AAVBC

American Academy
of Value Based Care

Diabetes Mellitus
Quick Reference Guide

2025

AAVBC Diabetes Mellitus Quick Reference Guide

1. CLINICAL SNAPSHOT

Definition: Diabetes mellitus (DM) is a chronic metabolic disease characterized by hyperglycemia resulting from defects in insulin secretion, insulin action, or both (CDC, WHO, NIH)[1-3]

ICD-10 Codes: E10.x (Type 1), E11.x (Type 2), E08.x (secondary), E09.x (drug-induced), E13.x (other specified)[4]

HCC V28 Mapping: HCC 36 (Diabetes with acute complications) E10.10 (Diabetes type 1 with ketoacidosis), with RAF (0.166); **HCC 37** (Diabetes with chronic complications) E11.22 (Diabetes type 2 with CKD), E11.59 (Diabetes with other circulatory complications) with RAF (0.166); **HCC 38** (Diabetes with Glycemic, Unspecified or no complications) E11.9 (Diabetes type 2 without complications), E11.649 (Diabetes type 2 with hypoglycemia without coma) with RAF (0.166)[4,5]

Prevalence (U.S): 11.6% of adults (≈38.4M), 29.2% of adults >65 diagnosed with DM; estimated 8.7M of adults are undiagnosed (22.8% of adults with DM are undiagnosed); 97.6M adults are prediabetic and are at risk for developing type 2 diabetes, 81% of them don't know they have it; Annual total cost $412.9B, 61% of diabetes costs are for adults aged >65, $5,876 PMPY[2,6]

2.RECOGNITION & DIAGNOSIS

Medicare Screenings[7-9]

Test	Coverage	Frequency	Code(s)	Notes
USPSTF Grade B	Adults 35-70yrs BMI ≥25kg/m^2	q3 years	Prediabetes & T2DM Screening, FPG, HbA1c, OGTT	HbA1c ≥5.7% threshold for prediabetes
HbA1c (Glycemic Monitoring)	Medicare covered	q3-6 mo	CPT 83036 ($18)	Use to monitor glycemic control; document MEAT for DM management visit
Dilated Eye exam	For retinopathy detection	Yearly	CPT 92004/92014 + 2022F-2026F[1]	Ensure documentation of "annual retinal exam" in note; supports quality measures
Comprehensive Foot exam	Medicare covered for diabetes	Yearly	G0245-G0247	Document monofilament and pedal pulse findings; supports HEDIS foot exam measure
Medicare Diabetes Prevention Program (MDPP)	BMI ≥25, HbA1c 5.7–6.4%, or FPG 110–125 mg/dL	Once/lifetime	G9873–G9891	Structured lifestyle program reducing T2DM progression risk by ~58%
Diabetes Self-Management Training (DSMT)	Eligible Medicare beneficiaries with diabetes	10 hrs first year, 2 hrs annually thereafter	G0108 (individual) G0109 (group)	Encourage DSMT referral; linked to improved A1c control and CMS preventive coverage

Subtle Early Signs in Adults > 65 yrs[3, 9, 10]

- **Fatigue mistaken for aging** → Check postprandial glucose >180 mg/dL
- **Cognitive decline preceding motor symptoms** → Undiagnosed diabetes increases dementia risk ~2×
- **Nocturia attributed to prostate/aging** → Evaluate for polyuria due to hyperglycemia
- **Recurrent UTIs** → Glucosuria promotes bacterial overgrowth
- **Slow wound healing** → Check glucose in any non-healing wound

Geriatric Risk Factors

Factor	Risk Signal(s)	Notes
Polypharmacy (>5 meds)[11]	↑ falls and adverse events	Prioritize deprescribing (high-risk agents for hypoglycemia, orthostasis)
Falls history[12]	RR/HR ~1.6 OR 1.3–2.9	Hypoglycemia/neuropathy risk
Social isolation / Loneliness[13]	HR ~1.32 for incident T2D	Poor self-care
Systemic Corticosteroids[14]	Steroid-induced hyperglycemia ~34–50% incidence in inpatients	If steroids are necessary: plan proactive SMBG/CGM, adjust basal-bolus or add NPH with daytime dosing
Thiazide diuretics (higher dose, e.g., HCTZ ≥25 mg)[15]	↑ risk of impaired glucose~20–30%	Dose-related; mitigated by potassium; Prefer low-dose thiazide or thiazide-like agents; monitor glucose/K^+ after up-titration;

