



“For the provider who will take the time to acquire the skills necessary to perform such a task, doing so could be a great benefit to society. Dental programs presently screening for HIV have already made a significant impact in their communities above and beyond the vital oral health services they provide. The path has been outlined by trailblazing individuals and organizations...The question remains, how many will follow and take the lead in their community by helping HIV-positive people learn their status and enter into care?”

Facilitators

Brandy Svendson – Does HIV Look Like Me? International, Executive Director and VCH Dental Project Manager

Cherlyn Cortes - Vancouver Coastal Health, RN, HIV Nurse Educator STOP HIV/AIDS Project

Natalie Chan - Does HIV Look Like Me? International, Board of Directors Vice-Chair



DOES HIV LOOK LIKE ME?

I N T E R N A T I O N A L

Does HIV Look Like Me? International Society is a non-profit organization that works locally and globally to reduce the stigma associated with HIV and AIDS. We produce cutting-edge awareness-building media and print campaigns, and provide projects, education and leadership opportunities to people infected and affected by HIV.

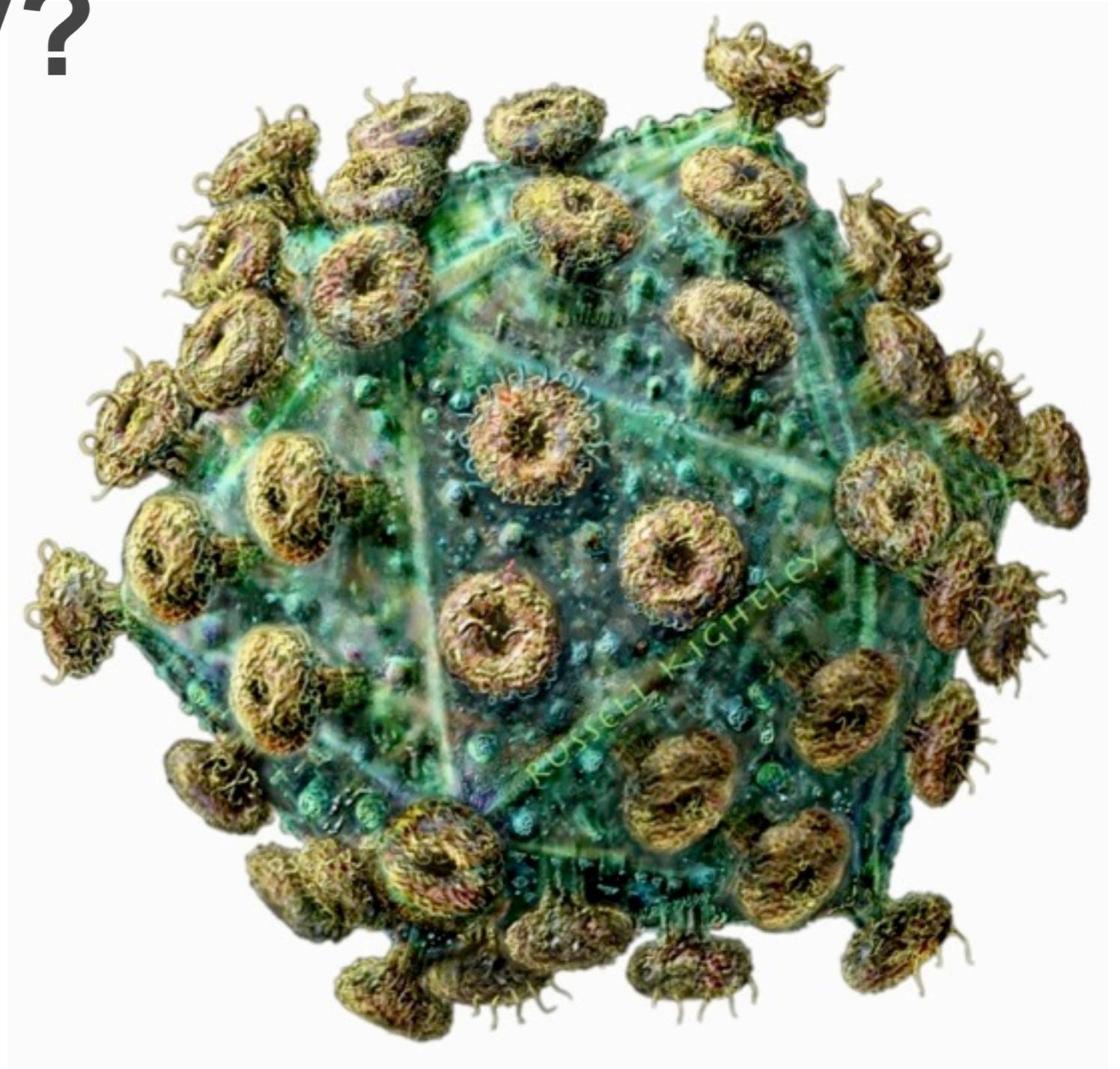
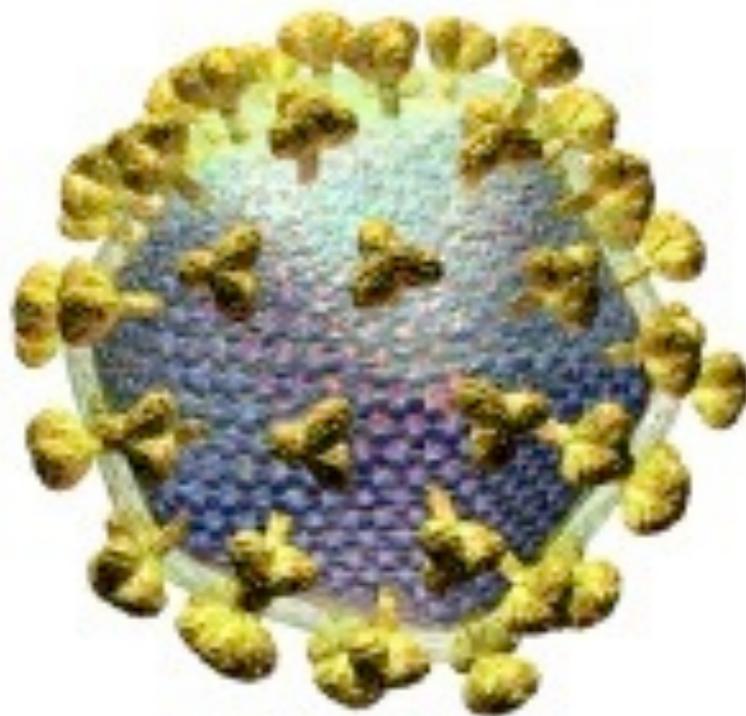
HIV Testing and Engagement to Care at Dental Clinics

Learning Objectives

- STOP HIV/AIDS Update
- HIV 101- Epidemiology, Treatment and Support
- Engagement to Care
- HIV Testing
- POC Testing in a Dental Clinic
- Practicing a Finger Poke and Offering an HIV Test
- Practicing with the Kits
- Competency Checklists
- Discuss workflow and site agreement

HIV 101

What is HIV?



