

# Table 1. Description of Risk Factors

Recalibrated model, effective CY 2019

Risk Factor #	Risk Factor	Covariate	Response Notes	OASIS Item	OASIS Item Description	Variable Name	Excluded Category Indicator
1	Age	Age: 0-54	Calculated off birth date	M0066	Birth Date	AGE_0_54	
		Age: 55-59	Calculated off birth date	M0066	Birth Date	AGE_55_59	
		Age: 60-64	Calculated off birth date	M0066	Birth Date	AGE_60_64	
		Age: 65-69	Calculated off birth date	M0066	Birth Date	AGE_65_69	Excluded category
		Age: 70-74	Calculated off birth date	M0066	Birth Date	AGE_70_74	
		Age: 75-79	Calculated off birth date	M0066	Birth Date	AGE_75_79	
		Age: 80-84	Calculated off birth date	M0066	Birth Date	AGE_80_84	
		Age: 85-89	Calculated off birth date	M0066	Birth Date	AGE_85_89	
		Age: 90-94	Calculated off birth date	M0066	Birth Date	AGE_90_94	
	Age: 95+	Calculated off birth date	M0066	Birth Date	AGE_95PLUS		
2	Gender	Patient is female	response 2	M0069	Gender	GENDER_FEMALE	Excluded category
		Patient is male	response 1	M0069	Gender	GENDER_MALE	
3	Payment source	Payment source: Medicare FFS only	response 1 & NOT any other response	M0150	Current Payment Sources for Home Care	PAY_MCARE_FFS	Excluded category
		Payment source: Medicare HMO only	response 2 & NOT any other response	M0150	Current Payment Sources for Home Care	PAY_MCARE_HMO	
		Payment source: Medicare and Medicaid	response (1 or 2) & (3 or 4)	M0150	Current Payment Sources for Home Care	PAY_MCAREANDMCAID	
		Payment Source: Medicaid only	response (3 or 4) & NOT any other response	M0150	Current Payment Sources for Home Care	PAY_MCAID_ONLY	
	Payment Source: Other combinations	Not one of the above four categories	M0150	Current Payment Sources for Home Care	PAY_OTHER_COMBO		
4	SOC/ROC and Admission Source	Start of Care and inpatient admission	M0100 = 1 & M1000 = 1, 2, 3, 4, 5, or 6	M0100, M1000	(M0100) Reason for assessment; (M1000) Admission source	SOC_INPT	Excluded category
		Start of Care and community admission	M0100 = 1 & M1000 NOT 1, 2, 3, 4, 5, or 6	M0100, M1000	(M0100) Reason for assessment; (M1000) Admission source	SOC_COMM	
		Resumption of care (after inpatient stay)	M0100=3	M0100	Reason for assessment	ROC	
5	Post-acute facility	Discharged from post-acute facility in past 14 days	response 1, 2, 4, 5, or 6	M1000	Inpatient Facilities	INPT_POSTACUTE	
		Not discharged from post-acute facility	NOT response 1, 2, 4, 5, and 6	M1000	Inpatient Facilities	INPT_NOPOSTACUTE	Excluded category
6	IV Therapies	Receiving nutrition or infusion therapy	response 1, 2, or 3	M1030	Therapies patient receives at home	IVTHER_ANY	
		None of the above	response 4	M1030	Therapies patient receives at home	IVTHER_NONE	Excluded category
7	Risk of	Risk for Hospitalization: History of falls in past 12 months	response 1	M1033	Risk for Hospitalization	RISK_HSTRY_FALLS	
		Risk for Hospitalization: Unintentional weight loss in past 12 months	response 2	M1033	Risk for Hospitalization	RISK_WEIGHTLOSS	
		Risk for Hospitalization: Multiple hospitalizations in past 6 months	response 3	M1033	Risk for Hospitalization	RISK_MLTPH_HOSPZTN	
		Risk for Hospitalization: Multiple ED visits in past 6 months	response 4	M1033	Risk for Hospitalization	RISK_ED	
		Risk for Hospitalization: Recent mental/emotional decline in past 3 months	response 5	M1033	Risk for Hospitalization	RISK_RCNT_DCLN	
		Risk for Hospitalization: Difficulty complying with medical instruction in past 3 months	response 6	M1033	Risk for Hospitalization	RISK_COMPLY	
		Risk for Hospitalization: Taking five or more medications	response 7	M1033	Risk for Hospitalization	RISK_5PLUS_MDCTN	
		Risk for Hospitalization: Reports exhaustion	response 8	M1033	Risk for Hospitalization	RISK_EXHAUST	
		Risk for Hospitalization: Other unlisted risk factors	response 9	M1033	Risk for Hospitalization	RISK_OTHR	
	None of the above	response 10	M1033	Risk for Hospitalization	RISK_NONE		
8	Availability of Assistance	Around the clock	response 1, 6, or 11	M1100	Patient Living Situation	ASSIST_ARND_CLOCK	
		Regular daytime	response 2, 7, or 12	M1100	Patient Living Situation	ASSIST_REGDAY	
		Regular nighttime	response 3, 8, or 13	M1100	Patient Living Situation	ASSIST_REGNITE	

