



AAVBC

AMERICAN ACADEMY OF VALUE BASED CARE

Hemophilia

Quick Reference Guide

2026

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1 CLINICAL SNAPSHOT

Definition: Hemophilia is a **hereditary X-linked recessive bleeding disorder** caused by deficiency of coagulation factor VIII (Hemophilia A) or factor IX (Hemophilia B); rarer factor XI deficiency is Hemophilia C.¹ Severity is classified by baseline factor activity level: severe (<1%) — spontaneous joint and muscle bleeds; moderate (1-5%) — bleeding after minor trauma; mild (5-40%) — bleeding only after surgery/major trauma.² **Acquired Hemophilia A (AHA) is clinically distinct** — autoimmune inhibitory antibodies against endogenous FVIII, median age at diagnosis around 75 years, incidence 3-4 per million/year in adults ≥60, mortality ≥20% in patients >65.³

ICD-10 Codes:

Hereditary: **D66** (Hemophilia A, FVIII deficiency); **D67** (Hemophilia B, FIX deficiency); **D68.1** (Hemophilia C, FXI deficiency). Acquired: **D68.311** (Acquired Hemophilia A, autoimmune inhibitors) — clinically and codewise distinct from hereditary; **D68.4** (acquired factor deficiency, NOT autoimmune) does not map to HCC. **AVOID: Z14.01** (asymptomatic carrier) and **Z14.02** (symptomatic carrier) carry NO HCC weight — never use as primary for active hemophilia disease. Associated bleeding codes: **M25.0x** (hemarthrosis by joint, ~70-80% of bleeds), **I61.x** (intracranial hemorrhage), **K92.0-K92.2** (GI hemorrhage), **M17.4-M17.5** (hemophilic arthropathy, secondary OA), **B18.2** (chronic HCV — ~80% seroprevalence in pre-1990 cohort), **C22.0** (hepatocellular carcinoma surveillance), **I48.x** (atrial fibrillation), **I25.x** (ischemic heart disease).

Prevalence and Burden: The estimated frequency of hemophilia is around **1 in 10,000 live births**.¹ Hemophilia A affects **~1 in 5,000** male births (~20,000 US persons); Hemophilia B **~1 in 30,000** male births (~4,000 US persons);¹ ~30% of all cases arise from de novo mutations with **no family history**.⁴ Inhibitor development is the most costly complication: 30-50% of severe Hemophilia A patients develop FVIII inhibitors; Hemophilia B rate 1.5-3%.^{5,6} Clotting factor concentrates account for ~90% of total direct medical costs in PwH treated at HTC's.⁷

HCC/RAF V28 Mapping

ICD-10 CODE(S)	HCC CATEGORY (V28)	RAF (CNA)	DOCUMENTATION REQUIREMENT
D66 (Hemophilia A, FVIII)	HCC 111 — Hemophilia/Male	4.639	Hereditary etiology confirmed; baseline FVIII activity level (% or IU/mL); inhibitor status (positive/negative, titer in Bethesda Units); current prophylaxis regimen; documented annually in MA (not a carry-forward diagnosis) ⁷
D67 (Hemophilia B, FIX)	HCC 111	4.639	Hereditary etiology; baseline FIX activity level; inhibitor status; note: emicizumab is NOT indicated for Hem B — document correct type to support prescribing ⁷

ICD-10 CODE(S)	HCC CATEGORY (V28)	RAF (CNA)	DOCUMENTATION REQUIREMENT
D68.1 (Hemophilia C, FXI)	HCC 111	4.639	Hereditary etiology; FXI activity level; less common; maps to same HCC as A and B ⁷
D68.311 (Acquired Hemophilia A)	HCC 112 — Immune Thrombocytopenia and Specified Coagulation Defects	0.450	CRITICAL: acquired etiology documented explicitly (autoimmune inhibitor in previously non-hemophilic elderly patient); inhibitor titer in Bethesda Units; underlying condition (autoimmune, malignancy, idiopathic). ^{3,7} Using D66/D67 for AHA is a major error
Z14.01 (asymptomatic carrier), Z14.02 (symptomatic carrier)	No HCC	—	TRAP: Z codes carry NO HCC weight; ⁷ never use as primary diagnosis for active hemophilia disease. If a carrier has factor levels in hemophilia range with bleeding symptoms, code the active disease (D66)

ABBREVIATIONS: AHA = Acquired Hemophilia A; BU = Bethesda Units; CMS = Centers for Medicare & Medicaid Services; CNA = Community Non-Dual Eligible, Aged; FIX/FVIII/FXI = factor IX/VIII/XI; HCC = Hierarchical Condition Category; Hem A/B/C = Hemophilia A/B/C; HTC = Hemophilia Treatment Center; MA = Medicare Advantage; PwH = persons with hemophilia; RAF = Risk Adjustment Factor; V28 = CMS-HCC Model Version 28. RAF coefficients are CNA segment, 2026 CMS-HCC Model V28. The impact of this condition varies across patient populations, particularly in individuals with disability, dual eligibility, or those receiving care in institutional settings

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

Risk-Adjusted Care Resources per Patient/Year⁸

RAF weight × MA base rate(~\$10,402/year base) = estimated annual care coordination support per documented HCC

Hemophilia A/B/C
~\$48,237

HCC 111 · RAF 4.639 · per active patient/year

Acquired Hemophilia A
~\$4,680

HCC 112 · RAF 0.450 · per active patient/year

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

* Annual value illustrative at ~\$10,402/year base × 1.067 normalization factor, impact of this condition varies across patient populations, particularly in individuals with disability, dual eligibility, or those receiving care in institutional settings

2 RECOGNITION AND DIAGNOSIS

Medicare Coverage Workup

TEST	COVERAGE	FREQUENCY	CPT CODE	CLINICAL INDICATION
aPTT, PT/INR, mixing study ^{9,10}	Covered Part B	At suspected bleeding workup	85730, 85610, 85732	Prolonged aPTT that does NOT correct on mixing study suggests inhibitor (AHA in elderly or congenital with inhibitor); mixing study + Bethesda assay is gateway to AHA diagnosis
Factor VIII/IX/XI activity assays ¹¹	Covered Part B	At diagnosis; periodically with treatment	85240, 85250	Confirms hemophilia type; baseline activity level drives severity classification and treatment planning
Bethesda assay (inhibitor titer) ¹¹	Covered Part B	At suspected inhibitor; periodically during ITI	85335	Quantifies inhibitor in Bethesda Units (BU) ; essential for ITI planning and bypassing-agent selection
Hepatitis C screening	Covered as preventive service for adults 18-79 (one-time)	Once per lifetime + risk-based	G0472	~80% HCV seroprevalence in pre-1990 PwH cohort; ¹² HCV testing essential for HCC surveillance per AASLD
MRI for joint bleed assessment	Covered Part B when medically indicated	Per joint bleed evaluation	73721/73218/73218 (joint-specific)	Documents hemarthrosis (M25.0x) and tracks hemophilic arthropathy progression ¹³

TEST	COVERAGE	FREQUENCY	CPT CODE	CLINICAL INDICATION
Imaging for intracranial hemorrhage ¹⁴	Covered Part B emergent	Per suspected ICH	70450 (head CT)	Tier 1 emergency — administer factor BEFORE imaging in known hemophilia patient
JW/JZ modifier on single-dose factor claims ¹⁵	Required since July 1, 2023	Every factor administration	—	JW (drug wasted); JZ (no waste)
Advance care planning (AWV)	Covered Part B; no copay during AWV	Annually + when goals change	99497, 99498	Document advance directives ; particularly important in elderly PwH and AHA patients

ABBREVIATIONS: AASLD = American Association for the Study of Liver Diseases; AHA = Acquired Hemophilia A; aPTT = activated partial thromboplastin time; AWV = annual wellness visit; BU = Bethesda Units; CT = computed tomography; FVIII/FIX/FXI = factor VIII/IX/XI; HCV = hepatitis C virus; ICH = intracranial hemorrhage; INR = international normalized ratio; ITI = immune tolerance induction; MRI = magnetic resonance imaging; PT = prothrombin time; PwH = persons with hemophilia

Subtle Early Signs in Older Adults (>65)

