Medical History

- IDSA, November 2013, Aberg, et. al.
- IAS-USA, July 2014, Gunthard, et. al.
- DHHS, November 2014 (http://aidsinfo.nih.gov)

This information is based on the following guidelines:

Triage problems on the first visit; deal with life-threatening issues first. Once the patient is stabilized, start filling in the history. Remember to use open-ended questions for assessing risks. Topics that should be discussed in the first stable visit are highlighted with a star; the other topics can wait for the next 2-3 visits.

Medical History

- HIV: first known positive test, possible time of seroconversion, HIV risk factors, prior HIV meds, PEP, CD4, viral loads, genotypes and resistance patterns.
- OIs: derm symptoms (zoster hx), PCP, toxo, MAC, CMV (GI or retinitis), crypto, histo, cocci, thrush, TB, recurrent bacterial infections, BA
- TB: PPD hx, LTBI treatment, CXR hx, prior TB tx
- Concurrent medical conditions: diabetes, CAD, htn, lipids, renal insufficiency, neuropathy, hepatitis
- STD hx and tx, particularly GC/C, syphilis, HPV, HSV
- Mental health hx: look out for bipolar disorder and affective instability, any history of psychiatric treatment
  - Reproductive health hx: for women, pregnancies since becoming HIV+, plans for pregnancy
  - Use of complementary medicine
  - Most recent dental and eye exams
  - Vaccination history

Social History

- Take an “HIV IQ”: What does s/he know already about HIV transmission, natural history, prognosis, CD4, viral loads, treatments, OIs, prevention? Have s/he known others with HIV? How well?
- Health beliefs: how does s/he feel about the US medical paradigm? Aversions? Is s/he willing to take medications?
- Partner hx: health of relationships, partner(s) tested?
- Social supports (friends, family)
- Spiritual support (spiritual practice and/or community)
- Intimate partner violence (IPV): past and current
- Incarceration hx
- Homelessness: 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 and stability of these sources
- Insurance issues: uninsured, minimally insured (ADAP, Medi-Cal), Medi-Cal / MediCare (prescription drug issues), or private insurance
- Emergency contacts
  - Legal issues:
    - Issues related to jail/prison and probation?
    - Ask about a DPOA and Living Will; make sure you revisit this if she doesn’t have them.
    - Does she need documentation for issues related to children and dependents?

Medication History

- ARV history as PEP, PrEP or treatment of HIV
- Complementary and OTC medicine: herbs, pills, etc.
- Steroids, body-building supplements, other hormones
- Drug allergies

Health-Related (Risk) Behaviors

- Partner notification and testing: have sexual or IVDU partners been notified and tested? Offer help with testing.
- Sexual behavior: MSM, bisexual, heterosexual; bottom/top; anal/oral/vaginal; # partners, steady partner
- Sexual risk reduction: discordant partner(s): barrier protection; use this as a chance to discuss condoms! (AIII)
- Sexual identity: gay, bisexual, lesbian, two-spirit, heterosexual, transgendered; transgender health history
- Drug use: methamphetamines (what form? IVDU, muscle, smoked, snorted, ingested), cocaine/crack, heroin, street narcotics, MJ, GHB, ecstasy, ketamine (Special K), alcohol, tobacco
- Drug rehab and quit history; current interest in rehab
- Drug harm reduction: needle exchange
- Exercise
- Diet: consider taking a 3-day diet history

Family History

- Premature CAD
- Malignancies
- G6PD
- Psychiatric disorders

Physical Exam

General physical exam; pay special attention to:

- Skin: dermatitis, folliculitis, skin fungus, molluscum, KS
- HEENT : retinal exam with CD4 < 200, look in mouth for OHL, candida, dentition
- Lymph Nodes: cervical, axillary, inguinal
- Abdomen: liver and spleen
- Neurologic status: mental status, cognition, sensation
- Genital & rectal findings: discharge, ulcers, warts, fissures, abscesses

Rating Clinical Practice Recommendations

(IDSA, US PHS rating system)

