

Predicting discharge locomotor function for non-ambulatory individuals following stroke who participate in focused stepping practice during inpatient rehabilitation

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Study Purpose

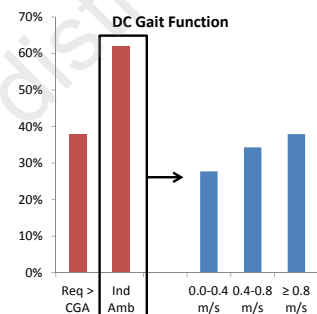
1. Identify cutoff values in demographic and clinical measures to predict d/c locomotor function in non-ambulatory individuals following stroke participating in high intensity stepping training during inpatient rehabilitation
2. Develop clinical prediction rules for independent ambulation at d/c

Methods

- High intensity stepping program implemented as standard of care
 - Target 70-85% HR_{max}, RPEs 15-17
 - Maximize stepping 4/5 sessions/wk
- BBS, 10MWT, & 6MWT on 5th session/wk
- Primary dependent variable: Walk w/ contact guard or better at d/c

Results – Clinical Measures

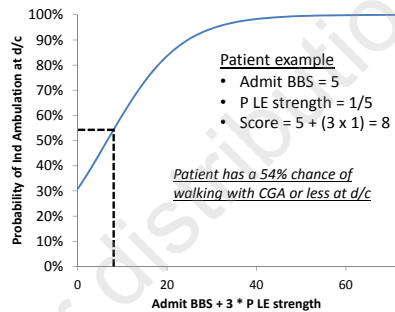
Admit Functional Status	
Paretic LE strength (MMT avg)	1.8 [0.3-3.0]
BBS	5 [3-10]
10MWT (m/s)	0 [0-0.12]
6MWT (m)	8 [0-24]
6MWT LoA	2 [1-3]



Results – Logistic Regression

- Admit measures (Sensitivity = 0.82, specificity = 0.61)

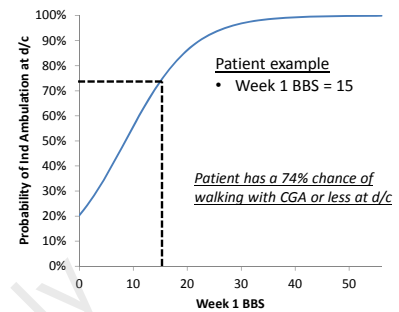
	p-value	B
P LE strength	0.004	0.366
Admit BBS	0.002	0.122
Constant	0.001	-0.807



Results – Logistic Regression

- Week 1 measures (Sensitivity = 0.75, specificity = 0.86)

	p-value	B
Week 1 BBS	<0.001	0.16
Constant	<0.001	-1.366



Discussion and Conclusion

- Clinical prediction rule developed for stroke rehab with high intensity training
- Clinical, not demographic, measures independently discriminated > CGA at d/c
 - Admit BBS ≥ 5 is lower than previously reported
 - Week 1 measures were better predictors than admit measures
- Clinical prediction rule of walking with CGA or better
 - Admit: P strength and BBS
 - Week 1: BBS alone
- Results may only be applicable with attempts at similar PT interventions