SIGN/SYMPTOM	CLINICAL SIGNIFICANCE
New-onset unexplained bleeding in adult without prior bleeding history	Hallmark of Acquired Hemophilia A — median age 76–80 years; ³ mortality ≥20% in patients >65 . aPTT prolonged with NO correction on mixing study is the key signal — urgent hematology consultation ¹⁶
Spontaneous soft-tissue bleeding (large hematomas, retroperitoneal)	Suggestive of AHA ; intramuscular and soft-tissue bleeds predominate in AHA (vs joint bleeds in congenital); ³ compartment syndrome is a Tier 1 emergency ⁹
Persistent oozing after minor procedure (dental extraction, biopsy, injection) ¹⁷	Mild hemophilia (FVIII 6–49%) often unrecognized until adulthood ; ¹⁸ bleeding only after surgery/major trauma is the classic mild-disease presentation
Recurrent joint pain with new joint swelling in known PwH	Hemarthrosis in 70–80% of all hemophilia bleeds; ¹⁷ document each episode to support prophylaxis medical necessity. Repeated joint bleeds drive hemophilic arthropathy (M17.4–M17.5)

SIGN/SYMPTOM	CLINICAL SIGNIFICANCE
New cardiovascular diagnosis in known PwH requiring antithrombotic therapy	Hemophilia does not protect against atherosclerosis — aging PwH develop CVD at general-population rates. No RCT evidence guides antithrombotic use; all decisions require mandatory HTC + cardiology co-management ¹⁹
Falls in elderly PwH	70% of elderly severe PwH have moderate-to-high fall risk vs 2% of age-matched controls; ²⁰ falls can cause life-threatening intracranial or retroperitoneal hemorrhage
Carrier female with active bleeding symptoms	Active bleeding in a carrier with factor levels <40% mirrors mild hemophilia and requires factor replacement ²¹

ABBREVIATIONS: AHA = Acquired Hemophilia A; aPTT = activated partial thromboplastin time; DAPT = dual antiplatelet therapy; FVIII = factor VIII; HR = hazard ratio; HTC = Hemophilia Treatment Center; PwH = persons with hemophilia

Geriatric Risk Factors

FACTOR	RISK SIGNAL	NOTES
Age ≥60 with new bleeding diathesis	AHA incidence 3-4 per million/year in adults ≥60; ³ mortality ≥20% in patients >65	aPTT + mixing study is the gateway test; do NOT delay hematology consultation
Aging congenital hemophilia cohort	Only ~2% of HTC PwH are ≥65 years ; geriatric-specific evidence base is sparse ²²	Anticipate intersection with cardiovascular comorbidities ; HTC co-management is essential
HCV exposure pre-1990	~80% seroprevalence in pre-1990 cohorts ¹²	HCC surveillance mandatory per AASLD; HCC is leading cause of death in some cohorts; coordinate hepatology
Hemophilic arthropathy	Chronic joint damage from recurrent hemarthrosis ¹⁷	PT/OT, joint replacement planning at HTC ; fall prevention assessment annually
Hypertension and CVD comorbidity ^{23,24}	HTN prevalence ~45% in older PwH; ²³ antithrombotic management is the defining VBC challenge	HTC + cardiology co-management
Acquired Hemophilia A precipitants	50-80% idiopathic; 10% autoimmune disorders; 10% malignancy ³	Workup for underlying autoimmune disease and malignancy when AHA is diagnosed

FACTOR	RISK SIGNAL	NOTES
Immunosuppressive therapy (IST) in AHA	IST-related sepsis leading cause of AHA deaths ⁹	Frailty assessment before initiating IST is critical ; CyDRi regimen has improved outcomes even in frail elderly
Hereditary hemophilia with inhibitors	30-50% severe Hem A; 1.5-10% Hem B ²⁵	AVOID aPCC concurrently with emicizumab (TMA risk) ²⁵

ABBREVIATIONS: AASLD = American Association for Study of Liver Diseases; AHA = Acquired Hemophilia A; aPCC = activated prothrombin complex concentrate; CVD = cardiovascular disease; CyDRi = cyclophosphamide/dexamethasone/rituximab regimen; DAPT = dual antiplatelet therapy; HCC = hepatocellular carcinoma; HCV = hepatitis C virus; HR = hazard ratio; HTC = Hemophilia Treatment Center; HTN = hypertension; IST = immunosuppressive therapy; OT = occupational therapy; PT = physical therapy; PwH = persons with hemophilia; TMA = thrombotic microangiopathy



AAVBC PERSPECTIVE

Acquired Hemophilia A is a new-onset autoimmune condition that **occurs predominantly in patients over 70 with no prior bleeding history**. It presents with spontaneous bruising, soft tissue bleeds, and mucosal bleeding that are easily attributed to anticoagulation, liver disease, or age-related causes. **Misdiagnosis and miscoding are common, and mortality in this group exceeds 20% when recognition is late.**³ Hereditary hemophilia presents a different challenge: the diagnosis is already known, but the opportunity for effective intervention is just as time-sensitive. The 'treat first, investigate later' standard, endorsed by both AAFP (2024) and WFH (2020), requires factor replacement within one hour of symptom onset, before laboratory confirmation, imaging, or specialist consultation. Deferring treatment for laboratory results or specialist consultation allows bleeds to progress beyond outpatient management thresholds, increasing factor consumption and hospitalization rates. In both scenarios, the primary care encounter is often the critical intervention point. **Early recognition and immediate action is the highest-value clinical behavior.**

Diagnostic Thresholds

TEST/MARKER	DIAGNOSTIC CRITERION	NOTES
Hemophilia A severity (FVIII activity)	Severe <1%; moderate 1-5%; mild 6-49% ¹⁸	Severe: spontaneous joint/muscle bleeds; moderate: bleeding after minor trauma ; mild: bleeding only after surgery/major trauma
Hemophilia B severity (FIX activity)	Same severity tiers as Hem A ¹⁷	Emicizumab is NOT indicated for Hem B

TEST/MARKER	DIAGNOSTIC CRITERION	NOTES
aPTT prolonged with mixing study correction	aPTT prolonged that NORMALIZES on 1:1 ¹ mixing study = factor deficiency (congenital) ³	Proceed with factor activity assays to identify specific deficiency
aPTT prolonged with NO correction on mixing study	Suggests inhibitor — congenital with inhibitor or acquired (AHA) ³	Urgent Bethesda assay and hematology consultation ; do NOT delay
Inhibitor titer (Bethesda Units)	Low responder <5 BU; high responder ≥5 BU ²⁶	Drives ITI planning and bypassing-agent selection
AHA diagnostic criteria	Acute unexplained bleeding + isolated prolonged aPTT + no correction on mixing study + reduced FVIII activity + presence of FVIII inhibitor ³	Median age 76-80 years ; idiopathic in 43.6-51.9%; mortality ≥20% in >65 ³
Target factor level for bleed	Tier 1 (ICH, airway, massive, compartment): 80-100%; Tier 2 (major joint, deep muscle, GI): 40-60%; Tier 3 (minor joint, soft tissue): 30-50% ³	AAFP 2024: 'treat first, investigate later' — administer factor BEFORE diagnostic confirmation when bleeding is suspected
ABBREVIATIONS: AAFP = American Academy of Family Physicians; AHA = Acquired Hemophilia A; aPTT = activated partial thromboplastin time; BU = Bethesda Units; FIX/FVIII = factor IX/VIII; ICH = intracranial hemorrhage; ITI = immune tolerance induction		

Common Symptoms

CLINICAL CLUE	WHY IT MATTERS	NEXT DIAGNOSTIC STEP
New unexplained bleeding + prolonged aPTT in elderly patient	Acquired Hemophilia A median age 76-80; mortality ≥20% in >65 ³	Mixing study; if NO correction → urgent Bethesda assay + hematology consultation
Persistent oozing after minor procedure in adult without prior bleeding history	Mild hemophilia (FVIII 6-49%) often unrecognized until adulthood ¹⁸	aPTT, PT/INR, FVIII activity assay ; HTC referral for confirmation
Recurrent joint bleeds in known PwH	70-80% of bleeds are joint bleeds; drives hemophilic arthropathy ³	Document each episode (M25.0x by joint); prophylaxis medical necessity support ⁷
New CVD diagnosis in PwH requiring antithrombotic	Antiplatelet HR 3.76 single, 5.31 DAPT, 15.64 dual-pathway in mild hemophilia ²⁷	Same-day HTC consultation ; individualized shared decision-making; prefer agents with antidotes

