Adult Diabetes Mellitus – Envolve PeopleCare (EPC) Clinical Guidelines

Topic	Optimal Goal	Clinical Intervention Provided - modifiable based on participant's readiness to change and address specific goals
1. Glycemic Control	A1C <7.0* (ADA) ≤6.5** (AACE)	• Obtain baseline A1C upon assessment and as ordered by physician. • Obtain self-monitored blood glucose (SMBG) frequency and readings. • Share glycemic goals of ADA and AACE: o Identify potential contraindications for tight control including hypoglycemia unawareness. o Discuss risks and benefits of tight blood glucose control. o Recommend participant discuss appropriate goal with physician. • Discuss pathophysiology of diabetes. • Review current diabetes medications and assess for compliance. • Provide education on appropriate timing and consistency of medication administration. • Provide education on appropriate handling & storage, administration, device handling & management and injection technique for injectables. • Review usual carbohydrate intake pattern. • Instruct on proper balance of medication, carbohydrate intake and physical activity to control blood glucose levels. • Advocate for initiation of SMBG if not being done or increased frequency as appropriate. • Discuss importance of euglycemia before conception with all women of child-bearing potential.
2. Blood Pressure	<140/90mm Hg*** (ADA) <130/80 mm Hg (ACC/AHA)	• Obtain baseline BP upon assessment and upon each office visit otherwise specified by physician. • Share goal BP goals from ACC/AHA and ADA. • Instruct members to discuss appropriate blood pressure goal with provider. • Discuss pathophysiology of high blood pressure and increased macro & micro vascular risk. • Review current anti-hypertensive medications and assess for compliance. • Discuss benefits of ACE/ARB (first line), thiazide diuretics &/or calcium channel blocker use for treatment of HTN. • Provide education on appropriate timing and consistency of medication administration. • Review for risk factor(s): o If participant uses tobacco, see tobacco cessation intervention. o If participant is overweight, see BMI intervention. o If participant does not exercise, see physical activity intervention. o If participant has a diet high in saturated fat, trans fat and sodium, see nutrition intervention. o If participant uses ETOH, review impact on BP. • Instruct on appropriate questions for next physician visit. • If BP is >180/100 mm Hg recommend participant notify physician immediately and send Medical Alert Form.

3. Lipids	TC <200 mg/dL LDL: preferred value for each individual should be further defined by the provider based on the individual's level of risk HDL>60 mg/dL Male >60 mg/dL Female Triglyceride<150 mg/dL	• Obtain baseline labs upon assessment and annually (unless more frequent testing is ordered by physician) • Share recommended targets for total cholesterol, HDL, and triglycerides • Concerning LDL, assess participant's status in relation to the 'four major statin benefit groups' o Individuals 40 to 75 years of age with diabetes with LDL 70-189 • Educate participant to follow up with their provider about recommendations to estimate individual risk level using a risk calculator. Explain that based on their personal risk the participant and their provider can determine if current treatment continues to be appropriate or if any further or new treatment might be warranted. • Discuss pathophysiology of abnormal lipids and increased cardiovascular risk. • Review current lipid medications and assess for compliance. • Discuss benefits of statins for cardiovascular protection. • Discuss benefits of aspirin for cardiovascular protection especially in men and women ≥50 years and with additional major risk factors (family history of CAD, increasing age, male gender, ethnicity, overweight or obesity, tobacco usage, HTN, dyslipidemia) . Instruct participant to discuss with physician prior to initiating use if not currently taking a daily aspirin. • Discuss benefits of antiplatelet use in participants <50 years with multiple risk factors. • Discuss benefits of ACE/ARBs for cardiovascular protection. • Provide education on appropriate timing and consistency of medication administration. • Review risk factor(s) if present: o If participant uses tobacco, see tobacco cessation intervention. o If participant is overweight, see BMI intervention. o If participant does not exercise, see physical activity intervention. o If participant has a diet high in saturated fat and sodium, see nutrition intervention. o If participant uses ETOH, review impact on lipids, especially TG. • Discuss benefits of adequate intake of n-3 fatty acids, viscous fiber and plant stanols & sterols. • Instruct on appropriate questions for next physician visit.
4. Diabetes Related Complications	Reduce incidence of new complication rate. Slow progression of existing complications	• Obtain history of existing diabetes related complication(s) if any. • Review recommendations for routine screenings: comprehensive foot examination, dilated eye examination, and assessment of urinary albumin: creatinine ratio (UACR) and estimated glomerular filtration rate (eGFR). • Provide education on the etiology, prevention, diagnosis, treatment and progression of: o cardiovascular disease (see Coronary Artery Disease Clinical Guidelines if CAD present) o diabetic kidney disease

