AETC AIDS Education & Training Center Pacific

Quick Clinical Guide: HIV Health Care Maintenance

Updated May 2023. This information is based on the following guidelines: DHHS, September 2022 (https://clinicalinfo.hiv.gov); IAS-USA

Be present, listen and triage needs on the first visit; deal with life-threatening issues and provide rapid access to ART (antiretroviral therapy). Let them know what to expect and about U=U (Undetectable = Untransmittable), that treatment prevents transmission. Fill in the history as you build rapport. Remember to use open-ended questions. Higher priority topics are highlighted with a star ★ and in red font; aim to discuss these topics in the first few visits.

Current needs and history

- ★ **What is most important to you right now?**
- ★ How do you want to feel?
- ★ **HIV:** beliefs around HIV, U=U, first known positive test, seroconversion, HIV exposures, prior HIV meds, PEP, CD4, viral loads, genotypes and ART or partner ART history.
- ★ **OIs:** derm symptoms (zoster hx), PCP, toxo, MAC, CMV (GI or retinitis), crypto, histo, cocci, thrush, TB, bacillary angiomatosis (Bartonella), recurrent bacterial infections
- ★ **Concurrent medical conditions:** diabetes, CAD, htn, lipids, renal insufficiency, neuropathy, hepatitis, etc.
- ★ **TB:** PPD/TST or IGRA hx, LTBI treatment, CXR hx, prior TB tx
- ★ **STI:** hx and tx, particularly GC/CT, syphilis, HPV, HSV
- ★ **Mental health** hx: ask about mood instability, psychosis, trauma, any history of psychiatric treatment
- **Reproductive health** hx: pregnancy hx (if relevant), family planning desires, plans for future pregnancies
- Use of **complementary medicine**
- Most recent **dental and eye exams**
- **Vaccination history**

Medication History

- ★ **ART history**, such as PEP, PrEP or treatment of HIV
- ★ **Drug allergies**
- **Complementary & OTC medicine:** herbs, pills, procedures, etc.
- Steroids, body-building supplements, other hormones

Health Related Behaviors

- ★ **Partner notification and testing:** ask, "Please tell me about your partners (sexual and IDU). Would you like our help to let them know and offer HIV testing and services?"; offer help with testing
- ★ **Sexual health:** ask, "How is your sex life? How do you enjoy sex? How do you prefer we refer to your genitals?"
- ★ **STI harm reduction:** serodifferent partner(s); barrier methods; use this as a chance to discuss condoms/PrEP
- ★ **Sexual orientation, gender identity:** ask about how they identify and what name they use
- ★ **Drug use:** methamphetamines (what form? Intravenous, muscled, smoked, snorted, ingested?), cocaine/crack, heroin and other opioids, GHB, ecstasy, ketamine (Special K), alcohol, tobacco, marijuana
- **Substance use disorder treatment/rehab** and quit history; current interest in rehabilitation and harm reduction services
- ★ **Substance use harm reduction:** needle exchange
- **Exercise**
- **Diet:** consider taking a 3-day diet history

Family History

- **Premature CAD**
- **Malignancies**
- ★ **G6PD**, sickle cell
- **Psychiatric disorder**

Social History

- **HIV beliefs:** How do they feel about HIV? How do they feel about taking HIV medications? What do they know already about HIV transmission, U=U, natural history, prognosis, CD4, viral loads, treatments, OIs, prevention, PrEP? Have they known others living with HIV? What are those relationships like?
- **Health beliefs:** What have their experiences with health care been like? How do they want to interact with the clinic?
- **Current priorities:** What is most important to you right now? What do you care about most right now?
- **Future beliefs:** What are your hopes for your future?
- **Partner hx:** health of relationships, disclosure status, partner(s) tested? Need help with disclosure/testing? Children in need of HIV testing?
- **Social supports:** friends, family, community
- **Spiritual support:** spiritual practice and/or community
- **Intimate partner violence (IPV):** past and current
- **Incarceration** history
- **Homelessness/housing instability:** current and historical
- **Food:** sources, reliability
- **Water source:** ensure clean drinking water supply
- **Travel:** birthplace, travel (check for histo, cocci, TB exp)
- **Pet status:** cats (bartonella, toxo), reptiles (salmonella)
- **Gardening and soil exposure:** Toxo, crypto, MAC
- **Income:** employment, public benefits and stability of these sources
- **Insurance:** uninsured, ADAP, Medicaid, Medicare, private insurance; check on visit, labs and prescription drug coverage and copays
- **Legal issues:**
  - Issues related to **jail/prison and probation**?
  - Issues related to **immigration**?
  - **Benefits, social security, disability?**
  - **Housing?**
  - Ask about a **DPOA and Living Will**; make sure you revisit this if they don't have them.
  - Do they need documentation or services related to **children and/or dependents**?
- ★ **Emergency contacts**

