AAVBC

AMERICAN ACADEMY OF VALUE BASED CARE

HIV/AIDS

Quick Reference Guide

2026

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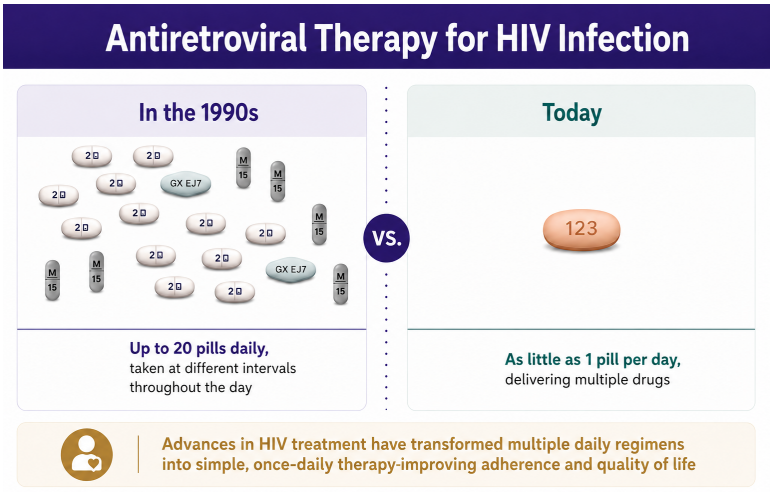
1 CLINICAL SNAPSHOT

Definition: Human immunodeficiency virus (**HIV**) is a retrovirus that targets CD4+ T-lymphocytes, progressively depleting cellular immunity when untreated.[1] Without antiretroviral therapy (**ART**), HIV progresses through **three stages**: (**1**) acute infection (flu-like illness 2–4 weeks post-exposure), (**2**) chronic infection (clinical latency, often asymptomatic for years), and (**3**) **AIDS**: CD4 count <200 cells/mm^3, CD4 percentage <14%, or any AIDS-defining illness.[1,2] With effective ART, HIV is now a **manageable chronic condition**; viral suppression (undetectable viral load) prevents disease progression and eliminates sexual transmission (**Undetectable = Untransmittable**, **U=U**).[3]

ICD-10 Codes:

B20 (HIV disease): Any patient with **current or prior HIV-related illness** or AIDS-defining condition, even if currently asymptomatic and virally suppressed = **PERMANENT** once assigned and must **NEVER** be reverted to **Z21**; **Z21** (asymptomatic HIV infection status): HIV-positive with **NO current or prior** HIV-related illness or AIDS-defining condition; chart review of prior encounters required before Z21 can be assigned.[4] Both B20 and Z21 map to **HCC 1** (RAF 0.301); the distinction is a **compliance and accuracy issue**, not a RAF differential.[4] AIDS-defining manifestations are coded **B20 FIRST**, then the manifestation: **B59** (PCP), **C46.0**/**C46.5** (Kaposi sarcoma), **B37.81** (esophageal candidiasis), **B45.1** (cryptococcal meningitis), **B58.2** (toxoplasma encephalitis), **A31.2** (disseminated MAC), **C83.7x** (Burkitt lymphoma), **C83.3x** (primary CNS lymphoma).[4,5]

Prevalence and Burden: As of 2022, 13.2% of people with HIV (PWH) in the United States were **aged ≥65**, making this age group the **fastest-growing** segment of the HIV-positive population.[6] Among adults ≥50, HIV prevalence **increased 40%** (289,900 to 407,100) and incidence **increased 15%** (2,700 to 3,100) from 2015–2019.[7] A landmark Medicare study of 43,708 beneficiaries ≥65 with HIV found significantly higher odds of depression, CKD, COPD, osteoporosis, ASCVD, diabetes, chronic hepatitis, and cancer compared to age-matched beneficiaries without HIV.[13] **Polypharmacy is the rule**: median **13 daily medications** in PWH aged ≥60, only 4 of which are antiretrovirals.[8] In the 2025 **CHANGE-Rx cohort** (n=440, median age 69): 53.8% had polypharmacy, 49.3% had ≥1 potentially inappropriate medication per Beers criteria, 55.7% had high sedative burden, and 16.5% had high anticholinergic burden.[9] **Five drugs** account for **84.8% of all PIMs** in elderly PWH: (**1**) lorazepam 38.2%, (**2**) ibuprofen 18.0%, (**3**) diazepam 10.2%, (**4**) metoclopramide 9.9%, (**5**) zolpidem 8.5%.[8] The success of modern antiretroviral therapy in achieving durable viral suppression has transformed HIV from a fatal diagnosis into a manageable chronic condition: heart disease and cancer, **not** AIDS-defining illnesses, are now the leading causes of death in older PWH.[10]



HCC/RAF V28 Mapping

ICD-10 CODE(S)	HCC CATEGORY (V28)[12]	RAF (CNA)[13]	DOCUMENTATION REQUIREMENT[12]
B20 Human immunodeficiency virus (HIV) disease	**HCC 1** HIV/AIDS	0.301	**ANY** current or prior HIV-related illness or AIDS-defining condition; **PERMANENT** once assigned; **do not** revert to Z21 even with CD4 recovery or viral suppression; B20 must appear (primary or secondary) at every encounter for HCC 1 mapping[4]
Z21 (asymptomatic HIV infection status)	**HCC 1** HIV/AIDS	0.301	HIV-positive with **NO current or prior** HIV-related illness; chart review of prior encounters/problem list/discharge summaries required **before** Z21 assignment;[4] wrongly assigned Z21 (where B20 history exists) is a **coding compliance error**
F32.1, F32.2, F33.1, F33.2 (MDD moderate/severe)	**HCC 155** Major Depressive, Bipolar, and Paranoid Disorders	0.299	Formal diagnosis with severity documented; PHQ-9 score recorded; **~34% prevalence** in PWH (26% undiagnosed); not 'mood issues' or 'patient seems depressed'[14]
B18.1 (chronic HBV w/out delta agent), B18.2 (chronic HCV)	**HCC 65** Chronic Viral Hepatitis	0.185	Active coinfection documented and coded at every encounter; TAF/TDF/FTC/3TC have dual HBV activity: **discontinuation** can cause HBV flare[4]

ABBREVIATIONS: ICD-10 = International Classification of Diseases, 10th Revision; HCC = Hierarchical Condition Category; V28 = CMS-HCC Model Version 28; RAF = Risk Adjustment Factor; CNA = Community Non-Dual Eligible, Aged; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome; CD4 = CD4+ T-lymphocyte count; MDD = major depressive disorder; PHQ-9 = Patient Health Questionnaire-9; PWH = people with HIV; HBV = hepatitis B virus; HCV = hepatitis C virus; TAF = tenofovir alafenamide; TDF = tenofovir disoproxil fumarate; FTC = emtricitabine; 3TC = lamivudine; ACR = albumin-to-creatinine ratio; ART = antiretroviral therapy; ASCVD = atherosclerotic cardiovascular disease; CKD = chronic kidney disease; CMS = Centers for Medicare & Medicaid Services; eGFR = estimated glomerular filtration rate; MA = Medicare Advantage; PIM = potentially inappropriate medication

RAF values represent the Community Non-Dual Eligible Aged (CNA) coefficient from the 2026 CMS-HCC model; values vary across patient populations based on eligibility and care setting

Risk-Adjusted Care Resources per Patient/Year[11,12]

Risk-adjusted care resource allocation — MA base rate ($10,402.34) × RAF coefficient

HIV/AIDS	HIV/AIDS + HBV/HCV COINFECTION	HIV/AIDS + MDD/ BIPOLAR/PARANOID DISORDERS
$3.1K	**$5K+**	**$6.3K+**
HCC 1 · RAF 0.301	HCC 1 · HCC 65	HCC 1 · HCC 155

RAF values represent the Community Non-Dual Eligible Aged (CNA) coefficient from the 2026 CMS-HCC model; values vary across patient populations based on eligibility and care setting

AAVBC PERSPECTIVE

***From the AAVBC's perspective**, value-based care in HIV/AIDS should prioritize earlier detection, reduction of stigma-related diagnostic delays, and coordinated longitudinal management that reflects the growing population of **older adults** living with or newly diagnosed with HIV. New HIV diagnoses in adults >50 continue to rise, yet older patients are **frequently overlooked** because they do not fit historical risk stereotypes and are less likely to undergo routine sexual health discussions or screening. **AAVBC emphasizes** that primary care should normalize universal, sex-positive **sexual health history discussions** and routine HIV screening for sexually active patients rather than relying on perceived risk profiles or waiting for patients to request testing. Electronic health record reminders and standardized screening workflows can support earlier diagnosis and linkage to antiretroviral therapy care while reducing missed opportunities for intervention. The HIV treatment landscape has **fundamentally changed**, with most patients now managed effectively on simplified once-daily antiretroviral therapy in primary care settings; the greater challenge in older adults is management of drug-drug interactions, polypharmacy, comorbidities, and functional status. Integrated, **closed-loop pathways** linking primary care, infectious disease, pharmacy, behavioral health, and supportive services can improve viral suppression, reduce downstream hospitalization, and support healthy aging, while reinforcing that U=U and PrEP access apply **across all age groups**.*

2 RECOGNITION AND DIAGNOSIS

Medicare Part B Covered Screenings and Services for Suspected HIV

TEST/ SERVICE[3,4,15]	FREQUENCY[3,4,15]	CPT/ HCPCS	CLINICAL INDICATION[3–6,15,16]
HIV 4th-gen Ag/Ab combination screen†	Once for all adults; **annually** if high-risk; opt-out[17]	87389	Routine screening **for all adults**; risk-based annual screening; indicator-condition testing (STI, HBV/HCV, TB, herpes zoster, candidiasis)
HIV-1/HIV-2 antibody differentiation assay	**As needed** per algorithm	86703	**Confirmatory** after reactive initial Ag/Ab screen
HIV-1 RNA quantitative (viral load)[5]	Every **3–6 months**; less frequent when virally suppressed	87536	**Confirms diagnosis**; monitors ART response; HEDIS HVL measure target <200 copies/mL
CD4 count (flow cytometry)	**As needed**; less frequent when virally suppressed	86360, 88184–88185	Stages immune function; <200 cells/mm^3 defines AIDS; triggers **OI prophylaxis decisions**
HIV genotypic resistance testing	Baseline; **at virologic failure**	87900 87901	Guides ART selection; required **before** dolutegravir/3TC initiation
PrEP counseling: clinician 15–30 min†	As clinically indicated	G0011	**High-risk adults**: MSM, heterosexual with HIV+ partner, injection drug use, prior STI; covered without prior authorization
STI screen (syphilis, gonorrhea, chlamydia)†	**Annually** or as indicated	86592 87491 87591	All sexually active **PWH**; indicator-condition testing also identifies undiagnosed HIV
Annual Wellness Visit (initial, subsequent)§	**Annually**	G0438 G0439	Structured opportunity to document B20, comorbidities, medication review, depression screen, cognitive screen

TEST/ SERVICE[3,4,15]	FREQUENCY[3,4,15]	CPT/ HCPCS	CLINICAL INDICATION[3–6,15,16]

ABBREVIATIONS: HIV = human immunodeficiency virus; Ag/Ab = antigen/antibody; STI = sexually transmitted infection; HBV = hepatitis B virus; HCV = hepatitis C virus; TB = tuberculosis; CPT = Current Procedural Terminology; HCPCS = Healthcare Common Procedure Coding System; RNA = ribonucleic acid; ART = antiretroviral therapy; HEDIS = Healthcare Effectiveness Data and Information Set; HVL = HIV Viral Load (suppression) measure; CD4 = cluster of differentiation 4; AIDS = acquired immunodeficiency syndrome; OI = opportunistic infection; 3TC = lamivudine; PrEP = pre-exposure prophylaxis; MSM = men who have sex with men; PWH = people with HIV; AWV = Annual Wellness Visit; USPSTF = US Preventive Services Task Force; ACA = Affordable Care Act
† USPSTF Grade A: no beneficiary cost-sharing. HIV screening (87389), PrEP counseling (G0011), and STI screening for high-risk individuals are covered under Medicare Part B without copay, coinsurance, or deductible per ACA Section 4104
‡ Medicare Part B covered service. Injectable PrEP administration (G0012) is covered under Part B; the drug itself (cabotegravir/Apretude) may be covered under Part B as an incident-to-injectable or may require Part D coordination depending on the practice setting. Cost-sharing may apply
§ No beneficiary cost-sharing. The Annual Wellness Visit (G0438/G0439) is a Medicare Part B preventive benefit with no copay, coinsurance, or deductible