RED FLAGS - URGENT ACTION[9]

- **DKA:** Glucose >250 mg/dL, pH <7.30 or HCO_3^- ≤18 mEq/L, positive ketones, anion gap ↑, dehydration → **ED transfer**.
- **Hyperosmolar Hyperglycemic State (HHS):** Glucose >600 mg/dL, effective osmolality >320 mOsm/kg, minimal/absent ketones, altered mental status → **ED transfer**
- **Severe hypoglycemia:** Glucose <54 mg/dL or needs assistance. Treat immediately (15–20 g rapid carbohydrate; glucagon if unable to take PO)
- **Acute vision change/loss:** Sudden floaters, "curtain" across vision, or acute painless vision loss → **urgent ophthalmology** (rule out vitreous hemorrhage/retinal detachment; proliferative DR)

Diagnostic Thresholds[7, 9, 12]

Test	Diagnostic Value	Notes
HbA1c	≥6.5%	Confirm on another day unless clear hyperglycemia. Target 7.5–8.5% if frail. Avoid if inaccurate (anemia, CKD, hemoglobinopathy)—use glucose-based test
Fasting plasma glucose	≥126 mg/dL (7.0 mmol/L) after ≥8 h fast	Confirm on a separate day
Random plasma glucose	≥200 mg/dL (11.1 mmol/L)	With classic symptoms (polyuria, polydipsia, weight loss); If asymptomatic, repeat (or perform FPG/OGTT)
2-hr OGTT (75 g)	≥200 mg/dL (11.1 mmol/L)	Higher sensitivity than A1c for early dysglycemia; useful when A1c may be unreliable (anemia, CKD)

Clues to Dig Deeper[9]

- **eGFR 45–59 (CKD G3a):** Repeat serum creatinine/eGFR and urine ACR in ~3 months to confirm chronicity; evaluate albuminuria and ACEi/ARB/SGLT2 indications
- **Unexplained anemia or neuropathy (metformin user):** Check vitamin B12; long-term metformin associated with B12 deficiency—test if anemia/neuropathy present or after >4 years use
- **ALT elevation / metabolic dysfunction–associated steatotic liver disease (MASLD/NAFLD):** Very common in T2D (~50–70%). If persistent ALT↑ or steatosis on imaging, risk-stratify fibrosis (e.g., FIB-4), manage weight, and consider SGLT2i/GLP-1 RA for metabolic/weight benefit
- **Triglycerides:** If ≥500 mg/dL, treat to prevent pancreatitis (fibrate/omega-3, optimize glycemia)

Common Oversights[2, 9]

- **Attributing fatigue or confusion to " aging"** → Always check glucose and HgbA1c in elderly with new fatigue, confusion or falls
- **Missing latent autoimmune diabetes in adults (LADA)** → Non-obese "T2DM" failing oral agents → check GAD, IA-2, ZnT8 Abs; code E13.x if confirmed
- **Steroid-induced** → May persist after discontinuation = E09.9, not R73.9
- **"Honeymoon phase" T1DM** → Temporary partial remission ≠ cure → continue close monitoring and insulin titration

Key Differentials in Elderly[9, 10]

Presentation	Differential Diagnosis	Key Tests
Fatigue	**DM** vs Depression vs hypothyroidism vs B12 deficiency	PHQ-9, TSH, B12
Early satiety	**DM** vs Gastroparesis vs malignancy	Gastric emptying study
Proximal weakness	**DM** vs Diabetic amyotrophy vs PMR	ESR, CK
Confusion	**DM** vs Hypoglycemia vs dementia vs UTI	Check glucose first, UA

Comorbidity Screening[9, 10]

