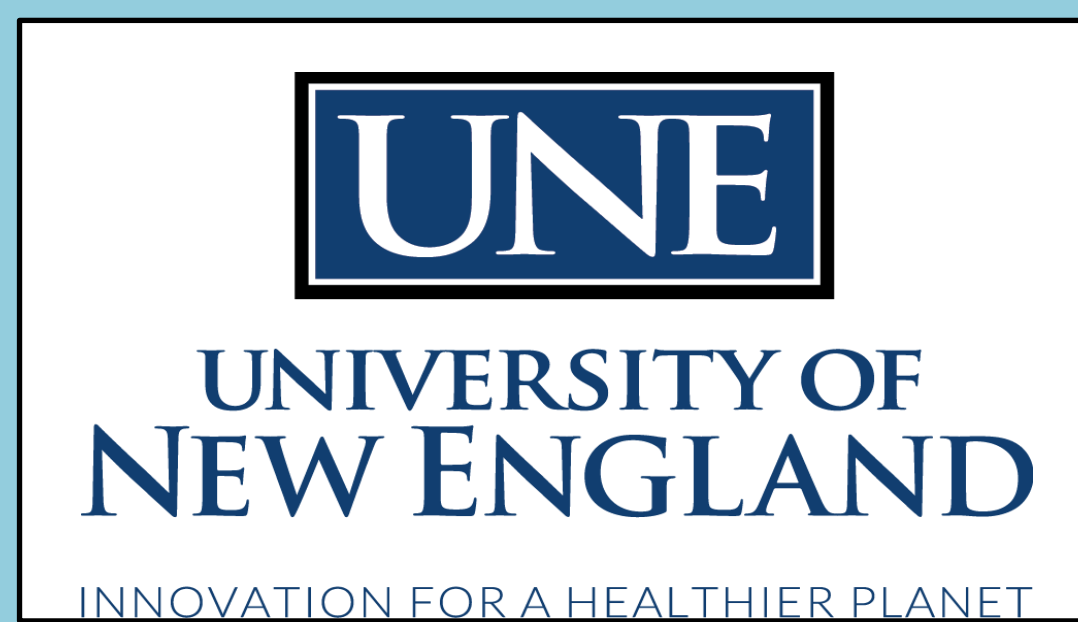


Gait, Strength, and Balance Training for a 43-year-old Male Following

Acute Right Middle Cerebral Artery Stroke: A Case Report

