



American Academy  
of Value Based Care

# AAVBC Qualitative Platelet Disorder

## Quick Reference Guide

2026

# AAVBC Qualitative Platelet Disorder (QPD) Quick Reference Guide

## 1. CLINICAL SNAPSHOT

**Definition:** A Qualitative Platelet Disorder (QPD) is a bleeding disorder characterized by abnormal structure or function of the platelets themselves, despite the platelet count being normal or near-normal.<sup>1</sup>

In QPDs, the platelets fail to perform one or more of their essential functions—adhesion, aggregation, activation, or secretion — leading to a defect in primary hemostasis and an increased tendency for mucocutaneous bleeding (e.g., easy bruising, nosebleeds, heavy menstrual bleeding).

There are inherited (e.g., Glanzmann thrombasthenia, Bernard-Soulier syndrome) and acquired causes (e.g., antiplatelet drugs) that lead to QPD.

**ICD-10 codes:** **D69.1** – Qualitative platelet defects (encompasses any documented defect in platelet function).<sup>2,3</sup>

For acquired or drug-induced cases, the coding rules rely on **combination coding**. Use **D69.1** for the **manifestation** (the platelet defect) and a separate code (e.g., from the **T36-T50** range (**e.g., drug-induced qualitative platelet dysfunction (T45.51A)**) for adverse drug effects or **N18** for **CKD + R58** (if bleeding) to specify the **etiology** (the cause)).<sup>2,3</sup>

**HCC/RAF V28 Mapping:** **HCC 112** (Coagulation Defects, Hemorrhagic Conditions, and Purpura) D69.1 with RAF (0.45).<sup>4</sup>

### Prevalence:

- **Inherited qualitative platelet disorders** (e.g., Glanzmann thrombasthenia, Bernard-Soulier syndrome) are **extremely rare, <1 per 1,000,000 people**<sup>5</sup>
- **Acquired platelet dysfunction** is significantly more common, especially in older adults, and arises from chronic disease or medication effects
- There are roughly **56 million** U.S. residents  $\geq 65$ . Surveys indicate that **more than half of seniors have at least one major QPD risk factor**<sup>6</sup>
- **30–35 million Americans** are currently living with significant acquired platelet dysfunction or high risk for it (based on risk associated with antiplatelet drug users)<sup>6</sup>
- **High prevalence of anti-platelet medication:** Up to **26%** of adults  $>60$  in the U.S. regularly use NSAIDs<sup>6</sup>
- **High prevalence of CKD** (~34% of adults  $\geq 65$ ) induced QPD; presenting as uremia-related platelet dysfunction<sup>7</sup>

### Cost Burden:

- QPDs carry a **disproportionately high economic impact** due to bleeding complications, transfusion dependence, and emergency utilization<sup>8</sup>

- QPD related bleeding events; GI hemorrhage results in over 500,000 hospital admissions, over 2 million hospital days, \$5 billion in direct costs, and nearly 11,000 in-hospital deaths<sup>9</sup>
- **Inherited QPDs**; PMPY cost estimates exceed **\$40,000–\$60,000** factoring in hospitalizations, platelet transfusions, rFVIIa use, and hematology visits (based on rare disease cost modeling and hemophilia analogues)<sup>8</sup>
- Each severe bleed episode requiring recombinant factor therapy can exceed **\$10,000–\$15,000** in acute treatment costs<sup>8,9</sup>

## 2. RECOGNITION & DIAGNOSIS

### Medicare screenings:<sup>1, 10-13</sup>

| Test   | Clinical need (who/when)  | Coverage   | CPT Code                 | Notes  |
|--|---|--|--------------------------|--|
| <b>Complete Blood Count (CBC) with Differential and Peripheral Smear</b> | Initial assessment of bleeding/thrombosis risk                    | Covered for a wide range of signs, symptoms, and disease management (e.g., anemia, bleeding, general workup) | 85025                    | Low billing risk   |
| <b>Platelet Count</b>  | Differentiate QPD from quantitative disorders                     | Covered, included in CBC   | 85025                    | A normal count is crucial for steering the workup toward qualitative tests (LTA, Flow Cytometry)   |
| <b>Peripheral Smear Review</b>   | Identify morphological clues                                      | Covered when ordered to investigate an abnormal CBC or specific clinical signs                               | 85060                    | <b>Giant Platelets</b> (Bernard-Soulier) is a strong indicator of medical necessity for advanced QPD testing   |
| <b>Coagulation Studies (PT and aPTT)</b>                                 | Rule out factor deficiencies                                      | Highly covered for bleeding episodes, pre-surgical screening, or monitoring anticoagulant therapy            | 85610 (PT), 85730 (aPTT) | Normal results help narrow the differential diagnosis to a platelet problem, justifying subsequent (and higher-cost) platelet function tests                                     |
| <b>ISTH Bleeding Assessment Tool (ISTH-BAT)</b>                          | Standardized symptom documentation. Strong documentation utility. | Clinical questionnaire/tool, not a billable laboratory test  | No CPT for tool          | A high score provides strong medical necessity documentation for ordering the more specialized and expensive CPT codes (like 85576, 88184) required for definitive QPD diagnosis |