Subtle Early Signs in Older Adults

SIGN/SYMPTOM[2,4,6,15]	WHY IT MATTERS — SCREEN FOR HIV[2,4,6,15]
Unexplained weight loss, fatigue, or 'failure to thrive'	**Often misattributed** to aging or dementia; PWH presenting in older age have mean nadir CD4 132 vs 181 cells/µL; late stage at diagnosis; indicator-condition testing required
Recurrent or atypical infections (herpes zoster, oral or esophageal candidiasis, persistent diarrhea, unexplained lymphadenopathy)	**Any** of these in adults >50 is an indicator condition and triggers HIV testing per HIVMA/IDSA 2024[4]
New cognitive complaints, gait change, or 'memory issues'	HIV-associated neurocognitive disorder (HAND) spectrum is common in untreated or late-presenting older PWH; do not default to Alzheimer's workup **without HIV screen**[8,17]
New diagnosis of any STI (syphilis, gonorrhea, chlamydia, herpes)	Heterosexual transmission accounts for **29%** of new HIV diagnoses in adults >50 in a Canadian cohort[18] and 24% of new diagnoses in US women ≥50;[19] **STI** is the single strongest indicator condition
Unexplained cytopenias (anemia, thrombocytopenia, leukopenia)	Bone-marrow involvement in untreated HIV; also seen in **HCV/HBV coinfection**: full viral hepatitis and HIV serology indicated
Premature ASCVD, accelerated CKD, or osteoporotic fracture	PWH have **2× ASCVD risk**, faster CKD progression, and 4× higher hip fracture risk vs general population → **accelerated aging phenotype**[10,20]

ABBREVIATIONS: PWH = people with HIV; CD4 = cluster of differentiation 4; HIVMA = HIV Medicine Association; IDSA = Infectious Diseases Society of America; HAND = HIV-associated neurocognitive disorder; STI = sexually transmitted infection; HCV = hepatitis C virus; HBV = hepatitis B virus; ASCVD = atherosclerotic cardiovascular disease; CKD = chronic kidney disease

Geriatric Risk Factors

FACTOR[2,4,6,15]	RISK SIGNAL	CLINICAL NOTES[2,4,6,15]
Age ≥65 with HIV	Accelerated aging for PWH ≥65; **fastest-growing PWH demographic**[6]	**Geriatric 5Ms framework**: screen cognition (**Mind**), frailty/ falls (**Mobility**), polypharmacy and ARV interactions (**Medications**), accelerated multimorbidity (**Multicomplexity**), and patient-centered goals of care (**Matters Most**); ~78% have ≥1 abnormal domain
Polypharmacy ≥5 non-ARV medications	**65.9% prevalence** in PWH ≥60[8]	Median **13 daily meds**; only 4 are antiretrovirals;[8] trigger for full Beers/DDI review at **every visit**[8,21]
High sedative or anticholinergic burden	55.7% **sedative**, 16.5% **anticholinergic** burden in CHANGE-Rx cohort[9]	Anticholinergic OR 2.51 for **neurocognitive impairment**;[22,23] pathway through which polypharmacy drives frailty and cognitive decline[24]
Lorazepam, diazepam, zolpidem, ibuprofen, metoclopramide	These 5 drugs = 84.8% of all **PIMs** in elderly PWH[8]	Lorazepam alone = **38.2% of PIMs**; deprescribing benzodiazepines is the single highest-yield intervention[8]
Boosted PI (ritonavir or cobicistat) regimen	Strong **CYP3A4 inhibition**[4]	Midazolam/triazolam **contraindicated**; amplifies benzodiazepine, calcium channel blocker, DOAC, alpha-blocker, inhaled steroid exposure (iatrogenic Cushing)[25]
Boosted PI or rilpivirine with PPI	High-risk underrecognized DDI[4]	PPIs reduce atazanavir and rilpivirine absorption → **virologic failure risk**; document DDI review and consider H2 blocker with timing restriction[25]
Late presentation in adults >50	Mean nadir **CD4 132 vs 181** cells/μL[14]	More advanced immunosuppression at diagnosis; **IRIS risk** if rapid ART started in severely lymphopenic patient[23,24]

FACTOR[2,4,6,15]	RISK SIGNAL	CLINICAL NOTES[2,4,6,15]
Frailty or pre-frailty	**22.7% prevalence** in PWH ≥60[12]	Fried Frailty Phenotype or VACS Index validated; frailty screening at ≥50 every 1–5 years by result[8]

ABBREVIATIONS: PWH = people with HIV; 5Ms = Mind, Mobility, Medications, Multicomplexity, Matters Most; ARV = antiretroviral; DDI = drug–drug interaction; PIM = potentially inappropriate medication (Beers criteria); PI = protease inhibitor; CYP3A4 = cytochrome P450 3A4; DOAC = direct oral anticoagulant; PPI = proton pump inhibitor; CD4 = cluster of differentiation 4; ART = antiretroviral therapy; IRIS = immune reconstitution inflammatory syndrome; VACS = Veterans Aging Cohort Study; OR = odds ratio

Diagnostic Thresholds for HIV/AIDS

PARAMETER/MODALITY[2,5,6]	THRESHOLD[2,5,6]	CLINICAL INTERPRETATION[2,5,6]
HIV-1/2 Ag/Ab combination immunoassay (4th-gen)	**Reactive**	**Initial screening test**; detects p24 antigen **~14–20 days post-infection** and HIV-1/HIV-2 antibodies; sensitivity 99.8–100%; requires supplemental testing per CDC algorithm[26]
HIV-1/HIV-2 antibody differentiation assay	**Reactive** (HIV-1+ or HIV-2+)	Confirmatory step **after** reactive Ag/Ab screen; **differentiates** HIV-1 from HIV-2; if negative/indeterminate, proceed to HIV-1 RNA testing to evaluate for acute infection
HIV-1 RNA qualitative/quantitative (acute infection)	Detectable (typically **>100,000** copies/mL)	**Confirms acute HIV** when antibody differentiation is negative/indeterminate; low-positive results (**200** copies/mL) require **repeat on new specimen** to exclude false positive
CD4 count: Stage 1	**≥500** cells/mm^3	**CDC Stage 1**; intact immune function; OI prophylaxis generally not indicated
CD4 count: Stage 2	**200–499** cells/mm^3	**CDC Stage 2**; moderate immunosuppression; PCP prophylaxis indicated if CD4 100–200 and viremic
CD4 count: Stage 3 (AIDS-defining)	**200** cells/mm^3 or CD4% 14%	**Defines AIDS** (**Stage 3**) per CDC 2014 = permanent classification;[2] triggers PCP prophylaxis (TMP-SMX DS daily)
CD4: toxoplasma prophylaxis trigger	**50** cells/mm^3 (only if not on ART or viremic on ART)	Primary MAC prophylaxis **no longer recommended** if effective ART is initiated immediately; required only **for those not on ART**, viremic on ART, or without suppressive ART options
HIV genotypic resistance testing	**Baseline**; repeat at virologic failure	Required **before ART initiation** to detect transmitted resistance; guides regimen selection; must precede DTG/3TC initiation

PARAMETER/MODALITY[2,5,6]	THRESHOLD[2,5,6]	CLINICAL INTERPRETATION[2,5,6]

ABBREVIATIONS: HIV = human immunodeficiency virus; Ag/Ab = antigen/antibody; CDC = Centers for Disease Control and Prevention; RNA = ribonucleic acid; CD4 = cluster of differentiation 4; OI = opportunistic infection; PCP = Pneumocystis jirovecii pneumonia; ART = antiretroviral therapy; AIDS = acquired immunodeficiency syndrome; TMP-SMX DS = trimethoprim–sulfamethoxazole double strength; MAC = Mycobacterium avium complex; DTG/3TC = dolutegravir/lamivudine

Clues to Dig Deeper

CLINICAL CLUE[4,6,21]	WHY IT MATTERS[4,6,21]	NEXT DIAGNOSTIC STEP[4,6,21]
'HIV positive' or 'known HIV' in chart with no history details	Most common **B20 vs Z21 coding error**; cannot default to Z21 without chart review	Review prior encounters, problem list, discharge summaries for any HIV-related illness or AIDS-defining condition before coding
Patient on ART with undetectable VL but no B20/Z21 at the encounter	B20 must appear at every encounter (primary or secondary) for HCC 1	Add B20 (or Z21 if no prior illness) at every visit; document annually
Older patient on lorazepam/zolpidem/diazepam ≥3 months	High sedative burden; falls **OR 1.9**, frailty **OR 2.6**[9]	Beers review; begin benzodiazepine taper; substitute non-pharmacologic insomnia/anxiety management[6]
Patient on boosted PI (ritonavir, cobicistat) + PPI	PPIs reduce atazanavir/rilpivirine absorption → **virologic failure risk**	Document DDI review; switch to H2 blocker with timing restrictions, or change ART backbone away from atazanavir/rilpivirine
Adult with new STI, herpes zoster, or unexplained candidiasis	Indicator condition for HIV testing	Order 4th-gen HIV Ag/Ab combination (CPT 87389)
PWH age 40–75 with no statin	**REPRIEVE**: pitavastatin 4 mg reduced MACE 35% across all LDL levels[20]	Initiate pitavastatin 4 mg daily; preferred over other statins due to **minimal CYP3A4 metabolism**
Patient with HIV history and 'reduced GFR' or 'elevated creatinine'	Unstaged CKD is undercoded; CKD progresses faster in PWH[10]	Calculate eGFR; assign N18.31/N18.32 → **HCC 138** if stage 3; consider TDF→TAF switch
Patient stopped ART or TAF/TDF/FTC/3TC backbone in HBV coinfection	HBV flare risk: those drugs have **dual HBV activity**[6]	**Restart immediately**; check HBV DNA and LFTs; co-manage with hepatology

CLINICAL CLUE[4,6,21]	WHY IT MATTERS[4,6,21]	NEXT DIAGNOSTIC STEP[4,6,21]

ABBREVIATIONS: HIV = human immunodeficiency virus; B20 = HIV disease (ICD-10-CM code); Z21 = asymptomatic HIV infection status (ICD-10-CM code); ART = antiretroviral therapy; VL = viral load; HCC = Hierarchical Condition Category; MA = Medicare Advantage; OR = odds ratio; PI = protease inhibitor; PPI = proton pump inhibitor; DDI = drug–drug interaction; STI = sexually transmitted infection; Ag/Ab = antigen/antibody; CPT = Current Procedural Terminology; PWH = people with HIV; MACE = major adverse cardiovascular events; CYP3A4 = cytochrome P450 3A4; CKD = chronic kidney disease; eGFR = estimated glomerular filtration rate; GFR = glomerular filtration rate; TDF = tenofovir disoproxil fumarate; TAF = tenofovir alafenamide; FTC = emtricitabine; 3TC = lamivudine; HBV = hepatitis B virus; LFTs = liver function tests; DNA = deoxyribonucleic acid

Common Oversights

OVERSIGHT[4,6]	CLINICAL CONSEQUENCE[4,6]
Not screening for HIV in adults ≥50 because of perceived "low risk"	Older adults are significantly more likely to present with AIDS **at diagnosis**; delayed presentation leads to lower CD4 counts, higher morbidity, and **worse ART response**; ~50% of those diagnosed at age ≥55 had been living with HIV for **≥4.5 years** undiagnosed[27]
Attributing acute HIV symptoms (fever, fatigue, weight loss) to aging-related illness in older patients	Misses acute or early HIV infection; early signs mimic diseases of aging, creating a "**conspiracy of silence**" that delays diagnosis by years;[28] ~38% of new transmissions come from undiagnosed individuals[29]
Omitting genotypic resistance testing before initiating ART or DTG/3TC	Transmitted drug resistance **undetected**; DTG/3TC specifically requires confirmed genotypic sensitivity and negative HBV status **before** initiation; treatment failure risk if resistance mutations present
Continuing TDF in patients with CrCl 60 mL/min or osteoporosis	Accelerates **nephrotoxicity** and **BMD loss** (1–2% greater decline vs. non-TDF regimens);[4] TDF-associated renal tubular dysfunction more frequent in older patients and those with baseline renal insufficiency; switch to TAF indicated
Documenting 'depression' without severity or PHQ-9	**~34% prevalence** of depression in PWH; ungraded documentation prevents appropriate treatment escalation; HIVMA/IDSA recommends validated screening (PHQ-9) at least **annually**[4]
'Elevated creatinine' or 'reduced GFR' without CKD staging	CKD prevalence **4.7–9.7%** in PWH;[30] kidney disease progresses faster with HIV due to chronic inflammation, nephrotoxic ART, and comorbidities; unstaged CKD delays nephrology referral and **misses renoprotective interventions**

OVERSIGHT[4,6]	CLINICAL CONSEQUENCE[4,6]
Attributing dyspnea to deconditioning in PWH smoker	PWH have **2-fold higher** COPD incidence than seronegative counterparts (aHR **2.02**; 95% CI 1.75–2.33)[31] and earlier, more rapid lung function decline even after adjusting for smoking[32]
No statin initiated in PWH age 40–75	**REPRIEVE** demonstrated **35% MACE reduction** with pitavastatin 4 mg daily (**HR 0.65**; 95% CI 0.48–0.90; P=0.002);[20] ASCVD risk tools **underestimate risk** in PWH; cardiovascular disease a leading cause of death in older PWH
Failing to screen for or document HBV/HCV coinfection	Unrecognized HBV coinfection risks **fatal hepatic flare** if TAF/TDF/FTC backbone is changed or stopped;[4] HCV coinfection accelerates liver fibrosis and **increases HCC risk**; 2–4% of coinfected patients have false-negative HCV antibody results[4]

ABBREVIATIONS: HIV = human immunodeficiency virus; AIDS = acquired immunodeficiency syndrome; CD4 = cluster of differentiation 4; ART = antiretroviral therapy; DTG/3TC = dolutegravir/lamivudine; HBV = hepatitis B virus; TDF = tenofovir disoproxil fumarate; CrCl = creatinine clearance; BMD = bone mineral density; TAF = tenofovir alafenamide; PWH = people with HIV; PHQ-9 = Patient Health Questionnaire-9; HIVMA/IDSA = HIV Medicine Association/Infectious Diseases Society of America; GFR = glomerular filtration rate; CKD = chronic kidney disease; COPD = chronic obstructive pulmonary disease; aHR = adjusted hazard ratio; CI = confidence interval; MACE = major adverse cardiovascular events; HR = hazard ratio; ASCVD = atherosclerotic cardiovascular disease; FTC = emtricitabine; HCV = hepatitis C virus; HCC = hepatocellular carcinoma

