

■ CLINICAL ■

■ Appendix A. Definition of Contraindications to Intensive Glycemic Control

Conditions	<i>International Classification of Diseases, Ninth Revision, Clinical Modification Codes</i>
Diminished Life Expectancy	
End-stage hepatic disease	572.2, 572.3, 572.4, 572.8, 456.0, 456.1, 456.2, 456.20, 456.21
Cancer (head and neck, lung, prostate, pancreas, lymphoma, hematologic malignancies)	140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171
Advanced Diabetes Mellitus Complications	
End-stage renal disease	V56, E87.91, V45.1, V56.0, V56.31, V56.32, V56.8
Amputation	841.1, 841.2, 841.3, 841.4, 841.5, 841.6, 841.7, 841.8, 841.9
Advanced retinopathy	950.9, V19.0, 362.02, 621.6, 362.17, 362.36, 362.30, 362.35, 362.56, 362.83, 362.53, 361.91, 361.89, 361.00, 361.01, 361.02, 361.05, 361.05, 379.23, 379.25, 384.42, 365.63, 362.36, 362.20, 362.35, 369
Major Medical Conditions	
Renal disease	403.00, 403.01, 403.11, 403.91, 404.00, 404.01, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 405.01, 453.3, 403.90, 404.10, 404.11, 404.90, 404.91, 580, 584, 590.1, 590.2, 590.3, 590.8, 593.81, 866, 250.4, 585, 586, 587, 274.1, 403.10, 581, 582, 583, 590.0, 593.6, 593.9, 753.12
Hepatic disease (mild)	571.2, 571.4, 571.40, 571.41, 571.49, 571.5, 571.6, 571.8, 571.9
Stroke	431, 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.01, 434.11, 434.91, 434.21, 434.31, 434.41, 434.51, 434.61, 434.71, 434.81
Congestive heart failure	428, 428.0, 428.1, 428.9, 402.01, 402.11, 402.91, 428.0, 404.01, 404.11, 404.91
Major Neurological Conditions	
Dementia	290, 293, 294, 310, 331
Gastroparesis	536.3
Parkinson disease	332.0, 332.1
Spinal cord injury	806.00, 806.01, 806.02, 806.03, 806.04, 344.01, 344.02, 806.05, 806.06, 806.07, 806.08, 806.09, 344.03, 344.04, 806.1, 952.0, 344.00, 344.09
Aphasia	438.11
Dysphasia	438.12
Hemiplegia	438.2
Apraxia	438.81
Epilepsy	345
Major Mental Health Conditions	
Major depression	296.2, 296.3
Schizophrenia	295
Bipolar disorder	296.0, 296.1, 296.4, 296.5, 296.6, 296.7, 296.8
Substance abuse	303, 292, 304, 305, 305.2, 305.3, 305.4, 305.5, 305.6, 305.7, 305.8, 305.9
Other Serious Comorbid Conditions	
Medical	
Ischemic heart disease	410, 410.0, 410.1, 410.2, 410.3, 410.4, 410.5, 410.6, 410.7, 410.8, 410.9, 411, 412, 413, 414
Transient ischemic attack	435
Peripheral vascular disease	785.4, 996.1, 996.52, 996.62, 440.21, 440.22, 440.23, 440.24, 443.0, 440.8, 440.9, 444.22, 440.8, 440.9, 444.22, 443.81, 250.7, 443
Chronic obstructive pulmonary disease	491, 492, 493, 494, 495, 496, 500, 501, 502, 503, 504, 505, 506
Asthma	493
Arrhythmia	427
Psychological	
Anxiety	300.0, 300.1, 300.2, 300.3, 300.5, 300.6, 300.7, 300.8, 300.9
Posttraumatic stress disorder	309.81

Assessing Healthcare Plan Performance in Achieving Optimal Glycemic Control

■ Appendix B. Characteristics of the Total Population (<65 Years) With Diabetes Mellitus*

