

## Purpose/Hypothesis

To examine the effectiveness of comprehensive interdisciplinary post-inpatient brain injury rehabilitation for assisting patients' return to driving.

## Method

**Participants:** Thirty-nine consecutive patients with stroke admitted over an eight month period in 2017. See Table 1 for demographics.

**Design:** This is a retrospective cohort study.

**Setting:** Five days a week, six hours per day of interdisciplinary neurorehabilitation (SLP, OT, PT, NP, Case Management, Nursing, PM&R) using a comprehensive Neuro Functional Approach.

**Intervention:** Treatment goals and objectives are written in collaboration with patient/family and reflect functional activities the patient wants to return to after discharge. The driving rehabilitation program aims to prepare patients for driving again, which is an important sign of independence in our communities. If driving is identified by patient/family, patients undergo a clinical assessment to determine pre-driving therapeutic activities that may include: visual, cognitive, and physical skill remediation along with driver education. Subsequently, an on-the-road driving evaluation is conducted and the need for further training or adaptive automobile equipment is recommended at that time. Of patients that participated in Pate's on the road evaluation, 95% returned to driving independently.

## Participant Demographics

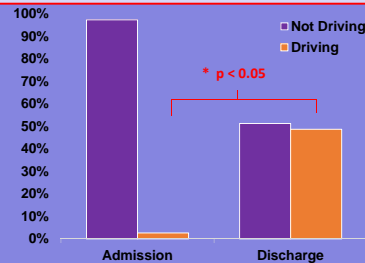
Age (years) ( $\bar{x}$ , SD)	52.74 (11.27)		
Length of Stay (days) ( $\bar{x}$ , SD)	49 (23.82)		
Time Since Injury (days) ( $\bar{x}$ , SD)	61 (72.93)		
Gender (%)	Male		
	69.2%		
MPAI4 T-Scores ( $\bar{x}$ , SD)	Admit		Discharge
	52.41 (11.37)		39.85 (19.55)
Race (%)	Non-Hispanic White	African American	Hispanic
	61.5%	25.6%	7.7%
CVA Lateralization (%)	Right	Left	Unspecified
	23.1%	46.2%	30.8%

## Conclusion

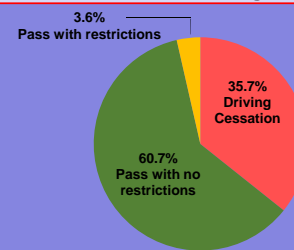
- A comprehensive interdisciplinary treatment approach, along with driving assessment and instruction are effective as indicated by study outcomes and contribute to patient-centered goals for return to drive.
- Approximately 2.6% of patients with strokes are driving at admission. Upon discharge, approximately 62% of patients with a driving goal pass the behind the wheel evaluation conducted while in rehabilitation.

## Results

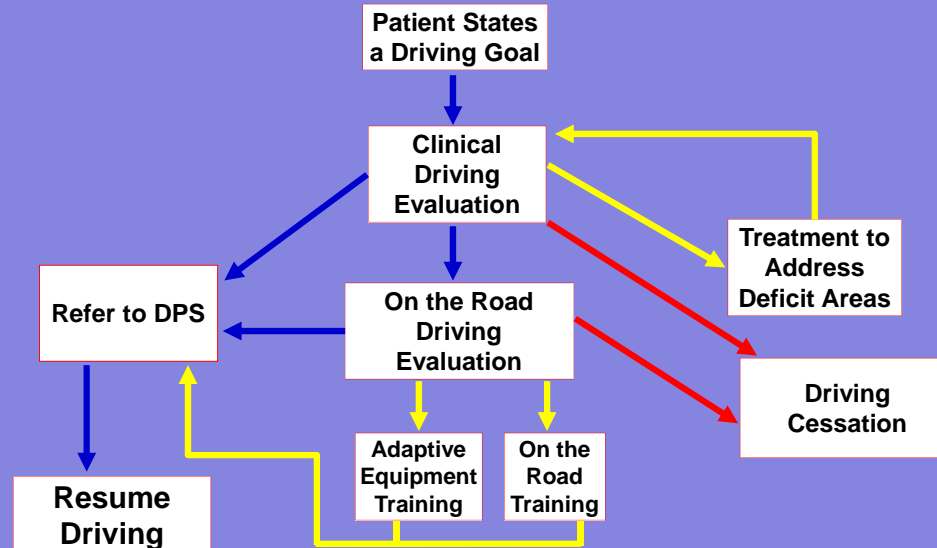
Outcome for 39 Consecutive CVA Patients



Driving Program Outcome for CVA Patients with Stated Driving Goal



## Intervention



## Clinical Relevance

- When a patient states a driving-related goal, early assessment and interventions are warranted and facilitate a successful outcome.
- Skills required for driving can be effectively remediated through task-specific treatments.
- Training on compensatory strategies and/or adaptive equipment is effective in helping patients return to driving after stroke.
- A program that includes interdisciplinary treatment, with driving assessment and behind the wheel instruction, is effective and contributes to patients' return to drive goals.