AAVBC
AMERICAN ACADEMY OF VALUE BASED CARE

Chronic Hepatitis

Quick Reference Guide

2026

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1 CLINICAL SNAPSHOT

Definition: Chronic hepatitis is **sustained hepatic inflammation persisting ≥6 months**, driven by **five principal etiologies** in primary care: **chronic viral hepatitis B** (**HBV**), chronic **viral hepatitis C** (**HCV**), **metabolic dysfunction-associated steatohepatitis** (**MASH**, the inflammatory phenotype of MASLD), **autoimmune hepatitis** (**AIH**), and **alcohol-related** or **drug/toxin-induced** chronic hepatitis.[1–5] Regardless of etiology, **unresolved inflammation** drives progressive **fibrosis** toward **cirrhosis**, **portal hypertension**, **decompensation**, and **hepatocellular carcinoma** (HCC).[6–10]

ICD-10 Codes

HBV **B18.1** (**without delta**; most common HBV code) and **B18.0** (**with delta**/HDV co-infection); HCV **B18.2** (**most common HCV code**, genotype specified when known); **K70.1** (chronic alcoholic hepatitis); **K71.x** (chronic drug/toxin-induced; **specify causative agent**); **K75.4** (autoimmune hepatitis); **K75.3** (granulomatous hepatitis, NEC); **K73.9** (chronic hepatitis unspecified; reserved **ONLY** when extensive evaluation has **not established etiology**). **Avoid B19.x** (**unspecified** viral hepatitis) and **Z87.39** ('history of hepatitis') for active chronic hepatitis disease states.

Prevalence and Burden: Chronic liver disease **disproportionately affects older adults**. **MASLD** is the most prevalent etiology, with peak incidence at ages **61–65** and MASLD-related cirrhosis the leading transplant indication for adults over 65; projected MASLD case counts in those ≥80 years will **increase 300% by 2050**.[11,12] The **1945–1965 birth cohort** carries a **sixfold higher** HCV prevalence than other age groups and accounts for **~75%** of US HCV infections and HCV-related mortality; an estimated **2.4 million adults** have chronic HBV, with approximately **two-thirds undiagnosed**.[13–15] Alcohol-associated liver disease prevalence and mortality are rising in older adults, with **15%** of adults aged **60–94** consuming alcohol at **misuse levels** and the greatest increases in binge drinking occurring in those **over 50**.[12,16] AIH incidence is highest in adults **over 65** (**3.59/100,000 person-years**), with a 3:1 female predominance and frequent presentation with advanced fibrosis.[17–19] Drug-induced liver injury risk **rises with age due to polypharmacy**, with **32%** of DILI events reported in adults ≥65.[20,21] Cirrhosis prevalence among Medicare Advantage enrollees reached **1.67%** in 2018, **more than double** the commercially insured rate, increasing **8.1%** year-over-year.[22,23]

HCC/RAF V28 Mapping

ICD-10 CODE(S)[24]	HCC CATEGORY (V28)[25]	RAF (CNA)*[26]	DOCUMENTATION REQUIREMENT[24]
B18.1 (HBV without delta) **B18.0 (HBV with delta/HDV)**	**HCC 65** Chronic Hepatitis	0.185	**Chronic HBV**; **document:** HBsAg positivity ≥6 months confirming chronicity; HBV DNA level and HBeAg/anti-HBe status; treatment phase (immune-tolerant vs. immune-active); annual MEAT required; **HDV co-infection** must be **documented separately when B18.0 applies**

ICD-10 CODE(S)[24]	HCC CATEGORY (V28)[25]	RAF (CNA)*[26]	DOCUMENTATION REQUIREMENT[24]
B18.2 (chronic HCV)	**HCC 65** Chronic Hepatitis	0.185	**Chronic HCV**; **document**: HCV antibody positivity confirmed by detectable HCV RNA (quantitative PCR); **genotype when available**; treatment status (treatment-naïve, on DAA, or post-SVR with or without cirrhosis); post-SVR with cirrhosis remains an active chronic condition **requiring HCC surveillance** → code **B18.2** with complication code **K74.x**
K70.1 (chronic alcoholic hepatitis) **K71.x (chronic drug-induced hepatitis)**	**HCC 65** Chronic Hepatitis	0.185	**K70.1**: quantify alcohol consumption (**drinks/week**); **AST:ALT ratio >2** and **GGT elevation** support the diagnosis; co-document **F10.xx** (alcohol use disorder) with severity; **K71.x**: document **causative agent** and **temporal relationship** to drug exposure
K75.4 (autoimmune hepatitis) **K75.3 (granulomatous hepatitis, NEC)**	**HCC 65** Chronic Hepatitis	0.185	**K75.4**: requires elevated aminotransferases + elevated IgG and/or positive autoantibodies (ANA, SMA, anti-LKM1) + compatible histology; **K75.3**: document inflammatory infiltrate findings and **exclude sarcoidosis** (codes separately); treatment regimen (prednisone ± azathioprine) **must be documented** at every MEAT encounter
K73.9 (chronic hepatitis, unspecified)	**HCC 65** Chronic Hepatitis	0.185	**AVOID in most cases**; reserve only for extensively evaluated patients with persistent aminotransferase elevation and **no identified** viral, autoimmune, metabolic, or toxic **etiology**; **common coding error** that obscures clinical picture
B19.x (unspecified viral hepatitis) **Z87.39 (personal history of hepatitis)**	No HCC	–	**B19.x**: commonly misused in lieu of **B18.x** for chronic viral hepatitis = **common coding error** that obscures clinical picture; **Z87.39**: history of hepatitis = not appropriate for chronic hepatitis under active management

ABBREVIATIONS: ICD-10 = International Classification of Diseases, Tenth Revision; HCC = hierarchical condition category; V28 = CMS-HCC model version 28; RAF = risk adjustment factor; CNA = community non-dual aged; HBV = hepatitis B virus; HDV = hepatitis D virus; HBsAg = hepatitis B surface antigen; HBeAg = hepatitis B e antigen; MEAT = monitor/evaluate/assess/treat; HCV = hepatitis C virus; DAA = direct-acting antiviral; SVR = sustained virologic response; AST = aspartate aminotransferase; ALT = alanine aminotransferase; GGT = gamma-glutamyl transferase; NEC = not elsewhere classified; AIH = autoimmune hepatitis; IgG = immunoglobulin G; ANA = antinuclear antibody; SMA = smooth muscle antibody; anti-LKM1 = anti-liver/kidney microsomal antibody type 1; CMS = Centers for Medicare & Medicaid Services

***RAF values represent the Community Non-Dual Eligible Aged (CNA) coefficient from the 2026 CMS-HCC model;[13] values vary across patient populations based on eligibility and care setting**

Risk-Adjusted Care Resources per Patient/Year[25,26]
Risk-adjusted care resource allocation — MA base rate (~$10,402.34) × RAF coefficient

CHRONIC HEPATITIS
$1.9K
HCC 65 · RAF 0.185

AAVBC PERSPECTIVE

From the AAVBC's perspective, value-based care in chronic hepatitis *begins with closing the screening gap in* ***high-risk populations*** *— Baby Boomers (born 1945–1965) with* ***sixfold higher HCV prevalence****, persons with* ***alcohol use disorder*** *or* ***injection drug use****, immigrants from* ***HBV-endemic regions****, and patients with metabolic syndrome driving* ***MASH*** *— rather than waiting for symptoms to emerge.*[14,27] *Primary care should recognize that chronic hepatitis is* ***frequently silent*** *or presents only with* ***nonspecific symptoms*** *such as fatigue or vague right upper quadrant discomfort and is often* ***identified incidentally through abnormal liver function tests****.*[4,28] *Elevated AST, ALT, GGT, or bilirubin, as well as decreased albumin, elevated INR, or thrombocytopenia, should* ***trigger an appropriate diagnostic workup*** *rather than being attributed to aging or other comorbidities without investigation.*[4,12] *Chronic hepatitis should not be managed as an isolated laboratory abnormality but as* ***a progressive condition*** *requiring longitudinal risk assessment, imaging, and* ***individualized treatment planning****.*[7,29]

The PCP's role extends beyond *identifying liver enzyme abnormalities. Clinicians should ensure that antiviral selection is* ***guided by renal function*** *and potential drug-drug interactions, particularly in older adults with polypharmacy and advancing liver disease.*[30,31] *Fibrosis staging must use the* ***age-adjusted FIB-4 cutoff*** *(≤2.0 = low risk) in patients ≥65 years, as the standard* ***<1.3*** *threshold* ***generates unacceptable false-positive rates*** *in this population.*[6] *Treatment decisions should be informed by* ***comprehensive geriatric assessment****, including frailty, cognitive status, and quality-of-life considerations, rather than chronological age alone.*[12,29] *Just as importantly, appropriate* ***hepatocellular carcinoma surveillance*** *for high-risk patients, including ultrasound with or without alpha-fetoprotein every six months when indicated, should be* ***explicitly documented*** *and* ***incorporated into ongoing care****, reinforcing longitudinal accountability and high-value chronic hepatitis management.*[8,32]

2 RECOGNITION AND DIAGNOSIS

Universal screening for the two chronic viral hepatitis infections (**HCV** and **HBV**) **is now recommended for all US adults**. The **USPSTF** recommends one-time HCV screening for **all adults** aged **18–79 years** (Grade B, 2020), with the **CDC** extending this to **all adults ≥18 years**;

the 1945–1965 birth cohort remains the highest-prevalence group and the core of the Medicare-eligible population.[14,33] In 2023, the CDC expanded HBV screening **from risk-based to universal triple-panel testing** (HBsAg, anti-HBs, anti-HBc) for **all adults ≥18 years** at least once in a lifetime; this differs from the USPSTF, which continues to recommend screening only for those at increased risk (Grade B, 2020).[27,34] **CMS Medicare Part B** currently **covers HBV screening for high-risk beneficiaries** per the USPSTF B-recommendation and has not yet updated coverage to align with the broader CDC 2023 universal recommendation.[35] For both infections, **reflex confirmatory testing** (HCV RNA for antibody-positive, HBV DNA for HBsAg-positive) is the recommended operational strategy to **minimize loss to follow-up**; reflexive HCV RNA testing increased from **21.9%** to **82.2%** of antibody-positive specimens between 2018 and 2024.[2,36,37]

Medicare Part B Covered Screenings and Workup (older adults, at-risk population)

TEST	FREQUENCY[2,8,14,27,33]	CPT CODE	CLINICAL INDICATION[5,6,8,14,27]
HCV antibody screening†	**Once in lifetime**; repeat if ongoing risk exposure	86803	**All adults 18–79 y** (USPSTF 2020 Grade B); Baby Boomer cohort (born 1945–1965) — sixfold higher prevalence, ~75% of US HCV infections; reflex to HCV RNA if positive
HCV RNA quantitative (reflex confirmatory)†	**Within 30 days** of positive HCV antibody	87521	Required to distinguish **resolved from active infection**; positive HCV RNA → code **B18.2** + expedited DAA referral; reflexive testing reduced loss to follow-up from **~34%** to **<11%**
HBsAg screening (triple panel)†‡	**Once in lifetime**; repeat if ongoing risk exposure	87340	CDC 2023 recommends **universal triple-panel** (HBsAg, anti-HBs, anti-HBc) for **all adults ≥18 y**; elevated prevalence in persons from **HBV-endemic regions** (Africa, Asia, Eastern Europe), IDU, MSM, dialysis, HIV
HBV DNA quantitative (reflex)	**At diagnosis**; **every 3–12 months** per phase	87516	Distinguishes immune-tolerant from **immune-active phase**; **guides treatment initiation** per AASLD 2026
FIB-4 fibrosis staging (age-adjusted)	**Annually** in any chronic hepatitis code	—	No CPT; calculated from routine labs (CMP + CBC); age-adjusted cutoff **mandatory for ≥65 y**: **≤2.0** = low risk (**NOT** <1.3 → standard cutoff has **high false-positive rate in elderly**)
HCC surveillance: ultrasound + AFP	**Every 6 months**	76705 + 82105	**Cirrhosis of any cause**; CHB in Asian males >40 y, Asian females >50 y, African/North American Black individuals, family history of HCC; surveillance criteria per AASLD 2023 and AGA 2026

TEST	FREQUENCY[2,8,14,27,33]	CPT CODE	CLINICAL INDICATION[5,6,8,14,27]

ABBREVIATIONS: HCV = hepatitis C virus; USPSTF = United States Preventive Services Task Force; HCV RNA = hepatitis C virus ribonucleic acid; CPT = current procedural terminology; DAA = direct-acting antiviral; HBsAg = hepatitis B surface antigen; anti-HBs = antibody to hepatitis B surface antigen; anti-HBc = antibody to hepatitis B core antigen; CDC = Centers for Disease Control and Prevention; HBV = hepatitis B virus; IDU = injection drug use; MSM = men who have sex with men; HBV DNA = hepatitis B virus deoxyribonucleic acid; AASLD = American Association for the Study of Liver Diseases; FIB-4 = Fibrosis-4 index; CMP = comprehensive metabolic panel; CBC = complete blood count; HCC = hepatocellular carcinoma; AFP = alpha-fetoprotein; CHB = chronic hepatitis B; AGA = American Gastroenterological Association; CMS = Centers for Medicare & Medicaid Services
All tests are covered under Medicare Part B when medically necessary
† No patient copay when performed as a preventive screening under Medicare Part B (USPSTF Grade B recommendation)
‡ CMS Medicare Part B currently covers HBV screening for high-risk beneficiaries per the USPSTF B-recommendation; the CDC 2023 universal screening recommendation for all adults ≥18 y is broader than current CMS coverage policy