Symptoms & Physical Exam

Ask about symptoms, perform exam and pay special attention to:

- **Consitutional:** fevers, night sweats, weight loss
- **Skin:** dermatitis, folliculitis, fungus, molluscum, Kaposi's sarcoma
- **HEENT:** ask about floaters and perform retinal exam if CD4 <200, look in mouth for leukoplakia and thrush, check dentition
- **Lymph Nodes:** cervical, axillary, inguinal
- **Abdomen:** liver and spleen
- **Neurologic:** mental status, cognition, sensation
- **Anogenital:** discharge, rash, ulcers, warts, fissures, abscesses

Baseline Labs

Strength of Recommendation: **A:** strong **B:** moderate **C:** optional **D:** should usually not be offered **E:** should never be offered

Quality of Evidence for Recommendation: **I:** at least one RCT with clinical results **II:** clinical trials with lab results **III:** expert opinion

Labs highlighted in light blue are repeated for most patients.

Test	Repeat Frequency	DHHS	IDSA	Evidence	Reasons & Notes
HIV Ag/Ab	None if confirmed	Y	Y	AI	Confirm & document diagnosis; helps benefits eligibility
CD4 absolute and %	-Baseline and repeat 4 weeks later -Q3-6 months until VL UD for 1-2yrs (see notes)	Y	Y	-AI for baseline -AIII for confirmation -CIII for CD4/CD8	-If CD4=300-500 & VL UD x2yrs: check CD4 Qyear (BII, IDSA AII) -If CD4>500 & VL UD x2yrs: CD4 is optional (CIII)
Viral Load	-Baseline, Q4-8wks till UD, then Q3-6 mo (see notes) -also at initiation, tx failure, 4 wks after start/blip/switch	Y	Y	-AIII for baseline; -AIII to monitor ART efficacy	-Q3mo for monitoring treatment response -If VL UD x1 year, can check Q6 months (AIII; IDSA AII for VL UD x2yr) -If VL>200, recheck in 4-8 wks (AII)
Genotype: RT and PI +/- INSTI	Baseline for all patients with HIV; can start ART while waiting for results; repeat with virologic failure while on ART	Y	Y	-AII for baseline -AI for virologic failure -AIII for preg	-In early infection: more likely to pick up transmitted resistant strains -later on, check to guide ART regimen choice/change -Add INSTI genotype if concern for INSTI resistance
Metabolic panel & LFTs	4-8 wks after starting ART, then Q6 mo	Y	Y	AIII	Monitor toxicity, liver and renal function
CBC	Q3-6 mos w/ CD4, then every yr	Y	Y	AIII	Monitor toxicity, check cytopenias
Hep A IgG Ab	Verify once after vax	Y	Y	AIII	If negative IgG, vaccinate (AI)
Hep B sAg, sAb, cAb	Baseline and verify once after vax, may repeat if sAg neg at baseline and sAb neg	Y	Y	AIII	-If neg, vaccinate, check sAb in 2mo -If cAb+ and sAb-, check DNA and consider vax if DNA neg (AIII)
Hep C Ab	Baseline and repeat Qyear if has exposures (MSM, PWID)	Y	Y	AIII	-Check RNA if Ab pos to check for chronic infection; consider tx (AI)
VZV Ab	Baseline & verify after vax	Y	Y	-AII for VZVIG -BIII for adult vax -AII for peds vax	-Give VZVIG if Ab neg and exposed to active VZV (AII) -Give 2-dose series of RZV for all others regardless of CD4 count (AIII)
Toxo IgG	Baseline only	Y	Y	-BIII -Repeat CIII	-If negative, counsel prevention (pork, lamb, cat litter) -If positive, prophylaxis when CD4<100
TB IGRA or TST (PPD)	Baseline and repeat Qyear if neg and has exposures	Y	Y	AII	-Test at baseline and treat if positive for LTBI -If neg, repeat Qyear if ongoing exposures -If CD4<200, repeat when CD4>200
RPR or VDRL syphillis screen	Q3-6 months, based on risk	Y	Y	-AIII, BIII for repeat -AII for LP in neuro or ocular sxs	-If new infection, treat! -check LP/CSF w/neuro sxs (AI), active tertiary, tx failure (<4-fold↑)
Lipids	-HRSA req Qyr total chol -baseline, then 6wks after starting PIs; Qyr if normal	Y	Y	AIII	-Assess need to tx -following PI/NNRTI side effects -HRSA requirement
Glucose/AIC	Check fasting glucose with lipids, Qyr	Y	Y	AIII, A/B (USPSTF)	See lipid notes above
UA, creatinine clearance	-Baseline -Definitely before starting TDF or IDV	Y	Y	AIII	-HIV confers an increased risk of nephropathy -TDF and IDV are nephrotoxic
GC/CT (3-sites PRN), **trich***	Baseline for all, trich for women; Q3-6mo if pos/risk	Y	Y	-AIII for baseline -AI/III for repeat	-Patients with exposures: at least annual retest (AI) -Retesting for all patients by expert opinion (AIII)
HLA-B*5701 for ABC use	If considering abacavir as part of ART regimen	Y	Y	-AI for before starting ABC	-If positive, avoid abacavir use (AI) -document result in medical chart (AII)
Tropism for MVC use	If considering or on maraviroc (CCR5 inhibitor)	Y	Y	-AI for CCR5 tx -BIII for failure	-Get phenotypic test (AI) -predicts if CCR5 antagonist (maraviroc) will work

