



# A Journey from MVA to Prosthesis: A Continuum of Acute Rehabilitation Care

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# Introduction

Acute rehabilitation is a multifaceted tool for recovery. While it is often utilized only in the occurrence of discharge from acute care, it can be deployed as a stepwise methodology on the long road towards functional independence. Our case demonstrates how multiple acute rehabilitation stays were utilized in unique ways in one specific patient.

# CASE DESCRIPTION

We present a 74 y.o. female with past medical history of type 2 diabetes, GERD, hypertension, hyperlipidemia, brain aneurysm, osteoporosis, multiple trauma due to MVA on 4/2020. Patient was initially admitted in April 2020 to acute rehabilitation after she sustained multiple trauma secondary to MVA, most notably a right segmental femur fracture, right patellar fracture, and right tibia plateau fracture. She underwent operative management of her injuries and was discharged to SNF after IRF course because she remained total assist for transfers and was not able to attempt ambulation. At SNF, she suffered from critical ischemia of LLE and underwent left transtibial amputation in July 2020. Her second stay in acute rehabilitation resulted in maximum assistance for transfers and maximum assistance for wheelchair ambulation, as she was not able to attempt walking. She was discharged under the care of her son with aides for additional care. She subsequently received her LLE prosthesis and presented for a third time to acute rehabilitation for aggressive therapy with mobility and transfers.

Date of IRF Stay	Admitting Diagnosis	Surgical Procedure	Weight bearing Restrictions	Disposition
April 2020	Multiple Trauma secondary to MVA	intramedullary rod placement and prophylactic screw fixation to femoral neck, ORIF of the bicondylar tibial plateau fracture	NWB RLE	Skilled Nursing Facility
July 2020	Dry gangrene LLE in the setting of diabetic vasculopathy	L transtibial amputation	NWB LLE, WBAT RLE	Home with son, private aides
September 2020	L transtibial amputation, gait training with locking pin prosthesis with permanent socket		WBAT to bilateral lower extremities	Skilled Nursing Facility

# FIM SCORES BY ADMISSION

 FIM
 Score On Admission
 Score on Discharge

 UE Dressing
 1
 2

 LE Dressing
 1
 1

 Toileting
 1
 1

 Bladder
 2
 1

 Bowel
 2
 1

 Bed/Wheelchair Transfer
 1
 1

 Toilet Transfer
 0
 0

 Tub/Shower Transfer
 0
 0

 Walking
 0
 0

 Wheelchair
 1
 0

 Stairs
 0
 0

FIM	Score on Admission	Score on Discharge
UE Dressing	3	0
LE Dressing	1	0
Toileting	1	1
Bladder	1	2
Bowel	1	2
Bed/Wheelchair Transfer	1	2
Toilet Transfer	0	1
Tub/Shower Transfer	0	1
Walking	0	0
Wheelchair	2	2
Stairs	0	0

Score on

Score on

# September 2020

April

2020

July

2020

FIM	Admission	Discharge
UE Dressing	5	5
LE Dressing	1	2
Toileting	1	1
Bladder	1	1
Bowel	1	1
Bed/Wheelchair Transfer	0	3
Toilet Transfer	0	2
Tub/Shower Transfer	1	3
Walking	0	1
Wheelchair	4	5
Stairs	0	0

# **DISCUSSION**

Our patient depicts the full continuum of acute rehabilitation. This allows patients to achieve their functional goals in a stepwise fashion in sync with their recovery process. Such a patient has low initial hopes for regaining functionality. Rather than leaving this type of patient to outpatient follow up after achieving increased FIM gains in transfers after her second admission, our patient benefited from further gait training as an inpatient once receiving her lower extremity prosthesis.

Inpatient prosthetic training is phase 2 of a comprehensive rehabilitation course for amputees after they have completed phase 1, which consists of their initial IRF course after amputation. During phase 2, patients establish a wearing schedule for their prosthesis, receive training performing ADLs with their prosthesis, gait training, practice stair climbing, receive education on skin and sock management, learn how to manage and maintain their prosthesis, and practice transfers among other things.

The patient was able to stand on the parallel bars with minimum assistance and has goals for minimum assistance for transfers. Repeated courses of inpatient rehabilitation afforded her with a training that would be impossible had she remained bedbound at SNF.

# **CONCLUSION**

Multiple courses of inpatient rehabilitation can salvage quality of life for patients who would otherwise be destined for bedbound status in SNF. By implementing comprehensive rehabilitation courses repeatedly, even the most elderly and debilitated patients can regain a certain level of independence.

# REFERENCES

1.https://www.mainlinehealth.org/specialties/rehab-amputee-program