Key Differentials in Elderly

CLINICAL PRESENTATION	DIFFERENTIAL[1,3,5,22]	KEY DISTINCTION[1,3,5,22]
Cognitive decline in older PWH	HIV-associated neurocognitive disorder (**HAND**); Alzheimer's; vascular dementia; anticholinergic toxicity	HAND inherent to **B20**; anticholinergic burden OR 2.51 = reverse with **Beers deprescribing**; document cognitive screen result[22]
Unexplained weight loss/failure to thrive	**HIV wasting** (inherent B20); occult malignancy; depression; thyroid; CHF	HIV wasting is AIDS-defining → B20 coded; **cancer** is the leading non-HIV cause of death in older PWH → broad workup[10]
New 'pneumonia' on imaging	**PCP**, bacterial CAP, TB, Kaposi sarcoma of lung	**Check CD4 first**; PCP if CD4 <200; CT and bronchoscopy for atypical presentation; **ALWAYS** test for HIV if not already known
Diffuse lymphadenopathy	Acute HIV **seroconversion**; lymphoma; TB; syphilis	4th-gen Ag/Ab can detect **acute HIV**; biopsy if persistent >4 weeks; primary CNS lymphoma codes C83.3x with B20

CLINICAL PRESENTATION	DIFFERENTIAL[1,3,5,22]	KEY DISTINCTION[1,3,5,22]
Falls or new gait disturbance	Polypharmacy (**Beers PIMs**); HAND; peripheral neuropathy from older NRTIs; sarcopenia; ASCVD/ stroke	Sedative **OR 1.9** for falls in CHANGE-Rx; review Beers list **FIRST** before further workup[9]
Cardiovascular event in patient <55 yr	**Premature ASCVD** in PWH; cocaine/methamphetamine; vasculitis[20]	PWH have ASCVD incidence **~1 decade earlier** than age-matched controls; **pitavastatin** indicated for ages 40–75[20]
New depression or anxiety in PWH	MDD; medication side effect (efavirenz, dolutegravir neuropsych); IRIS; substance use[14]	PHQ-9 **quarterly**; ~34% prevalence MDD in PWH; if on efavirenz consider regimen switch

ABBREVIATIONS: PWH = people with HIV; HIV = human immunodeficiency virus; HAND = HIV-associated neurocognitive disorder; B20 = HIV disease (ICD-10-CM code); OR = odds ratio; AIDS = acquired immunodeficiency syndrome; CHF = congestive heart failure; CD4 = cluster of differentiation 4; PCP = Pneumocystis jirovecii pneumonia; CAP = community-acquired pneumonia; TB = tuberculosis; CT = computed tomography; Ag/Ab = antigen/antibody; CNS = central nervous system; PIM = potentially inappropriate medication; NRTI = nucleoside reverse transcriptase inhibitor; ASCVD = atherosclerotic cardiovascular disease; IRIS = immune reconstitution inflammatory syndrome; MDD = major depressive disorder; PHQ-9 = Patient Health Questionnaire-9

Comorbidity Screening

DOMAIN[4,6]	RECOMMENDED SCREEN[4,6]	FREQUENCY/NOTES[4,6]
Cardiovascular	**Lipid panel**; ASCVD risk → consider pitavastatin[20,33]	**Annually**; pitavastatin 4 mg for age 40–75 (REPRIEVE) — preferred for minimal CYP3A4 DDI
Renal	eGFR + urine ACR	**Annually**; switch TDF→TAF for **CrCl <60**; stage CKD explicitly (N18.31/32)
Bone health	**DXA**: men ≥50, postmenopausal women	**Baseline**; **every 2 years** if treating osteoporosis; consider TAF/INSTI over TDF/boosted PI in high-risk
Mental health	**PHQ-9**, GAD-7	At minimum **annually**; Up to 34% MDD prevalence → document severity for **HCC 155** mapping[21]
Cognition	Mini-Cog or MoCA every 2 years if >60	**HAND** spectrum; reverse anticholinergic burden **first**[6]
Frailty	**Fried Frailty Phenotype** or VACS Index ≥50	Every **1–5 years** by result; 22.7% pre-frail/frail in PWH ≥60[12]
Cancer screen	Anal Pap (high-risk), CRC, breast, cervical, HCC **if HBV/ HCV**	Cancer is leading cause of death in older PWH → apply USPSTF/NCCN per biological age and risk

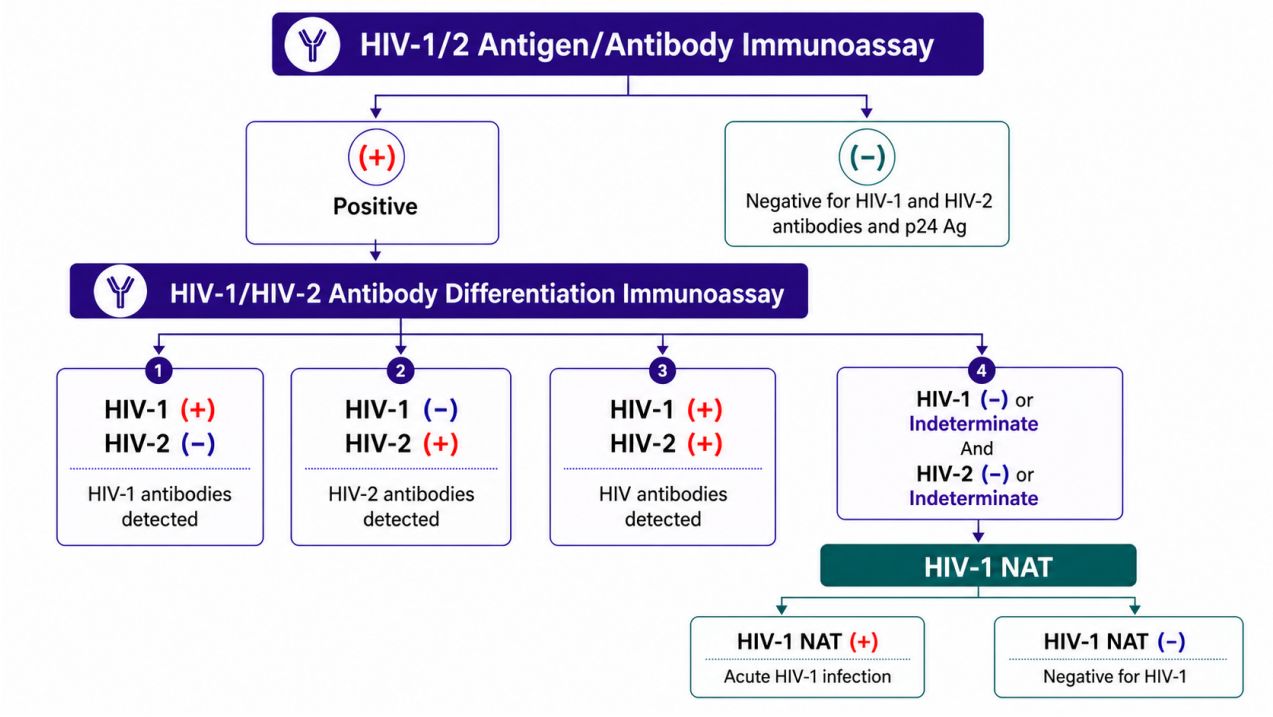
DOMAIN[4,6]	RECOMMENDED SCREEN[4,6]	FREQUENCY/NOTES[4,6]
STI/sexual health	Syphilis, GC, CT, **HBV**, **HCV**	At minimum **annually** if sexually active;[16] universal **sex-positive** history conversations; U=U messaging; PrEP for HIV-negative partners
Vaccinations	Influenza; PCV20/PCV21; RSV (≥60); shingles (RZV); HBV if non-immune	**Annual** influenza; Live vaccines (MMR, varicella) only if CD4 ≥200 for ≥6 months; HPV **through age 45** in patients with elevated risk

ABBREVIATIONS: ASCVD = atherosclerotic cardiovascular disease; CYP3A4 = cytochrome P450 3A4; DDI = drug–drug interaction; eGFR = estimated glomerular filtration rate; ACR = albumin-to-creatinine ratio; TDF = tenofovir disoproxil fumarate; TAF = tenofovir alafenamide; CrCl = creatinine clearance; CKD = chronic kidney disease; DXA = dual-energy X-ray absorptiometry; INSTI = integrase strand transfer inhibitor; PI = protease inhibitor; PHQ-9 = Patient Health Questionnaire-9; GAD-7 = Generalized Anxiety Disorder-7; MDD = major depressive disorder; HCC = Hierarchical Condition Category; MoCA = Montreal Cognitive Assessment; HAND = HIV-associated neurocognitive disorder; VACS = Veterans Aging Cohort Study; PWH = people with HIV; CRC = colorectal cancer; HBV = hepatitis B virus; HCV = hepatitis C virus; USPSTF = US Preventive Services Task Force; NCCN = National Comprehensive Cancer Network; STI = sexually transmitted infection; GC = Neisseria gonorrhoeae; CT = Chlamydia trachomatis; U=U = undetectable equals untransmittable; PrEP = pre-exposure prophylaxis; HIV = human immunodeficiency virus; PCV = pneumococcal conjugate vaccine; RSV = respiratory syncytial virus; RZV = recombinant zoster vaccine; MMR = measles, mumps, and rubella vaccine; CD4 = cluster of differentiation 4; HPV = human papillomavirus

HIV Diagnosis, Staging and Classification

Managing HIV in primary care begins with **accurate laboratory diagnosis**, followed by **disease staging** to guide treatment urgency, prophylaxis decisions, and ongoing monitoring.[2,4,5,15] The **CDC 2014 Laboratory Testing Algorithm** defines the standard **diagnostic pathway**:[34] initial screening with a 4th-generation HIV-1/HIV-2 Ag/Ab combination immunoassay, followed by supplemental antibody differentiation and, **when needed**, nucleic acid testing (NAT) to resolve discordant results or confirm acute infection. Once HIV infection is confirmed, **disease staging** is performed using the **CDC 2014 Revised Surveillance Case Definition**, which classifies infection into stages **0**, **1**, **2**, **3** (**AIDS**), or **Unknown** based on **CD4+ T-lymphocyte count** thresholds and the presence of stage 3-defining opportunistic illnesses.[2] In resource-limited settings where **CD4 testing is unavailable**, the **WHO Clinical Staging system** offers a clinical alternative, though with limited diagnostic accuracy (~61% sensitivity for advanced disease).[35,36] When acute/primary infection is suspected (e.g., mononucleosis-like illness within weeks of exposure), **Fiebig staging**, which tracks the sequential appearance of HIV RNA, p^{24} antigen, and antibody markers, can help characterize the phase of **early infection** and guide diagnostic interpretation.[37,38] **Older adults merit particular attention**, as over half are diagnosed at a late stage (**CD4 <350**), exhibit blunted immune recovery on ART, and face higher rates of frailty and polypharmacy.[7,9,10,18] The **U=U principle** (sustained viral load <200 copies/mL prevents sexual transmission) applies across **all stages and ages**.

