

What to teach your registrar about patient testing, treatment and prevention of HIV AIDS

Acquired Immunodeficiency Syndrome (AIDS) is the late stage of Human Immunodeficiency Virus (HIV) infection, occurring when the body's immune system has been compromised by the virus.

First identified in June of 1981, AIDS cases increased rapidly throughout the 1980s and peaked in 1992, when it became the number one cause of death in American males between 25 and 44 years of age.

During the 39-year history of HIV, this virus - regarded as being responsible for one of humanity's deadliest and most persistent epidemics – accounts for:

- approximately 75 million infected (approximately 50% dead)
- more than 25 million on prescribed medications as of 2019
- approximately 700,000 deaths in 2019 (40% fewer than in 2010, showing a consistent increase in the effectiveness of treatments)
- 1.7 million new infections in 2019

WHAT IS THE CURRENT HIV INFECTION RATE IN AUSTRALIA?

- There has been a15% decline in new diagnoses of HIV over the past 5 years
- The rate of HIV diagnosis currently sits at 1 in every 25,000 Australians
- It is estimated that 28,180 people live with HIV in Australia at this time
- Approximately 66% of newly-diagnosed HIV patients are MSM (men who have sex with men)

WHO SHOULD BE TESTED?

While the majority of infections are MSM, testing for HIV should be offered to:

- Aboriginal and Torres Strait Islander people
- People who have recently changed partners
- Anyone who received healthcare overseas where there may be poor infection control practices
- Travelers to high-prevalence countries having unprotected sex
- History of incarceration
- "Indicator conditions"

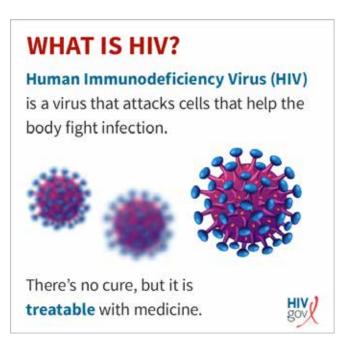


Image Source: HIV.gov







AUSTRALIAN SEXUALLY TRANSMITTED INFECTION & HIV TESTING GUIDELINES 2019

For asymptomatic men who have sex with men

After appropriate pre-test discussion, all of the STI tests listed should be offered:

3-monthly testing for sexually transmitted infections in all men who have had any type of sex with another man in the previous 3 months*

Blood tests:

- Syphilis serology
- HIV antibody/antigen screening test: If not known to be HIV-positive
- **Hepatitis A antibody:**Test if not vaccinated. Vaccinate if antibody negative
- Hepatitis B core antibody, surface antigen:
 Test if not vaccinated. Vaccinate if no history or documentation of full vaccination course
- Hepatitis C:
 Test once a year in people living with HIV, on PrEP or with history of injecting drug use

NAAT/PCR[^] tests for gonorrhoea and chlamydia:

- Oropharyngeal swab
- First pass urine defined as the first part of the urine stream, not the first urine of the day
- Anorectal swab (self-collected, see overleaf)
- ^ NAAT- nucleic acid amplification test e.g. Transcription-Mediated Amplification (TMA), Strand Displacement Amplification (SDA), Polymerase Chain Reaction (PCR)

Image Source: NSW STI Programs Unit

NORMALISATION OF TESTING

- Unexplained thrombocytopenia / leukopenia
- Unexplained lymphadenopathy
- Any STI
- Mononucleosis syndrome
- Recurrent bacterial pneumonia

- Aseptic meningitis, transverse myelitis, peripheral neuropathy
- Recurrent zoster
- Chronic diarrhoea
- Chronic candidiasis, etc.

^{*} Men who have sex with men (MSM) who are not sexually active or in monogamous relationships may be tested less frequently, but at least annually.





WHAT TO BEAR IN MIND REGARDING HIV TESTING

- Rate of false positives is high
- The only way to know your HIV status is through testing
- Since many people don't present symptoms shortly after exposure to HIV, regular testing is essential, especially for gay men and other men who have sex with men (MSM)and women who have sex with bisexual men - the recommendation being a comprehensive sexual health check (which tests for HIV, gonorrhoea, chlamydia and syphilis) at least twice a year, and up to four times a year if they are in one or more of these categories:
 - have had any condom-less anal sex
 - have more than 10 sexual partners in 6 months
 - participate in group sex
 - use crystal meth.

