



Dispelling Common Patient Driven Groupings Model Myths Through Analysis Of Home Health Claims – OASIS Limited Data Set

Executive Summary

The Patient Driven Groupings Model (PDGM) represents the largest change in reimbursement for Home Health Agencies (HHA) since the original initiation of the Prospective Payment System (PPS) on October 1, 2000. Elimination of the therapy thresholds from the payment model is a significant and welcome change. The Centers for Medicare and Medicaid Services (CMS) payment reform principles as identified in the “Overview of the Patient-Driven Groupings Model (PDGM)”¹ MLN network call on February 12, 2019 were listed as:

- Improve the payment accuracy for Home Health services
- Promote fair compensation to Home Health agencies
- Increase the quality of care for beneficiaries

In addition to the above, CMS made it clear that appropriate access to services for its beneficiaries remains a priority. For agencies to support these goals, and in particular, promote access to care and increased quality, it will be important to understand the value of therapy beyond the visit thresholds. Specifically, determining value based on outcomes is an essential component to understanding the best practices for the delivery of therapy services.

Historically, CMS has reported data focused on all episodes when providing utilization trends. Little data has been shared looking at utilization for episodes that include one or more therapy visits and excludes episodes with nursing only.^{2,3} In addition, training and education provided by CMS, and others in preparation for PDGM presented data in this same way. The inclusion of episodes with zero therapy visits diluted the overall utilization numbers making it difficult to assess actual utilization when therapy is involved.

In the development of the PDGM model, CMS applied information found in the Home Health Claims – OASIS Limited Data Set (LDS) file from 2017. Aegis Therapies, Inc. purchased the 2017 Home Health Claims – LDS to analyze therapy utilization across the different variables of PDGM and look at both cases with therapy, and all cases, as compared to outcomes. One goal of Aegis’ analysis was to better understand the historical utilization of therapy in Home Health. Another goal was to compare utilization to outcomes in beneficiaries with similar characteristics as defined by the model. The intent was to determine if there were utilization trends that support better outcomes and where there might be diminishing return, thus informing best practice.

While the LDS did contain the utilization data that would allow us to review trends in therapy by the different variables in the PDGM model, it did not contain functional measure end scores. Therefore, a comparison of utilization to functional change or outcomes could not be made.

With this limitation, Aegis’ analysis focused solely on the first goal to better understand the historical utilization of therapy across the nationwide data compared in the file. The intent of this analysis was to allow for a better understanding of the resources considered in the model and assist with advocacy for therapy in home health.

The PDGM, while eliminating the therapy thresholds, was not intended to be utilized to replace clinician judgement in the development and implementation of an individual plan of care.⁴ CMS included the following statement in their MLN Matters entitled The Role of Therapy under the Home Health Patient Driven Groupings model (PDGM). “The need for therapy services under PDGM remains unchanged. Therapy provision should be determined by the individual needs of the patient without restriction or limitation on the types of disciplines provided or the frequency or duration of visits”⁵. Since the implementation of PDGM, there have been reports

from members of the American Physical Therapy Association (APTA), the American Occupational Therapy Association (AOTA) and The American Speech – Language- Hearing Association (ASHA) about inappropriate practices in some HHAs. Some examples cited by the membership of these associations include agencies using analytic software to dictate care plans, arbitrary reductions in the use of one or more disciplines, and ignoring or modifying physician orders to reduce the total number of therapy visits being delivered.⁶ In addition, beneficiaries have received misinformation about the model from some providers.^{6,7} One survey of home health agencies showed 52% of providers saw PDGM forcing a decrease in therapy utilization.⁸ There have also been reports of reduction of hours and elimination of positions in therapy since the PDGM began on January 1, 2020.⁹

Anecdotally, we have heard from therapists and agencies about methodologies HHAs have attempted to utilize to determine if therapy should be involved in a case and to what level. At the time of implementation of the PDGM model, the impact of the public health emergency brought on by COVID-19 had not yet been felt, and, as the Public Health Emergency is still ongoing, it will be difficult to fully understand the effect COVID-19 has had on utilization in home health. However, in order to continue to advocate for therapy, we are presenting and addressing some of the therapy myths specific to the PDGM model that have been shared:

- **Myth 1:** The clinical group will determine if, or how much, therapy is needed in an episode.
- **Myth 2:** The type of discipline needed can be determined by the clinical grouping (e.g. MS Rehab would never need speech).
- **Myth 3:** Therapy should not be needed beyond the first payment period.
- **Myth 4:** A patient in the MS Rehab grouping should not need a second 30 days in the 60-day episode.
- **Myth 5:** The functional impairment level will tie directly to the therapy visits needed by a patient in an episode.
- **Myth 6:** Patients admitted to HH from an institutional setting will require more therapy versus community admissions.

