

SUPPLEMENTARY DATA

List of various chronic comorbid illnesses used to classify veterans with new-onset diabetes into chronic comorbid illness groups (CCIGs). (Codes available upon request).

Chronic Comorbid Illnesses
Concordant Illnesses - Illnesses with management plans that have some overlap with the ones for diabetes care
Macrovascular
Coronary artery disease (CAD)
Congestive heart failure (CHF)
Arrhythmia
Cerebrovascular disease (CVD)
Peripheral vascular disease (PVD)
PVD Gangrene
Microvascular
Renal disease, Chronic renal failure (CRF),Chronic renal pathophysiology (CRP)-Diabetic nephropathy, Acute renal failure (ARF)-
Diabetic retinopathy
Lower extremity complications
Metabolic Disorders
Uncontrolled DM
Short-term DM
Discordant Illnesses - Illnesses with management plans that have minimal overlap with the ones for diabetes care
Gastrointestinal (GI)
Upper GI, GERD/esophagitis, GI & Peptic ulcer
Lower GI, Inflammatory Bowel disease, Diverticulitis
Hepatic/Biliary, Gall bladder and gall stones, Viral hepatitis
Pulmonary: Chronic pulmonary disorders
Musculoskeletal: Gout, Hip problems, Low back pain Osteoarthritis, Other arthritis, Rheumatoid arthritis, Connective tissue disorders_rheumatological
Neurological: Multiple Sclerosis, Parkinsons, Hemiplegia/hemiparesis and paraplegia, Muscular dystrophy, Spinal cord injury, Epilepsy, Gastroparesis
Mental illness & substance abuse
Mental Illness (major), Schizophrenia , Bipolar , Depression, Other psychosis, PTSD
Mental Illness (other): Anxiety, Other Depression
Substance abuse, Alcohol abuse, Abuse of other drugs
Other
Dominant illnesses: Illnesses with management plans that eclipse the ones for diabetes care
End-stage hepatic disease
End-stage renal disease (including dialysis)
Cancer (excludes 'Other malignant skin cancers' and malignant cancer of prostate)
Amputations
Advanced retinopathy
Dementia
Pre-dementia/ Cognitive impairment
List of CPT was used to identify face-to-face visits (F2F)
Total F2F visit: Established Patient: Evaluation and management Codes: 99211, 99212,

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99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99301, 99302, 99303, 99311, 99312, 99313, 99321, 99322, 99323, 99331, 99332, 99333, 99341 - 99350, 99354, 99355, 99384- 99387, 99394 - 99397, 99401, 99402, 99403, 99404, 99411, 99412, 99420, 99429, 99499 Mental health visit codes: 90801, 90802, 90804 - 90819, 90821, 90822, 90823, 90824, 90826, 90827, 90828, 90829, 90845, 90847, 90849, 90853, 90857, 90862, 90870, 90871, 90875, 90876 Eye Exam Codes: 92002 - 92014 Outpatient Visit Codes: New patient: 99201, 99202, 99203, 99204, 99205,
Diabetes-related F2F visit: 250.xx code in visit with above listed CPT codes

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Table showing adjusted odds ratios from model 3* assessing the effect of CCIgS on diabetes care

Covariates	Diabetes-related care measures met				
	Process Measures			Intermediate Measures	
	HbA1c testing	LDL-C testing	Diabetes-related F2F visit	Treatment goal for HbA1c < 8% §	Treatment goal for LDL-C < 130 mg/dL §
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
CCIg					
Concordant vs None	1.01 (0.94-1.08)	1.13 (1.00-1.27)	0.83 (0.77-0.89)	0.92 (0.84-1.02)	1.25 (1.14-1.38)
Discordant vs None	0.88 (0.83-0.93)	0.87 (0.80-0.95)	0.79 (0.75-0.83)	0.90 (0.83-0.97)	0.87 (0.81-0.94)
Both vs None	0.86 (0.80-0.91)	0.96 (0.85-1.07)	0.70 (0.66-0.75)	0.70 (0.64-0.78)	1.10 (1.01-1.20)
Dominant vs None	0.59 (0.55-0.64)	0.56 (0.49-0.65)	0.46 (0.42-0.49)	0.50 (0.45-0.55)	0.68 (0.62-0.76)
Age groups					
55-64 vs < 55 years	1.06 (1.00-1.12)	1.11 (1.02-1.20)	1.08 (1.02-1.15)	1.28 (1.19-1.38)	1.21 (1.12-1.31)
65-74 vs < 55 years	0.96 (0.91-1.03)	1.19 (1.08-1.30)	0.86 (0.80-0.92)	1.24 (1.15-1.33)	1.44 (1.33-1.56)
Over 75 vs < 55 years	0.76 (0.70-0.82)	0.93 (0.83-1.04)	0.63 (0.58-0.67)	0.86 (0.79-0.94)	1.19 (1.10-1.29)
Gender					
Female vs Male	0.86 (0.76-0.97)	0.92 (0.80-1.06)	0.79 (0.70-0.88)	0.80 (0.70-0.90)	0.77 (0.68-0.87)
Race_ethnicity					
NHB vs NHW	0.80 (0.73-0.88)	0.75 (0.64-0.88)	0.91 (0.85-0.97)	0.74 (0.65-0.84)	0.81 (0.73-0.91)
Hispanic vs NHW	0.73 (0.63-0.83)	0.98 (0.74-1.30)	0.83 (0.73-0.94)	0.76 (0.64-0.90)	0.92 (0.73-1.15)
Other vs NHW	0.94 (0.87-1.03)	0.91 (0.75-1.11)	1.13 (1.05-1.22)	0.84 (0.74-0.94)	0.96 (0.83-1.10)
Marital Status					
Not married vs Married	0.88 (0.84-0.92)	0.83 (0.75-0.92)	0.84 (0.81-0.88)	0.86 (0.79-0.92)	0.86 (0.80-0.93)
VHA Priority Code					
Low income vs Co-pay	0.88 (0.82-0.93)	0.75 (0.67-0.83)	0.99 (0.93-1.06)	0.94 (0.88-1.01)	0.81 (0.74-0.90)
Mod. Disabled vs Co-pay	0.87 (0.81-0.92)	0.77 (0.69-0.86)	0.99 (0.92-1.07)	0.83 (0.77-0.89)	0.82 (0.75-0.90)
Sev. Disabled vs Co-pay	0.77 (0.72-0.83)	0.70 (0.62-0.79)	0.85 (0.79-0.92)	0.78 (0.72-0.85)	0.78 (0.70-0.87)
F2F visit frequency					
07-12 vs LT 7 F2F visits	1.75 (1.66-1.84)	1.86 (1.70-2.05)	2.25 (2.12-2.37)	1.58 (1.47-1.70)	1.47 (1.38-1.55)
13-24 vs LT 7 F2F visits	2.10 (1.97-2.24)	2.36 (2.07-2.68)	2.60 (2.43-2.78)	1.64 (1.51-1.78)	1.79 (1.64-1.95)
MT 24 vs LT 7 F2F visits	2.23 (2.05-2.42)	2.71 (2.29-3.20)	2.67 (2.48-2.86)	1.75 (1.58-1.94)	1.95 (1.74-2.19)

Abbreviations: CCIgS, Chronic comorbid illness groups; F2F, Face-to-face

* Model 3 or full model: Adjusted for socio-demographic covariates- age groups, gender, race, marital status, and VHA priority code, and face-to-face visit frequency covariate.

§Excluded patients whose got tested for HbA1c (n=3,310) and LDL-C (n=3,494) outside of VHA and were covered by Medicare for whom test result was not available.