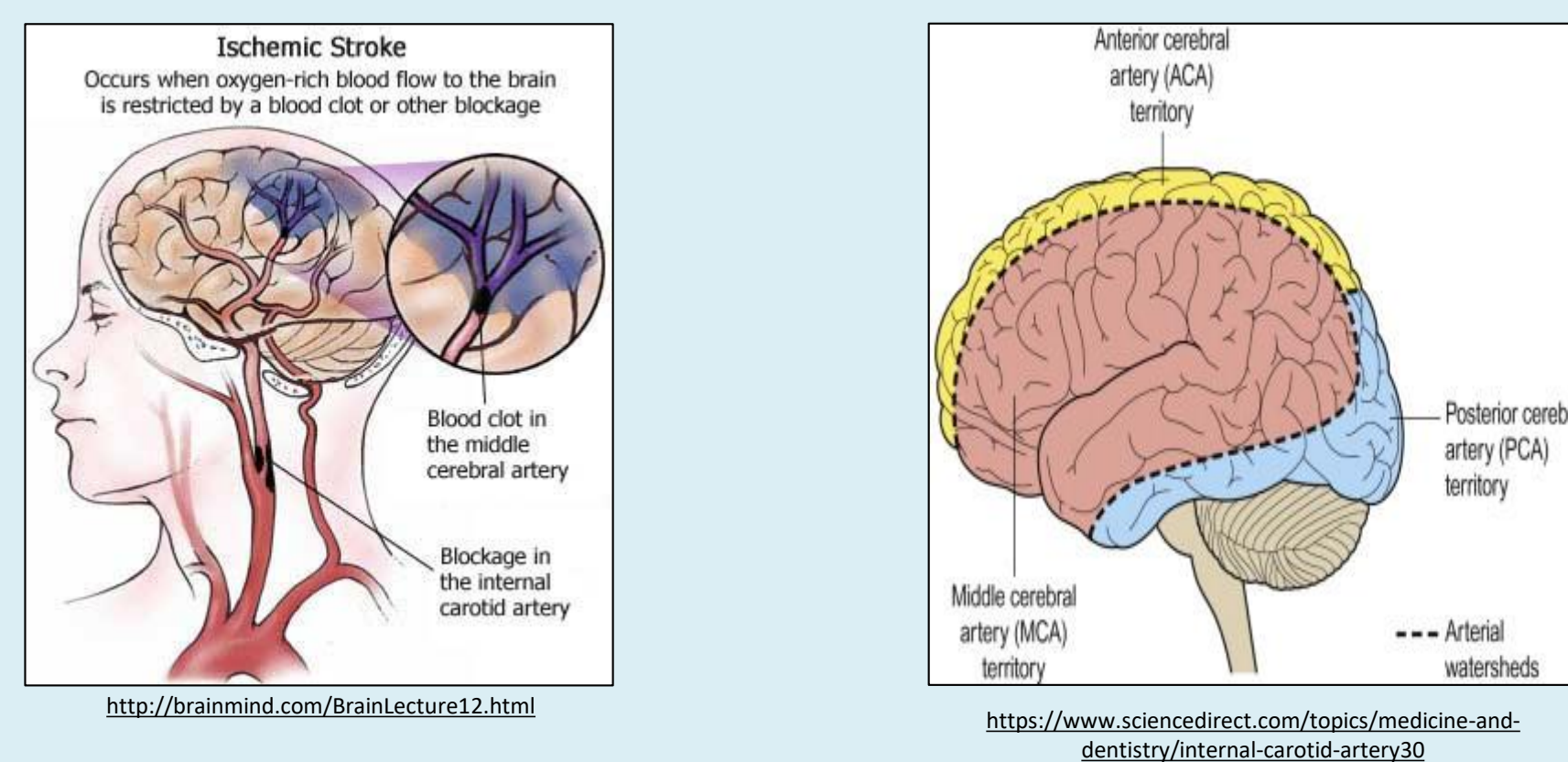
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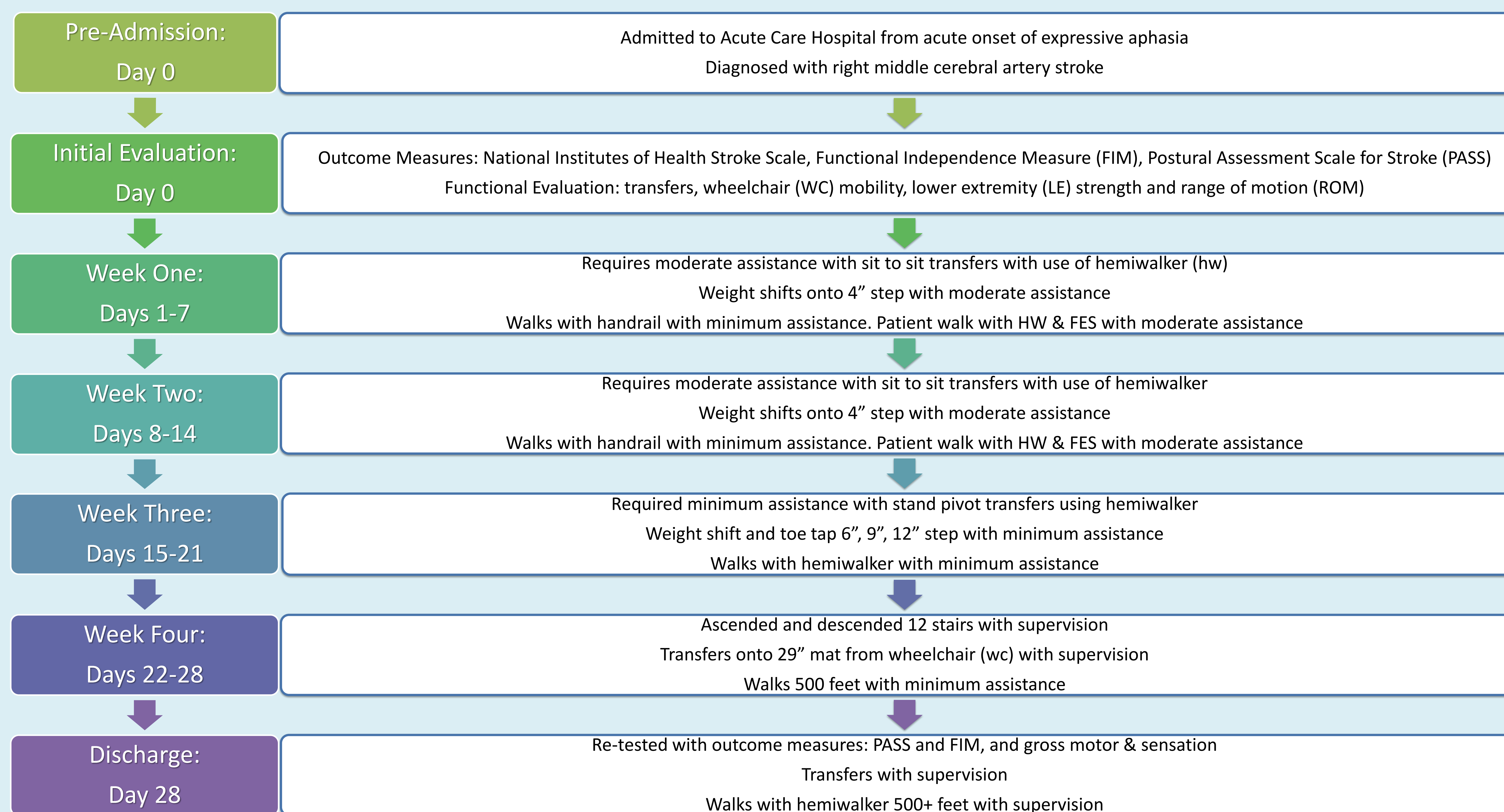
Vanderbilt Stallworth Rehabilitation Hospital

