

# Implementation of STEADI Fall Risk screening in the Primary Care Setting: A Quality Improvement Initiative

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## PROBLEM STATEMENT

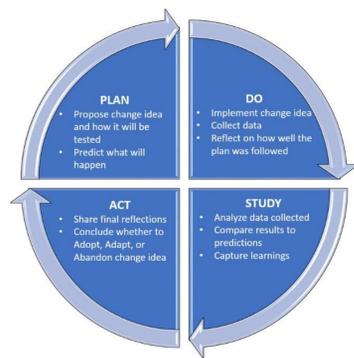
- One out of three older adults will fall each year in the United States.
- Among older adults, falls account for approximately 60% of all injury-related emergency department visits and over 50% of injury-related deaths annually.
- Quality measures are assessed annually at a large metropolitan university health care system. At this facility, the performance for Accountable Care Organization (ACO) quality measures scored an 8% in Fall Screening for patients over the age of 65 compared with the national benchmark score in academic ACO's which is 91%.

## PROJECT PURPOSE

- The aim of this Quality Improvement Initiative is to improve fall risk screening completion rates at a busy academic affiliated medical clinic.

## MODEL/NURSING THEORY

- Roger's Innovation of Diffusion Theory was the core framework of this quality improvement initiative (QII).
- Plan-Do-Study-Act (PDSA) cycle was used to implement change in the clinic.



## METHODS

### • Subjects

Patients 65 and older  
Exclusion criteria: Dementia diagnosis, non-ambulatory and hospice patients.

### • Setting

An academic affiliated medical clinic within an Internal Medicine department.

### • Instruments/Tools

- 1) CDC Stopping, Elderly Accidents, Deaths and Injuries (STEADI) fall risk screening presentation to both medical assistance (MA's) and providers
- 2) STEADI 12 question screening
- 3) EPIC Electronic medical record (EMR)

## INTERVENTION and DATA COLLECTION

**Intervention #1** – In the 45 day implementation phase, >91% of eligible patients 65 and older will have a STEADI fall risk screening completed.

**Intervention #2** – In the 45 day implementation phase, >91% of patients with a STEADI score of 4 or greater or a TUG test result of 12 seconds or greater will have a physical therapy consult ordered.

**Intervention #3** – In the 45 day implementation phase, >95% of patients 65 and older will have a DEXA bone density screening ordered within the 2 year recommended interval.

Data was collected 45 pre-implementation phase and 45 days post-implementation phase to observe results of this initiative.

**Data Analysis:** Chi-Square test

## RESULTS

### 45 day PRE-implementation phase

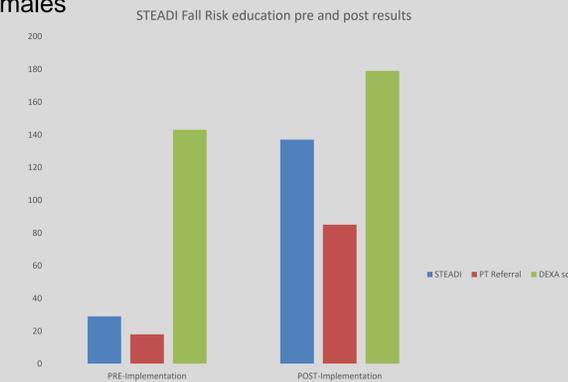
Total of patient visits	STEADI Screening	PT referral	DEXA scan ordered
234	29	18	143

Out of the 234 visits that met criteria, 141 were females  
93 were males

### 45 days POST-implementation phase

Total of patient visits	STEADI Screening	PT Referral	DEXA Scan ordered
203	137	85	179

Out of the 203 visits that met criteria, 122 were females  
81 were males



	Results				Row Totals
	PRE-Implementation	POST-Implementation			
STEADI- Yes	29 (88.89) [40.35]	137 (77.11) [46.51]			166
STEADI- No	205 (145.11) [24.72]	66 (125.89) [28.49]			271
Column Totals	234	203			437 (Grand Total)

The chi-square statistic is 140.066. The p-value is < .00001. The result is significant at  $p < .05$ .

There was a statistical significance of  $p < 0.05$  for all three interventions. A chi-square test of independence was performed to examine the relation between STEADI screening completion rates before and after education implementation. The relation between these variables was significant,  $X^2 (1, N = 437) = 140.066, p < .00001$ .

## DISCUSSION

The CDC STEADI Fall risk screening education was an important tool that was not previously introduced. Post education showed favorable outcomes with an increase in screening rates which was the main aim of the initiative. Education was well received by medical staff and providers. Both stakeholders expressed concerns of additional triage time warranted to complete the screening. A major limitation was that the use of the Health maintenance tab in the EPIC EMR, did not accurately portray if the STEADI Fall risk screening was actually done or not. Lastly, there was a reduction in visits and screenings in March, which could have been due to the pandemic, COVID-19.

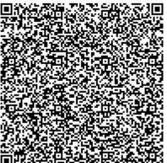
## IMPLICATIONS FOR ADVANCED PRACTICE NURSING

- Use of proper ICD-10 and CPT codes in evaluation of patients over the age of 65.
- Proper pharmacological reconciliation and pharmacy referrals are warranted by providers for patients found at an increased risk for falls per screening results.
- More home physical therapy orders may be warranted for this population and providers must assess those needs.

## SUSTAINABILITY

- Implementation of PPT education for fall screening during on-boarding for MA's and providers is being considered essential.
- Reassessment of scores annually under the supervision of the ACO's may warrant further re-education or changes to the screening work-flow.

## REFERENCES



Use of the CDC STEADI fall risk screening is warranted for all patients over the age of 65 to assess and prevent falls in the primary care setting.