| Test  | Clinical need (who/when)  | Coverage   | CPT Code  | Notes   |
|---|---|--|---|---|
| <b>Platelet function analysis (PFA-100/200 with CEPI &amp; CADP cartridges)</b>                                 | Suspected platelet dysfunction (inherited or acquired); initial screen in adults with mucocutaneous bleeding  | Covered when medically necessary; often requires correct ICD to avoid ABN (Some labs bill 85576 per cartridge)               | 85576 ×2 (per agonist)  | PFA screens primary hemostasis/platelet dysfunction; not definitive |
| <b>Light Transmission Aggregometry (LTA) with multiple agonists (ADP, EPI, COLL, AA, RIST)</b>                  | Confirm/characterize qualitative platelet disorder; differentiate inherited subtypes; pre-op planning   | Covered when medically necessary; documentation and correct ICD strongly influence payment; ABN may be needed if LCD not met | 85576 (typically billed per agonist)  | LTA is gold-standard for platelet function testing                  |
| <b>Platelet glycoprotein analysis by flow cytometry (CD41/CD61 /CD42, etc.)</b>                                 | Suspected Bernard-Soulier (GPIb-IX-V deficiency) or Glanzmann (GPIIb/IIIa deficiency); abnormal LTA pattern when creatinine unreliable (e.g., low muscle mass, borderline eGFR) | Medicare covers flow cytometry under limited coverage articles — ensure indications meet local MAC policy                    | 88184 (first marker),<br>88185 (each add'l),<br>88189 (physician interp, ≥16 markers) | Used to confirm receptor deficiencies after LTA                     |
| <b>vWF panel (antigen, activity [ristocetin cofactor or GPIbM], ±FVIII; reflex to multimers when indicated)</b> | Rule-out von Willebrand disease (most common platelet-type bleeding mimic) before labeling QPD  | Medicare often applies limited coverage; ABN may be required depending on MAC/panel. Verify lab CPTs and coverage.           | Typical panel: 85240, 85245, 85246, 85730; reflex multimer analysis per lab           | Required exclusion step in platelet-type bleeding workups           |

Note: Consult your MAC's LCD for specific covered ICD-10 codes. Documentation and correct ICD strongly influence payment.

## Subtle Early Signs in Older Adults >65 yrs<sup>1, 5, 10-13</sup>

- **Excessive Bruising (Ecchymoses)** → Often attributed to Senile Purpura (age-related skin fragility/vascular changes) or minor trauma; bruises are deep, raised, or appear in atypical locations without a clear injury history
- **Prolonged Superficial Bleeding** → Immediate, superficial, and mucosal bleeding. Minor cuts, shaves, or venipuncture that lasts >10 min and requires constant pressure
- **New or Worse Gingival Bleeding** → Easily dismissed as poor oral hygiene, gingivitis, or a side effect of dry mouth from medications
- **Iron Deficiency Anemia (New Onset)** → Often attributed to poor diet, chronic disease (e.g., kidney failure), or minor GI bleeding

- **Medication clues (very common in  $\geq 65$ )** → Daily aspirin or chronic NSAIDs (OTC ibuprofen/naproxen) → reversible/irreversible platelet inhibition; P2Y12 inhibitors (clopidogrel, prasugrel, ticagrelor) → additive mucocutaneous bleeding; SSRIs/SNRIs (e.g., sertraline, fluoxetine) → impaired platelet serotonin uptake and function; higher bleeding when combined with NSAIDs/antiplatelets
- **Comorbidity signals of acquired QPD** → Uremia (advanced CKD/ESRD), Advanced liver disease, Myeloproliferative neoplasms (ET/PV)

## Geriatric risk factors<sup>1, 5, 6</sup>

| Factor  | Risk Signal   | Evidence Summary  | Clinical Implication   |
|---|---|---|--|
| <b>Polypharmacy (<math>\geq 5</math> medications)</b>   | <b>High</b> ; Additive platelet inhibition and altered serotonin uptake from overlapping drug classes (NSAIDs + SSRIs $\pm$ antiplatelets). | $\sim 40$ % of older adults take $\geq 5$ drugs; 10–15 % receive $\geq 2$ agents that impair platelet function      | Perform annual med reconciliation; deprescribe NSAIDs/duplicate antiplatelets; coordinate with pharmacy  |
| <b>Chronic NSAID or daily aspirin use</b>   | <b>High</b> ; Irreversible COX-1 inhibition → prolonged bleeding time   | $\sim 25$ –35 % of adults $\geq 65$ use aspirin / NSAIDs daily; <b>4-fold ↑ risk of GI bleeding</b>                 | Avoid routine use for primary prevention; substitute acetaminophen or topical agents; reinforce HEDIS PIM avoidance                            |
| <b>SSRIs</b>  | <b>High</b> ; Inhibit platelet serotonin uptake → defective aggregation; risk amplifies with antiplatelet/NSAID co-use                      | SSRI exposure increases GI-bleed risk 2–3 $\times$ ; risk rises $>10$ $\times$ when combined with aspirin or NSAIDs | Flag SSRI + NSAID/antiplatelet combinations; consider mirtazapine or bupropion alternatives; reinforce GI protection (PPI) if therapy required |
| <b>Dual antiplatelet or triple therapy (antiplatelet + antidepressant <math>\pm</math> NSAID)</b> | Synergistic impairment of primary hemostasis.   | 15–20 % of patients on antiplatelets also take an SSRI/SNRI; markedly higher mucosal bleed rates                    | Re-evaluate cardiovascular indication; consult cardiology/psychiatry to simplify regimen   |
| <b>Advanced CKD (Stage 4–5/ESRD)</b>  | <b>High</b> ; Uremic toxins inhibit platelet adhesion and aggregation   | $\geq 800$ 000 U.S. patients on dialysis; uremic bleeding common despite normal platelet counts                     | Optimize dialysis adequacy; avoid NSAIDs; consider DDAVP before procedures   |
| <b>Cirrhosis/advanced liver disease</b>   | <b>High</b> ; Reduced synthesis of platelet-adhesion factors and concurrent thrombocytopenia  | $\sim 1.5$ –2 million U.S. adults with cirrhosis; $>70$ % show abnormal platelet function                           | Avoid NSAIDs/aspirin; correct vitamin K deficiency; coordinate pre-procedure hematology evaluation   |
| <b>Nutritional deficiencies (B<sub>12</sub>, folate, iron)</b>                                    | <b>Moderate</b> ; Altered platelet membrane fluidity $\pm$ anemia increasing bleeding tendency  | Common in older adults with malabsorption or restricted diets   | Screen annually; supplement deficiencies to mitigate additive risk   |