Myth 1: The clinical group will determine if, or how much, therapy is needed in an episode

The 2017 LDS historical data shows that therapy was involved in all clinical groupings. Not surprisingly, Musculoskeletal (MS) Rehab showed the highest percentage of episodes involving therapy (90.1%), followed by Neurological Rehab (85.5%). Of the 12 clinical groupings, 10 showed therapy involvement in greater than 50% of episodes. The diagnostic grouping with the lowest rehab involvement was Complex Disease, with 37.9% of episodes including one or more therapies (Table 1).

Table 1 Average Therapy Involvement - All Episodes

Sample Size (All Episodes)		Average Therapy Involvement (All Episodes)				
		Clinical Group	% Episodes with PT	% Episodes with OT	% Episodes with ST	% Episodes with Therapy
Number of 30-Day Pmt Periods	9,429,825	Neuro	79.9%	45.9%	22.0%	85.8%
Number of Episodes	5,559,934	Behavior Health	58.7%	29.3%	11.7%	64.9%
Number of PT Visits	30,355,711	MS Rehab	88.0%	36.1%	2.7%	90.1%
Number of OT Visits	9,010,230	MMTA - Endocrine	52.1%	21.6%	3.2%	54.9%
Number of ST Visits	1,823,651	MMTA - Other	58.5%	24.3%	4.7%	61.6%
Number of Therapy Visits	41,189,592	MMTA - Cardiac	58.7%	26.9%	4.0%	61.4%
Number of Skilled Nursing Visits	43,263,144	MMTA - Respiratory	64.8%	30.9%	5.9%	68.1%
Early %	32.9%	Wound	38.8%	18.9%	2.9%	41.8%
Late %	67.1%	MMTA - GI/GU	62.3%	29.7%	4.9%	65.0%
		Complex	34.5%	16.5%	5.9%	37.9%
		MMTA - Infectious	55.6%	25.5%	3.5%	58.2%
		MMTA - Surgical Afterca..	62.6%	29.7%	3.8%	64.6%
		Grand Total	64.0%	29.4%	5.9%	67.2%

Table 2 shows the average visit per payment period for all early and all late periods across all clinical groupings. In addition, it shows the VPE across all episodes by clinical grouping. When you view the aggregate data across all episodes, there is a downtick in the average number of therapy visits from left to right. Some agencies are utilizing such information to prescribe a specific number of therapy visits based on clinical category. But when you look at the averages for all payment periods and episodes with at least one therapy visit in Table 3, you see a very different picture. While the number of therapy visits does still decline by the clinical group from left to right, the drop is much less dramatic.

Table 2 Average Therapy Visits vs Functional Level – All Episodes

Average Therapy Visits vs Functional Level												
<i>Note:</i> Includes all episodes.												
Values represent average therapy visits per episode (VPE) in each clinical group for <u>Early pmt periods (E)</u> , <u>Late pmt periods (L)</u> , and <u>VPE - 60-day episodes (VPE)</u> .												
Timing	Clinical Group											
	Neuro	MS Rehab	Behavior Health	MMTA - Respiratory	MMTA - Other	MMTA - GI/GU	MMTA - Cardiac	MMTA - Endocrine	MMTA - Infectious	MMTA - Surgical Aftercare	Wound	Complex
E	9.2	8.3	6.8	5.8	6.3	5.5	5.8	5.8	4.8	4.4	3.6	3.1
L	8.2	6.6	5.1	4.6	4.5	4.4	4.4	4.2	3.8	3.3	3.1	2.7
VPE	11.9	10.2	7.6	6.9	6.8	6.5	6.4	6.0	5.5	5.5	4.2	3.6

Table 3 Average Therapy Visits vs Functional Level – Episodes with at Least One Therapy Visit

Average Therapy Visits vs Functional Level												
<i>Note:</i> Only includes episodes with at least one therapy visit.												
Values represent average therapy visits per episode (VPE) in each clinical group for <u>Early pmt periods (E)</u> , <u>Late pmt periods (L)</u> , and <u>VPE - 60-day episodes (VPE)</u> .												
Timing	Clinical Group											
	Neuro	Behavior Health	MS Rehab	MMTA - Other	MMTA - Endocrine	MMTA - Cardiac	MMTA - Respiratory	MMTA - GI/GU	Wound	Complex	MMTA - Infectious	MMTA - Surgical Aftercare
E	9.9	8.4	8.7	7.9	7.6	7.5	7.3	7.2	6.9	6.6	6.7	6.5
L	9.7	8.2	7.6	7.7	8.0	7.4	6.9	6.9	7.4	6.9	6.8	4.8
VPE	13.9	11.6	11.4	11.1	11.0	10.5	10.2	10.0	10.0	9.5	9.4	8.5

Myth 2: The type of discipline needed can be determined by the clinical grouping (e.g., MS Rehab would never need speech).

