

## PURPOSE:

To determine if weekly use of a Quadriciser along with a PT exercise program will increase an acute stroke patient's outcome, even with previous disability and comorbidities.

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## CASE DESCRIPTION:

Patient is a 25-year-old female diagnosed with brain cancer at age 5. She then presented like a child with hemiplegic cerebral palsy due to neurological deficits after radiation and chemotherapy. She received Physical therapy to assist with functional mobility until she was 21 years old. At that point her baseline mobility was using a manual wheelchair and crawling throughout her house with a reciprocal pattern. She was able to perform toileting, feeding, and hygiene at a wheelchair level with bathroom and silverware modifications.

In March of 2024 she suffered an acute lacunar infarct of the left posterior limb of the internal capsule. She presented for evaluation in April 2024 and was no longer independent with transfers and crawling. She was then seen once a week using the Quadriciser for her arms and legs for at least 15-30 minutes weekly.

	Transfer chair to wheelchair	Transfer floor to wheelchair	Crawling	Tall kneeling
On evaluation	Moderate assistance	Moderate assistance	Slow cadence/ right hand fisted/ 6 feet	2-3 seconds without arms
Week 4	Minimal to moderate assistance	Moderate assistance	Hands and knees hold x 30 seconds without crawling	30 seconds without arms
Week 8	Contact guard assistance	Contact guard assistance	Crawl 50 feet in 2 minutes with 1 fall	30 seconds without arms
Week 12	Independent	Independent	Crawl 50 feet in 1 minutes with no falls	30 seconds without arms

At discharge patient was also now able to toilet independently and scoot independently down her garage stairs and stand up and transfer herself into the car seat.

## Conclusion:

The Quadriciser, as part of the weekly therapy treatment, was able to positively change the outcomes of a stroke patient with multiple comorbidities.