Variable	Total Population (N = 220 922)	Age Group, y		
		25-44 (10.5%)	45-54 (40.6%)	55-64 (48.9%)
Age, y	53.87 ± 7.40	39.62 ± 4.36	50.27 ± 2.55	59.96 ± 2.99
Sex				
Male	214 733 (97.2)	92.0	97.3	98.3
Female	6189 (2.8)	8.0	2.7	1.7
Race/ethnicity				
White	134 682 (61.0)	45.7	57.0	67.5
African American	46 421 (21.0)	31.9	23.3	16.8
Hispanic	14 997 (6.8)	6.8	7.1	6.5
Other	3546 (1.6)	1.7	1.7	1.5
Missing	21 276 (9.6)	14.0	10.8	7.7
Treatment				
Taking insulin	71 034 (32.2)	41.1	32.1	30.3
Charlson index score	1.99 ± 1.61	1.53 ± 1.31	1.83 ± 1.49	2.21 ± 1.72
5-y Mortality	34 407 (15.6)	7.4	13.5	19.1
Glycosylated hemoglobin level	7.95 ± 1.95	8.48 ± 2.31	8.10 ± 2.05	7.73 ± 1.74
Exclusionary Conditions[†]				
Diminished life expectancy	8568 (3.9)	1.3	2.7	5.4
End-stage hepatic disease	1115 (0.5)	0.3	0.7	0.4
Cancer	7554 (3.4)	1.0	2.1	5.1
Advanced diabetes mellitus complications	8241 (3.7)	1.8	3.1	4.66
End-stage renal disease	992 (0.5)	0.3	0.4	0.5
Amputation	1797 (0.8)	0.4	0.7	1.0
Advanced retinopathy	5886 (2.7)	1.3	2.1	3.4
Major medical conditions	34 676 (15.7)	6.2	12.3	20.5
Chronic kidney disease, stage 3, 4, or 5	17 858 (8.1)	2.7	5.4	11.5
Renal disease	9760 (4.4)	2.3	3.8	5.4
Hepatic disease	3183 (1.4)	1.2	1.9	1.1
Stroke	1407 (0.6)	0.2	0.5	0.9
Congestive heart failure	13 565 (6.1)	1.6	4.4	8.6
Major neurological conditions	6851 (3.1)	2.4	2.7	3.6
Dementia	2474 (1.1)	0.9	0.9	1.3
Gastroparesis	842 (0.4)	0.4	0.4	0.3
Parkinson disease	504 (0.2)	0.1	0.1	0.4
Spinal cord injury	595 (0.3)	0.3	0.3	0.3
Aphasia	416 (0.2)	0.1	0.1	0.3
Dysphasia	137 (0.1)	0.01	0.04	0.09
Hemiplegia	1785 (0.8)	0.2	0.6	1.1
Epilepsy	1090 (0.5)	0.6	0.5	0.4
Major mental health conditions	24 609 (11.1)	17.9	14.3	7.0
Major depression	6120 (2.8)	3.9	3.5	1.9
Schizophrenia	7746 (3.5)	6.6	4.5	2.1
Bipolar disorder	3883 (1.8)	3.6	2.0	1.2
Substance abuse	12 817 (5.8)	10.1	8.0	3.1

(Continued)

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■ **Appendix B.** Characteristics of the Total Population (<65 Years) With Diabetes Mellitus (*Continued*)*

Variable	Total Population (N = 220 922)	Age Group, y		
		25-44 (10.5%)	45-54 (40.6%)	55-64 (48.9%)
Other Serious Comorbid Conditions[†]				
Medical	63 463 (28.7)	11.4	23.4	36.9
Ischemic heart disease	39 472 (17.9)	4.5	14.0	24.0
Transient ischemic attack	1205 (0.6)	0.2	0.4	0.8
Peripheral vascular disease	18 548 (8.4)	2.9	6.4	11.3
Chronic obstructive pulmonary disease	19 112 (8.7)	4.7	7.1	10.8
Asthma	4151 (1.9)	2.8	2.0	1.6
Arrhythmia	9105 (4.1)	1.3	2.5	6.1
Psychological	13 931 (6.3)	4.9	10.2	3.4
Anxiety	5418 (2.5)	3.2	2.8	2.0
Posttraumatic stress disorder	9493 (4.3)	2.1	8.2	1.6

*Data are given as mean ± SD, number (percentage), or percentage.
[†]For the total population, the variable totals exceed the item totals because of the presence of multiple comorbid conditions.