

HIV Monitoring Tool: New Patient

1 HISTORY

2 EXAMINATION

3 ASSESSMENT

4 PLAN

HIV

- + Date of exposure or testing history
- + Partner status
- + Contact tracing

Medical

- + Co-morbidities
- + Medicines
- + Allergies
- + Family history (premature cardiovascular disease, renal, diabetes mellitus)
- + Vaccination history

Lifestyle

- + Drug and alcohol use
- + Smoking
- + Diet and exercise
- + Sexual health

- + Vital signs (blood pressure, pulse, temperature)
- + Height, weight, body mass index, waist circumference
- + General examination
- + Brief mental state exam if indicated (see Box 2)

CHECK FOR SIGNS OF IMMUNE DEFICIENCY (see Box 1)

BOX 1: STAGES OF HIV INFECTION

- + **Acute infection:** (in 70% of patients) fever, rash, lymphadenopathy, pharyngitis, myalgia, diarrhoea, about 2 weeks after exposure
- + **Asymptomatic infection:** for several years following infection
- + **Immune deficiency:** multiple symptoms related to declining CD4 T-cell count such as oral thrush, diarrhoea, weight loss, skin infections, herpes zoster
- + **AIDS:** opportunistic infections such as Pneumocystis (carinii) jiroveci pneumonia, oesophageal candidiasis, cerebral toxoplasmosis and cancers such as Kaposi's sarcoma¹

- + Immune deficiency
- + Physical co-morbidities
- + Co-infections
- + Depression or psychosocial problems (see Box 2)

BOX 2: DEPRESSION SCREENING AND COGNITIVE FUNCTION

Depression Screening (PHQ-2)²

Answering "yes" to either of these questions may suggest depression. Over the past two weeks, have you been bothered by any of the following problems?

- 1 Little interest or pleasure in doing things
- 2 Feeling down, depressed, or hopeless

Cognitive function¹

Answering "yes" to one or more of these questions may suggest the presence of cognitive disorders

- 1 Do you experience frequent memory loss (e.g. do you forget special events or appointments etc)?
- 2 Do you feel that you are slower when reasoning, planning activities or solving problems?
- 3 Do you have difficulties paying attention (e.g. to a conversation, book or movie)?

Baseline investigations (see page 2)

 IF CD4<200 CONSIDER IMMEDIATE PROPHYLAXIS FOR OPPORTUNISTIC INFECTIONS. SEEK SPECIALIST ADVICE IF PATIENT UNWELL.³

Start antiretroviral therapy (ART) as soon as patient ready (as per current ASHM treatment guidelines)⁴

Factors to consider when selecting an initial regimen⁴

- + **Individual:** HIV viral load, CD4, HIV drug resistance, HLA-B*5701, individual preferences, anticipated adherence
- + **Co-morbidities:** CV / lipids, renal, liver, neurological, bone, psychiatric, pregnancy, co-infections (HBV, HCV, TB)
- + **Medicines:** barrier to resistance, potential adverse effects, drug interactions, convenience (e.g. pill burden, dosing frequency, availability of fixed-dose combination (FDC), food requirements), cost and access

Provide patient education and support (see Box 3)

BOX 3: PATIENT EDUCATION AND SUPPORT

- + Risk of HIV transmission, disclosure/legal issues
- + Undetectable = Untransmissible (U=U): www.ashm.org.au/resources
- + Treatment as Prevention (TasP)
- + Counsel and offer referral to local PLHIV service for peer support: napwha.org.au/members

For HIV testing and new diagnoses, refer to Decision-making in HIV: www.ashm.org.au/resources/HIV-Resources

References

1. EACS, European AIDS Clinical Society Guidelines, October 2018
2. Maurer, D. Screening for Depression, American Family Physician, January 2012
3. AIDSinfo, DHHS Guidelines for the Prevention and Treatment of Opportunistic Infections in HIV-Infected Adults and Adolescents, August 2019
4. ASHM, US DHHS Antiretroviral Guidelines with Australian Commentary, August 2019
5. RACGP Guidelines for Preventative Activities in General Practice, 9th Edition 2018
6. ASHA, Australian STI Management Guidelines, March 2018
7. ATAGI Australian Immunisation Handbook, Australian Government Department of Health, Canberra, 2018
8. Cancer Council Australia, National Cervical Screening Program Guidelines, August 2018
9. ASHM, Anal Cancer in Men Living with HIV, November 2016

