

Preoperative Medical Testing and Falls in Medicare Beneficiaries Awaiting Cataract Surgery

ONLINE SUPPLEMENT

TABLE OF CONTENTS

1. **eTable 1: CPT codes for preoperative tests used to stratify physicians**
2. **eTable 2: Predictors of falling within 360 days before ocular biometry**
3. **eTable 3: Estimated time in days between biometry and surgery**

eTable 1: CPT codes for preoperative tests used to stratify physicians

Test Grouping	Preoperative Test Name	CPT Code
Electrocardiography	12-lead EKG	93000, 93005, 93010
Echocardiography	TTE	93306, 93307
Cardiac stress test	Stress EKG	93015, 93016, 93017, 93018
Cardiac stress test	Stress echo	93350, 93351, +/- 93352
Cardiac stress test	Stress MRI	75561, 75563
Cardiac stress test	Myocardial Perfusion Imaging, SPECT	78451, 78452
Cardiac stress test	Myocardial Perfusion Imaging, planar	78453, 78454
Chest radiograph	Chest radiograph	71010, 71020
Pulmonary function tests	Spirometry	94010
Pulmonary function tests	Bronchodilation responsiveness, spirometry pre- and post-bronchodilator administration	94060
Pulmonary function tests	Plethysmography	93720, 93721, 93722
Pulmonary function tests	Functional residual capacity or residual volume: helium, nitrogen	94240
Pulmonary function tests	Thoracic gas volume	94260
Pulmonary function tests	Determination of maldistribution of inspired gas: helium, nitrogen	94350
Pulmonary function tests	Airway closing volume	94370
Pulmonary function tests	Resistance to airflow	94360
Pulmonary function tests	CO diffusing capacity	94720
Pulmonary function tests	Membrane diffusion capacity	94725
Complete blood count	Complete blood count	85025, 85027
Complete blood count	Hematocrit	85014
Complete blood count	Hemoglobin	85018
Complete blood count	WBC	85048
Complete blood count	Platelet count	85049
Coagulation panel	PT w/INR	85610
Coagulation panel	PTT	85730
Chemistry panel	Basic metabolic panel (Na, K, Cl, CO2, BUN, Cr, Glucose, iCa/Ca)	80047, 80048
Chemistry panel	Electrolyte panel (Na, K, Cl, CO2)	80051
Chemistry panel	Comprehensive metabolic panel (Na, K, Cl, CO2, BUN, Cr, Glu, AST, ALT, Alk phos, Tprot, Albumin, Tbili, Ca)	80053
Chemistry panel	Renal function panel (Na, K, Cl, CO2, BUN, Cr, Glucose, Ca, PO4, Albumin)	80069
Chemistry panel	Hepatic function panel (AST, ALT, Alk phos, TProt, Albumin, TBili, DBili)	80076
Chemistry panel	Calcium, serum	82310
Chemistry panel	Calcium, ionized	82330
Chemistry panel	Bicarbonate	82374
Chemistry panel	Chloride	82435
Chemistry panel	Glucose	82947
Chemistry panel	Magnesium	83735
Chemistry panel	Phosphorus	84100
Chemistry panel	Potassium	84132
Chemistry panel	Sodium	84295
Chemistry panel	Creatinine	82565
Chemistry panel	BUN	84520
Chemistry panel	Albumin	82040
Chemistry panel	Bilirubin, total	82247
Chemistry panel	Bilirubin, direct	82248
Chemistry panel	Alkaline phosphatase	84075
Chemistry panel	Total protein	84155
Chemistry panel	AST	84450
Chemistry panel	ALT	84460
Urinalysis	Urinalysis	81000, 81001, 81002, 81003, 81005

eTable 2: Predictors of falling within 360 days before ocular biometry

	Unadjusted OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value
Age (mean +/- SD)	1.03 (1.02-1.03)	<0.0001	1.02 (1.02-1.03)	<0.0001
Sex				
Male	Ref		Ref	
Female	1.54 (1.49-1.60)	<0.0001	1.61 (1.56-1.67)	<0.0001
Race				
White	Ref		Ref	
Black	0.60 (0.55-0.66)	<0.0001	0.54 (0.50-0.60)	<0.0001
Other	1.07 (1.01-1.14)	0.03	0.97 (0.91-1.03)	0.33
Charlson comorbidity index				
0-1	Ref		Ref	
2	1.37 (1.30-1.43)	<0.0001	1.40 (1.34-1.47)	<0.0001
3+	2.06 (1.98-2.14)	<0.0001	2.15 (2.07-2.23)	<0.0001
Physician preop testing behavior				
Low-testing physicians	Ref		Ref	
High-testing physicians	1.08 (1.04-1.13)	0.0003	1.03 (0.99-1.08)	0.11