CLINICAL CLUE	WHY IT MATTERS	NEXT DIAGNOSTIC STEP
Carrier female with bleeding symptoms and factor in hemophilia range	Active bleeding in a carrier with factor levels <40% mirrors mild hemophilia ²¹	Measure FVIII/FIX level immediately ; if in hemophilia range, treat as mild hemophilia — administer factor replacement or DDAVP per bleed severity; obtain same-day HTC consultation
Elevated alk-phos/jaundice in PwH with pre-1990 exposure⁷	HCV-related HCC surveillance is mandatory; ~80% seroprevalence in pre-1990 cohort ^{12,28}	LFTs, HCV serology, ultrasound + AFP every 6 months in cirrhotic patients per AASLD

ABBREVIATIONS: AFP = alpha-fetoprotein; aPCC = activated prothrombin complex concentrate; aPTT = activated partial thromboplastin time; CVD = cardiovascular disease; DAPT = dual antiplatelet therapy; FVIII = factor VIII; HCC = hepatocellular carcinoma; HCV = hepatitis C virus; HR = hazard ratio; HTC = Hemophilia Treatment Center; LFTs = liver function tests; PwH = persons with hemophilia

Common Oversights

OVERSIGHT/SHORTCUT	WHY IT MATTERS — WHAT TO DO INSTEAD
NSAID use in any hemophilia patient	Universally contraindicated ; ⁷ impairs platelet function and compounds bleeding diathesis. Use acetaminophen for mild pain ; celecoxib (COX-2) when anti-inflammatory therapy is essential ²⁹
Initiating antiplatelet without HTC consultation	Antiplatelet HR 3.76 single, 5.31 DAPT, 15.64 dual-pathway in mild hemophilia; ²⁷ same-day HTC consultation when new antithrombotic indication arises
Delaying factor replacement to confirm bleeding	'treat first, investigate later' ; ⁷ administer factor within 1 hour based on patient-reported symptoms in known hemophilia patients. Delays lead to larger bleeds, higher factor consumption, costly hospitalizations
Using emicizumab for Hemophilia B	Emicizumab (Hemlibra) is indicated for Hemophilia A ONLY ; bridges FIXa and FX, mimicking FVIIIa function. For Hem B: FIX concentrates or rebalancing agents (concizumab, fitusiran, marstacimab)
aPCC concurrently with emicizumab	Thrombotic microangiopathy (TMA) risk ; ²⁵ AVOID combination; coordinate with HTC for inhibitor management
No HCV screening/HCC surveillance in PwH	~80% seroprevalence in pre-1990 cohort; ¹² HCC surveillance mandatory per AASLD in cirrhotic patients

OVERSIGHT/SHORTCUT	WHY IT MATTERS – WHAT TO DO INSTEAD
No JW/JZ modifier on single-dose factor claims	Required since July 1, 2023; ¹⁵ systematic documentation processes have demonstrated significant compliance improvement. Claim denial risk without JW/JZ on every single-dose factor administration
ABBREVIATIONS: AAFP = American Academy of Family Physicians; AASLD = American Association for Study of Liver Diseases; aPCC = activated prothrombin complex concentrate; COX-2 = cyclooxygenase 2; DAPT = dual antiplatelet therapy; HCC = hepatocellular carcinoma; HCV = hepatitis C virus; HR = hazard ratio; HTC = Hemophilia Treatment Center; NSAID = nonsteroidal anti-inflammatory drug; PwH = persons with hemophilia; TMA = thrombotic microangiopathy	

Key Differentials in Elderly

PRESENTATION	DIFFERENTIAL	KEY TESTS
New bleeding diathesis in elderly ³	Acquired Hemophilia A (D68.311) vs. anticoagulant overdose; vitamin K deficiency; liver disease; ITP; vWD acquired	aPTT + mixing study; Bethesda assay if no correction; LFTs; INR; CBC ³
Persistent oozing after minor procedure	Mild congenital hemophilia; platelet dysfunction; vWD; medication-induced ¹⁷	aPTT, PT/INR, factor VIII/IX activity; platelet function; vWF panel
Joint bleeding/hemarthrosis	Hemophilic arthropathy; gout; septic arthritis; trauma; pseudogout ¹⁷	Joint aspiration if uncertain; document each episode (M25.0x); HTC consultation
Intracranial hemorrhage in PwH	Trauma-related; spontaneous; hypertensive; amyloid angiopathy ¹⁷	Head CT after factor replacement (NOT before); BP control; reverse anticoagulation if applicable
Retroperitoneal hematoma	AHA; anticoagulant complication; spontaneous in elderly with frailty ³⁰	CT abdomen; aPTT + mixing study; hematology consultation

ABBREVIATIONS: AHA = Acquired Hemophilia A; aPTT = activated partial thromboplastin time; BP = blood pressure; CT = computed tomography; CBC = complete blood count; HTC = Hemophilia Treatment Center; INR = international normalized ratio; ITP = immune thrombocytopenic purpura; LFTs = liver function tests; PT = prothrombin time; PwH = persons with hemophilia; vWD = von Willebrand disease; vWF = von Willebrand factor

Comorbidity Screening

CONDITION	PREVALENCE/ASSOCIATION	SCREENING APPROACH
HIV/AIDS (B20/Z21)	Elevated seroprevalence in PwH exposed to unscreened clotting factor concentrates before 1987 ¹²	One-time HIV screening for pre-1987 PwH; if positive, CD4 count + viral load monitoring; coordinate infectious disease + HTC
Hepatitis C (B18.2)	~ 80% seroprevalence in pre-1990 PwH cohort ¹²	One-time HCV screening per Medicare (G0472); HCV antibody and RNA; coordinate hepatology
Hepatocellular carcinoma surveillance	HCC is leading cause of death in some PwH cohorts ³¹	Ultrasound + AFP every 6 months in cirrhotic patients per AASLD
Hypertension (I10)	~ 45% prevalence in older PwH ²³	BP at every visit ; avoid uncontrolled HTN to reduce bleeding risk; coordinate cardiology
Cardiovascular disease (I25.x, I50.x)	Aging PwH cohort increasingly intersects with CVD ¹⁹	HTC + cardiology co-management ; statins safe; antithrombotic decisions individualized
Atrial fibrillation (I48.x)	No evidence-based anticoagulation guidelines for PwH with AFib ³²	HTC + cardiology shared decision; prefer agents with antidotes (DOAC vs warfarin)
Hemophilic arthropathy (M17.4/M17.5)	Common in adults with recurrent joint bleeds ¹⁷	MRI/X-ray; PT/OT; joint replacement planning at HTC
Falls and fall-related fractures	70% of elderly severe PwH have moderate-to-high fall risk ²⁰	Annual fall risk screening ; PT/OT; home safety; bone protection if osteoporosis
Depression/chronic pain	Chronic disease burden + hemophilic arthropathy	PHQ-9 at every visit; coordinate palliative care for refractory pain; AVOID NSAIDs ¹⁷

ABBREVIATIONS: AASLD = American Association for the Study of Liver Diseases; AFP = alpha-fetoprotein; AFib = atrial fibrillation; BP = blood pressure; CVD = cardiovascular disease; DOAC = direct oral anticoagulant; HCC = hepatocellular carcinoma; HCV = hepatitis C virus; HTC = Hemophilia Treatment Center; HTN = hypertension; MRI = magnetic resonance imaging; NSAID = nonsteroidal anti-inflammatory drug; OT = occupational therapy; PHQ-9 = Patient Health Questionnaire-9; PT = physical therapy; PwH = persons with hemophilia

Bleeding Severity Classification

TIER	BLEEDING TYPE	MANAGEMENT
Tier 1 (Emergency) — Intracranial/CNS; airway/throat/neck; massive hemorrhage; compartment syndrome	Intracranial hemorrhage; subdural hematoma; retropharyngeal bleed; hemodynamic instability; forearm/calf compartment	Factor replacement BEFORE imaging — target FVIII/FIX 80–100%; ¹⁷ ED transfer immediately; HTC notification
Tier 2 (Urgent) — Iliopsoas; deep muscle with NV injury; GI hemorrhage; retroperitoneal	Iliopsoas hematoma; femoral NV compromise; upper/lower GI bleed; retroperitoneal hematoma	Factor replacement immediately — target 80–100% initial; ¹⁷ same-day HTC consultation; admission for monitoring
Tier 3 (Urgent) — Joint (hemarthrosis); superficial muscle (no NV compromise)	Knee, elbow, ankle, shoulder bleed; forearm/calf muscle without NV signs	Factor replacement — target 40–60%; ¹⁷ HTC notification; outpatient or short-stay based on severity
Tier 4 (Minor) — Mucosal/minor soft tissue	Oral/dental bleeding; epistaxis; minor laceration; superficial soft-tissue bleed	Factor replacement — target 30–50%; ¹⁷ outpatient management; antifibrinolytic adjunct for oral bleeds; HTC notification
Acquired Hemophilia A bleed	Acute unexplained bleeding with isolated prolonged aPTT and no mixing-study correction ¹⁰	Bypassing agents (rFVIIa, aPCC) or recombinant porcine FVIII (Obizur); ¹¹ urgent hematology + IST initiation