Table 4 presents the average number of visits per episode, by discipline, by clinical group across all episodes. The MS Rehab and Neurological clinical groupings show the highest number of visits per episode. The next eight clinical categories, however, show a variance of visits per episode of only 2.1. Although speech utilization varies from 1.4 visits per episode as a high in the Neuro clinical group to a low of 0.1 in the MS Rehab group, to assume speech therapy was never required in this clinical group would be incorrect.

Table 4 Average Number of Visits per Episode by Discipline Type – All Episodes

Key Summary Statistics (All Episodes)							
Clinical Group	% of Total Episodes	ALOS	PT VPE	OT VPE	ST VPE	Tx VPE	SN VPE
Neuro	9.5%	45.4	7.5	3.0	1.4	11.9	5.4
MS Rehab	20.4%	38.5	8.1	2.0	0.1	10.2	4.9
Behavior Health	3.2%	46.8	5.1	1.7	0.7	7.6	5.8
MMTA - Respiratory	8.2%	44.5	5.0	1.6	0.3	6.9	7.5
MMTA - Other	10.5%	47.4	5.2	1.4	0.3	6.8	8.1
MMTA - GI/GU	4.2%	43.4	4.8	1.5	0.2	6.5	7.4
MMTA - Cardiac	17.1%	46.8	4.8	1.4	0.2	6.4	8.3
MMTA - Endocrine	4.8%	50.0	4.6	1.2	0.2	6.0	12.2
MMTA - Infectious	4.0%	43.1	4.1	1.2	0.2	5.5	7.6
MMTA - Surgical Aftercare	3.9%	35.1	4.1	1.2	0.2	5.5	8.0
Wound	9.4%	47.2	3.0	1.0	0.1	4.2	13.6
Complex	4.7%	45.6	2.4	0.8	0.3	3.6	8.7
Grand Total	100.0%	44.2	5.5	1.6	0.3	7.4	7.8

Note: All values include LUPAs

Myth 3: Therapy should not be needed beyond the first payment period.

Table 5 shows the average length of stay (ALOS) for episodes with at least one therapy visit as 43.1 days. This is only 1.1 days less than across all episodes shown in Table 3.

Table 5 Average Length of Stay - Episodes with at Least One Therapy Visit

Key Summary Statistics (Episodes with at least one therapy visit)							
Clinical Group	% of Total Episodes	ALOS	PT VPE	OT VPE	ST VPE	Tx VPE	SN VPE
Neuro	12.2%	45.2	8.8	3.5	1.6	13.9	5.0
Behavior Health	3.0%	44.9	7.9	2.7	1.1	11.6	5.0
MS Rehab	27.4%	37.6	9.0	2.2	0.1	11.4	4.5
MMTA - Other	9.6%	45.6	8.4	2.3	0.4	11.1	6.7
MMTA - Endocrine	3.9%	48.5	8.4	2.3	0.3	11.0	9.7
MMTA - Cardiac	15.7%	45.7	7.8	2.3	0.3	10.5	7.8
MMTA - Respiratory	8.3%	44.1	7.4	2.3	0.4	10.2	7.3
MMTA - GI/GU	4.1%	43.2	7.4	2.3	0.4	10.0	7.1
Wound	5.9%	48.6	7.2	2.5	0.3	10.0	13.1
Complex	2.7%	47.3	6.4	2.1	0.9	9.5	9.8
MMTA - Infectious	3.5%	42.4	7.0	2.1	0.3	9.4	7.1
MMTA - Surgical Aftercare	3.7%	37.4	6.3	1.9	0.3	8.5	7.7
Grand Total	100.0%	43.1	8.1	2.4	0.5	11.0	6.7

Note: All values include LUPAs

Myth 4: A patient in the MS Rehab grouping should not need a second 30 days in the 60-day episode.

Table 5 shows the average length of stay (ALOS) for episodes with at least one therapy visit. Note that the 2017 data shows MS Rehab at an ALOS of 37.6 days.