Risk Factor #	Risk Factor	Covariate	Response Notes	OASIS Item	OASIS Item Description	Variable Name	Excluded Category Indicator
8	Availability of Assistance	Occasional/none	response 4, 5, 9, 10, 14, or 15	M1100	Patient Living Situation	ASSIST_OCC_NONE	Excluded category
	Living Arrangement	Living Arrangement: Lives alone	response 1, 2, 3, 4, or 5	M1100	Patient Living Situation	LIV_ALONE	
		Living Arrangement: Lives with another person	response 6, 7, 8, 9, or 10	M1100	Patient Living Situation	LIV_OTHERS	Excluded category
		Living Arrangement: Lives in congregate situation	response 11, 12, 13, 14, or 15	M1100	Patient Living Situation	LIV_CONGREGATE	
9	Pain	Frequency of Pain: No pain	response 0	M1242	Frequency of Pain Interfering with patient's activity or movement:	PAIN0	Excluded category
		Frequency of Pain: Pain does not interfere with activity	response 1	M1242	Frequency of Pain Interfering with patient's activity or movement:	PAIN1	
		Frequency of Pain: Less often than daily	response 2	M1242	Frequency of Pain Interfering with patient's activity or movement:	PAIN2	
		Frequency of Pain: Daily, but not constant	response 3	M1242	Frequency of Pain Interfering with patient's activity or movement:	PAIN3	
		Frequency of Pain: Constant	response 4	M1242	Frequency of Pain Interfering with patient's activity or movement:	PAIN4	
10	Pressure Ulcers	Pressure ulcer: None or Stage I only present	M1306 response 0 & M1322 response 0, 1, 2, 3, or 4	M1306 M1322	At least 1 Stage 2 or unstageable PU? Current number of Stage 1 PUs	PU_NONE_STG1ONLY	Excluded category
		Pressure ulcer: Stage II or higher or unstageable present	response A1 > 0 OR B1 > 0 OR C1 > 0 OR D1>0 OR E1>0 OR F1>0	M1311	Number of PUs at each stage	PU_STG2PLUS_UNSTG	
11	Stasis Ulcer	Stasis Ulcer: None	response 0 or 3	M1330	Does this patient have a Stasis Ulcer?	STAS_ULCR_NONE	Excluded category
		Stasis Ulcer: 1 observable stasis ulcer	response 1	M1332	Number of stasis ulcers	STAS_ULCR_OBS_1	
		Stasis Ulcer: Multiple observable stasis ulcers	response 2,3, or 4	M1332	Number of stasis ulcers	STAS_ULCR_OBS_2PLUS	
12	Surgical Wound	Status of Surgical Wound: None	Not response 0, 1, 2, 3	M1342	Status of Most Problematic Surgical Wound that is Observable	SRG_WND_OBS_NONE	Excluded category
		Status of Surgical Wound: Newly epithelialized	response 0	M1342	Status of Most Problematic Surgical Wound that is Observable	SRG_WND_OBS_EPI	
		Status of Surgical Wound: Fully granulating or early/partial granulation	response 1 or 2	M1342	Status of Most Problematic Surgical Wound that is Observable	SRG_WND_OBS_GRAN	
		Status of Surgical Wound: Not healing	response 3	M1342	Status of Most Problematic Surgical Wound that is Observable	SRG_WND_OBS_NOHEAL	
13	Dyspnea	Dyspnea: Not short of breath	response 0	M1400	When is the patient dyspneic or noticeably Short of Breath?	DYSP0	Excluded category
		Dyspnea: Walking more than 20 feet, climbing stairs	response 1	M1400	When is the patient dyspneic or noticeably Short of Breath?	DYSP1	
		Dyspnea: Moderate exertion	response 2	M1400	When is the patient dyspneic or noticeably Short of Breath?	DYSP2	
		Dyspnea: Minimal to no exertion	response 3 or 4	M1400	When is the patient dyspneic or noticeably Short of Breath?	DYSP34	
14	Urinary Status	Urinary incontinence/catheter: None	response 0	M1610	Urinary Incontinence or Urinary Catheter Presence	URINCONT_NONE	Excluded category
		Urinary incontinence/catheter: Incontinent	response 1	M1610	Urinary Incontinence or Urinary Catheter Presence	URINCONT_INCONT	
		Urinary incontinence/catheter: Catheter	response 2	M1610	Urinary Incontinence or Urinary Catheter Presence	URINCONT_CATH	
15	Bowel Incontinence	Bowel Incontinence Frequency: Never or very rare	response 0 and UK	M1620	Bowel Incontinence Frequency	BWL_NONE_UK	Excluded category
		Bowel Incontinence Frequency: Less than once a week	response 1	M1620	Bowel Incontinence Frequency	BWL_FR1	
		Bowel Incontinence Frequency: One to three times a week	response 2	M1620	Bowel Incontinence Frequency	BWL_FR2	
		Bowel Incontinence Frequency: Four to six times a week or more	response 3, 4 or 5	M1620	Bowel Incontinence Frequency	BWL_FR345	
		Bowel Incontinence Frequency: Ostomy for bowel elimination	NA	M1620	Bowel Incontinence Frequency	BWL_OSTOMY	
16	Cognitive function	Cognitive Functioning: Alert and focused	response 0	M1700	Cognitive Functioning	COGNO	Excluded category