CDC 2014 Revised HIV Laboratory Testing Algorithm



ABBREVIATIONS: HIV-1 = Human Immunodeficiency Virus-1; p24 Ag = p24 antigen; NAT = Nucleic Acid Test; (+) = positive test result; (-) = negative test result

CDC 2014 Revised HIV Infection Staging (Adults and Adolescents ≥13 years)

STAGE[2]	CD4 CRITERION[2]	CLINICAL FEATURES AND CODING[2]
Stage 0	Any CD4 value	**Negative HIV test** within 6 months before first confirmed positive; **reclassify** to stage 1–3 after 6 months from diagnosis
Stage 1	≥500 cells/mm^3 or CD4% ≥26	**No AIDS-defining illness**; code B20 if any prior history, otherwise Z21[3]
Stage 2	200–499 cells/mm^3 or CD4% 14–25	No AIDS-defining illness; immune compromise developing; intensify monitoring
Stage 3 (AIDS)	<200 cells/mm^3 or CD4% <14, OR any AIDS-defining illness regardless of CD4[2,3]	PERMANENT classification; B20 required permanently; PCP prophylaxis indicated; code AIDS-defining manifestation after B20

STAGE[2]	CD4 CRITERION[2]	CLINICAL FEATURES & CODING[2]
Stage Unknown	CD4 not available	Treat empirically per clinical presentation; obtain CD4 ASAP

ABBREVIATIONS: CD4 = CD4+ T-lymphocyte count; AIDS = acquired immunodeficiency syndrome; B20 = HIV disease (ICD-10-CM code); Z21 = asymptomatic HIV infection status (ICD-10-CM code); PCP = Pneumocystis jirovecii pneumonia; CDC = Centers for Disease Control and Prevention

WHO and Fiebig Staging Systems

FEATURE	WHO CLINICAL STAGING[36]	FIEBIG STAGING[37,38]
Stages	**4 (1-4)**	**6 (I-VI)**
Staging Basis	Clinical manifestations (**does not require CD4**)	Sequential appearance of laboratory markers (serological) during acute/primary infection
Key Features	**1**: asymptomatic/PGL **2**: mild symptoms (weight loss 10%, herpes zoster, recurrent URIs) **3**: advanced symptoms (weight loss >10%, chronic diarrhea, oral candidiasis, pulmonary TB) **4**: severe/AIDS-defining (PCP, KS, extrapulmonary TB, esophageal candidiasis, HIV wasting) Separate laboratory axis stratifies by CD4 or total lymphocyte count	Tracks **eclipse period** (initial ~5-10 days where no marker detectable) → **HIV RNA detection** → p24 Ag → ELISA seroconversion → Western blot → full antibody maturation; used to characterize timing of **acute/ early infection**
Primary Use	Global standard, especially **resource-limited settings** where CD4 testing may be unavailable	**Research settings**; acute HIV infection studies

ABBREVIATIONS: WHO = World Health Organization; CD4 = CD4+ T-lymphocyte count; PGL = persistent generalized lymphadenopathy; URI = upper respiratory infection; TB = tuberculosis; AIDS = acquired immunodeficiency syndrome; PCP = Pneumocystis jirovecii pneumonia; KS = Kaposi sarcoma; HIV = human immunodeficiency virus; RNA = ribonucleic acid; p24 Ag = p24 antigen; ELISA = enzyme-linked immunosorbent assay

⚠ RED FLAG — EMERGENCY/ACTIVATE CRISIS RESPONSE

These emergency conditions must be **immediately addressed** for patients with HIV:

- **IRIS with CNS involvement** (cryptococcal meningitis, TB meningitis, primary CNS lymphoma): fever, headache, focal neurologic deficit, seizure within weeks of starting ART, particularly with CD4 <50 at ART initiation
  - → **High-dose steroids** per IDSA OI guidelines;[5] do **NOT** stop ART in most cases; consult ID urgently
  - × delay in recognition can be **fatal**[39,40]
- **Severe IRIS with HLH features** = fever, cytopenias, hyperferritinemia, hepatosplenomegaly
  - → Requires prolonged immunosuppression; **urgent hematology/ID consultation**[40]
- **Acute PCP with hypoxia (SpO_2 <92%, A–a gradient widened)**
  - → Admit; high-dose TMP-SMX + adjunctive steroids if PaO_2 <70 or A–a gradient ≥35[5]
- **Anaphylaxis/severe hypersensitivity:** abacavir (HLA-B5701+), sulfonamides (TMP-SMX), dapsone (G6PD-deficient)
  - → Discontinue offending agent, support airway, **consider epinephrine**[5]

⚠ RED FLAG — EMERGENCY/ACTIVATE CRISIS RESPONSE

These urgent conditions require expedited evaluation and intervention:

- **New AIDS-defining illness diagnosis** (PCP, candidal esophagitis, Kaposi sarcoma)
  - → Admit or rapid ID consultation; initiate OI treatment, then ART per OI guidelines (typically within 2 weeks)[5]
- **Post-exposure prophylaxis (PEP)** within 72 hours of high-risk exposure
  - → Start 28-day BIC/TAF/FTC regimen **immediately**; efficacy declines sharply **after 72 hours**[6]
- **New HIV diagnosis with CD4 <100**
  - → Start **OI prophylaxis**; evaluate for active OI before or concurrent with ART; rapid ART initiation **within 7 days** when patient clinically ready[6]
- **Boosted PI + contraindicated co-medications** (midazolam, triazolam, simvastatin)
  - → Contraindicated combinations with life-threatening **toxicity risk**; review and switch **immediately**[25]
- **Suspected acute HIV (mononucleosis-like illness within 4 weeks of exposure)**
  - → Order HIV RNA (antibody may be negative **in Fiebig Stages I–II**); rapid linkage to care if positive[1]

3 MEAT DOCUMENTATION ESSENTIALS

When HIV documentation is vague or incomplete, it creates **real downstream problems**: missed comorbidity screening, undertreated age-related complications, and care plans that don't reflect the clinical complexity of managing a chronic, lifelong infection in an aging population.[4,8,28] The most frequent pitfalls include charting well-controlled HIV as "**history of**" rather than an active condition, omitting viral load and CD4 values that prove ongoing management, defaulting to **Z21** (asymptomatic status) when **B20** (HIV disease) is appropriate, and failing to document comorbidities that drive clinical decision-making at every encounter. **HCC 1** carries a RAF of 0.301 and remaps annually **only** when **B20** (or **Z21**) appears in the chart with supporting MEAT elements.[4] Every encounter for an older patient with HIV (HIV care or unrelated complaint) should generate documentation that proves the diagnosis is **active and reviewed**. The MEAT framework below ties each element into **appropriate clinical action**:

*A 76-year-old man with HIV (**B20**) diagnosed in 2006 and a history of PCP in 2008 presents for evaluation of shoulder pain. He has been on bictegravir/TAF/FTC for 4 years with a consistently **undetectable viral load** and CD4 of **612 cells/mm**^{3}, confirming durable immune reconstitution despite permanent Stage 3 (AIDS) classification. Comorbidities include CKD 3a (eGFR 52, trending from 55 over 12 months on TAF), ASCVD managed with **pitavastatin 4 mg** daily per REPRIEVE, and mild depression (PHQ-9 = 6, stable). Lorazepam was **discontinued 6 months ago** following Beers criteria review. ECOG 0; last Fried frailty assessment 2 years ago was robust.*

MONITOR: "**B20** (HIV): VL undetectable on BIC/TAF/FTC, well-controlled. CD4 **612 cells/mm**^{3}. Last PHQ-9 = 6 (mild). CKD 3a: eGFR 52, coded **N18.31**. Lipid panel **within goal** on pitavastatin 4 mg. Weight stable at 81 kg. Baseline CTCAE: neuropathy 0, fatigue 0."

EVALUATE: "Last VL 3 months ago: undetectable. Renal function trending (eGFR 55 → 52 over 12 months),, on TAF, no TDF exposure. PHQ-9 = 6 (mild, stable). No frailty screen due **this cycle** (last Fried assessment 2 years ago: robust). Cognition: no concerns, next formal screen due age 78 per IAS-USA recommendation (every 2 years if >60)."

ASSESS: "HIV Stage 3 (AIDS) = **permanent classification** per CDC 2014 (prior PCP 2008). Currently immunologically reconstituted (**CD4 612**). Comorbidities: CKD 3a (N18.31): monitor for progression on TAF; ASCVD, pitavastatin 4 mg per REPRIEVE; depression= mild, stable, no medication indicated. Beers review: lorazepam discontinued 6 months ago. No active OI prophylaxis indicated (CD4 >200). Drug-drug interactions reviewed, no contraindications. Vaccinations current."

TREAT: "Continue BIC/TAF/FTC, no indication to switch. Continue **generic pitavastatin 4 mg** daily (REPRIEVE indication, age 40–75). Shoulder pain → orthopedic referral placed. **Plan**: repeat VL and BMP in **6 months**; annual eGFR + urine ACR; annual lipid panel; PHQ-9 at next visit; Fried frailty assessment **due next year**. No PrEP counseling needed for partner (**U=U confirmed**; VL undetectable >2 years).

Clinical Documentation Elements

- **Code B20 vs Z21 explicitly at every encounter:** B20 is **permanent once assigned**; Z21 only after chart review for any prior HIV-related illness is negative[4]

- **Document the causal link for manifestations:** 'Kaposi sarcoma **due to** HIV/AIDS' or 'esophageal candidiasis **secondary to** AIDS'; without this language, the manifestation may be coded independently and **B20 missed**[4]
- **Comorbidity sweep at every encounter:** Depression (**HCC 155**), CKD stage (**HCC 136–138**), ASCVD (**HCC 84**), COPD (**HCC 111**), HBV/HCV (**HCC 27**); all must be coded **at each visit** when active[8]
- **Document the ART regimen by name and class:** 'Bictegravir/TAF/FTC (Biktarvy) daily: **INSTI-based**, unboosted' = supports clinical clarity, DDI reasoning, and medication reconciliation (**HEDIS C17 MRP**)[5]
- **Document polypharmacy review and Beers deprescribing:** List the **PIMs reviewed** and the action taken (continued/tapered/discontinued/substituted) = high-value VBC intervention[8]
- **Document frailty and 5Ms each annual:** Mind, Mobility, Multimorbidity, Medications, Matters Most to Me → frame the older PWH clinical plan **around** these dimensions[8]

Reframing Common Documentation Shortcuts

INSTEAD OF…	DOCUMENT…[4,8,14,20]
'HIV positive'	'**B20** — HIV disease; prior history of PCP 2008; currently on bictegravir/TAF/FTC, VL undetectable, CD4 612 — chronic, controlled, ART continued'
'HIV well-controlled: Z21'	Only after chart review confirms **NO prior HIV-related illness**; otherwise code “B20 - HIV disease [± prior HIV-related illnesse(s)]’
'Depression: F32.9'	'**F32.1** — Major depressive disorder, moderate. PHQ-9 = 14 today. Plan: initiate sertraline; co-management with behavioral health.'
'Reduced GFR'	'**N18.31**: CKD stage 3a (eGFR 52). Likely multifactorial: **HIV-associated nephropathy** plus TDF exposure. Plan: switch TDF→TAF; recheck eGFR in 3 months.’
'On statin'	'Pitavastatin 4 mg daily per REPRIEVE; preferred over atorvastatin given boosted PI regimen; minimal CYP3A4 metabolism, lowest DDI burden'
'Multiple medications'	'**13 daily medications** including ART × 1 tablet; Beers reviewed today: lorazepam tapered (was 1 mg HS); zolpidem discontinued; no current PIM use'
'Patient doing well'	'Stage 3 (AIDS, B20 permanent); VL undetectable for 8 years on BIC/TAF/FTC. CD4 612. Active comorbidities: F33.1 (recurrent MDD, moderate); N18.31 (CKD 3a); I25.10 (ASCVD); B18.2 (chronic HCV). All coded today.'

INSTEAD OF…	DOCUMENT…[4,8,14,20]

ABBREVIATIONS: PCP = Pneumocystis jirovecii pneumonia; TAF = tenofovir alafenamide; FTC = emtricitabine; VL = viral load; CD4 = CD4+ T-lymphocyte count; ART = antiretroviral therapy; PHQ-9 = Patient Health Questionnaire-9; eGFR = estimated glomerular filtration rate; CKD = chronic kidney disease; TDF = tenofovir disoproxil fumarate; PI = protease inhibitor; CYP3A4 = cytochrome P450 3A4; DDI = drug–drug interaction; PIM = potentially inappropriate medication; BIC = bictegravir; MDD = major depressive disorder; ASCVD = atherosclerotic cardiovascular disease; HCV = hepatitis C virus; HIV = human immunodeficiency virus; B20 = HIV disease (ICD-10-CM code); Z21 = asymptomatic HIV infection status (ICD-10-CM code)

DOCUMENTATION IS COMPREHENSIVE CODING

*Each line of documentation corresponds to clinical work the team is **actually doing** and captures the **clinical complexity** of older adults living with a managed, chronic disease. Every HIV encounter should document B20 with supporting MEAT elements, name each active comorbidity with its specific code (CKD 3b **N18.32**, depression **F32.1**, COPD **J44.1**, ASCVD **I25.10**, etc.), record current ART regimen with viral load and CD4, describe the active management plan (adherence, drug-drug interaction review, Beers reconciliation, OI prophylaxis status), and list age-related screening actions (frailty assessment, DXA, cognition, cancer screening). In HIV care, the RAF differential is **not B20 versus Z21**: both map to **HCC 1** at 0.301. The differential is realized through the comorbidity awareness and consistent documentation practice: a virally suppressed 70-year-old (**B20 rather than Z21**) with accurately coded CKD 3b (HCC 138), depression (HCC 155), and COPD (HCC 111) more accurately reflects the clinical reality of **accelerated aging with HIV**.*[8]

4 TREATMENT AND REFERRAL QUICK GUIDE

First-line HIV treatment is **INSTI-based** single-tablet regimens; ART should be initiated **within 7 days** of diagnosis (same-day when patient is ready).[6] The preferred second-generation INSTIs bictegravir (BIC) and dolutegravir (DTG) are **unboosted**, meaning they do **not** require a pharmacokinetic enhancer (ritonavir or cobicistat) to achieve therapeutic levels. **This is clinically significant**: boosted protease inhibitors and the older INSTI elvitegravir (which requires cobicistat) inhibit CYP3A4, **creating substantial drug-drug interaction risk** with statins, anticoagulants, antihypertensives, and other medications **common in older adults**. Patients on boosted PI regimens can be **switched to** BIC/TAF/FTC or DTG-based regimens while maintaining virologic suppression, provided there is no INSTI resistance history. For older PWH, the VBC priorities are **pharmacologic simplification** (unboosted INSTI to minimize DDI), Beers-criteria **deprescribing**, **statin initiation** per REPRIEVE,[20] comorbidity sweeping, and the **Geriatric 5Ms** framework.[4,20]