Tlme to positivity of HIV diagnostic tests

Test	Target of detection	Approx. time to positivity (days)		
Enzyme-linked immunoassay				
First generation	IgG antibody	35 to 45		
Second generation	IgG antibody	25 to 35		
Third generation	IgM and IgG antibody	20 to 30		
Fourth generation	IgM and IgG antibody and P24 antigen	15 to 20		
Western blot				
IgM and IgG antibody		35 to 50 (indeterminate)		
		45 to 60 (positive)		
HIV viral load test				
Sensitivity cutoff 50 copies/mL	RNA	10 to 15		
UnUltrasensitive cutoff 1 to 5 copies/mL	RNA	5		

ACUTE RETROVIRAL SYNDROME: THE ULTIMATE MIMICKER!

- Mononucleosis-like illness with nonspecific signs and symptoms
- 50% to 90% of patients symptomatic
- Typically presents 1-4 wks post exposure
- High index of suspicion is critical

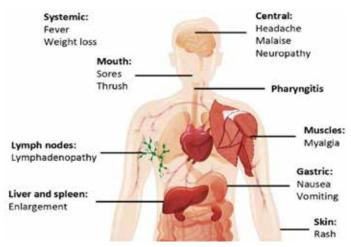


Image Source: <u>clinicaloptions.com</u>

WHY DO WE SO OFTEN MISS OPPORTUNITIES FOR HIV DIAGNOSIS?

- Lack of awareness
- Misperceptions
 - "Certain patients have HIV"
 - "My patients don't have HIV"
- Uncertainty about next steps following new diagnosis
- Reluctance to return a positive result
- Belief that HIV testing is too time-consuming

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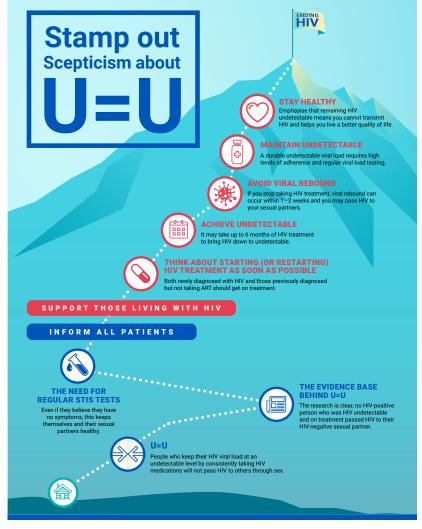




HOW TO TELL THE PATIENT THEY HAVE TESTED POSITIVE FOR HIV

- Approach like you would other "bad news" – become a "counsellor"
 - Private
 - Personal
 - Planned
 - Informed
- Discuss any preliminary positive result with Microbiology/ID
 - How "strong" is the positive ELISA
 - When is Western Blot result expected
 - Will the lab phone confirmatory result
- Disclose "strong" preliminary result vs wait for confirmation?
 - Pre-test probability?
 - Transmission potential?
 - Psychological impact?



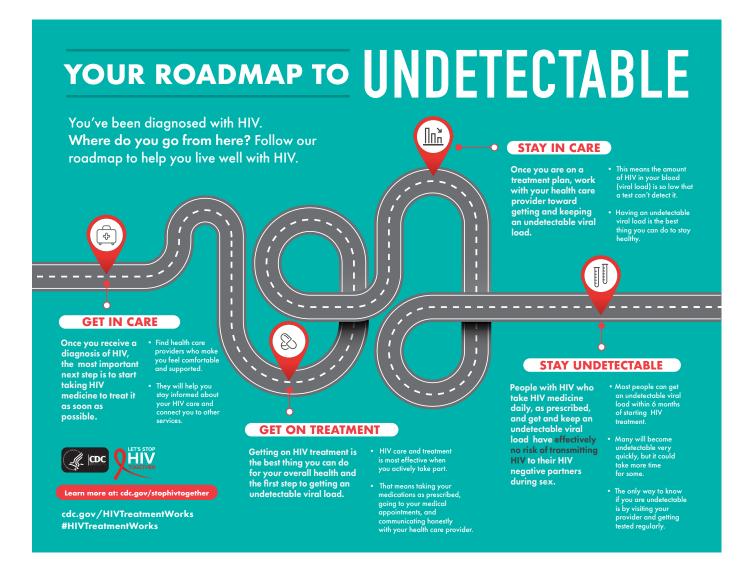


www.ashm.org.au

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MYTHS ABOUT HIV

1. I am going to die

- On treatment, life expectancy approaches general population's but
- Comorbidity onset ~15 years sooner
- Daily lifelong medication
 - >20,000 doses for a 20yo
- Persisting stigma people may think you are going to die!