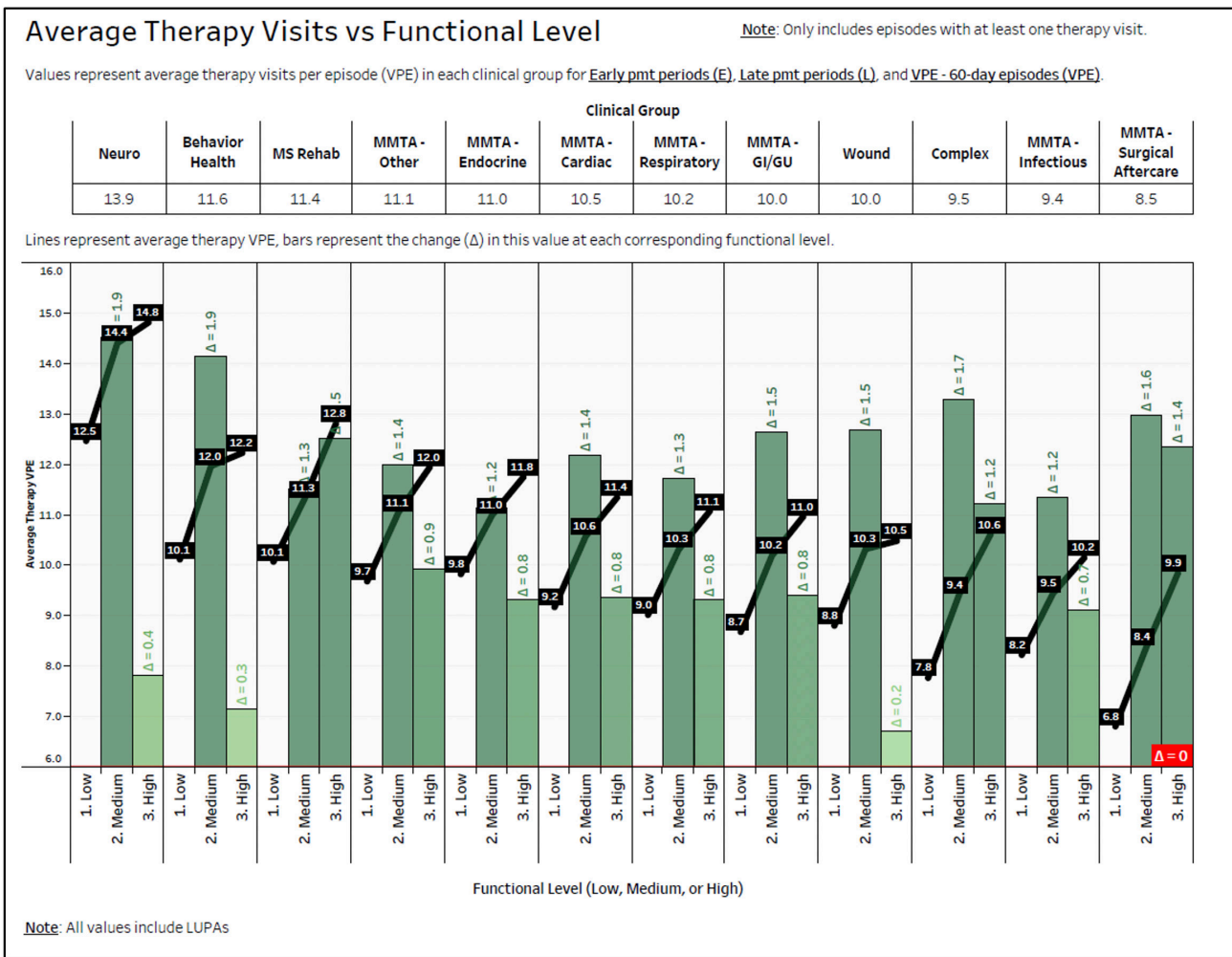
Myth 5: The functional impairment level will tie directly to the therapy visits needed by a patient in an episode. For example:

- **Low functional impairment would indicate 1-6 therapy visits**
- **Medium functional impairment would indicate 7 – 14 therapy visits**
- **High functional impairment would indicate 15 – 20 therapy visits**

Table 6 lists the average therapy visits per episode (VPE) in all episodes with at least one visit of therapy provided. It also notes the average visits provided by level of functional impairment and clinical grouping as well as the delta in visits between the levels of impairment.