Therapy Escalation Criteria

TRIGGER	ACTION
New HIV diagnosis	Rapid ART initiation **within 7 days**; same-day start when patient ready; baseline genotype, HBV/HCV serology, CD4, VL, CMP, lipid panel, STI screen[6]
Virologic failure (VL >200 copies/mL × 2)	Adherence assessment **FIRST**; if confirmed failure, obtain genotype, optimize regimen per resistance; consult ID[6]
VL persistently <200 copies/mL ≥2 years on INSTI	**Continue regimen**; consider switch to long-acting CAB/RPV if **adherence-challenged**; consider DTG/3TC two-drug simplification if eligible[6]
CD4 <200 cells/mm^3	**PCP prophylaxis** (TMP-SMX DS daily); add toxoplasma if IgG+ and CD4 <100; MAC if CD4 <50; discontinue PCP ppx when **CD4 >200** × 3 months on ART[5]
TDF + CrCl <60 or osteoporosis or boosted PI use	Switch backbone to TAF/FTC; monitor eGFR and ACR; document CKD stage if N18 applicable[4]
Age 40–75 with HIV and no statin	Initiate **pitavastatin** 4 mg daily (**REPRIEVE**; HR 0.65 for MACE; minimal CYP3A4 metabolism)[20,33]
PHQ-9 ≥10	Diagnose and code **MDD** (F32.1 moderate/F32.2 severe); initiate SSRI; refer behavioral health; reassess at 4–6 weeks[14]
≥5 non-ARV medications	Trigger **Beers/DDI review**;[21] identify benzodiazepines, NSAIDs, PPIs (in atazanavir/rilpivirine users), anticholinergics; create **taper plan**[8,9]
Pre-frailty or frailty identified	Refer geriatrics, physical therapy; review medications; address mobility, nutrition, social supports under **5Ms**[8,12]

ABBREVIATIONS: ACR = albumin-to-creatinine ratio; ART = antiretroviral therapy; ARV = antiretroviral; CAB = cabotegravir; CMP = comprehensive metabolic panel; CrCl = creatinine clearance; CYP3A4 = cytochrome P450 3A4; DDI = drug-drug interaction; DTG = dolutegravir; eGFR = estimated glomerular filtration rate; FTC = emtricitabine; HBV = hepatitis B virus; HCV = hepatitis C virus; ID = infectious disease; INSTI = integrase strand transfer inhibitor; MAC = Mycobacterium avium complex; MACE = major adverse cardiovascular events; MDD = major depressive disorder; NSAID = nonsteroidal anti-inflammatory drug; PCP = Pneumocystis jirovecii pneumonia; PHQ-9 = Patient Health Questionnaire-9; PI = protease inhibitor; PPI = proton pump inhibitor; PWH = people with HIV; RPV = rilpivirine; SSRI = selective serotonin reuptake inhibitor; STI = sexually transmitted infection; TAF = tenofovir alafenamide; TDF = tenofovir disoproxil fumarate; TMP-SMX = trimethoprim-sulfamethoxazole; VL = viral load

Antiretroviral Treatment Pathway (per DHHS 2024 and IAS-USA 2024 Guidelines)

REGIMEN[6]*	DOSING[6]*	KEY CONSIDERATIONS FOR PATIENTS ≥65[3,4,6,25]*
Recommended Initial Regimens (DHHS/IAS-USA AIa)[3,6]		
bictegravir/TAF/FTC (Biktarvy)	1 tab daily	**Preferred for rapid start**; avoid if CrCl <30; lowest PDDI burden **in elderly cohorts**; TAF safer for renal/bone than TDF
dolutegravir + TAF/FTC (or TDF/FTC)	DTG 50 mg + 1 NRTI tab daily	TAF backbone preferred; if TDF used, monitor eGFR/ACR every 6 months;[4] switch TDF→TAF for CrCl <60 **or** osteoporosis
dolutegravir/3TC (Dovato)	1 tab daily	Two-drug simplification; do **NOT** use if HIV **RNA >500,000**, HBV coinfection, or before genotype/HBV results; **not for rapid start**
Other Regimens for Certain Clinical Scenarios		
Long-acting CAB/RPV (Cabenuva)	IM every 1 or 2 months after lead-in	For virally suppressed adherence-challenged patients; **avoids daily oral burden**; not first-line for treatment-naive
DTG/RPV (Juluca)	1 tab daily	Oral two-drug switch; tenofovir-sparing (benefits CKD/osteoporosis); PPIs contraindicated; not for HBV coinfection; requires prior viral suppression ≥6 mo
Resistance/Salvage Scenarios		
Boosted PI (DRV/r or DRV/c) + 2 NRTIs	Variable per backbone	**HIGH DDI risk** via CYP3A4 inhibition; midazolam/triazolam contraindicated; iatrogenic Cushing risk with inhaled steroids; reserve for resistance scenarios

REGIMEN[6]*	DOSING[6]*	KEY CONSIDERATIONS FOR PATIENTS ≥65*[3,4,6,25]
lenacapavir (Sunlenca) + OBR	SQ q6mo (after oral loading)	**First-in-class capsid inhibitor**; heavily treatment-experienced with MDR HIV-1 only; 82% VL 50 at wk 104 (CAPELLA); novel MOA with no cross-resistance to other classes
Regimens with Specific Limitations		
rilpivirine-containing oral regimens (RPV/TAF/FTC)	Daily oral or LA IM	**PPIs contraindicated**; food required with oral; H2 blockers timed; suboptimal if VL >100,000 or CD4 <200

ABBREVIATIONS: ART = antiretroviral therapy; HBV = hepatitis B virus; HCV = hepatitis C virus; CD4 = CD4+ T-lymphocyte count; VL = viral load; CMP = comprehensive metabolic panel; STI = sexually transmitted infection; ID = infectious disease; INSTI = integrase strand transfer inhibitor; CAB = cabotegravir; RPV = rilpivirine; DTG = dolutegravir; 3TC = lamivudine; PCP = Pneumocystis jirovecii pneumonia; TMP-SMX DS = trimethoprim-sulfamethoxazole double strength; IgG = immunoglobulin G; MAC = Mycobacterium avium complex; TDF = tenofovir disoproxil fumarate; CrCl = creatinine clearance; PI = protease inhibitor; TAF = tenofovir alafenamide; FTC = emtricitabine; eGFR = estimated glomerular filtration rate; ACR = albumin-to-creatinine ratio; CKD = chronic kidney disease; MACE = major adverse cardiovascular events; CYP3A4 = cytochrome P450 3A4; HR = hazard ratio; PHQ-9 = Patient Health Questionnaire-9; MDD = major depressive disorder; SSRI = selective serotonin reuptake inhibitor; ARV = antiretroviral; DDI = drug–drug interaction; NSAID = nonsteroidal anti-inflammatory drug; PPI = proton pump inhibitor; 5Ms = Mind, Mobility, Medications, Multicomplexity, Matters Most

***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

Non-Pharmacologic Care and Supportive Interventions

DOMAIN	INTERVENTION[3,4,17]	VBC RATIONALE[3,4,17]
Falls prevention	Annual fall risk screen; **PT referral**; vitamin D; home safety	**22.7%** pre-frail/frail in PWH ≥60; falls drive fractures, hospitalization, and functional decline → PT and deprescribing sedatives (OR 1.9 for falls) are **highest-yield** preventive interventions[9]
Sexual health and U=U	Universal **sex-positive history conversation**; PrEP for HIV-negative partner; STI screen annually[16]	**Normalizes care**; reduces transmission; addresses underrecognized older-adult sexual health[18]

DOMAIN	INTERVENTION[3,4,17]	VBC RATIONALE[3,4,17]
Nutrition and weight	Annual **MNA**; **high-protein diet** (≥1.0–1.2 g/kg/day, increasing to 1.2–1.5 g/kg/day if frail or acutely ill); Mediterranean diet; address **INSTI-related weight gain**; structured exercise referral	PWH develop sarcopenia and frailty **earlier** than age-matched peers (~11% frail, ~47% pre-frail in PWH >50); nutritional optimization, **particularly adequate protein**, increases efficacy of exercise interventions for **frailty reversal**; Mediterranean diet associated with lower incident frailty and sarcopenia; **ASCVD risk reduction**; supports REPRIEVE benefit[20]
Smoking cessation	Behavioral counseling + pharmacotherapy	Higher smoking prevalence in PWH → COPD, lung cancer, ASCVD **risk reduction**[10]
Social and mental support	Screen for isolation, stigma, food insecurity; refer **Ryan White** case management	Late presenters and older PWH carry **stigma burden**; isolation predicts non-adherence
Advance care planning	Document goals of care; healthcare proxy; advance directives	Aligns care with patient values; reduces surrogate distress; satisfies **HEDIS COA** and **MIPS** Quality **#47**; supports **5Ms 'Matters Most'**

ABBREVIATIONS: PT = physical therapy; PWH = people with HIV; OR = odds ratio; U=U = Undetectable equals Untransmittable; PrEP = pre-exposure prophylaxis; STI = sexually transmitted infection; MNA = Mini Nutritional Assessment; INSTI = integrase strand transfer inhibitor; ASCVD = atherosclerotic cardiovascular disease; COPD = chronic obstructive pulmonary disease; HEDIS = Healthcare Effectiveness Data and Information Set; COA = Care for Older Adults (HEDIS measure); MIPS = Merit-based Incentive Payment System; 5Ms = Mind, Mobility, Medications, Multicomplexity, Matters Most; VBC = value-based care

Medication Safety and Key Interactions

DRUG/CLASS	INTERACTION/TOXICITY*	CLINICAL ACTION[3,4,6,21]*
Midazolam, triazolam	Contraindicated with boosted PI/cobicistat (**strong CYP3A4 inhibitor**)[25]	**Substitute lorazepam** (limited; still Beers) or non-pharmacologic; **never co-prescribe**
Lorazepam, diazepam, zolpidem	**Beers PIM**; sedative OR 1.9 falls; cognitive impairment[8,9]	**Taper and discontinue**; substitute CBT-I, melatonin, SSRI; document Beers review at each visit

DRUG/CLASS	INTERACTION/TOXICITY*	CLINICAL ACTION*[3,4,6,21]
Ibuprofen, NSAIDs	**Beers PIM**; second most common PIM in elderly PWH (18%)[8]	Use **acetaminophen**; topical NSAID if needed; avoid in CKD
Atorvastatin, simvastatin, lovastatin	CYP3A4 boosted PI raises levels → **rhabdomyolysis risk**; simvastatin contraindicated[25]	Switch to **pitavastatin 4 mg** (minimal CYP3A4 metabolism; REPRIEVE-supported)[20]
Proton pump inhibitors	Reduce atazanavir and rilpivirine absorption → **virologic failure**[25]	**Avoid with ATV or RPV**; use H2 blocker with timing restrictions; or **switch ART backbone**
Inhaled/nasal fluticasone, budesonide	Boosted PI raises systemic exposure → **iatrogenic Cushing syndrome**, adrenal insufficiency[25]	**Substitute beclomethasone or mometasone** (lower systemic absorption); monitor for Cushing if continued
Direct oral anticoagulants (DOACs)	Boosted PI raises rivaroxaban, apixaban levels → **bleeding risk**[25]	Use **INSTI-based unboosted regimen**; or use warfarin with INR monitoring; consult HIV pharmacist
TDF (older NRTI backbone)	CKD progression; bone loss; especially with boosted PI[4]	**Switch to TAF** for CrCl <60, osteoporosis, advanced age; monitor eGFR/ACR every 6 months
Metformin + dolutegravir	DTG raises metformin levels[6]	Limit metformin to **≤1000 mg/day** or monitor renal function and lactic acid
Live vaccines (MMR, varicella, yellow fever)	Risk of **vaccine-strain disease** with CD4 <200[4]	**Defer until CD4 ≥200 × 6 months**; otherwise use inactivated alternatives

ABBREVIATIONS: PI = protease inhibitor; CYP3A4 = cytochrome P450 3A4; PIM = potentially inappropriate medication (Beers criteria); OR = odds ratio; CBT-I = cognitive behavioral therapy for insomnia; SSRI = selective serotonin reuptake inhibitor; NSAID = nonsteroidal anti-inflammatory drug; PWH = people with HIV; CKD = chronic kidney disease; MACE = major adverse cardiovascular events; ATV = atazanavir; RPV = rilpivirine; ART = antiretroviral therapy; DOAC = direct oral anticoagulant; INSTI = integrase strand transfer inhibitor; INR = international normalized ratio; TDF = tenofovir disoproxil fumarate; NRTI = nucleoside reverse transcriptase inhibitor; TAF = tenofovir alafenamide; CrCl = creatinine clearance; eGFR = estimated glomerular filtration rate; ACR = albumin-to-creatinine ratio; DTG = dolutegravir; CD4 = CD4+ T-lymphocyte count; MMR = measles-mumps-rubella