Background & Purpose

- A cerebrovascular accident, commonly known as a stroke, is caused by an ischemic or hemorrhagic event affecting arteries that lead to the brain causing them to burst or be occluded.¹
- The middle cerebral artery is the most commonly occluded artery involved in a stroke.²
- The four most common risk factors involved in having a stroke are: high blood pressure, diabetes, heart disease and previous strokes.¹
- Common impairments associated with having a stroke include: hemiparesis, loss of sensation in the face and/or extremities, and difficulties with speech, vision, and gait.³
- The purpose of this case report was to describe the physical therapy management of intensive inpatient rehabilitation interventions, including gait, strength, and balance training, for a 43-year-old Caucasian male who had an acute right middle cerebral artery (R MCA) stroke.

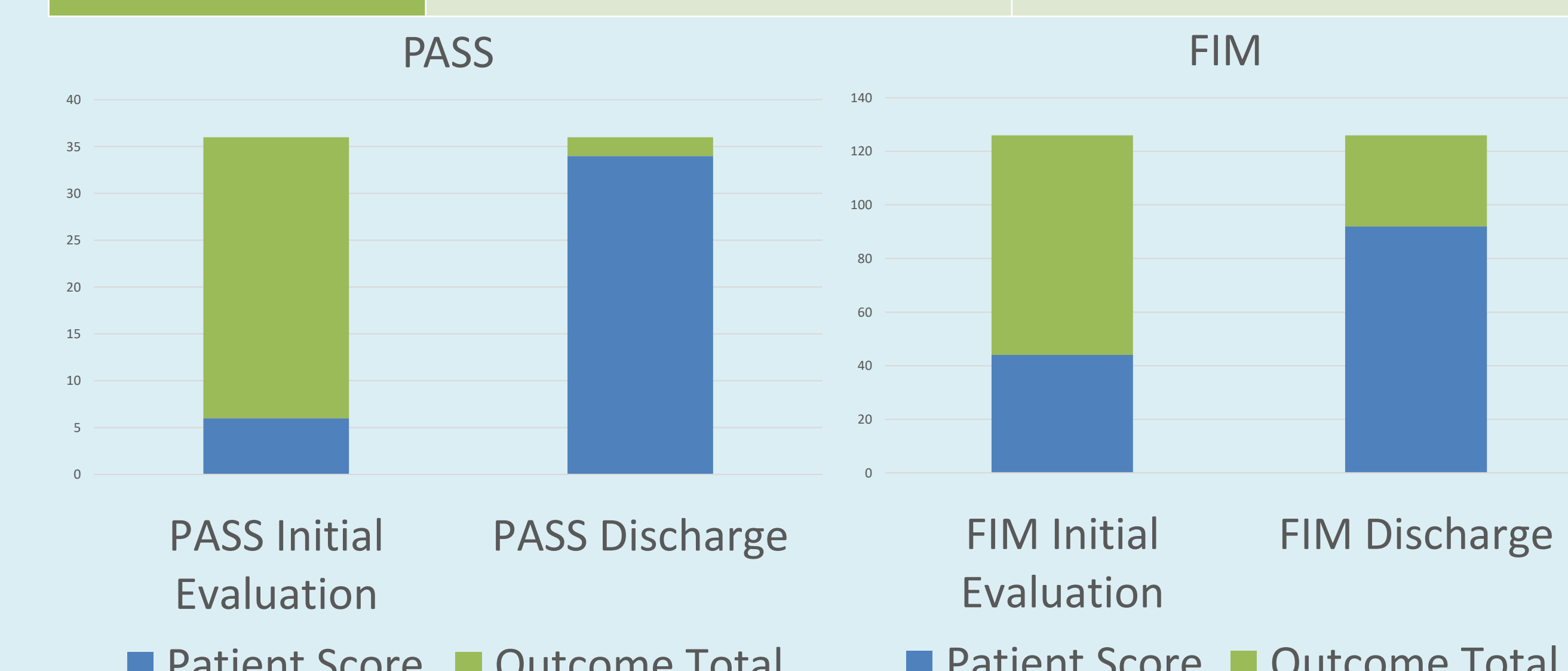


Timeline



Outcomes

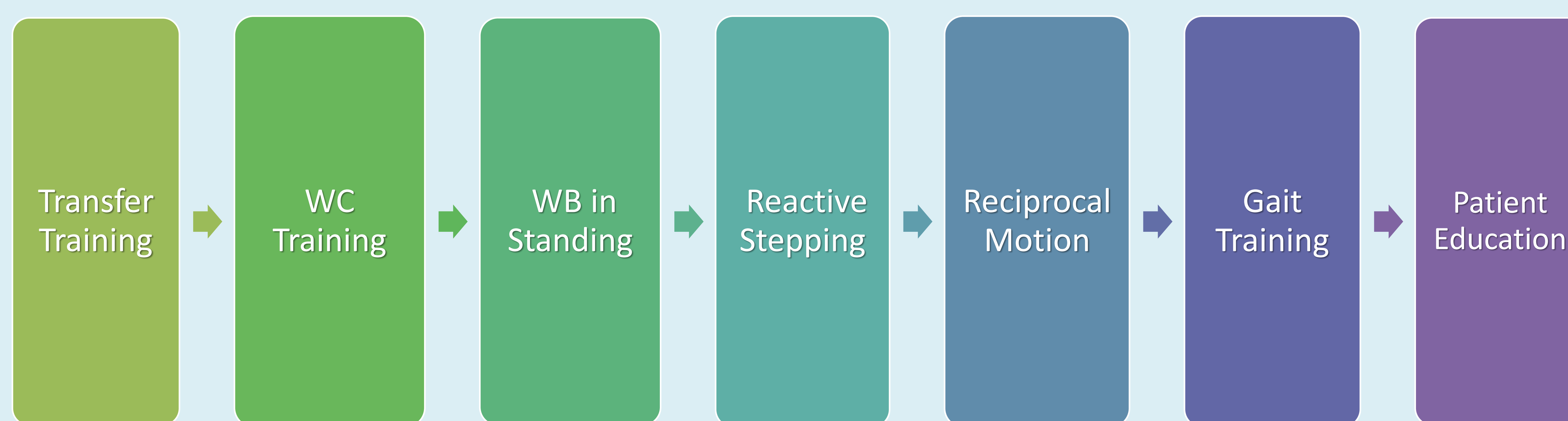
| Functional Tasks & Outcome Measures | Initial Evaluation | Discharge |
|-------------------------------------|---------------------------------------|---|
| Gait | Unable to perform | 500' w/ hemi-walker & min A 90' w/o assistive device & min A |
| Stairs | Unable to perform | 12 stairs with bilateral handrail & min A |
| Sitting without support | Unable to perform | Able to perform with supervision |
| Standing without support | Unable to perform | Able to perform for more than one minute with supervision |
| Sit → Stand pivot → Sit transfer | Able to perform with total assistance | Able to perform with supervision |



Case Description

- A 43-year-old male admitted to acute care hospital due to acute onset of expressive aphasia.
- Patient referred to inpatient rehabilitation hospital following a 6-day hospitalization due to an acute R MCA stroke.
- Past medical history: possible right transient ischemic attack at age 25, right knee and shoulder surgery in early 20's, high BMI (40.1), current smoker.
- Patient's occupation was a roofer. Patient had supportive family and co-workers.
- Patient's impairments following stroke: significant left hemiparesis of lower and upper extremity, expressive aphasia, required total assistance for transfers, and unable to ambulate.