Definitions

H
I
V

A
I
D
S



Definitions

H Human (only humans can get and transmit the HIV virus)

I Immunodeficiency is a state in which the immune system's ability to fight infectious disease is compromised or entirely absent.

V Virus - characteristics of a virus: **no "cure"**, can only treat symptoms, they reproduce, but only in **living host cells**, they can **mutate**

A Acquired AIDS is not something you inherit, catch, or transmit. You acquire AIDS after HIV has taken a toll on your body, and your immune system. Not everyone who has HIV will be diagnosed with AIDS thanks to HIV medication.

I Immuno- Your body's immune system includes all the organs and cells that work to fight off infections.

D Deficiency You get AIDS when your immune system is "deficient," or isn't working the way it should.

S Syndrome is the association of several clinically recognizable features, signs, symptoms, phenomena or characteristics that often occur together. A collection of symptoms. Other syndromes include, down syndrome & Pre-menstrual syndrome, both have unique and distinctive features/signs, but different depending on the person.

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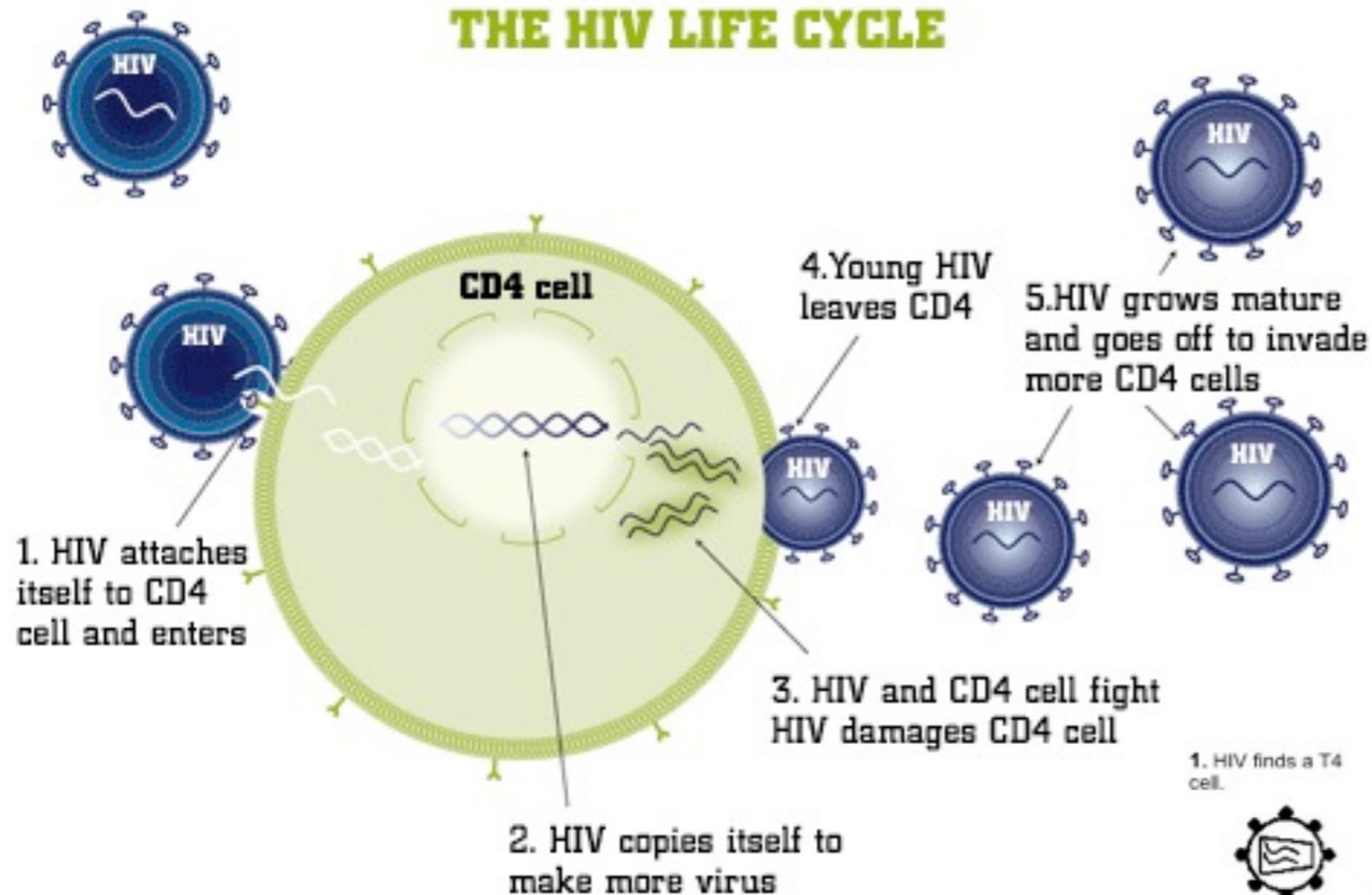
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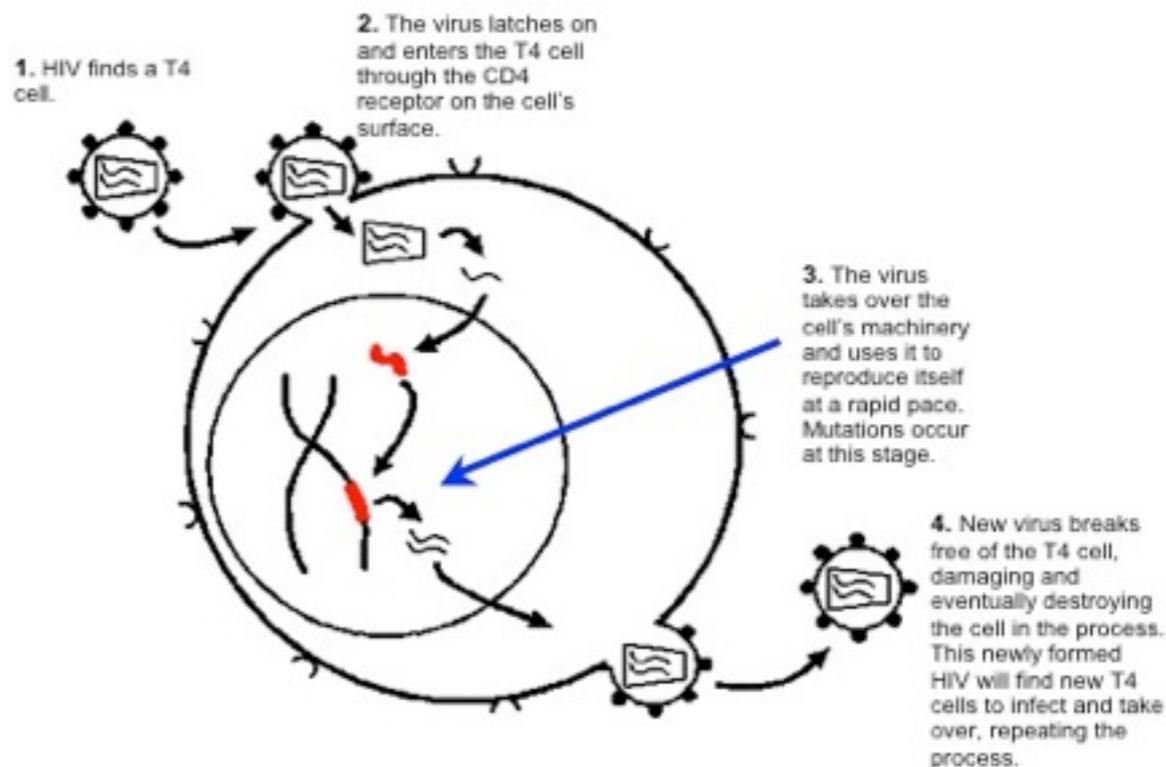
= Risk of HIV Transmission