2. I cannot have unprotected sex

• Undetectable = Untransmittable





3. I feel fine, the medication will probably make me sicker

- ART (anti retroviral therapy) has a range of features that debunk this myth:
 - Once daily dosing
 - Fixed drug combinations
 - Low-level toxicity and few long term SEs
 - Minimal (or manageable) drug-drug interactions
 - Low selection for resistance
 - CNS penetration
- Compared with standard care, same-day ART increased likelihood of ART initiation in first 90 days, patient retention, and viral suppression at 12 months
- ART timing is crucial after diagnosis, don't wait to treat
 - "Test and treat": immediate evaluation and ART offer[1]
 - Rapid ART initiation: within 7 days of diagnosis[2]
 - Traditional start: following education and referral

4. The HIV ART prescriber will look after any potential drug interactions

- No formal drug interaction studies for majority of drugs
- Predicted reactions (when studied many shown to be insignificant OR counterintuitive)
- Impact of multiple drugs on hepatic cytochrome cannot be predicted
- ALWAYS LOOK IT UP Internet sites, www.hivdruginteractions.org
- Pharmacy drug information
- Methadone, warfarin, midazolam, rifampicin important

5. Contact tracing is the health department's job, not mine

- Your patient may well be looking for advice
- Most new HIV infections arise from an (as-yet) undiagnosed person
- The conversation can start with you
- Confidentiality must be emphasised and maintained

Some questions you may have

How will my identity be protected?

If you choose not to reveal your identity, your health professional or Partner Notification Officer will **NEVER** reveal your identity when contacting your partners.

Who are the people at risk of HIV?

Anyone who you have had unprotected sexual activity with (i.e. without a condom) or shared a needle with while you were infected with HIV may be at risk of HIV. Your health professional or Partner Notification Officers will help you identify these people.

What if I don't know the name or contact details of the person I had unprotected sex with?

Partner Notification Officers may be able to contact your partners even if you do not have their full name or contact details. The time and place of unprotected sex or identifying features or even an internet nickname may help the Partner Notification Officer to find your partners.

Will I be able to have sex again without infecting potential partner/s?

Yes. You can protect your partners by practicing safe sex (i.e. use a male or female condom and a water based lubricant every time you have sexual activity).

Will I be able to have children without infecting my child or partner with HIV?

Yes, you can. Your health professional can provide you with the information about how to have children without infecting your child and partner.







WHAT TO DO AFTER THE HIV DIAGNOSIS

- Offer counselling and support
- Provide education and highlight available resources
- Connect patient with case manager and/or social worker for social needs (eg, housing, food)
- Refer for substance use and mental health as needed
- Obtain labs: HIV VL; CD4 T-cell count; UEC, LFT; HepB, HepC; syphilis...
- Discuss contacts, involve disease intervention specialists as needed
- Discuss treatment and appropriate ART regimen in concert with patient
- Ensure follow-up

WHAT ARE THE MAIN FACTORS AFFECTING LINKAGE TO AND MAINTENANCE OF CARE?

Poor engagement in care predicts higher mortality for patients with HIV.

The key to enhancing patient engagement is the development of an effective patient–provider relationship. Accordingly, it is vital that the GP recognises the impact of – and works toward resolving - these factors affecting linkage to and maintenance of care:

- Negative experience at HIV testing site
- Fear of disclosure, discrimination, stigmatization
- Negative experience at HIV testing site
- Gaps in follow-up / referral services
- Lack of motivation / denial
- Distrust of healthcare system
- Poor provider communication or lack of connection with provider
- Financial: housing, employment, food insecurity, transportation, lack of health insurance
- Alcohol / substance abuse
- Mental health needs
- Prioritizing health in the context of other social disparities
- Negative or no experience navigating healthcare system
- Lack of support system

HOW CAN THE GP IMPROVE PATIENT ENGAGEMENT?