Consider the following tests in certain patients:

- **Urine pregnancy:** Screen in people with pregnancy potential of reproductive age.
- **G6PD:** Screen in patients with family history, African or Mediterranean descent; G6PD deficiency leads to a higher risk of hemolysis to the use of dapsone, primaquine and less to sulfas. (IDSA AII, note that it can be an expensive test, ~$200).
- **CMV IgG:** In low-risk patients (not in history of anal intercourse who are very likely to be CMV+); if negative, use CMV-neg blood prod ucts; if positive and CD4<50, patients need a dilated eye exam (IDSA, score AII).
- ***STI screening details:** Trichomonas and GC/CT NAAT swabs for vaginal/front hole receptive sex, GC/CT rectal swab for anal receptive sex, GC pharyngeal culture for oral receptive sex, GC/CT NAAT first-void specimen for urinary symptoms; repeat annually for sexually-active patients and Q3-6 months for patients at higher risk (IDSA, AI). See CDC STD guidelines.
- **Testosterone:** Consider checking morning total testosterone level in adult cisgender men at risk for hypogonadism with fatigue, weight loss, libido loss, erectile dysfunction, depression, or evidence of bone mineral density loss; repeat once to confirm; treat hypogonadism if <300 (IDSA AII).

Not recommended: Baseline CrAg or MAC blood culture not recommended for asymptomatic screening (IDSA AII).

