

Table 3. Conceptual Framework for Considering Overall Health and Patient Values in Determining Clinical Targets in Adults Aged 65 y and Older

Overall Health Category		Group 1: Good Health	Group 2: Intermediate Health	Group 3: Poor Health
Patient characteristics		No comorbidities or 1-2 non-diabetes chronic illnesses* and No ADL ^ε impairments and ≤1 IADL impairment	3 or more non-diabetes chronic illnesses* and/or Any one of the following: mild cognitive impairment or early dementia ≥2 IADL impairments	Any one of the following: End-stage medical condition(s)** Moderate to severe dementia ≥2 ADL impairments Residence in a long-term nursing facility
<p>Reasonable glucose target ranges and HbA1c by group</p> <p>Shared decision-making: individualized goal may be lower or higher</p>				
Use of drugs that may cause hypoglycemia (e.g., insulin, sulfonylurea, glinides)	No	Fasting: 90-130 mg/dL Bedtime: 90-150 mg/dL <7.5%	Fasting: 90-150 mg/dL Bedtime: 100-180 mg/dL <8%	Fasting: 100-180 mg/dL Bedtime: 110-200 mg/dL <8.5% ^γ
	Yes ^ε	Fasting: 90-150 mg/dL Bedtime: 100-180 mg/dL ≥7.0 and <7.5%	Fasting: 100-150 mg/dL Bedtime: 150-180 mg/dL ≥7.5 and <8.0%	Fasting: 100-180 mg/dL Bedtime: 150-250 mg/dL ≥8.0 and <8.5% ^γ

Note: While glucose targets are highlighted for each group in this framework, overall health categories can also be considered for other treatment goals such as blood pressure and dyslipidemia. See Appendix A on “How to use the conceptual framework.”

* Coexisting chronic illnesses may include osteoarthritis, hypertension, chronic kidney disease stages 1-3, or stroke, among others.

**One or more chronic illnesses with limited treatments and reduced life expectancy. These include metastatic cancer, oxygen-dependent lung disease, end-stage kidney disease requiring dialysis, and advanced heart failure.

^ε As long as achievable without clinically significant hypoglycemia; otherwise, higher glucose targets may be appropriate. Note also that the lower HbA1c boundary was included as data suggesting increased hypoglycemia and mortality risk at lower HbA1c levels are strongest in the setting of insulin use. However, the lower boundary should not reduce vigilance for detailed hypoglycemia assessment.

^γ HbA1c of 8.5% correlates with an average glucose level of approximately 200 mg/dL. Higher targets than this may result in glycosuria, dehydration, hyperglycemic crisis and poor wound healing.

^ε ADLs include bathing, dressing, eating, toileting, and transferring, and IADLs include preparing meals, shopping, managing money, using the telephone, and managing medications.

Includes data from Cigolle CT, Kabeto MU, Lee PG, Blaum CS. Clinical complexity and mortality in middle-aged and older adults with diabetes. J Gerontol A Biol Sci Med Sci 2012; 67(12):1313-1320 (39); and from Kirkman MS, Jones Briscoe V, Clark N, et al. Diabetes in older adults. Diabetes Care 2012; 35(12): 2650-2664 (40).

Abbreviations: IADL, instrumental activity of daily living; ADL, activity of daily living; SU, sulfonylurea.