ABBREVIATIONS: aPCC = activated prothrombin complex concentrate; aPTT = activated partial thromboplastin time; ED = emergency department; FIX/FVIII = factor IX/VIII; HTC = Hemophilia Treatment Center; IST = immunosuppressive therapy; rFVIIa = recombinant factor VIIa

3 MEAT DOCUMENTATION ESSENTIALS

Hemophilia documentation translates a chronic high-cost bleeding disorder into a record that supports continuity, accurate risk adjustment, and clinical safety. The most common documentation failures are coding **Z14.01 (asymptomatic carrier)** during active disease, conflating **D68.311 (acquired)** with D66/D67 (hereditary with inhibitors), and failing to document D66/D67 annually. The MEAT framework below ties each element to clinical action; monitoring factor level, inhibitor status, and adherence; evaluating bleeding events; assessing the active diagnosis with hemophilia type and severity.

Case vignette: A 72-year-old man with mild Hemophilia A (FVIII 18%) on no prophylaxis presents for AFib management after recent ED visit. Cardiology started apixaban without HTC consultation. Patient describes one episode of subcutaneous oozing at apixaban injection site one week ago. Last hematology visit was 18 months ago; D66 has not been recoded in the past 12 months.

MONITOR: FVIII 18% (baseline mild HA; last confirmed [date]; re-test deferred pending HTC visit); **Bethesda assay negative** [date], repeat scheduled at upcoming HTC appointment (5 days out); **subcutaneous oozing ×1** approximately 1 week ago, self-limited over 2 days, **no factor administered, no ED visit; no hemarthrosis, deep muscle, or visceral bleeding ×5 years prior to anticoagulation initiation; apixaban** started [date] per cardiology for new AFib, HTC co-management not yet completed; on-demand factor only, no prophylaxis, no factor doses past 3 months per patient report

EVALUATE: aPTT 38 sec (mildly prolonged, consistent with known baseline mild HA); **INR 1.13 on apixaban** day [X]. Bleeding phenotype remains superficial only, no hemarthrosis, deep muscle hematoma, GI, or retroperitoneal bleed documented. ECG today confirms **persistent AFib; CHA₂DS₂-VASc 3; HAS-BLED** elevated by hemophilia, risk-benefit individualization required. Hepatic US + AFP last [date], now overdue per 6-month AASLD HCC surveillance interval (HCV cirrhosis, pre-1990 cohort). Right knee hemophilic arthropathy stable; ROM [X degrees]; **acetaminophen in use**; no NSAIDs

ASSESS: Mild Hemophilia A, hereditary (**D66**); **FVIII 18%, inhibitor-negative**, on new anticoagulation without prior HTC co-management, high-complexity management required. New persistent atrial fibrillation (**I48.0**), **CHA₂DS₂-VASc 3**. Chronic hepatitis C with cirrhosis (**B18.2, K74.60**), pre-1990 cohort, HCC surveillance active but overdue. Hemophilic arthropathy, right knee (**M17.41**), stable

TREAT: HTC contacted by phone today — **apixaban continuation requires HTC + cardiology shared decision prior to next dose**; apixaban dose reduction or transition to antidote-available agent to be determined collaboratively; decision and rationale to be documented in chart. NSAIDs contraindicated, acetaminophen continued for arthropathy; celecoxib only if anti-inflammatory therapy becomes necessary. Hepatic US + AFP ordered today per AASLD 6-month HCC surveillance. Bethesda assay and FVIII re-test to be completed at HTC visit

Clinical Documentation Elements

- **Distinguish hereditary vs acquired:** Document onset (congenital vs new-onset), personal and family bleeding history, factor activity level, and inhibitor screen. These are the clinical elements that separate **hereditary hemophilia** from **Acquired Hemophilia A** and **cannot** be inferred from the code alone
- **Document annually:** Hemophilia type, factor deficiency (VIII vs IX), baseline factor activity level, inhibitor status, current prophylaxis or on-demand regimen, and active comorbidities — none of these carry forward and require active clinical confirmation at **each visit**
- **Document inhibitor status:** Record inhibitor presence or absence, Bethesda Unit titer, and titer trajectory; note whether the inhibitor is **congenital** or **newly developed**. Inhibitor status determines **treatment response** and drives **agent selection**
- **Document severity:** Record baseline factor activity level explicitly — severe (**<1%**), moderate (**1-5%**), mild (**6-49%**) — as this drives prophylaxis eligibility, bleed risk stratification, and treatment intensity

- **Code each bleed and arthropathy:** Record bleed location, affected joint, severity, and any neurological or GI symptoms at the time of the encounter; note functional status for joints with recurrent involvement
- **Code concurrent comorbidities:** Active documentation of HCV status, liver disease stage, cardiovascular conditions, hypertension, and atrial fibrillation at each encounter — clinically significant in the aging PwH and directly affect treatment decisions
- **Document JW/JZ modifier:** For single-dose factor products, document dose administered and any discarded waste in the clinical record — **required** for modifier application since July 1, 2023

Reframing Common Documentation Shortcuts

INSTEAD OF...	DOCUMENT...*
'Hemophilia, on factor'	'Severe Hemophilia A, FVIII <1%, on emicizumab 1.5 mg/kg SC weekly for prophylaxis; no inhibitor (last Bethesda [date] negative); last bleed [date] — D66'
Z14.01 for patient receiving factor therapy	'Severe Hemophilia A, FVIII <1%; active disease on emicizumab prophylaxis; coding as D66 (active disease) — Z14.01 not appropriate as it carries no HCC weight and misrepresents clinical status'
'Hemophilia with inhibitor — D68.311'	D68.311': 'Severe Hemophilia A with inhibitor (D66); Bethesda titer 12 BU, rising; on emicizumab 1.5 mg/kg SC weekly; D68.311 not applicable — reserved for Acquired Hemophilia A in previously non-hemophilic patients'
'Joint bleed'	'Right knee hemarthrosis (M25.461) — Tier 2 bleed; factor target 50-80%; FVIII 60 IU/kg given at home; PT scheduled for joint rehab; HTC notified'
'On apixaban for AFib'	'New persistent atrial fibrillation (I48.0) on apixaban 5 mg BID — HTC consultation completed [date]; shared decision-making documented given mild Hemophilia A (D66) and elevated bleeding risk; close monitoring with monthly visits'
'History of HCV'	'Chronic HCV (B18.2) with cirrhosis (K74.60) — pre-1990 PwH cohort; HCC surveillance with US + AFP every 6 months per AASLD'

ABBREVIATIONS: AASLD = American Association for the Study of Liver Diseases; AFib = atrial fibrillation; AFP = alpha-fetoprotein; AHA = Acquired Hemophilia A; FVIII = factor VIII; HCC = hepatocellular carcinoma (clinical)/Hierarchical Condition Category (coding); HCV = hepatitis C virus; HTC = Hemophilia Treatment Center; PT = physical therapy; PwH = persons with hemophilia *Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions



DOCUMENTATION

Every active hemophilia encounter should state hemophilia type (A/B/C), severity (baseline factor activity), hereditary vs acquired etiology, inhibitor status, current treatment, and active comorbidities (joint disease, HCV, CVD, HTN). HCC 111 is NOT a carry-forward diagnosis — document D66/D67 annually. Z14.01/Z14.02 carry no HCC weight; D68.311 (acquired) is for previously non-hemophilic elderly patients only — never use to displace D66/D67 in hereditary patients with inhibitors.

4 TREATMENT AND REFERRAL QUICK GUIDE

Hemophilia management is specialist-led through the Hemophilia Treatment Center (HTC) model, with prophylactic factor or non-factor therapy as the foundation of care. Emicizumab has reshaped prophylaxis for Hemophilia A; concizumab, fitusiran, and marstacimab extend subcutaneous options to both types; gene therapy offers durable factor expression in eligible adults. In primary care settings **three responsibilities** stand out: **recognize** AHA in elderly patients presenting with new unexplained bleeding; **never initiate antithrombotic therapy without HTC co-management**; and **ensure HCV/HCC surveillance, universal NSAID avoidance, annual D66/D67 document, and JW/JZ modifier documentation** on all factor claims.