(all 3 elements must be present to be at risk)

THE HIV LIFE CYCLE



The Life Cycle of HIV



Seroconversion illness /Acute HIV Syndrome

- early flu-like illness that occurs in 50-90% of newly infected people
- May include fever, achy muscles, very tired, nausea or vomiting, sore throat, headache, or swollen lymph nodes
- Missed in 75% of cases

Important Blood Tests to monitor: CD4 and Viral Load

“My Numbers”

CD4 Count: Measures the number of disease-fighting cells in blood.

Normal CD4 ~ 500 to 1200

**AIDS: CD4 < 200 (<14%) or AIDS
defining illness.**

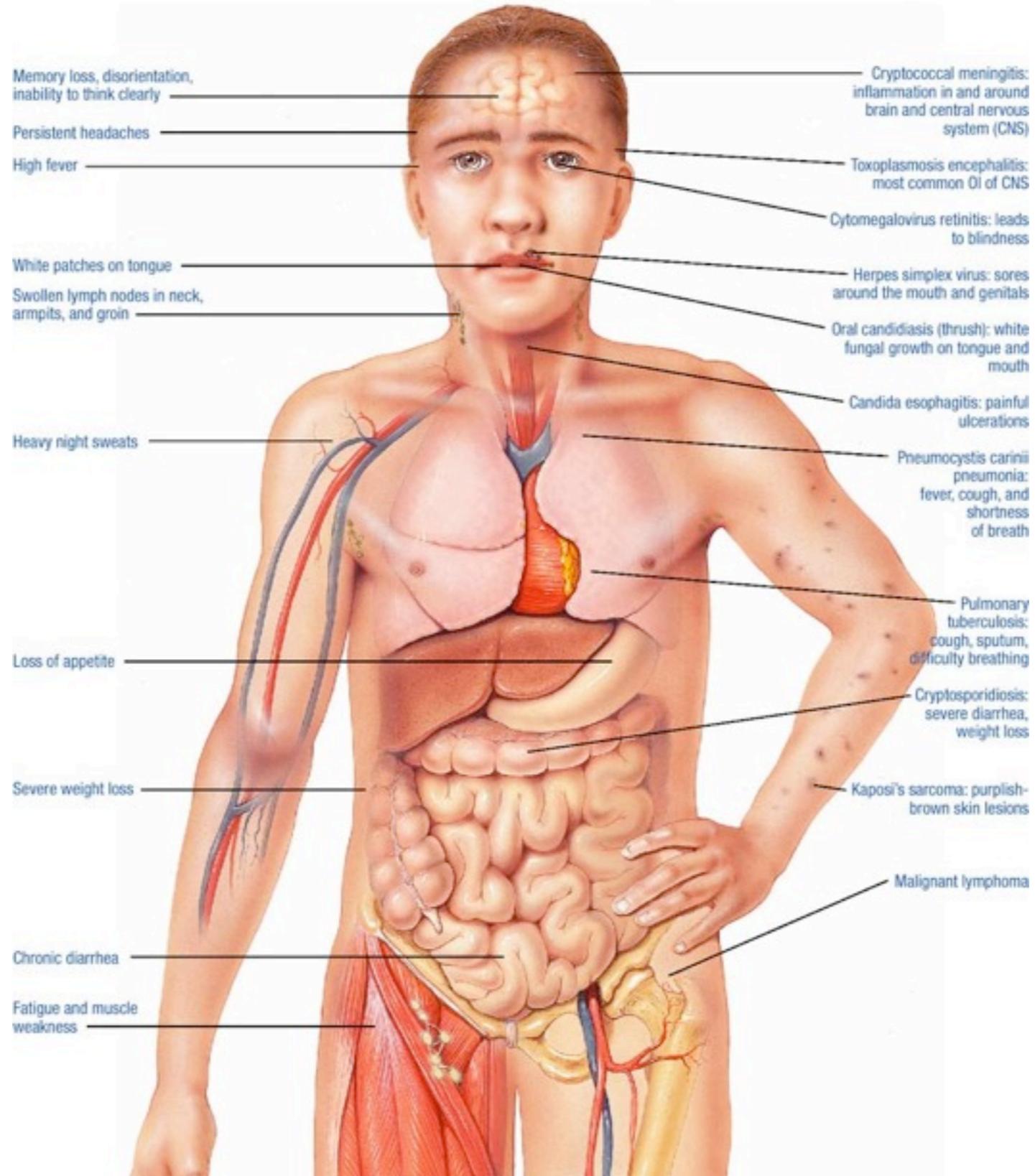
Viral Load Test: Measures the amount of virus in blood.

