# Case Study





# Stroke Outcomes for Patients Treated with EksoNR

#### Background

Summa Rehab Hospital, a joint venture of Summa Health & Vibra Health, is a 60 bed comprehensive inpatient hospital that also provides outpatient rehab. They are CARF accredited for inpatient rehab as well as amputation, brain injury, spinal cord injury, and stroke specialty programs. Summa Rehab implemented EksoNR in late 2020, during the pandemic, and created a successful Ekso program across the continuum of care in inpatient and outpatient rehab.

#### **Study Details**

A group of 20 stroke patients on inpatient rehab at Summa Rehab Hospital used EksoNR as part of their therapy. Using E-Rehab, they were matched with 20 stroke patients who had never used EksoNR. Patients in both groups were selected based on similar demographics including age and case mix index.

Patients using EksoNR averaged 22 minutes of up-time, 10 minutes of walking, and took ~ 250 steps per session. Patients in the Ekso group received an average of 3.4 sessions over the span of 8.4 days during their inpatient rehab stay. Ekso patients did not receive any additional therapy compared to the control group.

#### Results

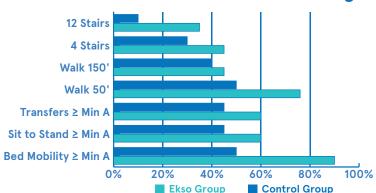
The Ekso group achieved a higher discharge score, indicating they needed less assistance at discharge as well as a higher change score, demonstrating greater improvement towards functional independence. The Ekso group achieved 50% more progress per day than the control group.

A higher percentage of patients in Ekso group were able to complete tasks of walking 50', 150', and negotiating 4 and 12 stair steps as well as performing bed mobility, transfers, and sit to stand with minimal assistance or better.

## **Quality Reporting Program**

	Ekso	Control	Ekso Difference
Average Age	69	68	
Case Mix Index	2.01	2.07	
GG at Admission	28.9	26.9	
GG at Discharge	59.4	48.3	23%
GG Change Score	30.5	21.3	43%
Percent Change	106%	79%	26%
GG Change/Day	1.5	1	50%
Discharge Home	85%	80%	5%

### **Functional Outcomes at Discharge**



Our patients and therapists really benefit from using EksoNR. It has become an integral part of what we do and how we achieve the best possible outcome for our patients.

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