		○ retinopathy ○ peripheral neuropathy ○ autonomic & sensorimotor neuropathy ● Review for risk factor(s) if present: ○ If participant had uncontrolled hypertension, see blood pressure intervention. ○ If participant had uncontrolled hyperlipidemia, see lipid intervention. ○ If participant uses tobacco, see tobacco cessation intervention. ○ If participant is overweight, see BMI intervention. ○ If participant has a diet high in saturated fat, trans fat and sodium, see nutrition intervention. ○ If participant does not exercise, see physical activity intervention. ○ If participant uses ETOH, see Nutrition intervention. ● Assess for signs and symptoms of complications. If present, recommend discussion with physician on next visit.
5. Tobacco Cessation	Life-long Abstinence	● Obtain tobacco use status and history during assessment. ● If currently using tobacco products: ○ Determine readiness to quit. ○ Provide education and motivational counseling for those not ready to quit. ○ Provide cessation counseling for those committed to setting quit date. ● If a former tobacco user: Offer relapse prevention counseling as needed. ● E-cigarettes are not supported as an alternative to smoking or to facilitate smoking cessation.
6. BMI	18.5--24.9	● Calculate BMI during assessment and monitor for change. ● Provide education on weight gain prevention if WNL. ● If BMI is >25: initiate nutritional counseling and encourage physical activity to achieve a sustainable weight loss of up to 10%.
7. Physical Activity	Aerobic physical activity ≥ 30 minutes 5 or more days a week Resistance training 3x per week for type 2 diabetes Break up extended amounts of time sitting (>30 min.)	● Obtain current physical activity status upon assessment. ● If less than goal (modified based on physical/medical limitations, presence of diabetic complications) provide specific recommendations to initiate or increase current physical activity program. ● If at goal, provide specific recommendations for maintaining current physical activity program. ● Discuss benefits of aerobic physical activity for cardiovascular health. ● Discuss benefits of resistance training to improve insulin sensitivity and overall glycemic control. ● Provide education on the impact of increased physical activity on glycemic control. .
8. Nutrition	Glycemic Control &	● Obtain nutritional intake patterns during counseling sessions.

	Heart Healthy	• Review weight and clinical measures. • Provide individualized dietary instruction based on diagnosis, co morbidities (if present) and clinical parameters. • Obtain ETOH intake pattern and review impact of ETOH on glycemic control. • Share recommendation of periodic measurement of Vit. B_{12} levels to those on metformin with peripheral neuropathy or macrocytic anemia.
9. Signs & Symptoms	Reduce or eliminate	• Review history of hyper and hypoglycemic episodes. • Educate on signs and symptoms of hyper and hypoglycemia and appropriate treatment. • Instruct on sick day rules, how to prevent ketoacidosis (DKA) and/or hyperosmolar, hyperglycemic state (HHS) and when to seek medical treatment.
10. Preventive Care	Compliance	• Recommend annual influenza vaccine. • Recommend a pneumonia vaccine for adults through age 64; recommend that those >65 years speak with their provider about the need for two vaccines for greater protection from pneumonia. • Discuss importance of routine physician office visits and lab work. • Discuss importance of routine dental, feet & eye examinations. • Recommend Hepatitis B vaccination in adults <60 yrs. old; vaccination in those ≥ 60 yrs. is at physician's discretion.
11. Co-morbidity Screening	Screening, Treatment and Compliance	• If participant has a diagnosis of Obstructive Sleep Apnea (OSA), counsel on importance of CPAP, BiPAP or dental device compliance. • Refer to physician if member reports current treatment is not effective.

I have reviewed and approved the Envolve PeopleCare (EPC) Clinical Guidelines for Adult Diabetes Mellitus and agree with the use in supporting the clinical staff in providing Disease Management services as outlined in the Standards of Care.

Egils Bogdanovics, MD **2/4/18**

Frank Crociata, DO **1/12/18**

Woody Kageler, MD **1/15/18**

Medical Director Signature and Credentials Date

Approved by the Quality Management Committee

Jeremy Corbett, MD — QMC Chairperson

1/15/18 — Date

<7.0% is a reasonable goal for many non-pregnant adults if it can be achieved without significant hypoglycemia.
A goal of <8.0% may be appropriate for those with a history of severe hypoglycemia, limited life expectancy, extensive co-morbid conditions or long-standing diabetes in whom the general goal is difficult to attain despite DSME, appropriate glucose monitoring and effective doses of multiple glucose-lowering agents including insulin.
A more stringent goal of <6.5% for selected individuals may be reasonable it if can be achieved without significant hypoglycemia or other adverse effects of treatment (i.e., polypharmacy). Appropriate patients might include those with short duration of diabetes, type 2 treated with lifestyle or metformin only, long life expectancy, or no significant cardiovascular disease.