Risk Factor #	Risk Factor	Covariate	Response Notes	OASIS Item	OASIS Item Description	Variable Name	Excluded Category Indicator
16	Cognitive function	Cognitive Functioning: Requires prompting under stress	response 1	M1700	Cognitive Functioning	COGN1	
		Cognitive Functioning: Requires assist in special circumstances	response 2	M1700	Cognitive Functioning	COGN2	
		Cognitive Function: Requires considerable assist/totally dependent	response 3 or 4	M1700	Cognitive Functioning	COGN34	
17	Confusion	Confused: never	response 0 or NA	M1710	When Confused (Reported or Observed Within the Last 14 Days)	CONF0	Excluded category
		Confused: In new or complex situations	response 1	M1710	When Confused (Reported or Observed Within the Last 14 Days)	CONF1	
		Confused: Sometimes	response 2 or 3	M1710	When Confused (Reported or Observed Within the Last 14 Days)	CONF23	
		Confused: Constantly	response 4	M1710	When Confused (Reported or Observed Within the Last 14 Days)	CONF4	
18	Anxiety	Anxiety: None of the time	response 0 or NA	M1720	When Anxious (Reported or Observed Within the Last 14 Days)	ANX0	Excluded category
		Anxiety: Less often than daily	response 1	M1720	When Anxious (Reported or Observed Within the Last 14 Days)	ANX1	
		Anxiety: Daily, but not constantly	response 2	M1720	When Anxious (Reported or Observed Within the Last 14 Days)	ANX2	
		Anxiety: All of the time	response 3	M1720	When Anxious (Reported or Observed Within the Last 14 Days)	ANX3	
19	Depression Screening	PHQ-2 Score: 0	Sum of responses = 0 or alternative screening and does not meet criteria for further evaluation. Need responses for both questions	M1730	Score of PHQ2	PHQ2_SCOR_0	Excluded category
		PHQ-2 Score: 1-2	Sum of responses = 1,2. Need responses for both questions	M1730	Score of PHQ2	PHQ2_SCOR_12	
		PHQ-2 Score: 3-6	Sum of responses = 3 or alternative screening and meets criteria for further evaluation. Need responses for both questions	M1730	Score of PHQ2	PHQ2_SCOR_3PLUS	
		PHQ-2 Score: None	No screening or PHQ-2 screening performed but unable to respond on either the depression or the loss of interest field	M1730	Score of PHQ2	PHQ2_NA	
20	Behavioral Symptoms	Behavioral: None	response 7	M1740	Cognitive, behavioral, and psychiatric symptoms that are demonstrated at least once a week (Reported or Observed)	BEHAV_NONE	
		Behavioral: Memory deficit	response 1	M1740	Cognitive, behavioral, and psychiatric symptoms that are demonstrated at least once a week (Reported or Observed)	BEHAV_MEM_DEFICIT	
		Behavioral: Impaired decision making	response 2	M1740	Cognitive, behavioral, and psychiatric symptoms that are demonstrated at least once a week (Reported or Observed)	BEHAV_IMPR_DECISN	
		Behavioral: Verbally disruptive, physical aggression, disruptive, or delusional	response 3, 4, 5 or 6	M1740	Cognitive, behavioral, and psychiatric symptoms that are demonstrated at least once a week (Reported or Observed)	BEHAV_OTHR	
21	Disruptive Behavior Frequency	Frequency of Disruptive Behavior: Never	response 0	M1745	Frequency of Disruptive Behavior Symptoms (Reported or Observed)	BEHPFR0	Excluded category
		Frequency of Disruptive Behavior: Once a month or less	response 1 or 2	M1745	Frequency of Disruptive Behavior Symptoms (Reported or Observed)	BEHPFR12	

Risk Factor #	Risk Factor	Covariate	Response Notes	OASIS Item	OASIS Item Description	Variable Name	Excluded Category Indicator
21	Disruptive Behavior Frequency	Frequency of Disruptive Behavior: Several times a month	response 3	M1745	Frequency of Disruptive Behavior Symptoms (Reported or Observed)	BEHPFR3	
		Frequency of Disruptive Behavior: Several times a week	response 4	M1745	Frequency of Disruptive Behavior Symptoms (Reported or Observed)	BEHPFR4	
		Frequency of Disruptive Behavior: At least once daily	response 5	M1745	Frequency of Disruptive Behavior Symptoms (Reported or Observed)	BEHPFR5	
22	Grooming	Grooming: Able to groom self unaided	response 0	M1800	Grooming	GROOM0	Excluded category
		Grooming: Grooming utensils must be placed within reach	response 1	M1800	Grooming	GROOM1	
		Grooming: Assistance needed	response 2	M1800	Grooming	GROOM2	
		Grooming: Entirely dependent upon someone else	response 3	M1800	Grooming	GROOM3	
23	Upper Body Dressing	Ability to Dress Upper Body: No help needed	response 0	M1810	Ability to Dress Upper Body	UPPER0	Excluded category
		Ability to Dress Upper Body: Needs clothing laid out	response 1	M1810	Ability to Dress Upper Body	UPPER1	
		Ability to Dress Upper Body: Needs assistance putting on clothing	response 2	M1810	Ability to Dress Upper Body	UPPER2	
		Ability to Dress Upper Body: Entirely dependent upon someone else	response 3	M1810	Ability to Dress Upper Body	UPPER3	
24	Lower Body Dressing	Ability to Dress Lower Body: No help needed	response 0	M1820	Ability to Dress Lower Body	LOWER0	Excluded category
		Ability to Dress Lower Body: Needs clothing/shoes laid out	response 1	M1820	Ability to Dress Lower Body	LOWER1	
		Ability to Dress Lower Body: Assist needed putting on clothing	response 2	M1820	Ability to Dress Lower Body	LOWER2	
		Ability to Dress Lower Body: Entirely dependent upon someone else	response 3	M1820	Ability to Dress Lower Body	LOWER3	
25	Bathing	Bathing: Independently in shower/tub	response 0	M1830	Bathing: Excludes grooming (washing face, washing hands, and shampooing hair).	BATH0	Excluded category
		Bathing: With the use of devices in shower/tub	response 1	M1830	Bathing: Excludes grooming (washing face, washing hands, and shampooing hair).	BATH1	
		Bathing: With intermittent assistance in shower/tub	response 2	M1830	Bathing: Excludes grooming (washing face, washing hands, and shampooing hair).	BATH2	
		Bathing: Participates with supervision in shower/tub	response 3	M1830	Bathing: Excludes grooming (washing face, washing hands, and shampooing hair).	BATH3	
		Bathing: Independent at sink, in chair, or on commode	response 4	M1830	Bathing: Excludes grooming (washing face, washing hands, and shampooing hair).	BATH4	
		Bathing: Participates with assist at sink, in chair, or commode	response 5	M1830	Bathing: Excludes grooming (washing face, washing hands, and shampooing hair).	BATH5	
		Bathing: Unable to participate; bathed totally by another	response 6	M1830	Bathing: Excludes grooming (washing face, washing hands, and shampooing hair).	BATH6	
26	Toilet Transferring	Toilet Transferring: No assistance needed	response 0	M1840	Toilet Transferring	TLTTRN0	Excluded category
		Toilet Transferring: To/from/on/off toilet with human assist	response 1	M1840	Toilet Transferring	TLTTRN1	
		Toilet Transferring: Able to self-transfer to bedside commode	response 2	M1840	Toilet Transferring	TLTTRN2	
		Toilet Transferring: Unable to transfer to/from toilet or commode	response 3 or 4	M1840	Toilet Transferring	TLTTRN34	
27	Toilet Hygiene	Toilet Hygiene Assistance: None needed	response 0	M1845	Toileting Hygiene	TLTHYG0	Excluded category
		Toilet Hygiene Assistance: Needs supplies laid out	response 1	M1845	Toileting Hygiene	TLTHYG1	
		Toilet Hygiene Assistance: Needs assistance	response 2	M1845	Toileting Hygiene	TLTHYG2	
		Toilet Hygiene Assistance: Entirely dependent	response 3	M1845	Toileting Hygiene	TLTHYG3	
28	Transferring	Transferring: No assistance needed	response 0	M1850	Transferring	TRNFR0	Excluded category
		Transferring: With minimal human assist or with device	response 1	M1850	Transferring	TRNFR1	
		Transferring: Bears weight and pivots only	response 2	M1850	Transferring	TRNFR2	
		Transferring: Unable or bedfast	response 3 or 4 or 5	M1850	Transferring	TRNFR345	
29	Ambulation	Ambulation/Locomotion: Walk independently	response 0	M1860	Ambulation/Locomotion	AMB0	Excluded category
		Ambulation/Locomotion: One-handed device on all surfaces	response 1	M1860	Ambulation/Locomotion	AMB1	
		Ambulation/Locomotion: Two-handed device/human assist on steps	response 2	M1860	Ambulation/Locomotion	AMB2	
		Ambulation/Locomotion: Walks only with supervision or assist	response 3	M1860	Ambulation/Locomotion	AMB3	
		Ambulation/Locomotion: Chairfast or bedfast	response 4 or 5 or 6	M1860	Ambulation/Locomotion	AMB456	
30	Feeding or Eating	Eating: Independent	response 0	M1870	Feeding or Eating	EAT0	Excluded category