Subtle Early Signs in Older Adults (>65)

SIGN/SYMPTOM[4,6,10,19,38]	CLINICAL SIGNIFICANCE[6,7,12,19,39]
Persistent ALT or AST elevation without overt symptoms	Often the only **early signal of chronic hepatitis** in older adults; **immune senescence blunts clinical symptoms** while liver damage progresses
Unexplained fatigue, anorexia, or weight loss in a Medicare-age patient	Commonly **misattributed to aging or depression**; chronic HCV and AIH frequently present with these subtle symptoms alone
Mild right upper quadrant discomfort or hepatomegaly	May indicate **ongoing hepatic inflammation**; palpable liver edge in an older adult is **not normal** and **warrants evaluation**
New-onset spider angiomata, palmar erythema, or gynecomastia	**Cutaneous stigmata of chronic liver disease**; suggest established fibrosis or early cirrhosis and warrant **staging workup**
Low-grade cytopenias (thrombocytopenia, mild anemia) without clear cause	Platelet count **<150,000/µL** in the context of chronic hepatitis suggests **portal hypertension** or **advanced fibrosis**
Pruritus, jaundice, or darkening urine	Later-stage indicators of **cholestasis** or **hepatic dysfunctio**n; AIH often presents with **pruritus before overt jaundice**

ABBREVIATIONS: ALT = alanine aminotransferase; AST = aspartate aminotransferase; HCV = hepatitis C virus; AIH = autoimmune hepatitis

Geriatric Risk Factors

FACTOR	RISK SIGNAL[2,9,10,14,27]	NOTES[2,12,14,27,40]
Baby Boomer birth cohort (1945–1965)	**6-fold higher** chronic HCV prevalence vs. other age groups; **~75%** of U.S. HCV infections	Most commonly missed screening opportunity in Medicare panels; CDC recommendation supports **universal adult screening** (≥18 years); document HCV antibody status **once per Medicare patient**
Birth in HBV-endemic region (Africa, Asia, Eastern Europe, Middle East — prevalence ≥2%)	**Elevated chronic HBV prevalence;** often undiagnosed in immigrant populations	Document **country of origin** at intake; screen with **HBsAg** per CDC 2023 universal adult recommendation
History of injection drug use, MSM, prior incarceration, dialysis, HIV, multiple transfusions before 1992	Accumulated risk for **both HBV** and **HCV** acquisition	Obtain **nonjudgmental risk history** at annual wellness visit; **both HBsAg** and **HCV antibody** recommended
Heavy alcohol use (≥4 drinks/day for men, ≥3 for women) or alcohol use disorder (F10.xx)	Drives **K70.1** coding; also **accelerates fibrosis** in viral/ metabolic hepatitis	**Complete abstinence required** for alcoholic hepatitis management; coexisting HCV/ MASH **magnifies fibrosis progression**
Type 2 diabetes, obesity (BMI ≥30), metabolic syndrome, or hyperlipidemia	Principal drivers of **MASH** (the inflammatory phenotype of MASLD)	**Baseline FIB-4 annually**; consider VCTE or ELF if FIB-4 indeterminate; **GLP-1 receptor agonists beneficial** for co-morbid T2DM and MASH

ABBREVIATIONS: HCV = hepatitis C virus; CDC = Centers for Disease Control and Prevention; HBV = hepatitis B virus; HBsAg = hepatitis B surface antigen; MSM = men who have sex with men; HIV = human immunodeficiency virus; MASH = metabolic dysfunction-associated steatohepatitis; BMI = body mass index; MASLD = metabolic dysfunction-associated steatotic liver disease; FIB-4 = Fibrosis-4 index; VCTE = vibration-controlled transient elastography; ELF = Enhanced Liver Fibrosis test; GLP-1 = glucagon-like peptide-1; T2DM = type 2 diabetes mellitus

Diagnostic Systems and Staging Thresholds

Chronic hepatitis diagnosis in older adults requires a **systematic**, **etiology-specific approach** that accounts for **age-related physiologic changes**, particularly immune senescence, higher baseline FIB-4 values, and comorbidities (heart failure, CKD, obesity) that **reduce the accuracy** of standard noninvasive tests.[6,12,41–43] **No single test** confirms "chronic hepatitis" as a unified entity; rather, diagnosis proceeds through **three parallel axes**: (**1**) **etiologic confirmation** (serologic, virologic, or clinical criteria specific to each cause), (**2**) **fibrosis staging** (noninvasive tests with age-adjusted cutoffs, followed by elastography or biopsy when indeterminate), and (**3**) **exclusion of competing diagnoses** (viral, autoimmune, metabolic, drug/toxin-induced, and cholestatic

diseases must be systematically ruled in or out).[4,6,19,44] **For PCPs managing older adult patients**, familiarity with the major US diagnostic frameworks below is **essential**, as each drives ICD-10 code specificity, treatment eligibility, and surveillance intervals.

Etiologic Confirmation: Viral Hepatitis

Chronic HBV and HCV each have well-defined **serologic** and **virologic diagnostic criteria** endorsed by the **AASLD** and **CDC**.[1,2,27]

TEST/MARKER	DIAGNOSIS CRITERION[1,2,5,36,45]	NOTES[1,2,14,27,36]
HBsAg (HBV surface antigen)	**Positive ≥6 months confirms chronic HBV**; code **B18.1** (or **B18.0** with HDV co-infection)	Initial positive result **requires confirmation ≥6 months later**; HBeAg, anti-HBe, and HBV DNA define immune phase; CDC 2023 recommends **universal triple-panel screening** (HBsAg, anti-HBs, anti-HBc) for **all adults ≥18 y**
HCV antibody + reflex HCV RNA	**Positive antibody AND detectable HCV RNA** confirms chronic HCV; code **B18.2**	Antibody-only positive without RNA = **prior resolved infection** (**Z86.19** or nothing); **do NOT code B18.2**; all RNA-positive patients are **treatment candidates** (SVR >95%)

ABBREVIATIONS: HBsAg = hepatitis B surface antigen; HBV = hepatitis B virus; HDV = hepatitis D virus; HBeAg = hepatitis B e antigen; anti-HBe = antibody to hepatitis B e antigen; HBV DNA = hepatitis B virus deoxyribonucleic acid; CDC = Centers for Disease Control and Prevention; anti-HBs = antibody to hepatitis B surface antigen; anti-HBc = antibody to hepatitis B core antigen; HCV = hepatitis C virus; HCV RNA = hepatitis C virus ribonucleic acid; SVR = sustained virologic response

Etiologic Confirmation: Autoimmune Hepatitis

AIH lacks a single pathognomonic marker; diagnosis relies on the combination of **compatible histology**, **elevated aminotransferases**, **elevated IgG**, characteristic **autoantibodies**, and **exclusion of mimics**.[4,19] Two validated scoring systems from the **International Autoimmune Hepatitis Group** (**IAIHG**) are used in US practice:[19]

SCORING SYSTEM	COMPONENTS	INTERPRETATION	PCP RELEVANCE
IAIHG Revised Original Score (1999)[19,46]	**12 parameters**: sex, ALP:AST ratio, IgG, autoantibodies (ANA, SMA, anti-LKM1), viral markers, drug history, alcohol intake, histology, other autoimmune disease, HLA, response to therapy	**Pretreatment**: definite AIH >15, probable 10–15; **posttreatment**: definite >17, probable 12–17	**Higher sensitivity** (100%); preferred for **atypical** or **complex presentations**; useful when simplified score yields a low result

SCORING SYSTEM	COMPONENTS	INTERPRETATION	PCP RELEVANCE
IAIHG Simplified Score (2008)[19,47,48]	**4 parameters**: autoantibodies (ANA/SMA ≥1:40 or anti-LKM1 ≥1:40), IgG level, compatible liver histology, absence of viral hepatitis	Definite AIH **≥7**, probable AIH **= 6**	**Higher specificity** (90%) and **accuracy** (92%); best for typical presentations; **more practical for initial PCP assessment** before referral

ABBREVIATIONS: IAIHG = International Autoimmune Hepatitis Group; ALP = alkaline phosphatase; AST = aspartate aminotransferase; IgG = immunoglobulin G; ANA = antinuclear antibody; SMA = smooth muscle antibody; anti-LKM1 = anti-liver kidney microsomal antibody type 1; HLA = human leukocyte antigen; AIH = autoimmune hepatitis; PCP = primary care physician

Up to **20%** of AIH cases are **seronegative for ANA**, **SMA**, and **anti-LKM1**; **liver biopsy** remains essential for diagnosis per AASLD guidance, and diagnostically challenging cases should be **referred** to an **experienced liver center** before initiating therapy.[19]

Etiologic Confirmation: Alcohol-Related and Drug/Toxin-Induced Hepatitis

Alcohol-related liver disease (**ALD**) and **drug-induced liver injury** (**DILI**) are clinical **diagnoses of exclusion** with structured assessment tools available to support causality.[49–51]

DIAGNOSTIC FRAMEWORK	KEY CRITERIA	INTERPRETATION	PCP RELEVANCE
NIAAA Alcoholic Hepatitis Criteria[49,52]	**Jaundice** onset **within 8 weeks**; heavy alcohol use (**>40 g/d** women, **>50–60 g/d** men) for **≥6 months** with <60 days abstinence; total bilirubin >**3 mg/dL**; AST **>50 IU/L**; AST:ALT **>1.5** (both <400 IU/L); **other liver diseases excluded**	**Defines clinical** (probable) **alcohol-associated hepatitis** without requiring biopsy; **biopsy** confirms **definite diagnosis**	**Identifies moderate AH** = **frequently missed** in primary care; represents an opportunity to initiate **alcohol use disorder treatment**; co-document **F10.xx** with severity
RUCAM (Roussel Uclaf Causality Assessment Method)[51,53]	**7 domains**: latency, dechallenge, competing causes, rechallenge, drug hepatotoxicity track record, risk factors, concomitant medications; **separate scoring** for hepatocellular vs. cholestatic/mixed injury	Score **−9 to +14**: highly probable (**≥9**) probable (**6–8**) possible (**3–5**) unlikely (**1–2**) excluded (**≤0**)	Structured bedside tool for **DILI causality**; review all medications and supplements **within 180 days of presentation**; access LiverTox (NIH) for drug-specific hepatotoxicity profiles

DIAGNOSTIC FRAMEWORK	KEY CRITERIA	INTERPRETATION	PCP RELEVANCE
RECAM (Revised Electronic Causality Assessment Method)[53,54]	**Evidence-based update of RUCAM**; computerized platform; removes risk factors criterion; **anchors drug-specific risk to LiverTox likelihood scores**	Score **−6 to +20**: highly likely/probable (**≥8**) probable (**4–7**) possible (**−3 to +3**) unlikely/excluded (**<−4**)	At least as capable as RUCAM with **improved objectivity at diagnostic extremes**; available online; may be **embedded in EHR**

ABBREVIATIONS: NIAAA = National Institute on Alcohol Abuse and Alcoholism; AST = aspartate aminotransferase; ALT = alanine aminotransferase; AH = alcoholic hepatitis; RUCAM = Roussel Uclaf Causality Assessment Method; DILI = drug-induced liver injury; NIH = National Institutes of Health; RECAM = Revised Electronic Causality Assessment Method; EHR = electronic health record; PCP = primary care physician

Fibrosis Staging: Noninvasive Tests

Regardless of etiology, fibrosis stage is the **strongest predictor of adverse liver outcomes** and drives **surveillance intervals**, **treatment eligibility**, and **referral decisions**.[3,7,9,55,56] A sequential **two-tier approach:** FIB-4 first, followed by elastography **or ELF when indeterminate**, is endorsed across AASLD, AGA, ADA, and AHA/ACC guidelines.[6,40,49,55,56]

TEST/MARKER	DIAGNOSIS CRITERION[3,6,44,55]	AGE-ADJUSTED NOTES FOR ≥65 Y[6,19,42,55,56]
FIB-4 index (Age × AST/[Platelet × √ALT])	**Standard**: **<1.3** low risk **1.3–2.67** indeterminate **>2.67** high risk	**Age ≥65**: **≤2.0** = low risk (**NOT <1.3** = standard cutoff **reduces specificity in elderly**); high-risk threshold remains >2.67; high NPV (96%) but low PPV (63%) for cirrhosis
VCTE/FibroScan (liver stiffness measurement)	**<8 kPa** low risk; **≥8 kPa** significant fibrosis (F2+) **≥12 kPa** advanced fibrosis (F3+) **≥15 kPa** cirrhosis (95.5% specificity)	**False positives in**: heart failure with central venous congestion, ALT >120 IU/L, non-fasting state; 15–20% failure rate with BMI >40 → consider MRE in these patients
ELF (Enhanced Liver Fibrosis test)	**<7.7** low risk **7.7–9.8** indeterminate **≥9.8** high risk for advanced fibrosis/cirrhosis	**Blood-based test** (hyaluronic acid, TIMP-1, PIIINP); preferred over VCTE **when VCTE is unreliable** (CKD, heart failure, BMI >40); sensitivity **74.4%**, specificity **92.4%** for advanced fibrosis
Liver biopsy (METAVIR/ Batts-Ludwig staging)	**METAVIR**: **F0** no fibrosis **F1** portal fibrosis **F2** periportal/few septa **F3** bridging fibrosis **F4** cirrhosis	**Gold standard for fibrosis staging** and **grading inflammation**; required for AIH diagnosis; **useful when noninvasive tests are discordant** or when competing etiologies need histologic differentiation