***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

When to Refer

CRITERION	SPECIALIST[4–6,22]	URGENCY[4–6,22]
New HIV diagnosis or treatment-naive patient	HIV/ID specialist (or co-management with HIV-experienced primary care)	**URGENT** (within 7 days): baseline resistance genotype, HBV/HCV/STI screen, OI risk assessment; **rapid ART initiation same-day when ready**
Virologic failure or suspected resistance	HIV/ID specialist + HIV pharmacist	**EXPEDITED** (1–2 weeks): genotype/phenotype interpretation; salvage regimen design; adherence assessment
AIDS-defining illness diagnosis	HIV/ID specialist; subspecialist per OI (pulmonary, oncology, neurology)	**URGENT** (same week): initiate OI-specific treatment first; ART timing per OI type (typically within 2 weeks, **except cryptococcal meningitis** = defer 4–6 weeks)
Polypharmacy + ART DDI complexity	HIV pharmacist; clinical pharmacist[25]	**ROUTINE** (2–4 weeks): Beers/DDI reconciliation; deprescribing plan; statin selection; CYP3A4 interaction audit
Pre-frailty or frailty	Geriatrics + physical therapy	**ROUTINE** (2–4 weeks) if stable; **EXPEDITED** (1 week) if recent fall, hospitalization, or functional decline
Cognitive impairment/ suspected HAND	Neuropsychology or HIV-experienced neurology	**EXPEDITED** (1–2 weeks): formal neurocognitive testing; **differentiate HAND** from Alzheimer/vascular dementia/anticholinergic toxicity; MRI brain
HBV or HCV coinfection	Hepatology	**ROUTINE** (2–4 weeks): DAA selection for HCV; HCC surveillance q6mo if cirrhotic; ensure ART backbone includes HBV-active agents (TAF/FTC or TDF/FTC), **do NOT** discontinue without hepatology input
Pregnancy or pre-conception in PWH	HIV/ID + maternal-fetal medicine	**URGENT** (within 1 week of confirmed pregnancy): regimen optimization for perinatal transmission prevention; avoid DTG **in first trimester** if alternatives exist; coordinate delivery planning
Behavioral health needs (depression, substance use)	Psychiatry/behavioral health[14]	**ROUTINE** (2–4 weeks) **if stable**; **URGENT** (same week) **if active suicidality**, severe SUD, or non-adherence threatening virologic control

ABBREVIATIONS: HIV = human immunodeficiency virus; ID = infectious disease; HBV = hepatitis B virus; HCV = hepatitis C virus; STI = sexually transmitted infection; OI = opportunistic infection; ART = antiretroviral therapy; DDI = drug–drug interaction; CYP3A4 = cytochrome P450 3A4; HAND = HIV-associated neurocognitive disorder; MRI = magnetic resonance imaging; DAA = direct-acting antiviral; HCC = hepatocellular carcinoma; TAF = tenofovir alafenamide; FTC = emtricitabine; TDF = tenofovir disoproxil fumarate; PWH = people with HIV; DTG = dolutegravir; SUD = substance use disorder

Follow-Up Timing

STAGE/ CATEGORY	FREQUENCY*[4–6,17]	LABS/ASSESSMENTS TO MONITOR[4–6,17]
Newly diagnosed/ starting ART	Every **2–4 weeks** until tolerating ART; then months **1**, **3**, **6**; then transition to stable schedule	VL, CD4, CMP, lipid panel, urine ACR at 1 and 3 months; PHQ-9; **STI re-screen**
Stable on ART, virally suppressed	Every **3–6 months**; extend to every **6–12 months** after ≥2 years sustained suppression if clinically stable	VL every 3–6 mo (yearly after ≥2 yr suppression); CD4 per need; annual CMP, lipid, eGFR, ACR, PHQ-9
CD4 <200 on ART	Every **2–4 weeks** until VL 200 and CD4 trending upward; then **monthly** until CD4 ≥200 × 6 months	**OI prophylaxis active**; CD4 monthly; VL monthly until <200 copies/mL
Long-acting CAB/RPV	Every **1 or 2 months** per injection schedule; no visit gaps: missed window **requires oral bridging**	VL at each visit; weight; **injection site assessment**
Age ≥65 (any HIV status)	Every **3–4 months** if CFS/frailty concerns or polypharmacy; every **6 months** if stable and suppressed ≥2 yr	Frailty 1–5 yr by result; cognition every 2 yr; DXA every 2 yr if treating; comprehensive med review **every visit**; annual PHQ-9
After PEP exposure	**Day 0** (baseline), **4–6 weeks**, **12 weeks**; additional visit at **24 weeks** if HCV exposure concern	HIV Ag/Ab at **each visit**; complete 28-day course; **STI screen** at baseline and 12 weeks
PrEP user	Every **3 months** (**no exceptions** = required for prescription renewal)	HIV Ag/Ab + RNA; **STI screen**; renal function if TDF/FTC; pregnancy as applicable

ABBREVIATIONS: ART = antiretroviral therapy; VL = viral load; CD4 = CD4+ T-lymphocyte count; CMP = comprehensive metabolic panel; ACR = albumin-to-creatinine ratio; PHQ-9 = Patient Health Questionnaire-9; STI = sexually transmitted infection; eGFR = estimated glomerular filtration rate; OI = opportunistic infection; CAB = cabotegravir; RPV = rilpivirine; CFS = Clinical Frailty Scale; DXA = dual-energy X-ray absorptiometry; PEP = post-exposure prophylaxis; HCV = hepatitis C virus; Ag/Ab = antigen/antibody; PrEP = pre-exposure prophylaxis; RNA = ribonucleic acid; TDF = tenofovir disoproxil fumarate; FTC = emtricitabine

***Monitoring intervals are suggested benchmarks; clinical judgment, local guidelines, and individual patient factors should guide actual scheduling**

Comorbidity Management — Primary Care Role

COMORBIDITY	VBC APPROACH[4,8,9,14,20,33]	CAUTION[4,8,9,14,20,33]
Depression/ MDD (F32.x/ F33.x)	**PHQ-9 annually**; initiate sertraline or escitalopram (generic); integrated behavioral health referral; C-SSRS if PHQ-9 Item 9 positive	**34% prevalence** in PWH; **26% undiagnosed**; untreated depression doubles ART nonadherence risk[14]
CKD (N18.x)	**Annual eGFR + urine ACR**; stage explicitly (N18.31/32/4); switch TDF→TAF if CrCl 60; nephrology referral stage 4+	**Faster CKD progression** in PWH; TDF + boosted PI accelerates renal/bone loss; code to specific stage for HCC capture
ASCVD	**Pitavastatin 4 mg** ages 40–75 per REPRIEVE;[20] BP target 130/80; 10-year ASCVD risk assessment	**Leading cause of death** in older PWH; 35% MACE reduction with pitavastatin; standard calculators underestimate HIV-specific risk
COPD (J44.x)	Spirometry-confirmed diagnosis; **smoking cessation**; inhaler optimization; avoid inhaled fluticasone with boosted PI	**Underdiagnosed** despite higher smoking rates; fluticasone + ritonavir/cobicistat → **iatrogenic Cushing**; substitute beclomethasone
HBV/HCV coinfection (B18.1/ B18.2)	Maintain TAF/TDF + FTC/3TC backbone (dual HBV activity); **cure HCV with DAA** per AASLD-IDSA;[41] HCC surveillance q6mo if cirrhotic	Stopping HBV-active backbone → **flare risk** with potential decompensation; ensure HBV-active ART **before** starting HCV DAA
Osteoporosis (M80.x/M81.x)	**DXA** for men ≥50 and postmenopausal women; calcium/vitamin D; **bisphosphonate** if T-score ≤−2.5; switch TDF→TAF	Fractures occur **~10 years earlier** in PWH;[42] TDF + boosted PI causes greatest **BMD loss**; exclude tenofovir-induced phosphate wasting
Diabetes (E11.x/E13.x)	**Fasting glucose + HbA1c** at ART initiation; HbA1c q6mo if diabetic; limit metformin to **≤1000 mg/day** if on DTG	INSTI-associated weight gain **accelerates dysglycemia**; HbA1c may **underestimate glycemia** on ART; code complications specifically
Anxiety/ insomnia	**CBT-I first-line** for insomnia; SSRI for GAD; taper and discontinue benzodiazepines and Z-drugs (Beers PIMs)	Benzodiazepines are the **most common PIM** in elderly PWH; sedative use nearly **doubles fall risk**

COMORBIDITY	VBC APPROACH[4,8,9,14,20,33]	CAUTION[4,8,9,14,20,33]

ABBREVIATIONS: MDD = major depressive disorder; PHQ-9 = Patient Health Questionnaire-9; C-SSRS = Columbia Suicide Severity Rating Scale; ART = antiretroviral therapy; PWH = people with HIV; CKD = chronic kidney disease; eGFR = estimated glomerular filtration rate; ACR = albumin-to-creatinine ratio; TDF = tenofovir disoproxil fumarate; TAF = tenofovir alafenamide; CrCl = creatinine clearance; PI = protease inhibitor; HCC = Hierarchical Condition Category (or hepatocellular carcinoma in hepatology context); ASCVD = atherosclerotic cardiovascular disease; MACE = major adverse cardiovascular events; BP = blood pressure; COPD = chronic obstructive pulmonary disease; HBV = hepatitis B virus; HCV = hepatitis C virus; FTC = emtricitabine; 3TC = lamivudine; DAA = direct-acting antiviral; AASLD = American Association for the Study of Liver Diseases; IDSA = Infectious Diseases Society of America; DXA = dual-energy X-ray absorptiometry; BMD = bone mineral density; HbA1c = glycated hemoglobin; DTG = dolutegravir; INSTI = integrase strand transfer inhibitor; CBT-I = cognitive behavioral therapy for insomnia; SSRI = selective serotonin reuptake inhibitor; GAD = generalized anxiety disorder; PIM = potentially inappropriate medication (Beers criteria)

Cost-Smart Options

BRAND (EST. COST)	ALTERNATIVE (EST. COST)	EST. SAVINGS	COST-SMART TIP
Biktarvy (BIC/TAF/FTC) ~$3,500/mo WAC; no generic available[6]	Dovato (DTG/3TC) **~$2,700/mo** WAC (two-drug STR; brand only)[6,43]	**~$800/mo**	**Both brand-only**; Ryan White/ADAP, manufacturer copay assistance, and Medicare LIS **cover most PWH**; Medicare Part D OOP **capped at $2,000/yr** (2025+)[44,45]
Dovato (DTG/3TC) ~$2,700/mo WAC[6]	**Generic** DTG 50 mg (**~$50–$100/mo**) + **generic** 3TC 300 mg (**~$40–$415/mo** WAC) prescribed separately[6]	**~$2,200–$2,600/mo**	Two-pill equivalent of Dovato is available as separate generics (**off label**); requires **confirmed HBV-negative** status and genotype
Descovy (TAF/FTC) ~$2,200/mo WAC (NRTI backbone)[6]	**Generic** TDF/FTC **~$25–$420/mo** WAC (**FUL ~$15/mo**)[6,46]	**~$1,800–$2,175/mo**	Generic TDF/FTC is **pennies/day** at **FUL pricing**;[46] switch to TAF only for CrCl <60, osteoporosis, or advanced age; TDF acceptable backbone in **younger PWH** without renal/bone risk
Cabenuva (LA CAB/RPV) ~$5,400–$7,200/mo equivalent WAC (provider-administered, Part B)[6]	Oral BIC/TAF/FTC **~$3,500/mo** WAC[6]	**~$1,900–$3,700/mo**	Cabenuva justified for adherence-challenged patients where **oral ART has failed** to maintain suppression; Part B billing (20% coinsurance) vs Part D; QMB program may cover coinsurance for low-income Medicare beneficiaries[45]
Pitavastatin brand (Livalo) ~$300/mo	**Generic** pitavastatin (Zypitamag) **~$30–$50/mo**	**~$250–$270/mo**	Generic pitavastatin available → **prescribe generic specifically**

BRAND (EST. COST)	ALTERNATIVE (EST. COST)	EST. SAVINGS	COST-SMART TIP
TMP-SMX DS (PCP prophylaxis) generic ~$5–$15/mo[5]	Dapsone **~$20–$50/mo**; atovaquone **~$800–$1,500/mo** (brand)[5]	TMP-SMX is **lowest cost**	TMP-SMX DS daily is **first-line and cheapest** OI prophylaxis; reserve atovaquone only for sulfa allergy + G6PD deficiency (dapsone contraindicated); generic dapsone is **second-line**
PrEP: Descovy (TAF/FTC) ~$2,200/mo WAC[6]	**Generic** TDF/FTC **~$25/mo** (FUL); injectable CAB (Apretude) ~$3,700/dose q2mo[47]	**~$2,175/mo** (**generic** TDF/FTC)	USPSTF Grade A → **zero cost-sharing under ACA**; G0011/G0012/G0013 Medicare codes; **generic TDF/FTC** is most cost-effective oral PrEP;[46,47] CAB-LA for patients unable to adhere to daily oral
Sertraline or escitalopram (depression) generic ~$5–$15/mo	CBT-I + melatonin OTC for insomnia (**~$5–$10/mo**)	**—**	**Already inexpensive generic**; bundle behavioral health under integrated care; Medicare Part B covers **behavioral therapy**
RZV (Shingrix) ~$190–$230/dose × 2 doses[48]	**No alternative** = only available zoster vaccine in US	—	**Medicare Part D covers with $0 OOP post-IRA**;[49] recommended for all PWH ≥18 regardless of CD4

ABBREVIATIONS: BIC = bictegravir; TAF = tenofovir alafenamide; FTC = emtricitabine; WAC = wholesale acquisition cost; DTG = dolutegravir; 3TC = lamivudine; STR = single-tablet regimen; ADAP = AIDS Drug Assistance Program; PWH = people with HIV; LIS = Low-Income Subsidy; OOP = out-of-pocket; HBV = hepatitis B virus; NRTI = nucleoside reverse transcriptase inhibitor; TDF = tenofovir disoproxil fumarate; FUL = Federal Upper Limit; CrCl = creatinine clearance; LA = long-acting; CAB = cabotegravir; RPV = rilpivirine; ART = antiretroviral therapy; QMB = Qualified Medicare Beneficiary; TMP-SMX DS = trimethoprim-sulfamethoxazole double strength; PCP = Pneumocystis jirovecii pneumonia; OI = opportunistic infection; G6PD = glucose-6-phosphate dehydrogenase; PrEP = pre-exposure prophylaxis; ACA = Affordable Care Act; USPSTF = US Preventive Services Task Force; CBT-I = cognitive behavioral therapy for insomnia; OTC = over-the-counter; RZV = recombinant zoster vaccine; IRA = Inflation Reduction Act; CD4 = CD4+ T-lymphocyte count

Patient Education and Adherence - Geriatric 5Ms Framework

5M DOMAIN	KEY POINT	EXAMPLE LANGUAGE
What Matters Most	**Goals of care**, advance directives, and what the patient values → frame HIV as a chronic condition, **not a terminal diagnosis**	"HIV is a **manageable condition**, like high blood pressure or diabetes. Let's talk about what matters most to you: your goals, your independence, and who would speak for you **if needed**."

