

Functional Outcomes of Patients with Metastatic Cancer admitted for Inpatient Rehabilitation: A Retrospective Analysis



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STUDY OBJECTIVES

Compare **functional outcomes, discharge destination, and rehabilitation length of stay** between patients with metastatic cancer vs. general rehabilitation population in an acute inpatient rehabilitation facility

BACKGROUND

Patients with metastatic cancer are often not considered for acute inpatient rehabilitation due to concerns for medical complications, fragility, and rehabilitation potential. This study supports the benefit for post-acute care acute rehabilitation in patients with functional impairments from metastatic cancer.

STUDY DESIGN

Retrospective chart review of patients with a diagnosis of **metastatic cancer** within a **two-year** time period (2019-2021) who were admitted **acute inpatient rehabilitation** following acute hospitalization

DIAGNOSTIC CATEGORIES

Brain Injury (N=23)	Spinal Cord Injury (N=13)	Non-Neuro (N=12)
<ul style="list-style-type: none"> Metastasis (MET) to brain in any location Spine MET can be present but did not result in cord compression 	<ul style="list-style-type: none"> Spine MET with epidural extension resulting in cord compression 	<ul style="list-style-type: none"> Non-neurological location of metastasis (abdomen, liver, axial skeleton) Debility or orthopedic

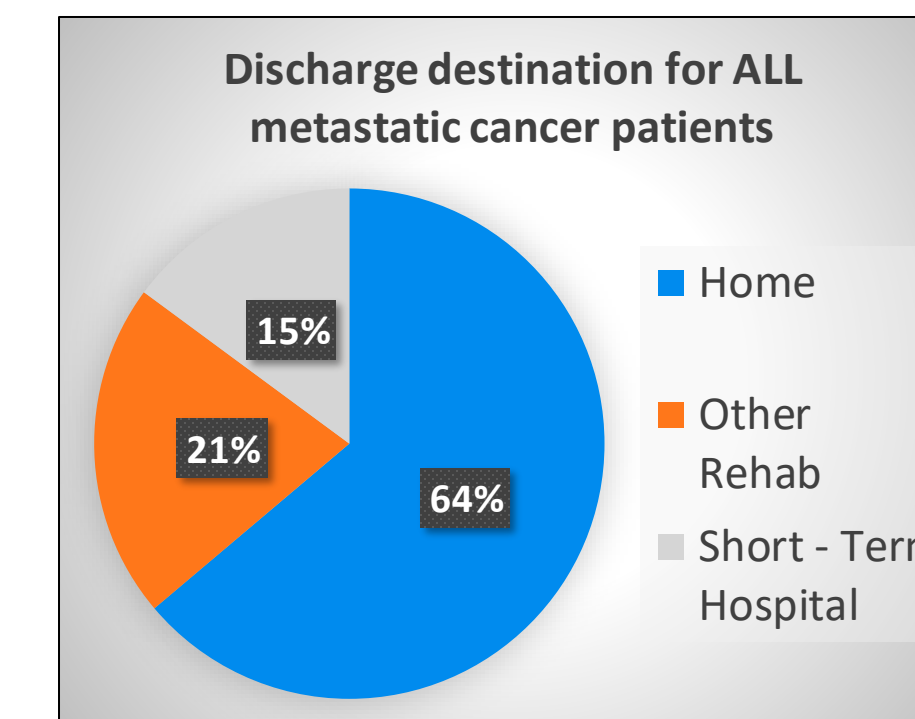
Patients with **metastatic cancer** with rehab needs following hospitalization made significant **functional gains** with low morbidity following **acute inpatient rehabilitation** and were able to be discharged home

FUNCTIONAL OUTCOMES

Change in Mobility and Self-Care Scores (mean +/- SD)					
	Brain	Cord	Non-Neuro	ALL	UDS data 2019 ALL
N	23	13	12	48	1345
Mobility	18.4 ± 20.8*	23.5 ± 18.0	15.3 ± 20.5	19 ± 20.8**	30.4
Self-care	7.9 ± 10.2*	12.2 ± 12.1	1.8 ± 12.5*	7.6 ± 12.1**	13.2

Location of metastasis does not affect the ability to make functional gains in acute rehabilitation, although **gains can be variable**. Patients with **spinal cord injury** made **comparable gains** to general inpatient population.

DISCHARGE DESTINATION & LENGTH OF STAY



Acute Rehabilitation Length of Stay		
	ALL	UDS data 2019
N	48	1345
Acute Hospital LOS	13.2 ± 7.2	13.8
Rehab LOS	18.0 ± 9.3	16

Adverse events

	All Met N (%)
COVID-19	13 (27%)
Other Infection	8 (17%)
Venous thromboembolism	7 (15%)
Altered Mental Status	5 (10%)
Disease Progression	4 (8%)
Respiratory Failure	2 (4%)
Bleed	2 (4%)
Falls	0

KEY TAKEAWAY

Collectively, **all patients with metastatic cancer improved their mobility and self-care scores** with low medical complication rate. There was **no significant difference in rehab length of stay** in all metastatic patients compared to general rehab population. The presence of metastatic disease should not preclude referral to acute inpatient rehabilitation.

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 Sliwa JA, Shahpar S, Huang ME, Spill G, Semik P. Cancer Rehabilitation: Do Functional Gains Relate to 60 Percent Rule Classification or to the Presence of Metastasis? *Am J Phys Med Rehabil*. 2016;8(2):131-137.
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