TEST/MARKER	DIAGNOSIS CRITERION[3,6,44,55]	AGE-ADJUSTED NOTES FOR ≥65 Y[6,19,42,55,56]

ABBREVIATIONS: FIB-4 = Fibrosis-4 index; AST = aspartate aminotransferase; ALT = alanine aminotransferase; NPV = negative predictive value; PPV = positive predictive value; VCTE = vibration-controlled transient elastography; kPa = kilopascal; BMI = body mass index; MRE = magnetic resonance elastography; ELF = Enhanced Liver Fibrosis test; TIMP-1 = tissue inhibitor of metalloproteinase-1; PIIINP = procollagen III N-terminal peptide; CKD = chronic kidney disease; METAVIR = Meta-analysis of Histological Data in Viral Hepatitis; AIH = autoimmune hepatitis

Summary: Additional Diagnostic Systems in US Chronic Hepatitis Care

DIAGNOSTIC SYSTEM	APPLICATION	KEY FEATURES
METAVIR histologic score[55]	**Fibrosis and activity grading on liver biopsy**; **all** chronic hepatitis etiologies	**F0–F4** fibrosis staging; **A0–A3** activity grading; **most widely used histologic system** worldwide
Batts-Ludwig histologic score[55,57]	Fibrosis and inflammation grading **on liver biopsy**	**Grade 1–4** (inflammation), **Stage 1–4** (fibrosis); maps to METAVIR equivalency scale
Ishak histologic score[55,58]	Detailed fibrosis staging (**F0–F6**) **on liver biopsy**	**More granular than METAVIR** (6-point fibrosis scale); useful for **clinical trials** and detecting incremental fibrosis change
NAFLD Fibrosis Score (NFS)[3,59]	**Advanced fibrosis risk in MASLD**	**Composite score** (age, BMI, diabetes, AST:ALT ratio, platelets, albumin); **<−1.455** rules out, **>0.676** rules in **significant fibrosis**
APRI (AST-to-Platelet Ratio Index)[56]	Fibrosis screening in **chronic HCV**	**≥0.7** suggests fibrosis, **≥1.5** suggests cirrhosis; simpler but **less accurate than FIB-4**
Maddrey Discriminant Function (MDF)[60]	Severity assessment in **alcohol-associated hepatitis**	**MDF ≥32** indicates **severe AH** warranting corticosteroid consideration
MELD score[49,60]	Severity and prognosis in **alcohol-associated hepatitis and cirrhosis**	**MELD >20** identifies patients at **increased mortality risk**; used for **transplant prioritization**
ABIC score[60,61]	Prognostic stratification in **alcohol-associated hepatitis**	**Composite** (age, bilirubin, INR, creatinine); **stratifies** into low, intermediate, and high **mortality risk**

ABBREVIATIONS: METAVIR = Meta-analysis of Histological Data in Viral Hepatitis; NFS = NAFLD Fibrosis Score; MASLD = metabolic dysfunction-associated steatotic liver disease; BMI = body mass index; AST = aspartate aminotransferase; ALT = alanine aminotransferase; NAFLD = nonalcoholic fatty liver disease; APRI = AST-to-Platelet Ratio Index; HCV = hepatitis C virus; FIB-4 = Fibrosis-4 index; MDF = Maddrey Discriminant Function; AH = alcoholic hepatitis; MELD = Model for End-Stage Liver Disease; ABIC = Age-Bilirubin-INR-Creatinine; INR = international normalized ratio

Common Oversights

OVERSIGHT/ SHORTCUT[6,12,29]	WHY IT MATTERS — WHAT TO DO INSTEAD[6,12,19,44]
Attributing persistent aminotransferase elevation to aging, statins, or polypharmacy	Often the **only early signal** of chronic hepatitis in older adults; **immune senescence blunts symptoms** while fibrosis progresses; evaluate with etiology-specific serologies and FIB-4 **before attributing to benign causes**
Missing Baby Boomer HCV screening (born 1945–1965)	**Sixfold higher HCV prevalence**; **~75%** of US infections; one-time HCV antibody with reflex RNA if positive; **DAA therapy** achieves SVR >95% in 8–12 weeks
Omitting universal HBV triple-panel screening	CDC 2023 recommends **universal HBsAg/anti-HBs/anti-HBc for all adults ≥18 y**; most infections previously undiagnosed in primary care
Using standard FIB-4 cutoff (<1.3) in patients ≥65 y	Unacceptably **low specificity in elderly**; use **age-adjusted cutoff ≤2.0** for low risk; ELF or MRE preferred **when VCTE unreliable** (CKD, heart failure, BMI >40)
Assuming MASLD is benign in older adults	Highest incidence at ages **61–65 y**; **leading transplant indication** in adults >65 y; fibrosis often **occurs with normal ALT**; screen with **FIB-4 annually in**: T2DM, obesity, or ≥2 metabolic risk factors
Omitting HCC surveillance in high-risk patients	Fewer than 1 in 4 with cirrhosis receive **consistent surveillance**; cirrhosis of any cause, high-risk CHB qualify; order **US + AFP every 6 months**
Overlooking AIH in older women with unexplained aminotransferase elevation	**Up to 20% seronegative for standard autoantibodies**; one-third have cirrhosis at diagnosis; check ANA, SMA, anti-LKM1, IgG; **refer for biopsy** if suspicion persists
Failing to screen for alcohol use disorder	Underrecognized in older adults; **AUDIT-C** or **CAGE** at routine visits; alcohol **accelerates fibrosis in viral hepatitis and MASLD**; naltrexone is preferred first-line agent
Relying on VCTE alone with heart failure, CKD, or BMI >40	Heart failure, ALT >120, and BMI >40 **generate false-positive** or **failed results**; ELF (92.4% specificity) is a blood-based alternative; MRE has fewer failures in severe obesity

ABBREVIATIONS: FIB-4 = Fibrosis-4 index; HCV = hepatitis C virus; DAA = direct-acting antiviral; SVR = sustained virologic response; RNA = ribonucleic acid; HBV = hepatitis B virus; CDC = Centers for Disease Control and Prevention; HBsAg = hepatitis B surface antigen; ELF = Enhanced Liver Fibrosis test; MRE = magnetic resonance elastography; VCTE = vibration-controlled transient elastography; CKD = chronic kidney disease; BMI = body mass index; MASLD = metabolic dysfunction-associated steatotic liver disease; ALT = alanine aminotransferase; T2DM = type 2 diabetes mellitus; HCC = hepatocellular carcinoma; CHB = chronic hepatitis B; US = ultrasound; AFP = alpha-fetoprotein; AIH = autoimmune hepatitis; ANA = antinuclear antibody; SMA = smooth muscle antibody; anti-LKM1 = anti-liver kidney microsomal antibody type 1; IgG = immunoglobulin G; AUDIT-C = Alcohol Use Disorders Identification Test-Concise

Key Differentials in Elderly

PRESENTATION	DIFFERENTIAL[4,7,19,28,62]	KEY TESTS[4,19,28,53,63]
Persistent aminotransferase elevation without symptoms	**Chronic** HBV/HCV, MASH, AIH, drug-induced **hepatitis**, alcohol-related, celiac disease, thyroid disease	**HCV antibody + HBsAg**; fasting lipids + HbA1c; autoimmune serology + IgG; medication reconciliation; TSH; anti-tTG
Fatigue and mild liver enzyme elevation in Medicare-age patient	**Chronic HCV** (often silent), **early AIH**, MASH with early fibrosis, depression with somatization	**HCV antibody**; ANA/SMA/IgG; abdominal US with FIB-4; PHQ-9 if metabolic workup negative
Cirrhosis/decompensation without clear etiology at presentation	**Undiagnosed chronic HCV**, **occult HBV reactivation**, AIH, MASH cirrhosis, hemochromatosis, Wilson disease	**HCV RNA; HBsAg + HBV DNA**; autoimmune serology; ferritin/transferrin saturation; ceruloplasmin if <55 y
Mixed cholestatic and hepatocellular pattern	**Primary biliary cholangitis** (AMA+), **overlap AIH-PBC syndrome**, drug-induced cholestasis, choledocholithiasis	**AMA**; **MRCP**; autoimmune serology + IgG subclasses; **medication reconciliation with DILI workup**
Acute-on-chronic worsening in known chronic hepatitis patient	**HBV reactivation** (e.g., during immunosuppression), **AIH flare**, superimposed DILI, HEV superinfection, alcohol binge	**HBV DNA**; **LFT trend**; medication reconciliation including herbal/supplements; HEV serology; alcohol biomarkers

ABBREVIATIONS: HBV = hepatitis B virus; HCV = hepatitis C virus; MASH = metabolic dysfunction-associated steatohepatitis; AIH = autoimmune hepatitis; HbA1c = hemoglobin A1c; IgG = immunoglobulin G; TSH = thyroid-stimulating hormone; anti-tTG = anti-tissue transglutaminase; HBsAg = hepatitis B surface antigen; ANA = antinuclear antibody; SMA = smooth muscle antibody; US = ultrasound; FIB-4 = Fibrosis-4 index; PHQ-9 = Patient Health Questionnaire 9-item; HBV DNA = hepatitis B virus deoxyribonucleic acid; HCV RNA = hepatitis C virus ribonucleic acid; AMA = antimitochondrial antibody; PBC = primary biliary cholangitis; MRCP = magnetic resonance cholangiopancreatography; DILI = drug-induced liver injury; LFT = liver function tests; HEV = hepatitis E virus

Comorbidity Screening

CONDITION	PREVALENCE IN THIS POPULATION[10,12,64–66]	SCREENING APPROACH*[1,49,67–69]
Type 2 diabetes mellitus (E11.x)	**High co-prevalence with MASH** and **accelerates fibrosis** in all chronic hepatitis types	**HbA1c annually**; optimize with metformin and **GLP-1 receptor agonists** (preferred in MASH); avoid thiazolidinediones in advanced fibrosis

CONDITION	PREVALENCE IN THIS POPULATION[10,12,64–66]	SCREENING APPROACH*[1,49,67–69]
Obesity (E66.x)	**Principal MASH risk factor**; **BMI >40** increases VCTE technical failure rate **15–20%**	**Document BMI**; Mediterranean-style diet + **≥7–10%** weight loss target; **use ELF over VCTE** for fibrosis staging if BMI >40
Chronic kidney disease (N18.x)	Common in Medicare population; critical for **antiviral selection and FIB-4 reliability**	**eGFR at every chronic hepatitis encounter**; TDF dose-adjust if **<50**; sofosbuvir-based DAAs approved **≥30** and dialysis; ELF preferred over FIB-4 **if thrombocytopenia**
Heart failure/ cardiovascular disease (I50.x, I25.x)	Central venous congestion **falsely elevates VCTE**; cardiovascular events leading cause of **non-liver mortality** in MASH	**Baseline echo if peginterferon considered** (contraindicated in decompensated disease); **statin therapy safe and recommended** in chronic hepatitis with dyslipidemia; ELF preferred over VCTE if heart failure
Alcohol use disorder (F10.xx)	**Drives K70.1 coding**; coexisting HCV/MASH **accelerates fibrosis**; abstinence is cornerstone management	**AUDIT-C** at annual wellness visit; brief intervention or referral per USPSTF; **F10 severity code alongside K70.1**

ABBREVIATIONS: MASH = metabolic dysfunction-associated steatohepatitis; HbA1c = hemoglobin A1c; GLP-1 = glucagon-like peptide-1; BMI = body mass index; VCTE = vibration-controlled transient elastography; ELF = Enhanced Liver Fibrosis test; eGFR = estimated glomerular filtration rate; TDF = tenofovir disoproxil fumarate; DAA = direct-acting antiviral; FIB-4 = Fibrosis-4 index; HCV = hepatitis C virus; AUDIT-C = Alcohol Use Disorders Identification Test-Concise; USPSTF = United States Preventive Services Task Force; FDA = Food and Drug Administration
***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

⚠ RED FLAG — EMERGENCY/ACTIVATE CRISIS RESPONSE

These emergency conditions require **immediate ED transfer or same-day hepatology contact**:

- **Variceal hemorrhage** (hematemesis or melena): Upper GI bleeding in known or suspected cirrhosis; **~60%** of ICU admissions in cirrhosis are portal hypertension–related complications[6,70]
  - → **NPO**; IV access and resuscitation; IV octreotide; emergent EGD within 12 hours; **pre-emptive TIPS** if Child-Pugh 10–13 or Child-Pugh 8–9 with active bleeding at endoscopy
- **Hepatic encephalopathy** (altered mental status, asterixis, or coma): Grade ≥2 (overt) presents with disorientation, lethargy, asterixis; **exclude non-hepatic causes** (alcohol withdrawal, structural brain injury, medications) especially if first episode[6,62]
  - → **Airway protection**; IV lactulose 60 cc then 20 cc q1–2h until bowel movement; identify precipitant (infection, GI bleed, AKI, electrolyte disorder, sedatives); ICU for Grade 3–4
- **Spontaneous bacterial peritonitis** (new ascites with fever or unexplained deterioration): Up to one-third of patients with SBP lack fever or pain; suspect when any patient with cirrhosis and ascites deteriorates with encephalopathy, AKI, or jaundice[6,71]
  - → **Diagnostic paracentesis** (ascites PMN >250/µL confirms SBP); blood and urine cultures; empiric IV antibiotics; IV albumin
- **Acute liver failure risk** (INR >1.5 with acute aminotransferase rise and jaundice): Total bilirubin ≥12 mg/dL + INR ≥1.5 in chronic hepatitis identifies ACLF; MELD ≥15 or any decompensating event warrants **transplant center referral**[72,73]
  - → **Immediate hepatology contact**; MELD calculation; evaluate for transplant candidacy; do not delay for outpatient workup

⚠ RED FLAG — URGENT (SAME- OR NEXT-DAY)

Rapid clinical deterioration in a patient with known or suspected chronic hepatitis warrants **immediate re-evaluation**:

- **Progressive jaundice with new ascites over days to weeks**: Signals transition from compensated to decompensated cirrhosis; median survival drops to ~2 years after first decompensation[6,73]
  - → **Urgent hepatology referral**; diagnostic paracentesis if ascites present; MELD calculation; transplant evaluation if MELD ≥15
- **ALT/AST doubling or AST:ALT ratio shift in a known chronic hepatitis patient**: Evaluate for superimposed DILI (medication reconciliation including herbals/supplements within 180 days), alcohol binge (alcohol biomarkers), HBV reactivation (especially during immunosuppression), AIH flare, or HEV superinfection[53,72]
  - → HBV DNA if known HBV; complete medication reconciliation; autoimmune serology if not recently checked; HEV IgM in older adults
- **HBV DNA rebound >1 log IU/mL on antiviral therapy**: Virologic breakthrough suggests nonadherence or antiviral resistance; risk of hepatic flare and ACLF[1,38]
  - → Confirm adherence; resistance testing; urgent hepatology consultation for antiviral switch
- **New hepatic lesion on imaging or AFP ≥20 ng/mL with rising trend**: Rising AFP or positive AFP should prompt CT or MRI **regardless of ultrasound results**; AFP ≥20 ng/mL with rising trend on two consecutive tests warrants diagnostic imaging[8,32]
  - → Multiphasic contrast-enhanced CT or MRI; **do not delay** for next scheduled surveillance interval; hepatology/oncology referral if LI-RADS 4–5
- **New lower extremity edema with abdominal distension**: New ascites in chronic hepatitis indicates portal hypertension and possible decompensation; diagnostic paracentesis **mandatory for all hospitalized patients** with cirrhosis and ascites[6,71]
  - → Abdominal ultrasound; diagnostic paracentesis; serum-ascites albumin gradient; hepatology referral

3 MEAT DOCUMENTATION ESSENTIALS

Chronic hepatitis documentation translates an etiology-driven, progressive liver disease into **a record that supports** continuity, fibrosis-aware management, and **accurate representation of clinical complexity**.[1,2] The most common gaps are defaulting to **K73.9** (chronic hepatitis, unspecified) or **B19.x** (unspecified viral hepatitis) instead of the specific etiology code, failing to record the **serologic/virologic confirmation** and **fibrosis stage** that justify the diagnosis, and omitting comorbidities (alcohol use disorder, MASH, CKD) that accelerate progression.[74,75] Each gap **obscures the clinical picture** and impedes coordination with hepatology.[74]

***Case vignette**: A 68-year-old female with **chronic hepatitis C** (HCV RNA detectable, genotype 1a, no cirrhosis) diagnosed at USPSTF-directed screening 4 months ago. **Referred to hepatology**; completed 8 weeks of glecaprevir/pibrentasvir (Mavyret) 3 months ago. Presents to PCP for scheduled follow-up. Recent hepatology SVR12 laboratory showed **HCV RNA undetectable**; FIB-4 0.9 (age-adjusted). Patient reports improved energy, no new symptoms. **Comorbidities**: T2DM (HbA1c 7.2%), CKD stage 3a (eGFR 52), hyperlipidemia on atorvastatin.*

MONITOR: "SVR12 labs from [date] reviewed: HCV RNA quantitative undetectable (<15 IU/mL). AST 22, ALT 18 (pre-treatment baseline: AST 54, ALT 68). Platelets 245K. **FIB-4 0.9**, low-risk age-adjusted for ≥65 y. Weight stable. HbA1c 7.2% (2 months prior). **eGFR 52** (CKD 3a, stable). Atorvastatin 20 mg, metformin 1,000 mg BID continued."

EVALUATE: "Clinical picture consistent with **sustained virologic response** (clinical cure) at **SVR12**. Aminotransferases normalized. No clinical or laboratory evidence of fibrosis or cirrhosis on noninvasive assessment. **No decompensation signs** (no ascites, encephalopathy, or bleeding). Baby Boomer cohort screening identified this case. T2DM and CKD stable. **Medication reconciliation**: no new hepatotoxic exposures, no herbal supplements."

ASSESS: "1) Chronic hepatitis C (**B18.2**), post-DAA with SVR12 → **active chronic condition through reporting year** until **SVR24** confirmed per hepatology. No cirrhosis → **no HCC surveillance indicated** (FIB-4 low, platelets normal, no imaging concern). 2) T2DM without complications (**E11.9**), controlled. 3) CKD stage 3a (**N18.31**), stable → metformin dose appropriate at eGFR 52. 4) Hyperlipidemia (**E78.5**), managed on statin."

TREAT: "Continue current T2DM and lipid regimen. Hepatology follow-up in 3 months for **SVR24 confirmation**. **Counseled**: avoid hepatotoxic supplements and recreational alcohol. **Annual HCV RNA if ongoing risk exposure** per AASLD-IDSA. Return 6 months for routine primary care; call for new jaundice, unexplained fatigue, or upper GI bleeding."

Clinical Documentation Elements

- **State the specific etiology and code**: **B18.1** (HBV), **B18.2** (HCV), **K75.4** (AIH), **K70.1** (alcoholic), **K71.x** (drug-induced); **never default to K73.9** or **B19.x** once etiology is confirmed → common coding errors in chronic hepatitis[2,24]
- **Record the diagnostic basis**: Serologic/virologic confirmation (HBsAg ≥6 months for HBV; HCV antibody + detectable RNA for HCV; autoantibodies + IgG + histology for AIH) and fibrosis stage (FIB-4 with age-adjusted cutoff for ≥65 y, elastography, or biopsy); document **confirmation date** and **results**[5,24,55]
- **Document treatment phase and status**: For HBV, specify **immune phase** (immune-tolerant, HBeAg-positive immune-active, HBeAg-negative immune-active, inactive, indeterminate) and **antiviral regimen**; for HCV, **specify treatment-naïve**, **on DAA**, or **post-SVR** with or without **cirrhosis**; post-SVR with cirrhosis remains an **active condition** requiring HCC surveillance[5,45]
- **Link clinical relationships explicitly**: Document the connection between chronic hepatitis and its complications; e.g., "Cirrhosis (**K74.60**) secondary to chronic hepatitis C (**B18.2**), Child-Pugh A, compensated; **HCC surveillance** with US + AFP every 6 months"; this supports accurate coding of **both** the **primary hepatitis** and its **downstream complications**[6,8]

- **Include current laboratory data with dates**: Aminotransferases, HBV DNA or HCV RNA, FIB-4 (age-adjusted), platelet count, albumin, and imaging findings; MEAT requires specific values, not generalities; **annual FIB-4** is expected for **every chronic hepatitis patient**[55,76]
- **Code each comorbidity separately alongside the hepatitis code**: Cirrhosis (**K74.x**), ascites (**R18.0**), HCC (**C22.0**), T2DM (**E11.x**), CKD (**N18.x**), alcohol use disorder (**F10.xx**), HIV (**B20**); each carries independent clinical and coding significance[24]
- **Document chronicity and surveillance activity**: Note diagnosis date, duration of infection/disease, and active surveillance schedule; active surveillance or treatment is not "history" → continue the **active code until resolution is clinically confirmed**[8,24]
- **Document advance care planning and SDOH context**: Surrogate decision-maker, code status, and goals of care; Z-codes for **SDOH when present** (**Z59.xx** housing, **Z59.41** food insecurity, **Z91.14** medication noncompliance); particularly important for **elderly patients** with decompensated cirrhosis and accumulating end-organ damage[6]

Reframing Common Documentation Shortcuts

INSTEAD OF…	DOCUMENT…[1,2,5,8,55]
'Hepatitis' on problem list	'Chronic hepatitis C (**B18.2**), HCV RNA detectable, **genotype** [x], currently [treatment-naïve/on DAA therapy/post-SVR with/without cirrhosis], **FIB-4** [value] age-adjusted.'
'Chronic hepatitis, unspecified' (K73.9) after evaluation	**Specific etiology once established**: '**B18.1** HBV **without delta**, HBsAg positive **≥6 months**, immune-active phase on TAF.'; reserve **K73.9 ONLY** for extensively evaluated patients **with no etiology identified**
'B19' or 'viral hepatitis unspecified'	**Confirm chronicity and etiology**: '**B18.2** chronic HCV, HCV RNA detectable × 6 months.' **clinical guidance**: **B19.x** use instead of **B18.x** is a common coding error
'History of hepatitis C' (while active)	'Chronic hepatitis C (**B18.2**), on weekly [x] of 8-week DAA course' — or 'post-SVR HCV with compensated cirrhosis **K74.60** → HCC surveillance every 6 months.'; **do NOT** use Z-codes for active chronic disease

ABBREVIATIONS: HCV = hepatitis C virus; RNA = ribonucleic acid; DAA = direct-acting antiviral; SVR = sustained virologic response; FIB-4 = Fibrosis-4 index; HBV = hepatitis B virus; HBsAg = hepatitis B surface antigen; TAF = tenofovir alafenamide; HCC = hepatocellular carcinoma

4 TREATMENT AND REFERRAL QUICK GUIDE

Chronic hepatitis management in older adults is **entirely etiology-driven**: there is no universal treatment approach.[2,5] **For HCV**, **DAA therapy** achieves **SVR >95%** (clinical cure) with 8–12 weeks of oral therapy, **including in patients ≥65 years**, with no significant difference in efficacy compared to younger adults.[77,78] For HBV, preferred **first-line nucleos(t)ide analogues** (**TAF preferred in ≥60 y** due to favorable renal and bone safety profile; entecavir or TDF as alternatives) achieve sustained viral suppression with minimal toxicity.[1,5,30] **For MASH**, resmetirom is the first FDA-approved therapy for noncirrhotic MASH with **F2–F3 fibrosis**; **semaglutide** has received accelerated FDA approval for the same indication, and **GLP-1 receptor agonists are preferred** in patients with **co-morbid T2DM and obesity**.[79–81] For **alcohol-related hepatitis**, **complete abstinence is the cornerstone**, with pharmacologic treatment of alcohol use disorder (**naltrexone preferred** in older adults).[12] Primary care shares **longitudinal management with hepatology**: screening, diagnosis, fibrosis staging, coordination of treatment initiation, monitoring of comorbidities that affect treatment selection (CKD, cardiac disease, polypharmacy), and **long-term HCC surveillance** in qualifying patients.[76]

AAVBC PERSPECTIVE

In value-based care, the PCP's highest-value contributions *center on* ***closing the screening-to-treatment gap****: the Baby Boomer cohort (born 1945–1965) carries* ***~75% of US HCV infections****, yet an estimated* ***800,000 remain undiagnosed****; one-time HCV antibody screening with reflex RNA testing* ***reduces loss to follow-up*** *from* ***~34%*** *to* ***<11%*** *and connects patients to* ***curative DAA therapy****.*[2,82] *Equally critical is* ***preventing fibrosis progression*** *through* ***comorbidity optimization*** *— annual age-adjusted FIB-4 identifies patients requiring elastography or referral,* ***GLP-1 receptor agonists*** *address co-morbid T2DM/obesity while independently improving MASH, and* ***statin therapy*** *is safe and recommended in chronic hepatitis with dyslipidemia.*[68,69,76,81] ***DAA therapy for HCV*** *achieves* ***SVR rates of 97–98% in patients ≥65 years*** *(including those ≥75 y), and cost-effectiveness analyses consistently demonstrate* ***ICERs <$100,000 per QALY across all fibrosis stages****, with earlier treatment associated with larger sustained reductions in liver-related and total medical costs among Medicare beneficiaries.*[45,77,78] ***For HBV****, only* ***29%*** *of patients with cirrhosis received antiviral therapy* ***within 12 months of diagnosis*** *in US claims data, and only* ***~40%*** *of Medicare patients with HCV cirrhosis receive* ***semiannual HCC surveillance*** *—* ***rural*** *and* ***African American patients*** *have significantly lower rates.*[23,32,75] *Decisions on treatment intensity, surveillance intervals, and escalation are guided by* ***fibrosis stage****,* ***comorbidity burden****,* ***functional status****, and* ***goals of care*** *—* ***not chronological age alone****.*[12]