5M DOMAIN	KEY POINT	EXAMPLE LANGUAGE
Medications	**Polypharmacy review at every visit**; pillbox/calendar aids; identify a caregiver or family member to **co-manage** medication schedule; simplify to STR or long-acting injectable when adherence is at risk	"You're taking 11 medications. Let's go through each one together and with [caregiver name] to make sure every pill is **still needed** and nothing is **interacting with** your HIV medicine."
Mind	**Screen for depression** (PHQ-9), cognitive decline (MoCA q2yr if ≥60), substance use, isolation, and stigma → all predict **nonadherence**	"Some people feel down or forgetful as they get older, and HIV can make that more likely. I'd like to do a quick screen so we can catch anything early."
Mobility	Fall risk screen annually; **sedative deprescribing** (OR 1.9 for falls); PT referral; vitamin D; home safety assessment	"Falls are one of the biggest **threats to your independence**. That sleep medication you're on nearly doubles your fall risk; let's work on a **safer alternative**."
Multicomplexity	**Comorbidity sweep** (CKD, ASCVD, COPD, depression, HBV/HCV) at every visit; U=U counseling; sex-positive sexual history; STI screening; PrEP for HIV-negative partner	"Sexual health is part of your overall health; I ask everyone. Your virus is undetectable, which means you **cannot pass HIV** to a partner through sex. That said, we should still screen for **other infections** annually."

ABBREVIATIONS: STR = single-tablet regimen; PHQ-9 = Patient Health Questionnaire-9; MoCA = Montreal Cognitive Assessment; OR = odds ratio; PT = physical therapy; CKD = chronic kidney disease; ASCVD = atherosclerotic cardiovascular disease; COPD = chronic obstructive pulmonary disease; HBV = hepatitis B virus; HCV = hepatitis C virus; U=U = Undetectable equals Untransmittable; STI = sexually transmitted infection; PrEP = pre-exposure prophylaxis

DOCUMENTATION — PATIENT EDUCATION

Document the **5M domain** addressed, specific education topic, patient-stated understanding (**teach-back method**), caregiver involvement, and any agreed action. Identifying a **clearly defined caregiver** improves adherence, continuity, and earlier recognition of emerging symptoms. **From a value-based care perspective**, thorough documentation supports closed-loop multidisciplinary care and reporting for the HEDIS Care for Older Adults (COA; **C08 Medication Review**) composite measure. Notably, **CPT 99497/99498** are billable for advance care planning during the AWV **without patient copay**.

Example note: "**5M**: **Medications** - reviewed 11-drug regimen with patient and daughter [caregiver]. **Beers review**: lorazepam taper initiated (0.5 mg → 0.25 mg × 4 weeks → discontinue); CBT-I referral placed. **5M**: **Multicomplexity**- counseled on U=U; patient verbalized understanding via teach-back; agreed to encourage partner PrEP referral. STI screen ordered. **5M**: **What Matters Most** — ACP documented (99497): healthcare proxy named [daughter]; code status full; patient prioritizes independence and remaining at home."

Quality Metrics Tie-In

HIV disease (B20) intersects **multiple quality measurement domains**: HIV-specific performance metrics (viral load suppression, retention in care, STI screening), geriatric care (COA medication review, advance care planning), care transitions (medication reconciliation post-discharge), and depression screening. The disease's **lifelong ART requirement**, **high comorbidity burden** (ASCVD, CKD, depression, viral hepatitis), **complex polypharmacy** (median 13 daily medications in PWH aged ≥60), **accelerated aging** phenotype, and frequent **ED utilization** in older adults mean that many HEDIS, MIPS, and CMS value-based program measures apply simultaneously across the care trajectory.

MEASURE	STANDARD	APPLICABILITY TO HIV/AIDS
HEDIS C08: Care for Older Adults (COA) - Medication Review	**Denominator**: MA enrollees ≥66, continuously enrolled **Numerator**: 4 sub-measures documented annually: (**1**) functional status assessment, (**2**) medication review, (**3**) pain assessment, (**4**) advance care planning **Exclusions**: hospice, ESRD	Beers review, 5Ms framework, and Fried frailty satisfy **multiple sub-measures** simultaneously; lorazepam and sedative burden screening are high-yield AWV targets
HEDIS C17: Medication Reconciliation Post-Discharge (MRP)	**Denominator**: enrollees ≥18 discharged from inpatient facility **Numerator**: medication reconciliation within 30 days of discharge **Exclusions**: hospice	ART **drug-drug interaction screening** (CYP3A4/UGT1A1), statin selection (pitavastatin preferred), and **Beers PIM review** at every care transition
HEDIS C21: Follow-up after Emergency Department Visit for People with Multiple High-Risk Chronic Conditions	**Denominator**: enrollees ≥18 with multiple high-risk chronic conditions discharged from the ED **Numerator**: follow-up visit within 7 days of ED discharge **Exclusions**: hospice	HIV (B20) qualifies as a high-risk chronic condition triggering HEDIS C21: PWH have **elevated ED utilization** → timely 7-day post-ED follow-up with PCP **or** HIV specialist
MIPS #047: Advance Care Planning	**Denominator**: patients ≥65 with ≥1 qualifying encounter **Numerator**: advance care plan documented and discussed **Exclusions**: none	Satisfies COA sub-measure; document at AWV annually; 13.2% of PWH are ≥65 with accelerated aging phenotype
MIPS #134: Depression Screening (PHQ-9)	**Denominator**: patients ≥12 with ≥1 qualifying encounter **Numerator**: PHQ-9 screened AND follow-up plan if positive **Exclusions**: active depression diagnosis with current treatment	~34% depression prevalence in PWH; PHQ-9 severity must map to F32.1/F33.1 (not F32.9) for both MIPS credit and HCC 155 capture

MEASURE	STANDARD	APPLICABILITY TO HIV/AIDS
MIPS #205: Sexually Transmitted Infection (STI) Testing for People with HIV	**Denominator**: patients ≥13 with HIV (B20/Z21) with ≥2 visits during measurement year **Numerator**: screened for syphilis, gonorrhea, and chlamydia ≥1×/year **Exclusions**: none	Annual minimum; every 3–6 months if high-risk; NAAT at all exposure sites preferred
MIPS #338: HIV Viral Suppression	**Denominator**: patients ≥13 with HIV (B20/Z21) with ≥1 visit during measurement year; **Numerator**: most recent HIV RNA <200 copies/mL **Exclusions**: none	Provider-level measure paralleling HEDIS HVL (NQF #0407); virologic failure = inability to achieve or maintain VL 200
MIPS #340: HIV Annual Retention in Care	**Denominator**: patients ≥13 with HIV (B20/Z21; **Numerator**: ≥2 visits at least 90 days apart during measurement year **Exclusions**: none	NQF #0403; only 54% of PWH retained nationally; EHR alert for patients not seen in ≥9 months supports recovery
MIPS #475: HIV Screening	**Denominator**: patients 15–65 (or outside range if high-risk) with no prior HIV diagnosis; **Numerator**: screened ≥1× using 4th-gen Ag/Ab **Exclusions**: prior HIV diagnosis	**USPSTF Grade A**; >75% of high-risk persons seen by PCP were **not offered testing**; up to 38% of new infections transmitted by undiagnosed persons

ABBREVIATIONS: HEDIS = Healthcare Effectiveness Data and Information Set; COA = Care for Older Adults; MA = Medicare Advantage; AWV = Annual Wellness Visit; ESRD = end-stage renal disease; 5Ms = Mind, Mobility, Medications, Multicomplexity, Matters Most; PIM = potentially inappropriate medication (Beers criteria); MRP = Medication Reconciliation Post-Discharge; ART = antiretroviral therapy; CYP3A4 = cytochrome P450 3A4; UGT1A1 = uridine diphosphate glucuronosyltransferase 1A1; MIPS = Merit-based Incentive Payment System; PWH = people with HIV; PHQ-9 = Patient Health Questionnaire-9; HCC = Hierarchical Condition Category; STI = sexually transmitted infection; NAAT = nucleic acid amplification test; HIV = human immunodeficiency virus; RNA = ribonucleic acid; VL = viral load; HVL = HIV Viral Load (suppression) measure; NQF = National Quality Forum; EHR = electronic health record; Ag/Ab = antigen/antibody; USPSTF = United States Preventive Services Task Force; PCP = primary care provider

QUALITY OUTCOME

*When primary care codes B20 accurately, documents VL/CD4 with dates, maps PHQ-9 severity to specific ICD-10, stages CKD explicitly, screens Beers PIMs, and initiates **generic pitavastatin** per REPRIEVE, patients experience **fewer missed diagnoses**, **lower polypharmacy-related falls**, and **better retention** across HIV and primary care. **REPRIEVE**: 35% MACE reduction (HR 0.65; 95% CI 0.48–0.90; P=0.002) in 7,769 PWH aged 40–75 on pitavastatin 4 mg over 5.1 years (now guideline-recommended for all PWH 40–75 regardless of baseline lipids),[6,33] pitavastatin preferred for minimal CYP3A4 interaction with ART. **Quality outcomes follow** from delivering and documenting the care the clinical picture demands: Stars, MIPS, and HEDIS HVL scores are consequences of **good care**, not separate goals.*

DOCUMENTATION: GOOD DOCUMENTATION IS COMPREHENSIVE CODING

At **every encounter** for an older PWH, the note should confirm:
(**1**) B20 with year of first AIDS-defining illness (**or Z21 with chart-review justification** confirming no prior HIV-related illness)
(**2**) most recent VL and CD4 with date and values
(**3**) ART regimen by name and class
(**4**) PHQ-9 score with severity-mapped ICD-10 (F32.1/F33.1, not F32.9)
(**5**) CKD stage explicitly when present (N18.3x, **not** "reduced GFR")
(**6**) ASCVD coded actively (I25.10) with statin status (pitavastatin preferred)
(**7**) Beers PIM review with action plan for any identified PIM
(**8**) vaccination status current
This anchors subsequent care in a **transparent clinical record** rather than fragmented specialist notes and ensures each comorbidity is **coded today**: every comorbidity not coded is a missed clinical care opportunity and proper mapping to HCC.

5 CODING REMINDERS AND CASE EXAMPLES

Coding Specificity

- **B20 vs Z21: B20** if any current or prior HIV-related illness or AIDS-defining condition; **Z21** only if no prior HIV-related illness after chart review.[2,4] **Same HCC mapping** (HCC 1; RAF 0.301), but B20 is **permanent once assigned**; **never revert** to Z21 even with viral suppression or CD4 recovery[2]
- **AIDS-defining manifestation:** Code **B20 first**, then the manifestation: **B59** (PCP), **B37.81** (esophageal candidiasis), **C46.0**/**C46.5** (KS), **B45.1** (cryptococcal meningitis), **B58.2** (toxoplasma encephalitis), **A31.2** (disseminated MAC), **C83.7x** (Burkitt lymphoma), **C83.3x** (primary CNS lymphoma).[2–4] Documentation must **explicitly link the illness to HIV**, otherwise the manifestation is coded independently and **B20 is missed**[2]
- **HIV at unrelated encounters:** When PWH presents for hip fracture, pneumonia, or elective procedure, list B20 (or Z21) **as secondary diagnosis**.[4] Frequently missed → HCC 1 **not mapped**
- **Associated Conditions:** Depression (**F32.1**/**F32.2**, **not** F32.9 unspecified), CKD (**N18.31**/**32**/**4**, **not** N18.9 unspecified), diabetes with complications (**E11.21**/**E11.22**, **not** E11.9 alone), and HBV/HCV coinfection (**B18.1**/**B18.2**) each carry **independent HCC mapping**.[50] The single largest documentation failure is defaulting to **unspecified codes** when clinical data supports a **specific stage or severity**: F32.9, N18.9, and E11.9 **do not** map to their respective HCCs. Document PHQ-9 score for depression severity, eGFR + ACR for CKD stage, complication linkage for diabetes, and active coinfection status at **every encounter**.[3,4,6,50]

For HBV coinfection specifically, **never stop** HBV-active ART agents (TAF/TDF + FTC/3TC) without hepatology input, as backbone changes carry **flare risk**[6,51]