***** Individualize on the basis of age, comorbidities, duration of disease; in general ≤6.5 for most; closer to normal for healthy; less stringent for "less healthy".***

******Some healthcare providers may recommend a lower systolic target of <130 mmHg and a lower diastolic target of <80 for certain individuals, such as younger patients, if it can be achieved without undue treatment burden.***

REVISION LOG

Date	Description	Author(s) Initials	Reviewers	Review Schedule	Comments/overview of changes
11/28/07	2007 annual review	CP/PV	Carol Peckham Patty Vickers Egils Bogdanovics, MD Frank Crociata, MD	Annual	MD's approvals received via email and fax; all signatures on file
7/08/08	2008 annual review	CP/PV	Carol Peckham Patty Vickers Egils Bogdanovics, MD Frank Crociata, MD	Annual	MD's approvals received via email and fax; all signatures on file
6/10/09	2009 annual review	CP/PV	Carol Peckham Patty Vickers Egils Bogdanovics, MD Frank Crociata, MD	Annual	MD's approvals received via email and fax; all signatures on file
1/28/10	2010 annual review	CP/PV	Carol Peckham Patty Vickers Egils Bogdanovics, MD Frank Crociata, MD	Annual	MD's approvals received via email and fax; all signatures on file

1/20/11	2011 annual review	PV	Patty Vickers Egils Bogdanovics, MD Frank Crociata, DO Woody Kageler, MD	Annual	MD's approvals received via email and fax; all signatures on file
2/09/2012	2012 annual review	PV	Patty Vickers Egils Bogdanovics, MD Frank Crociata, DO Woody Kageler, MD	Annual	MD's approvals received via email and fax; all signatures on file Added recommendation for Hepatitis B vaccination in adults <60 yrs. old.
2/13/2013	2013 annual review	PV/PN/CP	Patty Vickers Pam Neff Carol Peckham Frank Crociata, DO Woody Kageler, MD	Annual	MD's approvals received via email and fax; all signatures on file. Added language about: injectables (handling, storage & injection technique); provision of education on use of ETOH.
1/21/14	2014 annual review	PV/PN/CP	Patty Vickers Pam Neff Carol Peckham Egils Bogdanovics, MD Jeremy Corbett, MD Frank Crociata, DO Woody Kageler, MD	Annual	MD/DO's approvals received via email and fax; all signatures on file. • Updated to reflect guideline information included in the following core documents: o 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Circulation. 2013; cir.0000437738.63853.7a) o 2013 ACC/AHA Guideline on the Assessment of Cardiovascular Risk: A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Circulation. 2013; cir.0000437741.48606.98) Minor change in terminology concerning "albuminuria".
1/20/15	2015 annual review	PV	Patty Vickers Pam Neff Carol Peckham Egils Bogdanovics, MD Jeremy Corbett, MD Frank Crociata, DO Woody Kageler, MD	Annual	MD/DO's approvals received via email and fax; all signatures on file. Updated targets for A1C & BP; added: language about kidney function screenings, e-cigarettes, extended time sitting, pneumonia revaccinations after age 65; matched Pre-diabetes targets with Diabetes.
1/13/16	2016 annual review	PV	Patty Vickers Pam Neff	Annual	MD/DO's approvals received via email and fax; all signatures on

			Theresa Neumer Carol Peckham Egils Bogdanovics, MD Jeremy Corbett, MD Frank Crociata, DO Woody Kageler, MD		file. Updated age for women to consider ASA; added recommendation for antiplatelet use; minor change in terminology from “nephropathy” to “diabetic kidney disease”.
1/9/17	2017 Annual Review	PV	Patty Vickers Pam Neff Theresa Neumer Carol Peckham Pat Kristen Egils Bogdanovics, MD Jeremy Corbett, MD Frank Crociata, DO Woody Kageler, MD	Annual	MD/DO’s approvals received via email and fax; all signatures on file. Changed references of Nurtur to Envolve People Care (EPC); added AACE target for A1C; modified statement about medications for HTN; updated recommendation about prolonged sitting; added recommendation about Vit. B_{12} level testing if on metformin with neuropathy and anemia; updated HDL target; deleted section on Prediabetes.
1/8/18	2018 Annual Review	PV	Patty Vickers Pam Neff Theresa Neumer Carol Peckham Pat Kristen Egils Bogdanovics, MD Jeremy Corbett, MD Frank Crociata, DO Woody Kageler, MD	Annual	MD/DO’s approvals received via email and fax; all signatures on file. Added BP goal per 2017 ACC/AHA guidelines; added intervention of instructing members to discuss appropriate BP goal with provider; revised wording about pneumonia vaccination recommendation per new ADA recommendation; added statement per ADA about A1C goal of <6.5% for selected individuals.