## Major Bleeding Red Flags - Immediate Action<sup>1, 10, 12, 13</sup>

- **Gastrointestinal hemorrhage:** (melena, hematemesis, or hematochezia with tachycardia/hypotension); indicates systemic platelet dysfunction or drug-induced bleed compounded by comorbid disease; **admit for hemodynamic stabilization**
- **Intracranial or retinal bleeding:** (new severe headache, vision changes, confusion, focal deficits); suggests critical-site hemorrhage often worsened by antiplatelet / SSRI synergy; **immediate CT/MRI and hematology consult**
- **Uncontrolled post-procedural bleeding:** (surgery, dental, biopsy  $>2\times$  expected duration); indicates inadequate primary hemostasis; typical in undiagnosed QPD or drug effect; **hold antiplatelet/NSAIDs and hematology consult**
- **Hematuria with clots or spontaneous soft-tissue hematomas:** Signifies systemic qualitative defect; can mimic thrombocytopenia; severe spontaneous mucocutaneous bleeding **warrants evaluation for qualitative defect even with normal platelet count**

## Diagnostic thresholds for QPD<sup>10-13</sup>

| Criterion                                 | Test   | Normal Reference Range (Approx)  | Diagnostic QPD Pattern/Threshold  | Clinical Rationale /Interpretation   |
|---|--|--|---|--|
| Initial Screen                            | Platelet count   | 50–400 $\times 10^9$ /L  | Normal or near-normal in QPD  | Normal count with bleeding points to a qualitative defect; if $<100 \times 10^9$ /L, first exclude thrombocytopenia (quantitative)                   |
|   | CBC (Hb, Hct, MCV) + Peripheral smear                      | Hb: ~12–16 g/dL (F), 13–17 g/dL (M); MCV: 80–100 fL  | Often normal; may show iron-deficiency anemia if chronic mucosal loss; smear usually normal                           | Anemia supports chronic blood loss from mucocutaneous bleeding   |
|   | PT and aPTT  | PT ~11–13.5 s; aPTT ~25–35 s   | Both typically normal in isolated QPD   | Normal PT/aPTT supports primary hemostasis (platelet) problem rather than coagulation factor deficiency;   |
| If indicated, secondary to initial screen | Platelet Function Analysis (PFA) (PFA-100/200) (CPT 85576) | Collagen/Epinephrine (C/EPI): 82–150 sec (CT)<br>Collagen/ADP (C/ADP): 62–100 sec (CT)                 | Both C/EPI and C/ADP Closure Times (CT) are prolonged (>max normal)   | Highly suggestive of severe adhesion/aggregation defect (e.g., Glanzmann's, Bernard-Soulier, severe uremia, or GpIIb/IIIa blockade)                  |
|   |  |  | C/EPI CT is prolonged, but C/ADP CT is normal.  | Highly sensitive for Aspirin/NSAID effect or a mild secretion/dense granule defect. A normal C/ADP rules out Glanzmann's or Bernard-Soulier syndrome |
| Gold Standard Confirmation                | Light Transmission Aggregometry (LTA)(CPT 85576)           | Maximal Aggregation (%): Varies by agonist, typically $>60\%$ for strong agonists (Thrombin, Collagen) | Absent / reduced aggregation to multiple strong agonists (Collagen, ADP, Thrombin) and severely reduced to Ristocetin | Glanzmann Thrombasthenia (GT): No aggregation to ADP, Collagen, Thrombin (fibrinogen receptor defect) confirm with flow                              |

| Criterion                           | Test  | Normal Reference Range (Approx)  | Diagnostic QPD Pattern/Threshold   | Clinical Rationale /Interpretation  |
|-------------------------------------|---|--|--|---|
|                                     |   |  | Absent/reduced aggregation to Ristocetin, but normal aggregation to all other agonists | <b>Bernard-Soulier Syndrome (BSS):</b> Defect in Gplb-IX-V adhesion receptor. Also seen in severe Type 3 vWD  |
|                                     |   |  | Absence of a "second wave" of aggregation to ADP and Epinephrine.                      | <b>Platelet Secretion/Storage Pool Defects (SPD):</b> Platelets fail to release contents of dense granules (ADP, Serotonin) required for full aggregation                                 |
| <b>Secondary Screen (Exclusion)</b> | von Willebrand Factor (vWF) Activity/Antigen (CPT 85246, 85240) | vWF Activity (Ristocetin Cofactor): 50% - 150%, <0.30 IU/mL supports vWD regardless of bleeding; <b>0.30–0.50</b> requires bleeding phenotype/labs | Activity and/or Antigen levels are <30% (<50% in mild cases)                           | <b>Required Exclusion:</b> vWD is the most common bleeding disorder that <i>mimics</i> QPD. If vWF levels are low, the bleeding is primarily due to vWD, not an intrinsic platelet defect |

#### Notes:

- **Do not diagnose inherited QPD** if vWD criteria are met; treat/document as vWD per **2021 ASH/ISTH**
- **Do not rely on PFA alone** — use it to **triage** to LTA; PFA is affected by anemia, thrombocytopenia, and sample handling<sup>1</sup>
- **Always apply medication washouts** before LTA (aspirin 7–10 d; clopidogrel 5–7 d; non-aspirin NSAIDs 48–72 h) to avoid false-positive qualitative defects<sup>1</sup>
- **Use flow cytometry** to confirm **GT/BSS** when LTA patterns match; it improves specificity and audit defensibility