Condition	Recommended Screening	Frequency	Notes
DM	Monofilament, vibration, reflexes	Annual	CPT G0245–G0247; document sensation + pulses
CKD	Urine ACR + eGFR; if stage ≥3a, check PTH ± vit D	Annual	Use E11.22 + N18.x for diabetic CKD.
CHF + DM	Sleep apnea screen (56% prevalence in DM)	Once	Use G47.33 if OSA confirmed; improves glycemic control
Depression	PHQ-2/9 (2-3x higher in DM)	Annual	Use F32.x/F33.x; positive screen → referral/therapy

ADA 2024 Staging/Severity by Frailty[9]

Status	HbA1c Target	Management
Robust elderly	<7.0%	Standard therapy; Full treatment intensity if low comorbidity, intact cognition, and low hypoglycemia risk
Pre-frail	<8.0%	Caution with tight control; Prioritize avoidance of hypoglycemia; de-intensify sulfonylureas/insulin if risk
Frail / limited life expectancy	<8.5%	Simplify regimen; Use long-acting/low-risk agents; discontinue non-beneficial drugs. Focus on comfort and safety

3. MEAT DOCUMENTATION ESSENTIALS[5, 9-11]

- **MONITOR:** "HbA1c 7.8% (↑ from 7.2% 3mo ago), home glucose logs 140-180mg/dL fasting, CGM 65% TIR, annual eye exam 10/2024 mild NPDR"
- **EVALUATE:** "Urine albumin-to-creatinine ratio 45mg/g + eGFR 52 = diabetic nephropathy stage 3a CKD; PHQ-9=12 moderate depression; monofilament abnormal 3/10 sites bilateral feet"
- **ASSESS:** "T2DM with poor control (A1c 9.2%) due to dietary non-adherence during holidays, complicated by stage 3a diabetic nephropathy and peripheral neuropathy affecting ambulation"
- **TREAT:** "Increased metformin XR to 2000mg daily (adjusted for GFR), added empagliflozin 10mg for CV/renal protection, enrolled in DSMES program 10hrs covered by Medicare"

Critical RADV Elements

- **Link causally:** Always link DM to complication"Diabetic nephropathy"YES, NOT "diabetes and CKD"
- **Include onset:** Capture year of diagnosis "T2DM diagnosed 2015"
- **Show control:** Use descriptive control language "Well-controlled, HbA1c 6.8%" NOT "stable"
- **Specify complications:** Use E11.22 for diabetic CKD (not separate codes), Supports HCC 37 (Chronic Complications)

Audit-Proof Tips

Instead of...	Document...
"Stable"	"HbA1c 6.8%, no hypoglycemia x 3 months"
"Feet OK"	"Feet examined: no ulcers, pulses 2+ bilaterally"
"Doing well"	"ROS: denies polyuria/polydipsia; PE: no pedal edema."
"Noncompliant"	"Declined ophthalmology referral, risks discussed"

4. TREATMENT & REFERRAL QUICK GUIDE[8, 9, 16]

Therapy Escalation Criteria

Trigger	Action	Notes
A1c >7.5% on metformin x3mo	Add SGLT2i or GLP-1 RA	Prefer SGLT2i if ASCVD, HF, or CKD; GLP-1 RA if obesity or ASCVD; Confirm renal function (avoid SGLT2i if eGFR < 20 mL/min)
A1c >9% or symptomatic hyperglycemia	Start basal insulin (e.g., glargine, detemir, NPH)	Continue metformin and GLP-1 RA if tolerated; Start 10 U nightly or 0.1–0.2 U/kg/day, titrate q3–7 days
A1c >8% on basal + orals	Intensify to MDI (add mealtime insulin or premix)	Simplify for older/frail adults: 1–2 bolus injections or premix twice daily; Document reason for intensification.
≥4 fingersticks daily or any insulin use	Consider CGM	Covered by Medicare Part B when on insulin or with recurrent hypoglycemia

ADA 2024-Aligned Recommendations

Clinical Scenario	First Choice	Alternative
Initial therapy	Metformin + lifestyle (diet, physical activity, etc..)	Unless eGFR < 30 mL/min/1.73 m² → use GLP-1 RA or basal insulin
ASCVD or HF	SGLT2i (e.g., dapagliflozin, empagliflozin)	GLP-1 RA (liraglutide)
CKD (eGFR ≥ 20)	GLT2i preferred for renal protection	GLP-1 RA if SGLT2i not tolerated
Obesity / weight management	GLP-1 RA (semaglutide, tirzepatide)	SGLT2i