Therapy Escalation Criteria

TRIGGER[5,8,14,19,55]	ACTION[2,5,8,19,55]
Positive HCV antibody in any Baby Boomer (born 1945–1965) or at-risk adult	Reflex HCV RNA quantitative (CPT 87521) **within 30 days**; if positive → code **B18.2** + **expedited referral** for DAA therapy evaluation; target linkage-to-care **<30 days**
HBsAg positive confirmed ≥6 months	**HBV DNA quantitative**; HBeAg/anti-HBe; **phase determination** (immune-tolerant vs. immune-active per AASLD 2026); **treatment-eligible patients** → initiate TAF 25 mg daily (preferred in ≥60 y) or entecavir 0.5 mg daily; **HCC surveillance** per demographic criteria
FIB-4 indeterminate (1.3–2.67 standard; 2.0–2.67 age-adjusted for ≥65 y)	**Sequential testing**: ELF (preferred in elderly with heart failure, BMI >40, CKD) or VCTE for confirmation; if **ELF ≥9.8** or **VCTE ≥10 kPa** → **hepatology referral** for further staging and management
Cirrhosis of any etiology, or high-risk CHB (Asian males >40 y, Asian females >50 y, African/Black individuals, family history of HCC)	**Enroll in HCC surveillance**: ultrasound + AFP **every 6 months** (CPT 76705 + 82105); coordinate across primary care and hepatology to **prevent surveillance gaps**
Autoimmune hepatitis (K75.4) diagnosis	Hepatology co-management for induction (prednisone ± azathioprine) and maintenance; check **TPMT metabolizer status** before azathioprine; **elderly**: prednisone monotherapy 20–40 mg/day initially; add azathioprine after 2 weeks **if steroid-responsive**; start **osteoporosis prophylaxis** simultaneously

ABBREVIATIONS: HCV = hepatitis C virus; RNA = ribonucleic acid; CPT = current procedural terminology; DAA = direct-acting antiviral; HBsAg = hepatitis B surface antigen; HBV = hepatitis B virus; HBeAg = hepatitis B e antigen; AASLD = American Association for the Study of Liver Diseases; TAF = tenofovir alafenamide; HCC = hepatocellular carcinoma; FIB-4 = Fibrosis-4 index; ELF = Enhanced Liver Fibrosis test; BMI = body mass index; CKD = chronic kidney disease; VCTE = vibration-controlled transient elastography; kPa = kilopascal; CHB = chronic hepatitis B; AFP = alpha-fetoprotein; TPMT = thiopurine methyltransferase

CLINICAL PEARL: IMMUNE SENESCENCE SILENTLY RESHAPES CH IN OLDER ADULTS

Aging degrades both **innate** and **adaptive hepatic immunity**, producing four clinically actionable consequences for PCPs:[41]

Symptoms are blunted while damage progresses. Older adults with chronic HBV, HCV, and AIH typically **present asymptomatically** yet with **more advanced fibrosis**; **one in four** AIH diagnoses occurs **after age 60**, frequently at cirrhotic stages suggesting years of subclinical disease.[19,83]

Vaccine responses decline. **HBV seroconversion** falls to **~47%** in adults aged **50–60**; **Heplisav-B** (CpG-adjuvanted) achieves **2.7x higher** seroconversion in chronic liver disease patients and **should be preferred**.[84,85]

HBV reactivation risk rises. Reactivation occurs in **41–53%** of **HBsAg-positive** patients receiving immunosuppression without prophylaxis; screen with HBsAg and anti-HBc **before** any immunosuppressive therapy.[1,38]

HCC immune surveillance fails. Senescent T-cells and NK cells **lose capacity** to clear **pre-malignant hepatocytes**; intrahepatic T-cell senescence correlates directly with fibrosis stage → **do not defer HCC surveillance** in qualifying older adults.[86,87]

Bottom line: Older chronic hepatitis patients **present later**, **progress faster**, **vaccinate poorly**, **reactivate more readily**, and **surveille tumors less effectively**, all while appearing clinically well.[41,83] Proactive screening, confirmed vaccine seroconversion, pre-immunosuppression HBV testing, and strict HCC surveillance adherence are the **PCP's highest-value responses**.

AASLD/CDC/USPSTF Aligned Recommendations

PROFILE	GUIDELINE-ALIGNED APPROACH*[2,5,19,49,80,81]	NOTES*[2,5,12,19,60]
Chronic HBV — immune-active, ≥60 y or CKD	**TAF** 25 mg orally daily with food; **first-line in ≥60 y**, CKD, or osteoporosis; no renal adjustment if **CrCl ≥15**	**Alternative**: entecavir 0.5 mg daily (adjust if CrCl <50); p**eginterferon not recommended in elderly**; TAF not recommended in Child-Pugh B/C
Chronic HCV — noncirrhotic, compensated cirrhosis, or decompensated cirrhosis	**Generic glecaprevir/pibrentasvir** 300/120 mg daily **with food × 8 wk, or sofosbuvir/velpatasvir** 400/100 mg daily × **12 wk; both pangenotypic**	**No renal restriction** for either regimen (any eGFR including dialysis); **no geriatric dose adjustment;** SVR **>95%** noncirrhotic/compensated, **83–94%** decompensated; screen HBsAg/anti-HBc **before initiation** (reactivation risk)

PROFILE	GUIDELINE-ALIGNED APPROACH*[2,5,19,49,80,81]	NOTES*[2,5,12,19,60]
Autoimmune hepatitis (K75.4) — induction	**Prednisone 40–60 mg daily**, or 20–40 mg + azathioprine 50–150 mg daily; add azathioprine after 2 weeks to confirm steroid response	**Check TPMT before azathioprine**; **elderly**: lower-dose prednisone with **early azathioprine** to minimize steroid toxicity (osteoporosis, cataracts, hyperglycemia); **start bone protection**
MASH with F2–F3 fibrosis	**Resmetirom** (Rezdiffra) 80–100 mg orally daily; **semaglutide** (Wegovy) 2.4 mg SC weekly; **lifestyle** (≥7–10% weight loss + Mediterranean diet) first-line for all	**Resmetirom**: contraindicated in cirrhosis, PBC, uncontrolled thyroid disease; **semaglutide**: not approved for **MASH cirrhosis**; monitor GI events, AKI, pancreatitis; combination not yet studied
Alcohol-related hepatitis (K70.1)	**Complete abstinence is cornerstone**; **naltrexone** or acamprosate for AUD; co-document **F10.xx** with severity	**Naltrexone**: safe in compensated liver disease; **contraindicated with opioids** and in acute hepatitis/ decompensated cirrhosis per some sources; **prednisolone** 40 mg × 28 days if Maddrey DF ≥32

ABBREVIATIONS: HBV = hepatitis B virus; CKD = chronic kidney disease; TAF = tenofovir alafenamide; CrCl = creatinine clearance; HCV = hepatitis C virus; eGFR = estimated glomerular filtration rate; SVR = sustained virologic response; HBsAg = hepatitis B surface antigen; TPMT = thiopurine methyltransferase; MASH = metabolic dysfunction-associated steatohepatitis; F2–F3 = METAVIR fibrosis stages 2–3; SC = subcutaneous; PBC = primary biliary cholangitis; GI = gastrointestinal; AKI = acute kidney injury; AUD = alcohol use disorder; DF = discriminant function; FDA = Food and Drug Administration

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

CLINICAL PEARL: GENERIC DAAS MAKE HCV CURE A HIGH-VALUE INTERVENTION

Two pangenotypic regimens, glecaprevir/pibrentasvir (G/P, 8 weeks) and sofosbuvir/velpatasvir (SOF/VEL, 12 weeks), anchor the **AASLD-IDSA simplified treatment pathway**.[2] Generic availability has **fundamentally shifted the value equation** for PCPs managing **older patients with chronic HCV**.[88]

Cure rates are **age-independent**. G/P achieves SVR12 of 97.9% in patients ≥65 across pooled Phase 2/3 data, confirmed in real-world U.S. cohorts up to age 84.[89] **Neither regimen requires renal dose adjustment** (any eGFR, including dialysis), and adverse events in elderly patients are driven by **ribavirin-containing regimens**, **not** by ribavirin-free DAAs.[77]

Generic pricing transforms cost-effectiveness. Generic SOF/VEL costs **~$11,000/course** and G/P **~$10,000–$13,000** — well below the **$50,000/QALY** cost-effectiveness threshold even when treating patients aged 70–75 with advanced fibrosis.[88]

Cure prevents liver and extrahepatic disease. In a cohort of 245,596 adults, DAA treatment was independently associated with **57%** lower all-cause mortality, **64%** less decompensation, **27%** less HCC, and significant reductions in incident diabetes, CKD, and cardiovascular disease.[90]

Bottom line: Generic pangenotypic DAAs deliver **>97% cure in 8–12 weeks** with no renal restriction and no age-related efficacy decline.[77] For older adults who present with more advanced fibrosis yet fewer symptoms, **early treatment** prevents not only **cirrhosis** and **HCC** but **also extrahepatic complications** that disproportionately burden this population.[90] Do not defer treatment based on age alone.[2]

Non-Pharmacologic Treatment and Lifestyle Modification

INTERVENTION	TARGET/ RECOMMENDATION[3,12,49,91,92]	NOTES[4,9,53,93]
Complete alcohol abstinence	**All chronic hepatitis etiologies**; particularly essential for **K70.1** and **MASH**	Alcohol **accelerates fibrosis in all hepatitis types**; **AUDIT-C at every visit**; brief intervention or MAT referral for alcohol use disorder
Weight loss and Mediterranean-style diet	**MASH**: ≥7–10% body weight loss target; caloric reduction of **500–1,000 kcal/day**	**Reduces hepatic fat and inflammation**; sustained behavioral change is the core MASH treatment; **consider dietitian referral**; elderly with mobility limits → chair aerobics, water aerobics, tai chi
Physical activity/ exercise	**≥150 minutes/week** moderate-intensity aerobic exercise per AASLD MASLD guidance	**Adapt for frailty and mobility**: walking, chair-based programs, PT referral for deconditioned elderly; exercise alone has **metabolic benefit** independent of weight loss

INTERVENTION	TARGET/ RECOMMENDATION[3,12,49,91,92]	NOTES[4,9,53,93]
Avoid hepatotoxic supplements	**Counsel against**: kava, high-dose green tea extract, germander, pennyroyal, high-dose vitamin A, raw seafood (Vibrio risk in cirrhosis)	Document in medication reconciliation **at every visit**; patients often do not consider OTC/supplements as 'medications'

ABBREVIATIONS: MASH = metabolic dysfunction-associated steatohepatitis; AUDIT-C = Alcohol Use Disorders Identification Test – Consumption; MAT = medication for addiction treatment; AASLD = American Association for the Study of Liver Diseases; MASLD = metabolic dysfunction-associated steatotic liver disease; PT = physical therapy; OTC = over-the-counter

Medication Safety and Key Interactions

AGENT	KEY CONSIDERATIONS*[2,94–97]	PCP ACTION*[1,2,98–100]
Sofosbuvir-containing DAA + amiodarone	**Fatal cardiac arrest and severe symptomatic bradycardia reported**; **risk increased with**: concurrent beta-blockers, cardiac comorbidities, or advanced liver disease; onset within **hours to 2 weeks** of DAA initiation	**Do NOT co-administer**; if unavoidable, **inpatient cardiac monitoring** × 48 hours then daily outpatient HR monitoring × 2 weeks; consult hepatology/cardiology before initiating
Glecaprevir/ pibrentasvir or sofosbuvir/ velpatasvir + statins	OATP1B1/3 and BCRP inhibition → **↑ statin levels** → myopathy/rhabdomyolysis risk; rosuvastatin AUC ↑ up to 5-fold with Mavyret	Rosuvastatin **≤10 mg**; atorvastatin **lowest dose** with monitoring; pravastatin reduce 50% with Mavyret; monitor for **myalgia/CK elevation** during DAA course
Sofosbuvir/ velpatasvir + PPIs	Velpatasvir absorption is **pH-dependent**; high-dose PPIs → **subtherapeutic DAA levels** → virologic failure	Omeprazole ≤20 mg taken **4 hours afte**r DAA with food; **deprescribe unnecessary PPIs** during 12-week HCV course; H2RAs are safer alternatives
Azathioprine + allopurinol	Xanthine oxidase inhibition → ↑ 6-TGN metabolites → **severe pancytopenia**; however, intentional low-dose combination used in **refractory AIH** under specialist supervision	**Avoid combination** unless directed by hepatology with metabolite monitoring; CBC weekly during co-initiation; febuxostat is **NOT** a safe alternative

AGENT	KEY CONSIDERATIONS*[2,94–97]	PCP ACTION*[1,2,98–100]
TAF/TDF + NSAIDs or nephrotoxic agents	**Additive nephrotoxicity**; NSAIDs reduce renal prostaglandin synthesis → ↑ tenofovir-related tubulopathy risk; **TAF has less renal toxicity** than TDF but risk persists	**Avoid chronic NSAIDs**; use acetaminophen ≤2 g/day; **prefer TAF over TDF** in ≥60 y; monitor creatinine, phosphorus, urine glucose annually
Any DAA + rifampin	Potent CYP3A4/P-gp induction → markedly **reduced DAA levels** → virologic failure; **contraindicated** with all current DAA regimens	**Do NOT co-administe**r; defer HCV treatment **until TB therapy complete** or consult ID/hepatology
Polypharmacy (≥5 medications) + any chronic hepatitis regimen	**>50%** of elderly HCV patients have predicted significant DDIs; calcium channel blockers (31.5%) and PPIs (23%) are the **most common interacting classes**	**Comprehensive medication reconciliation at DAA initiation**; use hep-druginteractions.org (University of Liverpool); apply AGS Beers Criteria; **deprescribe where possible**