Interventions



Discussion & Conclusions

- Patients who have had an acute stroke may benefit from immediate, intense physical therapy interventions which incorporate balance, strength, and gait training to improve their functional mobility and increase their activity tolerance.
- Patients who have had a stroke may have a faster recovery if they receive treatment acutely following their stroke in comparison to treatment following a chronic stroke.⁴
- There were several factors that may have contributed to this patient's improvements: interdisciplinary team, access to advanced technology, PT, OT, and SLP treatment sessions 5-times a week for 90 minutes each.
- Implications for future research: investigation of the interventions utilized for patients who have had chronic stroke, and care in different physical therapy settings.

Acknowledgements

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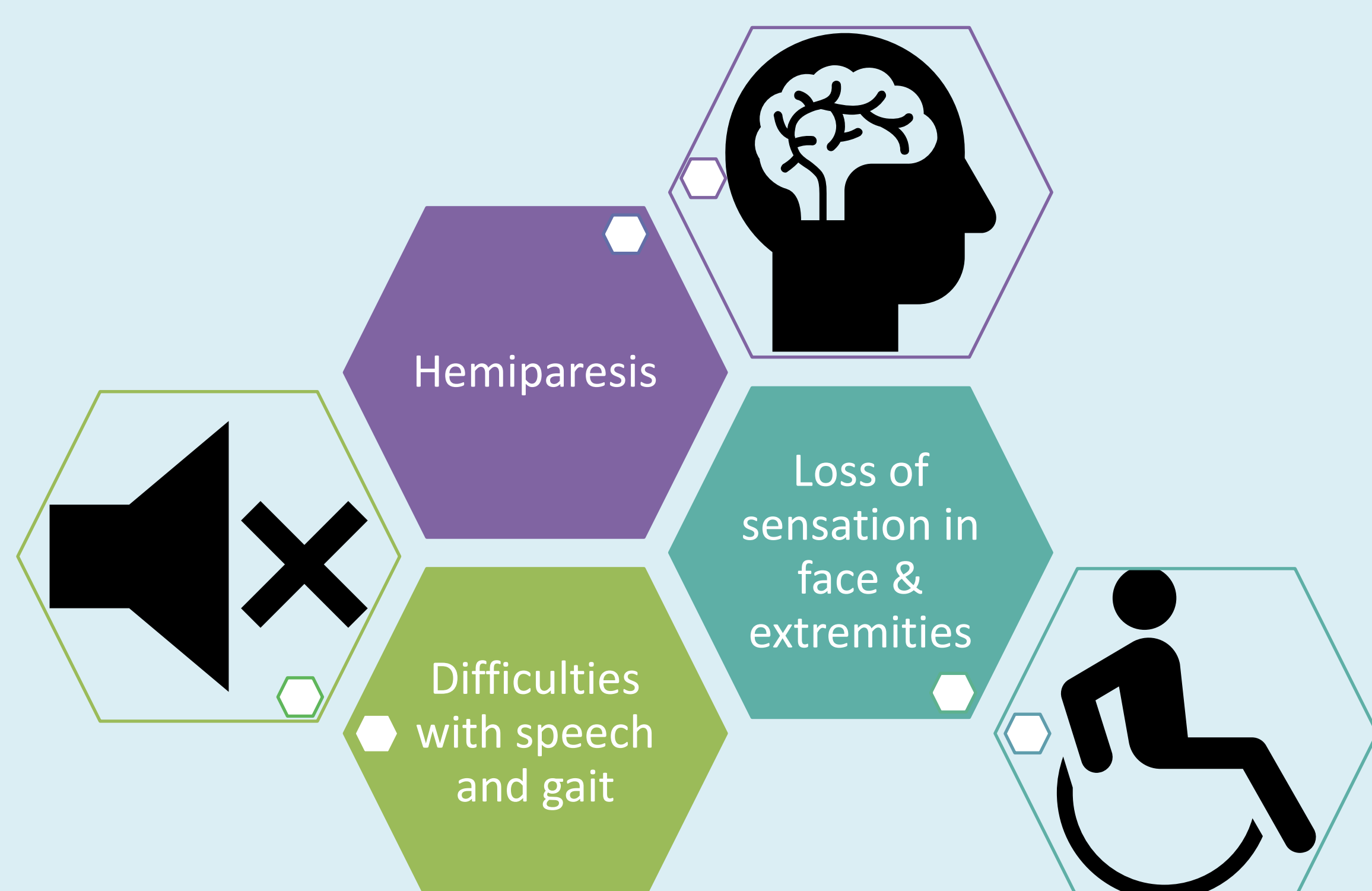
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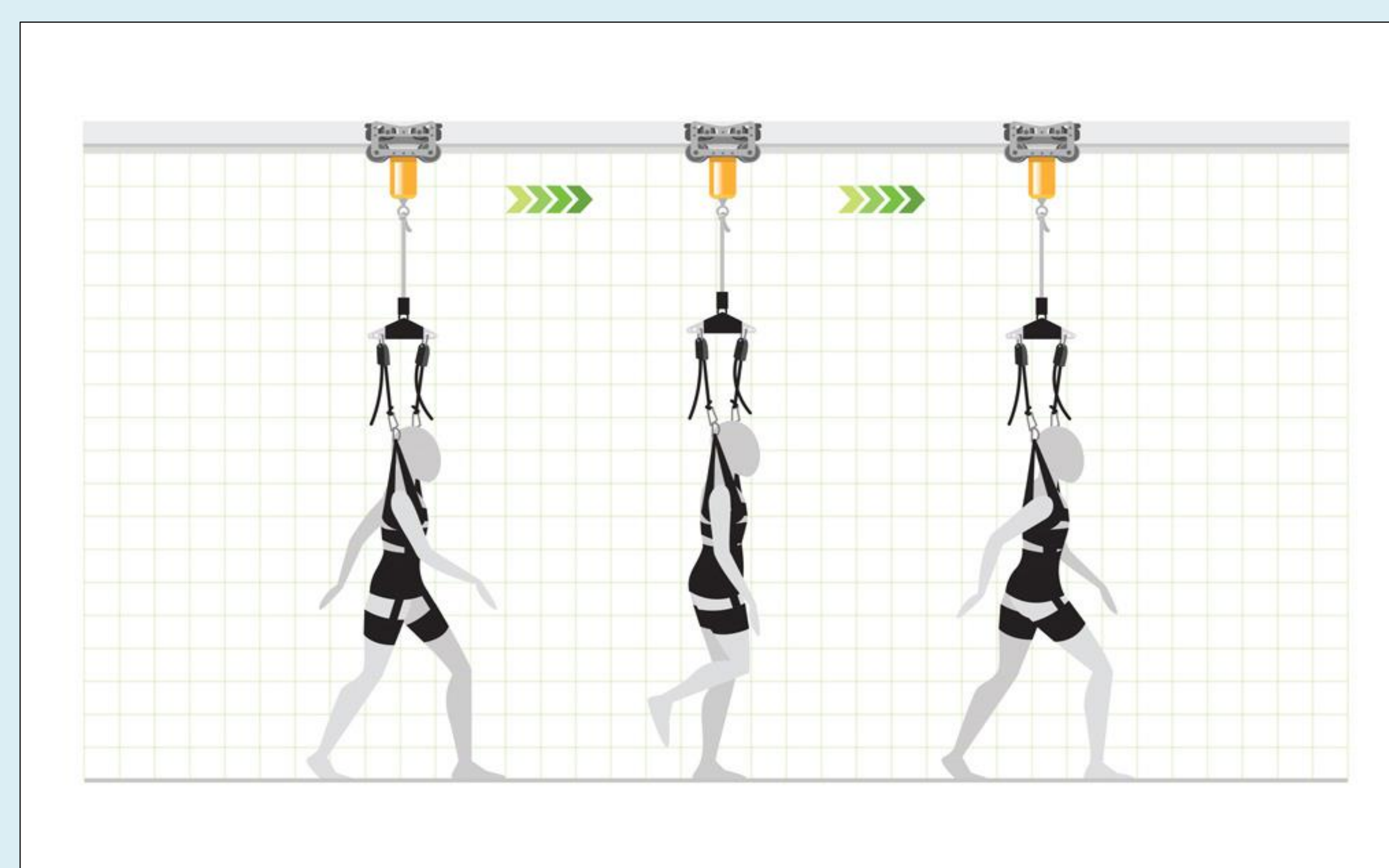
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Impairments



Body Weight Support System



Gait Progression