#### Clues to dig deeper<sup>1, 12, 13</sup>

- **Recurrent mucocutaneous bleeding with normal platelet count:** Order PFA (CEPI/CADP) → LTA if prolonged; exclude vWD
- **Excessive bleeding after minor procedures** (e.g., dental, cataract, skin biopsy): → failure of primary hemostasis despite normal coagulation tests → review aspirin/NSAID/SSRI use; repeat post-washout; if persistent → refer for LTA
- **Family history of bleeding with normal platelet counts:** Suggests inherited QPD (e.g., Glanzmann, Bernard-Soulier) → confirm via flow cytometry/genetic testing; offer family counseling
- **Bleeding after new medication start (SSRI, P2Y12 inhibitor, NSAID):** Strong temporal link to drug-induced platelet dysfunction → hold offending drug if safe; retest after 7–10 days to confirm reversibility
- **Concurrent anemia with normal coagulation studies:** May reflect chronic occult mucosal bleeding due to QPD → check stool guaiac and perform colorectal screens, review medications, evaluate for chronic low-grade bleed

## Common Oversights

- **Failure to Rule Out Drug Effects:** Assuming the patient is aspirin-free based on history alone. Many OTC cold remedies, pain relievers, and even some PPIs can interfere with platelet function
- **Inaccurate LTA/PTA testing:** Failing to account for the 7-10 day washout period required for LTA/PFA
- **“Just aging”:** Dismissing mucocutaneous bleeding or easy bruising as solely due to Senile Purpura or age-related skin fragility, delaying the investigation of an underlying acquired QPD
- **Inadequate vWF Exclusion:** Failing to fully exclude vWD — the most common inherited bleeding disorder — before labeling a patient with a rare intrinsic QPD

## Differential Diagnosis<sup>1, 10-13</sup>

| Condition / Mimic   | Key Clinical Clues   | Recommended Evaluation   | Notes   |
|---|--|--|---|
| <b>von Willebrand disease (vWD)</b>   | Mucocutaneous bleeding similar to QPD; family history; may have prolonged PFA and abnormal ristocetin response | vWF antigen & activity (GPIbM or RCo), Factor VIII, ± multimers  | Most common inherited bleeding disorder   |
| <b>Thrombocytopenia (low platelet count)</b>  | Bleeding with low platelets ( $<100 \times 10^9/L$ ); petechiae on lower limbs                                 | CBC with smear to assess count/morphology; rule out ITP, drug-induced thrombocytopenia, marrow disease | Quantitative, not qualitative defect; D69.1 inappropriate   |
| <b>Drug-induced platelet dysfunction (NSAIDs, aspirin, P2Y12 inhibitors, SSRIs/SNRIs)</b> | Onset after drug start; bruising, epistaxis, gum bleeding; normal platelet count.                              | Medication review, PFA (CEPI prolonged); repeat LTA after 7–10 day washout to confirm reversibility    | Most frequent acquired QPD in elderly; document as drug-induced qualitative platelet dysfunction (T45.515A) |
| <b>Senile purpura / skin fragility</b>  | Bruising limited to forearms, no mucosal bleeding, normal labs   | Clinical diagnosis; labs optional if clear   | Cosmetic, not hematologic; educate and avoid unnecessary QPD testing  |
| <b>Nutritional deficiencies (B<sub>12</sub>, folate, iron)</b>                            | Fatigue, pallor, macrocytosis/microcytosis, mild bruising  | CBC, MCV, ferritin, B <sub>12</sub> , folate   | Correct deficiency before pursuing platelet studies; may coexist with QPD                                   |
| <b>Anticoagulant or DIC-related bleeding</b>  | Deep-tissue or delayed bleeding; prolonged PT/aPTT, falling fibrinogen   | PT/INR, aPTT, fibrinogen, D-dimer  | Coagulopathy rather than platelet disorder; treat underlying cause; not QPD                                 |
| <b>Bone marrow failure / MDS</b>  | Pancytopenia, fatigue, abnormal smear (dysplastic platelets)   | CBC, smear, bone marrow biopsy if indicated  | Qualitative + quantitative; consider hematology for cytogenetics  |

## Comorbidity Screening in Patients with Suspected or Confirmed QPD<sup>1, 6, 7, 9, 10</sup>

| Condition   | Approximate Prevalence  | Recommended Screening  | Pathophysiology   |
|---|---|--|---|
| Chronic Kidney Disease (Stage 4–5 / ESRD)                             | Affects ~15 % of U.S. adults; ~800 000 with ESRD (dialysis or transplant)                     | BUN, Creatinine, eGFR, CBC (Hb), PFA if bleeding                 | Uremic toxins inhibit platelet adhesion/aggregation; anemia worsens bleeding                  |
| Chronic Liver Disease / Cirrhosis                                     | ≈1.5–2 million U.S. adults (0.7 % prevalence) show cirrhosis; >70 % have platelet dysfunction | AST/ALT, INR, Albumin, Platelet count, Abdominal US              | Impaired thrombopoietin/vWF synthesis + hypersplenism   |
| Myeloproliferative Neoplasms (ET / PV)                                | ≈300 000 U.S. cases (incidence 2–3 / 100 000; median age > 60 y)                              | CBC with diff, JAK2 mutation, vWF activity & antigen             | Cytoreduce (e.g., hydroxyurea); check vWF annually; avoid unnecessary aspirin                 |
| Anemia (Iron / Folate / B <sub>12</sub> deficiency)                   | Affects ~10–12 % of adults > 65 y; iron deficiency ≈ 9 million U.S. cases                     | CBC, Ferritin, Iron/TIBC, Folate, B <sub>12</sub>                | Alters platelet membrane & oxygenation; amplifies mucosal bleeding                            |
| Diabetes Mellitus (Type 2)  | Prevalence ≈ 14 % of U.S. adults; > 30 % ≥ 65 y   | A1c, Fasting glucose, Lipid profile                              | Chronic hyperglycemia → glycation of platelet receptors & endothelial dysfunction.            |
| Cardiovascular Disease on Antiplatelets                               | >50 % of adults ≥ 65 use antiplatelets  | Medication reconciliation, bleeding history, cardiology review   | Polypharmacy (dual antiplatelet or triple therapy + SSRI/SNRI) → additive platelet inhibition |
| Psychiatric Disorders on SSRIs/SNRIs                                  | ~15 % of older adults take SSRIs  | Medication list, bleeding review)                                | Serotonin uptake blockade → reduced aggregation.  |
| Nutritional / GI Disorders (Malabsorption, Bariatric Surgery, Celiac) | Malabsorption-related deficiency ≈ 1–2 % of elderly   | CBC, Iron studies, Stool guaiac, Endoscopy if indicated          | Iron/B <sub>12</sub> deficiency and occult GI bleeding  |
| Nutritional deficiencies (e.g., B <sub>12</sub> )                     | 10–20% may have B <sub>12</sub> insufficiency   | Serum B <sub>12</sub> , MMA if borderline; folate/Vit D optional |   |

### Staging/severity:

Unlike conditions such as heart failure or COPD, **qualitative platelet disorders (QPDs) have no universally accepted staging system**. Severity is determined clinically rather than numerically—guided by the **frequency, duration, and anatomic site of bleeding**, and by the **level of medical intervention required**.