- Endeavor to encourage open and frank communication
- Devote sufficient time to addressing needs of each patient
- Shorten wait time from patient's request to schedule an initial HIV care appointment until the date of the initial HIV medical visit
- Aim to provide culturally-sensitive care
 - Build trust and optimize patient-provider encounter
 - Be aware of health-related cultural beliefs
 - Provide cultural- and sex-inclusive clinics and providers
 - Be comfortable and skilled in eliciting the personal and cultural views and perspectives of each individual patient
 - Apply 'cultural humility' at each visit this involves the GP exploring how their identities shape their beliefs regarding what is "normal," "healthy," or "right" and urges ongoing vigilance to power imbalances and the impact of systems on both patient and practitioner
 - Use support groups, peer navigators, technology
- Be mindful of the importance of language:

Stigmatising	Preferred
HIV-infected person, AIDS patient, positive or HIVers, HIV carrier	Person with HIV
Died of AIDS	Died of AIDS-related illness or complications
AIDS virus	HIV (AIDS is a diagnosis)
Full-blown AIDS	No medical definition for this use
Zero new infections	Zero new transmissions
Became infected	Contracted, acquired, was diagnosed
Mother-to-child transmission	Vertical or perinatal transmission
Compliant	Adherent
Prostitute	Sex work, transactional sex





HOW CAN THE GP MAINTAIN PATIENT ENGAGEMENT IN CARE?

Patient engagement in care relies on the effectiveness of the patient-provider relationship. It is important to remember that the patient-provider relationship is not only about patients' attitudes and behaviours, but also the attitudes and behaviours of health providers.

WHAT CAN CLINICIANS DO?

- Assist patients in healthy discovery, autonomy, and self-acceptance
- Create an open and honest dialogue
- Use non-judgmental tone
- Provide comprehensive healthcare
- Create engaged, affirming, validating health partnerships

HOW CAN THE GP FACILITATE PATIENT COMFORT IN THE CLINIC?

Communication considerations:

- Introduction, including title/pronoun use
- Facial expression
- Physical contact
- Body language
- Eye contact
- Tone
- Flow of conversation
 - Mix of both open ended and directed
 - Nonjudgmental line of questions and responses

WHAT ARE THE STEPS TO AN HIV-FREE GENERATION?

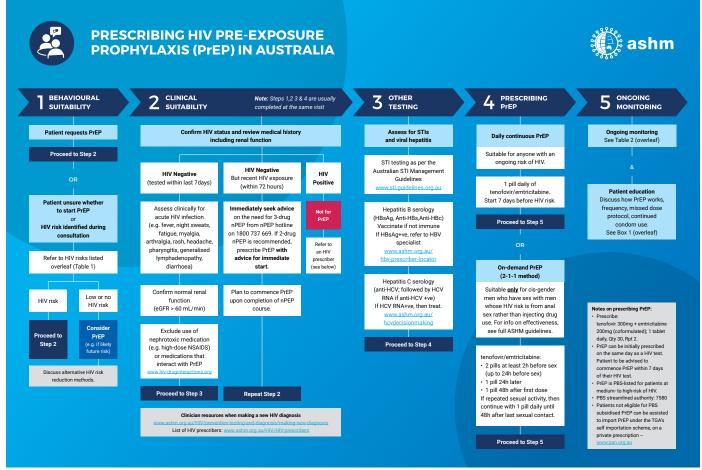
- Prevention of new infections
 - Treatment as Prevention (TaSP)
 - Diagnosis, Linkage and retention in care, Treatment of all those infected
 - PrEP use of ART in HIV negative individuals
- HIV Cure or Functional remission (HIV undetectable off ART)
 - Elimination of HIV in the 35,000,000 people with HIV infection facing life-long treatment

WHAT ARE THE PREVENTION OPPORTUNITIES?

Status	Prevention Measure	Timing
Uninfected, unexposed	Behavioral, structural interventions (eg, condoms, circumcision)	Years
Uninfected, exposed (precoital/ coital)	PrEP www.ashm.org.au/HIV/PrEP	Hours
Uninfected, exposed (postcoital)	PEP www.pep.guidelines.org.au/	72 hours
Infected	Treatment of HIV to reduce infectivity	Years







For more information about PrEP: www.ashm.org.au/HIV/PrEP

MORE INFORMATION

Useful websites:

www.ashm.org.au

https://napwha.org.au/

https://www.afao.org.au/

https://thorneharbour.org/

https://livingpositivevictoria.org.au/

https://kirby.unsw.edu.au/

ABC "You Can't Ask That" https://iview.abc.net.au/video/LE1917H005S00

RACGP Surviving an epidemic - Australian GPs on caring for people with HIV and AIDS in the early years www.racgp.org.au/afp/2013/october/surviving-an-epidemic/

STI/HIV testing tool

https://stipu.nsw.gov.au/wp-content/uploads/STI-HIV-Testing-Tool-online-version-2.pdf

Does this resource need to be updated? Contact GPSA: P: 03 9607 8590, E: admin@gpsa.org.au, W: gpsa.org.au, W: <