Studies and screenings

Test	Frequency, comments	Evidence, who recommends
Anal Pap and DRE for anal cancer screen, in people reporting anal receptive sex, w/anal warts and/or cervical dysplasia	-Annual if ongoing exposures and baseline is normal -Use polyester swab in Thin Prep, go in 2-3" thru int. sphincter, rotate and apply lateral pressure 15-30sec -Refer ASCUS, LSIL, HSIL to high-resolution anoscopy	At this time, no national guidelines exist for routine screening for anal cancer. MSM have 20-fold increased risk of anal cancer. DRE: BIII for annual; anal pap IDSA score CII
Cervical Pap for women: pap testing alone (any age) or pap with HPV co-testing (for 30+ yo)	-Baseline and repeat 6 or 12 months later, then annual -If 3 consecutive paps are negative, then every 3 years -Avoid co-testing with HPV for women <30 yo -If at all abnormal, get colposcopy	AI for baseline CIII for 6-month repeat after baseline BII for annual pap BII for pap every 3 years
GC/CT urethral, rectal, pharyngeal tests/swabs for exposed sites	-Repeat Q3-6 months with ongoing exposures	BII
GC/CT cervical and trich for vaginal/front hole exposures	-Do baseline for GC/CT/trich for all -Repeat trich yearly; repeat GC/CT w/sxs & exposures	AI for baseline and symptoms
Dental exam and cleaning	-Q6 months; also ask about flossing, gum-stimulation	US HIV/AIDS Bureau checks for Q12 exam
Dilated eye exam for CD4<50	-CMV retinitis screen for CD4<50	*Don't let the eye exam delay ART!
Colorectal cancer screening for pts ≥45 yo	-Annual FOBT x 3 -or sigmoid Q5 years -or colonoscopy Q10 years	USPSTF score B for 45-49yo, A for 50-75yo, C for 76-85yo
Mammogram for women > 40 or 50 yo	-Ages 40-49 Q1-2 years optional, discuss risks and benefits of screening with patient -Ages 50-74 Q2 years	USPSTF score B for ages 50-74; score C for ages 40-49 IDSA score A1
DXA bone densitometry for at-risk, post-menopausal women and men ≥50 yo	-Baseline for pts at risk, post-meno women, men 50+ -Risks: ages 40-50 with FRAX>10%, thin female smokers >40 yo, history of excessive alcohol, long term steroids -After 2+ years on bisphosphonates (afterward, no data)	USPSTF score B for >65 and postmenopausal women <65 + increased risk of osteoporosis. USPSTF score I for men >50. IDSA BIII
BMI	-Annual, counsel on results	USPSTF score B

Other routine health care maintenance practices:

- Annual blood pressure check, annual depression screen, Q2-3 year eye exam with tonometry for patients aged ≥50
- Annual low-dose CT for lung cancer screen: 50-80 yo with >20-pack year smoking history, current smoker or quit <15 yrs ago
- In men who have ever smoked, aged 65-75, abdominal ultrasound to screen for abdominal aortic aneurysm
- **CXR:** Definitely in positive PPD or QFT; consider in patients with underlying lung disease for a baseline (IDSA, AII)

Prophylactic Medications (Please see the Rapid ART Guide for recommended HIV antiretroviral regimens)

Pathogen	CD4	Agent	Evidence
Pneumocystis jiroveci (PCP)	CD4 <200 [DC when CD4 >200 x 12 wks on ART]	TMP-SMX DS 160/800 mg daily; alt: dapsone 100 mg Qday (+pyrimethamine 50mg + leucovorin 25mg Qwk) or atovaquone 1500 mg Qday	AI BI
Toxoplasma gondii	CD4 <100 In +toxo IgG [DC when CD4>200 x 12 wks on ART]	TMP-SMX DS 160/800 mg daily -Alt: dapsone 50 mg Qday + pyrimethamine 50 mg Qwk+ leucovorin 25 mg Qwk	AI, BI
Mycobacterium avium complex (MAC)	Consider if not on ART, with VL>200 copies/mL & CD4 <50	Azithromycin 1200mg Qwk or clarithromycin 500 mg Q12' -Alt: rifabutin dose adj based on ART, but watch for interactions	AI BI
Mycobacterium tuberculosis (MTB)	Any CD4; look out for history of PPD≥ 5mm, QFT+	If LTBI (neg CXR, no e/o active dz), INH 300 mg Qday + Vit B-6 50mg Qday x 9mo or Rifampin 600mg qday x4 mos, but check first for ART drug interactions!	AII, BI