Therapy Escalation Criteria

TRIGGER	ACTION
Suspected bleeding in known hemophilia patient	'Treat first, investigate later' — administer factor within 1 hour based on patient-reported symptoms BEFORE diagnostic confirmation per AAFP 2024 ⁷
Tier 1 bleed (ICH, airway, massive, compartment)	Factor target 80-100% ; ED + HTC notification; imaging AFTER factor ¹⁷
Tier 2 bleed (major joint, deep muscle, GI, retroperitoneal)	Factor target 40-60% ; HTC consultation same day ¹⁷
Tier 3 bleed (minor joint, soft tissue, oral)	Factor target 30-50% ; outpatient management; HTC notification ¹⁷
New unexplained bleeding + prolonged aPTT in elderly	Suspect AHA — mixing study + Bethesda assay + urgent hematology consultation; bypassing agents or recombinant porcine FVIII for hemostatic control
Suboptimal response to factor replacement	New inhibitor development — Bethesda assay urgent; AVOID aPCC concurrently with emicizumab ¹⁵

TRIGGER	ACTION
New cardiovascular diagnosis requiring antithrombotic	Same-day HTC consultation; individualized shared decision-making; antiplatelet HR 3.76 single, 5.31 DAPT, 15.64 dual-pathway in mild hemophilia ²⁷
Joint surgery or procedure planning	Pre-procedure HTC consultation; factor level optimization per procedure tier; coordinate orthopedics + hematology
Gene therapy candidacy ¹³	Valoctocogene (Hem A) or etranacogene (Hem B) — HTC + specialist evaluation; eligibility per FDA labeling ³³

ABBREVIATIONS: AAFP = American Academy of Family Physicians; AHA = Acquired Hemophilia A; aPCC = activated prothrombin complex concentrate; aPTT = activated partial thromboplastin time; DAPT = dual antiplatelet therapy; ED = emergency department; FVIII = factor VIII; HR = hazard ratio; HTC = Hemophilia Treatment Center; ICH = intracranial hemorrhage

Hemophilia — Treatment Options

AGENT	DOSING/ROUTE*	KEY NOTES
Desmopressin (DDAVP)	0.3 µg/kg IV; max every 48 hr (tachyphylaxis) ²	Mild Hem A (FVIII >5%): temporarily raises FVIII 2-6 fold; useful for minor procedures
Standard half-life FVIII concentrates	IV; 3x weekly or every other day ²	Standard prophylaxis backbone
Efanesoctocog alfa (ALTUVIII) — extended half-life FVIII	IV; weekly ²	Reduces infusion burden vs standard half-life
Emicizumab-kxwh (Hemlibra)²	SC weekly, Q2W, or Q4W	Hem A ± inhibitors; most cost-effective prophylactic option; NOT indicated for Hem B
Concizumab (Alhemo) — anti-TFPI²	SC daily	Hem A or B ± inhibitors (≥12 years)
Fitusiran (Qfitlia) — antithrombin inhibitor²	SC monthly	Hem A or B ± inhibitors (≥12 years)
Marstacimab (Hypavzi) — anti-TFPI²	SC weekly (after loading)	Hem A or B WITHOUT inhibitors (≥12 years)

AGENT	DOSING/ROUTE*	KEY NOTES
Valoctocogene roxaparvovec (Roctavian) — gene therapy²	IV one-time infusion	Adults with severe Hem A (FDA-approved 2023); endogenous FVIII production
Etranacogene dezaparvovec (Hemgenix) — gene therapy²	IV one-time infusion	Adults with severe Hem B (FDA-approved 2022)
Bypassing agents (rFVIIa/aPCC)	rFVIIa 50–90 µg/kg; aPCC dosed per protocol ³⁴	Acute bleeds in inhibitor patients; AVOID aPCC concurrently with emicizumab (TMA risk)

ABBREVIATIONS: aPCC = activated prothrombin complex concentrate; FVIII = factor VIII; HAVEN = pivotal emicizumab trials; IV = intravenous; Q2W = every 2 weeks; Q4W = every 4 weeks; SC = subcutaneous; TFPI = tissue factor pathway inhibitor; TMA = thrombotic microangiopathy ***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

Non-Pharmacologic Care and Supportive Interventions

INTERVENTION	TARGET/RECOMMENDATION	NOTES
HTC comprehensive care model	Multidisciplinary — hematology, orthopedics, PT/OT, dental, social work ³⁵	Federally funded HTCs are the gold standard; access supports prophylaxis adherence, factor optimization, and complication management
Fall prevention assessment	70% of elderly severe PwH have moderate-high fall risk ²⁰	Annual screening; PT/OT; home safety; fall in PwH can cause life-threatening ICH or retroperitoneal hemorrhage
HCV/HCC surveillance	One-time HCV screening + ultrasound + AFP every 6 months in cirrhotic PwH per AASLD ³⁶	~80% HCV seroprevalence in pre-1990 cohort; ¹² HCC is leading cause of death in some cohorts
Pain management plan	Acetaminophen first-line; celecoxib for anti-inflammatory need; opioids if severe arthropathy ³⁷	NSAIDs are UNIVERSALLY contraindicated in all hemophilia types and severities
Pre-procedure planning	HTC consultation BEFORE any planned surgery, dental procedure, or invasive intervention ¹⁷	Factor level optimization per procedure tier

INTERVENTION	TARGET/RECOMMENDATION	NOTES
Advance care planning	Annual review during AWV (CPT 99497/99498)	Particularly important in elderly PwH and AHA patients

ABBREVIATIONS: AASLD = American Association for the Study of Liver Diseases; AFP = alpha-fetoprotein; AHA = Acquired Hemophilia A; AWV = annual wellness visit; CCSC = Comprehensive Care Sustainability Collaborative; HCC = hepatocellular carcinoma; HCV = hepatitis C virus; HTC = Hemophilia Treatment Center; ICH = intracranial hemorrhage; NSAID = nonsteroidal anti-inflammatory drug; OT = occupational therapy; PT = physical therapy; PwH = persons with hemophilia

Medication Safety and Key Interactions

DRUG/CLASS	INTERACTION/TOXICITY*	CLINICAL ACTION
NSAIDs (all classes)	Universal contraindication in all hemophilia types and severities — impair platelet function ³⁷	Acetaminophen first-line; celecoxib if anti-inflammatory needed; document review at every visit
Antiplatelet agents (aspirin, clopidogrel)	HR 3.76 single; 5.31 DAPT; 15.64 dual-pathway in mild hemophilia ²⁷	Same-day HTC consultation before initiation; individualized shared decision-making
Anticoagulants (DOACs, warfarin)²⁷	No RCT data in PwH	HTC + cardiology co-management; prefer agents with antidotes when available
aPCC concurrently with emicizumab	Thrombotic microangiopathy (TMA) risk ³⁴	AVOID combination; use rFVIIa for breakthrough bleeds in emicizumab patients with inhibitors
Emicizumab in Hemophilia B	NOT indicated — emicizumab bridges FIXa and FX, mimicking FVIIIa ²	For Hem B: FIX concentrates or rebalancing agents (concizumab, fitusiran, marstacimab)
Corticosteroids in AHA immunosuppression	IST-related sepsis = leading cause of AHA deaths ⁹	Frailty assessment before initiating IST; consider CyDRi regimen (cyclophosphamide, dexamethasone, rituximab) per HTC
Recombinant porcine FVIII (Obizur) in AHA³⁸	Alternative to bypassing agents for AHA hemostatic control	Cross-reacts less than human FVIII; available through specialty pharmacy
Statins	Generally safe in hemophilia — no increased bleeding risk ³⁹	Use when CVD risk indicates; supports CV risk reduction without bleeding risk

DRUG/CLASS	INTERACTION/TOXICITY*	CLINICAL ACTION
Live vaccines during IST	Contraindicated during immunosuppression ¹⁷	Coordinate vaccination schedule pre-IST ; complete vaccinations before initiating