ABBREVIATIONS: DAA = direct-acting antiviral; HR = heart rate; OATP1B1/3 = organic anion transporting polypeptide 1B1/3; BCRP = breast cancer resistance protein; AUC = area under the curve; CK = creatine kinase; PPIs = proton pump inhibitors; HCV = hepatitis C virus; H2RAs = histamine-2 receptor antagonists; 6-TGN = 6-thioguanine nucleotides; AIH = autoimmune hepatitis; CBC = complete blood count; TAF = tenofovir alafenamide; TDF = tenofovir disoproxil fumarate; NSAIDs = nonsteroidal anti-inflammatory drugs; CYP3A4 = cytochrome P450 3A4; P-gp = P-glycoprotein; TB = tuberculosis; ID = infectious disease; DDIs = drug-drug interactions; AGS = American Geriatrics Society; PCP = primary care physician; FDA = Food and Drug Administration
***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

When to Refer

CRITERION	SPECIALIST[2,5,19,73]	URGENCY[2,19,68,70]
Positive HCV RNA (confirmed chronic HCV)	Hepatology or infectious disease with HCV expertise	**Within 30 days** → all patients are treatment candidates
HBsAg positive ≥6 months with treatment-eligible criteria (immune-active phase)	Hepatology	**Within 4 weeks** for treatment initiation and HCC surveillance planning
FIB-4 high risk (>2.67) or VCTE ≥10 kPa or ELF ≥9.8	Hepatology	**Within 4 weeks** for staging and co-management

CRITERION	SPECIALIST[2,5,19,73]	URGENCY[2,19,68,70]
Autoimmune hepatitis (K75.4) diagnosis or suspected AIH flare	Hepatology + consider TPMT testing before azathioprine	**Within 2 weeks** for treatment initiation; urgent if **acute severe AIH** (INR >1.5 + jaundice)
Decompensation (ascites, encephalopathy, variceal bleeding), or MELD ≥15	Hepatology emergency + transplant center	**IMMEDIATE** for acute decompensation; **within 1 week** for progressive decompensation

ABBREVIATIONS: HCV = hepatitis C virus; RNA = ribonucleic acid; HBsAg = hepatitis B surface antigen; HCC = hepatocellular carcinoma; FIB-4 = Fibrosis-4 index; VCTE = vibration-controlled transient elastography; kPa = kilopascal; ELF = Enhanced Liver Fibrosis test; AIH = autoimmune hepatitis; TPMT = thiopurine methyltransferase; INR = international normalized ratio; MELD = Model for End-Stage Liver Disease

Follow-Up Timing

STAGE/CATEGORY	FREQUENCY[2,5,8,19,38]	LABS TO MONITOR*[1,19,45,101]
HBV on treatment (TAF or entecavir)	HBV DNA **every 3–6 months** until undetectable, then **every 6–12 months**; ALT/AST **every 3–6 months**	**HBV DNA**, **ALT/AST**, **HBeAg/anti-HBe** every 6–12 months, CBC, CMP, serum phosphorus (TAF/TDF), creatinine clearance
HCV on DAA treatment (8–12 weeks)	**Baseline**; **week 4** LFTs; SVR12 at **12 weeks** post-treatment completion	**ALT/AST**, **HCV RNA at SVR12** (clinical cure endpoint); if HCV RNA detectable at SVR12 = **treatment failure** → hepatology
Post-SVR HCV (no cirrhosis)	**Annual** primary care; hepatology at **SVR24** then discharge unless new concerns	**Annual LFTs and FIB-4**; reinfection risk assessment in ongoing IDU/high-risk patients
Post-SVR HCV with cirrhosis (any etiology cirrhosis)	**Every 6 months** indefinitely	**Ultrasound** + **AFP** every 6 months (HCC surveillance); LFTs, platelets, INR; MELD every 6 months
AIH on treatment (prednisone ± azathioprine)	ALT/AST + IgG **every 2 weeks** during prednisone taper; **every 3–6 months** stable; CBC **every 6 months** on azathioprine	**ALT/AST**, IgG, CBC (azathioprine safety), TPMT once at baseline, DEXA baseline and every 1–2 years on chronic prednisone, **eye exam annually**

STAGE/CATEGORY	FREQUENCY[2,5,8,19,38]	LABS TO MONITOR*[1,19,45,101]

ABBREVIATIONS: HBV = hepatitis B virus; TAF = tenofovir alafenamide; ALT = alanine aminotransferase; AST = aspartate aminotransferase; HBeAg = hepatitis B e antigen; CBC = complete blood count; CMP = comprehensive metabolic panel; TDF = tenofovir disoproxil fumarate; HCV = hepatitis C virus; DAA = direct-acting antiviral; LFTs = liver function tests; SVR = sustained virologic response; SVR12/SVR24 = SVR at 12/24 weeks post-treatment; RNA = ribonucleic acid; FIB-4 = Fibrosis-4 index; IDU = injection drug use; AFP = alpha-fetoprotein; HCC = hepatocellular carcinoma; INR = international normalized ratio; MELD = Model for End-Stage Liver Disease; AIH = autoimmune hepatitis; IgG = immunoglobulin G; TPMT = thiopurine methyltransferase; DEXA = dual-energy X-ray absorptiometry; FDA = Food and Drug Administration
***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

Comorbidity Management

COMORBIDITY	APPROACH*[19,31,60,68,102]	CAUTION*[3,19,103]
Type 2 diabetes mellitus	**Metformin + GLP-1 RA preferred**; especially beneficial in **MASH** (weight loss + fibrosis regression signal)	**Avoid thiazolidinediones** in advanced fibrosis; GLP-1 + sulfonylurea → **hypoglycemia risk** (reduce sulfonylurea)
Chronic kidney disease	**Age-adjust DAAs**: sofosbuvir-based approved for eGFR ≥30 and dialysis; **TAF preferred over TDF** if eGFR <60 or osteoporosis	**Entecavir renal-dose if eGFR <50**; avoid NSAIDs with TDF; ELF preferred over FIB-4 **if CKD-related thrombocytopenia**
Heart failure/cardiac disease	**Statins safe and recommended** in chronic hepatitis + dyslipidemia; ECG **before** peginterferon (contraindicated in decompensated heart disease)	Central venous congestion → **false-positive VCTE**; use ELF for fibrosis staging in heart failure
Alcohol use disorder (F10.xx)	**Complete abstinence required**; **AUDIT-C** at every visit; brief intervention or MAT (**naltrexone**, acamprosate) referral; address with empathy and **without stigma**	Coexisting HCV or MASH **accelerates fibrosis**; abstinence alone can reverse significant early fibrosis
Osteoporosis/fracture risk (AIH patients on chronic prednisone)	Bone protection **starts simultaneously** with steroid induction, **not later**: calcium + vitamin D; **DEXA baseline** and every 1–2 y; bisphosphonate if osteoporotic	Prolonged prednisone >10 mg/day **poorly tolerated in elderly**; consider **budesonide alternative** in non-cirrhotic AIH

ABBREVIATIONS: GLP-1 RA = glucagon-like peptide-1 receptor agonist; MASH = metabolic dysfunction-associated steatohepatitis; DAA = direct-acting antiviral; eGFR = estimated glomerular filtration rate; TAF = tenofovir alafenamide; TDF = tenofovir disoproxil fumarate; NSAIDs = nonsteroidal anti-inflammatory drugs; ELF = Enhanced Liver Fibrosis test; FIB-4 = Fibrosis-4 index; CKD = chronic kidney disease; ECG = electrocardiogram; VCTE = vibration-controlled transient elastography; HCV = hepatitis C virus; AUDIT-C = Alcohol Use Disorders Identification Test – Consumption; MAT = medication for addiction treatment; AIH = autoimmune hepatitis; DEXA = dual-energy X-ray absorptiometry; FDA = Food and Drug Administration
***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

Cost-Smart Options

BRAND (EST. COST)*[34,104–107]	GENERIC/ ALTERNATIVE (EST. COST)*[34,106,108–110]	EST. MONTHLY SAVINGS	COST-SMART TIP*[73,105,108,111,112]
Glecaprevir/ pibrentasvir (Mavyret) 8-wk HCV course ~$26,400 WAC	**No generic available**	N/A	**8-wk course** (vs. 12-wk SOF/VEL) saves **~33% on drug cost** with equivalent SVR >98% in treatment-naïve patients including compensated cirrhosis; Part D covered with IRA **$2,000 annual OOP cap**; AbbVie Patient Foundation for **qualifying uninsured patients**
Sofosbuvir/ velpatasvir (Epclusa) 12-wk HCV course ~$74,760 WAC	**Authorized generic** sofosbuvir/velpatasvir **~$25,000/course** (67% lower list price)	**~$50,000 per course**	**Substantial cost savings with generic;** specify authorized generic on prescription; only **~3%** of Medicare beneficiaries are in plans covering authorized generic alone → **verify formulary**; **340B-eligible sites** can acquire at steeply discounted prices for uninsured patients
Tenofovir alafenamide/TAF (Vemlidy) 25 mg daily ~$1,490/mo brand	No generic available; TDF generic **~$25/mo** is the cost-effective alternative	**~$1,465/mo** if TDF appropriate	TAF preferred over TDF in ≥60 y, CKD, or osteoporosis **despite higher drug cost** → reduced renal/bone monitoring costs **offset price difference**; TDF generic appropriate in younger patients without renal/bone risk factors
Entecavir (Baraclude) 0.5 mg daily ~$1,326/mo brand	**Generic entecavir ~$22/mo** (NADAC **<$2/tablet** with 11+ manufacturers)	**~$1,300/mo**	**Always prescribe generic entecavir**; AWP remains artificially inflated at **~$44/tablet** despite pharmacy acquisition cost <$2 → **verify plan is not pricing off AWP**; high-deductible plan patients may still face **~$133/mo OOP** due to PBM spread pricing

BRAND (EST. COST)*[34,104–107]	GENERIC/ ALTERNATIVE (EST. COST)*[34,106,108–110]	EST. MONTHLY SAVINGS	COST-SMART TIP*[73,105,108,111,112]
Resmetirom (Rezdiffra) 80–100 mg daily ~$4,000/ mo (~$48,000–$57,670/ yr WAC)	No generic available; lifestyle intervention (≥7–10% weight loss + Mediterranean diet) is **first-line for all MASH patients** = **$0 drug cost**	Variable; lifestyle alone **avoids ~$48,000/yr**	**Cost-effectiveness uncertain**: ICER $140,134/QALY at current pricing **exceeds $100,000/QALY WTP threshold**; restrict to **confirmed F2–F3 MASH** after hepatology consultation; GLP-1 RAs (if already prescribed for T2DM) provide adjunctive hepatic benefit **without additional MASH-specific drug cost**; discuss goals of care before initiating in elderly
Prednisone + azathioprine (AIH induction/ maintenance)	Both available as **generics**: prednisone **~$5–$10/mo**; azathioprine **~$15–$30/mo**	N/A: already lowest cost	Among the **most affordable chronic hepatitis treatments**; cost barrier is minimal; main cost driver is monitoring (CBC, TPMT, DEXA, ophthalmology) → bundle with AWV **where possible**
Chronic management of decompensated cirrhosis (~$15,000–$30,000/ yr including monitoring)	**Transplant evaluation** when **MELD ≥15**; curative intent reduces long-term costs	**Variable**: transplant is cost-effective long-term	**Refer to transplant center early**; do not delay evaluation while managing decompensation; for patients not transplant-eligible, **align care intensity with goals** → palliative care consultation reduces unnecessary hospitalizations and improves quality of life

ABBREVIATIONS: WAC = wholesale acquisition cost; SVR = sustained virologic response; OOP = out-of-pocket; IRA = Inflation Reduction Act; DAA = direct-acting antiviral; TAF = tenofovir alafenamide; TDF = tenofovir disoproxil fumarate; CKD = chronic kidney disease; NADAC = National Average Drug Acquisition Cost; AWP = average wholesale price; PBM = pharmacy benefit manager; MASH = metabolic dysfunction-associated steatohepatitis; ICER = incremental cost-effectiveness ratio; QALY = quality-adjusted life year; WTP = willingness-to-pay; GLP-1 RAs = glucagon-like peptide-1 receptor agonists; T2DM = type 2 diabetes mellitus; AIH = autoimmune hepatitis; CBC = complete blood count; TPMT = thiopurine methyltransferase; DEXA = dual-energy X-ray absorptiometry; AWV = annual wellness visit; MELD = Model for End-Stage Liver Disease; FDA = Food and Drug Administration; HBV = hepatitis B virus; HCV = hepatitis C virus
Estimated costs reflect approximate 2024–2025 US wholesale acquisition cost (WAC) or out-of-pocket ranges and do not account for insurance coverage, copay assistance, or negotiated rates
***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