Risk Factor #	Risk Factor	Covariate	Response Notes	OASIS Item	OASIS Item Description	Variable Name	Excluded Category Indicator
30	Feeding or Eating	Eating: Requires set up, intermittent assist or modified consistency	response 1	M1870	Feeding or Eating	EAT1	
		Eating: Unable to feed self and must be assisted throughout meal	response 2	M1870	Feeding or Eating	EAT2	
		Eating: Requires tube feedings, or no nutrients orally or via tube	response 3 or 4 or 5	M1870	Feeding or Eating	EAT345	
31	Oral Medication Management	Management of Oral Meds: Independent	response 0 or NA or missing	M2020	Management of Oral Medications: Excludes injectable and IV medications.	ORMED0	Excluded category
		Management of Oral Meds: Advance dose prep/chart needed	response 1	M2020	Management of Oral Medications: Excludes injectable and IV medications.	ORMED1	
		Management of Oral Meds: Reminders needed	response 2	M2020	Management of Oral Medications: Excludes injectable and IV medications.	ORMED2	
		Management of Oral Meds: Unable	response 3	M2020	Management of Oral Medications: Excludes injectable and IV medications.	ORMED3	
32	Injectable Medication	Management of Oral Meds: Independent	response 0 or NA or missing	M2030	Management of Injectable Medications: Excludes injectable and IV medications.	INJECT0	Excluded category
		Management of Oral Meds: Any issue	response 1, 2, or 3	M2030	Management of Injectable Medications: Excludes injectable and IV medications.	INJECTANY	
33	Supervision and	None needed	response 0	M2102	Types and Sources of Assistance	SPRVSN_NONE_NEEDED	Excluded category
		Caregiver currently provides	response 1	M2102	Types and Sources of Assistance	SPRVSN_CG_PROVIDES	
		Caregiver training needed	response 2	M2102	Types and Sources of Assistance	SPRVSN_NEED_TRAINING	
		Uncertain/unlikely to be provided	response 3 or 4 or missing	M2102	Types and Sources of Assistance	SPRVSN_CG_UNCERTAIN_NONE	
34	Therapy	Therapy Amounts: None	response = 0 or NA	M2200	Therapy Need (# visits)	THER_NONE	Excluded category
		Therapy Amounts: Low	response ≥ 1 & < 5	M2200	Therapy Need (# visits)	THER_LOW_LT5	
		Therapy Amounts: Medium	response ≥ 5 & ≤ 13	M2200	Therapy Need (# visits)	THER_MED_5_13	
		Therapy Amounts: High	response > 13	M2200	Therapy Need (# visits)	THER_HIGH_GT13	
35	Home Care Condition Codes	Certain infectious and parasitic diseases	Any primary or other diagnosis within the range A00 to B99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_INFECT	
		Neoplasms	Any primary or other diagnosis within the range C00 to D49	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_NEOPLASM	
		Diseases of the blood and blood-forming organs, certain disorders involving	Any primary or other diagnosis within the range D50 to D89	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_BLOOD	
		Endocrine, nutritional, and metabolic diseases	Any primary or other diagnosis within the range E00 to E89	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_ENDOCRINE	
		Mental, Behavioral, and Neurodevelopmental disorders	Any primary or other diagnosis within the range F01 to F99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_MENTAL	
		Disease of the nervous system	Any primary or other diagnosis within the range G00 to G99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_NERVOUS	
		Diseases of the eye and adnexa	Any primary or other diagnosis within the range H00 to H59	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_EYE	
		Diseases of the ear and mastoid process	Any primary or other diagnosis within the range H60 to H95	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_EAR	
		Diseases of the circulatory system	Any primary or other diagnosis within the range I00 to I99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_CIRCULATORY	
		Diseases of the respiratory system	Any primary or other diagnosis within the range J00 to J99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_RESPIRATORY	
		Diseases of the digestive system	Any primary or other diagnosis within the range K00 to K95	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_DIGESTIVE	
		Diseases of the skin and subcutaneous tissue	Any primary or other diagnosis within the range L00 to L99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_SKIN	
		Diseases of the musculoskeletal system and connective tissue	Any primary or other diagnosis within the range M00 to M99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_MUSCL_SKEL	