Non-Rx Treatment Documentation

"Referred to RD for MNT (3hrs year 1 Medicare-covered); taught carb counting 45-60g/meal; prescribed 150min/week walking program; sleep hygiene for dawn phenomenon"

When to Refer

Specialty	URGENT (<1 week)	ROUTINE (2-4 weeks)
Endocrinology	A1c >12%, recurrent DKA, suspected T1DM	A1c >9% despite optimization, pump/CGM
Ophthalmology	Sudden vision changes	T1: within 5yr dx; T2: at dx, then annual
Nephrology	Rapid eGFR decline > 5 mL/min per yr or nephrotic range proteinuria	eGFR < 30 or ACR > 300 mg/g
Podiatry	Infected ulcer or acute osteomyelitis	Deformity, prior amputation

Follow-up Timing

- **New diagnosis:** 2-4 weeks for titration➡Assess self-monitoring, tolerance, and reinforce DSMES
- **Medication change:** ~4 weeks ➡Evaluate response, adherence, side effects
- **Stable controlled:** Every 3-6 months➡ HbA1c, renal function, blood pressure, complications
- **Poor control/complications:** Monthly until stable → Review home logs, reinforce self-care, and address barriers

Patient Education & Adherence

"Demonstrated glucose meter use, verbalized hypoglycemia symptoms (<70mg/dL), provided sick day management handout, discussed medication adherence barriers - cost addressed with $35 insulin cap"

Comorbidity Management

Condition	Avoid	Reason
EF <40% (HFrEF)	TZDs (pioglitazone, rosiglitazone)	Fluid retention; ↑ HF hospitalization
eGFR <30 mL/min	Metformin	Lactic acidosis risk
Recurrent UTIs / genital infections	SGLT2i	Glycosuria-related infection risk
Gastroparesis / severe GI disease	GLP-1 RA	Delayed gastric emptying; worsens symptoms

Cost-Smart Options

Brand	Generic/Alternative	Approx. Monthly Savings
Metformin brand	Generic XR	~$4/month
Lantus/Novolog	NPH/Regular	~$25 vs $300
Lantus (glargine)	Biosimilar glargine (Semglee, Rezvoglar)	~15% less
Any insulin	Medicare insulin cap	~$35/month

Quality Metrics Tie-In

Measure	Target	Impact
A1c <8%	HEDIS / CMS Star	Key Star Rating metric; reflects glycemic control quality
Annual eye exam	HEDIS	Use CPT II codes 2022F–2026F; supports retinal screening measure
Statin use (age 40–75)	CMS Star /Quality bonus	Auto-populates for T2DM unless statin contraindicated
BP < 130/80 mmHg	HEDIS	Separate CMS measure; ensure same-day BP entry in EMR flowsheet

CODING REMINDERS & CASE EXAMPLES[4-7]

Specificity Requirements

- **Type:** Differentiate **E10.x (Type 1)** vs **E11.x (Type 2)**
- **Control:** E11.65 (hyperglycemia), E11.649 (hypoglycemia); Avoid generic "controlled/uncontrolled." Must link to A1c or symptom data
- **Complications:** Specify per organ system (e.g., E11.321 mild NPDR with macular edema; E11.22 CKD; Add causal linkage ("due to diabetes") to ensure HCC 37 or 38 validity
- **Laterality:** Include when applicable (e.g., retinopathy, neuropathy, ulcers)

Annual Capture

- ✓ **YES** - All diabetes codes require annual face-to-face with MEAT by 12/31
- ✓ **Telehealth with video counts**
- ✓ V28: Same RAF for complicated/uncomplicated (0.166)[3–5]

Common Denials & Fixes

Denial Reason	Fix
"DM controlled"	→ "T2DM well-controlled, A1c 7.2%, no hypoglycemia"
"CKD" alone	→ "Diabetic nephropathy, CKD stage 3a, eGFR 52 mL/min"
Missing link	→ "T2DM with diabetic polyneuropathy" (one code)
"Retinopathy" unspecified	"Mild NPDR with macular edema, right eye, due to T2DM."
No MEAT	→ Add current A1c, medications, monitoring plan