Opportunistic Infections (OIs)

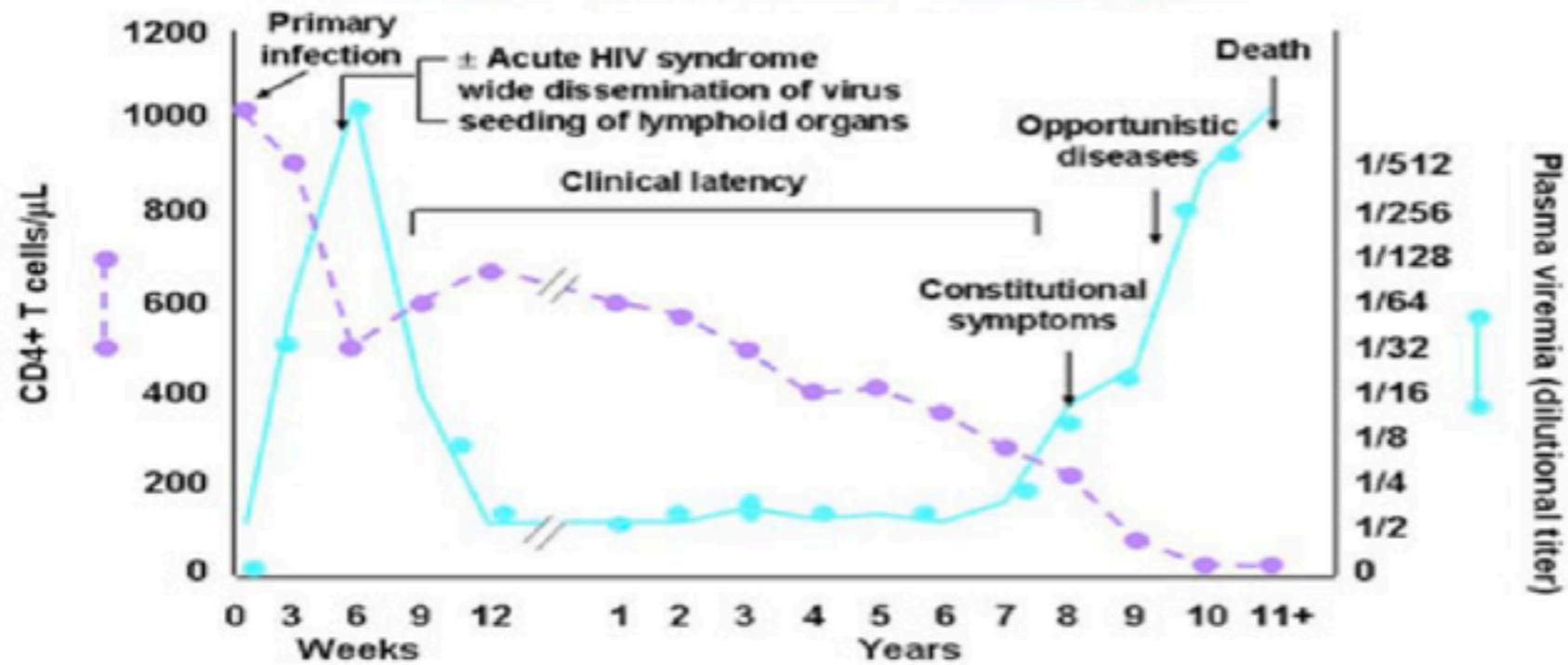
- Signs of a failing immune system
- Life threatening OIs occur when CD4 are <200
- Can occur all over the body
- “Red flag” OIs:
 - * recurring oral thrush/vaginal yeast
 - * infections/herpes infections + shingles

Symptoms of HIV infection

AIDS-related illnesses and opportunistic infections (OIs)



Depletion of Circulating CD4+ T Cells Results in Progressive Immune Deficiency



S. Guillemi. HIV Diagnosis and Management Update, Oct 2010.

Oral Manifestations of HIV

Seven Cardinal Lesions:

- Oral Candidiasis
 - Hairy Leukoplakia
 - Kaposi Sarcoma
 - Linear Gingival Erythema
 - Necrotizing ulcerative peridontitis
 - Necrotizing ulcerative gingivitis
 - Non-Hodgkin Lymphoma
- Maybe present in 50% of HIV infected and 80% of AIDS Dx.
 - Parallels \uparrow PVL and \downarrow CD4.

Bulletin of the World Health Organization. Sept 2005, 83 (9)

Oral Thrush



Herpes



Intraoral KS



Acute necrotizing ulcerative gingivitis



Prevalence of HIV-Canada

- ✦ 2008: Estimated 65,000 people in Canada living with HIV (2.3/1,000 adults)
 - 1 in 4 do not know they are infected
 - 2,300 – 4,300 new infections in 2008
- ✦ 2006: Estimated 6,108 people in Vancouver living with HIV (1.21/100 adults)
- ✦ 2008: Aboriginal people represent 13% of new HIV infections in BC.

Untreated HIV in BC

- Of 1239 deaths attributed to HIV in BC from 1995-2001:
- 408 (32.8%) of deaths occurred amongst persons who had never accessed HIV treatment
- Individuals most likely to not access treatment are female, aboriginal and/or live in a low income neighbourhood

Wood, E, Montaner, J, Tyndall, MW et al. J. Infectious Diseases, 2003, 188:1164

Reportable Illnesses in the Health Act

Some examples include:

