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Original Research

An Analysis of Inpatient Rehabilitation Approval Among Private Insurance Carriers at a Cancer Center

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Abstract

Background: Acute inpatient rehabilitation is often used by cancer patients to assist with discharge home and/or preparation for further treatment. Private insurance patients often require approval before transfer to acute inpatient rehabilitation.
Objective: To analyze the approval rate of private insurance carriers for acute inpatient cancer rehabilitation.
Design: Retrospective analysis.
Setting: Tertiary referral-based cancer center.
Patients: A total of 96 consecutive patients with private insurance who had acute inpatient rehabilitation authorization requests made between April 1, 2014, and September 17, 2014.
Intervention: Patient cases were assessed by a physiatrist, deemed clinically appropriate for acute inpatient rehabilitation, and submitted to private insurance payers for an approval request.
Results: In all, 84 of 96 requests (87%) for private insurance authorization for inpatient rehabilitation transfer were approved. Of the 96 cases, 14 cases (14.6%) were initially denied. Nine of 96 (9.4%) progressed to a peer-to-peer appeal, of which only 2 of 9 (11.1%) resulted in approval for inpatient rehabilitation transfer ($P = .222$). The insurance carriers represented were designated as insurance A (46 patients, 48%), insurance B (18 patients, 19%), insurance C (12 patients, 13%), and other insurances (20, 21%). Two of 46 insurance A requests were initially denied, as compared to 7 of 18 for insurance B, 0 of 12 for insurance C, and 4 of 20 for other insurances ($P = .001$). Patients with insurance B ($P = .002$, odds ratio = 14) and other insurances ($P = .062$, odds ratio = 5.50) were more likely to be denied inpatient rehabilitation approval compared to patients with insurance A. No significant difference between mean Functional Independence Measure scores for approved and denied patients were found for transfers ($P = .239$) and mobility ($P = .129$), respectively.
Conclusion: Access to acute inpatient rehabilitation is unfortunately limited by insurers rather than clinical indicators. Future multicenter studies and universally accepted guidelines regarding inpatient rehabilitation criteria are needed.

Introduction

Cancer patients have shown statistically significant functional improvement during inpatient rehabilitation [1]. Rehabilitation may have medical implications beyond quality of life and independence [2,3].

Requests for acute inpatient rehabilitation (IRF) admissions undergo scrutiny by private medical insurers before approval or denial. At our institution, it has been anecdotally observed that the approval rates of inpatient rehabilitation by private insurance companies can vary significantly. The purpose of this retrospective analysis was to better identify variations in private insurer approval of inpatient rehabilitation. This is the first study to analyze private insurer approval for acute inpatient rehabilitation.

Methods

Subjects

This retrospective study included 99 consecutive private insurance authorization requests for acute inpatient rehabilitation at a tertiary referral-based cancer center between April 1, 2014, and September 17, 2014. All patients were assessed and deemed clinically appropriate for acute inpatient rehabilitation by a board-certified physiatrist.

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Procedure

Institutional review board approval was obtained. The institutional review board granted a waiver of informed consent in compliance with federal and institutional guidelines. An experienced rehabilitation nurse and physiatrist reviewed the medical and case management records to collect data that included demographic information, functional information, and insurance approval for inpatient rehabilitation. Demographic information included age, gender, ethnicity, and marital status. Functional information included the most recent transfer and mobility Functional Independence Measure (FIM) scores by the acute care service certified therapists within 2 days of the insurance authorization request. The FIM transfer score component used was the lowest of the bed/chair transfers, sit to stand transfers, toilet transfer, or shower transfers. The FIM mobility score component was the mobility score for gait or wheelchair mobility (whichever was applicable). Insurance approval information included the following: name of insurance company (coded as insurance A, insurance B, insurance C, or other insurance), date of initial insurance authorization request, date of insurance approval, whether the authorization was approved or denied, and whether a peer-to-peer meeting was requested. If a peer-to-peer review was requested, whether the insurance company agreed to have a peer-to-peer meeting and the outcome of the meeting was recorded (approval/denial). The referring medical service was also collected.

Results

Of the 99 private insurance inpatient rehabilitation authorization requests, 3 of the patients had more than 1 insurance authorization request during the study time period. Therefore, only 1 randomly selected insurance authorization request was used for analysis, resulting in 96 total authorization requests analyzed.

The patients' age ranged from 14 to 85 years, and the median age was 54.5 years (mean $\pm$ standard deviation [SD] $=$ 51.8 $\pm$ 15.4). Table 1 lists selected categorical variables as well as approval and denial rates. The medical conditions represented in our study cohort were compliant with the 60% rule (67/96, 69.8%). We did not find a relationship between 60% rule diagnosis compliance and private insurance approval ($P = .178$).

Table 2 illustrates the approval and denial of different insurance companies. Patients with insurance

Table 1
Selected categorical variables and final approval/denial rate for acute inpatient rehabilitation

Variables	Level	Total	Insurance Company		*P* Value
			Approval	Denial	
All patients		96 (100%)	83 (86.5%)	13 (13.5%)	
Gender	Female	49 (51%)	44 (89.8%)	5 (10.2%)	.382
	Male	47 (49%)	39 (83%)	8 (17%)	
Ethnicity	Asian	3 (3.1%)	3 (100%)	0 (0%)	.616
	Black	7 (7.3%)	5 (71.4%)	2 (28.6%)	
	Hispanic	13 (13.5%)	12 (92.3%)	1 (7.7%)	
	White	73 (76%)	63 (86.3%)	10 (13.7%)	
Marital status	Divorced	13 (13.5%)	12 (92.3%)	1 (7.7%)	.107
	Married	59 (61.5%)	52 (88.1%)	7 (11.9%)	
	Single	21 (21.9%)	18 (85.7%)	3 (14.3%)	
	Widowed	3 (3.1%)	1 (33.3%)	2 (66.7%)	
Referring Service	Breast Medical Oncology	4 (4.2%)	4 (100%)	0 (0%)	.630
	Internal Medicine	1 (1%)	1 (100%)	0 (0%)	
	Gastrointestinal Surgery	4 (4.2%)	3 (75%)	1 (25%)	
	Gynecology Oncology	3 (3.1%)	3 (100%)	0 (0%)	
	Head & Neck Surgery	1 (1%)	1 (100%)	0 (0%)	
	Leukemia	2 (2.1%)	1 (50%)	1 (50%)	
	Lymphoma/Myeloma	7 (7.3%)	6 (85.7%)	1 (14.3%)	
	Neuro Oncology	2 (2.1%)	2 (100%)	0 (0%)	
	Neuro Surgery	41 (42.7%)	37 (90.2%)	4 (9.8%)	
	Orthopedic Surgery	12 (12.5%)	10 (83.3%)	2 (16.7%)	
	Plastic Surgery	3 (2.1%)	2 (67%)	1 (33%)	
	Pediatrics	2 (2.1%)	2 (100%)	0 (0%)	
	Stem Cell Transplant	10 (10.4%)	7 (70%)	3 (30%)	
	Sarcoma Oncology	2 (2.1%)	2 (100%)	0 (0%)	
	Thoracic Medical Oncology	2 (2.1%)	2 (100%)	0 (0%)	
Insurance company	Insurance A	46 (47.9%)	44 (95.7%)	2 (4.3%)	.001
	Insurance B	18 (18.8%)	11 (61.1%)	7 (38.9%)	
	Insurance C	12 (12.5%)	12 (100%)	0 (0%)	
	Other	20 (20.8%)	16 (80%)	4 (20%)	