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
## Baseline Labs

<table>
<thead>
<tr>
<th>Test</th>
<th>Repeat frequency</th>
<th>DHHS</th>
<th>PHP / Newman</th>
<th>Hammer</th>
<th>IDSA</th>
<th>Evidence</th>
<th>Reasons &amp; Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Ab</td>
<td>None if confirmed</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>Confirm dx, benefits eligibility</td>
</tr>
<tr>
<td>CD4, absolute and %</td>
<td>-baseline and repeat 4 weeks later (D, H, f) -Q3-6 months (I, P,D)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>-for CD4&lt;300 &amp; VL UD x2yrs: check CD4 qyear (BII, IDSA AII) -if CD4&gt;500 &amp; VL UD x2yrs: CD4 is optional (CIII)</td>
</tr>
<tr>
<td>Viral Load</td>
<td>-baseline, Q4-8wks cll UD, then Q3-6 months -also at initiation, tx failure, 4 wks after start/swapswitch</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>-for monitoring tx response -for VL UD x1yr, can check Q6mo (CIII; IDSA All for VL UD x2yr)</td>
</tr>
<tr>
<td>Genotype</td>
<td>Baseline for all HIV-infected pts regardless of whether ART will be initiated; Repeat with virologic failure, while on ARVs to guide selection</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>-early infection: more likely to pick up transmitted resistant strains -later on, to guide ARV regimen -Add INSTI genotype if concern for INSTI failure</td>
</tr>
<tr>
<td>HLA-B*5701</td>
<td>if considering ABC as part of ARV regimen</td>
<td>Y</td>
<td>-</td>
<td>-</td>
<td>Y</td>
<td>Al, Mallal, et al. PREDICT-1 trial, 2007</td>
<td>-if positive, avoid ABC use (Al) -document result in medical chart (Al)</td>
</tr>
<tr>
<td>Tropism</td>
<td>If considering a CCR5 inhibitor for tx or virologic failure on inhibitor (MVC)</td>
<td>Y</td>
<td>-</td>
<td>Y</td>
<td>-</td>
<td>Al</td>
<td>-get phenotypic test (Al)-predicts if CCR5 antagonist (MVC) will work</td>
</tr>
<tr>
<td>CBC</td>
<td>Q3-6 months</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>Monitor toxicity, check cytopenias</td>
</tr>
<tr>
<td>Chem 10</td>
<td>Q6-12 months</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>Monitor toxicity, renal function</td>
</tr>
<tr>
<td>Hep A totalAb</td>
<td>Verify once after vax</td>
<td>Opt</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>If neg at risk, vaccinate (Al)</td>
</tr>
<tr>
<td>Hep B sAg, sAb, cAb</td>
<td>Baseline and verify once after vax, may repeat if sAg neg at baseline and sAb neg</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>-if neg, vaccinate, check sAb in 2mo -if cAb+ and sAb-, check DNA and consider vax if DNA neg (AlII)</td>
</tr>
<tr>
<td>Hep C Ab</td>
<td>Repeat Qyear if at risk</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>-Check RNA if Ab pos to check for chronic infection; consider tx (AI)</td>
</tr>
<tr>
<td>LFTs</td>
<td>Q6-12 months</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>All Monitor toxicity, check liver fxn</td>
</tr>
<tr>
<td>Toxo IgG</td>
<td>None</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>BILL</td>
<td>-BILL -Repeat CIII -if neg, counsel on avoiding infxn (pork, lamb, kitten litter) -if pos, prophyl for CD4&lt;100</td>
</tr>
<tr>
<td>VZV Ab</td>
<td>Baseline &amp; verify after vax</td>
<td>Y</td>
<td>-</td>
<td>-</td>
<td>Y</td>
<td>All</td>
<td>-All for VZViG -BILL for adult vax -All for ped vax -give VZViG if Ab neg and exposed to active VZV in 96h (AlII) -VZV vax if Ab neg&amp;CD4&gt;200 (BIII)</td>
</tr>
<tr>
<td>RPR or VDRL syphilis screen</td>
<td>Q3-6 mo, based on risk</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>-if pos, treat! -check LP/CSF w/neuro sx (AI), active tertiary, tx failure (&lt;4-fold↑)</td>
</tr>
<tr>
<td>PPD or IGRA (QFT)</td>
<td>Annual -note: HRSA req PPDs</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>All</td>
<td>-Pos- PPD ≥5mm; QFT+ -if pos with neg CXR, tx LTBI</td>
</tr>
<tr>
<td>Fasting lipids</td>
<td>-HRSA req Qyr total chol -baseline, then 6wks after starting PIs -Qyr if normal</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>All</td>
<td>-assess need to tx -following PI/NNRTI side effects -HRSA requirement</td>
</tr>
<tr>
<td>glucose/A1C</td>
<td>-check fasting glucose with lipids, Qyr</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>All, A/B (USPSTF) -see lipid notes above</td>
</tr>
<tr>
<td>UA, creatinine clearance</td>
<td>-Baseline, consider for all -Definitely before starting TDF or IDV</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>-all pts, esp Af-Ams have increased risk of nephropathy -TDF and IDV are nephrotoxic</td>
</tr>
<tr>
<td>GC/CT, trich</td>
<td>-baseline for all, trich for women; Q3-6mo if pos/risk</td>
<td>Y</td>
<td>-</td>
<td>-</td>
<td>Y</td>
<td>All/Ill for repeat</td>
<td>-at least annual retest for patients at risk (AI), Qyr for all pts (AlII)</td>
</tr>
</tbody>
</table>