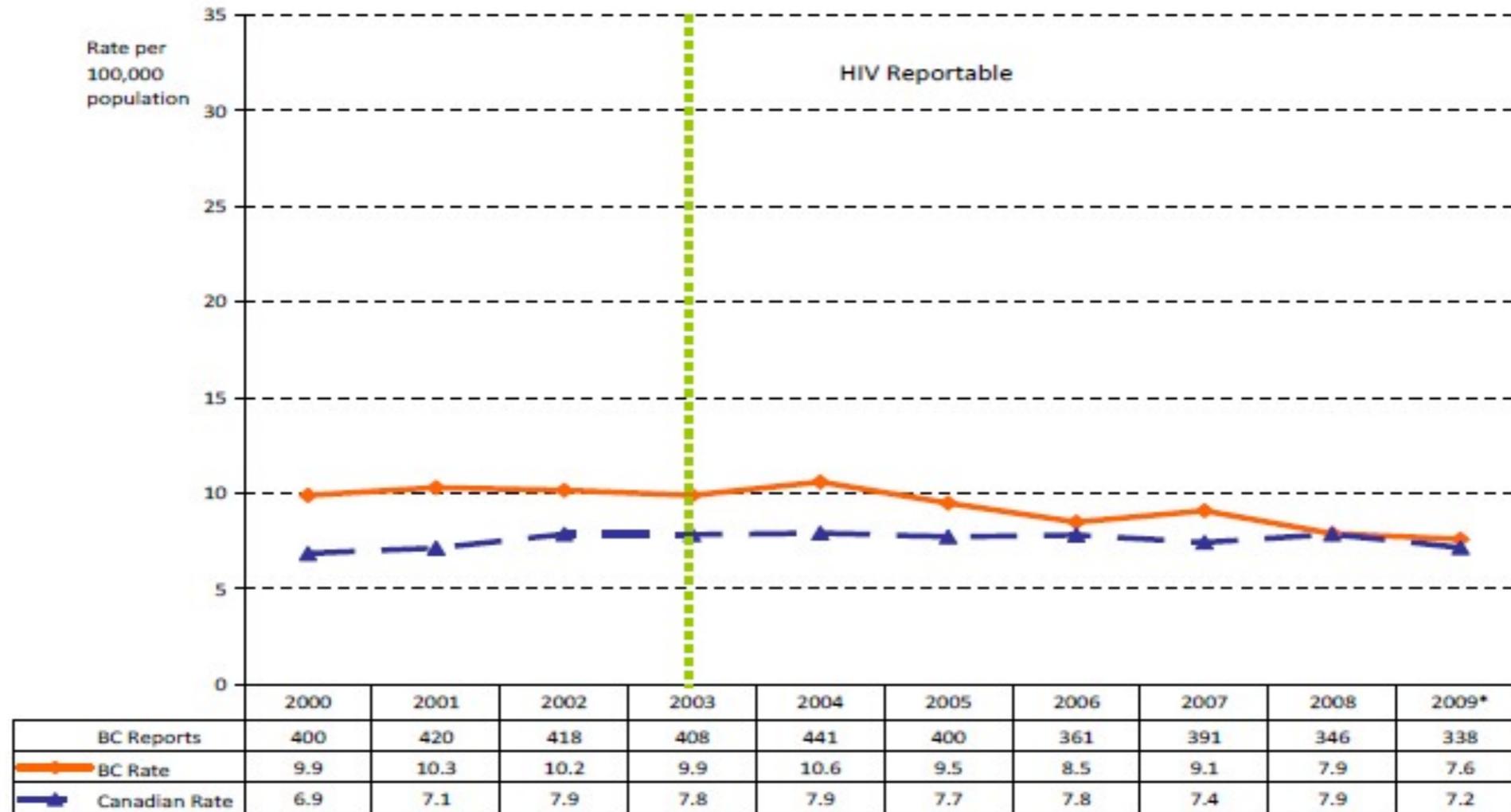
- Creutzfeldt-Jacob Disease
- Diphtheria
- Mumps
- Meningitis
- Syphilis
- Viral Hepatitis
- HIV added to BC's List in 2003.

Why Report New HIV cases?

- Newly diagnosed people receive extra support from a nurse
- follow up with a doctor etc.
- Referral to a HIV/AIDS community organization
- Newly diagnosed people are supported to engage with their partners (disclosure, counselling, offer of HIV testing etc.)
- Helps track the provincial picture of the HIV epidemic

The plateau with prevention alone

7.3 Persons testing newly positive for HIV in BC, 2000 to 2009



*2009 Canadian rate is preliminary and is subject to change (Public Health Agency of Canada, 2010).

STOP HIV/AIDS INITIATIVE

STOP HIV/AIDS Initiative

- ⤴ Provincial initiative aimed at enhancing HIV diagnosis and treatment with the goal of changing the course of the HIV epidemic
- ⤴ 3 year pilot project
- ⤴ 48 million dollars
- ⤴ Two pilot sites: Vancouver and Prince George
- ⤴ Evaluation
 - Was diagnosis improved?
 - Are more people on treatment?
 - Did we change the course of the epidemic?

Seek & Treat for Optimum Prevention

✦ **Seek:**

- Early diagnosis of HIV in all those infected
- Find and re-engage those lost to care

✦ **Treat**

- Start treatment early according to new guidelines
- Optimize adherence to treatment

Rationale and Evidence

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- Treat all those who are eligible for treatment
→ reduce community viral load → reduce transmission → change the epidemic?

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- Good evidence for reducing transmission in individuals:
 - HAART has virtually eliminated maternal-fetal transmission in BC
 - Studies have shown dramatic reduction of transmission among discordant couples
 - Evidence for populations
 - Multiple mathematical models

TREATMENT

What is HAART?



Highly
Active
Anti
Retroviral
Therapy

Goals of HAART Therapy

- Maximum & long term control of viral load
- Restore/maintain immune function
- Improve quality of life
- Reduce HIV related illness and death