Risk Factor #	Risk Factor	Covariate	Response Notes	OASIS Item	OASIS Item Description	Variable Name	Excluded Category Indicator
35	Home Care Condition Codes	Diseases of the genitourinary system	Any primary or other diagnosis within the range N00 to N99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_GEN_URINARY	
		Symptoms, sign, and abnormal clinical and laboratory findings, not elsewhere classified	Any primary or other diagnosis within the range R00 to R99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_INT_ABNORM	
		Injury, poisoning, and certain other consequences of external causes	Any primary or other diagnosis within the range S00 to T88	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_EXT_INJURY	
		External causes of morbidity	Any primary or other diagnosis within the range V00 to Y99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_EXT_MORB	
		Factors influencing health status and contact with health services	Any primary or other diagnosis within the range Z00 to Z99	M1021, M1023	(M1021) Primary Diagnosis & (M1023) Other Diagnoses	HC_DX_HLTH_FACTORS	

## Table 2. Summary of Number of Risk Factors and Model Fit Statistics

Based on quality episodes ending in CY 2016

	Improvement in Ambulation/ Locomotion	Improvement in Bathing	Improvement in Bed Transferring	Improvement in Bowel Incontinence	Improvement in Confusion Frequency	Improvement in Dyspnea	Improvement in Lower Body Dressing	Improvement in Upper Body Dressing	Improvement in Management of Oral Medications	Improvement in Pain Interfering with Activity	Improvement in Status of Surgical Wounds	Improvement in Toilet Transferring	Discharge to Community
<b>Number of Risk Factors by Model and Measure</b>													
Model Prior to CY 2019*	102	114	99	43	77	83	118	98	119	69	78	100	79
Recalibrated Model, CY 2019 forward	122	122	116	80	108	106	117	121	121	116	60	113	121
<b>C-Statistic by Model and Measure</b>													
Model Prior to CY 2019*	0.783	0.762	0.796	0.681	0.690	0.650	0.748	0.751	0.799	0.644	0.599	0.775	0.726
Recalibrated Model, CY 2019 forward	0.779	0.761	0.792	0.692	0.691	0.694	0.740	0.745	0.788	0.656	0.642	0.768	0.734
<b>Pseudo-R<sup>2</sup> Statistic by Model and Measure</b>													
Model Prior to CY 2019*	0.176	0.152	0.199	0.073	0.084	0.047	0.139	0.138	0.212	0.044	0.016	0.172	0.114
Recalibrated Model, CY 2019 forward	0.174	0.152	0.198	0.082	0.086	0.080	0.133	0.135	0.198	0.053	0.034	0.167	0.121

\*Model developed in 2011.