EHR Tips

- Use **.dmMEAT** template for structured documentation

- **Problem list:** Flag as **"HCC_REQUIRED"** for annual face-to-face review
- **Best Practice Alert:** Configure to fire when A1c > 6 months old
- **Order set:** Use **"DM_ANNUAL"** order set (labs, referrals, CPT II codes preloaded)

Case Examples

SUCCESS CASE: "75yo T2DM with diabetic neuropathy documented as 'E11.42, bilateral feet, monofilament 5/10 sites abnormal, gabapentin started'"
Result: Proper HCC 37 capture, RAF maintained under V28

PITFALL CASE: "82yo noted 'diabetes stable' without A1c or complications"
Result: RADV audit fail, $2400 clawback

FIX: "T2DM well-controlled, A1c 7.2%, no complications (E11.9)"

REFERENCES

1. World Health Organization. Diabetes. Updated April 9, 2024. https://www.who.int/news-room/fact-sheets/detail/diabetes.
2. Centers for Disease Control and Prevention. National Diabetes Statistics Report, 2024. Updated May 2024. https://www.cdc.gov/diabetes/php/data-research/index.html.
3. National Institutes of Health; National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Diabetes Overview. Updated 2023. https://www.niddk.nih.gov/health-information/diabetes/overview.
4. Centers for Disease Control and Prevention (CDC); National Center for Health Statistics. ICD-10-CM Official Guidelines for Coding and Reporting, FY 2025. Updated October 1, 2024. https://icd10cmtool.cdc.gov.
5. Centers for Medicare & Medicaid Services. CMS-HCC Risk Adjustment Model V28, 2025. https://www.cms.gov.
6. Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion. Interventions. CDC. https://www.cdc.gov/nccdphp/priorities/diabetes-interventions.html.
7. US Preventive Services Task Force. Screening for Prediabetes and Type 2 Diabetes: US Preventive Services Task Force Recommendation Statement. JAMA. 2021;326(8):736-743. doi:10.1001/jama.2021.12531
8. Centers for Medicare & Medicaid Services. Preventive Services Coverage. CMS. https://www.cms.gov/medicare/coverage/preventive-services-coverage.
9. American Diabetes Association Professional Practice Committee. Introduction and Methodology: Standards of Care in Diabetes—2024. Diabetes Care. 2024;47(suppl 1):S1-S4. https://doi.org/10.2337/dc24-SINT
10. Livingston G, Huntley J, Liu KY, et al. Dementia prevention, intervention, and care: 2024 report of the Lancet standing Commission. Lancet. 2024;404(10452):572-628. doi:10.1016/S0140-6736(24)01296-0
11. AL-Musawe L, Martins AP, Raposo JF, Torre C. The association between polypharmacy and adverse health consequences in elderly type 2 diabetes mellitus patients; a systematic review and meta-analysis. Diabetes Res Clin Pract. 2019;155. doi:10.1016/j.diabres.2019.107804
12. Cheng LY, Leung SY, Leung MKW. The association of glycemic control and fall risk in diabetic elderly: a cross-sectional study in Hong Kong. BMC Prim Care. 2022;23(1). doi:10.1186/s12875-022-01807-7

13. Song Y, Zhu C, Shi B, et al. Social isolation, loneliness, and incident type 2 diabetes mellitus: results from two large prospective cohorts in Europe and East Asia and Mendelian randomization. EClinicalMedicine. 2023;64:102236. Published 2023 Sep 21. doi:10.1016/j.eclinm.2023.102236
14. Cho JH, Suh S. Glucocorticoid-Induced Hyperglycemia: A Neglected Problem. Endocrinol Metab. 2024;39(2):222-238. https://doi.org/10.3803/EnM.2024.1951
15. Zillich AJ, Garg J, Basu S, Bakris GL, Carter BL. Thiazide diuretics, potassium, and the development of diabetes: A quantitative review. Hypertension. 2006;48(2). doi:10.1161/01.HYP.0000231552.10054.aa
16. GoodRx. Prescription Drug Prices. GoodRx.com; 2024. https://www.goodrx.com.