HAART & HIV



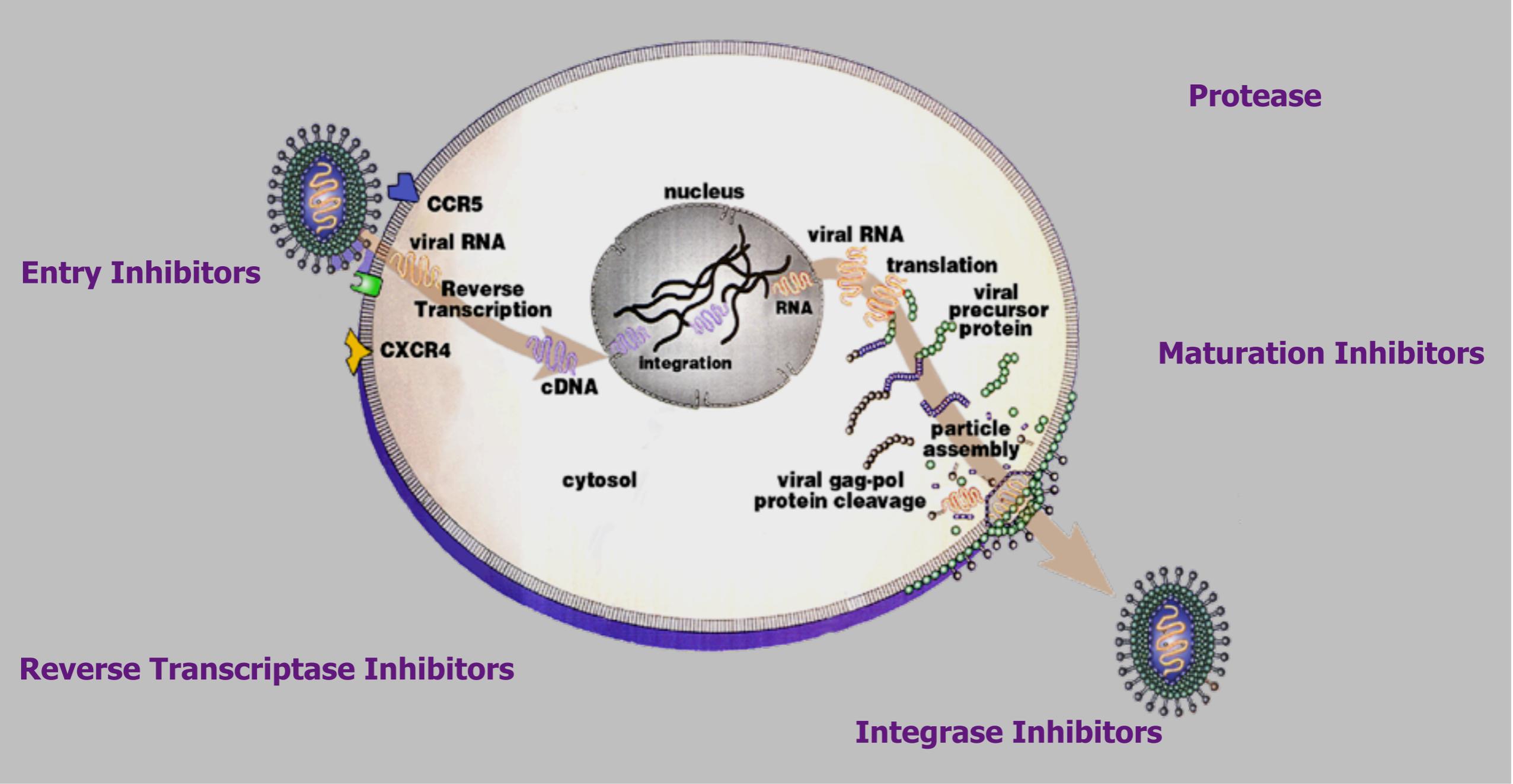


Christina has been living with HIV for 27 years and is the proud new mother of a HIV negative baby boy

Christina's Story

<http://www.youtube.com/watch?v=d0JzNoJ6Y5s>

How HAART Targets HIV in cells



Drug Regimen

Start on 3 drugs from different classes

If resistance develops, patient gets placed on more complex regimens

The goal of HAART regimen is to decrease pill burden & tailor treatment to the patient's lifestyle

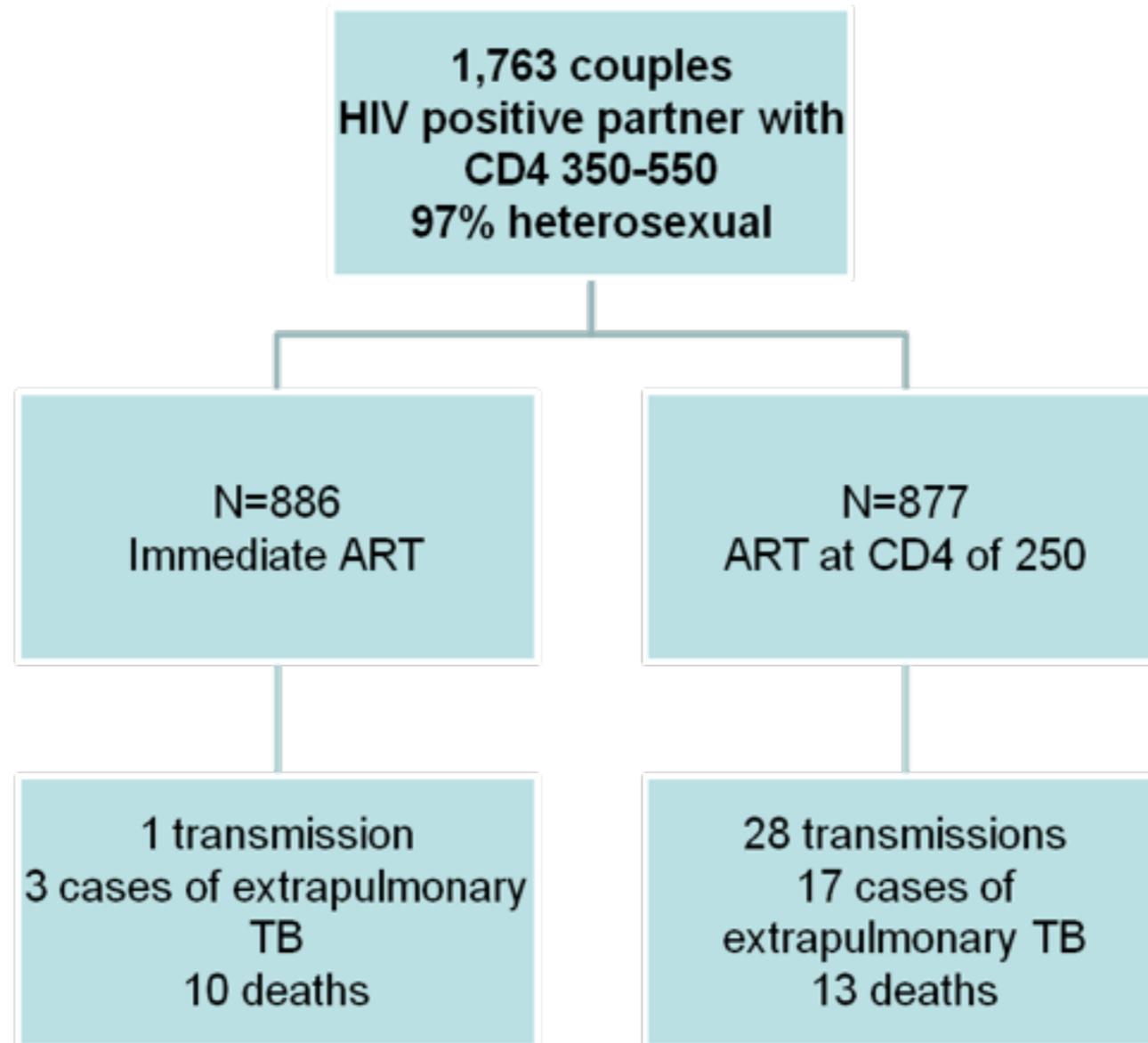
HAART Side Effects

- Range from mild and annoying to severe
- Time - weeks to months
- Common - GI disturbances: N&V, diarrhea, bloating, gas - appear within days, less problematic over time
- Around 25% of people who start HAART experience side effects severe enough to modify/stop treatment within the first year

