Patient Navigation
- Clinic Practice and Operations
- Data to Care
- Case Management and Referral

# mHealth Interventions



- Mobile text messaging
  - increase treatment adherence for a wide array of health issues
- Meta-analysis found
  - text messaging roughly doubles the odds of medication adherence
  - among patients with chronic diseases
  - (studies generally relied on self-reports and were of short duration) –
  - moderate to high levels of satisfaction among patients
- Pager messaging increases retention
  - Seattle: Significant association with increased retention at 3, 6 and 9 months
  - (but no significant effect found on adherence)
- Different approaches to text messaging for adherence support – automated, interactive

# Peer Support



- Involving peers
  - effective strategy for increasing treatment adherence
- Peers may be integrated into multi-disciplinary care teams
- (for more information on how to implement this approach:  
<https://targethiv.org/library/integrating-peers-multidisciplinary-teams>)
- Peer support groups (in your clinic or in the community) can increase adherence

# Patient Navigation



- Peer-led navigation services have emerged as an important intervention
  - across the HIV care continuum (linkage to care, retention in care, viral suppression)
- US CDC has officially designated patient navigation as an “effective intervention” for treatment adherence
- Navigation has proven especially effective for marginalized groups
  - such as individuals who are released from prisons into the community
- For newly diagnosed individuals, the trained navigator builds rapport with the client, undertakes a psychosocial assessment, facilitates initial laboratory assessment and educates the client on needed prophylaxis
- Navigation is especially helpful in linking individuals, as needed, to other services
  - such as substance use or mental health services
- People living with HIV are ideal peer navigators
  - as they understand the challenges of a new diagnosis and recognize the difficulties of navigating often-fragmented and complex health and social service systems

# Clinical Practice Strategies



- One-on-one adherence counseling is strongly recommended
- 
- Clinic hours should be assessed
- 
- Routinely following up with patients who miss appointments is warranted

## Sources:

Thompson MA et al., Guidelines for Improving Entry Into and Retention in Care and Antiretroviral Adherence for Persons with HIV: Evidence-Based Recommendations From an International Association of Physicians in AIDS Care Panel, *Ann Intern Med* 2012;156:817-833.

Milam J et al., Effect of a Brief Antiretroviral Adherence Intervention Delivered by HIV Care Providers, *J Acquir Immune Defic Syndr* 2005;40:356-363.



# Data to Care



Well-developed surveillance systems can detect markers for lack of linkage to care or discontinuity of care  
Depends on reporting of CD4 and viral load test results

Re-engagement of people who fall out of HIV care is critical to attainment of 90-90-90  
Globally, 1 in 5 people discontinue antiretroviral therapy within 12 months of treatment initiation

Data to care approaches use markers to identify people who have no evidence of health monitoring in a period of time (e.g., 12 months)  
Lack of reported CD4 or viral load test

Intervention to re-engage clients who are out of care and link them to HIV medical care  
Different models: Provider outreach, health department outreach, community worker outreach

New York City's data-to-care model has achieved impressive results  
75% of individuals who were out of care have been re-linked to HIV care  
High levels of viral suppression among clients who are re-linked to care

For information on implementing Data to Care: <https://effectiveinterventions.cdc.gov/docs/default-source/data-to-care-d2c/pdf-of-important-considerations.pdf?sfvrsn=0>

## Sources:

Data to Care: Using HIV Surveillance Data to Support the HIV Care Continuum, Atlanta: U.S. Centers for Disease Control and Prevention, <https://effectiveinterventions.cdc.gov/docs/default-source/data-to-care-d2c/pdf-of-important-considerations.pdf?sfvrsn=0>.

UNAIDS AIDSinfo database, 2018, <http://aidsinfo.unaids.org>.

Hart-Malloy R, Tesoriero J, Data to Care: A Critical Tool for Ending AIDS in New York State, 2016, <https://www.hiv.gov/blog/data-to-care-a-critical-tool-for-ending-aids-in-new-york-state>.

# Data to Care



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- Re-engagement of people who fall out of HIV care
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- Interventions to re-engage clients
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# Case Management and Referral



- Case Management
  - recommended for patients who have intensive social or structural issues
  - such as food insecurity, housing issues or transportation needs
- For individuals with substance use disorders,
  - directly observed therapy
  - especially in the context of methadone maintenance services
  - can improve adherence
- Patients should be screened, managed and treated for mental illness

# Case Management and Referral



Case Management is recommended for patients who have intensive social or structural issues, such as food insecurity, housing issues or transportation needs

For individuals with substance use disorders, directly observed therapy, especially in the context of methadone maintenance services, can improve adherence

As mental health disorders can interfere with a person's ability to adhere to treatment, patients should be screened, managed and treated for mental illness

## Sources:

Thompson MA et al., Guidelines for Improving Entry Into and Retention in Care and Antiretroviral Adherence for Persons with HIV: Evidence-Based Recommendations From an International Association of Physicians in AIDS Care Panel, *Ann Intern Med* 2012;156:817-833.

Barker B et al., Engagement in methadone maintenance therapy associated with less time with plasma HIV-1 RNA viral load above 1500 copies/mL among a cohort of HIV-positive people who use drugs in Vancouver, Canada, International AIDS Conference, Amsterdam, 2018, Abstract WEAX0101LB.