D= DHHS guidelines, F=PHP guidelines, N=Newman guidelines, H=Hammer guidelines, I=IDSA guidelines

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### Consider the following tests in certain patients:

**Urine pregnancy** screen in women of child-bearing age.

- **G6PD** screening in patients with family hx, African or Mediterranean descent; G6PD deficiency leads to a higher risk of hemolyis to the use of dapsone, primaquine and less to sulfas. (Newman & IDSA rec, Al, can be an expensive test ~$200)

- **CMV IgG** in low-risk patients (w/o hx of anal intercourse; assume these pts to be pos); if negative, use CMV-neg blood products; if positive and CD4<50, patients need a dilated eye exam (IDSA, Hammer, Newman, score AII)

- **STD screening details**: *trichomonas* and GC/CT NAAT for women, GC/CT rectal sample culture for patients reporting anal receptive sex, GC/CT pharyngeal sample culture for patients reporting oral receptive sex, GC/CT NAAT first-void specimen for men with urinary symptoms; repeat annually for sexually-active patients and Q3-6 months for patients at higher risk (IDSA, AI)

- **Testosterone**, check morning total testosterone level in men 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 All)

**Not recommended**: Baseline CrAg or MAC blood cx not recommended for asymptomatic screening (IDSA All to not test).
### Baseline Studies

<table>
<thead>
<tr>
<th>Test</th>
<th>Frequency, comments</th>
<th>Evidence, who recommends</th>
</tr>
</thead>
</table>
| Anal Pap and DRE for anal cancer screen, in pts with hx anal receptive sex | -annual anal pap if remains active and baseline normal  
-use polyester swab and Thin Prep, 1” in, 15 sec swab  
-refer ASCUS, LSIL, HSIL to anoscopy w/bx | No large-scale clinical trials on effectiveness;  
MSM have 20-fold inc risk of anal cancer;  
IDSA score CII |  
| Cervical Pap for women                                               | -baseline and repeat 6 months later  
-if both normal and CD4>200, get an annual pap  
-if both normal and CD4<200, repeat q6 months  
-if all abnormal, get colposcopy (abn colpos in 64%  
with CD4<200, 34% with CD4+400) | Al for baseline  
All for annual |  
| GC/C rectal, pharyngeal swabs for those having anal and/or oral sex   | -repeat q6 months to annually if sexually active  
-STD swabs in AHS fridge; rectal Quest code 16506x  
-use blue package swabs at Ward 86 (lab validated)  
-Allow for those with detectible toxo IgG | Bil |  
| GC/C cervical and trichomonas for women                              | -do baseline axx; repeat when sx is present  
-replace when doing paps (P) | All for baseline and sxsx |  
| Eye exam: dilated optho exam                                         | -CMV retinitis screen annually for CD4<50  
*don't let the eye exam delay initiation of ARVs  
-Repeat frequency | PHP; note that it’s controversial to screen pts before ARV start to pick up periph dz |  
| Dental exam and cleaning                                              | -q6 months, also ask about flossing, gum-stimulation | PHP, Newman |  
| Colorectal cancer screening for pts ≥50 yo                           | -annual FOBT x 3  
-or sigmoid q5yrs  
-or colonoscopy q10yrs | USPSTF score A |  
| Mammogram for women > 40 or 50 yo                                   | -ages 40-49 Q1-2 years optional (Bil)  
-ages 50-69 Q1-2 years  
-ages 70+ q2 yrs | USPSTF score B  
IDSA score A1, Bil for ages 40-49 |  
| DXA bone densitometry for at-risk, post-menopausal women and men ≥50 yo | -baseline for pts at risk, post-meno women, men 50+  
-Experience for thin female smokers >40 yo, history of 2 weeks or more on steroids (prednisone 5 mg or more)  
-after 2+ yrs on bisphosphonates (afterward; no data) | USPSTF score B for ≥65  
IDSA AII |  
| 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  
-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, BIII)