Rationale for Early Initiation of Therapy

- **Uncontrolled HIV replication, immune activation and inflammation associated with ‘non-AIDS’ illnesses**
 - Cardiovascular, hepatic, renal, malignancies
 - ART and high CD4 associated with decreased disease incidence
- **Patients not on ART with CD4 counts < 500/ μ L have greater morbidity and mortality than those with viral suppression**
- **Increasing evidence of detrimental effects of uncontrolled viremia at CD4 cell counts > 500/ μ L**

HPTN 052 Study



Estimates of Benefits of Early Treatment

BMJ ; 343:d6016

Life expectancy as a function of disease stage at start of treatment

Disease stage at start of Tx	Can expect to live to(yrs)
CD4<100	57.9
CD4 100-199	61.0
CD4 200-350	73.4

HAART Medication Interactions

Interact badly with almost all other meds!

Methadone

Sedatives, Antidepressant, Neuroleptics

St John's Wort (contraindicated with ARVs)

Alternative therapies



BRITISH COLUMBIA
CENTRE *for* EXCELLENCE
in HIV/AIDS

Resource: BCCFE pharmacy
hotline 1-888-511-6222

The Importance of Adherence

- Strong link between survival, viral control and adherence
- > 95% adherence is needed to reach viral control
- The medication failure rate with <95% adherence was >50%

(Annals of Internal Medicine, 2000)

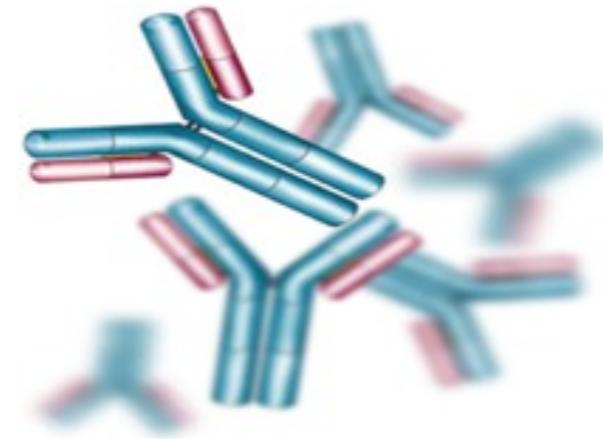


HIV TESTING

Understanding HIV Testing



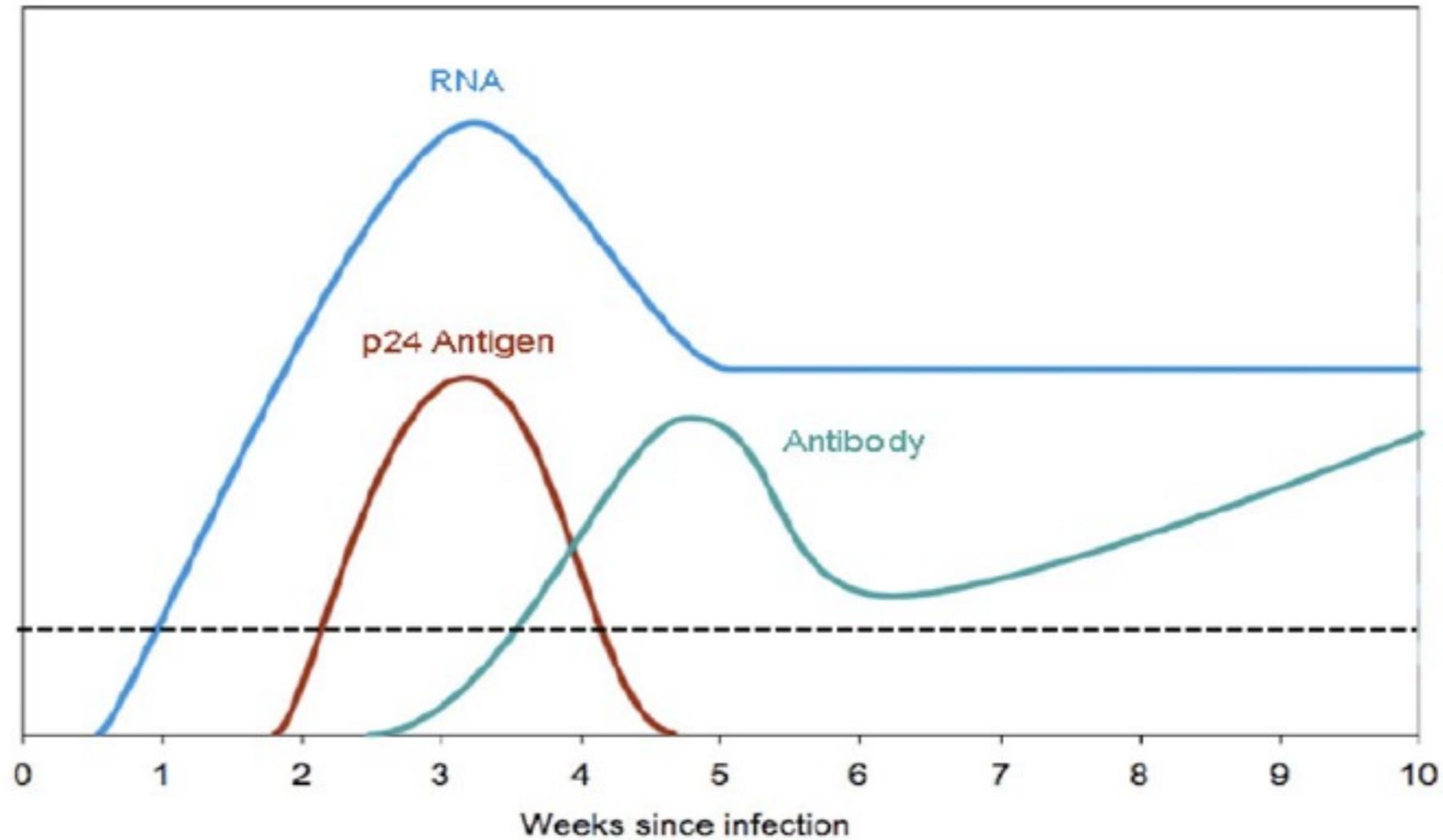
- **Laboratory Screening Test**



The need for a paradigm shift:

Why increase provider-initiated routine offer of HIV testing?

