Purpose/Hypothesis: Falls among the elderly are a major safety concern and a leading cause of morbidity and mortality. Elderly patients recently discharged from the hospital have an even higher rate of falls. Studies indicate that the risk of falling increases linearly as the number of risk factors increase. Our study aimed to develop a comprehensive, multi-dimensional, evidence-based tool that is feasible to administer during the limited timeframe of the Acute Care PT assessment. The 2001 Guideline for the Prevention of Falls in Older Persons provides a list of the most common fall risk factors and stratification for each risk factor. The top five risk factors including risk ratio (RR) are: Lower Extremity Weakness (RR=4.4), History of Falls (RR=3.0), Gait Deficit (RR=2.9), Balance Deficit (RR=2.9) and Use of an Assistive Device (RR=2.6). We hypothesized that a tool based on the top five risk factors would accurately predict subjects’ fall risk during the 12-month post-dc period.

Number of Subjects: 103

Materials/Methods: 103 inpatient subjects over age 65 on the Medicine service, who were able to ambulate independently or with supervision were assessed for fall risk. Our tool tests strength via the 5 times sit to stand, gait impairment via gait speed, and balance impairment via the forward reach test. Use of assistive device and history of fall were determined via yes/no subject response. Each positive test result was entered onto a Nomogram and an overall risk of falling was calculated. Post-dc, subjects received follow up phone calls at 1, 3, 9 and 12 months post-dc to determine if they had fallen. Accuracy of the tool was determined by comparing the number of reported falls to subjects’ projected risk of falling.

Results: Fall risk was categorized into 3 levels: Low (30%), Medium (31-65%), and High
All subjects had at least a 30% chance of falling due to age >65 years. 59% (N=24) of female subjects and 64% (N=38) of male subjects were categorized as high risk for falling. The results below are for the first 6 months post-dc: 9 subjects died in the first 6 months post-dc and 7 of those 9 were categorized as high risk for falling. Only 1 subject in the low risk (N=9) category has fallen while 22 (35%) of the high risk subjects have fallen. Young-old (65-74 years) subjects had a higher rate of falling than the oldest old (85+ years).

Conclusions: Initial 6 month results seem to indicate that high risk subjects are more likely to fall than low risk, and younger subjects in the high risk group have the greatest risk of falling. Further conclusions to follow once data fully collected by August 1, 2015. We will use a logistic regression analysis to determine if the observed fall rate over 12 months is the same as the rate predicted by the tool.

Clinical Relevance: Our tool consists of functional measures that are easily performed and addresses multiple evidence-based risk factors for falling. Use of this tool may enable clinicians to identify patients at high falls risk and apply specific interventions that address their limitations.