Annual Clinical Review and Confirmation

- **Annual review:** Review chart history for prior AIDS-defining illnesses or HIV-related conditions;[2] re-document the clinical rationale **annually**. B20 or Z21 must appear on **at least one** face-to-face encounter per calendar year for **HCC 1 mapping** (RAF 0.301) → **AWV** (G0438/G0439) is a structured opportunity[4]
- **Comorbidity sweep**: Document the full comorbidity profile at **each annual visit**: depression severity with PHQ-9 score, CKD stage per eGFR + ACR, ASCVD (I25.10), COPD (J44.x), HBV/HCV (B18.x), diabetes complications (E11.21/22), osteoporotic fracture (M80.0x). [4] Each carries independent HCC mapping: omission means the clinical complexity of the patient is **not reflected** in risk adjustment
- **ART, statin, and Beers reconciliation**: Document regimen by **name and class**; pitavastatin if ages 40–75 per REPRIEVE;[20] list PIMs reviewed and **deprescribing actions** taken with clinical rationale[21]
- **Sexual health and U=U**: Conduct a sex-positive, **nonjudgmental** sexual history at **every** annual visit = partner status, condom use, STI symptoms, PrEP eligibility for HIV-negative partners.[4] Reinforce **U=U** (sustained VL <200 copies/mL eliminates sexual transmission);[6] document the conversation and any referrals placed. Older PWH sexual health is **routinely underaddressed** → normalizing the discussion improves disclosure, partner protection, and STI detection[4]
- **Avoid rollover**: **Do not** copy last year's HIV note forward without updating VL, CD4 (if indicated), ART tolerability, comorbidity control, Beers review, frailty trajectory, vaccination status, and goals-of-care conversations. Clinical context **shifts annually** and must be reassessed at each visit[4]

AAVBC PERSPECTIVE

The AAVBC strongly advocates *for PCPs to integrate HIV screening, PrEP counseling, and rapid ART initiation into* ***routine primary care*** *rather than deferring to specialist confirmation.* ***Same-day ART*** *is evidence-supported (**AIII**) and within primary care scope;[3] waiting delays treatment in a population where* ***>50%*** *of older adults present with* ***CD4 <350*** *and blunted immune recovery.*

Every AWV *and scheduled encounter is an opportunity to deliver the* ***Geriatric 5Ms*** *for older PWH, who experience accelerated aging with comorbidities presenting* ***a decade earlier*** *than peers.[4]* ***Generic pitavastatin*** *(~$30–50/month) is a cost-effective, REPRIEVE-supported intervention reducing MACE by* ***35%****, with minimal CYP3A4 interactions: ideal for* ***managing polypharmacy*** *alongside ART.[20] Beers-criteria deprescribing, sex-positive sexual health conversations, U=U reinforcement, and advance care planning round out each visit.*

> *This is not specialist HIV medicine but rather primary care geriatrics applied to a population with **accelerated aging**, using tools **already in the PCP workflow**: AWV, 5Ms, Beers review, ASCVD prevention, and ACP. Every PWH encounter, regardless of chief complaint, should reflect the full clinical complexity of the patient.*

Good Documentation is Comprehensive Coding

EHR SHORTCUT/RISK	PREFERRED DOCUMENTATION LANGUAGE
"HIV, stable"	"**B20**: HIV disease; **prior PCP 2008**. VL undetectable on bictegravir/ TAF/FTC. CD4 612. AIDS classification **permanent** per CDC 2014 criteria. **No active OI**. Continue current ART; repeat VL 6 months."
"Depression, on meds" (no severity or score)	"**F33.1**, recurrent MDD, moderate. **PHQ-9 = 12** today. Sertraline 100 mg continued; behavioral health co-management active. **Goal PHQ-9 5**; reassess 3 months."
"CKD, monitor" (no stage, no ART adjustment)	"**N18.32**, CKD **stage 3b**; eGFR 38; urine ACR 85 mg/g. **TDF discontinued** due to nephrotoxicity; switched to TAF/FTC. Nephrology consult placed. Repeat eGFR + ACR 3 months."
"On statin" (no indication or trial basis)	"**I25.10**, ASCVD. **Pitavastatin 4 mg** daily per REPRIEVE; LDL 68; BP 126/74, at target 130/80. Continue current regimen; annual lipid panel."
"Reviewed meds" (no Beers action documented)	"**Beers PIM** review: lorazepam **tapered** from 1 mg to 0.5 mg HS over 6 weeks; CBT-I initiated. No current Beers-listed PIMs. Falls risk reduced; reassess taper completion next visit."
"Elderly patient, doing okay" (no geriatric framework)	"**Fried frailty** score 2 (pre-frail). **5Ms reviewed**: Mind (PHQ-9 = 12, treated), Mobility (PT referral placed), Multimorbidity (comorbidity sweep complete), Medications (Beers reviewed, lorazepam tapering), Matters Most (advance directive updated, proxy named)."
AVOID during active disease: "History of HIV" or Z86.19	**NEVER** use history-of codes while patient is living with HIV. B20 is a **lifelong active diagnosis**. Use "B20: HIV disease" at every encounter regardless of viral suppression or CD4 recovery

EHR SHORTCUT/RISK	PREFERRED DOCUMENTATION LANGUAGE

ABBREVIATIONS: HIV = human immunodeficiency virus; PCP = Pneumocystis jirovecii pneumonia; VL = viral load; TAF = tenofovir alafenamide; FTC = emtricitabine; CD4 = CD4+ T-lymphocyte count; AIDS = acquired immunodeficiency syndrome; CDC = Centers for Disease Control and Prevention; OI = opportunistic infection; ART = antiretroviral therapy; MDD = major depressive disorder; PHQ-9 = Patient Health Questionnaire-9; CKD = chronic kidney disease; eGFR = estimated glomerular filtration rate; ACR = albumin-to-creatinine ratio; TDF = tenofovir disoproxil fumarate; ASCVD = atherosclerotic cardiovascular disease; REPRIEVE = Randomized Trial to Prevent Vascular Events in HIV; LDL = low-density lipoprotein; BP = blood pressure; PIM = potentially inappropriate medication (Beers criteria); CBT-I = cognitive behavioral therapy for insomnia; HS = hora somni (at bedtime); PT = physical therapy; 5Ms = Mind, Mobility, Medications, Multicomplexity, Matters Most

EHR Workflow Tips

- **[EHR TIP — Smartphrase]** Build a **.HIV_VISIT dot phrase** that auto-populates **B20** or **Z21** with clinical justification (e.g., "B20 — history of esophageal candidiasis 2011, Stage 3 AIDS, permanent"), latest VL and CD4 with dates, ART regimen with drug class, PHQ-9 score with severity mapping, Beers criteria review attestation, 5Ms geriatric touchpoint, and a comorbidity sweep with HCC labels for each active diagnosis = sourced from lab results, pharmacy records, and prior encounter notes. **Reduces Z21 miscoding** and supports **MEAT documentation** in a single paste
- **[EHR TIP — Alert]** Worklist filter "**HIV Active Panel**" = surfaces all patients with B20 or Z21 **not seen in ≥9 months** for outreach, or any patient without a coded VL result in the past 12 months for HVL measure recovery. Identifies patients at risk of **lapsed care**, missed HEDIS viral load suppression targets, and HCC mapping gaps before the annual sweep deadline
- **[EHR TIP — Best Practice] Problem list hygiene**: pin B20 at the top of the problem list with the year of first AIDS-defining illness (e.g., "B20: HIV disease, PCP pneumonia 2002, Stage 3 permanent"). Pin all active HCC-relevant comorbidities **individually** (F33.1 MDD moderate, N18.31 CKD 3a, I25.10 ASCVD, B18.2 chronic HCV). Remove generic "HIV positive" entries that default to Z21. Never revert **B20 to Z21** even with full CD4 recovery and viral suppression; Stage 3 classification is **permanent**
- **[EHR TIP — Workflow]** Annual diagnosis confirmation: **fire a BPA** when B20 or Z21 appears on the problem list and no AWV or face-to-face encounter with MEAT documentation has been recorded in the past 12 months. AWV order set should auto-attest each active diagnosis as a one-click acknowledgment: B20/Z21, depression severity, CKD stage, ASCVD, COPD, HBV/HCV, diabetes, osteoporosis. Fires at year-end to support HCC mapping and RAF continuity
- **[EHR TIP — Order Set]** "**HIV Stable on ART**" order set: HIV-1 RNA quantitative (VL), CMP, fasting lipid panel, urine albumin-to-creatinine ratio, PHQ-9, GAD-7; statin prompt (pitavastatin preferred if age ≥40 per REPRIEVE);[20] vaccination status check (pneumococcal, influenza, COVID-19, hepatitis A/B, shingles); STI screen (syphilis, gonorrhea, chlamydia) for sexually active patients. **New-diagnosis add-on bundle** includes genotypic resistance testing, baseline CD4, hepatitis B/C serologies, and toxoplasma IgG

- **[EHR TIP — Auto-prompt]** Triggered **referral cascade**: at new HIV diagnosis → HIV/ID specialist and behavioral health. At stable follow-up, one-click referral templates for HIV pharmacist (polypharmacy or ≥10 medications), geriatrics (age ≥65 or Fried ≥2), hepatology (active HBV/HCV coinfection or fibrosis), ophthalmology (CMV screening if CD4 <100), and dental (annual oral health). Each template auto-populates reason for referral, current ART regimen, latest VL/CD4, and active problem list. **Fried score ≥2** fires a geriatric assessment prompt; **PHQ-9 ≥10** fires a behavioral health referral prompt

Brief Case Examples

SUCCESS: COMPREHENSIVE DOCUMENTATION

SCENARIO

A 72-year-old man with HIV diagnosed 1998, **prior PCP** (Pneumocystis pneumonia) 2002 (CD4 nadir 87), now on bictegravir/TAF/FTC, VL undetectable for 12 years, CD4 612. Presents to PCP for Annual Wellness Visit; reports stable mood on sertraline, no new symptoms. PCP reviewed most recent labs, **performed Beers criteria medication review**,[21] and documented the full clinical picture in a single encounter:

Documentation: "**B20**: HIV disease, Stage 3 (permanent classification per CDC 2014). VL <20 copies/mL on Biktarvy (bictegravir/emtricitabine/tenofovir alafenamide), last labs [date]. CD4 612 cells/mm^3. **F33.1**, recurrent MDD, moderate; PHQ-9 = 8 on sertraline 100 mg, stable. **N18.31**: CKD 3a (eGFR 54); switched from TDF→TAF 4 yr ago, stable. **I25.10**- ASCVD; **generic pitavastatin 4 mg** per REPRIEVE. **B18.2**: chronic HCV, SVR achieved 2019, confirmatory HCV RNA undetectable [date]. Beers review: **no PIMs**. Frailty: Fried 1 (robust). 5Ms documented. Advance care plan reviewed, no changes. Return 6 months or sooner for new symptoms."

Outcome: HCC 1 (0.301) + **HCC 155** (0.309) + **HCC 138** (0.178) + **HCC 84** (0.192) + **HCC 27** (0.159) = ~1.139 RAF mapped at this single encounter.[4] **Every MEAT element present**: diagnoses with staging and permanence, treatment regimen with drug names, lab values with dates, functional assessment with validated tool, medication safety review, and follow-up interval with return criteria.

PITFALL: INSUFFICIENT DOCUMENTATION

SCENARIO

A 68-year-old woman with HIV diagnosed 2010, prior esophageal candidiasis 2011 (CD4 142), now virally suppressed for 7 years on Biktarvy. Presents for routine follow-up; reports poor sleep and mild sadness.

Documentation as written: "HIV-positive, doing well: Z21. Mild depression: F32.9. Reduced GFR. On atorvastatin 40 mg. Takes lorazepam 1 mg HS for sleep. F/u 6 months."

Consequence: (**1**) Z21 **instead of** B20 = **coding compliance error**: prior esophageal candidiasis was AIDS-defining, requires **permanent B20** even with full viral suppression and CD4 recovery. (**2**) F32.9 (unspecified depression) **misses HCC 155**, which requires severity-specified code (F32.1/ F33.1). (**3**) "Reduced GFR" unstaged = misses **HCC 138**. (**4**) Atorvastatin **not preferred** per REPRIEVE (pitavastatin has lower ART drug-drug interactions).[20] (**5**) Lorazepam = **Beers PIM**, sedative OR 1.9 for falls, no deprescribing plan documented. No functional assessment, no advance care plan, no lab values or dates.

RAF Impact: Missed HCC 155 (0.309) and HCC 138 (0.178) = ~0.487 RAF unrecovered at this encounter; B20 coding error is **auditable**; lorazepam continuation without taper plan predicts **future fall and frailty**.

Fix: Update problem list and assessment: "**B20**: HIV disease (history of esophageal candidiasis 2011, Stage 3 AIDS = **permanent classification**). VL <20 copies/mL on Biktarvy, last labs [date]. CD4 580 cells/mm^3. **F33.1**: recurrent MDD, moderate; PHQ-9 = 11; sertraline 50 mg initiated. **N18.31**: CKD 3a (eGFR 51); renal-dose monitoring per TAF label. Switch atorvastatin→**pitavastatin 4 mg**. Lorazepam taper plan: 0.5 mg HS × 2 wk, then 0.25 mg × 2 wk, then discontinue; **CBT-I referral** placed. Beers review completed. **Fried frailty = 2** (pre-frail); PT referral. Advance care plan reviewed. Return 3 months or sooner for worsening mood, falls, or new symptoms." Coding after fix: B20 (**HCC 1**) + F33.1 (**HCC 155**) + N18.31 (**HCC 138**) = full clinical picture preserved.

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