Appearance of markers of HIV infection



(BCCDC 2010)

Laboratory Testing for HIV

VENIPUNCTURE OR POC



ANTIBODY SCREEN
3rd generation enzyme immunoassay (EIA)

ANY DEGREE OF REACTIVITY:

- 4th generation EIA
- p24 antigen and anti-HIV
- shorter window period

- Western Blot
- Gold Standard
- EIA + WB combo =
- 99.9% sensitivity and specificity

- Individual RNA Nucleic Acid Amplification Test (NAAT)
- can suggest acute infection

The “Window Period”

INFECTION → DETECTION

- Individual variation is a factor
- Estimated that > 95% show detectable antibodies by 4-6 weeks
- >99% seroconverted by 3 months (as detected by Western Blot test)
- Revised Recommendation for HIV testing interval: 3 months
- People might tested false negative if testing in this period of time

ID Options to Test

- Patients should be informed of the nominal or non-nominal option to test and that HIV is a reportable condition.
- **Nominal testing:** patient's **real name and birth date** facilitates smoother process for receiving and results and linking patient to treatment, care, and support. Health care providers can encourage clients to screen for HIV using the nominal testing approach.
- **Non-nominally:** patient's **real birth date and patient name** as outlined below.

Example: Patient real name = Jane Ann Doe
becomes Jane, JAD

Provider-initiated HIV testing:

- refers to HIV testing recommended by health care providers in health care settings:
 - Identify unsuspected HIV infections
 - provision of, or referral to, effective prevention and treatment services is assured
- PIHT is sometimes equated with opt-out testing
- PIHT can either be implemented for specific target populations or can be offered routinely to everyone attending a specific health care setting (routine offer of HIV testing).

Local trends in testing and diagnosis

- 2004-2008, 38.6% of individuals with a new HIV positive test had their first known HIV test at the time of diagnosis
- 2004-2008, 17% of new diagnoses had advanced HIV disease at diagnosis
- 50% of those with HCV are tested for HIV w/in 3 mo of dx (BCCDC HIV/AIDS Surveillance Report 2009)
- In a recent survey of gay men, 30% of those < 30 have never had an HIV test and overall only 51% have had a test in the past year (M-Track, 2010)
- 50% of individuals starting HAART in BC, start with <200 CD4 counts (BCCFE Drug Tx Report 2009)

Who Do I Offer an HIV test?

In the coming year, offer HIV testing

To **EVERYONE** presenting to acute or community care who has ever been sexually active and who has not had an HIV test in the previous year

And continue to encourage more frequent testing for pop with increased prevalence of HIV (every 3 months).

Why Use HIV POC tests In A Dental Clinic?

- POC clients: 1.5 – 2.2 x more likely to receive results vs. conventional testing. [1]
- In 2005, of the 3.6 million (US) identified as high risk but with no HIV test in past 5 yrs: 75% had seen a dentist in the past 2 yrs. [2]
- 2005 National Health Interview Survey: Of individuals that had no doctor visit in past year: 50% had seen an oral health care provider. [2]
- Many OCHP believe it is important to incorporate health screening tests into practice, ie: HTN, CVD, DM, HSV, HIV, Oral Ca. [3]

1 Deitz et al. Patients' Attitudes about Rapid Oral HIV Screening in an Urban, Free Dental Clinic. AIDS Patient Care and STDs 2008.

2 Pollack HA et al. Dental. Examinations as an Untapped Opportunity to Provide HIV Testing for High Risk Individuals. Am J of Public Health Jan2010.

3 Greenberg et al. Dentists' Attitudes Towards Chairside Screening of Medical Conditions. JADA Jan 2010.

Continued...

- Study was a response to the CDC's recommendation of Routine HIV Screening in all health care settings.
- Mar 08 – Dec 09: 3565 POC tests at Harlem Hospital's onsite outpatient dental clinic.
- Of the 19 confirmed positive:
 - 15 linked to care
 - 9 had either ER, GP or Dental Clinic in the past year but no HIV test was offered.
 - 6 met criteria for AIDS

Blackstock et al. Evaluation of a Rapid HIV Testing Initiative in an Urban, Hospital-Based Dental Clinic. *AIDS Patient Care and STDs* 2010.

Continued...

- Immediate negative result
- A prelim positive result can expedite access to medical treatment & care
- Reduction & prevention of transmission to others – especially when in acute phase
- Improve decision making in relationships
- Management of stress
- Change in behaviour

OFFERING & PERFORMING THE TEST

Refer to Clinical Brochure

Informed consent

As per Sept 2011 BCCDC HIV Guidelines:

- can be provided in written format or in groups provided people have the individual option to decline a test
- Resources include: BC Health File on HIV Testing, Dental Clinic Brochures

Post Test: POC +

- Deliver & interpret results in a direct manner:
- This screening test is a preliminary positive. It is only a screening test and not a diagnostic test. There can be a chance of false positive, so you will need a blood test to confirm.
- Offer Silence
- What is the main thing on your mind?
- I can have a PHN to contact you to talk about support and testing for your partners?
- How are some of the ways you will protect your partners?

CALL THE STOP TEAM
604-838-1331

POC +: Next steps for client

- Blood draw to confirm at nearby clinic or by STOP team at nurse.
- PHN will f/u with client to discuss support and partner notification/testing.
- Can speak to Positive Living member
- Primary Care appt within 30 days.
- Further blood work
- Possible treatment
- Constant support, counselling, housing support etc.

What do I do if the test is positive?

Refer the patient to the STOP HIV/AIDS Outreach team by calling **604-838-1331**.

A STOP Team member will answer this phone line 24/7.

QUESTIONS?