1) Adjusted for age, sex, race and health status.

eTable 3: Estimated time in days between biometry and surgery¹

	Unadjusted Estimate (95% CI)	p-value	Adjusted Estimate (95% CI)	p-value
Age (mean +/- SD)	0.31 (0.22, 0.40)	<0.0001	-0.17 (-0.26, -0.08)	0.0001
Sex				
Male	Ref		Ref	
Female	4.54 (3.35, 5.73)	<0.0001	4.46 (3.32, 5.61)	<0.0001
Race				
White	Ref		Ref	
Black	15.75 (13.08, 18.42)	<0.0001	8.94 (6.36, 11.52)	<0.0001
Other	16.10 (13.84, 18.38)	<0.0001	7.14 (4.92, 9.35)	<0.0001
Charlson comorbidity index				
0-1	Ref		Ref	
2	1.29 (-0.55, 3.13)	0.1685	1.07 (-0.70, 2.84)	0.2362
3+	3.37 (1.74, 5.01)	<0.0001	0.86 (-0.72, 2.44)	0.2857
Physician preop testing behavior				
Low-testing physicians	Ref		Ref	
High-testing physicians	17.17 (15.63, 18.74)	<0.0001	7.97 (6.40, 9.55)	<0.0001
Ophthalmologist age ²				
≤40	Ref		Ref	
41-50	-4.89 (-7.02, -2.76)	<0.0001	-4.27 (-6.28, -2.26)	<0.0001
51-60	-3.71 (-5.80, -1.63)	0.0005	-3.67 (-5.65, -1.69)	0.0003
≥61	-9.00 (-11.29, -6.71)	<0.0001	-9.83 (-12.00, -7.66)	<0.0001
Ophthalmologist sex ²				
Male	Ref		Ref	
Female	6.09 (4.06, 8.12)	<0.0001	1.62 (-0.32, 3.55)	0.1009
Surgical volume				
Q1 (10-26)	Ref		Ref	
Q2 (27-43)	-8.51 (-10.11, -6.90)	<0.0001	-3.02 (-4.59, -1.45)	0.0002
Q3 (44-75)	-12.46 (-14.06, -10.86)	<0.0001	-4.57 (-6.17, -2.97)	<0.0001
Q4 (76-376)	-17.65 (-19.25, -16.04)	<0.0001	-5.63 (-7.31, -3.96)	<0.0001
Geographic region				
Northeast	Ref		Ref	
Midwest	-16.97 (-18.71, -15.23)	<0.0001	-10.19 (-11.92, -8.47)	<0.0001
South	-19.86 (-21.43, -18.29)	<0.0001	-13.02 (-14.59, -11.45)	<0.0001
West	-15.14 (-17.11, -13.18)	<0.0001	-11.18 (-13.11, -9.25)	<0.0001
Surgical setting				
Ambulatory surgery center	Ref		Ref	
Hospital outpatient department	4.04 (2.84, 5.24)	<0.0001	2.29 (1.01, 3.57)	0.0004
Office	-6.66 (-9.03, -4.29)	<0.0001	-5.03 (-7.51, -2.55)	<.0001
Other	12.78 (-2.50, 28.05)	0.10	6.06 (-9.47, 21.59)	0.44
No surgery	N/A	-	N/A	-

1) For this model only, patients were analyzed using the actual number of days that elapsed between biometry and surgery. Patients who did not have a surgery claim following biometry were assigned an interval of 365 days.

2) Data obtained from the American Medical Association Physician MasterFile was linked to the Medicare files by physician NPI.