ABBREVIATIONS: AHA = Acquired Hemophilia A; aPCC = activated prothrombin complex concentrate; CV = cardiovascular; CyDRi = cyclophosphamide/dexamethasone/rituximab regimen; DAPT = dual antiplatelet therapy; DOAC = direct oral anticoagulant; FIX/FVIII/FVIIIa/FIXa/FX = coagulation factors; HR = hazard ratio; HTC = Hemophilia Treatment Center; IST = immunosuppressive therapy; NSAID = nonsteroidal anti-inflammatory drug; PWH = persons with hemophilia; rFVIIa = recombinant factor VIIa; TMA = thrombotic microangiopathy

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

When to Refer

CRITERION	SPECIALIST	URGENCY
Tier 1 bleed; suspected AHA with active bleeding; new ICH	Emergency department + HTC notification	Emergent
Tier 2/3 bleed; suboptimal response to factor; new inhibitor	HTC	Same day
New CV diagnosis requiring antithrombotic	HTC + cardiology co-management	Same day
Suspected AHA without active bleeding	Hematology (AHA expertise)	Urgent — within 1-2 days
New hemophilia diagnosis (any age)	HTC for comprehensive evaluation	Urgent — within 1 week
Pre-procedure planning (any surgery)	HTC for factor optimization	Routine — before procedure
Gene therapy candidacy	Specialty HTC + gene therapy program	Routine
HCV + cirrhosis surveillance	Hepatology + HTC co-management	Routine

ABBREVIATIONS: AHA = Acquired Hemophilia A; CV = cardiovascular; HCV = hepatitis C virus; HTC = Hemophilia Treatment Center; ICH = intracranial hemorrhage

Follow-Up Timing

STAGE/CATEGORY	FREQUENCY	LABS/MONITORING
Stable severe Hem A on emicizumab	HTC every 6 months; PCP every 3–6 months ²⁵	Factor activity not routinely needed on emicizumab , ¹³ inhibitor surveillance per HTC; annual documentation of D66
Stable Hem B on FIX prophylaxis	HTC every 6 months; PCP every 3–6 months ¹⁷	FIX levels per HTC ; inhibitor surveillance; annual documentation of D67
Mild hemophilia (any type)	HTC annually; PCP every 6–12 months ¹⁷	Pre-procedure factor levels; HCV/HCC surveillance if pre-1990 exposure
Hemophilia with inhibitors	HTC every 1–3 months during ITI; quarterly stable ²⁶	Bethesda assay per protocol; AVOID aPCC with emicizumab
Acquired Hemophilia A on IST	Hematology every 1–4 weeks during induction; HTC ongoing ⁹	CBC, LFTs, infection screen; FVIII activity; Bethesda assay; sepsis vigilance
Gene therapy post-infusion	HTC per gene-therapy protocol (weekly during initial response, then per HTC) ³³	Factor activity; ALT for hepatotoxicity (valoctocogene); long-term endogenous production tracking

ABBREVIATIONS: aPCC = activated prothrombin complex concentrate; ALT = alanine aminotransferase; CBC = complete blood count; FIX/FVIII = factor IX/VIII; HCC = hepatocellular carcinoma; HCV = hepatitis C virus; HTC = Hemophilia Treatment Center; IST = immunosuppressive therapy; ITI = immune tolerance induction; LFTs = liver function tests; PCP = primary care provider

Comorbidity Management – Primary Care Role

COMORBIDITY	APPROACH	CAUTION
Hypertension (I10)	BP at every visit; aggressive control to reduce bleeding risk ²³	~45% prevalence in older PwH ; uncontrolled HTN compounds intracranial hemorrhage risk
Cardiovascular disease (I25.x)	Statins (safe in hemophilia); HTC + cardiology shared decision-making for antithrombotic therapy ²⁴	Antiplatelet HR 3.76–15.64; individualized; document shared decision-making ²⁷

COMORBIDITY	APPROACH	CAUTION
Atrial fibrillation (I48.x)	HTC + cardiology shared decision; prefer DOAC with antidote ³²	No RCT data; CHA2DS2-VASc balanced against bleeding risk
Chronic HCV (B18.2) + cirrhosis (K74.60)⁷	DAA therapy to SVR; HCC surveillance with ultrasound + AFP every 6 months per AASLD ³⁶	Pre-1990 cohort ~ 80% seroprevalence ; ¹² HCC is leading cause of death in some cohorts
Hemophilic arthropathy (M17.4/M17.5)	PT/OT; pain management with acetaminophen/celecoxib; joint replacement planning at HTC ^{17,20}	AVOID NSAIDs ; consider intra-articular interventions only with HTC pre-planning
Depression/chronic pain⁷	PHQ-9 every visit; coordinate palliative care for refractory pain ³⁷	Chronic-disease burden + arthropathy; opioids may be needed for severe arthropathy
Fall risk	Annual screening; PT/OT; home safety	70% of elderly severe PwH have moderate-high fall risk ; falls cause life-threatening ICH ²⁰

ABBREVIATIONS: AASLD = American Association for the Study of Liver Diseases; AFib = atrial fibrillation; AFP = alpha-fetoprotein; BP = blood pressure; CHA2DS2-VASc = stroke risk score; CVD = cardiovascular disease; DAA = direct-acting antiviral; DOAC = direct oral anticoagulant; HCC = hepatocellular carcinoma; HCV = hepatitis C virus; HR = hazard ratio; HTC = Hemophilia Treatment Center; HTN = hypertension; ICH = intracranial hemorrhage; NSAID = nonsteroidal anti-inflammatory drug; OT = occupational therapy; PHQ-9 = Patient Health Questionnaire-9; PT = physical therapy; PwH = persons with hemophilia; SVR = sustained virologic response

Cost-Smart Options

BRAND (EST. COST)*	GENERIC/ALTERNATIVE (EST. COST)	COST-SMART TIP
Standard half-life FVIII concentrates (~\$300,000-\$500,000)⁴⁰	Generic FVIII vs branded — limited options; biosimilars emerging	Factor concentrates = 92% of direct medical costs ; ⁴¹ coordinate HTC procurement
Brand emicizumab (Hemlibra;\$38,215.78/2 mL)⁴²	No biosimilar; subcutaneous administration reduces infusion burden	Most cost-effective Hem A prophylactic option per HTC ¹³
Brand bypassing agents (NovoSeven, FEIBA; ~\$800,000-\$900,000)⁴³	No generic; reserve for inhibitor patients only	AVOID aPCC with emicizumab (TMA risk); HTC-directed use

BRAND (EST. COST)*	GENERIC/ALTERNATIVE (EST. COST)	COST-SMART TIP
Brand gene therapy (Roctavian; \$2.9M,⁴⁴ Hemgenix; \$3.5M)⁴⁵	One-time infusion — high upfront cost	Endogenous factor production may reduce long-term factor utilization ; HTC + specialty program
ABBREVIATIONS: aPCC = activated prothrombin complex concentrate; FVIII = factor VIII; Hem A = Hemophilia A; HTC = Hemophilia Treatment Center; TMA = thrombotic microangiopathy *Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions		

Patient Education and Adherence

- **Treat first, investigate later** — any suspected bleed at a high-risk site requires factor replacement before waiting for lab results, imaging, or specialist callback
- **Pain management** — acetaminophen and celecoxib are appropriate alternatives; **NSAIDs must be avoided**
- **Pre-procedure HTC contact** — required without exception before any planned procedure; patients should initiate this proactively
- **HCV and HCC surveillance** for patients in the pre-1990 cohort — an active clinical obligation, not a one-time checkbox
- **Fall prevention and home safety** — **70% of elderly patients with severe hemophilia carry moderate-to-high fall risk**; direct conversation required at every visit
- **Medical-alert identification** — every patient should wear ID documenting hemophilia type and severity
- **Women carriers** — require explicit counseling on their own bleeding risk and pregnancy planning
- **Advance care planning** — stable disease visits are the appropriate time to introduce ACP; **CPT 99497/99498** is billable during the Annual Wellness Visit with no patient copay



DOCUMENTATION — PATIENT EDUCATION

Document topics covered (diagnosis with type and severity, treat-first protocol, NSAID avoidance, HTC pre-procedure contact requirement, fall prevention, HCV/HCC surveillance, advance directives), patient and caregiver present, materials provided, and patient understanding confirmed. ACP during AWP is billable (CPT 99497/99498) with no copay and supports COA composite. Annual documentation of D66/D67 at every PCP encounter is essential for HCC 111 (RAF 4.639) MA risk adjustment.