**Table 3. Estimated Coefficients**

Recalibrated model, effective CV 2019 using quality episodes ending CV 2016

Risk Factor #	Risk Factor	Covariate #	Covariate Name	Excluded Category Indicator	OASIS-Based Outcome Measure													
					Improvement in Ambulation/ Locomotion	Improvement in Bathing	Improvement in Bed Transferring	Improvement in Bowel Incontinence	Improvement in Confusion Frequency	Improvement in Dyspnea	Improvement in Lower Body Dressing	Improvement in Upper Body Dressing	Improvement in Management of Oral Medications	Improvement in Pain Interfering with Activity	Improvement in Status of Surgical Wounds	Improvement in Toilet Transferring	Discharge to Community	
1	Age	1	AGE_0_54		-0.1538	-0.0657	-0.0712	-0.1996	0.0302	-0.0113	-0.0845	-0.1357	-0.0111	-0.1860	-0.1669	-0.2126	-0.1286	
		2	AGE_55_59		-0.1416	-0.0833	-0.1126	-0.1311	-0.0372	-0.0764	-0.0697	-0.1277	-0.0484	-0.2162	-0.0900	-0.1581	-0.1227	
		3	AGE_60_64		-0.1629	-0.1027	-0.1182	-0.1062	-0.0541	-0.1096	-0.0851	-0.1410	-0.0772	-0.1546	-0.0482	-0.1481	-0.1147	
		4	AGE_65_69	Excluded category														
		5	AGE_70_74		-0.0139	-0.0189	-0.0268	-0.0158	-0.0708	-0.0205	-0.0102	-0.0162	-0.0824	0.0569	0.0548	0.0003	0.0005	
		6	AGE_75_79		-0.0675	-0.0742	-0.0597	-0.0021	-0.1849	-0.0322	-0.0343	-0.0625	-0.2210	0.1141	0.1192	-0.0281	-0.0087	
		7	AGE_80_84		-0.1578	-0.1575	-0.1360	-0.0135	-0.3073	-0.0306	-0.0761	-0.1145	-0.3612	0.1540	0.1541	-0.0736	-0.0236	
		8	AGE_85_89		-0.2831	-0.2747	-0.2381	-0.0537	-0.3973	-0.0605	-0.1640	-0.2011	-0.5091	0.1722	0.2480	-0.1353	-0.0456	
		9	AGE_90_94		-0.4457	-0.4475	-0.3818	-0.0524	-0.4942	-0.1465	-0.3225	-0.3600	-0.6740	0.1579	0.2550	-0.2608	-0.0871	
		10	AGE_95PLUS		-0.6206	-0.6476	-0.5598	-0.1598	-0.5686	-0.2442	-0.5494	-0.5820	-0.8738	0.1042	0.3419	-0.4380	-0.1004	
2	Gender	11	GENDER_FEMALE	Excluded category														
		12	GENDER_MALE		0.0634	0.0632	0.0153	-0.0465		-0.0694	-0.0401		-0.1239	0.1059	-0.0574		-0.0675	
3	Payment source	13	PAY_MCARE_FFS	Excluded category														
		14	PAY_MCARE_HMO		-0.0994	-0.1133	-0.0441	-0.0324	-0.0225	-0.0243	-0.0549	-0.0340	-0.0694	-0.1121	-0.0586	-0.0096	0.1363	
		15	PAY_MCAREANDMCAID		-0.2940	-0.3785	-0.2570	-0.2183	-0.2104	-0.1338	-0.3047	-0.2769	-0.3939	-0.1215	-0.1590	-0.2399	-0.0798	
		16	PAY_MCAID_ONLY		-0.1195	-0.2242	-0.0429	-0.1200	-0.1167	0.0039	-0.1521	-0.1231	-0.2086	-0.1899	-0.0880	-0.0172	-0.1010	
		17	PAY_OTHER_COMBO		-0.0340	-0.0659	0.0428	0.0258	0.0495	0.0444	-0.0244	0.0546	0.0287	-0.1368	-0.2020	0.1122	0.0923	
4	SOC/ROC and Admission Source	18	SOC_INPT	Excluded category														
		19	SOC_COMM		-0.4674	-0.4129	-0.4577	-0.2931	-0.3500	-0.3469	-0.3979	-0.4925	-0.4482	-0.1252	-0.3556	-0.4913	0.1177	
		20	ROC		-0.4175	-0.3492	-0.4047	-0.1934	-0.1946	-0.3613	-0.3593	-0.3859	-0.3417	-0.2493	-0.0276	-0.3857	-0.7369	
5	Post-acute facility admission source	21	INPT_POSTACUTE		-0.2567	-0.1460	-0.1990		-0.0397	-0.0827	-0.0991	-0.1170	-0.1352	-0.0675		-0.1229	-0.0902	
		22	INPT_NOPOSTACUTE	Excluded category														
6	IV Therapies	23	IVTHER_ANY		0.0661				0.0738					0.0501	-0.1879		-0.3267	
		24	IVTHER_NONE	Excluded category														
7	Risk of Hospitalization	25	RISK_HSTRY_FALLS		-0.1231	-0.0601	-0.0567	0.0626	-0.0661				-0.0333	-0.0786	-0.1003			-0.0498
		26	RISK_WEIGHTLOSS		-0.0471	-0.0803				-0.0957	-0.0391	-0.0735	-0.0403	-0.1333		-0.0300	-0.2126	
		27	RISK_MLTPH_HOSPZTN		-0.1078	-0.0954	-0.0822			-0.1233	-0.0621	-0.0925	-0.0786	-0.0745	-0.1369	-0.0782	-0.3340	
		28	RISK_ED					0.0579	0.0269					-0.0527	-0.0843		-0.1700	
		29	RISK_RCNT_DCLN		0.0329		0.0398		-0.0696				-0.0332			0.0339	-0.0641	
		30	RISK_COMPLY			0.0438	-0.0413			-0.0502	0.0546	0.0485	0.0563		-0.1069			
		31	RISK_5PLUS_MDCTN			0.0805			0.0507			0.1239		-0.0831		0.1254		
		32	RISK_EXHAUST		0.0666	0.0893	0.0548	0.0990	0.1056		0.0885	0.0806	0.1133	0.0396		0.0661	-0.0311	
		33	RISK_OTHR					-0.0677	-0.0504						-0.1395	0.0800	0.0779	
34	RISK_NONE		0.1223	0.1855	0.1034			0.1795	0.0714	0.1586	0.2070			0.1469	0.3677			
8	Availability of Assistance	35	ASSIST_OCC_NONE	Excluded category														
		36	ASSIST_REGNITE		-0.0625	-0.1172	-0.0582		-0.0112	-0.0596	-0.1150	-0.0983	-0.1630	-0.0445		-0.0695	-0.0215	
		37	ASSIST_REGDAY		-0.1669	-0.2186	-0.2257		-0.0676	-0.1081	-0.3280	-0.3031	-0.3085	-0.0130		-0.3026	-0.0395	
		38	ASSIST_ARND_CLOCK		-0.1650	-0.2140	-0.1422		-0.0836	-0.0689	-0.2825	-0.2386	-0.3443	-0.0692		-0.2296	-0.0404	
	Living Arrangement	39	LIV_ALONE		0.0607	0.1410	0.0923	0.1072	0.0554	0.0361	0.3004	0.2473	0.3037	0.0235	0.0986	0.2326	-0.0205	
		40	LIV_OTHERS	Excluded category														
41	LIV_CONGREGATE		-0.1872	-0.1053	-0.0261	-0.1840	-0.3220	0.0302	-0.0069	0.0147	-1.0024	0.1136	0.2246	0.0197	-0.0255			
9	Pain	42	PAIN0	Excluded category														
		43	PAIN1		0.0974	0.1226	0.0524	0.1039	0.1089	0.0513	0.0793	0.0949	0.1640		0.1414	0.0701	-0.0143	
		44	PAIN2		0.1107	0.1446	0.0277	0.1157	0.1317	0.0125	0.0966	0.1093	0.2079	0.7380	0.1379	0.0741	-0.0315	



