

**TABLE 2: CASE-MIX ADJUSTMENT VARIABLES AND SCORES**

	Episode number within sequence of adjacent episodes	1 or 2	1 or 2	3+	3+
	Therapy visits	0-13	14+	0-13	14+
	EQUATION:	1	2	3	4
CLINICAL DIMENSION					
1	Primary or Other Diagnosis = Blindness/Low Vision	.	.	.	.
2	Primary or Other Diagnosis = Blood disorders	.	1	.	.
3	Primary or Other Diagnosis = Cancer, selected benign neoplasms	.	4	.	4
4	Primary Diagnosis = Diabetes	.	3	.	.
5	Other Diagnosis = Diabetes	1	.	.	.
6	Primary or Other Diagnosis = Dysphagia AND Primary or Other Diagnosis = Neuro 3 – Stroke	2	16	1	10
7	Primary or Other Diagnosis = Dysphagia AND M1030 (Therapy at home) = 3 (Enteral)	1	5	.	9
8	Primary or Other Diagnosis = Gastrointestinal disorders	.	.	.	2
9	Primary or Other Diagnosis = Gastrointestinal disorders AND M1630 (ostomy)= 1 or 2	.	7	.	.
10	Primary or Other Diagnosis = Gastrointestinal disorders AND Primary or Other Diagnosis = Neuro 1 - Brain disorders and paralysis, OR Neuro 2 - Peripheral neurological disorders, OR Neuro 3 - Stroke, OR Neuro 4 - Multiple Sclerosis	.	.	.	.
11	Primary or Other Diagnosis = Heart Disease OR Hypertension	1	3	.	2
12	Primary Diagnosis = Neuro 1 - Brain disorders and paralysis	3	9	6	9
13	Primary or Other Diagnosis = Neuro 1 - Brain disorders and paralysis AND M1840 (Toilet transfer) = 2 or more	.	4	.	4
14	Primary or Other Diagnosis = Neuro 1 - Brain disorders and paralysis OR Neuro 2 - Peripheral neurological disorders AND M1810 or M1820 (Dressing upper or lower body)= 1, 2, or 3	2	4	2	4
15	Primary or Other Diagnosis = Neuro 3 – Stroke	3	9	2	4
16	Primary or Other Diagnosis = Neuro 3 - Stroke AND M1810 or M1820 (Dressing upper or lower body)= 1, 2, or 3	.	2	.	.
17	Primary or Other Diagnosis = Neuro 3 - Stroke AND M1860 (Ambulation) = 4 or more	.	.	.	.
18	Primary or Other Diagnosis = Neuro 4 - Multiple Sclerosis AND AT LEAST ONE OF THE FOLLOWING: M1830 (Bathing) = 2 or more OR M1840 (Toilet transfer) = 2 or more OR M1850 (Transferring) = 2 or more OR M1860 (Ambulation) = 4 or more	3	7	5	11
19	Primary or Other Diagnosis = Ortho 1 - Leg Disorders or Gait Disorders AND M1324 (most problematic pressure ulcer stage)= 1, 2, 3 or 4	7	1	7	.

20	Primary or Other Diagnosis = Ortho 1 - Leg OR Ortho 2 - Other orthopedic disorders AND M1030 (Therapy at home) = 1 (IV/Infusion) or 2 (Parenteral)	3	.	3	7
21	Primary or Other Diagnosis = Psych 1 – Affective and other psychoses, depression	.	.	.	.
22	Primary or Other Diagnosis = Psych 2 - Degenerative and other organic psychiatric disorders	.	.	.	.
23	Primary or Other Diagnosis = Pulmonary disorders	.	2	.	1
24	Primary or Other Diagnosis = Pulmonary disorders AND M1860 (Ambulation) = 1 or more	.	.	.	.
25	Primary Diagnosis = Skin 1 -Traumatic wounds, burns, and post-operative complications	3	17	6	17
26	Other Diagnosis = Skin 1 - Traumatic wounds, burns, post-operative complications	6	14	7	14
27	Primary or Other Diagnosis = Skin 1 -Traumatic wounds, burns, and post-operative complications OR Skin 2 – Ulcers and other skin conditions AND M1030 (Therapy at home) = 1 (IV/Infusion) or 2 (Parenteral)	2	.	.	.
28	Primary or Other Diagnosis = Skin 2 - Ulcers and other skin conditions	2	16	8	18
29	Primary or Other Diagnosis = Tracheostomy	2	17	.	17
30	Primary or Other Diagnosis = Urostomy/Cystostomy	.	17	.	12
31	M1030 (Therapy at home) = 1 (IV/Infusion) or 2 (Parenteral)	.	15	5	15
32	M1030 (Therapy at home) = 3 (Enteral)	.	16	.	6
33	M1200 (Vision) = 1 or more	.	.	.	.
34	M1242 (Pain)= 3 or 4	3	.	2	.
35	M1311= Two or more pressure ulcers at stage 3 or 4	4	6	4	6
36	M1324 (Most problematic pressure ulcer stage)= 1 or 2	4	19	7	17
37	M1324 (Most problematic pressure ulcer stage)= 3 or 4	9	31	10	25
38	M1334 (Stasis ulcer status)=2	4	13	8	13
39	M1334 (Stasis ulcer status)=3	7	17	9	17
40	M1342 (Surgical wound status)=2	2	7	6	13
41	M1342 (Surgical wound status)=3	.	6	5	10
42	M1400 (Dyspnea) = 2, 3, or 4	1	1	.	.
43	M1620 (Bowel Incontinence) = 2 to 5	.	3	.	2
44	M1630 (Ostomy)= 1 or 2	4	11	2	8
45	M2030 (Injectable Drug Use) = 0, 1, 2, or 3	.	.	.	.
<b>FUNCTIONAL DIMENSION</b>					
46	M1810 or M1820 (Dressing upper or lower body)= 1, 2, or 3	1	.	.	.
47	M1830 (Bathing) = 2 or more	6	5	6	2
48	M1840 (Toilet transferring) = 2 or more	.	1	.	.
49	M1850 (Transferring) = 2 or more	3	1	2	.
50	M1860 (Ambulation) = 1, 2 or 3	7	.	4	.
51	M1860 (Ambulation) = 4 or more	8	9	7	7