Quality Metrics Tie-In

MEASURE ⁴⁶	STANDARD	APPLICABILITY TO HEMOPHILIA
No hemophilia-specific MIPS/HEDIS/CMS Star measure	NHF CCSC quality metrics (not yet HEDIS-incorporated)	Track patient classification, factor utilization, ED visits, home infusion rates, and total cost per patient as an internal practice metric until a hemophilia-specific external measure is established
Controlling High Blood Pressure (MIPS #236, CMS Star Part C)	Denominator: patients 18-85 with hypertension (≥ 2 outpatient visits with HTN diagnosis in MP or year prior). Numerator: most recent BP $< 140/90$ mmHg during MP. Excl: ESRD, hospice, palliative care, pregnancy	Hypertension prevalence rises substantially as persons with hemophilia (PwH) age; uncontrolled HTN compounds bleeding risk, particularly intracranial hemorrhage risk in this population
Statin Therapy for Patients with CVD (MIPS #438)	Denominator: patients with ASCVD diagnosis; OR age ≥ 20 with LDL-C ≥ 190 mg/dL or familial hypercholesterolemia; OR age 40-75 with diabetes; OR age 40-75 with 10-year ASCVD risk $\geq 20\%$ Numerator: statin therapy prescribed or active during performance period Excl: active liver disease, ESRD, hospice, palliative care	Statins carry no demonstrated increased bleeding risk in PwH; prescribe per standard indication criteria without modification for hemophilia status
AFib: Chronic Anticoagulation Therapy (MIPS #326)	Denominator: patients ≥ 18 with AF or atrial flutter, excluding CHA ₂ DS ₂ -VASc 0-1 (men) or 0-2 (women) Numerator: FDA-approved oral anticoagulant prescribed Excl: documented medical reason for not prescribing (e.g., left atrial appendage device in place); transient/reversible AF cause	Same-day hemophilia treatment center (HTC) plus cardiology consultation required before initiating any anticoagulant in a PwH; document shared decision-making and the rationale balancing thromboembolic versus bleeding risk explicitly in the chart

MEASURE ⁴⁶	STANDARD	APPLICABILITY TO HEMOPHILIA
Medication Adherence (CMS Star Part D)	Adherence to chronic prophylactic therapy (emicizumab, extended half-life FVIII), typically measured as proportion of days covered (PDC) ≥ 0.80 . Excl: hospice, long-term care	No individual MIPS equivalent; CMS calculates from Part D pharmacy claims. Non-adherence to prophylaxis directly drives breakthrough bleeds and hospitalizations — this is among the most actionable levers in hemophilia VBC management
Hepatitis C Screening (MIPS #400)	Denominator: patients ≥ 18 with no prior documented HCV antibody/RNA test and a qualifying encounter Numerator: one-time HCV antibody test performed Exclusions: documented medical reason due to limited life expectancy	MIPS #400 has no upper age cap, a critical advantage over the prior HEDIS HCS measure (18–79 cap), which would miss the oldest and highest-risk PwH cohort infected via pre-1990s plasma-derived factor products. Initiate DAA therapy to SVR when identified
HCV Cirrhosis: HCC Surveillance MIPS #401	Denominator: patients ≥ 18 with chronic HCV cirrhosis diagnosis and a qualifying encounter Numerator: abdominal imaging (ultrasound, contrast-enhanced CT, or contrast MRI) for HCC at least once within the 12-month period Exclusions: none specified	In a cohort of men with hemophilia and chronic HCV, end-stage liver disease was the leading cause of death , followed by bleeding and HCC ; per AASLD, ultrasound \pm AFP every 6 months is recommended in cirrhotic PwH — MIPS #401 only requires annual imaging , so document the more frequent surveillance cadence in the problem list. HCC risk persists after SVR

ABBREVIATIONS: BP = blood pressure; CBP = Controlling High Blood Pressure; CCSC = Comprehensive Care Sustainability Collaborative; CMS = Centers for Medicare & Medicaid Services; CVD = cardiovascular disease; HCC = hepatocellular carcinoma; HCS = Hepatitis C Screening; HCV = hepatitis C virus; HEDIS = Healthcare Effectiveness Data and Information Set; HTN = hypertension; ICH = intracranial hemorrhage; NHF = National Hemophilia Foundation; PwH = persons with hemophilia; SPC = Statin Therapy for Patients with CVD



QUALITY OUTCOME

The single highest-impact PCP behavior in hemophilia management is timely factor replacement. Administering factor within one hour of symptom onset, before lab confirmation or specialist callback, prevents bleeds from escalating beyond outpatient thresholds, reduces total factor consumption, and avoids costly hospitalizations. Factor concentrates account for 92% of direct medical costs in hemophilia;⁴¹ a single preventable inpatient bleed episode compounds that burden significantly. The treat-first standard is endorsed by both AAFP (2024) and WFH (2020) and the primary care encounter is the most common point at which it is either executed or missed.



DOCUMENTATION

When a treatment decision is reached at HTC, document the recommendation, the clinical reasoning (hemophilia type and severity, inhibitor status, comorbidity burden, frailty), patient preferences, and the agreed plan. Anchor active diagnosis to D66/D67 (hereditary) or D68.311 (acquired) throughout disease activity; never use Z14.01/Z14.02 for active disease. Document JW/JZ modifier on every single-dose factor claim per CMS requirement since July 1, 2023.



AAVBC PERSPECTIVE

Hemophilia is not a single disease, it is a family of related but clinically distinct bleeding disorders. **Hemophilia A and B require type-specific treatment protocols.** Emicizumab, the most cost-effective prophylactic option for Hemophilia A, has no mechanism of action in Hemophilia B, and gene therapy products are type-specific. Inhibitor management in Hemophilia B additionally carries risks (including anaphylaxis and nephrotic syndrome) that are absent in Hemophilia A.

Equally consequential is the clinical underestimation of mild hemophilia in this population. A mild phenotype does not confer mild surgical risk, patients with factor levels of 6–49% face the same severity of perioperative hemorrhage as severe patients if the factor is not pre-administered. Mild hemophilia also carries disproportionate risk of late-onset inhibitor development and, critically, significant bleeding when antithrombotic therapy is introduced for cardiovascular disease. Accurate type-specific documentation, annual redocumentation of active disease, and timely specialist coordination are what ensure the right treatment reaches the right patient at the right time.

5 CODING REMINDERS AND CASE EXAMPLES

Coding Specificity

ELEMENT	DOCUMENTATION REQUIREMENT
Hemophilia type	Document D66 (Hemophilia A — FVIII), D67 (Hemophilia B — FIX), or D68.1 (Hemophilia C — FXI) explicitly at every encounter. Treatment protocols, emicizumab eligibility, and gene therapy options are type-specific

ELEMENT	DOCUMENTATION REQUIREMENT
Hereditary vs acquired	D66/D67 for hereditary hemophilia; D68.311 reserved exclusively for Acquired Hemophilia A in previously non-hemophilic patients. Misclassification between hereditary and acquired is the single most consequential coding error in hemophilia — inhibitor status in hereditary hemophilia does NOT change the primary code to D68.311
Severity	Document baseline factor activity level explicitly: severe (<1%), moderate (1-5%), mild (6-49%) . Drives prophylaxis eligibility, bleed risk stratification, and treatment intensity. Do not infer severity from treatment regimen alone — document the factor level that established it
Inhibitor status	Document positive vs negative, Bethesda Unit titer, and titer trajectory at each relevant encounter. Example: <i>'Inhibitor positive; Bethesda titer 12 BU, rising trajectory; on emicizumab 1.5 mg/kg SC weekly.'</i> Congenital inhibitors in hereditary hemophilia remain D66/D67 — do not use D68.311
Concurrent bleeding and arthropathy	Code bleed location explicitly: M25.0x by joint (hemarthrosis), I61.x (intracranial hemorrhage), K92.0-K92.2 (GI bleed), M17.4/M17.5 (hemophilic arthropathy). Document functional status for joints with recurrent involvement and note whether Tier 2 or Tier 3 bleed management was applied
JW/JZ modifier	Required since July 1, 2023 on all single-dose factor claims. Document dose administered and discarded waste explicitly in the clinical note. Missing modifier is a common audit trigger — cannot be applied without supporting documentation
Concurrent comorbidities	Document B18.2 (chronic HCV — ~80% in pre-1990 cohort), C22.0 (HCC under surveillance in cirrhotic patients), I10 (hypertension ~45% in older PwH), I25.x (CVD), I48.x (AFib) at each encounter. These are not incidental findings — they affect treatment decisions, antithrombotic management, and risk adjustment accuracy
D68.311 coding trap	D68.311 applies ONLY to new-onset autoimmune hemophilia in previously non-hemophilic patients. Hereditary hemophilia with inhibitors remains D66/D67 — inhibitor status is documented in the note and does not change the primary code
ABBREVIATIONS: AFib = atrial fibrillation; CVD = cardiovascular disease; FIX/FVIII/FXI = factor IX/VIII/XI; HCC = Hierarchical Condition Category (coding)/hepatocellular carcinoma (clinical); HCV = hepatitis C virus; HTN = hypertension; ICH = intracranial hemorrhage; MA = Medicare Advantage	