OASIS-Based Outcome Measure																	
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22	Grooming	94	GROOM1		-0.0053	-0.0075	-0.0655				-0.0997	-0.2218	0.0303	0.0551	0.1337	-0.2192	-0.0248
		95	GROOM2		-0.1016	-0.1146	-0.1783				-0.2290	-0.4557	-0.0434	0.0269	0.2020	-0.3854	-0.0985
		96	GROOM3		-0.1630	-0.2267	-0.2700				-0.3804	-0.7336	-0.1504	-0.0006	0.1293	-0.5271	-0.1383
23	Upper Body Dressing	97	UPPER0	Excluded category													
		98	UPPER1		0.0630	-0.0155	0.0191		0.0336	0.0399	0.0121		0.0072			-0.1152	-0.0121
		99	UPPER2		-0.0507	-0.2134	-0.0908		-0.0445	-0.0878	-0.2603	1.2685	-0.2041			-0.3487	-0.1386
		100	UPPER3		-0.0437	-0.2374	-0.1112		-0.1178	-0.1613	-0.3933	2.6428	-0.2933			-0.4715	-0.1450
24	Lower Body Dressing	101	LOWER0	Excluded category													
		102	LOWER1		0.1560	0.1515	0.1180			0.0665		-0.0412	0.1339			0.0214	0.1326
		103	LOWER2		0.0701	0.0713	-0.0698			0.0581	0.8531	-0.2570	0.1197			-0.0898	0.1383
		104	LOWER3		-0.0424	-0.0129	-0.1605			0.0549	2.3778	-0.3172	0.1134			-0.1333	0.1293
25	Bathing	105	BATH0	Excluded category													
		106	BATH1		-0.1743		-0.1421		-0.0262	-0.0268	-0.0785	-0.1034	-0.0106	-0.0475			0.1098
		107	BATH2		-0.1802	1.1960	-0.1284		-0.0328	-0.0242	-0.1235	-0.1722	-0.1027	-0.0436			0.0733
		108	BATH3		-0.3361	1.8939	-0.2124		-0.0415	-0.0061	-0.2509	-0.2691	-0.1706	-0.0862			0.0006
		109	BATH4		-0.1682	2.4146	-0.0686		0.0965	0.1618	-0.0049	0.0034	0.1066	0.0403			0.0583
		110	BATH5		-0.3086	2.8104	-0.1324		0.0650	0.1213	-0.2603	-0.1856	-0.0253	-0.0752			-0.0038
111	BATH6		-0.5178	3.0383	-0.4675		-0.1614	-0.1425	-0.6768	-0.6668	-0.4805	-0.2289			-0.0999		
26	Toilet Transferring	112	TLTTRN0	Excluded category													
		113	TLTTRN1		0.2656	0.2112	0.1373		0.0966	0.1512	0.1106	0.0570	0.1519	0.1549			0.1094
		114	TLTTRN2		0.2722	0.3200	0.0409		0.1798	0.1633	0.1483	0.0738	0.2059	0.2198		1.7551	0.0333
		115	TLTTRN34		0.1693	0.1219	-0.2097		0.1460	0.1090	0.0085	-0.0647	0.1403	0.1966		2.0061	0.0285
27	Toilet Hygiene	116	TLTHYG0	Excluded category													
		117	TLTHYG1		0.0378	0.0629	-0.0264	0.0253	0.0730		-0.0323	-0.0980	0.0866	0.1121	0.1145	-0.2653	
		118	TLTHYG2		-0.0775	-0.0298	-0.1409	-0.1143	0.0590		-0.1889	-0.2433	0.0473	0.0931	0.1836	-0.4476	
		119	TLTHYG3		-0.2217	-0.2461	-0.3483	-0.5203	-0.0911		-0.5061	-0.5042	-0.1658	0.1002	0.1935	-0.7323	
28	Transferring	120	TRNFR0	Excluded category													
		121	TRNFR1		-0.3626	-0.0936			0.0810	-0.0211	-0.1353	-0.0628	0.0764	-0.0685		-0.1872	-0.0090
		122	TRNFR2		-0.3044	0.0180	2.4313		0.1742	0.0745	-0.1100	-0.0345	0.2088	-0.0188		-0.2652	-0.0135
		123	TRNFR345		-0.3362	-0.0360	3.0747		0.2753	0.0841	-0.1915	-0.1133	0.2242	0.0220		-0.4867	-0.0481
29	Ambulation	124	AMB0	Excluded category													
		125	AMB1			-0.2429	-0.5474	-0.0014	0.0357	-0.0998	-0.1417	-0.0339	-0.0061	-0.1824	0.0430	-0.0702	0.0290
		126	AMB2		0.4161	-0.5154	-0.9584	-0.0651	0.0444	-0.1576	-0.2651	-0.1090	-0.0812	-0.2995	-0.0176	-0.1823	-0.0969
		127	AMB3		2.2677	-0.4080	-0.7580	0.0655	0.1163	0.0272	-0.1309	0.0724	0.0517	-0.2127	-0.0154	-0.0100	-0.0256
		128	AMB456		1.5124	-1.3271	-1.8594	-0.3908	-0.0307	-0.3364	-1.0388	-0.7420	-0.4629	-0.5278	-0.2531	-1.0151	-0.2697
30	Feeding or Eating	129	EAT0	Excluded category													
		130	EAT1		-0.0439	-0.0437	-0.0974	-0.0870	-0.0139	0.0123	-0.0869	-0.1602	-0.0564	0.0797		-0.1999	-0.0108
		131	EAT2		-0.1553	-0.2209	-0.3032	-0.2470	-0.0762	0.0102	-0.2792	-0.4378	-0.2319	0.1367		-0.4228	-0.0254
		132	EAT345		-0.3010	-0.5712	-0.4290	-0.4683	-0.1997	-0.1189	-0.4971	-0.7198	-0.6833	0.0147		-0.6829	-0.1018
31	Oral Medication Management	133	ORMED0	Excluded category													
		134	ORMED1		0.0399	-0.0698			-0.0755	0.0385	-0.0771	-0.1184		0.0904		-0.1241	-0.1016
		135	ORMED2		0.0878	-0.1085			-0.1982	0.1118	-0.0823	-0.1522	1.1230	0.1759		-0.1740	-0.0881
		136	ORMED3		-0.0280	-0.2871			-0.3077	0.1650	-0.2287	-0.2646	1.2751	0.1524		-0.2067	-0.0624
32	Injectable Medication Management	137	INJECT0	Excluded category													
		138	INJECTANY		-0.1116	-0.0928	-0.1021		-0.0259	-0.0933	-0.1014	-0.0769	-0.1218	-0.0841	-0.0825	-0.0704	-0.2542
33	Supervision and Safety Assistance	139	SPRVSN_NONE_NEEDED	Excluded category													
		140	SPRVSN.CG_PROVIDE		-0.0691	-0.1055	-0.0796		-0.1724	-0.0520	-0.1298	-0.1501	-0.2436	0.0018		-0.1657	-0.0237