The **International Society on Thrombosis and Haemostasis Bleeding Assessment Tool (ISTH-BAT)** is the most widely used instrument to quantify bleeding history and support severity classification.<sup>14</sup>

| Severity Level  | Clinical Features   | Progression / Functional Markers  | Management  |
|-----------------|---|---|---|
| <b>Mild</b>     | <ul style="list-style-type: none"> <li>Infrequent or mild mucocutaneous bleeding (easy bruising, mild epistaxis, gingival oozing)</li> <li>No spontaneous joint/muscle bleeds</li> </ul>                                  | <ul style="list-style-type: none"> <li>Stable or minimal change over time.</li> <li>STH-BAT <math>\leq</math> 3 (women) /<math>\leq</math> 2 (men)</li> <li>No increase in treatment need</li> </ul>                                    | <ul style="list-style-type: none"> <li>Supportive care only.</li> <li>Antifibrinolytics or DDAVP for minor procedures.</li> <li>Low resource use (outpatient only)</li> </ul>   |
| <b>Moderate</b> | <ul style="list-style-type: none"> <li>Recurrent mucocutaneous bleeding (frequent/prolonged epistaxis, menorrhagia <math>&gt;</math> 7 days, post-dental oozing)</li> <li>May require DDAVP or tranexamic acid</li> </ul> | <ul style="list-style-type: none"> <li>Increasing bleed frequency or duration.</li> <li>New anemia or need for iron therapy</li> <li>Escalation to pharmacologic intervention</li> </ul>  | <ul style="list-style-type: none"> <li>Outpatient hematology management</li> <li>Prophylaxis for procedures or menorrhagia</li> <li>Moderate resource allocation (clinic visits, labs)</li> </ul>   |
| <b>Severe</b>   | <ul style="list-style-type: none"> <li>Frequent spontaneous bleeding (joints, muscles, internal organs)</li> <li>May present with hemarthrosis, GI, or intracranial hemorrhage</li> </ul>                                 | <ul style="list-style-type: none"> <li>Transition from mucosal to deep-tissue bleeds</li> <li>Requirement for repeated transfusions or rFVIIa</li> <li>Drop in hemoglobin <math>&gt;</math> 2 g/dL or transfusion dependence</li> </ul> | <ul style="list-style-type: none"> <li>Managed at specialized bleeding-disorder centers.</li> <li>Platelet transfusions or recombinant factor VIIa.</li> <li>High resource utilization (hospitalization, multidisciplinary care)</li> </ul> |

### 3. MEAT DOCUMENTATION ESSENTIALS<sup>2</sup>

This documentation is highly specific for D69.1. It reflects a typical outpatient presentation of a **qualitative platelet defect** in an **older adult** with normal coagulation studies but abnormal bleeding risk — linked to chronic NSAID and SSRI exposure. The example integrates functional assessment, medication causality, lab confirmation, and clear treatment action; all requirements for compliant HCC capture.

**Monitor:** Monitoring focuses on bleeding pattern, medication exposure, and functional stability. Examples: "New forearm purpura noted; bruising occurs spontaneously without trauma; no mucosal bleeding reported." — "CBC with differential normal — platelets  $242 \times 10^9/L$ ; PT 12.3 sec, aPTT 29 sec; consistent with qualitative defect, not thrombocytopenia." — "Medication reconciliation completed — chronic ibuprofen (400 mg daily) and sertraline (50 mg daily) identified as contributing agents." — "Monitoring ongoing; patient instructed to maintain bleeding log; recheck CBC and PFA in 3 months."

**Evaluate:** Assess the clinical consequence, functional status, and geriatric vulnerability. For example: "Evaluated fatigue, activity tolerance, and functional status — no syncope or overt anemia symptoms." — "ADL score 6/6; remains independent but at moderate fall risk due to osteoporosis." — "No history of surgical or dental bleeding; family history negative for inherited platelet disorders." — "Educated on fall precautions and avoidance of activities that may increase bruising risk."

**Assess:** Define the severity, control, and causal context: "**Acquired qualitative platelet defect (D69.1)** associated with chronic NSAID and SSRI exposure — consistent with drug-related platelet dysfunction." — "Normal coagulation studies; mild bruising phenotype; no deep-tissue or mucosal

bleeding." — "Condition active but stable; reversible etiology identified." — "No evidence of inherited platelet disorder; hematology referral if bleeding recurs post-medication washout."

**Treat:** Treatment documents precise actions, medication changes, and safety precautions. Example phrasing: "Discontinued ibuprofen; transitioned to acetaminophen  $\leq 2$  g/day for chronic pain management (dose adjusted for age and fall risk)." — "Reviewed SSRI therapy with psychiatry; plan to taper sertraline and consider switch to mirtazapine if bleeding persists." — "Patient advised to avoid all OTC NSAIDs, aspirin, and supplements known to impair platelet function (ginkgo, garlic, vitamin E)." — "Ordered repeat CBC, ferritin, and PFA at 3-month follow-up; continue observation unless new bleeding develops." — "Physical Exam: scattered forearm purpura, no petechiae, hemarthroses, or mucosal bleeding. ROS: denies melena, hematochezia, or hematuria."