DOCUMENTATION REMINDER - PATIENT EDUCATION

Document the following education topics, the patient and caregiver(s) present, materials provided, and patient understanding (**teach-back method**):

- **Diagnosis in plain language**: Chronic hepatitis is usually found through screening or incidental labs, not symptoms; cover etiology, fibrosis stage, and that **early disease is treatable** while cirrhosis requires surveillance[38,113]
- **Warning symptoms → ED**: Vomiting blood or black stools; confusion or **hand-flapping tremor**; new jaundice with fever; rapid abdominal swelling with fever[6,71]
- **Why screening matters**: Baby Boomers have **sixfold higher HCV prevalence**; one-time screening can identify curable disease **before irreversible damage**[14]
- **Treatment tolerability**: **HCV DAAs**: 8–12 weeks oral, SVR >95%, minimal side effects; **HBV antivirals**: well-tolerated, long-term, adherence prevents rebound[2,77]
- **HBV reactivation risk**: Any patient with current/past HBV starting immunosuppression must inform all providers; prophylactic antivirals **prevent fatal reactivation**[1,38]
- **Geriatric considerations**: Functional reserve and goals (not age alone) determine the plan; comorbidities **influence drug selection** but do not preclude treatment[12,78]
- **Palliative care ≠ hospice**: Controls symptoms alongside treatment; supports quality of life and staying at home; **does not preclude transplant**[114]
- **Advance care planning**: Document surrogate, code status, goals early = **before encephalopathy** impairs capacity; revisit at each status change[12]
- **Caregiver assessment**: Screen for burden; refer to social work if strain identified; support should start early[115]

Quality Metrics Tie-In

No chronic hepatitis–specific HEDIS measures exist in MY2026. However, several HEDIS measures directly apply to **substance use–related hepatitis**: the **FUI** (Follow-Up After High-Intensity Care for Substance Use), **POD** (Pharmacotherapy for Opioid Use Disorder), **COU** (Risk of Continued Opioid Use), and **ASF-E** (Unhealthy Alcohol Use Screening and Follow-Up) all collectively anchor quality reporting for **K70.1** (alcoholic hepatitis) identification, brief intervention, and treatment referral.[2] **Hepatitis B vaccination and active disease status** is reported as a component of the **HEDIS AIS-E** (Adult Immunization Status) measure.

Several active MIPS measures are directly hepatitis-specific and reportable by PCPs:

- **MIPS #400**: One-Time Screening for HCV and Treatment Initiation
- **MIPS #387**: Annual HCV Screening for Active Injection Drug Users
- **MIPS #275**: Assessment of HBV Status Before Initiating Anti-TNF Therapy
- **MIPS #516**: HCV Sustained Virological Response (SVR)

Beyond these disease-specific measures, **cross-cutting national measures apply across the entire chronic hepatitis care trajectory** and can anchor quality reporting for any PCP managing these patients in the Medicare population.

MEASURE	STANDARD	CHRONIC HEPATITIS APPLICABILITY*[1,2,6,114,116]
MIPS #400: One-Time Screening for HCV and Treatment Initiation	**Denominator**: patients ≥18 y seen twice in reporting year with at least one preventive visit **Numerator**: patients screened for HCV and treatment initiated within three months if positive **Exclusions**: diagnosed with chronic HCV	Directly identifies the **screening-to-treatment cascade** for the Baby Boomer cohort; aligns with USPSTF 2020 Grade B recommendation; PCP-reportable measure that incentivizes reflex RNA testing and **expedited DAA referral within 30 days of positive antibody**
MIPS #387: Annual HCV Screening for Active Injection Drug Users	**Denominator**: patients ≥18 y seen twice in reporting year with at least one preventive visit + active injection drug user; **Numerator**: patients with HCV antibody test performed during the measurement year; **Exclusions**: chronic HCV diagnosis; HCC diagnosis	Captures ongoing-risk rescreening in PWID; IDU accounts for **~70% of new HCV infections**; annual testing recommended by AASLD-IDSA **regardless of prior negative results**; relevant to **K70.1** and **K71.x** patients with concurrent IDU
MIPS #275: Assessment of HBV Status Before Initiating Anti-TNF Therapy	**Denominator**: patients ≥18 y with IBD initiating anti-TNF therapy during the performance period; **Numerator**: patients with HBV status assessed (HBsAg ± anti-HBc) within 12 months prior to anti-TNF initiation; **Exclusions**: patients with documented prior HBV assessment and known immune status	**Prevents HBV reactivation during immunosuppression** = potentially fatal complication; workflow-embedded screening reduced HBVr from **5.2%** to **1.5%**; relevant to any chronic hepatitis patient **starting immunosuppressive therapy** (not limited to IBD)

MEASURE	STANDARD	CHRONIC HEPATITIS APPLICABILITY*[1,2,6,114,116]
MIPS #516: HCV Sustained Virological Response (SVR)	**Denominator**: patients ≥18 y with chronic HCV (**B18.2**) who completed a course of DAA therapy during the measurement period or 12 months prior; **Numerator**: patients with documented SVR12 (HCV RNA undetectable ≥12 weeks post-treatment completion); **Exclusions**: hospice; palliative care; HCC diagnosis	The only national quality measure tracking **HCV cure**; **SVR12** is the accepted clinical cure endpoint (PPV >99% for SVR24); only **~34%** of persons with initial HCV infection have evidence of viral clearance nationally, highlighting the **treatment gap** this measure addresses
HEDIS AIS-E: Adult Immunization Status	**Denominator**: MA enrollees ≥19 y, continuously enrolled; **Numerator**: up-to-date status for each vaccine sub-measure including influenza, Td/Tdap, zoster, pneumococcal, and hepatitis B; **Exclusions**: hospice	**HepB vaccination sub-measure directly relevant**: chronic liver disease (including HCV, cirrhosis, fatty liver, alcoholic liver disease, AIH) is an ACIP-listed risk factor for HBV vaccination in adults ≥60 y; only **~19%** of adults ≥50 y are vaccinated; vaccination of susceptible chronic hepatitis patients **prevents superinfection**
HEDIS FUI: Follow-Up After High-Intensity Care for Substance Use	**Denominator**: MA enrollees ≥13 y with ≥1 ED visit for SUD (alcohol, opioid, or other drug); **Numerator**: follow-up visit with any SUD provider or pharmacotherapy dispensing event within (**1**) 7 days and (**2**) 30 days of ED discharge; **Exclusions**: transfer to inpatient, hospice	Reports **post-ED linkage to care** for alcohol-related and drug-related hepatitis patients; only **~11%** of SUD-related ED visits have 30-day primary care follow-up; structured transitions **reduce readmission** and accelerate hepatitis treatment engagement

MEASURE	STANDARD	CHRONIC HEPATITIS APPLICABILITY*[1,2,6,114,116]
HEDIS POD: Pharmacotherapy for Opioid Use Disorder	**Denominator**: MA enrollees ≥16 y with an OUD diagnosis (F11.x) and negative OUD medication history at intake **Numerator**: ≥1 claim for MOUD (buprenorphine, methadone, or naltrexone) for ≥180 days during the measurement year; **Exclusions**: hospice, cancer treatment with opioids	MOUD reduces overdose mortality by **~50%**; relevant to chronic hepatitis patients with **concurrent OUD** → buprenorphine and methadone are **safe in compensated liver disease**; medication reconciliation should account for **DAA–MOUD interactions**
HEDIS COU: Risk of Continued Opioid Use	**Denominator**: MA enrollees ≥18 y with a new opioid prescription (no opioid Rx in prior 90 days) during the measurement year; **Numerator**: patients with ≥15 days supply of opioids within 30 days of initial Rx (lower is better); **Exclusions**: cancer, hospice, palliative care, sickle cell disease, MAT	Chronic hepatitis patients with cirrhosis are at elevated risk for **opioid-related complications** (altered hepatic metabolism, encephalopathy precipitation); **acetaminophen ≤2 g/day preferred over opioids**; this measure incentivizes opioid-sparing pain management
HEDIS COA: Care for Older Adults-Medication Review	**Denominator**: MA enrollees ≥66, continuously enrolled; **Numerator**: sub-measures documented annually: (**1**) functional status assessment, (**2**) medication review, **Exclusions**: hospice, ESRD	Chronic hepatitis patients are on **multiple interacting agents** (DAAs, antivirals, azathioprine, statins, PPIs); documented review **should reconcile**: hepatotoxic supplements, Beers-listed agents, and DDIs (e.g., amiodarone + sofosbuvir, allopurinol + azathioprine)
HEDIS COA: Care for Older Adults-Functional Status Assessment	**Denominator**: enrollees ≥66; **Numerator**: functional status assessment documented annually **Exclusions**: hospice, ESRD	Chronic liver disease is an **independent risk factor for falls**, **sarcopenia**, and **cognitive impairment** (minimal hepatic encephalopathy); gait assessment and ADL/IADL screening satisfy this sub-measure and identify patients needing PT/OT referral

MEASURE	STANDARD	CHRONIC HEPATITIS APPLICABILITY*[1,2,6,114,116]
HEDIS TRC: Transitions of Care Patient	**Denominator:** enrollees ≥18 with inpatient discharge; **Numerator:** sub-measures within 30 days: (**1**) notification of inpatient admission, (**2**) receipt of discharge information, **Exclusions:** hospice	**Decompensated cirrhosis** patients have **frequent admissions**; post-discharge medication reconciliation is critical given **fluctuating renal dosing** of antivirals and lactulose/rifaximin adjustments; **timely PCP follow-up reduces readmission risk**
HEDIS DMS-E: Utilization of the PHQ-9 to Monitor Depression Symptoms for Adolescents and Adults	**Denominator:** enrollees ≥12 with diagnosis of major depression or dysthymia AND elevated PHQ-9 ≥10; **Numerator:** follow-up PHQ-9 documented within 4–8 months of index elevated score **Exclusions:** hospice	Depression prevalence is **elevated in chronic HCV** (**~30%**) and cirrhosis; fatigue and cognitive symptoms **overlap with hepatic encephalopathy**; PHQ-9 monitoring supports both quality reporting and clinical differentiation
HEDIS ACP: Advance Care Planning	**Denominator:** enrollees ≥66; **Numerator:** advance care plan or surrogate decision-maker documented, **OR** documentation that ACP was discussed but patient declined **Exclusions:** hospice	Decompensated cirrhosis has median survival **~2 years**; ACP should begin before encephalopathy impairs capacity; billable as CPT 99497/99498 during AWV with no copay
HEDIS PCR: Plan All-Cause Readmission	**Denominator:** enrollees ≥18 with acute inpatient discharge **Numerator:** unplanned readmission within 30 days (lower is better) **Exclusions:** planned readmissions (maintenance chemotherapy, transplant), hospice, psychiatric	Cirrhosis 30-day readmission rates **exceed 25%**; structured transitions of care, early paracentesis scheduling, and lactulose adherence counseling **reduce preventable readmissions**

MEASURE	STANDARD	CHRONIC HEPATITIS APPLICABILITY*[1,2,6,114,116]

ABBREVIATIONS: MIPS = Merit-based Incentive Payment System; HCV = hepatitis C virus; USPSTF = United States Preventive Services Task Force; PCP = primary care provider; DAA = direct-acting antiviral; RNA = ribonucleic acid; PWID = persons who inject drugs; IDU = injection drug use; AASLD = American Association for the Study of Liver Diseases; IDSA = Infectious Diseases Society of America; HBV = hepatitis B virus; HBsAg = hepatitis B surface antigen; anti-HBc = antibody to hepatitis B core antigen; IBD = inflammatory bowel disease; anti-TNF = anti-tumor necrosis factor; HBVr = hepatitis B virus reactivation; SVR = sustained virologic response; SVR12/SVR24 = SVR at 12/24 weeks post-treatment; PPV = positive predictive value; HCC = hepatocellular carcinoma; HEDIS = Healthcare Effectiveness Data and Information Set; MA = Medicare Advantage; ACIP = Advisory Committee on Immunization Practices; AIH = autoimmune hepatitis; ED = emergency department; SUD = substance use disorder; OUD = opioid use disorder; MOUD = medications for opioid use disorder; DDI = drug-drug interaction; PPI = proton pump inhibitor; ESRD = end-stage renal disease; ADL = activities of daily living; IADL = instrumental activities of daily living; PT = physical therapy; OT = occupational therapy; PHQ-9 = Patient Health Questionnaire 9-item; ACP = advance care planning; CPT = current procedural terminology; AWV = annual wellness visit; FDA = Food and Drug Administration
***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