Annual Clinical Review and Confirmation

- **Annual review: D66/D67** requires annual **MEAT documentation**. Confirm and document at each annual encounter: hemophilia type and factor deficiency, baseline factor activity level, inhibitor status with most recent Bethesda titer and date, current prophylaxis or on-demand regimen, bleeding events in the preceding 12 months, joint status, and active comorbidities
- **Visit modality: Face-to-face** or **synchronous audio-video telehealth** qualifies when it supports meaningful evaluation
- **Clinical context: Annual confirmation** is clinically **necessary**. Inhibitor status can change, treatment regimens are adjusted, new comorbidities develop, and joint disease progresses over time. A note that reflects the patient's **current status** supports appropriate care planning, timely HTC coordination, and accurate management of an evolving disease
- **Avoid rollover: Do not** copy forward last year's hemophilia note without updating factor type, severity, inhibitor status, treatment regimen, bleeding events, and comorbidities

Good Documentation is Comprehensive Coding

EHR SHORTCUT/RISK	PREFERRED DOCUMENTATION LANGUAGE*
Z14.01 for active hemophilia	'Severe Hemophilia A (D66); FVIII <1%; on emicizumab prophylaxis — Z14.01 not applicable; carrier code carries no HCC weight and misrepresents active disease'
D68.311 for hereditary hemophilia with inhibitors	'Severe Hemophilia A with inhibitor (D66); Bethesda titer 8 BU, stable; on emicizumab 1.5 mg/kg SC weekly — D68.311 not applicable; reserved for Acquired Hemophilia A in previously non-hemophilic patients'
'Hemophilia, on prophylaxis'	'Severe Hemophilia A (FVIII <1%) on emicizumab 1.5 mg/kg SC weekly per HAVEN protocol; inhibitor negative (last Bethesda [date]); no joint bleed x 8 months — D66'
'New bleeding' in elderly	'Acquired Hemophilia A (D68.311) confirmed by aPTT, mixing study with no correction, and Bethesda titer; idiopathic etiology; CyDRI regimen initiated per HTC'
'On apixaban for AFib'	'Atrial fibrillation (I48.0) on apixaban 5 mg BID — HTC consultation documented [date]; shared decision-making given mild Hemophilia A (D66); monthly monitoring planned'
'HCV positive'	'Chronic HCV (B18.2) with cirrhosis (K74.60) — pre-1990 PwH cohort; HCC surveillance with US + AFP every 6 months per AASLD'

EHR SHORTCUT/RISK

PREFERRED DOCUMENTATION LANGUAGE*

ABBREVIATIONS: AASLD = American Association for the Study of Liver Diseases; AHA = Acquired Hemophilia A; AFP = alpha-fetoprotein; aPTT = activated partial thromboplastin time; CyDRi = cyclophosphamide/dexamethasone/rituximab regimen; FVIII = factor VIII; HAVEN = pivotal emicizumab trials; HCC = hepatocellular carcinoma; HCV = hepatitis C virus; HTC = Hemophilia Treatment Center; PwH = persons with hemophilia ***Consult FDA labels for the most up-to-date dosage information, contraindications, and drug-drug interactions**

EHR Workflow Tips

TAG	TIP
SMARTPHRASE	Build '.hemophilia' dot phrase: D66/D67/D68.1 specific code, severity, hereditary etiology, baseline factor level, inhibitor status, current treatment, HCV status, last HTC visit, JW/JZ modifier documentation reminder
FILTER	Worklist filter: active D66/D67 without PCP encounter in past 12 months — annual documentation; secondary filter: D66/D67 with NSAID on medication list — flag for review
PROBLEM LIST	Maintain D66/D67 with severity and inhibitor status; concurrent HCV (B18.2), HTN (I10), CVD, AFib, hemophilic arthropathy on active list ⁷
ANNUAL DX	Year-end flag for active D66/D67 without face-to-face/video encounter + MEAT in past 12 months — critical for HCC 111 documentation
ORDER SET	New bleeding workup: aPTT + PT/INR + mixing study + Bethesda assay if no correction; HTC consultation; pre-procedure bundle: factor level optimization order based on tier
REFERRAL	Triggered referrals: suspected AHA in elderly → hematology urgent; new antithrombotic need → HTC same-day; gene therapy candidate → specialty HTC; HCV + cirrhosis → hepatology

ABBREVIATIONS: AFib = atrial fibrillation; AHA = Acquired Hemophilia A; aPTT = activated partial thromboplastin time; CVD = cardiovascular disease; HCC = Hierarchical Condition Category; HCV = hepatitis C virus; HTC = Hemophilia Treatment Center; HTN = hypertension; INR = international normalized ratio; MEAT = monitor/evaluate/assess/treat; NSAID = nonsteroidal anti-inflammatory drug; PT = prothrombin time

Brief Case Examples

✓ SUCCESS — COMPREHENSIVE DOCUMENTATION

Patient: 72-year-old man with mild Hemophilia A (FVIII 18%) on no prophylaxis presents for AFib management after recent ED visit. Cardiology had started apixaban. Primary care recognized the missed HTC consultation, contacted HTC the same day, and coordinated shared antithrombotic decision-making

Documentation: 'Mild Hemophilia A (FVIII 18%) — D66; hereditary etiology, no current inhibitor (last Bethesda [date] negative). Active diagnosis documented annually in MA at this encounter

(HCC 111 documentation).⁷ New persistent atrial fibrillation (I48.0); HTC consultation completed [date] — shared decision-making with cardiology documented; apixaban dose reduction considered given mild hemophilia (antiplatelet HR up to 15.64 in mild). Concurrent: chronic HCV (B18.2) with cirrhosis (K74.60) — pre-1990 cohort; HCC surveillance with US + AFP every 6 months per AASLD; hemophilic arthropathy right knee (M17.41); HTN (I10) controlled. NSAIDs avoided; acetaminophen first-line for arthropathy pain'

Outcome: HCC 111 (RAF 4.639) documented with annual documentation per MA requirements; HCV/HCC surveillance documented; HTC + cardiology shared decision documented; concurrent comorbidities all on active list; JW/JZ modifier documentation noted at next factor administration

⚠️ PITFALL — INSUFFICIENT DOCUMENTATION

Documentation as written: 'Hemophilia carrier, on factor for bleeds.' Coded as Z14.01. Patient is a 68-year-old female symptomatic hemophilia A carrier with baseline FVIII 9% who has received on-demand factor VIII for 3 minor bleeding episodes in the past year. Z14.01 has been on the problem list for 5 years; D66 has never been documented. Patient has elevated alk-phos and prior chronic HCV.

Consequence: Z14.01 documents NO HCC weight; the active disease (FVIII 9% — clinical mild hemophilia with factor therapy) should be coded D66 → HCC 111 (RAF 4.639).⁷ Symptomatic carriers with factor levels in hemophilia range and active bleeding meet criteria for D66. Missed HCV/HCC surveillance — pre-1990 cohort warrants ultrasound + AFP every 6 months in cirrhotic patients

RAF Impact: Lost HCC 111 documents (CNA RAF 4.639 ≈ \$48,237/year *illustrative value) for the full 5-year period of Z14.01 coding error; missed HCV/HCC documentation further understates clinical complexity

Fix: Update problem list and assessment: 'Mild Hemophilia A (FVIII 9%) — D66; symptomatic carrier phenotype with factor levels in hemophilia range; on-demand factor VIII for bleeding episodes (3 in past year); no inhibitor; chronic HCV (B18.2) with cirrhosis (K74.60) — pre-1990 exposure; HCC surveillance with US + AFP every 6 months per AASLD initiated; HTC referral for comprehensive evaluation.' Document MEAT at every encounter; document D66 annually in MA

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