HIV Monitoring Tool: Ongoing patient review



	ASSESSMENT	INITIAL	FREQUENCY	COMMENT
HISTORY				
Medical	Concomitant medicines ¹	+	Every visit	Review drug-drug interactions
	Side effects ¹	+		Review medication
	Adherence ¹	+		Adherence support
Psychosocial	Social & welfare ¹	+	Every visit	Counselling, treatment, referral
	Psychological morbidity ¹	+		
Sexual	Partner status, disclosure, contact tracing ¹	+	6-12 months	See box 3: U=U, TasP. Testing partner, children, consider Pre-exposure Prophylaxis (PrEP) for partners (only relevant if patient not on ART)
	Sexual function	+		Counselling, treatment, referral
	Conception, pregnancy ¹	+		Pregnancy testing, contraception review
Lifestyle	Smoking ^{1,5}	+	6-12 months	Counselling, treatment, referral
	Nutrition ^{1,5}	+		
	Alcohol and drug use ^{1,5}	+		
	Physical activity ^{1,5}	+		
HIV INVESTIGATIONS				
HIV	HIV viral load ^{1,4}	+	3-6 months	At start or change ART
	CD4 count and % ^{1,4}	+	3-6 months	Annual if stable CD4
	Genotypic resistance test ^{1,4}	+		At virological failure
	HLA-B*5701 ^{1,4}	+		Before starting abacavir
CO-INFECTIONS				
Immuno-suppressed	CD4 < 200 ³	+/-		Pneumocystis jiroveci Pneumonia (PJP) prophylaxis
	CD4 < 50 ³	+/-		Cryptococcus antigen, specialist review
Tuberculosis	CXR, Interferon Gamma Release Assay (IGRA) ¹	+/-		High TB risk
STIs	Syphilis serology ^{1,6}	+	3-12 months	Depending on risk
	Chlamydia ^{1,6}	+		
	Gonorrhoea ^{1,6}	+		
Viral Hepatitis	Hepatitis A serology ^{1,4}	+	Annual review	Vaccination 0, 6 months
	Hepatitis B serology: HBsAg, anti-HBs, anti-HBc ^{1,4}	+		Vaccination 0, 1, 6 months
	Hepatitis C serology ^{1,4}	+		Annual screen if risk
Vaccination check previous vaccination and update appropriately	Influenza virus ^{3,7}	+	Annual	Vaccination
	Strep pneumoniae ^{3,7} + 0,1,6 years Vaccination 13vPCV then 23vPPV at 1 year then minimum 5 years later (maximum 2)	+	5-10 years	Vaccination complex
	Diphtheria, tetanus, pertussis ^{3,7}	+	10 years	Vaccination 1 booster

	ASSESSMENT	INITIAL	FREQUENCY	COMMENT
CO-INFECTIONS (CONTINUED)				
Vaccination (continued)	Meningococcal B ^{3,7}	+	One course	Vaccination 0, 8 weeks
	Meningococcal ACWY ^{3,7}	+	5 years	Vaccination 1 only
	Human papilloma virus ^{3,7}	+	One course	Vaccination, depending on age 0, 2, 6 months
Serology and vaccination	Varicella serology ^{3,7}	+	Once	Vaccination 0, 4 weeks
	Zoster vaccination ^{3,7}	+	One course	Vaccination - ≥ 60, note cautions
	Measles, mumps, rubella serology ^{3,7}	+	One course	Vaccination 0, 4 weeks
Serology	Toxoplasmosis serology ^{3,7}	+		Serology
	Cytomegalovirus serology ^{3,7}	+		
CO-MORBIDITIES				
Haematology	FBC ^{1,4}	+	3-12 months	
Weight	Weight, body mass index ¹	+	Annual	
CV risk	www.cvdcheck.org.au ^{1,5}	+	2 years	Men >40, women >45
Hypertension	Blood pressure ¹	+	Annual	
Lipids	Fasting lipids ^{1,4}	+	Annual	TC, HDL, LDL, TG
Glucose	Fasting glucose ^{1,4}	+	Annual	
Liver	Liver function tests ^{1,4}	+	3-12 months	At start or change ART
	eGFR ^{1,4}	+	3-12 months	At start or change ART
Renal	Urinalysis, protein / creatinine ratio ^{1,4}	+	Annual	
	Bone	Calcium, phosphate, ALP ¹	+	6-12 months
FRAX score > 40 ¹ https://www.sheffield.ac.uk/FRAX/tool.aspx		+	2 years	Consider Dual-energy X-ray Absorptiometry (DXA)
25(OH) vitamin D ¹		+	As indicated	Screen if at risk
Cognitive	Screening questionnaire ¹	+	As indicated	Screen if at risk (Box 1)
Depression	Screening questionnaire ²	+	As indicated	Screen if at risk (Box 1)
Cancer	Cervical cancer ⁸	+	3 years	HPV testing
	Colon cancer ⁵	+	2 years	> 50 Faecal Occult Blood Test (FOBT) or colonoscopy
	Breast cancer ⁵	+	2 years	> 50 mammogram
	Prostate cancer ⁵	+	2 years	> 50 consider PSA
	Skin cancer ⁵	+	Opportunistic	> 40 examination if high risk
	Anal cancer ⁹	+	Annual	> 50 Digital Ano-Rectal Examination (DARE)