5 CODING REMINDERS AND CASE EXAMPLES

Coding Specificity

ELEMENT[2,3,5,19,24]	DOCUMENTATION REQUIREMENT[2,5,8,19,70]
B18.1/B18.0, Chronic HBV	Document **HBsAg positive ≥6 months**; HBeAg/anti-HBe status; HBV DNA level; immune phase (immune-tolerant, immune-active, inactive, indeterminate); treatment agent and duration
B18.2, Chronic HCV	Document **HCV antibody positive** + **HCV RNA detectable with date**; genotype; treatment status (treatment-naïve, on DAA, post-SVR with/without cirrhosis); FIB-4 age-adjusted
K75.4, Autoimmune hepatitis	Document **elevated aminotransferases** + **elevated IgG** + **autoantibodies** (ANA, SMA, anti-LKM1) + compatible **histology**; IAIHG score; treatment regimen and response
K70.1, Alcohol-related hepatitis	Document **alcohol consumption** (g/day); AST:ALT ratio; co-code **F10.xx** with severity; abstinence status; fibrosis stage
K71.x, Drug/toxin-induced hepatitis	**Name causative agent**; document **temporal relationship**; RUCAM/RECAM score; dechallenge response
K74.60/K74.69, Cirrhosis	Specify **etiology** (e.g., '**K74.60** secondary to **B18.2**'); Child-Pugh class; MELD score; variceal and HCC surveillance status
K73.9, AVOID: Chronic hepatitis, unspecified	Reserve **ONLY** for extensively evaluated patients with **no etiology identified**; specify the etiology code once established

ELEMENT[2,3,5,19,24]	DOCUMENTATION REQUIREMENT[2,5,8,19,70]
B19.x, AVOID: Unspecified viral hepatitis	Confirm **chronicity** and **etiology** → code **B18.x**; **B19.x** use instead of **B18.x** is a common coding error
Z87.39, AVOID when disease is active	**Chronic hepatitis** under active management is **NOT** 'history'; continue active code until **resolution clinically confirmed without sequelae**
Associated conditions	Code each **separately**: **K74.x** (cirrhosis), **R18.0** (ascites), **C22.0** (HCC), **E11.x** (T2DM), **N18.x** (CKD), **F10.xx** (AUD), **B20** (HIV)
Fibrosis stage	Document **FIB-4 value** (age-adjusted for ≥65 y) with date; **VCTE kPa** or ELF score when performed; METAVIR stage if biopsy obtained
Chronicity and treatment trajectory	Document **diagnosis date**; duration of infection; treatment phase; SVR date if applicable; surveillance activity → active surveillance is not 'history'

ABBREVIATIONS: HBsAg = hepatitis B surface antigen; HBeAg = hepatitis B e antigen; anti-HBe = antibody to hepatitis B e antigen; HBV = hepatitis B virus; DNA = deoxyribonucleic acid; HCV = hepatitis C virus; RNA = ribonucleic acid; DAA = direct-acting antiviral; SVR = sustained virologic response; FIB-4 = Fibrosis-4 index; IgG = immunoglobulin G; ANA = antinuclear antibody; SMA = smooth muscle antibody; anti-LKM1 = anti-liver kidney microsomal antibody type 1; IAIHG = International Autoimmune Hepatitis Group; ALT = alanine aminotransferase; AST = aspartate aminotransferase; RUCAM = Roussel Uclaf Causality Assessment Method; RECAM = Revised Electronic Causality Assessment Method; MELD = Model for End-Stage Liver Disease; HCC = hepatocellular carcinoma; T2DM = type 2 diabetes mellitus; CKD = chronic kidney disease; AUD = alcohol use disorder; HIV = human immunodeficiency virus; VCTE = vibration-controlled transient elastography; ELF = Enhanced Liver Fibrosis test; kPa = kilopascal; METAVIR = Meta-analysis of Histological Data in Viral Hepatitis

Annual Clinical Review and Confirmation

- **Annual review:** All chronic hepatitis codes **(B18.0, B18.1, B18.2, K70.1, K71.x, K75.3, K75.4, K73.9)** must be reassessed face-to-face **or** via synchronous audio-video telehealth each reporting year; update etiology, fibrosis stage, treatment phase, and HCC surveillance status[5,24]
- **Visit modality:** In-person **or** video telehealth **with meaningful evaluation qualifies**; document most recent HBV DNA or HCV RNA, LFTs, and FIB-4 age-adjusted interpretation[2,5]
- **Clinical context:** Chronic hepatitis maps to **HCC 65 regardless of etiology** (viral, alcoholic, drug-induced, and autoimmune causes); the goal is accurate clinical complexity representation, not code optimization → **B19.x** and **K73.9** should be r**eplaced with etiology-specific codes** when the cause is known[24,26]
- **Avoid rollover: Do not** copy last year's hepatitis note forward **without updating**: Viral load (or SVR status), fibrosis staging, treatment phase, and patient-reported goals of care[5]

Good Documentation is Comprehensive Coding

EHR SHORTCUT/RISK	PREFERRED DOCUMENTATION LANGUAGE[2,5,8,70,101]
'Hepatitis' or 'hep C' on problem list	'Chronic hepatitis C (**B18.2**), HCV RNA status [date], genotype [x], treatment phase [naïve/on DAA week x/post-SVR], FIB-4 [value] age-adjusted, cirrhosis status [yes with Child-Pugh/MELD/no].'
'History of hepatitis C' in post-SVR patient with cirrhosis	'Chronic hepatitis C (**B18.2**) post-DAA SVR at **SVR12** [date], cirrhosis (**K74.60**) Child-Pugh A, HCC surveillance ultrasound + AFP every 6 months [last surveillance date].'; **do NOT use Z87.39** → surveillance continues, risk continues
Copy-forward 'hep B' without re-confirmation	'Chronic HBV without delta (**B18.1**), HBsAg positive since [year], currently [immune-tolerant/immune-active on TAF 25 mg daily since date], HBV DNA [value] [date], ALT [value], HCC surveillance status [qualifying criteria/not qualifying].'
'Abnormal LFTs' without diagnosis	'Persistent AST/ALT elevation × [duration]; workup pending: HCV antibody, HBsAg, autoimmune serology, fasting metabolic panel, FIB-4 age-adjusted. **Diagnosis**: rule out chronic hepatitis [specific etiology].'; once established, **update to specific ICD-10**
'B19.x — viral hepatitis unspecified' when etiology is known	'Chronic viral hepatitis [B or C]: **B18.1** (HBV) or **B18.2** (HCV).'
'Cirrhosis' without specifying etiology	'Cirrhosis (**K74.60**) secondary to chronic hepatitis [specific etiology code B18.1/B18.2/K70.1/K71.x/K75.4], Child-Pugh [A/B/C], MELD [value], compensated/decompensated, HCC surveillance [date/plan].'

ABBREVIATIONS: EHR = electronic health record; HCV = hepatitis C virus; RNA = ribonucleic acid; DAA = direct-acting antiviral; SVR = sustained virologic response; SVR12 = sustained virologic response at 12 weeks post-treatment; FIB-4 = Fibrosis-4 Index; MELD = Model for End-Stage Liver Disease; HCC = hepatocellular carcinoma; AFP = alpha-fetoprotein; HBV = hepatitis B virus; HBsAg = hepatitis B surface antigen; TAF = tenofovir alafenamide; ALT = alanine aminotransferase; AST = aspartate aminotransferase; LFT = liver function tests; ICD-10 = International Classification of Diseases, 10th Revision; MEAT = monitor/evaluate/assess/treat; Child-Pugh = Child-Turcotte-Pugh classification

EHR Workflow Tips

- **EHR TIP — Smartphrase]** Build a **.chr_visit dot phrase** that **auto-populates**: ICD-10 with **etiology specificity** (**B18.1**/**B18.2**/**K70.1**/**K71.x**/**K75.4**), HBV DNA or HCV RNA value with date, ALT/AST and FIB-4 age-adjusted interpretation, treatment phase or post-SVR status, fibrosis stage (FIB-4/VCTE/ELF), HCC surveillance date when qualifying, last hepatology visit and next follow-up, and medication reconciliation flag for DAA interactions. Separate **.chrscreen phrase** for **new evaluations**: HCV antibody, HBsAg triple panel, autoimmune serology, fasting metabolic panel, FIB-4, and AUDIT-C

- **[EHR TIP — Alert]** Flag **B19.x** or **K73.9** on problem list **when etiology is established** → prompt upgrade to specific code. Flag Baby Boomer patients (born 1945–1965) with **no HCV antibody** (CPT 86803) on record. Flag **HCC surveillance overdue >7 months** in qualifying patients (cirrhosis of any etiology, high-risk CHB). Flag FIB-4 calculated with standard cutoff <1.3 in patients ≥65 y → prompt **age-adjusted interpretation** (**≤2.0** = low risk). Flag amiodarone on medication list when sofosbuvir-containing DAA is ordered
- **[EHR TIP — Best Practice]** Pin **etiology-specific ICD-10** with treatment phase on problem list (e.g., "Chronic HCV **B18.2**, post-SVR, compensated cirrhosis **K74.60**, HCC surveillance active"), **not** "hepatitis" or "hep C." Fire alert before ordering iron supplements when ferritin/TSAT indicate overload in cirrhosis. Code comorbidities individually (**F10.xx** AUD, **E11.x** T2DM, **N18.x** CKD). Update problem list at **every hepatology visit** or treatment phase change
- **[EHR TIP — Order Set]** "**Chronic Hepatitis Surveillance Labs**": CMP, CBC, ALT/AST, GGT; HBV DNA or HCV RNA as applicable; age-adjusted FIB-4 calculator embedded. "**HCC Surveillance**": US liver (CPT 76705) + AFP (CPT 82105) every 6 months for qualifying patients. "Baby Boomer HCV Screen": HCV antibody (CPT 86803) with reflex HCV RNA (CPT 87521) if positive
- **[EHR TIP — Referral]** One-click **referral templates**: (**1**) hepatology for new chronic hepatitis diagnosis or treatment initiation; (**2**) ID for HIV/HCV co-infection; (**3**) transplant center for MELD ≥15 or progressive decompensation; (**4**) palliative care for goals-of-care at any major decompensation → **auto-populate** reason, current ICD-10, and most recent lab

Brief Case Examples

SUCCESS: COMPREHENSIVE DOCUMENTATION

SCENARIO

A 68-year-old female with chronic hepatitis C (genotype 1a), noncirrhotic, post-DAA therapy with glecaprevir/pibrentasvir (8-week course completed [date]). SVR12 confirmed [date], HCV RNA undetectable. **Comorbidities**: T2DM on metformin, CKD stage 3a (eGFR 52, stable), hyperlipidemia on atorvastatin 20 mg. Last hepatology visit [date] with Dr. [Name]; SVR24 follow-up in 3 months.

Documentation: 'Chronic hepatitis C (**B18.2**), genotype 1a, post-DAA therapy with sustained virologic response → HCV RNA undetectable at SVR12 [date] after 8-week course of glecaprevir/pibrentasvir completed [date]. **Noncirrhotic**: FIB-4 0.9 (age-adjusted low risk), ALT 18, AST 22, platelets 245,000. Last hepatology visit [date], Dr. [Name], SVR24 follow-up in 3 months. **Comorbidities**: T2DM (**E11.9**) HbA1c 7.2% on metformin; CKD Stage 3a (**N18.30**) eGFR 52 stable; hyperlipidemia (**E78.5**) on atorvastatin 20 mg. No signs of decompensation. Counseled on alcohol abstinence, hepatotoxic supplement avoidance. Return 6 months; call for new jaundice, unexplained fatigue, or GI bleeding.'

Outcome: B18.2 (chronic HCV → HCC 65, RAF 0.185, ≈$1,924/year) + **E11.9** (T2DM) + **N18.30** (CKD 3a) + **E78.5** (hyperlipidemia). Active chronic condition through the reporting year until **sustained cure is clinically confirmed at SVR24** per hepatology. **Every MEAT element present**: specific etiology with genotype, treatment phase (post-SVR12), fibrosis stage with age-

adjusted interpretation, specific laboratory values with dates, comorbidities with active codes, patient counseling documented, clear follow-up plan with symptom-based return criteria.

PITFALL: INSUFFICIENT DOCUMENTATION

SCENARIO

A 72-year-old male with a history of hepatitis C and established cirrhosis. Presents for routine follow-up. PMH includes current medications. No recent labs or hepatology notes referenced.

Documentation as written: 'Hx of hep C, stable. LFTs ok. Continue current meds. F/u 6 months.'

Consequences: (**1**) 'Hx of' in a post-SVR patient with established cirrhosis framing triggers **Z87.39** — eliminates HCC capture entirely. (**2**) No specific etiology code (**B18.2** vs. **B18.1** vs. **K70.1**). (**3**) 'LFTs ok' — no values, no date, no FIB-4. (**4**) No mention of cirrhosis status, fibrosis stage, or HCC surveillance plan **despite patient meeting surveillance criteria**. (**5**) No hepatology follow-up interval. Note **fails MEAT on every element.**

Fix: 'Chronic hepatitis C (**B18.2**) post-DAA SVR × 3 years; compensated cirrhosis (**K74.60**) Child-Pugh A, MELD 8, on enrolled HCC surveillance → last ultrasound + AFP [date], AFP 4.2 ng/mL, ultrasound without focal lesion. ALT 28, AST 31, platelets 142,000, FIB-4 2.4 (**age-adjusted indeterminate** = consistent with known cirrhosis). Hepatology follow-up in 4 months, next HCC surveillance [date]. Counseled on alcohol abstinence, variceal bleeding and encephalopathy warning signs. Return 4 months; call for jaundice, confusion, GI bleeding, or new abdominal distension. MEAT complete.'

CODING AFTER FIX: **B18.2** (chronic HCV → **HCC 65**) + **K74.60** (cirrhosis unspecified → additional complexity reflected). Instead of **Z87.39** (no HCC mapping) → **accurate clinical picture preserved**, HCC surveillance documentation intact.

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