**Source:** CY 2016 Medicare claims data for episodes ending on or before December 31, 2016 (as of August 17, 2017) for which we had a linked OASIS assessment. LUPA episodes, outlier episodes, and episodes with PEP adjustments were excluded.

**Note(s):** Points are additive; however, points may not be given for the same line item in the table more than once.

Please see Medicare Home Health Diagnosis Coding guidance at [https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/coding\\_billing.html](https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/coding_billing.html) for definitions of primary and secondary diagnoses.

In updating the four-equation model for CY 2018, using 2016 home health claims data (the last update to the four-equation model for CY 2017 used CY 2015 home health claims data),

episodes within each step into thirds due to many episodes being clustered around one particular score.<sup>8</sup> Also, we looked at the average resource use associated with each clinical and functional score and used that as a guide for setting our thresholds. We grouped scores with similar average resource use within the same level (even if it meant that more or less than a third of episodes were placed within a level). The new thresholds, based off the CY 2018 four-equation model points are shown in Table 3.

**TABLE 3: CY 2018 CLINICAL AND FUNCTIONAL THRESHOLDS**

		1 <sup>st</sup> and 2 <sup>nd</sup> Episodes		3 <sup>rd</sup> + Episodes		All Episodes
		0 to 13 Therapy Visits	14 to 19 Therapy Visits	0 to 13 Therapy Visits	14 to 19 Therapy Visits	20+ Therapy Visits
<b>Grouping Step</b>		1	2	3	4	5
<b>Equations used to calculate points (see Table 1)</b>		1	2	3	4	(2&4)
<b>Dimension</b>	<b>Severity Level</b>					
<b>Clinical</b>	<b>C1</b>	0 to 1	0 to 1	0 to 1	0 to 1	0 to 3
	<b>C2</b>	2 to 3	2 to 7	2	2 to 9	4 to 16
	<b>C3</b>	4+	8+	3+	10+	17+
<b>Functional</b>	<b>F1</b>	0 to 13	0 to 7	0 to 6	0 to 2	0 to 2
	<b>F2</b>	14	8 to 15	7 to 10	3 to 7	3 to 6
	<b>F3</b>	15+	16+	11+	8+	7+

Step 3: Once the clinical and functional thresholds are determined and each episode is assigned a clinical and functional level, the payment regression is estimated with an episode’s wage-weighted minutes of care as the dependent variable. Independent variables in the model are indicators for the step of the episode as well as the clinical and functional levels within each step of the episode. Like the four-equation model, the payment regression model is also estimated with robust standard errors that are clustered at the beneficiary level. Table 4 shows the regression coefficients for the variables in the payment regression model updated with

<sup>8</sup> For Step 1, 45.3 percent of episodes were in the medium functional level (All with score 14).  
 For Step 2.1, 87.3 percent of episodes were in the low functional level (Most with scores 5 to 7).  
 For Step 2.2, 81.9 percent of episodes were in the low functional level (Most with score 2).  
 For Step 3, 46.3 percent of episodes were in the medium functional level (Most with score 10).  
 For Step 4, 48.7 percent of episodes were in the medium functional level (Most with score 5 or 6).