## Critical RADV elements:

- **Link to a care plan or action:** "QPD  $\rightarrow$  bleeding-risk management plan initiated; patient educated on avoiding NSAIDs and scheduled hematology follow"
- **Onset & continuity:** "Inherited QPD dx 2019 — persistent; last flare Aug 2024."
- **Causality chain:** "NSAID + SSRI use  $\rightarrow$  acquired QPD  $\rightarrow$  recurrent purpura  $\rightarrow$  mild anemia."
- **Comorbidity linkage:** "Cirrhosis + aspirin exposure  $\rightarrow$  additive platelet inhibition  $\rightarrow$  prolonged epistaxis episodes."
- **Active status indicator:** avoid "history of"; use "Ongoing qualitative platelet defect, stable; no bleeding since July 2025."

## Audit-Proof Language Tips

| Replace                        | Use Phrase  |
|--------------------------------|---|
| "Stable QPD"                   | "No new bleeding; platelet count $250 \times 10^9/L$ ; ISTH-BAT unchanged (2 $\rightarrow$ 2)."   |
| "History of platelet disorder" | "Current qualitative platelet dysfunction secondary to ESRD, managed with dialysis optimization." |
| "Bleeding tendency noted"      | "Recurrent gum bleeding 2x/month, requiring tranexamic acid; active QPD."                         |
| "Labs normal"                  | "Platelet count $245 \times 10^9/L$ , PT/aPTT normal — consistent with qualitative defect."       |
| "Stable on meds"               | "Continues antifibrinolytic therapy 1 g BID; no bleeding since July 2025; adherent."              |
| "Follow-up PRN"                | "Follow-up q6 months with hematology; recheck LTA annually per consensus guidelines."             |

## 4. TREATMENT & REFERRAL QUICK GUIDE

### Therapy escalation criteria:<sup>1, 12, 13</sup>

| Therapy Stage   | Clinical Indicators / Trigger Points  | Recommended Interventions   |
|---|---|---|
| <b>Tier 1 – Supportive / Preventive Management</b>  | <ul style="list-style-type: none"> <li>Mild mucocutaneous bleeding only (e.g., easy bruising, mild epistaxis)</li> <li>ISTH-BAT <math>\leq 3</math></li> <li>No spontaneous or post-procedural bleeds</li> </ul>  | <ul style="list-style-type: none"> <li>Avoid NSAIDs, aspirin, SSRIs/SNRIs</li> <li>Local measures for nosebleeds and gingival oozing.</li> <li>Antifibrinolytics (tranexamic acid or aminocaproic acid) for dental/minor procedures</li> </ul>  |
| <b>Tier 2 – Expand Lab work-up and Tier 2 – Hematological referral for Advanced Therapy and Diagnosis</b> | <ul style="list-style-type: none"> <li>Recurrent mucocutaneous bleeding (<math>\geq 3</math> episodes/yr)</li> <li>Menorrhagia or prolonged bleeding</li> <li>Post-procedure oozing or need for medical intervention</li> <li>ISTH-BAT 4–6 or rising trend</li> <li>Persistent bleeding despite medication washout or supportive therapy</li> </ul> | <ol style="list-style-type: none"> <li><b>Escalate to hematology for advanced evaluation:</b> <ul style="list-style-type: none"> <li>Confirm with Light Transmission Aggregometry (LTA) <math>\pm</math> flow cytometry to classify QPD subtype (e.g., GT, BSS, storage pool defect)</li> <li>Exclude or co-diagnose von Willebrand disease via vWF antigen, activity, FVIII, and multimers</li> </ul> </li> <li><b>Manage concurrent issues:</b> <ul style="list-style-type: none"> <li>Antifibrinolytics prophylactically for dental/surgical procedures</li> <li>Oral or IV iron repletion for chronic blood loss anemia</li> <li>Hormonal suppression (LNG-IUS or OCPs) for heavy menstrual bleeding</li> </ul> </li> </ol> |

### Non-Rx treatment documentation:

- Trauma Reduction** "C counseled on fall prevention measures (home safety, grab bars); instructed to avoid high-impact activities (e.g., contact sports, aggressive gardening)."
- Oral Hygiene** "Education provided on soft toothbrush use and gentle flossing to mitigate gingival bleeding risk."

### When to refer:<sup>1, 12, 13</sup>

| Specialty                      | Clinical Trigger  | Timeframe/Urgency   |
|--------------------------------|---|---|
| <b>Hematology (Non-Urgent)</b> | QPD confirmed by lab (PFA/LTA abnormal) but etiology is unclear; recurrent bleeding despite anti-fibrinolytics          | Within 2-4 weeks (Outpatient)                                     |
| <b>Hematology (Urgent)</b>     | Need for platelet transfusion or DDAVP; unexplained acute bleeding; failure to correct hemostasis before urgent surgery | STAT consult (Inpatient/Emergency)                                |
| <b>Nephrology</b>              | Acquired QPD due to <b>CKD GFR&lt;30</b> or any rapid, unexplained GFR decline  | Within 1-2 weeks (for management of uremia/dialysis)              |
| <b>Gastroenterology</b>        | Unexplained chronic GI blood loss or iron deficiency anemia persistent despite Hgb 10.1 g/dL                            | Within 4 weeks (to rule out lesions/bowel disease/cancer/varices) |

## Follow-up timing:<sup>1, 12, 13</sup>

- **Stable or Mild QPD** (no recent bleeding, ISTH-BAT  $\leq 3$ ): Reassess **every 6–12 months**; Review bleeding frequency, medication list, and CBC/ferritin annually; Update ISTH-BAT score and document “no new bleeding events.”
- **Moderate QPD** (Recurrent Mucosal Bleeding, ISTH-BAT 4–6): **Follow-up every 3–6 months**; Recheck CBC, ferritin, and review for new anemia or iron use; Document number of bleeding episodes and therapy use (DDAVP, antifibrinolitics); Schedule pre-procedure hematology consult for planned interventions
- **Severe / Refractory QPD** (ISTH-BAT  $\geq 7$  or Transfusion History): **Monthly or as clinically indicated** until stable; Ensure **care plan review q3mo** with multidisciplinary team (hematology, pharmacy, primary care)