Vaccines

Test	Repeat Frequency	DHHS	IDSA	Evidence	Reasons
Pneumococcal PCV13/ PPV23	PCV20 alone or PCV15 + PPSV23(at least 8 weeks later)	Y	Y	AII	Prevent bacteremia
Influenza	Annually	Y	Y	AI	Higher incidence in HIV+
Hep A	At 0, 6 months; test total Ab	Y	Y	AII	Prevent fulminant hepatitis
Hep B	At 0, 1, 6 mo; test sAb & repeat @double-dose if neg	Y	Y	AI if at risk	40 µg → increased response
Tetanus (Td)	Q10 yr boost; Tdap once	n/m	Y	Tetanus Evidence: AII	Higher incidence in IVDU
Varicella	Peds at 0, 3 mo; test Ab	Y	Y	AI for kids	In CD4 >200 with neg Ab
Zoster (RZV)	-At 0 and 2-6 mos		Y	Zoster evidence: AIII	To prevent shingles and complications
HPV	At 0, 2, 6 mo for up to age 45		Y	AI	To prevent HPV-related cancers
MenACWY	At 0, 2 mo; then Q3 yrs if <7yo, Q5y if >7yo			ACIP, 9/2020	5-24x risk in HIV
MMR	At 0, 1 month	Y	Y	AIII	In CD4 >200 and no immunity
COVID-19	See CDC guidelines	Y		AIII	As of May 2023

- **Do not give live vaccines** (yellow fever, OPV, BCG, live typhoid) to HIV+ patients except for the measles vaccine.
- **Consider:** IPV Polio (don't use OPV) catch-up; MMR catch-up in CD4%>15; meningococcal for 11-12 yo +2nd dose 8 wks later
- **With travel:** Meningococcal in epidemic areas; IPV catch-up; rabies; inactivated typhoid (AAHIVM)

Follow-up Frequency for Medical Visits

- 1 week after ART initiation
- every month until viral suppression
- then every 3-6 months
- Q3 months if early asymptomatic HIV
- Q1 months if late-stage HIV, symptomatic, or initiating ART till stabilized

■ At each visit:

- Monitor adherence (AIII)
- Screen for risk behaviors (AII): sexual risk, STI exposure, IVDU
- STI symptoms (AI)
- At least yearly (and ideally at each visit), substance abuse and mental health screening, HIV partner counseling (safer sex–condoms, PrEP for HIV-negative partners, needle exchange, etc.) (AI).

Screening in Transgender Patients (from The Center of Excellence for Transgender Health **http://transhealth.ucsf.edu/**)

■ Trans men:

- Assess masculinization, total testosterone, hgb/hct 3, 6, 12 mo after initiation, then yearly and PRN.
- Other labs: SHBG, albumin at 3, 6, 12 mo months after initiation; HgA1C and lipids as per USPSTF guidelines.
- Cervical cancer screening and (if has not had double mastectomy) breast cancer screening following guidelines for non-transgender women; cervical cancer screening should not be a requirement for testosterone therapy.

■ Trans women:

- Assess feminization and CMP 3, 6, 12 mo after initiation, then yearly and PRN.
- Other labs: estradiol, total testosterone, SHBG and albumin at 3, 6, 12 months after initiation, then PRN. Prolactin levels only if symptoms of prolactinemia, and A1C and lipids as per USPSTF guidelines.
- Breast cancer screening: "As with the age of onset, given the likely lower incidence in transgender women, it is recommended that screening mammography be performed every 2 years, once the age of 50 and 5-10 years of feminizing hormone use criteria have been met. Providers and patients should engage in discussions that include the risks of over-screening and an assessment of individual risk factors (Grading: T O W)."

References:

General Guideline Resources: HIV Primary Care: DHHS, IDSA, IAS-USA, US PHS Resistance: DHHS, IDSA, IAS-USA | Vaccinations: ACIP, CDC | OI Prophylaxis and Treatment: CDC, NIH, HIVMA, IDSA Pregnant Women with HIV: DHHS | Metabolic Complications: IAS-USA, ACTG

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