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33	Supervision and Safety Assistance	141	SPRVSN_NEED_TRAINING		0.1823	0.1509	0.0649		-0.0525	0.0896	0.1092	0.0575	0.0596	0.1651		-0.0521	0.0728	
		142	SPRVSN_CG_UNCERTAIN_NONE		-0.0546	-0.0849	-0.1291		-0.1028	-0.1464	-0.1118	-0.1508	0.0179	-0.1851		-0.1367	-0.2958	
34	Therapy	143	THER_NONE	Excluded category														
		144	THER_LOW_LT5		-0.0240	0.0152	0.0598	0.0709	0.0573	0.1414	0.0635	0.0902	-0.0060	-0.0277	-0.0264	0.1035	0.1144	
		145	THER_MED_5_13		0.1824	0.2540	0.3182	0.1838	0.1103	0.3488	0.3095	0.3920	0.1085	0.0776	0.3156	0.4201	0.2717	
		146	THER_HIGH_GT13		0.2425	0.3484	0.3357	0.3191	0.1628	0.2894	0.3967	0.4295	0.0851	0.1272	0.5192	0.4433	0.0143	
35	Home Care Condition Codes	147	HC_DX_INFECT		0.0616	0.0657	0.0761		0.0385	0.0996	0.1102	0.0707	0.0534	0.0377		0.0557	0.0587	
		148	HC_DX_NEOPLASM		-0.1639	-0.2746	-0.1423	-0.1439	-0.1117	-0.2565	-0.2120	-0.2984	-0.1985	-0.1513	-0.1980	-0.2523	-0.5629	
		149	HC_DX_BLOOD				-0.0314										-0.1373	
		150	HC_DX_ENDOCRINE		-0.0420	-0.0302	-0.0507	-0.0365		-0.0349	-0.0259	-0.0306	-0.0288	0.0236	-0.1072	-0.0415	-0.0331	
		151	HC_DX_MENTAL		0.0359	-0.0334	0.0424	-0.0800	-0.3096	0.1083		-0.0468	-0.2218	0.0460		-0.0472	0.1092	
		152	HC_DX_NERVOUS		-0.2407	-0.1705	-0.1651	-0.1262	-0.1414			-0.1858	-0.1862	-0.1669	-0.1261	-0.1708	0.0880	
		153	HC_DX_EYE		-0.0703								-0.0647	-0.1617	0.0630		0.1607	
		154	HC_DX_EAR		0.1067	0.1292	0.1342					0.1629	0.1691		0.0904		0.1583	0.2943
		155	HC_DX_CIRCULATORY		0.0882	0.0868	0.0521	0.0587	0.0664	0.0416	0.1162	0.0910	0.0769	0.1104		0.0663		
		156	HC_DX_RESPIRATORY		-0.0324	-0.0567					-0.3665		-0.0259	-0.0389	-0.0698			-0.1195
		157	HC_DX_DIGESTIVE		0.0882	0.0682	0.0302					0.0699	0.0375	0.0433				-0.0567
		158	HC_DX_SKIN		-0.1448	-0.1536	-0.1391				-0.0467	-0.1292	-0.0995		0.0314	-0.1723	-0.1155	-0.2559
		159	HC_DX_MUSCL_SKEL		0.0272	0.0635		-0.0376		0.0582	0.0678	0.0656	0.0408	-0.1174		0.0455	0.1740	
		160	HC_DX_GEN_URINARY		-0.0857	-0.0702	-0.0655	-0.0595	-0.0369			-0.0308	-0.0515	-0.0728		-0.2419	-0.0657	-0.1885
161	HC_DX_INT_ABNORM		-0.0332	-0.0346		-0.0905	-0.1020	0.0365			-0.0941	0.0404				0.0932		
162	HC_DX_EXT_INJURY		0.0335	0.0770	0.0780	0.0736	0.0406	0.1469	0.1469	0.0977	0.0811	0.0983	0.0740		0.1095	0.0932		
163	HC_DX_EXT_MORB			0.0889	0.1369				0.1764	0.1367	0.0846	0.1236	0.1036		0.1608	0.2891		
164	HC_DX_HLTH_FACTORS		0.2172	0.2223	0.2325	0.0797	0.1395	0.2562	0.2019	0.2579	0.2487	0.1607	0.2447	0.2481	0.2958			
	CONSTANT	165	_CONS		0.3026	0.0573	1.5339	1.4179	0.3705	0.3154	1.5009	1.7498	0.4866	0.0852	1.9354	2.4455	1.6362	