## Patient education & adherence:<sup>1, 12, 13</sup>

- **Emphasize triggers to avoid:** Avoid **NSAIDs** (ibuprofen, naproxen), **aspirin**, and **herbal supplements** (ginkgo, garlic, ginseng)
- **Bleeding precautions:** Use a soft toothbrush, avoid contact sports, and wear gloves for yard or household work. Report **new bruising, prolonged bleeding**, or black/tarry stools immediately
- **Medication adherence:** Take prescribed **antifibrinolitics or DDAVP** exactly as directed — missing doses increases bleeding risk. If using **iron or hormonal therapy**, do not stop abruptly; recheck labs per schedule
- **Vaccinations and procedures:** Always **inform all providers** (dentist, surgeon) about QPD diagnosis before procedures. Keep a **medical alert card or bracelet** listing your condition and hematologist's contact
- **Caregiver engagement:** Educate family on bleeding signs and medication timing
- **Address cost barriers:** Verify **Medicare Part D coverage** for tranexamic acid or DDAVP; explore assistance programs

## Comorbidity management:<sup>1, 12, 13</sup>

| Condition                                 | Key Clinical Risk / Interaction with QPD   | Management & Monitoring Strategies  |
|---|--|---|
| Chronic Kidney Disease (Stage 4–5 / ESRD) | Uremic toxins impair platelet adhesion and aggregation; anemia amplifies bleeding                                | BUN, Creatinine, eGFR, CBC (Hb), PFA if bleeding  |
| Chronic Liver Disease /Cirrhosis          | Impaired thrombopoietin synthesis, hypersplenism, and reduced clotting factor production                         | <ul style="list-style-type: none"> <li>• Manage <b>portal hypertension</b>; consider <b>vitamin K</b> if INR prolonged</li> <li>• Avoid <b>NSAIDs/aspirin</b>; use <b>acetaminophen <math>\leq 2</math> g/day</b></li> <li>• Coordinate with hepatology before invasive procedures</li> </ul> |
| Myeloproliferative Neoplasms (ET / PV)    | Thrombocytosis ( $>1$ million/ $\mu$ L) $\rightarrow$ acquired vWF deficiency $\rightarrow$ paradoxical bleeding | <ul style="list-style-type: none"> <li>• <b>Cytoreduction</b> (hydroxyurea, interferon)</li> <li>• Monitor <b>vWF activity annually</b></li> <li>• Avoid unnecessary <b>aspirin</b> if bleeding tendency present</li> </ul>   |

| Condition   | Key Clinical Risk / Interaction with QPD  | Management & Monitoring Strategies   |
|---|---|--|
| Anemia (Iron / Folate / B <sub>12</sub> deficiency) | Chronic bleeding from QPD or comorbid GI disease worsens fatigue and hemostasis | <ul style="list-style-type: none"> <li>Correct deficiencies with oral or IV iron; repeat CBC/ferritin q3–6 mo.</li> <li>Treat bleeding source if identified</li> </ul>   |
| Diabetes Mellitus (Type 2)                          | Glycation impairs platelet signaling and increases oxidative stress             | <ul style="list-style-type: none"> <li>Optimize A1c (&lt;7.5 % for elderly)</li> <li>Use metformin with renal monitoring; avoid glyburide (hypoglycemia risk)</li> </ul>   |
| Cardiovascular Disease on Antiplatelets             | Dual therapy or drug–drug interactions cause additive platelet inhibition       | <ul style="list-style-type: none"> <li>Reassess ongoing need for <b>dual antiplatelet therapy (DAPT)</b> after 12 months</li> <li>Consider <b>monotherapy</b> when safe</li> <li>Add <b>PPI</b> for GI protection</li> </ul> |

## Cost-smart Rx options:<sup>15</sup>

| Drug / Formulation                 | Brand Name           | Generic Name  | Typical Cost impact   |
|------------------------------------|----------------------|---|---|
| Desmopressin Acetate (Nasal Spray) | DDAVP                | Desmopressin Acetate (Injection, Tablet, Spray)     | <b>Significant savings.</b> Generic desmopressin nasal spray can be 75–90% less expensive   |
| DDAVP Melt (Tablet)                | DDAVP Melt           | Desmopressin Acetate (Orally Disintegrating Tablet) | <b>Significant savings.</b> Generic can be 75–90% less expensive  |
| Tranexamic Acid                    | Cyklokapron, Lysteda | Tranexamic Acid                                     | <b>High savings.</b> Generic forms are widely available and can cost <b>50% or less</b> than the brand equivalent                   |
| Aminocaproic Acid                  | Amicar               | Aminocaproic Acid                                   | <b>High savings.</b> Generic is the low-cost standard. Brand cost can be extremely high   |
| Recombinant Factor VIIa            | NovoSeven            | No generic equivalent                               | Costs are extremely high (often \$50,000+ per unit/dose for on-demand use). Utilization management must focus on appropriate dosing |