### Vaccines

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Repeat frequency</th>
<th>DHHS</th>
<th>PHP / Newman</th>
<th>Hammer</th>
<th>IDSA</th>
<th>Evidence</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumococcal PCV13/PPV23</td>
<td>PCV13 x 1, then PPV23 at least 8 wks later; if previous vax w/PPV23, give PCV13 1 yr after; repeat PPV23x1 after 5 yrs</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>Prevent bacteria</td>
</tr>
<tr>
<td>Influenza</td>
<td>Annually</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>Higher incidence in HIV+</td>
</tr>
<tr>
<td>Hep A</td>
<td>at 0, 6 months; test Ab</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al if at risk</td>
<td>Prev fulminant hep, esp in HCV</td>
</tr>
<tr>
<td>Hep B</td>
<td>Dbl dose; 0, 1, 6 mo; test SAb</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Al if at risk</td>
<td>40 µg → increased response</td>
</tr>
<tr>
<td>Tetanus (Td)</td>
<td>Q10 yr boost; Tdap once</td>
<td>n/m</td>
<td>n/m</td>
<td>Y</td>
<td>-</td>
<td>-</td>
<td>Higher incidence in IVDU</td>
</tr>
<tr>
<td>Hib</td>
<td>Once</td>
<td>n/m</td>
<td>n/m</td>
<td>Y</td>
<td>-</td>
<td>-</td>
<td>In asplenia or recurrent Hib (I)</td>
</tr>
<tr>
<td>Varicella</td>
<td>at 0, 3 mo; test Ab</td>
<td>-</td>
<td>-</td>
<td>Y</td>
<td>-</td>
<td>Al for kids</td>
<td>In CD4&lt;200 with neg Ab</td>
</tr>
<tr>
<td>Zoster</td>
<td>Once</td>
<td>-</td>
<td>-</td>
<td>Y</td>
<td>-</td>
<td>-</td>
<td>Consider in &gt;60 yo + CD4≥200</td>
</tr>
<tr>
<td>HPV</td>
<td>At 0, 2; 6 mo for 11-12 yo</td>
<td>Y</td>
<td>Y</td>
<td>Al</td>
<td>-</td>
<td>Prior to sexual activity</td>
<td></td>
</tr>
</tbody>
</table>

**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)

### Prophylactic Medications (rec by all guidelines)

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>CD4</th>
<th>Agent</th>
<th>Evidence</th>
</tr>
</thead>
</table>
| *Pneumocystis jiroveci*         | CD4 <200 [DC when CD4>=200 x 12 wks on ARVs] | TMP-SMX DS 160/800 mg daily; alt: dapsone 100 mg qday  
(+ pyrimethamine for toxo) or atovaquone 1500 mg daily | -CID 40, 2005  
-MMWR 51, 2002 |
| *Toxoplasma gondii*             | CD4 <100 [DC when CD4>=200 x 12 wks on ARVs] | TMP-SMX DS 160/800 mg daily  
-alt: dapsone 50 mg qday + pyrimethamine 50 mg qwk+  
leucovorin 25 mg qwk | -CID 40, 2005 |
| *Mycobacterium avium complex (MAC)* | CD4 <50 [DC when CD4>=100 x 12 wks on ARVs] | Azithromycin 1200mg qwk or clarithromycin 500mg q12  
-alt: rifabutin 300 mg qday, but watch for interactions | -NEJM 342, 2000  
-AIDS 13, 1999 |
| *Mycobacterium tuberculosis (MTB)* | Any CD4 | -look out for hx of PPD≥ 5mm, QFT+  
-if LTBI (neg CXR, no e/o active dz),  
INH 300 mg qday + VIt B6 50 mg qday x6-9 mo (Al) | All |

*Also: Prophylaxis for bacterial infections in Sub-Saharan Africa, any CD4 count: TMP-SMX DS 160/800 mg daily (Lancet 353, 1999)  
HIV HCM and Screening * East Bay AETC & HIV ACCESS * Sophie Wong, MD * sophy.wong@ucsf.edu * updated 5/4/2015, page 3 of 4
Screening in Transgender Patients (UCSF Positive Health Program Guidelines)

FTM:
- assess masculinization 3, 6, 12 mo after initiation, then twice yearly
- labs: CBC, LFTs, glucose or HgA1C, lipids at 3, 6 months after initiation, then yearly
- routine birth female screening (paps, mammos)

MTF:
- assess feminization 3, 6, 12 mo after initiation, then twice yearly
- labs: LFTs, K at 3, 6 months after initiation, then yearly. Prolactin levels 6 mo after initiation, then yearly x 3.
- mammos when >40 yo and on hormonal therapy 10+ years
- routine birth male screening (such as testicular exams, though USPSTF score D)

Follow-up Frequency

DHHS guidelines:
- Q3 months if early asymptomatic HIV
- Q1 months if late-stage HIV, symptomatic, or initiating ARVs till stabilized

at each visit:
- Monitor adherence (AIII)
- screen of high-risk behaviors (All): sexual risk, STD exposure, IVDU
- STD 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)

References

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


Centers for Disease Control and Prevention (CDC), Health Resources and Services Administration; National Institutes of Health, HIV Medicine Association of the Infectious Diseases Society of America. Incorporating HIV prevention into the medical care of persons living with HIV. Recommendations of CDC, the Health Resources and Services Administration, the National Institutes of Health, and the HIV Medicine Association of the Infectious Diseases Society of America. MMWR Recomm Rep 2003;52(RR-12):1–24.