(See Table 6 on next page)

Table 6 Average Therapy Visits vs Functional Level – Episodes with at Least One Therapy Visit



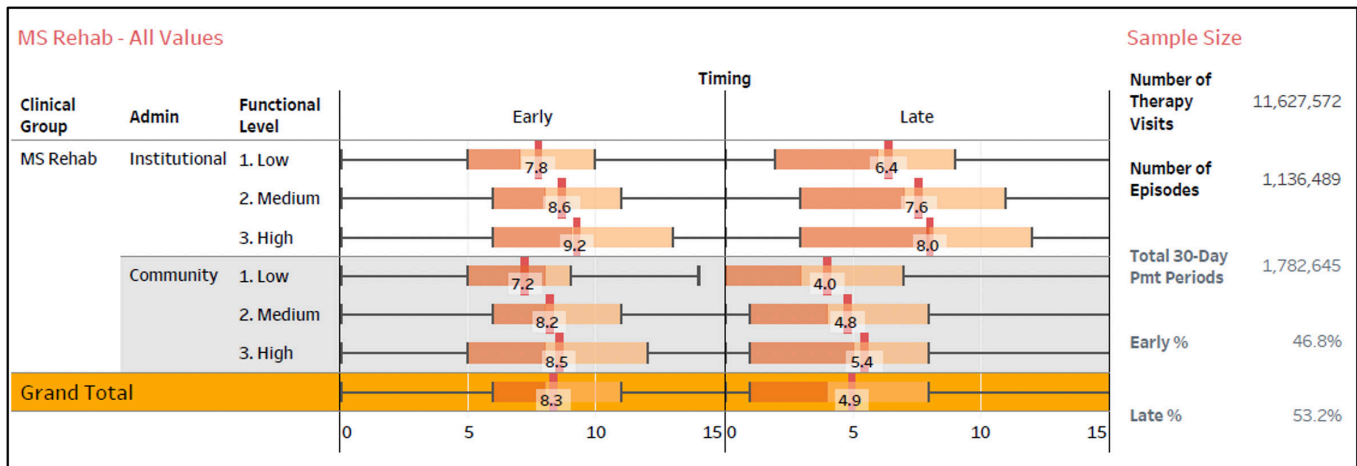
In many instances, the increase in VPE between low and medium is almost twice the increase between medium and high. And the average visits in the low functional impairment group was 6.8 visits per episode in the lowest utilization group (MMTA surgical aftercare) and 12.5 in the highest utilization group (Neuro). Functional impairment level alone is not a good indicator of therapy need as it fails to consider the critical component of prior level of function (PLOF). A plan of care for a patient with a high level of functional impairment, whose prior level of functional impairment was also high, would differ greatly from one with a high level of functional impairment but whose PLOF was a low level of impairment. Rehabilitation potential, caregiver support, living environment and many other factors would also play a role.¹⁰ Clinician judgement and application of evidence-based practice is needed to determine how best to address the gap between current level of function (CLOF) and PLOF.⁶

Myth 6: Patients admitted to HH from an institutional setting will require more therapy versus community admissions

Table 7 shows the number of visits that were delivered for institutional MS Rehab patients versus community MS Rehab patients. The median number of therapy visits delivered in the early institutional admissions varied by less than one visit from the comparable functional level in the early community admissions.

(See Table 7 on next page)

Table 7 Therapy Visits in MS Rehab Institutional and MS Rehab Community – All Episodes



PDGM is a very complex payment model that results in 432 unique groupings. Attempting to use any single component in isolation of the others to infer the number of visits, or type of discipline required is not supported in any way by the data. Anecdotally, some agencies are attempting to rely on algorithms that consider multiple components of the model to prescribe the number of therapy visits allowed and over what duration. Algorithms based solely on the elements of the model won't meet the standard of best practice and was not the intention of CMS in the development of the model.

What the data can do is help to understand the overall therapy resource utilization that was considered in the development of the model, on average. But no one patient is average. The clinical judgement of the therapist, individual living environment of the patient, presence of caregivers, PLOF and patient goals are just a few of the elements that can impact the development of a patient-centered plan of care.

The data can also help therapists advocate for patients in agencies who are applying myths of the model to develop arbitrary rules to determine therapy visits and disciplines that will be allowed.

Only time will tell how utilization of therapy in home health will be impacted by the industry's response to the new methodology as well as what CMSs response might be as a result. More study will be needed as CMS reports out on the data. In the meantime, it is incumbent upon the therapy community to continue to advocate for our patients and ensure they receive the care they need. Home is the most cost-effective environment for patients to receive care and it is coincidentally, where most want to remain.

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