## Quality metrics tie-in:<sup>16</sup>

| HEDIS/Quality Measure   | Target                                     | Impact  |
|---|--|---|
| Potentially Harmful Drug–Disease Interactions in Older Adults (DDE) | Lower Rate ↓                               | Prevents inappropriate prescribing. QPDs often require avoiding certain Antiplatelet agents (e.g., Aspirin, NSAIDs) or high-risk drugs. Accurate QPD documentation serves as a necessary clinical flag to reduce DDE events                   |
| Transitions of Care (TRC)   | Higher Rate ↑, prevent 30-day readmissions | Reduces readmissions. Uncontrolled bleeding (the major QPD complication) often leads to high-cost ER visits and hospitalizations. Effective discharge planning and management of QPDs (Tier 2/3 TRC compliance) prevents 30-day readmissions. |

| HEDIS/Quality Measure  | Target        | Impact  |
|--|---------------|---|
| <b>Adherence to Medications for Chronic Conditions (Statins/Diabetes Meds)</b> | Higher Rate ↑ | Manages complex regimens. QPDs increase medication complexity (e.g., stopping Aspirin, starting Desmopressin). Improved care coordination driven by quality teams helps ensure adherence to necessary maintenance drugs while safely navigating bleeding risk         |
| <b>Emergency Department (ED) Utilization Rate</b>                              | Lower Rate ↓  | Avoids costly events. A critical, non-HEDIS metric in Value-Based care. Effective prophylactic management of QPDs (e.g., before dental work or during menses) avoids uncontrolled bleeding episodes that necessitate high-cost ED treatment and platelet transfusions |

## 5. CODING REMINDERS & CASE EXAMPLES

### Specificity requirements:

- **Type/Etiology:** **D69.1** Acquired (drug-induced, ESRD, cirrhosis) vs Inherited (very uncommon)(e.g., Glanzmann, Bernard-Soulier)
- **Activity:** Active, stable, or refractory (avoid “history of”)
- **Associated condition/cause:** e.g., ESRD → uremic platelet dysfunction; aspirin use → drug-induced QPD
- **Complications:** Anemia (D62), GI bleeding (K92.2), menorrhagia (N92.0), transfusion dependence (Z79.899)
- **Coding linkage:** Acquired dysfunction → **code underlying cause (if known) + manifestation** (e.g., T45.515A [Adverse effect of antiplatelet] + D69.1 [Qualitative platelet defects] + K92.2 [GI bleed, unspecified])

### Example ICD-10 combinations:

- Inherited QPD (Glanzmann): D69.1 + Z79.899 (chronic treatment use)
- Drug-induced dysfunction: T45.515A (adverse effect of antiplatelet) + K92.2 (GI bleed)
- Platelet dysfunction due to SSRI therapy: **D69.1** (Qualitative platelet defects, primary diagnosis) + **T43.205A** (Adverse effect of unspecified SSRI and TCA antidepressant, initial, secondary diagnosis)

### Annual capture

- Must be **face-to-face by 12/31** each calendar year
- **Telehealth counts if video + audio** and documentation meets MEAT (Monitor–Evaluate–Assess–Treat)
- Record active management each year, e.g., “Monitored platelet function; mild bleeding controlled with DDAVP; no transfusions since July 2025”
- **Problem List:** Flag as “**HCC\_REQUIRED: QPD (D69.1)**” for annual risk capture
- **Re-document causality** yearly for acquired forms (e.g., “platelet dysfunction secondary to ESRD”)

## Common denials & fixes:

| Denial                            | Fix  |
|-----------------------------------|--|
| "History of platelet disorder"    | → "Current qualitative platelet dysfunction due to ESRD — monitored and treated with DDAVP pre-procedure."                     |
| "QPD stable" (no MEAT)            | → "Monitored platelet function; no new bleeding; assessed for DDAVP response; continue conservative management."               |
| "Bleeding disorder – unspecified" | → Specify inherited vs. acquired and cause: "Acquired QPD from chronic NSAID exposure; NSAIDs stopped, follow-up in 6 months." |
| Missing linkage                   | → Include cause → effect: "ESRD causing qualitative platelet dysfunction → chronic anemia → on ESA"                            |
| Non-specific labs                 | → Add metrics: "Platelet count 245k, PT/aPTT normal, LTA abnormal — consistent with QPD."                                      |

## EHR tips:

### SmartPhrases/Templates:

- **.QPDMEAT** → auto-fills Monitor/Evaluate/Assess/Treat lines for platelet disorders.
- **.QPD\_CAUSELINK** → inserts causality phrase ("secondary to ESRD/drug-induced").
- Problem List Flags → Mark *HCC\_REQUIRED* for D69.1.

### Chronic Capture Alerts:

- **Enable Annual Wellness Visit prompt:** "Review chronic conditions for active management – QPD check."
- **Add Follow-up SmartSet:** CBC, ferritin, PTT/PT orders + bleeding assessment fields
- **Structured Fields:** ISTH-BAT score entry (flowsheet) for tracking; Checkbox for "Inherited vs. Acquired" to auto-suggest ICD-10 logic

## Brief case examples:

### Success — Acquired QPD (Drug-Induced, Primary Care)

76-year-old woman with osteoporosis, chronic NSAID use for arthritis pain, and sertraline (SSRI) for depression presents with spontaneous purpura on forearms. Platelet count normal ( $240 \times 10^9/L$ ); PT/aPTT normal. PCP suspects acquired qualitative platelet defect due to medication effects. **Assessment:** "Acquired qualitative platelet defect (D69.1) secondary to chronic NSAID and SSRI exposure. Normal platelet count and coagulation studies confirm qualitative dysfunction." **Plan:** "Stopped NSAIDs; switched to acetaminophen  $\leq 2$  g/day; psychiatric consult for SSRI taper; avoid aspirin/herbal antiplatelets; monitor bruising and repeat CBC + PFA in 3 mo." **PE/ROS:** "Scattered forearm purpura, no petechiae, no mucosal bleeding."

### Pitfall — Missed QPD in Common Primary Care Setting (Post-Procedure Bleeding)

A 72-year-old man returns after tooth extraction with persistent gum bleeding. The chart lists only "Bleeding after dental procedure; on ibuprofen." Labs: normal platelet count, normal PT/aPTT.

**Fix/Corrected Documentation:** "Qualitative platelet dysfunction due to chronic NSAID exposure (D69.1). Normal platelet count and coagulation; consistent with drug-induced thrombocytopathy. NSAIDs stopped; tranexamic acid rinse prescribed; monitor bleeding, reassess in 2 weeks."

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